



Water Resources Stakeholder Forum, 6 June 2014

Note of meeting

1. Welcome and Introductions

Richard Aylard welcomed everyone to the forum and set out the agenda for the meeting.

2. Update on water resource matters

Chris Lambert provided an update on water resource matters. A summary of the main points is provided below.

- Business Plan – TW submitted the updated plan at the end of June addressing the feedback received from Ofwat in April. Ofwat will now review the plan resolving any queries and will publish the final determination in December. The plan will then come into effect from April 2015.
- WRMP14 – Defra and the EA have scrutinised the Statement of Response (October 2013) and the revised draft WRMP14 (December 2013) and in March requested additional information including a work plan and a stakeholder engagement plan. This was provided in April 2014. A number of companies have received approval from Defra to publish their WRMPs and we understand that we can expect to receive a response in July.
- Annual Performance – We have a requirement to produce an annual report setting out our performance against water resource targets. For 2013/14 all targets have been achieved, or are on track, with the exception of SOSI under critical period conditions. This was principally due to heightened leakage levels in Guildford WRZ in summer 2013 which have now been addressed. On 30 June TW submitted the annual performance report to Defra and the EA and published it on TW's website.
- Water resource projects and studies - A detailed workplan has been produced setting out the range of activities and studies to be completed over the next 5 years in advance of WRMP19. Chris provided an update on key projects these included work to review water resource options, studies to examine water quality and ecology impacts of transferring water from the River Severn catchment to the Thames catchment and innovative tariffs trial. Chris also provided an overview of the various studies and research projects underway with the Defra, EA and other partners which include a project to look at drought and resilience.
Note a technical working group is to be established on the water quality and ecology of the River Severn water transfers and interested stakeholders will be invited to attend.¹

3. Southern Water's metering programme

Jo Fielding-Cooke presented an overview of their metering programme which involves installing nearly 500,000 Automated Meter Reading (AMR) meters and exchanging 100,000 existing meters for new AMR meters. Key points were:

- Southern Water (SW) adopted a partnership approach and put the customer at the centre of the programme rather than considering the programme as a capital project.
- To date nearly 350,000 meters have been installed and more than 60,000 existing meters have been exchanged.

¹ The initial technical sub-group meeting of the Phase 2 water quality and ecology study took place on 30 June in Thames water's offices at Clearwater Court, Reading. If any stakeholders wish to be added to the invitation list for future meetings please contact Lesley Tait at: Lesley.tait@thameswater.co.uk



- SW assumed a 10% reduction in demand; the University of Southampton has been commissioned to review and validate the water savings. This information will be available at the end of 2014. Identification of leakage has also been a key focus for SW to fully realize the benefits.
- SW offered customers a staged approach to switching to a metered tariff, following receipt of a bill at 3 months, 6 months etc. There has been low take up of this phased approach.
- SW assumed a 50:50 split of winners and losers; in reality 60 % of households have seen a reduction in their bill averaging £12 a month and the remaining 40 % of households have seen their bills increase by an average of £14 a month.
- Since 2010, 36,000 customers have benefitted from a Green Doctor visit and IncomeMAX have secured customers over £2 million in unclaimed benefits and tax credits since 2010.
- Overall the customer experience and feedback has been positive with ~4000 complaints which are considered to be relatively low.
- There has been limited evidence of a connection for customers between water savings and energy savings.
- The programme is operating well and some of the more challenging issues such as metering flats are now being addressed.

4. Leakage

Andrew Oakes gave a presentation on TW's current leakage programme followed by Tony Owens on the formulation of the forward programme.

- Leakage has been reduced by over 300MI/d (32%) in the last ten years.
- Leakage control is expensive. TW has spent ~ £2bn in 10 years on leakage control equivalent to ~ £50/year/customer.
- There are a number of metrics to measure leakage and compare the performance of water companies. One of the fairest measures is the % of water delivered which shows TW is comparable to other companies and equivalent to other companies operating in dense urban areas.
- There are a number of types of leakage: visible leaks, which account for ~ 2% total leakage, hidden leaks and leakage at customer properties. The weather and specifically water temperature has a significant impact on leakage levels.
- Mains replacement is critical to driving down leakage. The Independent Mains Replacement Review, completed in conjunction with Ofwat, highlighted valuable learning which has informed our forward programme.
- London supply area is divided into ~1,600 DMAs, these are a key tool in leakage management – case studies illustrated the detection required to understand the water distribution in a DMA and identify leakage.
- Private mains are a key issue; leakage from these mains is included in our reportable data but TW is not responsible for these networks. Recent work with the Peabody Trust has highlighted the significant leakage benefits that can be identified.
- Transformation of London over the past 100 years, and the on-going development in the city, presents key challenges in understanding water use and managing leakage effectively.
- Metering will provide a step change in helping to manage leakage.



- In AMP5 Ofwat approved funding to hold leakage constant but not to reduce leakage levels.
- For AMP6, customers and stakeholders gave a clear preference that they supported further action to reduce leakage and also that they wanted an affordable bill. In response to these preferences, we have proposed a programme of leakage reduction to achieve 606 MI/d by 2020, a reduction of 59 MI/d. In addition there is also a significant programme to address leakage recurrence.
- An understanding of the costs of leakage activity is key - leakage recurrence which delivers benefit for ~ 1 year is significantly lower compared to mains replacement which delivers benefit over 80 years, however the short term strategy is not a sustainable approach and we do need to invest in mains replacement and other such activities to achieve long-term benefit.
- We calculate the Sustainable Economic Level of Demand Management (DM) to inform the extent of DM activity proposed in our WRMP ensuring the best value plan for our customers. This includes the SELL. The SELL is the point beyond which leakage control becomes more costly to provide the water needed by other means. We use a range of models to determine SELL and take account of a wide range of information to determine the optimal cost benefit.
- Metering will provide rich data on customer behaviour and usage and help to target customer side leakage.

5. Water resource options

A wide range of resource options were considered in the formulation of the WRMP14. The preferred programme comprises groundwater schemes, water transfers and a wastewater reuse scheme in 2027 as the preferred large resource option. Whilst the programme includes reuse, the large number of uncertainties were set out in the plan and TW committed to undertake further work to examine three large option types; raw water transfers, reuse and reservoirs in more detail. Paul Chadwick (Mott MacDonald) set out the phased programme which has been defined to examine large resource options and then introduced Phase 1 which will be completed by April 2015. Phase 1 involves 1) a review the large resource options (50 MI/d +) 2) consideration of the risks and uncertainty around the costs and benefits 3) refinement of the options appraisal process to produce a more manageable list of feasible options for detailed assessment in recognition that it is cost prohibitive to develop them all to the same level of detail. This work will be completed in consultation with stakeholders and regulators. Technical meetings are planned for September and December 2014.

TW will lead a parallel process for the smaller resource options.

Breakout sessions

Key points raised in the breakout sessions are noted below.

Leakage

- The presentation was well received; specific issues that were commented on were the low contribution of visible leaks to overall leakage and the need to improve communications on leakage.



- The long lead time to identify large leaks on commercial premises was thought to reflect the low cost of water and also the lack of interest/knowledge of water consumption.
- Pressure management was raised from a number of points of view 1) management of pressure to top of tall buildings and how this affects leakage and 2) the balance between pressure management and having sufficient water for firefighting.
- Wastage was considered to need greater focus with examples cited of automatic urinal flushing in pubs and clubs overnight when not in use.
- The incentive for TW (from a revenue viewpoint) to successfully implement leakage management practices at commercial buildings and address wastage at HH was questioned.
- SELL is not transparent and further information is required to explain this and ensure transparency
- Opportunities for TW to extend its reach through more partnership activities to promote water efficiency, for example stakeholders implementing water efficiency practices in their organisations, was raised. Plus there was a plea for more co-operation between companies in promoting water efficiency and not restricting water efficiency offerings to within own supply areas.
- An issue raised was how to deal with infrastructure in new developments – London Vauxhall Nine Elms development was cited as an example where there is unclear responsibility between the water utility and the developer.

Water Resource Options

- Stakeholders raised concern that the presentation was too technical and that TW needed to ensure clear communication to enable engagement of all interested stakeholders.
- There was discussion on the options appraisal methodology and specifically if there is advancement in the methodology beyond the methods outlined in the WRPG how this would then be treated by the regulators.
- Some stakeholders supported a multi-criterion approach to balance the wide range of factors and there are case studies where such methodologies have been used successfully. Thames Estuary was cited as best practice.
- The concept of ecosystem services, which considers the positive benefits the option may provide rather than concentrate on the negative impacts, was well received with a number of suggestions for benefits. There was also a suggestion that a wider context needs to be taken in the assessment e.g. consideration of the benefits to agriculture, other water users and also the environment.
- The need to consider planning in a more multi-dimensional framework was suggested, such that combinations of actions and pathways are considered rather than one-dimensional silos. Plus resilience was cited to be very important.
- Also the need to take account of future uncertainties and costs was flagged.
- Stakeholders requested that TW remains open to new options throughout the process and a specific option from Albion Water was highlighted for future discussion.
- The time horizon of 25 years was highlighted to be too constraining, planning should be on a longer time horizon
- VOWH DC raised concern that the promotion of a large resource option in the Thames Valley that will serve the population of London will be a difficult message to present and gain support for.



- Whilst the focus is on strategic schemes, a view was raised not to neglect local solutions such as rainwater and grey water harvesting and the parallel was drawn to the decentralisation model of the energy sector.
- Transparency of decision making was highlighted as important with the need to involve customers, how this would work in the more competitive market place was also questioned.

Note definition of AISC: Every option contributes to an Average Incremental Social Cost. The AISC is derived from Capex, Opex, environmental and social estimates to produce a unit cost per Ml/d for each option. This enables all options regardless of size to be compared on a like for like basis. The options are modelled using the Economics of Balancing Supply and Demand (EBSM) to determine the least cost options for customers.

Next steps/actions

1. Attendees to confirm interest in attending technical meetings on water resource options to Lesley Tait. lesley.tait@thameswater.co.uk
2. The next forum will be combined with TW's annual stakeholder event and the provisional date for this is 6 October 2014 in London. Invitations will be sent in August.
3. The agenda items requested for the next forum were: climate change, water efficiency, demand forecasting and actions implemented by TW as a result of stakeholder engagement.



Attendees

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| Andy | Hanson | London Fire Brigade |
| Andrew | Stevenson | East Herts Council |
| Derek | Stork | Group Against Reservoir Development (GARD) |
| John | Phillips | Tandridge District Council |
| John | Lawson | Group Against Reservoir Development (GARD) |
| Katherine | Pearce | South Oxfordshire and Vale of White Horse District Council |
| Michael | Potter | Royal Borough of Windsor & Maidenhead |
| Peter | Gray | Royal Berkshire Fire & Rescue Service |
| Robert | Jones | Hertfordshire County Council |
| Vanessa | Rowell | Wokingham Borough Council |
| Alex | Nickson | Greater London Authority |
| Andrew | Cockburn | Consumer Council for Water |
| Dave | Wardle | ICE London Panel |
| Dr Colin | Fenn | WWF-UK |
| Malcolm | Jeffery | Albion Water |
| Sam | McGauley | Severn Trent |
| Neil | Edwards | RWE N Power |
| Tora | Hallatt | Environment Agency |
| Bruce | Tremayne | Campaign to Protect Rural England (CPRE) |
| Christine | Drury | Campaign to Protect Rural England (CPRE) |
| Dr Dave | Cook | Wilts and Berks Canal Trust |
| Dr Peter | Spillett | Thames Rivers Trust |
| Helen | Spring | London Wildlife Trust |
| Ken | Burgin | Cotswold Canals Trust |
| Lesley | Inwards | Canal & River Trust |
| Raul | Matamoros | Wildlife and Countryside Link |
| Trevor | Cramphorn | Cotswold Rivers Trust |