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Workshop on catchment monitoring & modelling: Water resources

11 May 2022

AURORA Innovation Centre, High Cross, Cambridge CB3 0ET

The UK has 145 billion cubic metres a year of renewable water resource. In many areas this resource is under pressure from high unsustainable abstraction rates, which are predicted to increase with population growth and climate change. Plentiful fresh, clean water is essential to life and underpins all human activity (including economic activity), as well as the functioning of most ecosystems. Water availability has a significant impact on water bodies not reaching 'good status'. Total abstractions per head of population in England are about 266 cubic metres per year, with demand for water resources being highest in South East England. Abstracted water, from surface waters and groundwater, is used for drinking water and other household uses (35%) and industrial uses including agriculture.

Too much water is also a problem - flooding can be a significant risk to people, homes and businesses and is estimated to cause an expected £1.3 billion of damage to property annually in England. Restoration of upland catchments and head waters are helping to manage floods and harmonising summer flows. To further help balance flows sustainable drainage systems can absorb and slow the passage of surface runoff rainfall away from the sewer network and into natural water courses. Intercepting and capturing high flows caused by extreme rainfall events can reduce flooding and relieve pressure to abstract during periods of low flow. Recently projects have been set up to trade water between users and licence holders within catchments as a way of adjusting within the limitations of the existing abstraction licencing framework.

This workshop looks at the holistic approach to catchment management and the benefits this brings when balancing demand and flood management. Historically, abstracting available water and speeding up the flow of flood water away from the risk area has proved counterproductive with a far greater distributive impact on those downstream. Having data and being able to predict the impact of a storm and surface water flows, both short term and long term, allows a targeted approach to investment.

Chair: Matt Ellison, Ground Control

09:30 Tea, Coffee & registration

10:00 Introduction by the Chairman. **Matt Ellison, Ground Control**

10:20 National River Flow Archive: From River to User. **Alannah Killeen & Steve Turner, UKCEH**

10:50 Open channel flow monitoring. **Matthew Brownhill, Teledyne ISCO**

11:20 Tea & Coffee

11.50 Supporting sustainable abstraction in agriculture. **Melvin Kay, UK Irrigation Association**

12:20 Reclaim the Rain project. **Tom Mann and Ruby Shepperson, Suffolk County Council**

13:00 Lunch

14:00 Water resources modelling for the Environment Agency. **John Griffiths and Steven Roberts, Kisters**

14:30 Water resources trading platform. **Simon Murray, Wheatley Solutions**

15:00 Discussion

15:15 Close

REGISTRATION: The cost of attending the Workshop is £110 inc VAT for SWIG members in person or online. £210 inc VAT for non-members in person or online. £27 for students. Literature may be distributed for a fee of £85 and a limited number of table top displays are available at £210 each. Registrations can be made by Tel 01934 830658 or to rosa.richards@swig.org.uk or using the [on-line booking form](#). **Please advise of any special dietary requirements at time of booking.**

Cancellation policy: Refunds can only be made if cancellations are notified at least 5 days in advance of the Workshop date.