



**REVISED DRAFT WATER RESOURCES
MANAGEMENT PLAN FOR
THAMES WATER (18TH SEPTEMBER 2009)**

**STATEMENT OF CASE FOR
THE GROUP AGAINST RESERVOIR
DEVELOPMENT (GARD)**

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1. INTRODUCTION

- 1.1 The following document comprises the Statement of Case for the Group Against Reservoir Development (GARD) to meet the requirements of Regulation 5 of the Water Resources Management Plan Regulations SI2007 No 727. Accordingly it provides a description of the evidence which will be produced by GARD in support of its objection in respect of the proposal contained in the Revised Draft Water Resources Management Plan (rdWRMP) to construct a major new Reservoir west of Abingdon (the Upper Thames Reservoir – UTR) in order to increase the supply of water within the Thames Basin for consumers in the period post 2026.
- 1.2 Whilst GARD fully appreciates that the rdWRMP is a much wider document and considers a range of proposals across the whole of the Thames Water Authority area, its specific remit is limited to objections relating to the UTR. Notwithstanding this, the UTR is the largest single new investment proposal put forward in the rdWRMP and therefore an understanding of the need for these new facilities requires a clear understanding of the TW overall position both in respect of demand for water and supply side in respect of the individual Water Resource Zones (WRZ). Accordingly this Statement of Case extends to cover a much wider range of issues than simply the UTR itself.
- 1.3 GARD is aware that under the Water Industries Act 2007 there is now a requirement for each Water Company to prepare a Water Resources Management Plan (WRMP) in order to fulfil its statutory responsibility for providing a water supply to its consumers over the following 25 years. These WRMPs are reviewed every 5 years but contain a preferred programme of action which the Company intend to pursue. GARD is aware that there is a requirement on Water Companies to prepare a draft WRMP for public consultation prior to submission to the Secretary of State for the Environment, Farming & Rural Affairs. GARD participated in the original consultation exercise when the draft WRMP (May 2008) was published and sent in a detailed list of comments/objections, most of which were designed to question the need for the major investment in the form of the UTR. Some of these objections were noted by Thames Water in its Statement of Response published in May 2009. This led to the further publication of a revised draft WRMP in September 2009. Although this latter document contained some significant changes which in GARDs opinion substantially reduced the need to provide the UTR, Thames Water continued to maintain that its construction was necessary albeit 6 years beyond the date set out

in the original dWRMP. GARD remain convinced that the evidence of the need for the UTR is not robust and that any decision in respect of its construction within the next period of the WRMP is at the very least premature and in our view wholly unnecessary.

1.4 GARD has noted that on receipt of the rdWRMP the Secretary of State has considered the various issues and on 3rd August 2009 issued a letter calling for an Inquiry into three main issues:

- i. insufficient consideration of options when determining its preferred programme;
- ii. lack of evidence that demand forecasts are robust;
- iii. failure to meet the Secretary of State's directions on a number of key issues including actual levels of service, the methodology used for appraising continuing options and the reasons for choosing them together with an appraisal of greenhouse gas emissions.

1.5 GARD will briefly present evidence on its formation and membership together with its involvement in respect of the Water Resources Management Plan and its particular interest with regard to the Upper Thames Reservoir (UTR).

Evolution of Upper Thames Reservoir Proposals

1.6 The Proofs of Evidence prepared by GARD will briefly consider the evolution of the Upper Thames Reservoir over the last decade and a half indicating how the proposal has changed over time and why there has been a delay in terms of its promotion.

1.7 The evidence will also look at the current position as GARD understand it and set out the overall timescale for:-

- 1) the current scale and nature of the proposals;
- 2) promoting the UTR through the rdWRMP;
- 3) the timetable for submitting a planning application for the UTR;
- 4) achieving a planning permission and the procedures involved in this;
- 5) the period of construction; and
- 6) final implementation of the completed scheme i.e. the availability of increased supplies of water from the UTR.

- 1.8 GARD will present evidence on the rdWRMP timetable for achieving the UTR by 2026 and comment on whether decisions in respect of its construction are necessary within the course of the next five year period covered by the rdWRMP.

2. POLICY BACKGROUND

- 2.1 The evidence presented by GARD will briefly examine the existing planning policy framework for the construction of the UTR. In particular it will focus on the recently approved South East Plan and Policy NRM3 dealing with Strategic Water Resources Development and the extent to which these will affect emerging LDF Core Strategies, particularly the Vale of White Horse LDF.
- 2.2 The evidence from GARD will also make reference to the policies in the approved London Plan but as the site for the UTR clearly lies within the South East Region, the London Plan only has relevance insofar as its projected population and the development programme are concerned.
- 2.3 It is understood that Thames Water have recently submitted a detailed Scoping Assessment for the UTR to the Vale of White Horse District Council requesting a response on this document. TW accept that although Vale of White Horse District Council are the Planning Authority, ultimately any planning application for a scheme of this scale will probably be determined through the Infrastructure Planning Commission and/or through the Secretary of State for Communities and Local Government. It is GARD's understanding that the planning application and other documents required to validate an application will only be pursued after the Secretary of State for the Environment Food and Rural Affairs determines that TW's Preferred programme of works contained within the rdWRMP, has been determined as a necessary strategy for increasing supply. As such the WRMP will provide the strategic framework for any future planning decisions.

3. DEMAND BASED ISSUES

3.1 In presenting evidence to the Inquiry as part of its major objection to the UTR, GARD will focus specifically on various detailed aspects of the supply/demand balance as set out in the rdWRMP. The evidence will focus on certain aspects of the demand estimates put forward by TW including the following:-

1) Overall population projections:

- Evidence presented by GARD will look in detail at the projections made in respect of the overall population both for the South East Region and within the Greater London area. Particular reference will be made to the latter region on the basis that this is the WRZ with a deficit post 2026.
- Evidence will also be presented on the relevant household projections for both the South East and the Greater London region as produced by DCLG derived from the ONS population projections.
- The policy based assumptions contained within the South East Plan (RSS9) will be examined together with population and household projections contained within the Greater London Plan 2004 and the impending Review of the Greater London Plan currently taking place. Specific reference will be made to the timescales covered by these regional documents as compared with the period covered by the rdWRMP.
- Details of past house building rates in the Greater London area will be examined to discover whether policy based assumptions regarding household growth have been achieved. Further analysis will be undertaken in respect of housing land supply and the degree to which future anticipated house building levels are likely to be achieved within the Greater London area and the extent to which this will be affected by the economic recession. Reference will also be made to expected housing densities and the type of dwellings to be constructed.
- Evidence will also be presented in respect of the previous migration trends and the extent to which these have varied and may well vary in the future.
- Additionally, information will be presented on under recording of population within the Greater London area together with short term migrants not identified in the ONS projections and the extent to which these have been allowed for in the rdWRMP.

2) **Household consumption:** The Inspector's attention will be drawn to the remaining disparity between central Government objectives for reducing household consumption to a target of less than 130 litres per person per day and the target set by Thames Water in the extended period through to 2035 of 135 litres per person per day.

3) **Micro Component Analysis:** GARD is for the most part content to accept the findings of the Micro Component analysis undertaken by Thames Water save for the element related to external usage. This will be examined further in the context of the existing stock of dwellings

comparing the mix of houses/ flats in the Greater London area as compared with the assumptions made in other Water Company areas. Evidence will also be given on the future housing provision within the Greater London area in particular and the extent to which this is likely to involve construction of flats without individual gardens.

- 4) **Leakage (Victorian Mains Replacement):** The GARD evidence will examine the policies and proposals for reduction in leakages, particularly in London, and the degree to which Thames Water is able to achieve reductions which accord with the average leakage rates of other Water Companies in the future. Additionally the benefits which can be achieved through a reduction in leakage levels, as opposed to the creation of additional capacity through the construction of the UTR, will be examined. The public perception of these two approaches will also be examined.
- 5) **Metering:** GARD will review Thames Water's progress on metering and consider scope for improvement.
- 6) **Target Headroom:** GARD will examine the justification for the target headroom and the various elements within it.

4. SUPPLY SIDE ISSUES

4.1 As part of its overall analysis of the demand/supply balance evidence from GARD will concentrate on the following factors:-

- 1) GARD considers that the supply available to TW has under-estimated aspects of the Lower Thames Operating Agreement and the benefits of supply bans which will generally be greater than shown.
- 2) Further capacity which could be achieved by reduced or increased bulk supply transfers from/to the TW area and the extent to which these could change in the future with reference to:-
 - Essex & Suffolk Water Company
 - Three Valleys Water Company
 - And whether other water companies have included new bulk supplies from TW in their Preferred or Final programme.
- 3) Prospective changes in water supply to major users including in particular decommissioning Didcot A Power Station.
- 4) Alternative proposals for increasing water capacity: GARD will present evidence to show that there are other proposals involving both small and large scale opportunities for improving the supply of water, particular in the London area by undertaking:-
 - a) Transfer schemes:
 - Oxford Canal
 - Unsupported Severn Thames Water Transfer
 - Longdon Marsh Reservoir (supported Severn-Thames Transfer)

GARD has requested (since October 2009) Thames Water to provide various reports dealing with these and other schemes (referred to in source documents in the WRMP) but to date these have not been provided. On the basis of the limited information provided to date the schemes are likely to represent a better solution to any alleged deficits than claimed by TW; GARD will provide evidence on this issue, although this is partly dependant on Thames Water providing the reports requested.

- b) Re-use of water options including:
 - Hogsmill B
 - Deephams
 - Mogden

- 4.2 An examination of the costs associated with the alternative opportunities for increasing supply will be undertaken to the extent possible and appropriate, initially with reference to the AISC. Further information has been requested on the derivation of both the capital and operating cost of each of the alternatives as there are some discrepancies and inconsistencies as between the dWRMP, the rdWRMP and other earlier documents studying these proposals. GARD will continue to seek clarification on capital costs in particular, prior to the exchange of evidence but to date has been unable to obtain the requisite information from Thames Water despite repeated requests. Without such information being clarified and agreed, it makes a comparison between the preferred programme and the other options difficult to achieve and could delay the Inquiry.
- 4.3 Overall the supply side factors will be assessed in the GARD evidence not with a view to ranking these but to demonstrate that there are a number of other, less expensive options which could be introduced to relieve any alleged deficit created in the post 2026 period; moreover these schemes involve shorter implementation timescales than the implementation proposals for the UTR.

5. OVERALL DEMAND/SUPPLY BALANCE

- 5.1 The evidence presented in the rdWRMP on the overall demand/supply balance will be examined in detail in the GARD evidence. Particular focus will be on those two WRZs which show a deficit in 2035 i.e. SWOX and London.
- 5.2 The evidence will demonstrate that the deficit in the SWOX area post 2026 is barely measurable and constitutes a very small proportion of total daily usage. In the Greater London area the information contained in the rdWRMP demonstrates that any alleged deficit occurs in the period post 2026 climbing slowly but steadily in the following 10 years to 2035.
- 5.3 GARD will present evidence to demonstrate that planning projections in the period 15 to 25 years ahead are uncertain and that even planning projections for the period to accommodate the alleged increase in population and households within SWOX and Greater London do not extend beyond 2026 (and in the case of London beyond 2021). Not only is there considerable uncertainty on population growth and net inward migration over the period 0 – 25 years ahead, but there is also uncertainty regarding policy decisions on future accommodation of new development. In the short term there will be high levels of economic uncertainty over the course of the next 5 years. Whilst this has been partially assessed by Thames Water, the assumption is that beyond 2016 growth rates will return to similar levels to those previously experienced. GARD will examine the justification for assuming trend based forecasts will re-emerge post 2016 and will continue post 2035.
- 5.4 Evidence from GARD will endeavour to isolate the reasons for the change in the trend of the demand/supply balance in London occurring in 2026 and whether this is based on reasonable and robust assumptions for a period more than 15 years ahead.
- 5.5 The second element in the debate on the supply/demand balance relates to the substantial additional capacity generated by the UTR and the degree to which a relatively small proportion of this total capacity will be utilized in the period 25 years hence. Full utilization of the additional capacity created by the UTR will be assessed and whether there is any evidential base for assuming that the demand for water will continue to grow at a similar rate post 2035.
- 5.6 Given the following points:-

- 1) that any demand/supply deficit is only projected to occur post 2026;
- 2) that the evidence on which the post 2026 deficit is based is subject to high levels of uncertainty;
- 3) that the deficit in SWOX is minimal;
- 4) that the deficit in Greater London is growing at only a very small percentage rate;

it will be demonstrated that there is no need to opt for a large scale investment decision which commits future customers to an unnecessary increase in water bills.

- 5.7 GARD will demonstrate that, where a new water resource such as a large reservoir needs a long period to construct (in this case about 9 years), then the demand projections need to be particularly robust to ensure the reservoir is still needed when it is completed, i.e. up to 12 years after the decision to proceed with it. Attention will be drawn to other major infrastructure projects where testing the robustness of the supply/demand balance in the long term was not undertaken, with the result that additional capacity generated has not been fully utilized.
- 5.8 Instead, the size of the deficit and the uncertainty factor in predicting 15 to 25 years ahead suggests that the TW rdWRMP should focus on smaller scale proposals designed to provide greater cost effectiveness, smaller scale increases in bills, and greater opportunity for monitoring factors which are inherently uncertain (including climate change). In the context of the alleged deficit the Inspector's attention will be drawn to the Site Selection process which indicates that further examination of the options will be required in the event that the deficit falls below various levels.
- 5.9 GARD will consider the availability of reservoir sites and whether the Site Selection process needs to be revisited depending upon the size of any deficit which is ultimately determined by the Secretary of State.
- 5.10 Overall GARD will claim that the evidence suggests that a decision in this rdWRMP to commit to a large scale scheme within the next 5 year period is wholly premature in the light of the uncertainties attendant on projections 15 to 25 years ahead. Not only is the timescale for preparing and implementing a scheme of this magnitude unnecessarily exaggerated but it represents a disproportionate response to an alleged small but growing deficit post 2026 (even if the Thames Water rdWRMP is accurate). GARD will demonstrate that the evidence points to smaller scale proposals to improve the capacity which will enable uncertain factors such as

migration rates, the effect of a replacement Power Station at Didcot and cost estimates for alternative schemes to be properly assessed and monitored over time, whilst still allowing a period for planning and implementation.

- 5.11 GARD notes that TWUL has included 100 MI/d as a sustainability reduction. However this is only an indicative reduction, not a definitive reduction. Water Companies can only include definitive reductions within their WRMPs. The Environment Agency has indicated that time to implement new schemes required for sustainability reductions will be allowed as and when such decisions are made. Consequently GARD will challenge the TWUL approach.

Other Issues

- 5.12 In addition to these points which derive from the Secretary of State's letter and which examine the underlying assumptions in respect of the need for the UTR, GARD may also present evidence on loss of agricultural land and other localized effects of the reservoir. Secondly GARD will examine the effect on consumers in making a premature decision on a large scale project such as the UTR which will generate additional capacity far greater than is needed even in the full 25 year period. GARD will question the justification in economic terms for infrastructure of this scale and the funding mechanisms that will need to be put in place for projects such as the UTR. Reference will be made to the substantial costs up front associated with the UTR, the arrangements for long term funding that will need to be in place and the implications for consumers billing both in WRZs alleged to be in deficit post 2026 and other consumers in WRZs without a deficit.
- 5.13 Given that GARD has a number of document and information requests outstanding it reserves the right to make additional comments when these documents are finally made available.
- 5.14 GARD would intend to refer to all those documents on the TW Core Document list plus others as listed in Appendix A. GARD would reserve the right to add to this list of documents as necessary as further information/documents is made available in advance of the Inquiry.

APPENDIX A: GARD DOCUMENT LIST

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GARD document list

- 1) GARD report by Chris Binnie 27th August 2008.
- 2) GARD Review of dWRMP, SoR, and FBP May 2009
- 3) TWUL Reservoir Site Selection Study Report September 2006.
- 4) NRA Thames Region, Atkins Severn-Thames Transfer Feasibility Study June 1993
- 5) Severn Trent Water Authority report on Longdon Marsh reservoir, February 1976 by Binnie & Partners.
- 6) The NRA Severn –Thames transfer project: An assessment of the effect of mixing of source waters on the chemical composition, Institute of Freshwater Ecology May 1996.
- 7) Thames Water Utilities, Grimsbury WTW Raw Water Transfer Scheme, Birmingham to Banbury Canal Transfer Feasibility Study June 1998, Binnie Black & Veatch.
- 8) OFWAT Service and delivery- performance of the water companies in England and Wales 2008-09
- 9) Transferring Water from Wales to London review of the Feasibility of the Severn Transfer Scheme, November 2007 Halcrow Group Limited.
- 10) The Severn-Thames Transfer project: Phase 11. Chemical interactions of transferred sediment with the host water, Institute of Freshwater Ecology
- 11) Habitat studies in the River Thames: in relation to a Severn Thames Transfer, Institute of Freshwater Ecology, date not quoted but about 1997/8.
- 12) Water – Nature’s Precious Resource. An Environmentally Sustainable Water Resource Development Strategy For England & Wales. National Rivers Authority. March 1994
- 13) UKWIR/Environment Agency, Evaluating the Impact of Restrictions on Customer Demand, Main Report 98/WR/06/1
- 14) ONS and other population data/projections.
- 15) Relevant Minutes from Steventon Parish Council
- 16) GARD Constitution