Date: 10 May 2022
Our ref: 388965
Your ref: N/A

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Steve Matthews
Warsash/Southampton Estuary Fishermen's Group

BY EMAIL ONLY

Dear Steve

Thank you for your letter dated 11th April 2022 regarding the Fareham Local Plan, following the Examination in Public hearing session for Matter 10 Natural Environment. I appreciate the concerns you have raised with regard to advice we have provided to Fareham Borough Council on water quality issues associated with the submitted local plan. Please accept my apologies for the delay in responding, which is due to requesting additional advice from specialist colleagues to ensure I can respond as fully as possible.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

To summarise our position on the points raised within your letter, we agree water quality is a key concern for the local plan. With regard to impacts on designated sites, nutrients in wastewater and surface run-off and other pollutants in surface run-off are key impact pathways. **We do not currently consider that bacterial contamination from sewage affecting the shellfisheries will result in adverse effects on qualifying features of the designated sites**. We have provided advice to Fareham Borough Council on the development of suitable policies including managing flood risk and sustainable urban drainage systems (Policy CC2), and water quality effects on designated sites (Policy NE4). For the purposes of the local plan, we are satisfied these policies will suitably address water quality effects on designated sites.

Your letter describes the importance of bivalve populations in relation to the sandbank and mudflat habitat features within the coastal designated sites. These form Annex I habitats[1] associated with the Solent Maritime Special Area of Conservation (SAC). We understand the complaint regards the fact that this relationship was not considered within the Fareham Local Plan Habitats Regulations Assessment (HRA).

These Annex I habitats are listed as qualifying features, but not a primary reason for selection, of the Solent Maritime SAC. Specific bivalve communities are not listed as a qualifying feature of the SAC in their own right, however they are cited as typical components of these habitats. Bivalve molluscs are listed in the features description for the Mudflats and sandflats feature and some component sub-features of the SAC.

For the Annex I habitats mentioned above, the Supplementary Advice on Conservation Objectives (SACO) for the Solent Maritime SAC lists 'Structure and function: presence and abundance of key structural and influential species' as an attribute, and refers to 'Structural species' (those that form

[1] 1110 Sandbanks which are slightly covered by sea water all the time and 1140 Mudflats and sandflats not covered by seawater at low tide - Solent Maritime - Special Areas of Conservation (jncc.gov.uk)

part of the habitat structure or help to define a key biotope) and 'Influential species' (those that are likely to have a key role affecting the structure and function of the habitat (such as bioturbators (mixers of sediment), grazers, surface borers, predators or other species with a significant functional role linked to the habitat)). Such species are identified at a national level. However, as yet the target for this attribute of these features is unquantified, and national work is yet to be completed to come up with lists of species that are considered fundamental to the Annex I features.

Notwithstanding this, native oyster *Ostrea edulis* is noted for contributing to some subtidal mixed sediment biotopes which is a sub-feature of the sandbanks Annex I feature, however, this biotope is not mapped currently as a component of the SAC anywhere in Southampton Water.

From an ecological perspective, we are not aware of any evidence of a direct impact pathway for how the qualifying features of the designated sites could be affected by negative impacts of sewage on the local shellfisheries. We therefore do not consider the impacts of sewage on shellfish beds specifically is applicable within the Local Plan HRA. However we do take impacts from sewage very seriously, as demonstrated by the recent approach in tackling excess nutrients and our advice on the long term management of surface drainage.

We note that two references are made within your letter to Manila clams; please note this is a non-native species to the British Isles and is not considered intrinsic to the Annex I features discussed in this letter.

Please see further advice below regarding the different types of pollutant raised within your letter.

Bacterial contamination
We agree the importance of healthy bivalve populations within the marine environment is well accepted due to their function at removing nutrients and organic content from the water. It is noted that many parts of Southampton Water are affected by high levels of bacterial contamination from sewage discharges resulting in poor sanitary surveys, with clear implications for human health and the economics of local shellfisheries. However, there is no clear evidence that bacterial contamination of the shellfisheries from wastewater along the Solent coast are specifically having an adverse impact on the ecology of the features of the designated sites. As such we would not expect this aspect to be considered within the local plan Appropriate Assessment (AA).

Please note the consideration of economic impacts on the fishing industry falls outside of Natural England's advisory remit, and we consider this issue falls outside of the remit of the Local Plan HRA.

Nutrients
With regard to the effects of increased nutrient loading on the designated sites, there is a wide acceptance this causes eutrophication with subsequent impacts on the qualifying features, including smothering of habitats and decreased levels of oxygen in the water environment causing death and damage to species. Two main sources of diffuse nutrient pollution include agricultural run-off and discharges from wastewater treatment works. Addressing the impacts comes down to reducing overall nutrient loading in the water environment. There are various ways and mechanisms to enable the restoration of the sites back to favourable conservation status, with several bodies and organisations responsible for delivering this. With regard to the impact of local plan development from an increase in wastewater discharges, Natural England recommends nutrient neutrality is achieved to ensure forthcoming development does not contribute to the problem and/or make restoration of the sites harder to achieve.

'Failure 4' of your letter describes a 'failure to provide proof (on balance of probability) N-mitigation will be effective and failure to widen scope to include sub-surface seaweed impacts'. With regard to seaweed impacts, overgrowth of seaweed is a consequence of excessive nutrients in the system, and they cause problems where dense green algae mats wash up on mudflat and saltmarsh, where they decay causing adverse impacts on the health of the habitats. This impact is evidenced via condition assessments of the Sites of Special Scientific Interest (SSSI) overlapping the European designated sites. As stated above, a reduction in overall nutrient loading in the water environment is

necessary. The achievement of nutrient neutrality will help ensure residential growth in the Borough does not contribute to the existing problem.

Proof of the effectiveness of nutrient mitigation is difficult to show as the scale of offsetting from a specific land parcel is usually very small compared against the scale of what is going on in the rest of the catchment, and is also 'hidden' by annual variation in the amount of nitrogen lost from a catchment to a sensitive site due to other factors such as weather (wet years leach more nitrogen from the land and out of the chalk than dryer years) and nutrient retention and re-cycling within the sensitive site. What we do know from monitoring is that habitats such as woodland and old grassland leach much less nitrogen into catchment drainage than intensively managed agricultural land. Also, we can relate historical nitrogen concentrations and loads received by rivers and sensitive sites to change in agricultural practice in the past showing that the intensification of agriculture in 20th century caused a large increase in nitrogen coming down the rivers. This has been done for the Thames and Poole Harbour for example.

Therefore, based on the existing data and knowledge accrued over many decades, we consider that land use change out of intensive agricultural production is a certain and robust means of ensuring a development will achieve nutrient neutrality – i.e. not add to the loading already in the Solent.

Surface/rainwater run-off
Several water quality concerns arise from pollutants found within surface-run off which may include hydrocarbons and chemical pollutants associated with traffic (e.g. heavy metals, grit salts, particulates, oils), garden chemicals (enriching fertilisers or herbicides/insecticides), household detergents etc. Unmanaged, these may have considerable cumulative impacts on water quality with other local factors.

Additionally, where surface drainage is directed to combined sewers, this may result in overspills during periods of heavy rainfall and result in spillages of untreated sewage entering the marine environment. The management of combined sewer overflows and associated sewage infrastructure (CSOs) is the responsibility of the water company(ies), in collaboration with the Environment Agency, and lies outside of the remit of the local plan. However the local plan plays an important role in the suitable management of surface run-off both in terms of flood risk and water treatment.

Natural England have provided advice on sustainable drainage to the Council and we are satisfied that the relevant proposed local plan policies are sufficient to ensure these aspects are appropriately addressed by local plan development. We also continue to advise the Council on this matter via our role as statutory consultee on planning applications for individual developments.

I hope this letter helps answer some of your queries and concerns. If you have any further queries relating to the advice in this letter please do not hesitate to let me know.

Yours sincerely

Becky Aziz
Senior Advisor Sustainable Development
Thames Solent Area Team
Natural England

cc: Inspector Helen Hockenhull (Planning Inspector for Fareham Local Plan Examination)
Ms Gayle Wootton (Fareham Borough Council)
Mr Nick Pincombe (Urban Edge Environmental Consulting)