

## Project 18 – Quantifying the magnitude and duration of river recharge to the Adelaide Plains

**Location:** The project will be based at Adelaide, SA

**Required area of expertise/background:** An Honours or MSc degree in Hydrology, Hydrogeology, Hydrochemistry, modelling

**Project:** River infiltration is the primary mechanism for fresh recharge to the Quaternary and likely Tertiary aquifers on the Adelaide Plains and elsewhere in SA. However, insufficient gauging data exists to quantify the relationship between creek/river flow and groundwater recharge, so existing estimates of the recharge volume are poorly constrained. This makes it difficult for numerical models, used for decision making, to adequately simulate historical recharge or recharge under projected future climates. Field based methods are required to develop the hydraulic and hydrochemical evidence to quantify the spatial and temporal dynamics, and to improve understanding of this critical process (e.g. is flow duration more important than flow magnitude for recharge fluxes?).

**2017 RTP full time RTP Stipend Rates\* (\$26,682). Approximate annual top-up amount:** To be negotiated

**Principal Supervisor:**

TBC -

**Co Supervisors:**

Roger Cranswick - DEWNR



**Government of South Australia**  
Department of Environment,  
Water and Natural Resources



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