

18-02-2022

FAO Inspector of Planning appointed by the Secretary of State, Helen Hockenhull

From: Warsash/Southampton Estuary Inshore Fishermen's Group

Dear Ms Hockenhull

Our Hearing Statement for Matter 1 is as follows:

We have some serious concerns regarding the Plan's ability to deliver sustainable housing development without guarantee of protection for certain marine ecosystems within the Solent European Maritime Site (SEMS), considered under the Habitat Regulations Assessments and without guarantee of positively enhancing local commercial fishing businesses.

There are clearly some significant Assessment oversights and gaps in the evidence base which are of direct relevance and concern to the local Fishing Industry and also, we would suggest, to the future viability of the Solent Oyster Regeneration Project.

These Assessment oversights mean that the Fareham Plan, will likely exacerbate existing environmental nutrient (nitrate) effects within the SEMS and that the Nitrogen mitigation strategy adopted cannot guarantee, even on the balance of probability, that this will not be the case.

Local fishermen input has not featured in the supporting evidence supplied from the Statutory consultees; specifically absent is the reference to the existing problem of nutrient enhanced seaweed overgrowths (specifically, seasonal floating seaweed conglomerates) which is an extensive issue peculiar to the SEMs and which significantly hampers fishing activity in that area (this is outlined in our report sent during this Consultation; where we reference that up to 80% of net fishing potential is negatively affected by Solent weeds during summer months)

Natural England (NE) has concluded that the SEMS is already in a poor state due to the presence of excessive nutrient levels as indicated by the pervasive extent of green macroalgae mats in areas of saltmarsh and intertidal zones like mudflats and the nutrient effects on eel grass beds. These seagrass beds are essential to a healthy inshore ecosystem and certain fishing practices (such as cuttlefish trapping) and are highly dependent on the health of eel grass as egg laying zones.

It is clear that recent improvements in some agricultural practices, has reduced nutrient offloads from the land, into the watershed, but the SEMS is still deemed to be in a poor state with respect to nutrient enhanced eutrophication. Any increase in nitrate release is therefore unacceptable for the Solent watershed.

This direct delivery of treated waste to one limited marine zone via this principal pipe is heavily reliant on efficient dispersal in Solent tidal waters. This clearly is already not happening (indicated by the existing and longstanding poor state of the SEMS) and obviously the dispersal capacity for the nitrate burden from treated effluent (since nitrates are currently not currently stripped) was reached long ago, otherwise the condition of the SEMS would have improved after farming practices were changed.

Likely increases in already common raw sewage overflows after rain will deliver additional nitrate loading directly inshore in the absence of sewage treatment upgrades, (not included in the Fareham Plan).

The green macroalgal mats on intertidal mudflat areas is very obvious to the general public but the effects of the free-floating seaweed overgrowths which affect the local fishing industry are not, except by fishermen and anglers. The absence of evidence relating to this point informing this Consultation is a big, glaring omission and must be duly considered forthwith.

Natural England's latest advice to the Council is that: '*.. this approach may be refined if greater understanding of the eutrophication issue is gained by thorough new research or updated modelling.*' (section 4.3 and 4.11, ADVICE ON ACHIEVING NUTRIENT NEUTRALITY FOR NEW DEVELOPMENT IN THE SOLENT REGION, version 5, 2020)

The presence of mobile seaweed masses which encumber the local fishing industry, gather in the bays of the SEMS and contours of the seabed and are usually persistent throughout the late spring, summer and early autumn. This fact and the intertidal algal mats (recognised by Natural England) is already proof that the SEMS ecosystem does not tidally flush as effectively and efficiently as other inshore coastal areas.

Due to the presence of the Isle of Wight and the singular combination of tidal confluences within the SEMS, together with the lower velocity tidal flows in the bays, the Solent is less efficient at flushing out nutrients like nitrates, giving them time to be absorbed by proliferating algal blooms and weeds during the growing season.

Increasing overflows arising from unsustainable development in the Solent catchment coupled with a failure of the Plan to upgrade wastewater holding tank capacity and sewer infrastructure will see a likely increase of untreated nitrogenous faecal matter delivered directly into the inshore zones which already do not effectively flush. (Fishermen already know this flushing is not highly efficient in the unique tidal confluences of the SEMS for if it was, there would not already be an extensive seasonal issue with persistent seaweed masses in the bays and on the seabed contours of the SEMS notwithstanding the macro-algal blooms leading to eutrophication in the intertidal zones).

In our Paper (Warsash SEMS) submitted for the Consultation in 2020, we also draw attention to the fact that the presence of these persistent, smothering weed masses was a likely factor in the disappearance of the Solent Oyster. The fishermen widely regarded its ongoing presence as contributing to the lowering of spatfall during the summertime oyster spawning season, especially during the last days of the fishery between 2004 and 2008, when there had been a spike in the growth of free-floating red 'dogweed' which smothered the seabed during summer.

Solent native oyster, *ostrea edulis* is currently a priority species for regeneration (Blue Marine Solent Oyster Regeneration Project) and the Plan likely fails under section 9 Natural Environment (Matter 10) as Habitats NE4 Water Quality effects and likely fails under NE1, protection of local ecological network (regarding sandbanks within the SEMS: relative to priority species and potential seaweed smothering on sand/gravel banks for regenerative species like the native oyster)

Paragraph 9.16 states: 'Paragraph 174b of the NPPF states that the Plan should promote the conservation and enhancement of priority habitats, ecological networks and the protection and recovery of priority species. Development proposals within the Borough are therefore expected to contribute to achieving this objective.'

NITROGEN MITIGATION SCHEME (Wooton, Duxworth Farm)

The ecological deliverability of the Plan relies heavily on the Nitrogen Mitigation Scheme being effective and successful. In Natural England's paper, 'Advice on Achieving Nutrient Neutrality for new Development (Solent), June 2020', section 2.6 states:

'..the achievement of nitrate neutrality if scientifically and practically effective is a means of ensuring that development (housing) does not add to existing nutrient burdens.'

This phrase alone presents a paradox: the use of the conditional 'if scientifically and practically effective' reveals that the mitigation scheme itself is unproven. How it can then be justified in the affirmative in the remaining part of the phrase and ensure that the Plan does not add to existing nitrate burdens is a mystery. Even if the nitrate calculations reveal nitrate neutrality academically, there will still be an increased sewage burden delivering nitrate practically and directly to one, principal source point; the Peel Common outfall in the middle of the Solent. (which is not situated in the open English Channel)

While there may be some instances where offset (rewilding) of agricultural land is likely to have a benefit in the immediate vicinity, the efficacy of the offset at Wooton north having a practical impact on areas in the north of the SEMS, at least 8 miles away and separated by complex tidal waters is highly unlikely. The creators of the scheme would need to demonstrate that there was an existing practical functional linkage between the ebb tide flowing waters at Wooton Creek and other areas in the SEMS already in a poor state with both eutrophication effects and sub surface seaweed conglomerates*

*these are not even referred to in the scoping advice for this Plan.

The Plan fails to pass the test of soundness, in that this mitigation strategy has not been proven, even on the balance of probability.

Our fishermen have a unique practical knowledge of the tidal flows in the Solent and we regard NE's linkage between identification of agricultural offset at Wooton and the Peel Common (Browndown) outfall as academic and we would urge the Inspector to investigate the veracity of the hydrological evidence in more detail as it is seemingly at odds with the knowledge and working experience that fishermen have relating to the tidal flows at Wooton creek and Osbourne Bay.

There is no practical functional linkage between Wooton Creek and the outfall pipe since the ebb tide flow of waters at Wooton take a turn westward and move slowly through the Osborne Bay. The main fast flowing shipping channel is a mile further out from the mouth of Wooton Creek. Fishermen know these tides very well here and it is inconceivable to us that water with less nitrate arising from offset land at Duxworth farm (north Wooton) would impact the wider SEMS, either in the short term or long term. Osbourne Bay is already highly congested with floating seaweed masses and gelly like algae (in the summer months and well into Autumn) making net fishing very difficult, proving that there is no effective tidal flushing here.

We estimate that due to the presence of a back eddy here, one hour before the Low Water (Southampton) and the early slack tide (2-3 hours before Southampton's High Water) at the Peel Bank Wreck Bouy, westward ebb flows do not carry water shed from the Wooton Creek effectively out of the bay, hence the already existing seaweed choking issue here. This bay has extensive

inshore eelgrass beds as well, already deemed to be under threat due to excessive nutrient concentrations (NE advice).

The sewage effluent plume data has not been made available from Southern Water for the westward/north-westward flowing ebb tide, only the flood tide eastward. It is therefore misleading.

It is extremely unlikely that offsetting land on the Isle of Wight will positively impact marine sites within the SEMS (already seasonally infested with the red/green seaweed masses) which are spatially and tidally distinct from the Wootton offset watershed. So, for example, land offset north of Wootton is highly unlikely to reduce sub surface seaweed overgrowths along the Lee-on Solent shore, (and positively impact macroalgal mats in intertidal areas) due to incomplete tidal mixing and the singular characteristics of the Osbourne flows we describe above.

Because of these tidal variations, the area between East Bramble and Meon Shore will still likely receive the highest dose of nitrogen/phosphate compounds on the westward/north-westward (faster) flowing ebb-tide. These compounds must already be having a site-specific impact on already present seaweed overgrowth here (not recognized by NE in the statutory scoping advice for this Plan) and due to tidal shifting, already must be creating negative impacts on the wider SEMS in other bays of the Solent (that fishermen are already aware of; for example, the Thorn Channel and Stanswood Bay).

The local fishermen here have long supposed that the Peel Common sewage outlet discharge off Browndown must effectively 'feed' the growth of mobile, floating weed aggregations throughout the spring and into summer growth season.

Because of the behaviour of the tidal flows in the Bramble East area, this weed congregates en masse along the contours of the seabed of the North Shipping Channel, including the greater Bramble Bank, eventually becoming spread along a wide area. It often persists into the Autumn and makes commercial net fishing with set nets and trawls very difficult. One area usually seriously affected is between the Lee Post and Meon Bouy (off Chilling Cliffs) but there are numerous weed infested spots throughout the Solent at peak seasonal growth times. It is not clear how much of this is attributable directly to the Peel outfall distinct from other overspill outfalls in the catchment and this would require further assessment.

Unless there is a very significant and practical lowering of nutrient transfer from land on the mainland between Warsash and Lee-on Solent into this stretch of the fishery, (leachates) as part of the re-wilding mitigation, then the nutrient loading from the Peel offshore outfall pipe would likely still encourage these overgrowths to occur along that stretch of the north Solent and, without effective at- source Nitrogen/Phosphate removal at the Peel Common WWTW, would likely increase in proportion to increasing housing development and population density. Including the Welborne Plan, which inconceivably has been declared 'nitrate neutral*'.

*note: The nitrate neutrality of Welborne is configured entirely upon balancing nitrate due to leaching effects through groundwater and fails to consider the resultant nitrate sewage burden from the massive development which will be directly effluted into the SEMS.

The Evidence base for the Fareham Plan includes the subsection 4.3.24, 'sandbanks which are slightly covered by seawater at all times.' This would include the Bramble Bank and subtidal areas of sand/gravel shoals along the stretch between Lee and Chilling, together with other such banks throughout the SEMS.

Therefore, the Plan fails on the test of soundness in that it fails to supply evidence that these banks have been fully considered in the scoping advice with respect to seaweed overgrowths and deposition effects on the seabed habitat. We would include the likely effects on the Solent oyster regeneration project in this.

Paragraph 9.5 of the Plan fails on the test of soundness; it assumes the nitrate mitigation scheme will be widely effective throughout the SEMS (functional linkage). Although the Local Planning Authority is aspiring to nitrate neutrality, paragraph 9.1 requires designated sites be protected and enhanced. Additionally, par 9.5 (Policy NE4) confirms: 'Planning permission will be granted where the integrity of the designated sites is maintained, having regard to the effect of nutrients on the designated sites arising from increased wastewater production'.

The LPA's approach therefore cannot be proven to support the Habitats Directive, because the NE solutions are entirely untested, incomplete, rely entirely on hypothetical modelling and fail to consider wider seaweed overgrowth issues considered in this Hearing statement.

As per advice from Natural England, it is the responsibility of the LPA to fulfil its legal obligations and satisfy themselves beyond scientific doubt that adverse effects on the designated sites from harmful nutrients generated by new residential development, has been effectively mitigated (rather than just compensated for). There is no evidence the N-Mitigation Plan will be effective throughout all areas of the SEMS affected by mobile, sub-surface overgrowths, let alone improve saltmarsh, eelgrass and intertidal habitats in the northern and north western parts of the Solent/Southampton Water already experiencing eutrophication effects.

We are of the opinion that the Plan fails badly in that respect and relies too heavily on scientific supposition.

In conclusion, if implemented as stands, the Plan is unlikely to:

- 1) ensure that mobile red and green lettuce seaweed overgrowths within the wider SEMS (which already seriously restricts Commercial Fishing Activity within the SEMS) is not further exacerbated by increasing nutrient loadings in Solent waters, especially with respect to the Solent sewage outfall pipe serving Peel Common effluent and its immediate marine environs.
- 2) ensure that water quality with respect to undesirable bacterial and viral contamination of shellfish beds in Southampton Water and the wider SEMS is not further exacerbated by post-rain/ storm waste-water overflows. There is no indication in the Fareham Plan that these contamination events will not increase and there is no indication from the EA or Southern Water advice with respect to that point. (relevant to MATTER 10 also)
- 3) ensure that intertidal algal mats (seaweed overgrowth and deposition on mudflats) do not increase and/or that the saltmarsh and eelgrass habitat does not deteriorate further.

The Statutory Consultees for this Consultation (NE and EA) have included Assessments relating to point 3) above (intertidal Eutrophication) in line with their Statutory duties under the Habitats Directive, (SAC's/SPA's) but, they have not made any Assessments regarding points 1 and 2. This is a serious oversight and failure of the process.

It is the duty of NE and other Statutory Consultees to provide relevant evidence, where gaps in the evidence base have become available during the Consultation process, (NE submission to the Council, 2020).

Since we regard the evidence base for this Plan to be unsound and incomplete, we expect the Inspector to instruct Fareham Borough Council, with immediate effect, to instruct its Statutory and non-Statutory Consultees to make efforts to extend research to cover these disparities that we have brought to the attention to this Hearing.

It is suggested that this could include additional research on:

- the seasonal floating seaweed overgrowths in the SEMS and related consultation with the local fishing fleet.
- a study of the possible interference effects of seasonal mobile red/green seaweed depositions on native oyster spatfall in inshore zones of low tidal flows.
- An enhanced and detailed study of the tidal variations in the Peel sewage outfall environs specific to sewage effluent dispersal. Full plume data to be made available publicly.
- A thorough hydrological assessment of the potential efficacy of land offsetting/N-mitigation in specific areas of the Solent catchment (eg; the Wooton Creek farm) and an evaluation on the extent of mitigation effects (seaweed growth) in areas that are not within the immediate vicinity of the designated N-mitigation/offsetting site.
- a full evaluation of the tidal flushing characteristics of Osbourne Bay. (watershed for Duxworth farm offset)

Until those evaluations have been completed, it is my duty to warn the Inspector, Ms Hockenull, that it is our opinion that she is in grave danger of seriously being misled regarding the soundness of the statutory scientific advice regarding the nitrogen mitigation scheme, which is clearly nothing more than an extrapolated paper- science exercise.

It is worth mentioning that we fishermen are no strangers to the failure of statutory advice having just spent three years opposing supporting evidence for another Consultation (that one in Fisheries), whereby the quality of the supporting evidence was so poor, it eventually had to be disbarred but only after the fishermen's intervention and sustained opposition.

Finally, we would also request that the issues we have highlighted here be retrospectively applied to the Welborne development which clearly is also going to add a huge nutrient burden directly to the SEMS via the Browndown outfall and likely increase raw sewage overspills throughout the area.

Signed: S P Matthews (for cross-group consensus)

Coordinator: Warsash Inshore Fishermen's Group

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