

Please accept this objection to Planning application APP/21/00893, Land north of Long Copse Lane, Emsworth, PO10 7UN.

You will note that I do not reside in East Hampshire, however I wish to register my protest on the basis that the development will immediately impact Chichester Harbour, which I live beside and about the health of which I am deeply concerned.

My objection is as follows:

1) The fragile salt-marsh environment of Chichester harbour is a high grade carbon sink, provides essential stability to the mud flats thus preventing erosion, as well as having the key characteristic of the AONB, SSSI and Ramsar site status protected under UK law.

2) The salt-marsh is already seriously degraded by nitrates, phosphates and hydrocarbon pollutants issuing from the harbourside Waste Water Treatment Works (WWTW) at Appledram, Bosham and Thornham, the WWTW at issue here. The Recent Natural England study clearly identified that Nitrogen effluent must be reduced from these point sources if the degradation is to be slowed. (Ref Bardsley, L., Brooksbank, J., Giacomelli G., Marlow, A., and Webster E. 2020. Review of Chichester Harbour sites: intertidal, subtidal and bird features. *Natural England Research Report, Number 090.*)

3) It should be understood that when the WWTWs were built, the population they serviced was much smaller and it may have had a small effect on the salt-marsh (and anyway, no one knew or cared about the impact at the time). Since then the population has grown so the amount of 'treated sewage' that flows through the harbour is clearly having a significant effect and its impact is much better understood.

4) 'Treated sewage' flows 24/7, 365 days a year from Thornham. It services communities from Chidham in the East through to Emsworth town, Wesbourne and beyond, including some villages inland, thousands of households. 'Treated' means that the Biochemical Oxygen Demand (BOD mg/l), Suspended Solids (SS mg/l) and Ammoniacal- Nitrogen (Ammon-N mg/l) of the sewage/waste water flow (Biological Loading) has

been reduced (cleaned) to a level set by British Water, the EU and supposedly policed by the Environment Agency. Pathogenic “loads” within treated effluent can be further reduced by exposure to UV light, as found in some of the more modern WWTW. Phosphates, combined with excess nitrates, are not removed and are causing eutrophication (an excess of nutrients) of Chichester Harbour. **Every household added to the sewage network increases the volume of pollutants entering the harbour, even if the sewage works is only discharging correctly treated sewage.** Treated sewage is a cocktail of human generated fertiliser.

5) Southern Water likes to maintain the view that the high nitrogen content of the harbour is largely caused by agricultural run-off and that the nitrogen input from “treated” sewage is therefore negligible. Even if that was ever true, it should be independently re-examined. There are two trends which should be noted with regard to this:

a) Farming practice is changing and fertiliser use is reducing, becoming much less ‘broadcast’ and more ‘targetted’.

b) The population and hence sewage effluent, only ever increases. 6% population increase (and hence sewage increase) per decade, but the trend from new developments will be above that.

Further to this, agricultural run-off only really occurs with the winter rains. The low regional rainfall and dry ground combined with evaporation in the warmer seasons ensures that the ditches and many of the chalk streams very rarely run into the harbour except in winter.

6) The regularity with which Southern Water discharge untreated sewage into the harbour is well documented, as are the reasons for it (rainwater run-off into sewers, followed by groundwater leakage into sewers). However, while this is clearly reprehensible, the ‘yuck’ factor of this can be used to hide **the real issue, which is the constant pollution by barely ‘treated’ sewage from an increasing population, contaminating and degrading a protected natural habitat, which is also a desperately needed carbon sink.**

This proposed development, should it be approved, would add to pollution that is already more than the Chichester Harbour ecosystem can cope with, as show by the English Nature report.

This and all planning applications which seek to further overload the harbourside WWTWs, should be refused until Southern Water can demonstrate an actual reduction in effluent output from their harbourside WWTWs.