

Water Strategy Group (WSG)

Situation Report - December 2010

30th Dec 2011

- 1) **Establishment;** Group comprises;-
 Tony Clark (TC) Basingstoke Canal Boat Club, and Canal-side resident.
 Martin Leech (ML) SHCS
 John How (JH) IWA

Established November 2011, at request of Philip Riley & Ian Brown, with remit to;-

Develop a 'Water Strategy' for Basingstoke Canal, to avoid water shortages, enhance through navigation and co-ordinate all 'water related' investigations.

2) **Key investigations with Environment Agency (EA)**

The Canal has always had water shortage problems, particularly during the dry summer months, but these problems have increased, since restoration. Now that significant capital refurbishment is being invested by Surrey and Hampshire County Councils (£1.6m) for the benefit of users and an 'open access' boating policy is being implemented, it is essential to ensure the canal has adequate water throughout the year. Therefore it is essential to obtain additional water supplies upstream of Deepcut.

It was hoped that additional water would be made available by the Environment Agency (EA), through two initiatives;-

- Initiative A Increase the 'Back pumping at Woodham', (from below lock 1 to above lock 6) by TC.
 - Initiative B Transfer of 'Frimley pumping' abstraction license (in part or in full) to a borehole, to be situated above Deepcut, proposed by EA.
- **Initiative A.** At a meeting between TC and the EA in 2009, the possibility of increasing pumping at Woodham was raised. The EA commented that a straight forward increase to the existing licence to abstract from the Wey would involve the full consultation process and there may be a requirement to fit screens to the pumps to minimise the input of invasive plant species into the canal. The existing licence is considered substantial and the outcome of an application for a significant increase is uncertain, with a timescale of 4-6 months minimum.
 - One of the results of TC's research undertaken over the last three years is that the water losses due to evaporation, tree transpiration and bed seepage can now be quantified.
 - Consequently, 85% of the current licence volume is required to compensate for these losses, with 15% available for navigational use of the locks (around one lock-full per day in summer)
 - The need for additional water from the Woodham pumps to support;- back pumping for St John's; modest usage of the canal in future and 'open access' is clearly identified.
 - The first option (from presentations during 2011) is to apply for an increase to the existing licence.
 - To avoid the burden of renegotiating the licence, an alternative approach was developed, on the principal that all additional water pumped will return to the Wey via the weirs/lock usage and will not be consumed- "net abstraction approach". This approach was contained in presentations made during March 2011 to SCC/HCC/BCA.
 - At a meeting with the EA in December 2011, we learnt that the existing licence is "non consumptive"- meaning that there are zero assumed losses from evaporation, tree transpiration etc, and, all water pumped is assumed to return to the Wey. An abstraction licence and a water volume meter are required for non consumptive activities - example given being an ornamental waterfall where the water is continually recycled by pumping.

- Consequently, the approach to pump more water whilst operating within the constraints of the existing licence would require a change in the way the EA consider licences and would not therefore avoid delays/consultation.
- It would appear that a new licence application is the available option, which would require action from the licence holder, SCC. The only alternative being to bring the treatment of the BCA by the EA in line with BW. BW is exempt from abstraction licences as they are recognised as a “navigation authority” under law. The EA do not consider the BCA to be such a “navigation authority” for the Basingstoke Canal and, consequently, they do not allow an exemption for abstraction licences. Linda Kemeny (Chair JMC) is considering these options.
- **Initiative B.** Frimley abstraction license is for ‘surface water drainage’ and cannot be transferred to a borehole. The EA offered to review data available for local boreholes along the canal and report back. This would then require a formal borehole application to be made to the EA.

3) Other key investigations

- 3.1) The net abstraction approach was a by-product of the work done to solve a 5 year old problem with the lack of maintenance of the 900mm depth of water in the Woking pound, which has been successfully solved this year. The reasons given by the BCA were the need to comply with the conditions of the abstraction licence and the cost of the electricity. Extensive research by TC, including daily water level measurements over 15 months, demonstrated that the water levels up to Brookwood can be maintained in summer without contravening the licence or pumping any significant additional water and that the existing electricity cost of around £4000 per year at Woodham can be halved by using lower cost electricity at night.
- 3.2) A six month project to investigate automation of the three pumping stations (Woodham; St John’s and Frimley), plus automatic water level measurements and boat loggers will be concluded in January 2012.
- 3.3) To achieve through navigation, particularly during the dry months, it is essential to obtain additional water, upstream of Deepcut, quantity to be established. A Report by Tony Harrison, (June 2008), provides data (to be verified) that; -
 - Provides a basis for assessing a water balance throughout the canal.
 - Can be adjusted in light of the Woodham pound data collected over a 15 month study.
 - Suggests that additional back pumping at Woodham should keep the lower third of the canal in water, but for through navigation additional water would still be required upstream of Deepcut. Existing abstraction license from Wey is nominally 1.7MI/day.
- 3.4) If the Mytchett and Hampshire pounds (upper half of canal) are kept in water during the dry months by the various groundwater supplies near Greywell tunnel, then in addition to any increase in back pumping at Woodham, an extra supply is required upstream of Deepcut, dependant on the flow from Greywell (water volume to be established by WSG).
- 3.5) A range of ‘water opportunities’ are being identified, together with a process to priorities their suitability for investigation. Others will be ‘co-opted’ to the WSG to help investigate the different opportunities. A short list of opportunities that might produce sufficient additional water in the shortest possible time, (all to be investigated) include; -
 - Direct approach to EA for additional abstraction and borehole(s). Initiatives A & B above. This may require high level approach from Surrey and Hampshire County Councils to the EA to emphasise the importance for additional water supplies.
 - Direct approach to South East Water, to review their abstraction at Greywell (6.82MI/day)

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- Why Frimley pumping to drain the railway embankment now delivers little water. Is the drain system bypassing the pump sump?
- Aldershot Urban Development (AUD) should be requested to include a borehole to supply the proposed new canal arm and extra water to the canal.
- Discussions with Drainage Engineers (Surrey and Hampshire) to identify if any areas local to the canal are usually 'wet' that could provide pumped drainage to the canal, (generally as at as Frimley).