Comments on Change 19 (Desalination plant)

for the Royal Society for the Protection of Birds and Suffolk Wildlife Trust

Submitted for Deadline 8
24 September 2021

Planning Act 2008 (as amended)

In the matter of:

Application by NNB Generation Company (SZC) Limited for an Order Granting Development Consent for

The Sizewell C Project

Planning Inspectorate Ref: EN010012
RSPB Registration Identification Ref: 20026628
Suffolk Wildlife Trust Registration Identification Ref: 20026359

1. Fourth Environmental Statement Addendum - Volume 1: Main Text[1]

Noise

1.1. Although we note the updates with regard effects on noise receptors in section 3.5 (e) (epage 165) of the Fourth Environmental Statement Addendum indicate that changes to noise levels at human receptors are expected to be minimal, we request that potential changes to noise levels affecting terrestrial ecological receptors (in particular waterbirds of the Minsmere-Walberswick SPA using Minsmere South Levels and Sizewell Marshes and little terns of the Minsmere-Walberswick SPA) are also assessed. We also request clarification as to whether the increases in noise levels quoted apply to all phases of construction. We understand that the additive effects of different noise sources are limited when those sources emit similar noise levels but query the additional effects of the desalination plant during phases where other construction noise is lower.

Marine Water Quality and Sediments (and Marine Ecology)

1.2. Paragraph 3.2.22 explains that the desalination plant could be required throughout the construction period. The potential for the desalination plant to still be operating during any commissioning (or operational) activity associated with the Fish Recovery and Return system (FRR) should therefore be considered in relation to potential impacts on fish discharged through the FRR given the proximity of the FRR to the desalination plant outfall (as noted in paragraph 3.8.5 (epage 179) and shown in Figure 3.1[2]).

1.3. Paragraph 3.8.9 (epage 180) explains that chlorine dosing will be applied at the intake head but angled inwards to prevent emissions to the environment. Given the relatively shallow water at the intake location (5.1m – see paragraph 3.11.4, epage 231) we query whether there are any conditions (e.g. storms or tidal states) under which chlorine could enter the marine environment?

1.4. We note the discussion in paragraph 3.8.49 (epage 188) of nutrient enrichment from combined construction sources of nutrients with the addition of the nitrates and phosphates from the desalination plant discharge. We query whether the effects of this nutrient loading have been assessed along with the effects of increased salinity from the discharge on oxygen levels in the water?

Project-wide, Cumulative and Transboundary Effects

1.5. Our points above regarding nutrient enrichment and increased salinities are also relevant to the consideration of project-wide effects.

[1] Fourth Environmental Statement Addendum - Volume 1: Main Text (REP7-030)

[2] Figure 3.1 (epage 3) Fourth Environmental Statement Addendum - Volume 2: Figures (REP7-031)

2. Fourth ES Addendum Appendix 3a: BEEMS Technical Report TR552 Sizewell C Desalination Plant Construction Discharge Assessment[3]

2.1. We note that the Executive Summary states that:

> "*A desalination plant and associated infrastructure is required to produce potable water for the construction period from October 2023 to June 2028, or at the latest before commencement of operation of Sizewell C*."

2.2. We note that it is not clear whether "before commencement of operation" means that some commissioning activities could commence before the desalination plant is decommissioned. As discussed in our comments above, if this is the case, further assessment needs to be made of potential impacts of the desalination plant discharge on fish discharged through the FRR system given the proximity of the two outfalls.

2.3. Section 5.2.3 discusses the extents of the saline plume and the plumes for lead, zinc and chromium arising from the desalination discharge and Section 6 discusses the discharges of zinc and chromium via the CDO. Whilst we note the individual extent of each of these plumes is limited and therefore impacts on ecological receptors are considered also to be limited, we note that the desalination plumes add further to the total marine impacts from the construction of the Application affecting Greater Sizewell Bay. We therefore query how the likely extent of the Bay subject to some degree of degradation in habitat quality is valued, assessed and mitigated and the effect that such changes may have on birds (such as little terns of the Outer Thames Estuary and Minsmere-Walberswick SPAs) that forage within this area.

3. Shadow HRA Report Third Addendum[4]

3.1. The discussion of potential changes to noise levels affecting waterbirds of the Minsmere-Walberswick SPA[5] (which should include those using the Minsmere South Levels and Sizewell Marshes) and little terns of the Minsmere-Walberswick SPA) appears limited in that it does not discuss all the additional noise sources arising from Change 19, noting in particular the omission of the additional HGV movements required to bring water to the construction site before the desalination plant is operational and the use of diesel generators in the early stages of operation of the desalination plant. We understand that the additive effects of different noise sources are limited when those sources emit similar noise levels but query the additional effects of the Change 19 during those construction phases where other construction noise is lower.

3.2. The saline plume and the plumes for lead, zinc and chromium arising from the desalination discharge are not discussed in the context of impacts on birds. Whilst we understand that the individual extent of each of these plumes is limited, we consider that the desalination plumes add further to the total marine impacts from the construction of the Application affecting Greater Sizewell Bay. We therefore query how the likely extent of the Bay subject to some degree of degradation in habitat quality is valued, assessed and mitigated and the effect that such changes may have on birds (such as little terns of the Outer Thames Estuary and Minsmere-Walberswick SPAs) that forage within this area.

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[3] Fourth Environmental Statement Addendum - Volume 3: Appendices Part 2 of 2. Appendix 3a: BEEMS Technical Report TR552 Sizewell C Desalination Plant Construction Discharge Assessment (REP7-033)

[4] Shadow HRA Report Third Addendum (REP7-279)

[5] Section 8.2 Minsmere–Walberswick SPA and Ramsar site (epage 37) of the Shadow HRA Report Third Addendum (REP7-279)

3.3. Please note that we reserve the right to comment further on the desalination plant proposals at a future deadline and/or Issue Specific Hearing.