



Offshore Wind Farms

EAST ANGLIA ONE NORTH

PINS Ref: EN010077

and

EAST ANGLIA TWO

PINS Ref: EN020078

Issue Specific Hearings 3 (ISHs3)

Post-hearing submission: written and photographic

HABITATS and BIODIVERSITY

by

SEAS (Suffolk Energy Action Solutions)

EA1N – EN010077 / SEAS ID no 2002 4494

EA2 – EN010078 / SEAS ID no 2002 4496





Summary

This submission records and illustrates, with recent photographs, our concerns with the incompleteness and inaccuracy of the Applicant's surveys regarding Work Area 19: the River Hundred and its riparian environment.

Several errors are documented which call into question the validity of the surveys performed by the Applicant.

The errors and omissions place important environments at risk.

The river crossing and the inadequate mitigation measures proposed are therefore to be challenged as unsafe.

We request that least-invasive crossing techniques such as microtunnelling should be employed for river and woodland if an alternative site cannot be found.



Contents

- 1 Location and recording errors in Work Area 19: Hairy Dragonfly
- 2 Unrecorded Oak
- 3 Unrecorded Woodland
- 4 Aldringham's wet, rewilded, riparian woodland by Kinna Mosely
- 5 Invertebrates - inadequate consideration and inaccurate survey by SPR
- 6 River Hundred
- 7 Conclusion



List of Illustrations

Image 1, Adult hairy dragonfly

Image 2, East bank: species-rich, unploughed meadow, archeological mound

Image 3, West Bank: mixed vegetation, wet deadwood and alder

Image 4, Champion Oak, TM 44784 60497

Image 5, SPR's works area

Image 6 & 7, Upper, middle and lower canopy layers

Image 8, Woodland edge

Image 9, River Flooding

Image 10, Wet stumps

Image 11, Monolith

Image 12, River Hundred in spate

Image 13, Alder

Image 14, Expertly coppiced Alder

Image 15, Mixed trees and clearings

Image 16, Beech

Image 17, Bramble and Scrub

Image 18, Self regenerating Alder fills in the mid-canopy layer

Image 19 and 20, Forest floor

Image 21, Pooling water on the forest floor

Image 22, Egret seeking nest site

Image 23, Ring of bright water

Image 24, River Hundred, from bisection to coastal

1 Location and recording errors in applicant's survey of Work Area 19: Hairy Dragonfly

1.1 Reference: the Applicants' Comments on NE Deadline 2 Submissions
Document: ExA.AS-18.D3.V1 SPR Reference: EA1N_EA2-DWF-ENV-REP-IBR-001149 15th December 2020

1.1.2 **Hairy dragonfly (*Brachytron pratense*)** Natural England had requested information on any potential effects to this invertebrate due to the planned river crossing. They wrote:

‘We note that, as it is intended to entirely avoid the bird breeding season, this will incorporate avoidance of the time when the hairy dragonfly is active, between May and July. [...] However, we consider that it is important to ensure that all aspects of the hairy dragonfly's (*Brachytron pratense*) life cycle have been considered. This species remains in the larval stage for approximately 2 years. When it reaches the final stage of development it crawls out and can be found amongst vegetation on the banks of its water body, where it is very susceptible to injury for a short while until it emerges as the adult.’

Image 1, Adult hairy dragonfly



1.2 The Applicant's response confused the location of the Hundred River with Work No. 8 — at the time of the Extended Phase 1 Habitat Survey (APP-277), Work No. 8 was recorded as being predominantly arable land. The Applicant pointed out that arable land is not considered a likely habitat for the larval stage of this species given their required habitat is well vegetated unpolluted waterbodies.

1.3 The River Hundred is work area No. 19. Although not recorded at P1, to the west there is non-intervention, wet, riparian woodland which is a priority habitat, and to the east is riparian meadow.

1.4 This image shows the eastern bank of the River Hundred at the trenching point. The date of the photo is Sunday 17 January 2021. We can see lush meadows grazed by cattle east of the river. There has been no ploughing and it is perfect habitat for *Brachytron pratense* with a variety of vegetation on both sides of the river. The unspoiled structure in the form of a rising ridge heading south and topped by Birch and Scots Pine is of complex archeological interest and illustrates that ploughing has not touched this land for many years. It is a typical location for basking reptiles, and the top soil breaking through grass cover is a favourable foraging area for Turtle Dove. In the foreground is the species-rich east bank. Barn Owl hunt here regularly.

Image 2, East Bank: species-rich, unploughed meadow, archeological mound



Image 3, West Bank: mixed vegetation, wet deadwood and alder



2 Unrecorded: this notable or champion oak tree

2.1 This notable Oak has a girth of 369cm, making it around 200 years old. It is on the east side of the River Hundred and at risk in the trench corridor.

Image 4, Champion Oak, TM 44784 60497



3 Unrecorded: wet, riparian woodland

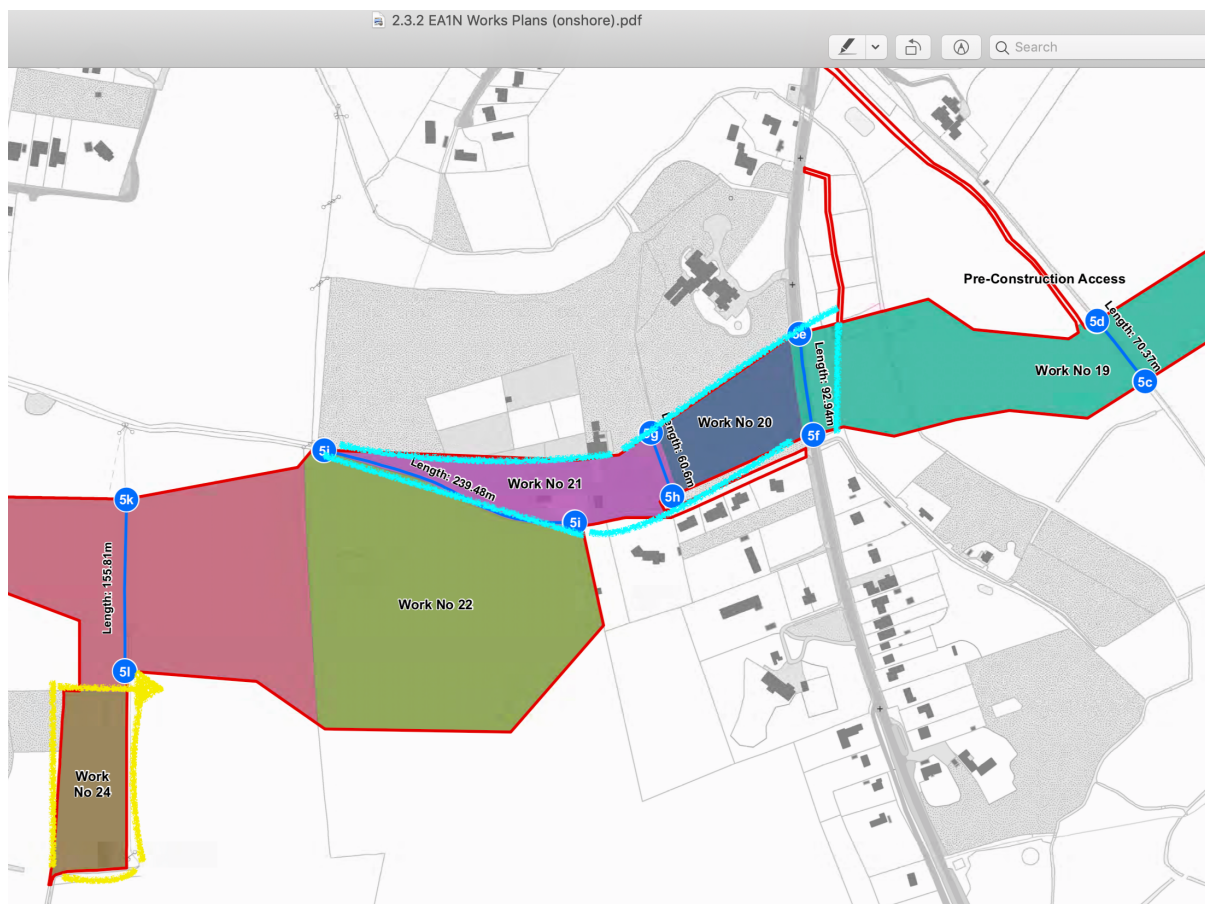
3.1 As SEAS established in our last written representation, the Applicant's map omits a section of the pinchpoint area (the narrow strip to the east of the A1122 of about 2.5 acres). This wooded area is not clearly recorded in the proposal.

3.2 It is a non-intervention, wet woodland in a rewilded state and is therefore of priority importance. It provides connectivity along the riverside and to the SSSI wetlands and fen immediately south and east.

3.3 Mitigation. The Applicant states: “It should be noted that all important connecting habitats lost during construction (i.e. hedgerows) will be reinstated to an equal or improved standard to what has been removed (see Section 5.3 of the OLEMS (an updated version has been submitted at Deadline 3, document reference 8.7)).”

3.4 Area offered for mitigation. Worryingly, as this wet woodland in works area 19 is omitted from Phase 1, no plans have been made for its reinstatement. The Applicant’s own works diagram here shows the size of the woodland that would need to be reinstated (roughly outlined in turquoise by us) and the size of the area offered. The area offered in mitigation is work area No. 24 (outlined in yellow by us). Work area 24 is a compound and so will not be planted until after the construction is over. The area is much too small. The merit of its situation is that it stands adjacent to a mixed, managed covert TM 43936 60201 (Long Covert) but the characteristics are dry and sandy soil rather than alluvial and wet. The connectivity and diversity afforded by the wet riparian woodland in works 19 will be sacrificed.

Image 5, SPR’s works area



4 Aldringham's wet, rewilded, riparian woodland, by Kinna Mosely

4.1 The actual ecological impacts of sacrificing the riparian wood cannot be ascertained from the Applicants' surveys.

4.2 **Kinna Mosely's** visit to the woodland on 19th January 2021 produced the following record.

4.3 The government, the Woodland Trust and many charities are currently on a quest to plant literally billions of trees due to having realised their urgent necessity to the health of humanity and the planet. This has become so urgent that the government is in the midst of changing all farmers' grants to "public money for public goods," giving incentive to farmers who can provide the country with clean air, carbon capture, clean water and wild nature both for people and wildlife. They are finally acting along the lines that we must urgently restore lost vital habitats to aid us in this current climate change crisis.

4.4 It is known in the Arboriculture world that planting trees actually has a surprisingly low success rate. Especially on sandy, dry sites! We mainly currently exist with two extremes: of new plantations (often unsuccessful with low biodiversity), versus minimal preserved ancient woodland, which often presents as an ancient upper canopy without many self-regenerating canopy layers remaining underneath.

4.5 The River Hundred valley in Aldringham holds that rare environment, a wet woodland, and in a state of self-regeneration. All layers of canopy are present: upper, middle and lower.

Images 6 & 7, Upper, middle and lower canopy layers



Image 8, Woodland edge



4.6 Image 8 shows the edge of the woodland with both mature native trees and naturally regenerating saplings. Adjacent is a pony field: Grass Snake lays eggs in horse manure and residents have spotted the animal on the ground and in the river.

Image 9, River Flooding



4.7 Flooding spreads fertile silt. Even quite small seepages may support Crane flies such as *Lipsothrix errans* and the endemic *Lipsothrix nervosa*. A large number of invertebrates are associated with Alder, Birch and Willow (all found on this riverside), including the priority species, Sallow Guest Beetle (*Melanopion*

Minimum), and Jumping Weevil (*Rhynchaenus testaceus*), which I would seek out in summer months.

Image 10, Wet stumps



4.8 There are several monolith trees as well as standing deadwood and stumps, which support thousands of species and are valuable as habitat, roost, nest and forage (**Image 11**). The invertebrates support a multitude of other wildlife higher up the food chain. Bat, Martin, and Swift hunt above the water along the river and Hedgehog have been seen on the ground.

4.9 Wet woodland combines elements of other ecosystems, and as such can be important for many species groups. The high humidity favours Bryophyte growth.

4.10 Dead wood within wet woodland is common, and its association with water provides specialised habitats not found in dry woodland types. The cranefly *Lipsothrix nigristigma*, for example, is associated with log jams in streams.

4.11 Wet, decaying wood and seepages make good habitat for invertebrates, and wet woodland in general supports many rare species including the Netted Carpet Moth.

4.12 This woodland has the twin advantages of the silt-rich soil of the ancient river bed and the current river's seasonal flooding (**Image 12**).

Image 11, Monolith



Image 12, River Hundred in spate



Image 13, Alder



4.13 Alder (*Alnus Glutinosa*), grows all along the river's edge. From their regular spacing and coppicing, these trees were most likely planted long ago along the river bank. They support a huge diversity of wildlife while also acting as a natural flood defence. Their roots absorb huge amounts of water, give strong, hard structure to the bank and are also known to be the perfect nesting base, in their mature coppiced form seen here, for Otters. Otters are known in the River Hundred. Bat and Water Shrew are known to benefit from these invertebrate-rich environments.

Image 14, Expertly-coppiced Alder



Image 15, Mixed trees and clearings



4.14 The mix of trees includes invertebrate-supporting species like Beech, Birch, Willow, and Alder. Birch seed and Alder catkins are food for the threatened Willow Tit, and for Lesser Redpoll and Siskin. Birch alone supports around three hundred species (Woodland Trust). Such clearings are habitat for the endangered Woodlark. Our approach disturbed a Deer and a Snipe and the air was full of birdsong.



Image 16, Beech

4.15 This majestic Beech tree is a treasure to preserve. A local resident (178cm) is pictured with it to give an idea of its huge scale.

4.16 A newly planted woodland on compacted sandy soil could not begin to compensate for this fertile soil and biodiversity rich, mature site.

4.17 Its richness owes a great deal to non-intervention, enabling rewilding.

Image 17, Bramble and Scrub

4.18 Stands of bramble are excellent habitat for the wood's Nightingale pairs, and are food for Pollinators and Invertebrates throughout the summer and into autumn. They provide also nutritious berries into early winter for birds and mammals.



Image 18, Self regenerating Alder fills in the mid-canopy layer



4.19 It is rare these days to find properly wilded, regenerating woodland, which this is. In most local, protected woodland, the deer tend to damage the low and mid canopy layers, thus stifling natural regeneration.

4.20 This self-regenerating habitat, at this specific age, cannot be replaced. If lost, the biodiversity it supports would, without question, be lost also, with devastating repercussions and species loss.

Images 19 and 20, Forest floor



4.21 The forest floor is species rich. A network of Fungus and Mycorrhizal Fungi is present, supported by undisturbed and standing deadwood. These two views are taken in midwinter 2021.

4.22 The wet conditions favour plants such as Opposite-Leaved Golden Saxifrage, Veilwort, Marsh Marigold, Fern and native Black Poplar. The most common plants are Grey Willow, Common Marsh-Bedstraw, Common Reed, Downy Birch, Purple Moor Grass, Alder, Greater Tussock Sedge and Common Nettle, with some invasion by Himalayan Balsam (which nonetheless is beneficial to pollinators). The high

humidity and presence of damp bark supports a range of Mosses (e.g. *Spagnum fimbriatum*) and Liverworts.

Image 21, Pooling water on the forest floor



4.23 The sunlight makes visible the pooling of water on the forest floor.

4.24 I cannot stress enough the irreplaceable importance of the rich, fertile soil here. Dry, sandy soil on the proposed mitigation site cannot begin to compare to the vast biodiversity and ecological haven that this soil and this land support. In these sandy parts, it is rare indeed.

4.25 Wet woodlands are found on flat, fertile land, on floodplain, and have been an obvious target for clearance and agricultural intensification in Suffolk. Little remains of them today. This example is very rare and to be treasured.

4.26 The British Biodiversity Database has recorded around 900 species in this area. Natural England have designated it as a wet, non-intervention, broadleaved woodland and therefore requiring protection. Some of the rare species here are on the edge of extinction, so that even to lose just a few nesting sites of Woodlark, Nightingale, Turtle Dove, could be catastrophic.

4.27 This precious wetland habitat is a life-line which feeds the SSSI area just a few hundred metres further down stream. If the river is stopped, blocked, and this ecosystem destroyed, it will debilitate the entire specially-protected area which it feeds.

Kinna Mosely, 20th January 2021

5 Invertebrates

5.1 The Applicant, in its response to SEAS' first representation on Biodiversity, dismisses the importance of B-Lines and IIA and questions their status.

5.2 The status of these designations is not statutory, but designation is significant. In any surveys, B-line and IIA designations should be considered as connecting and including the best remaining habitats, and therefore, significant invertebrate populations should be recorded as potentially present. We know that they are present from the British Biodiversity Database. The B-lines affected by this project in this area are among the oldest in the UK.

5.3 The Applicant's cable route significantly disrupts the coastal invertebrate population and also manages to cut through the east-west B-Line corridor, which benefits invertebrates from its situation within, adjacent to, and connecting this area's SPA and SSSI.

5.4 Our assessment of the Work Area 19 (at 4) shows that the habitat is present for a rich variety of important Invertebrates.

6 River Hundred

6.1 The River Hundred has not been surveyed adequately so the impacts on the river as medium and habitat are not properly addressed.

6.2 For instance, the phase 1 report discounts the presence of Otter and Water Vole. The extended phase 1 report actually stated that no further surveys were necessary. Yet, the river is a well-vegetated, unpolluted waterbody. Indicator species of rich habitat are present along the river, from fishing birds to fishing mammals, plus insectivores, as we have seen.

Image 22,
Egret seeking nest site



6.3 The Applicant did perform some Otter and Water Vole surveys after initially dismissing their presence, but the omission means that baseline information necessary for the decision on the river crossing is still not complete. There is scant information about vegetation, invertebrate, amphibian, bird or crustacean in the survey, neither in, nor by, the river.

Image 23, Ring of bright water, July 2020



6.4 This image (from video) shows the ring of bubbles (bottom right) from an aquatic mammal that dived into the river at my (Horrocks) approach in July 2020. This ring of bright water is about midway between the bisection point and the SSSI. The summer river bank is mined with holes.

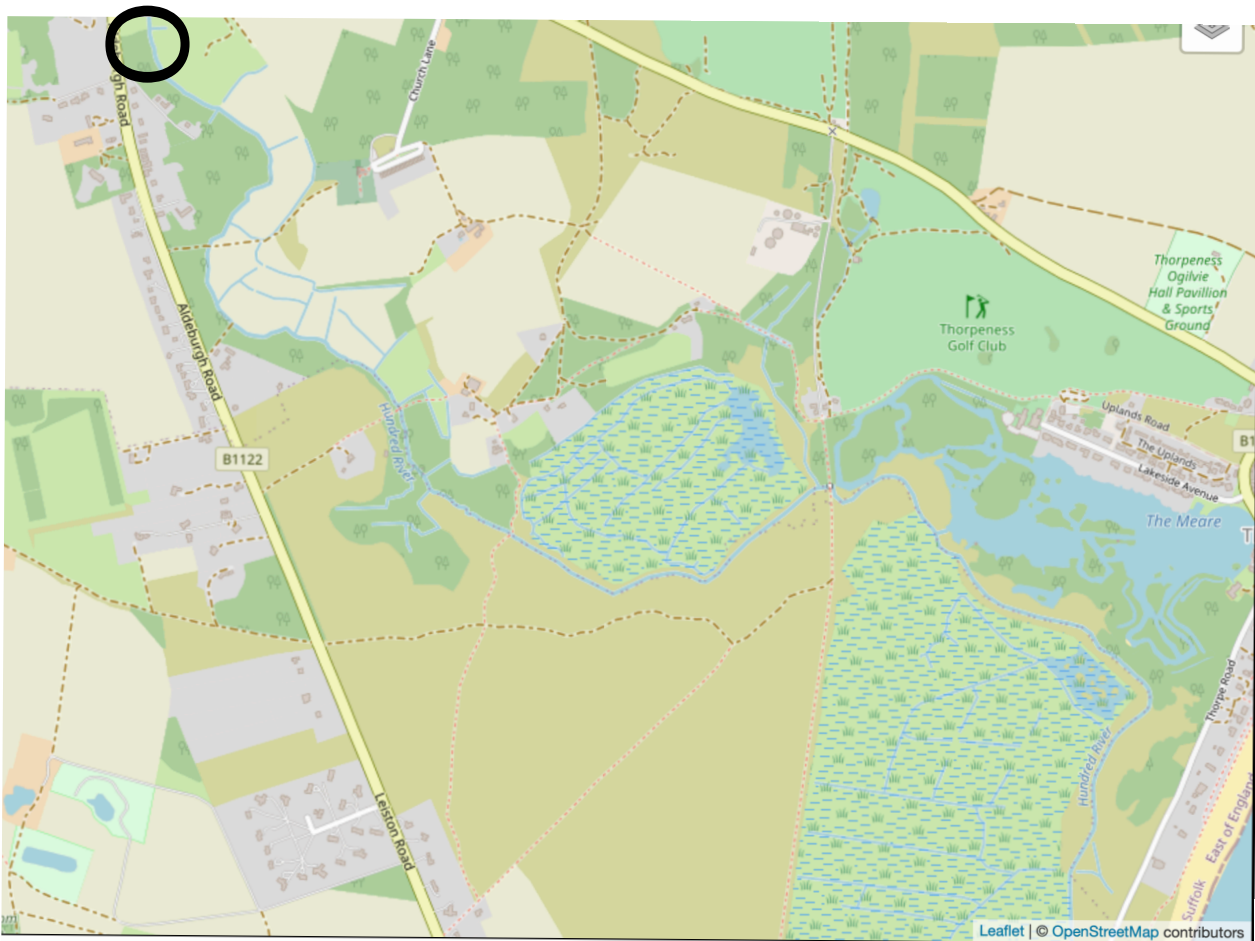
6.5 Natural England remind us that the river is directly, immediately and intimately connected to the Sandlings SPA and SSSI. The river should be properly assessed as a receptor before any decision can be made on crossing the river. Direct and indirect impacts should be considered.

6.6 As SEAS established in our last written representation, riparian, wet woodland also needs assessing as a receptor.

6.7 Far-reaching impacts on a Priority Habitat should be weighed carefully. This does not appear to have been done.

6.8 In fact, both the woodland and the river environment and its connectivity will be sacrificed.

Image 24, River Hundred, from 'Bisection' (O) to coastal



7 Conclusion

7.1 We suggest that the surveys as they stand are flawed and therefore unsafe as a basis for organising the cable crossing of the B1122 and of the River Hundred.

7.8 Least-invasive crossing techniques such as microtunnelling should be employed if an alternative site or solution cannot be found.

Dr Gillian Horrocks

Ms Kinna Mosely

Aldringham,

29th January 2021