



# Together Against Sizewell C

**Deadline 10 Submission TASC IP no. 20026424**

## **TASC comments on Report on the Implications for European Sites (RIES) PD-053**

TASC understands that the RIES is a sign-posting document advising the Secretary of State of matters impacting European Sites and European protected species. TASC was therefore extremely concerned to find that the RIES makes no reference to the submissions made by TASC in respect of marine ecology. TASC's submissions were prepared by marine ecologist Dr Peter Henderson, who was commissioned by TASC due to Dr Henderson's extensive experience working on the marine impacts of power stations. Indeed, Dr Henderson has worked at Sizewell B where events there have been used by the Applicant to inform some of their reports on the SZC proposals.

As a reminder, here is part of Dr Henderson's C.V.:-

*"I am a marine biologist with extensive experience working on wedge wire screens for the protection of water intakes in both the USA and the UK. I also have an in-depth knowledge of the ecological issues linked to power generation having worked in the field for over 40 years. I lecture and hold the position of Senior Research Associate in the Department of Zoology, University of Oxford, UK. I am an ecological consultant and research scientist with 40 years' experience combining theoretical, applied, and field research, with extensive experience of the management of major ecological assessment projects including preparation and presentation of material for public enquires and liaising with conservation bodies and engineers. Projects undertaken include conservation planning for large tropical nature reserves, ecological effects studies of nuclear power station intakes, conservation studies of rare freshwater life and effects of climate change and drought. I have written 7 books including the standard textbook Ecological Methods."*

Before we go on to the specifics of the RIES, TASC would like to remind PINS of comments we made in our ISH7 submission:

*"Before moving on to specific matters raised during the ISH on Marine Ecology, TASC want to express our disappointment at not being invited to speak at this hearing. This is despite supplying a Written Representation on marine matters prepared on our behalf by marine ecologist, Dr Peter Henderson, and despite having given advance notice that TASC would like Dr Henderson to represent TASC at the ISH. TASC are concerned that this apparent lack of attention may mean that TASC's Written Rep could have been overlooked prior to the ISH.*

*"While outside PINS control, TASC would also like to add our disappointment that the MMO had to leave the meeting early which gave the impression that the vitally important issue of the development's impact on the marine environment was one which did not command the*



*full attention of an important marine management body. TASC feel that the MMO, as a government body involved in a major infrastructure project which has the ability to affect the integrity of Suffolk's marine environment, should have been in a position where they could have allocated the appropriate resources to address the matters in hand. TASC feel that the MMO's deadline for leaving may have inadvertently put pressure on the ExA to reach an early conclusion on marine matters, thereby reducing the possibility of a more thorough discussion of the issues. TASC feel this was demonstrated in the ISH when the ExA said to our marine expert, Dr Henderson, "I see your hand is up, you have had a go already." Whilst Dr Henderson was allowed to make a comment, TASC consider it brought an abrupt end to any further discussion."*

Dr Henderson's input into the DCO process [see REP2-481h, REP7-247 and REP8-284] has implications for European sites and protected species. When TASC realised that this evidence had been ignored in the RIES document, we asked Dr Henderson for his comments on the RIES. It is appropriate and important to reproduce here what he said in response to TASC:

"1. There is a section on local populations. I made the point that the herring caught [at Sizewell] are from the local Blackwater population which is managed independently of the other North Sea stocks. This can be proven because they spawn at a unique time of year, and they differ in small morphometric ways. After I made this point the NE lady supported my point.

2. Chlorination. Because of biofouling they will likely have to use the chlorination system fitted in front of the screens. I made the point that if the system is fitted it should be assessed as working. They are asserting that it will be fitted but not used. If it is fitted it needs to be assessed. We have an actual example of a station with a fish return system (Marchwood) where because of biofouling they have had to move chlorination injection in front of the screens. So, this is a proven issue. **This has serious implications for the working of the fish return system as it too will receive chlorinated water which will harm the fish.** This needs to be addressed.

3. There is no mention that entrainment has been seriously underestimated because small and long-thin fish have not been sampled using the pump sampler. **My view on this is telling because I was on the design team which produced the pump sampler.** It was designed to sample eggs and larvae and would not catch small swimming fish. **This is important as it means fish such as sand eel which are food for birds, have been grossly underestimated in the entrainment study.** Further, **protected species such as river lamprey and eel that will be killed have been grossly under-estimated because smaller individuals, which are present, can penetrate the 10 mm screens used on Sizewell B and cannot be sampled by the pump sampler used for entrainment monitoring.**

4. The potential effects of biofouling in the system that I highlighted have not been mentioned. Biofouling of the main intake tunnels is inevitable and has the potential to lead to catastrophic failure of the cooling water system if the travelling screens become blocked. Further, to avoid fouling issues at the proposed intake they have removed the internal baffles which direct the flow. These are an integral part of the design, as they channel the flow, how will they function to protect the fish without this component?



5. They [the Applicant] have asserted that suspended solid levels are such that divers cannot work at the proposed intake. If they are correct, I pointed out that this implied a huge transportation of sand and silt to the discharge point, and this has not been addressed.

6. I also undertook calculations showing the huge quantity of jelly fish, ctenophore and other gelatinous plankton which would be sucked in and killed by Sizewell C. **This material will end up as dead, chlorinated, organic debris on the seabed around the discharge point. No assessment of this impact has been made.**

TASC would also like to add a comment with reference to RIES paragraph 4.3.95: *“The Shadow HRA Report [APP-145] excluded an AEoI for breeding nightjar and woodlark on that basis that the bulk of the Sandlings SPA (and hence of the breeding nightjar and woodlark habitat within the SPA) is over 9km from the MDS, and well beyond the distance at which effects of noise and visual disturbance associated with the construction of the MDS could occur.”*

TASC committee members know of locations for breeding nightjars (Sizewell walks) and woodlark (North Warren RSPB reserve) within 4.5 kilometres of the MDS so the reference to them being ‘over 9km from the MDS’ is incorrect.

