

## APPENDIX 5

### PROPOSED RESERVOIR

The following analysis supports some of Steventon Parish Council's main concerns with Thames Water's rev.dWRMP which are outlined in the representation. It addresses some of the major questions that have been raised on this subject.

If the Abingdon reservoir were to be built it would be part of Thames Water's Regulated Capital Value so Thames Water customers would have to continue to pay for it whether it were fully utilised or not. Thus the charges paid by the customers would generate increased profits for the company.

Thames Water first dWRMP page 27 Water Resource Schemes. "UTMRD....represents the optimum solution to manage the significant uncertainty associated with climate change." We disagree with this statement, abstraction to fill the proposed reservoir is likely to be vulnerable to climate change and the quality of the water in it could also be badly affected by climate change. Climate change is predicted to increase the frequency of torrential rain, but keep the total annual rainfall similar to the present rainfall. Torrential rain has a problem as far as abstraction is concerned – it washes large amount of suspended solids and fertiliser into the rivers so making the water quality poor and not suitable for prolonged storage. Thames Water would have to abstract 72 M cu m/y in order to meet their predicted output of 198 Ml/d but as the flow of the River Thames near the abstraction point is only about 840 M cu m/y, with a median flow (1938-2006) of 16.5 cumecs = 520 M cu m/y we do not think that this would be possible every year without abstracting excessive amounts of suspended solids and nutrients.

Thames Water appears to have included a financial benefit to the area, without appearing to have included the detriment to this and other areas that would result from visitors coming to the proposed reservoir instead of other reservoirs. In our view moving visitors from one reservoir to a bigger reservoir would only lead to an increase in CO<sub>2</sub> emissions and an increase in other associated problems in this area as all the roads surrounding the proposed reservoir site are already used at more than their design capacity. We therefore consider that the benefit to this area as quoted by Thames Water should be considerably reduced.

Although the country and the water industry are committed to reducing CO<sub>2</sub> emissions, a reservoir would be a constant source of emissions as Thames Water would have to strive to prevent eutrophication and the growth of toxin releasing algae. Although Thames Water has claimed that it would install turbines to generate electricity when they draw down the reservoir, this would be in summer, when the electricity industry is in surplus. However when they use electricity in the winter to fill the reservoir the electricity industry would be struggling to keep up with demand.

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The capacity AISC costs for London and SWOX are given as £454/Ml and £874/Ml and the Utilisation AISC costs as £1030/Ml and £5363/Ml for SWOX. These figures could be

seen as the SWOX area WRZ subsidising the London WRZ and making the reservoir a more attractive option for London. In our view there are other cheaper options for increasing the supply or decreasing the demand in the SWOX area without the need for a reservoir. Many local people believe that the proposed reservoir will be for London plus transfers to other water companies and the SWOX “need” is being presented in order to make the proposal more acceptable.

The decaying infrastructure in London will have to be replaced sooner or later so a reservoir would be an attractive option for Thames Water shareholders in that they would eventually receive the benefits of replacing the decaying mains whether or not a reservoir should be built and a reservoir would generate huge profits irrespective of its percentage utilisation.

We urge the inspector to consider imposing penalties for under-utilisation of any new reservoir if future increased demand predictions fail to materialise. This would then cause water companies to assess the need for reservoirs more carefully. At present a water company would be rewarded with guaranteed profit once a reservoir is built whether or not it is fully utilised. Reservoirs are characterised by high initial costs and long lead times so it is particularly important to ensure that the needs case is very robust before permitting the construction of a reservoir. We consider Thames Water’s case to be far from robust and not the most appropriate solution.