

**I am a registered interested party. My number is 20026015**

Points regarding application for a De Salination plant:

Water is the most important commodity for human health. The fact that this has only just be considered consolidates the need for a Health Impact Assessment (HIA) raised in my earlier comments.

De salination plants in Egypt and Greece do not attempt to provide drinking water for humans. After the salt is removed, the remaining water needs further treatment and storage this is not specified in the proposal. The brine would be continuously discharged.

The sea between the inner and outer sand bars. It's at least 1.6 times more salty than the sea water and, despite disperser heads, would collect at the bottom, where organisms would be unable to survive. Apparently it would amount to about 6,000m<sup>3</sup> per day.

Various chemicals are used to keep the headworks and membrane 'clean', including anti-scaling acids and biocides against bacteria such as chlorine, all of which would end up in the sea. The intake headworks would be maintained with periodic 'shock chlorination'. If badly contaminated, the membrane would need emergency flushing with inhibitors. This could cause irreversible damage to marine habitats.

Not only was the need for additional fresh water not thought of earlier, with a properly conducted HIA it would have been flagged up. Neither the impacts on health or the environment are fully assessed as quoted below:

(2.4.3. Similarly, Proposed Change 19 would not alter the impacts of the proposed development with regard to: socioeconomics, climate change, major accidents and disasters; and, radiological effects)

(2.4.24. Further assessment may be required following a review of any updated or additional coastal and geomorphology assessment)

(More detailed modelling will be undertaken as part of a H1 type assessment to confirm effects on marine water quality. 2.4 11)

A dead zone is likely to be created around the outflow heads with the build-up of brine and increasing lack of oxygen (trapped between inner and outer bars).

\*Naturally occurring minerals and chemicals are returned to the sea in a more concentrated form and can cause poisoning (e.g. arsenic). \*What anti-fouling chemicals will end up in the sea in addition to chlorine and the by-product of phosphorus?

Sea swimming takes place all year round now with the climate becoming milder. The evidence so far produced suggests a total no go area on Sizewell beach and unknown effects further south on the Suffolk coast

It is unclear from the proposal whether a single de-salination plant would be sufficient. The construction of a second plant would cause further disruption with subsequent health effects and pollution.

To conclude;

1. there is no guarantee that the plant will provide sufficient water
2. the detail regarding the workings of the plant are not sufficiently understood
3. the amount of pollution caused will overwhelm the local marine habitat