Application by Equinor New Energy Limited for an Order granting Development Consent for the Sheringham and Dudgeon Extension Projects

Response to ExA's Written Question in relation to Q2.13.3.1: Effects on Rivers and River-Based Wildlife; Chalk based Streams. Submitted on behalf of Mr Clive Hay-Smith, Mr Paul Middleton and Priory Holdings Limited (refs: 20033312, 20032995 and 20033311)

Planning Inspectorate Reference: EN010109

Q2.13.3: EFFECTS ON RIVERS AND RIVER-BASED WILDLIFE

Q2.13.3.1: Chalk-based Streams

In your OFH oral representation [EV-074], [EV-075] you (Clive Hay-Smith) made reference to a self-funded community program, in collaboration with EA and Norfolk Rivers Trust, carried out at Spring Beck. Please provide further details of the works carried out to date and any further intended program of works for Spring Beck. In addition, please outline the risks to the chalk-based stream that you believe could result from the Proposed Development."

Spring Beck ecological significance & plans

1. Mr Hay-Smith and Mr Middleton are working in partnership with the Norfolk Rivers Trust (the 'Trust'), the Environment Agency and the Coca Cola Foundation for the 'Spring Beck Water Framework Directive Local Catchment Plan'. A copy of the plan is attached as Appendix A.

2. In the plan the Trust describe Spring Beck as an 'Iconic Chalk Stream' (a globally rare habitat) and a valuable ecological resource. In correspondence the Trust have described Spring Beck being as part of a wider connecting network of watercourses and a wildlife corridor for many migratory bird and bat species. There are water voles all over the lower end, and European eel, both of which are protected species. The Trust note that disturbance to any watercourse reduces biodiversity resilience.

3. Spring Beck as it passes through Mr Hay-Smith's land will be the 'ark' site for the re-introduction of white clawed crayfish - another protected species in the catchment. Crayfish in the Banham Zoo hatchery are almost ready to be released (early to mid–May 2023).

4. Extensive native tree cover planting has been undertaken over the last few years by Environment Agency and Priory Holdings employees in the immediate vicinity of Spring Beck.

5. In summary, Spring Beck is a globally rare and significant habitat for protected species.

Risks from Proposed Development

6. The are relatively few details in the Environmental Statement ('ES') as to the construction methodology, other than that the Applicant proposes the use of HDD.

7. Chapter 18 (Water Resources and Flood Risk) of the ES refers to embedded mitigation measures in respect of Cable crossings beneath watercourses as follows:

   "All Main Rivers (Figure 18.3) will be crossed using trenchless techniques such as HDD to avoid direct interaction with these watercourses. The cable entry and exit pits will be at least 9m from the banks of the watercourse, and the cable will be at least 2m below the channel bed."

8. There is little else we can ascertain from the ES in respect of mitigation. Surprisingly (given their global rarity and significance), there is no reference to Chalk Streams in Chapter 20 (Onshore Ecology) or Chapter 18 (Water Resources and Flood Risk) of the ES.

9. Chapter 18 describes Spring Beck as follows, making no reference to its ecological value:

    - *"A modified stream diverted along an artificial course with a predominately straight uniform channel, characterised by glide flows, with limited geomorphological complexity, floodplain connectivity and in-channel aquatic vegetation."*

    - *"Extensively modified watercourse with re-sectioned banks and limited flow diversity. The hydrology supports limited natural variations and geomorphology supports limited natural processes."*

10. It appears that no assessment of ecological risks to the Spring Beck has been made in the ES, and there are no mitigations proposed which can be considered during the Examination (beyond the use of HDD).

11. Mr Hay-Smith has at various points alerted the Applicant to the ecological significance of Spring Beck. Nevertheless, the Applicant has not sought permission for access to undertake ecological surveys to Spring Beck and we therefore assume that no physical inspection has been made of Spring Beck in this location to inform the Applicant's assessment of ecology.

12. A summary of the Applicant's ecological survey results was provided to Mr Hay-Smith on 19th July 2022 relating to his land. In respect of Spring Beck it states (our emphasis) as follows, which we assume are conclusions following a desk top analysis:

    "An approximately 10m long Spring and Flush habitat situated to the east of, and parallel to, the stream. The habitat is relatively species poor and dominated by horsetail Equisetum sp. but likely supports a rich invertebrate population. ***The stream was classified as a wet ditch*** *although it appeared to contain low water levels at the time of the survey, which was completed on 15th September 2021."*

13. Spring Beck's has been classified as a 'wet ditch', disregarding its status as a Chalk Stream, and the Applicant has apparently not accounted for the imminent use of Spring Beck on Mr Hay Smith's land as the ark site for re-introduction of White-Clawed Crayfish.

14. We conclude baseline information and assessments in the ES are incomplete or insufficiently current, requiring urgent rectification.

15. We have taken advice from experts in the ecology of Chalk Streams, including the Norfolk Rivers Trust. They have raised concerns about the vagueness of the methodology around the HDD approach, which gives no more details than the cable will be "at least 2 metres below the river bed." We are advised there is a significant risk to Spring Beck if the chalk strata itself is affected and that geology is very site specific. The chalk could be "close to surface or covered with meters of flinty gravel."

16. We note Natural England's concern expressed in their S.42 response letter (2021) in respect of the use of Bentonite (this concern is shared by the Chalk Stream ecologists we have spoken to) as follows (and acknowledging this response did not relate to Spring Beck specifically:

    "Given the recent HDD drilling mud breakouts experienced on a number of other OWFs, Natural England advises that a commitment to use best available techniques and a

precautionary methodology be included, and that the worst-case scenario impacts of potential bentonite breakout are assessed."

17. The Applicant responded as follows:

"The Applicant acknowledges the risk of bentonite breakout during the use of trenchless crossings to cross watercourses and associated floodplain wetland systems and this is considered in Section 18.6.1.2.8. ***A site specific risk assessment will be undertaken as part of the post-consent detailed design process. This will consider the potential risks of using HDD or equivalent techniques and set out the procedures required to monitor construction activities and avoid breakouts. This will be agreed with the Environment Agency prior to commencement of construction activities."***

18. In summary we consider the risks as follows:

    i. The ecological significance of Spring Beck has been underestimated by the Applicant and mitigation measures are insufficient.

    ii. The baseline information in the ES is not current in relation to White Clawed Crayfish; there is the risk of biological contamination (Crayfish plague) and the introduction of invasive species (Signal Crayfish).

    iii. There appears to have been no assessment of impact of the Proposed Development on the ecology of Spring Beck; it is assumed that HDD methods will mitigate any harm.

    iv. There is no detail about the use of HDD other than that the cable will be 2 metres below the channel; in the absence of site specific geology there is significant risk to the chalk strata.

    v. Risks associated with the use of Bentonite in HDD and impacts on ecology in the event of spillage.

<u>Proposed Mitigation</u>

19. The following are appropriate measures to remedy omissions in the ES and mitigate the risk of harm to the ecology of Spring Beck, and Mr Hay-Smith and Mr Middleton are ready to work with the Applicant to implement them:

    A. Urgent site specific risk assessment (the findings of which can be considered in the Examination) be undertaken by independent expert.

    B. Method statement and mitigation plan be prepared in context of the risk assessment; including procedures in the event of emergency. The Norfolk Rivers Trust recommend this to include the following (non-exhaustive) measures:

        - Any re-seeding or plant, with **locally** sourced native seeds/plants
        - Long- term management plan for silt management (noting problems created with spoil wash away in other projects)
        - Long term management plan for watering and maintaining seeds or plug plants
        - Biosecurity;
            - Staff must have clean equipment - shoes/boots/wellies each time they visit site and any contractor must adhere to the same strict bio-security

standards. [redacted]

- All contractors have to disinfect their equipment, including diggers and dumpers and vehicles, particularly if that machinery has been somewhere with signal crayfish or invasive plant species.

C. Construction will be over-seen by an independent body