

## Abstraction Reform Advisory Group

# Meeting note: Abstraction Reform Advisory Group 12 June 2013

### Welcome and introduction

1. GE made opening remarks and after roundtable introductions handed over to facilitator PB. PB explained that since the ARAG meeting in March a more detailed presentation of the abstraction reform options had been developed and circulated to ARAG members. Further technical work had also been carried out to refine the modelling.
2. The aim of the meeting was to explore the effectiveness of communication of the abstraction reform options and the modelling results. Views on communications and areas for further development ahead of the upcoming sector stakeholder workshops in July would be useful.

### Discussion of Abstraction Reform Options

3. NP gave a short PowerPoint presentation summarising the reform options. There were two main options under consideration 1) current system plus and 2) water shares. The Pay as You Go option had now been dropped.
4. After the presentation ARAG views were sought on the content of the options, and advice on how best to tailor communications ahead of the multi-sector workshops in July. The following is a summary of the key points made during group discussions:

### Feedback on policy related issues

- The options should account for ground water return and how it in turn affects abstractor allocations
- Environmental allocation should be factored in/cross referenced, for example impact of Water Framework Directive
- The options seem to be presented as being mutually exclusive. In reality a combination or mixture of all the options could be needed since catchments have different characteristics.
- Potential impact on new entrants needs to be made clearer/ assessed
- Transitional issues are a big concern so links should be explained

- Further explanation on how water trades would work under the water shares option
- Some elements of current system plus option can already be done so what is new?

## **Feedback on communications and presentational issues**

- The benefits of each options should be made more explicit
  - Develop technical and non technical Powerpoint presentations – for experts and generalists
5. There was a further discussion in plenary of the issues above, and it was agreed that Defra and EA would consider how best to address the issues in time for future stakeholder engagement. EA welcomed feedback on the presentation, it had been a challenge to get the balance right between messages aimed at expert and generalist audiences so developing two separate versions of the presentation might be useful for future engagement. Action – Defra and EA

## **Discussion of modelling elements and initial results**

6. JP gave a general presentation, setting out an overview of the modelling methodology. The model combines hydrological models with a bespoke agent-based abstractor behaviour model using agent-based modelling (ABM). After lunch JP gave a further four mini presentations covering different aspects of the modelling results and outputs. The four areas analysed were:
- Agent Experience – The modelling of agent decision making processes depends on the sector and the product. Irrigation, industrial processes, in-product use, cooling and washing are all modelled. The model generates outputs showing how agents are affected by the changing availability of water and the different reform options.
  - Adaptation and Investment - The ABM models a number of adaptation and investment decisions. The agents make decisions based on the most attractive investment in terms of profitability. The model can also allow agents to reach decisions that are not economically optimum.
  - Trading - Trading is a difficult concept to model and illustrate. The concept of matrices showing who can trade with whom within a catchment was explained and illustrated. Such matrices are generated and used within the model. Other potentially more useful outputs include the number, volume and average price of bids, offers and trades and matrices showing the number, and direction, of trades between different sectors.

- iv. Protecting the Environment - The model can also estimate metrics such as the area of catchment breaching No Go Below Flow limits if no interventions are put in place and compensation charges for license changes imposed under the current system.
7. After each presentation, there were table discussions of the modelling results followed by wider discussion in plenary. PB asked attendees to provide feedback focusing on three key issues:
  - i. The effectiveness of how the results were communicated
  - ii. Any policy questions that remain unanswered
  - iii. Any areas of particular concern for abstractors.
8. The following is a summary of the feedback received during plenary discussions:

### **Feedback on modelling results and outputs**

- Further case studies, with descriptive narratives needed. The raw data can be difficult for generalist readers to digest.
- Need to consider transition issues in the modelling since investors are making capital investment decisions now
- Each sector should have its own modelling results
- Useful to understand impact of market forces
- Need narratives to annotate graphs
- Need uniform scaling
- Simplify the economics information
- Need an explanation of what trading means for PWS
- How does the modelling factor in current unsustainable abstraction?
- Need to set out what the implications of WFD, RSA on licences
- Would be useful for different sectors to know the trading pattern of others
- No account in model for changes/ innovation in the future
- Production of various vegetables are down to super companies not individual farmers

- How does the modelling capture trading of stored water.

## Next Steps

9. The meeting ended with closing remarks by HLG and LO about next steps.
- Validation of the modelling will take place over coming weeks. Defra / Risk Solutions will seek further assistance from ARAG members and potential abstractors from the catchment workshops.
  - There would be a need for aggregation. Individual catchments only tell a local story. For Impact Assessment and consultation Defra will need to aggregate catchments. Defra is planning to focus on four catchments instead of the planned seven (Stour, Cam and Ely Ouse, Hampshire Avon and Usk). However it is intended that results from Trent and Derwent, and Dee catchment case studies will still be used to inform final decision making.
  - Over the next few months there will be ongoing stakeholder engagement, starting with multi sector workshops in July.
  - The next ARAG meeting on 18 September will include a discussion on the upcoming public consultation, market development, links to other policy areas (drought, discharges, updates on environment protection and hydrological issues).

**Attendees**

Sarah Mukherjee – Water UK	Luke DeVial - Wessex Water
Lucy Lee – Blueprint for Water (WWF)	Andy Limbrick- Energy UK
Nicola Owen - Mineral Products Association	Debbie Stringer - Confederation of Paper Industries
Derek Holliday - Country Land and Business Association	Paul Hammett – National Farmers Union
Phil Burston – Blueprint for Water (RSPB)	John Adlam - Horticultural Trade Association
Jackie Coates - Chemicals Industry Association	David Bellamy - Food and Drink Federation
Neil Edwards - EDF	

**Government**

Gabrielle Edwards (Chair) – Defra	Henry Leveson-Gower – Defra
Nicola Stirling - Defra	Lisa Oakes– Defra
Karl Nsiah – Defra	Christine Tacon – Defra (External Regulatory Scrutiny)
Karen Saunders – Environment Agency	Jonathan Dennis – Environment Agency
Nicola Poole – Environment Agency	Anna Wetherall – Natural England
Rachel Wright – Ofwat	Dorcas Batstone - Ofwat

**Modelling Team consultants**

Paul Brand – Risk Solutions	Helen Wilkinson – Risk Solutions
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Chris Rees – Risk Solutions	Jon Pocock– Risk Solutions
Jonathan Hyde – Risk Solutions	Gareth New – Risk Solutions