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working locally and nationally to
protect and enhance a beautiful,
thriving countryside for everyone to
value and enjoy

CPRE Response to Thames Water Draft Water Resources Management Plan 2019

Introduction

The Campaign to Protect Rural England (CPRE) welcomes the opportunity to respond to this consultation. CPRE campaigns for a beautiful and living countryside. We work to protect, promote and enhance our rural towns, villages and countryside to make them better places to live, work, value and enjoy, and to ensure that the countryside is protected for both present and future generations. CPRE is one of very few environmental charities for whom landscape and rural tranquillity are at the core of its values. We work for their positive enhancement as well as their protection from being despoiled.

CPRE campaigns for the protection and enhancement of the countryside. This means we would like to see the protection of the health of Britain's streams and rivers, which are a feature of the British countryside. We also want to see secure and clean water supplies for the rural and urban population. We are concerned about any loss of land and the creeping urbanisation and industrialisation of landscape. For this reason we feel major infrastructure proposals, such as the proposed Abingdon Reservoir, need to be subjected to the strictest scrutiny and should only go forward when all other, less damaging, options have been considered.

CPRE welcomes this initiative for long term planning of water supply for the Thames Valley and the South-East, with the associated commitment to ensure future supplies of water to the population and to protect and enhance the environment. We feel, for example, it is essential to protect the chalk streams of the Chilterns, the South Downs and West Berkshire Downs from damaging over-extraction of groundwater.

Demand projections

CPRE has considerable concerns about the methodology used for population projections underlying the demand projections. Up until 2045 use is made of a survey of projections of the 100+ Local Authorities (LAs) in the Thames Water region. We have good evidence that that the projections of many LAs are heavily biased, with a presumption of fast and unrealistic growth. A good example is the five LAs in Oxfordshire. Oxfordshire economic and population growth is based on an economic plan and Strategic Housing Market Assessment published in 2014 and largely based on a 2011 baseline. These plan for accelerated economic growth and an uplift in housing and population by 40% by 2031. The plans are widely regarded as 'aspirational'. In the last five years not only has the planned growth not been achieved in Oxfordshire but the plans assume a population growth in the county which is two and a half times the Office for National Statistics (ONS) projection for Oxfordshire. If such growth were to be achieved it could only be at the expense of other regions in the South-East. The impact of these projections can be clearly seen in the projections of demand for the SWOX region (see e.g. figure 0.5).

Beyond 2045 use is made of very different methodology. The impact of the change in methodology can be clearly seen in the projection of overall water demand which has an inflection point at the exact time of the change in methodology. The acceleration of population growth after 2045 is very strange and at odds with the ONS projections - which show, in contrast, a steady decline in population growth throughout the century. We understand there has been some revision of this post 2045 methodology since the publication of the draft WRMP in February. We still find the situation, with different methodologies for the two periods and the reliance on the LA projections, unsatisfactory.

There is also need to regularly update these projections as there is evidence of a continuing fall in population growth rates from the historically high levels of recent years (see e.g. recent ONS UK projections, <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/nationalpopulationprojections/2016basedstatisticalbulletin>) with continuing reductions in fertility rates and inward migration.

We urge that a single methodology is used throughout the period based on the Government's own figures, i.e. the ONS population projections. At the very minimum TW should consider a range of projections and work through the impact of the uncertainty in this range on their investment options.

Leakage

CPRE welcomes the commitment to intensify the programme to reduce leakage. We note, however, that the recent progress has been slow and targets set in WRMP14 missed. Leakage of nearly 700 lt/day in a supply of 2900 lt/day is clearly unacceptable. We also note there is considerable public support for leakage reduction. We urge TW to be more ambitious by substantially increasing investment in renewal of water mains and installation of smart metering (at both domestic and community level), and pursuing more innovative approaches to leakage reduction. **Reducing leakage should be TW's highest priority and at the very least should aim to match the performance and ambition of the other water companies.** We urgently require a water distribution system which is fit for the 21st century.

Personal water use

CPRE welcomes the efforts to reduce personal consumption. We do however find the draft document quite unclear about the actual targets and timings - for example London has a target of 128 lt/h/day by 2035 and SWOX 120 lt/h/day by 2030. We would like to see firm and unambiguous targets.

The reduction of personal water use from over 150 to 120 lt/h/day is going to be challenging. A policy aspect missing from the WRMP19 is the standards for new housing. Smart meters, water saving devices and rainwater harvesting should be part of any new development. We appreciated it is not in TW's power to insist on these but a firm statement that they are a necessary part of future water efficiency should be part of this plan.

Comments on the Abingdon Reservoir Proposals

CPRE is obviously concerned about the proposals for a substantial reservoir at Abingdon. The loss and damages to land, resources, heritage and communities is substantial. The proposed area of flooding is a massive, hugely significant multi-period historical and archaeological landscape and the reality of what is there (and as yet undiscovered potential) has not been grasped - the scoring methodology, which aggregates this as a single score is clearly inadequate. We, therefore, do not feel the full cumulative impacts in the various sectors have been fully assessed (see e.g. 0.100). Even so we note that the Abingdon reservoir scores six severely adverse consequences (and eight moderately adverse) against the SEA objectives (table 9.7). This arguably makes this option the most environmentally damaging of the screened options.

The main purpose of the proposed Abingdon reservoir is to provide resilience during drought periods. The discussions with and analysis of the GARD group has demonstrated some considerable uncertainties in the analyses of the benefits of the reservoir in extended droughts. The methodology used by TW to model the water resource network has considerable flaws. In particular the use of two distinct models (i.e. IRAS and WARMS2) and the necessity to splice these together is clearly unsatisfactory. There are also concerns about the generation of the stochastic time series. This time series was trained on a period confined to the 20th century and therefore misses the extended drought of the 1890s - a drought which is more extreme (in terms of length) than any seen in the 20C. Considering there are a major concerns around the value of the reservoir in a drought extending beyond 17 months, it is clear that the resilience assessments must be revisited.

The development of a major reservoir in the upper Thames will obviously have severe consequences to the environment and communities in Oxfordshire. **CPRE considers that a convincing case has yet to be made on the need, viability and consequences of this proposed development.** The uncertainties on future demand (and in particular in the long-term population projections) clearly show how uncertain it is that the reservoir will actually be needed. The flaws in the modelling of resilience indicate that much more work is needed to justify the reservoir (particularly against other options, such as desalination, which actually create new water resources) and, finally, a full, comprehensive environmental and natural capital assessment needs to be made. Luckily there is enough time in the next decade to make a more robust assessment. In conclusion CPRE feels there is no necessity for the Abingdon reservoir proposals to be included in dWRMP19 and **TW should adopt a more formal adaptive planning approach, which can reassess a whole range of options as new information and technologies emerge in the coming decades.**

Conclusions

CPRE urges Thames Water to:

- 1. Increase its ambition to reduce leakage to at least the UK Industry standard - this should be TW's number one priority.**
- 2. Lobby the Government to insist on water saving infrastructure in new developments.**
- 3. Re-assess all future population projections and, include a range of growth forecasts, each to be given equal weight and prominence.**
- 4. Re-assess all options for resilience using a more robust and unified modelling system and a longer training period.**
- 5. Revisit assessments against damage to the environment and natural capital.**
- 6. Remove the Abingdon reservoir proposal from the dWRMP as it is not justified on current evidence.**
- 7. Use a full and explicit adaptive planning system to take account of new trends and technologies.**

Yours sincerely

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