EdenvaleYoung

Andrea Goodmansen
Hydrologist, Hydraulic Modeller

Qualifications:	BSc, MSc,
Professional Status:	Graduate Scientist
Position:	Hydraulic Modeller
Experience:	2.5 years

Professional Overview:

Andrea is a hydrologist and geomorphologist with an educational background in river catchment systems. She has geomorphological experience from work carried out in California as part of her Masters degree. Her capabilities were applied at the Bristol Avon Rivers Trust where they were used to inform prospective river restoration schemes in the catchment. She has extended her experience in the US to include UK hydrology using FEH methods as well as obtaining hydraulic modelling skills.

Key skills:

- Development of rating curves for EA gauging stations for flood forecasting purposes
- Hydraulic modelling, including ISIS, TUFLOW and ESTRY
- Geomorphology and sediment dynamics
- Geographic Information Systems
- Technical report writing
- Field investigations and topographical surveys

Key project specific experience:

South Downs and Solent Flood Forecasting Project (2015-2016)

Role: Graduate Hydrologist

Evaluation of stage discharge relationships and development / review of twelve rating curves for gauging stations within the study area.

Sundridge Fish-Bypass Assessment (2015-16):

Role: Graduate Hydrologist / Hydraulic Modeller

This project involved the modification of an existing ISIS/TUFLOW model of the River Darrent to determine how the installation of a fish bypass channel would effect flooding to the local urban area.

Tredinnick FMP/ISIS/TUFLOW Model Development (2016):

Role: Graduate Hydraulic Modeller

Undertook a flood risk mapping study for Tredinnick in Cornwall to accurately assess flood zones local to a proposed leisure development in order to inform future flood mitigation measures.

Majors Creek Water Quality Survey (2012-2014):

Role: Principle Investigator

This was a comprehensive study to determine a baseline of heavy metals and suspended sediment in storm water run-off. The collection and analysis of field samples were analysed to determine which management strategies should be considered by the local government, such as dredging.

Hollister Hills Sediment Study (2012-2013):

Role: Team Lead, Scientist

This study involved the collection and analysis of suspended sediment run-off in a heavily eroding recreation vehicle park. The use of GIS in this project was critical for the development of DEM for sediment basins which were used to determine the volume of sediment captured by these Best Management Practices.

Creek Restoration Survey (2012-2013):

Role: Research Assistant

Assisted in the monitoring of the Potrero Creek in Carmel, CA after the creek was realigned to prevent further erosion that threatened an uphill roadway and aquatic environmental health. Monitored the functionality of in-channel structures and their ability to maintain restored channel alignment.