



**Friends of
the Earth**
Suffolk Coastal

Interested Party ID: 20025904

The Sizewell C Project EN010012

**Comments on responses to the SoS's question 8.12 in the letter of 31st
March 2022 relating to changes to coastal processes/sediment
transport and implications for the Minsmere-Walberswick SAC,
SPA and Ramsar protected sites.**

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The question posed is as follows:

Q. 8.12. In relation to changes to coastal processes/sediment transfer impacts on the Minsmere to Walberswick Heaths and Marshes SAC and the Minsmere-Walberswick SPA and Ramsar site, Natural England, the MMO, the EA, the RSPB and the Suffolk Wildlife Trust and ESC are invited to comment on the Applicant's updated submissions in relation to changes to coastal process and sediment transport made at the final examination deadline.

Our members wish to support the RSPB/SWT's concerns relating to recharge of Sizewell beach fronting the proposed Sizewell C nuclear power station. We agree that pebble sizes must mirror those that naturally occur, but also remain unconvinced that the ecological considerations are being properly taken into account, but rather that the engineering issues will predominate.

While the Applicant's document submitted at deadline 10 ([REP10-124](#)) does aim to use a 'working with nature' approach our distinct impression is that there is a preference for larger pebbles, which are described as 'desirable as they are more difficult to mobilise' (1.1). As such, according to the document, they would provide greater stability to the soft coastal defence feature. It seems that following discussions with the two charities a compromise has been offered whereby the recharge sediment would consist of 'the coarse end of the Sizewell particle size distribution' (2.4).

However, as the RSPB/SWT point out, the present beach consists of a range of particle sizes, including sand. If the beach is to recolonise, as the Applicant claims, then this variety is crucial, offering micro-habitats to the flora and fauna that currently exist, many of which have very special needs. In his paper of 2002, Professor Davy of the University of East Anglia emphasises the importance of 'variations in shingle texture' and 'a preference of particular species for [either] sandier or coarser substrates'. He continues: 'A mosaic of substrates (with more or less sand mixed with the coarser shingle) promotes diversity in the vegetation.' The voids between the pebbles should not be too large, otherwise seeds will fall into them and be buried 'beyond their capacity to emerge on germination'. To a certain extent, therefore, the species able to colonise will be limited according to the type of shingle habitat offered. Deliberately selecting the coarser particle sizes would not replicate the

shingle texture of the existing beach. Equally, according to the Applicant's paper, 'a low sand volume' may 'enhance its erosion resistant properties' and therefore be desirable from an engineering perspective, but it would not promote diversity in the plant community. We cannot agree, therefore, that recolonisation would be successful. Clearly it would not be comparable with that lost.

While the Applicant asserts that heavier cobbles offer a more stable soft coastal defence feature, no mention is made here of the binding qualities of plants, particularly the perennials that currently thrive on the beach. Their deep roots and far-reaching rhizomes help to stabilise the shingle. We refer you to our paper commenting on our inconclusive SoCG (Post-examination submissions no. 37, section 2) which describes how the perennial coastal plants are more likely to be successful if they are container grown and then planted out in the optimum position. This technique formed part of the restoration of the beach fronting Sizewell B, yet the Applicant has no plans to replicate this for Sizewell C. This surely would be a far better way of providing a more secure soft coastal defence feature rather than relying on the larger pebble sizes.

Any recharge to the beach should only be used as an absolute last resort. It is extremely regrettable that the Applicant has pushed the line of the proposed Sizewell C buildings further out towards the east, beyond that of the line agreed for Sizewell A and B. This can only exacerbate the situation and increase coastal squeeze, lessening the opportunity for natural roll-back. After the planned construction works for Sizewell C (if consented), the coast fronting the plant will no longer be 'natural'. It is therefore very misleading for the Applicant to state: 'Recharge is not expected to have any long-term impact on the established habitats and would occur in areas where vegetation is naturally lost.' ([REP10-124](#), 3.10.25.)

It is our view that the recharging of the beach along the lines now proposed would inevitably have a knock-on effect on the neighbouring European sites and SSSI. Differences in beach texture could indeed result in changes to coastal processes which in turn could cause harm to the special interest features of those protected habitats, as the RSPB/SWT assert in their response to the question.

In addition to the neighbouring European sites and SSSI, we wish to emphasise the importance of the CWS itself, a UK BAP Priority Habitat. Most particularly it is designated for the high ecological value of the vegetated shingle and dune habitats. These in turn support assemblages of invertebrates considered to be of National

Importance, as admitted by the Applicant ([REP10-090](#), 4.2.1). As such, therefore, this CWS should be treated as a SSSI. Our distinct impression is that the Applicant has not given the beach the attention it deserves. Complete loss of a very large area of the vegetated shingle for more than a decade is therefore extremely worrying.

Moreover, the Applicant's proposals for restoration of the beach are unlikely to be successful, for the reasons stated in our paper submitted post-examination (no. 37, section 2) to which the SoS is referred.

No habitat exists in isolation. Interactions between Sizewell and the Minsmere-Walberswick SAC, SPA, Ramsar and SSSI immediately to the north can therefore safely be assumed and need to be taken fully into account. By removing the beach with its valuable flora and fauna for more than a decade, dispersal to the north is cut off and the European protected sites thereby impoverished.

In conclusion we agree with the RSPB/SWT responses and believe that the proposed recharge to Sizewell beach, with its larger pebble sizes, is likely to have a negative impact on coastal processes and sediment transport. This, together with the loss of a significant part of Suffolk Shingle Beaches CWS for an extended period and possibly indefinitely, may well cause unacceptable harm to the Minsmere-Walberswick protected sites.

REFERENCES

Davy, A.J. (2002). 'Sussex vegetation shingle project.' *Proceedings from the Coastal Vegetation Shingle Workshop*, J. Hatcher (ed.), 9-13.

NNB Generation Co (SZC) Ltd/Cefas (2021). 'Preliminary Design and Maintenance Requirements for the Sizewell C Coastal Defence Feature.' *REP10-124*, 9.12, Rev. 4., 10/21.

NNB Generation Co (SZC) Ltd (2021). 'Terrestrial Ecology Monitoring and Mitigation Plan.' *REP10-090*, 9.4/10.28, 10/21.

Suffolk Coastal Friends of the Earth (2022). Comments on our SoCG: 'Loss of and risks to rare and uncommon plants of Suffolk Shingle Beaches County Wildlife Site (CWS) due to inadequate plans for the restoration of Sizewell Beach.' *Post-examination submissions*, No. 37.