

Friends of Latchmore

Report of meeting with Natural England & JBA Consulting: 28 May 2013

Present:

Natural England (Andy McDonald, Adam Wallace, Jinti Gifford)

JBA Consulting (George Heritage)

Friends of Latchmore (John Shepherd, Fiona McDonald, Ailsa Farrand)

- 1) The main topics of the meeting were
 - a) the recently completed JFlow detailed hydrological modelling that we had always thought was necessary
 - b) the reports of the JBA Hydro-ecological surveys (recently received from NE).
- 2) A report on the modelling work (based on Lidar data at 0.5m resolution) is being finalised and will be made available to us as soon as it has been completed
- 3) George Heritage of JBA gave a substantial and very informative presentation of the results of the JFlow modelling (copy requested). JBA have also assembled OS mapping data since ca 1870 but the registration looks a bit dodgy... JFlow allows them to model the flow speed, depth and shear stress (etc) of the stream for various rates of flow, which they have done.
- 4) The results show considerable re-occupation of former channels & overtopping at high flow rates (ca 4 m³/sec ?) for the existing topography (in accordance with our observations) and a mix of regions of high & low shear stress (broadly as expected for a semi- natural well-evolved system). It is sadly however not possible to determine what mix would represent a naturally evolved unmodified system.
- 5) They also show that there would be less reoccupation & overtopping if the proposed infill/excavation project were carried out (i.e. the opposite of what was intended)
- 6) Results for an alternative intervention, involving only selective & partial obstruction of the existing course (e.g. using logs etc) at about half a dozen points just downstream of places where alternative channels commence, have also been obtained. This would achieve much greater occupation of multiple alternative channels at high flow rates (a dynamically stable anastomosed configuration) which JBA consider to be a more natural and desirable state, being generally rather wetter and more diverse.
- 7) It appears likely that NE will now encourage the FC to develop and pursue some such alternative intervention proposal, but this has not yet been decided.
- 8) Meanwhile, the FC has now commissioned similar modelling work for the upstream inclosures, which is a very necessary and welcome development.
- 9) NE said that the FC does not intend to submit planning applications until near the end of the year (to be confirmed when we meet with the FC on 6 June).
- 10) The JBA survey reports were discussed more briefly. We observed that
 - a) they were quite good so far as they went, containing useful detailed and site-specific information, but only provided a basis for the proper environmental assessments that are still needed
 - b) they tended to jump from observations to proposed remediation measures without adequate explanation or consideration of the expected effects.
 - c) Some of the proposals for remediating drainage of the mires (e.g. concrete dams and plastic sheet piling) appeared to be rather heavy-handed and were unlikely to be

well-received locally...

- 11) NE stated that the reports are now in the public domain so can be shared with anybody who wants to see them.
- 12) We asked about the legal position: NE said that our lawyers had raised issues that they had not considered before which had taken some time to consider, including taking counsel's advice, and that NE lawyers now planned to meet with DEFRA in June, and that we should hear something "within the next month"...

JGS Additional Notes subsequent to meeting

- A. It would clearly now be possible (and quite straightforward) for JBA to estimate the equilibrium area wetted and the extent of over-topping for any of the modelled stream-bed configurations, for a suitable wide range of flow-rates. These could be combined (using interpolation as required) with daily rainfall data & run-off estimates (at the exit from Alderhill Inclosure, say), to estimate statistics such as the annual frequency distributions of wetted area, areas with wetted days exceeding various thresholds (etc) for any years for which rainfall data are available.
- B. This extension of their work should be highly informative in relation to the likely ecological consequences of any proposed intervention. It would also be possible to begin to make routine real-time predictions that could be validated by observations made as part of the pre-operational monitoring programme.
- C. There are however a number of questions that need to be addressed in relation to any possible less invasive remediation interventions, especially in relation to the scouring of soft sediments that have accumulated in old channels, and the likely future accumulation of sediment in partially blocked channels (not to mention the acceptability of log-jams (etc) to other stakeholders).

John Shepherd for FoL
2 June 2013