



## Water Resources Stakeholder Forum, 20 January 2015

### Note of meeting

#### 1. Welcome and Introductions

Richard Aylard welcomed everyone to the meeting. Richard emphasised the importance of stakeholder input to the development of our future strategy and cited examples where stakeholder input had shaped our approaches and plans. Richard also provided an update on the Business Plan and the Final Determination that Thames Water (TW) received from Ofwat in December 2014.

#### 2. Update on water resource matters

Chris Lambert provided an update on the water resources programme, the key areas of focus and some of the specific studies and investigations planned over the next 4 years to inform the next Water Resources Management Plan (WRMP19). Chris also signposted the work programme published on TW's website [www.thameswater.co.uk/wrmp](http://www.thameswater.co.uk/wrmp) which is updated ~ quarterly.

Specific updates included:

- Studies into the Severn to Thames transfers (STTs) with current work focused on the water quality and ecology investigation and the definition of the operating conditions.
- Work to review and refine WARMS2, a planning model used by TW to understand resource availability. The model has been independently reviewed by HRWallingford (this report is published on the TW website). Other recent activity has included a review of the resource that can be provided by strategic drought schemes.
- Review of the Lower Thames Control Diagram (LTCD), the tool used to manage abstraction from the Lower Thames, to ensure compliance with the Flood and Water Management Act. The first stage of this work has focused on the environmental objectives and the next step will focus on the optimisation.

**Thames Rivers Trust (TRT):** When does abstraction reform come into play and has TW considered the impacts?

**TW:** Defra are finalising their proposals to reform the abstraction licensing system. Primary legislation is expected to be in place early next parliament with detailed reform introduced after 2020. TW has been engaging with Defra directly, and in conjunction with other water companies, to understand the potential impacts of the proposed reforms.

**GARD:** Can you comment on United Utilities (UU) and Severn Trent Water (STW)'s proposals which are important schemes to improve flow in the River Severn.

**TW:** Both schemes could potentially provide additional flow in the River Severn. TW has asked both STW and UU to provide additional information on these proposals as there are significant complexities. At the stakeholder technical meeting (7 January 2015) both UU and STW stated that they were potentially willing to share more detail on these schemes with stakeholders.

**Sutton & East Surrey Water:** What is the size of the STT transfers?

**TW:** There are several variants of the STT and the option could provide between ~ 100-300 MI/d.

**Albion Water:** Further information was requested on the strategic role of the Water Resources in the South East Group (WRSE), and specifically the representation on WRSE and the mechanisms to input to WRSE.

**TW:** TW outlined the structure of WRSE and confirmed that there are opportunities for dialogue and engagement with other organisations.

### **3. Water resource supply options**

Richard Smith summarised the long-term water resource challenge facing TW as set out in WRMP14 and explained that there are significant uncertainties in the forecasts. In the short term, TW is focused on measures to manage demand for water, and in the longer term TW expects to need to develop new resources. In WRMP14 TW proposed a large wastewater reuse scheme but recognised that uncertainties remained and committed to examine other options to ensure TW promotes the best value option. Richard presented an overview of the work programme to examine large water resource options and then focused on the first stage of the programme, Phase 1, which is planned for completion in April 2015. The purpose of Phase 1 is to review all options, to ensure TW has considered as complete a set of options as possible from the outset, and then to screen out options which, whilst feasible, do not represent best value at this time. The screening is important as it is not possible to examine all options to a consistent level due to time and resource constraints therefore this approach will allow for more detailed examination of the best value options.

To date TW has held 2 technical stakeholder meetings (30 September 2014 and 7 January 2015) to discuss the Phase 1 work in detail, including the methodology to review and screen large resource options and the application of this approach. Stakeholders' comments have been incorporated into this work as it has progressed and overall, comments have been supportive. A further technical meeting is planned for 26 March in Reading to review the output of the work prior to the final report.

The key steps in the Phase 1 investigations were discussed in more detail in the breakout session.

### **4. Breakout session on water resource supply options**

The breakout session reviewed each of the 5 steps of Phase 1 options work; handouts are published which present the process. A summary of the discussion is provided below, followed by key points raised in the discussions, where a point was raised specifically by one organisation this has been attributed, where there was wider discussion on a point, these comments have been recorded but not attributed.

**Overall process:** Overall stakeholders understood and supported the Phase 1 step wise process as a clear and sensible process. In summary:

- Stakeholders considered that a comprehensive list of options had been considered. A number of points and queries were raised on specific options which will be addressed. Resource options raised for further consideration were SUDs, greywater and catchment based options. Stakeholders also mentioned the need to consider further opportunities for demand management.
- The two stage screening process was supported with an understanding of the need to refine the list of options to allow targeted effort to examine feasible options in more depth.
- There were specific points on the screening criteria, and aspects such as resilience, and also the process for decision making, which will be addressed.
- The approach to define and progress further studies in 2 stages, primary and secondary, was supported as a sensible principle.
- The importance of regional planning and WRSE were also raised.

## General comments

**WRSE:** There was discussion about the openness of WRSE, the representation on the group, whether it will properly consider all options and the opportunity to specifically develop a regional solution. WRSE representatives (TW and S&ESW) reassured stakeholders that WRSE was an open process and there are opportunities to feed into it. WRSE representatives are the south east water companies and representatives of the regulatory bodies. DWI is not on WRSE but is interested in the work and does contribute on relevant issues. There is a workstream specifically looking at options appraisal to ensure all potential options are considered and a stream to look at the modelling approaches to develop a strategy for WRSE.

**Resilience:** The concept of resilience was discussed. Ofwat has a new duty for resilience and is setting up a Group to look at this. In terms of water supply, resilience is often framed in the context of the social impact but the impact on the economy could be huge. Research completed by NERA for TW suggested that the economic cost of rota cuts could be more than £300m/day for London. For water resources, TW currently plan on the worst droughts on record (past 100 years) but this may not be adequate and TW is looking at this. ICE raised the prioritisation of options in a drought recognising that there is a trade-off between cost and risk. The metrics for resilience is an area considered to need further work to enable a reasonable assessment, this was supported by stakeholders.

### Step 1: Review rejected options and consideration of new options

**Cotswold Canal Trust (CCT):** The resource assumed to be provided by the canal transfer in WRMP14 is considered by CCT to be significantly under-estimated and discussions are on-going to review these assumptions with TW and Motts to ensure canal transfer options are given proper consideration.

**RSPB:** Are you planning to consult the wider community to see if anyone else has any options for you to consider on both resources and demand?

**TW:** We consult a wide range of organisations through these forums, the WRSE and WREA, delivery of programmes such as the metering and water efficiency programmes, and we plan to reissue the OJEU notice, originally published in 2012, to promote the opportunity for new proposals for water resources. We consider that these mechanisms will provide wide visibility of potential options; both demand side and resource side and therefore should give good coverage of potential options. When we have more detailed information of the feasible options we are considering different approaches to have greater involvement of communities, possibility a form of ecosystem services assessment.

**Are you considering demand management as one of your options? With tariffs and the use of the Code for Sustainable Homes (CSH) raised as specific measures to potentially reduce demand?**

**TW:** This project is focused on new resources. Our strategy for the next 5 years (2015-2020) is focused on demand management measures and as such we anticipate there will be fewer opportunities in the future but we will examine the options for further demand management as part of the process to develop the plan. Specifically on tariffs, TW is planning a trial in the next 5 years however we need smart metering before tariffs can be introduced more widely. On the CSH, this has now been replaced by minimum standards. Some developers are trying to use CSH to promote their developments; however we find that perverse incentives can arise from the standards which can result in increased water and power use.

**Is the water transferred in bulk transfers a commodity and therefore traded in a market and who owns the water in the River Severn?**

**TW** - Abstraction licence holders have rights to the water and are able to trade the resource within regulatory constraints. Specifically on the River Severn, TW would require a licence from the EA to abstract water and also TW would have to pay additional monies to the "owner" of the resource.

**East Herts District Council - What degree of treatment would you need for compensation flow and reuse?**

**TW** – For compensation flow TW would be required to achieve effluent discharge standards set by the EA. For reuse TW is currently undertaking research work to understand the treatment required and this will take into account a number of factors including the characteristics of the local catchment.

**When evaluating the tanker options has TW considered environmentalist uproar, cost of shipping, and security of supply?**

**TW** – These are good points and TW will consider these broader points in assessing options.

**East Herts District Council - I would have liked to have seen SUDS feature within in the plan and water reuse appears to only be a small amount of the forum.**

**TW** – SUDs and opportunities for using surface water is a good point and has been raised previously and TW need to do further work to understand opportunities. There is a programme of work to examine wastewater reuse and this is planned for discussion at the next stakeholder meeting on 27 April.

**These seem to be all centralised options. Do you have a list of decentralised options - eg large new housing estates that could recycle grey water and what are your thoughts on greywater ?**

**TW:** We are starting to look at greywater and the opportunities. At a single house level we expect the resource benefit to be < 50 MI/d but a combined approach could provide a benefit that is more significant. This is an area for investigation.

**GARD: On grey water reuse is the plan to look at new developments or retrofit? Options for greywater were supported by other stakeholders and the point was raised that Local Authorities were not active in promoting these options.**

**TW:** TW are intending to examine both options.

**CRT: CRT explained that there is a collaborative study underway to examine opportunities to utilise the canal network to help manage resources.**

**GARD: Are you keeping the tanker idea in to keep objectors happy?**

**TW:** TW will consider all options on a consistent and transparent basis. TW is in discussion with the proposer on the detail of the scheme. At this stage the option looks expensive due to the infrastructure required to bring the water into London and TW is considering variations such as engagement with Essex and Suffolk Water.

**London Borough of Redbridge: Why is TW looking at 50 MI/d as the threshold between large and small options, is this linked to the threshold for business water supply licence competition?**

**TW:** The threshold of WSL has dropped to 5MI/d and will drop to 0 in April 2017; this is not related to this option appraisal work. The 50 MI/d threshold was identified as a good threshold to group broad types of options. It is intended that all options will be investigated and the same approach followed for screening and assessment regardless of size.

**There were a number of points around the validation of options and responsibility for developing options.**

**TW:** TW explained that it intends to assess all options to a comparable level. If an option is promoted by a commercial entity to TW, TW expects that organisation to provide sufficient information on the detail of the scheme to enable assessment by TW.

Responsibilities for developing regional schemes are not clearly defined. TW has raised this with the EA. TW does not consider that its customers should fund appraisals for schemes which are of regional and national benefit. This is a point which requires further clarification from Defra and the EA.

**The option for a national grid has recently been revived and stakeholders asked if TW was aware and keeping an eye on it.**

**TW:** TW is aware that this option has received revived interest. It is an extremely expensive option and TW considers that a more feasible option is a “domino” national grid where by inter-company and regional transfers provide opportunities for greater sharing of resource. TW considers that Government and the EA have a responsibility to determine if this is feasible and should be taken forward and if so, the mechanism to do this.

**Step 2: Coarse screening of options**

TW clarified that the options taken through the coarse screening are new options identified by TW and stakeholders, and options reintroduced following review of the WRMP14 rejection register. Constrained options included in WRMP14 including reuse, reservoirs, desalination etc are taken directly to the fine screening stage of the assessment.

**RSPB: Is the criteria you're using for screening available for scrutiny?**

**TW:** The coarse screening approach and criteria is the same as that used at WRMP14 and is in line with the WRPG, it uses a Yes/No scoring and is intended to screen out those options that are outliers. The methodology and criteria were consulted on at the technical stakeholder meeting (7 September) and were approved but we welcome further comments. The detail will be sent to RSPB.

**Does TW consider shareholders (both public and private) and their requirements within the screening process?**

**TW** – Shareholders are not considered specifically in the options appraisal process however the regulatory business planning process considers these issues implicitly. Part A8 of the Business Plan explains our approach to our shareholders over the next five years.

**Step 3: Fine screening**

**GARD & CCT:** The methodology to evaluate operating costs was raised as a concern. The use of 365 days utilisation for the STTs was considered to be unreasonable for the assessment of scheme costs.

**TW:** TW recognises that this is a point of concern. TW intends to use a range of costs, from the likely minimum and maximum utilisation to test scenarios. It was also mentioned that in reality for the majority of schemes the capital cost is the dominant cost. This issue was discussed at the January technical meeting and the approach to use a range was supported.

**NFU: With high cost options, the margins of error increase eg desalination and therefore should screening rule out these options?**

**TW:** It is important to consider the utilisation of options as this has a significant impact on some options which is why we intend to look at the high/low utilisation when working out the cost. This is an important area and we welcome feedback from stakeholders.

**East Hertfordshire District Council: Is one of the constraints that the options should be implementable by 2030?**

**TW:** Lead time is a factor that is considered within the screening process but this is not a constraint.

**TRT: A number of schemes will have multiple benefits, it is important that the methodology is able to adequately reflect these multiple benefits. Also TRT would expect the screening to include consideration of catchment options, particularly given the focus on flooding.**

**TW:** TW welcomed these points and will address these in the refinement of the criteria.

**North Wessex Downs Area of Outstanding Natural Beauty (AONB): 1) Could you have a benefit at one level and a disbenefit at another? 2) Concern raised regarding how the wider landscape impact is measured and a potential problem in combining environmental and social priorities as they can also be in opposition with the detail being obscured by being represented in one criterion.**

**TW:** 1) Options will be assessed against components of the 6 criteria, there will be benefits and disbenefits for the components of individual schemes. In consultation with regulators and stakeholders TW will complete the screening assessment taking account all the information which we consider will provide a robust and transparent basis for decision making. 2) TW will provide additional information on the Strategic Environmental Assessment (SEA) and related environmental and social assessments and discuss this matter in more detail with North Wessex Downs AONB.

**Other stakeholders also raised that using a score card in this way, with subjective judgement, could present an opportunity for challenge.**

**TW:** TW explained that it intended to undertake the assessment providing the output of the assessment in a clear and transparent way with a narrative setting out the evidence and decisions and to consult with stakeholders, in forums such as this, to test if the decisions are reasonable and to understand if there are any concerns. TW considers that this consultative approach will identify areas of challenge and allow these to be addressed. This was supported as a good approach.

**Are you looking for synergies under promotability – for example if one scheme gives a benefit to another part of the business, is that reflected in cost?**

**TW:** Secondary benefits are an interesting question. Currently they are not captured in the fine screening assessments at this time and we will consider how to address this point.

**Steps 4 & 5: Identifying uncertainties and knowledge gaps, and definition of further studies**

**Subsea Infrastructure - How is optimism bias calculated within TW?**

**TW** – Optimism bias is an area we are currently developing, improving the method applied WRMP14 and this will be presented to stakeholders at the technical stakeholder meeting in March.

**GLA: Have you considered resource constraints that might come into place in the future eg energy risks.**

**TW:** In WRMP14 TW included scenario analysis to consider future uncertainties, and whilst this is not included in this Phase 1 work, it will be considered as part of the development of the strategy. Specifically we are investigating multi-criteria scenario planning tools to allow consideration of such matters.

**GARD expressed support for the UU scheme involving Lake Vyrnwy to help improve reliability of flows in the River Severn. Other stakeholders highlighted that this option could have a number of opponents.**

**TW:** UU are developing this option in more detail and TW will continue to work with them. TW does recognise that this option could generate wide interest and we will need to fully understand the scheme and consult widely on the scheme.

## **5. Water Efficiency**

Andrew Tucker gave a presentation on TW's water efficiency programme. Key points included:

- Achievement of TW's regulatory water efficiency targets and the future challenges of scaling activity whilst retaining the personalised approach, which has been shown to be significantly more effective than generic campaigns.
- Learning from projects completed including the Save Water Swindon, Fixed Network trial and the Leaky Loo projects and how this learning is being taken forward and applied in the current programme.
- Key projects that TW intends to deliver to 2020 include integration of the Tap APP, collaborations with local authorities and business, and the multi faith project. Andrew emphasised that the most successful projects were partnership approaches.
- In 2015/16 TW will undertake smarter home visits to between 25k to 40k households as part of the progressive metering programme

**London Borough of Redbridge: Many Redbridge residents do not have a water meter. How do you translate the savings by applying these water efficiency measures if they are paying on water rates?**

**TW:** TW is planning to roll out meters across the whole TW supply area over time. If residents don't have a water meter they will still have a financial incentive to save water through their energy bills, as the cost of heating water for a bath or washing machine is more than the cost of the water.

**GLA: Does TW have any plans to improve the efficiency of new homes, for example to work with developers to subsidise water efficiency devices, and to consider the development of rainwater and greywater systems in larger developments.**

**TW:** We have tried to work with developers in the past and an issue that has arisen has been that even if developers' build water efficient homes there's no guarantee that the occupants don't replace the fittings. TW is looking at the opportunities for greywater systems and TW would be keen to work with GLA and other partners on this. TW does support the fittings-based approach in the new Housing Standards, which is being supported in the Further Alterations to the London Plan set for publication March 2015.

## 6. Sustainable abstraction

Steve Tuck gave a presentation on sustainable abstraction, setting out the regulatory framework to address sustainable abstraction, work to date across TW supply area which has delivered over 124 MI/d of reduced abstraction from the Darent, Chilterns and the Cotswolds, and an overview of the forward programme which includes investigations on the Lower Lee and Childrey Warren. Steve then finished his talk looking at the River Kennet and the solution to reduce abstraction from the Kennet.

Charlotte Hitchmough from Action for the River Kennet (ARK) then followed Steve's presentation giving ARK's perspective on the River Kennet project, opportunities for further work to protect the river and the importance of community engagement, citing some of the current activities including "Get Water fit for 2015".

**London Borough of Redbridge: Has reducing abstraction meant an increase of the quality of the River Thames because of the water flow. And has it increased your energy consumption as you're pumping water around?**

**TW:** Energy is a key issue and it has increased substantially. TW now pump significant volumes of water around the supply area which requires substantial energy, plus groundwater sources are inherently good quality water and have now been replaced with poorer quality water which requires more intensive treatment process with higher energy requirements. In terms of improving the Thames, we have not seen improvements in the River Thames; the benefits are designed to deliver results locally.

**TRT: Is the potential loss of 100MI/d from the Lee being taken into account in your forecasts?**

**TW:** The WRPG only permits the inclusion of known and likely sustainability reductions (SRs) in the forecasts of future resource availability. TW, and other water companies, were not permitted to take unknown SRs into consideration in the supply forecast. TW did consider the impact of unknown SRs, including the Lee, in scenario testing. We will investigate the abstractions on the Lee in this 5 year period which could result in a substantial reduction in the resource base.

**TRT: Would you still need a large new resource if reductions on Lee weren't happening?**

**TW:** The Lee is not included in the baseline supply demand deficit set out in WRMP14 and so even without the conclusions of the Lee investigations, which may result in 100MI/d resource reduction; we are forecasting a substantial resource deficit in the future.

**London Borough of Redbridge: Once the river is fully established how long will it take for natural biodiversity to reappear again?**

**ARK:** The system is complex, we don't know how quickly the river will respond. The improvements will be as a result of the combination of habitat restoration as well as increased flow.

**Redbridge Local Authority: The community engagement involved door knocking, were there problems with bogus callers etc?**

**ARK:** ARK undertook a number of activities to raise awareness prior to door knocking and put in place measures to provide reassurance to people if there were concerns, such as ensuring the door knockers wore uniforms, had appropriate ID and the presence of an ARK representative locally. So overall due to the measures put in place, there were no issues.

### General Q&A

A number of issues were raised in general Q&A as noted below:



**East Herts District Council: Insets - are there new companies operating in TWs supply area?**

**TW:** Insets are where another supplier can buy water from TW at a wholesale rate then re-sell it to customers. There are a number of insets in TWs supply area although the market has not grown very fast primarily linked to the regulatory framework and slower pace of house builds. From 2017 all non-household customers will be able to choose their supplier in a competitive market place.

**RSPB: In respect of retail competition, experience in the Scottish Market is that the wholesale business loses the relationship with the end users and therefore the opportunity to engage with customers and encourage water efficiency.**

**TW:** Currently TW see the retail market as an opportunity to offer enhanced water efficiency services as part of the offering to customers. Recent work completed with a range of businesses has provided good benchmark data on sectors and will aid more personalised offerings.

**TRT: Do you think TW running a commercial emergency plumbing scheme, HomeServe, negates the messages on water efficiency?**

**TW:** HomeServe helps customers with a plumbing issue on a private pipe/sewer. TW works carefully with them to ensure that they do not sell customers services that are offered for free - eg repair of customer leakage.

Richard Aylard closed the meeting, thanked everyone for their time and contributions. Richard also asked for feedback on the meeting and future topics of interest.

**Dates of forthcoming meetings:**

26 March 2015: Technical stakeholder meeting on Phase 1 water resource options in Reading. Please contact Lesley Tait if you would like to attend this meeting [Lesley.tait@thameswater.co.uk](mailto:Lesley.tait@thameswater.co.uk)

27 April 2015: Stakeholder forum in Reading. Please put this date in your diaries. Invites will be sent to all stakeholders in March.

End

## Attendees:

Name	Organisation
<b>Rob Allan</b>	Water Direct
<b>Ken Burgin</b>	Cotswold Canals Trust
<b>Philip Burston</b>	RSPB
<b>Trevor Cramphorn</b>	Costwolds Rivers Trust
<b>David Dwek</b>	Subsea Infrastructure Ltd
<b>Neil Edwards</b>	RWE Npower
<b>Karen Gibbs</b>	Consumer Council for Water
<b>Charlotte Hitchmough</b>	Action for the River Kennet (ARK)
<b>Bill Hume-Smith</b>	Mott Macdonald
<b>Malcolm Jeffery</b>	Albion Water
<b>Jo Ledger</b>	Anglian Water
<b>Darren Leftley</b>	Canal and River Trust (CRT)
<b>John Mitchinson</b>	London Borough of Redbridge
<b>Alex Nickson</b>	GLA
<b>Henry Oliver</b>	North Wessex Downs Area of Outstanding Natural Beauty
<b>Tom Ormesher</b>	NFU South East
<b>Peter Spillett</b>	Thames Rivers Trust (TRT)
<b>Lester Sonden</b>	Sutton and East Surrey Water
<b>Andrew Stevenson</b>	East Herts District Council
<b>Nick Thompson</b>	Group Against Reservoir Development (GARD)
<b>Sarah Wardell</b>	Environment Agency (EA)
<b>Dave Wardle</b>	ICE

## Apologies:

Name	Organisation
<b>Jon Ashley</b>	Ofwat
<b>Sarah Barfield</b>	Wycombe District Council
<b>Gaurav Choksi</b>	Guildford Borough Council
<b>Sarah Clark</b>	Affinity Water
<b>Dave Cook</b>	Wilts and Berks Canal Trust
<b>Linda Currie</b>	Oxfordshire County Council
<b>Keith Faricy</b>	Reigate & Banstead Borough Council
<b>Robert Jones</b>	Hertfordshire County Council
<b>John Philips</b>	Tandridge District Council