

The Hyporheic Network: Record of workshop discussions, 11-12 July 2007

Workshop number: Day 1, Group 1

Workshop leader: Prof Louise Heathwaite, Lancaster Environment Centre

Workshop goal:

“Identify the key research gaps on GW-SW interactions and hyporheic zone processes, and scope possible project objectives for a RC/EU proposal

Outcomes:

- **List of critical knowledge gaps**
- **Ideas for new research proposals**
- **Volunteers to work together to develop project proposals”**

Record of workshop:

Identification of key research gaps:

- Communication
 - Between scientific disciplines
 - Between researchers and science users

- Greater interdisciplinarity needed. Critical areas:
 - Sedimentology
 - Biodiversity
 - Microbiology
 - (these are all critical issues to be integrated with ecology and hydraulics)
- Consider analysis of HZ as a 4D Column (river to bedrock with dynamic surface conditions)

- Modelling co-efficients

- Timescales

- Sensor methodology
 - Precision
 - Fine resolution
 - Placement and protection in stream-bed
- Possible umbrella project for research consortium
 - HZ dynamics in a changing environment