

## Post-graduates on ILWS scholarships

### Kath Behrendt



With an ever-increasing demand for rural “lifestyle” blocks competing with farmland, PhD student Kath Behrendt is hoping her research will help town planners, shires and policy makers evaluate the consequences of planning restrictions on alternative land-use decisions, including appropriate minimum lot sizes for rural subdivision.

“I’d like to come up with a model that can evaluate the potential for rural development in regional communities whilst simultaneously identifying welfare enhancing levels of agricultural production and ecosystem services” says Kath, recipient of the second ILWS scholarship for 2009. Her desire to find a way of determining the socially optimal allocation of land for future development comes from a professional and personal interest in agricultural landscapes.

A student at CSUs Bathurst campus, Kath began her PhD on “Production, Consumption and Protection: Modelling the Value trade-offs in an Agricultural Landscape” last September. Her supervisors are Prof Mark Morrison, Prof Kevin Parton and Dr Remy Dehaan. Kath did her Bachelor Degree in Financial Administration and a Graduate Diploma in Agricultural Economics through the University of New England. She was halfway through a Masters in Economics in 2009 when she decided to upgrade to a PhD through

Charles Sturt University. Kath’s PhD will build on the research she was doing as a Masters student looking at the amenity (or consumption) value of land. “That’s when people buy a block for its aesthetic or ‘lifestyle’ value,” explains Kath.

Kath intends to bring native vegetation and biodiversity values (from a social perspective) into the equation as well. “In current planning regulations the environmental and social values associated with rural landscapes are often ignored,” she says. The current standard for determining minimum lot sizes, for example, only looks at agricultural production values and doesn’t really take into account that blocks might have amenity or biodiversity values as well.” Kath says a challenge within itself will be working out the social value of a block and incorporating that into an integrated model. Her research method will combine the use of GIS spatial analysis and three economic modelling techniques to quantify the value trade-offs between production, consumption and protection goals in an agricultural landscape. The Oberon Local Government Area will be used as the case study for Kath’s research.

Kath will use hedonic modelling to work out the values of different attributes attached to different blocks of land. “What that will involve is analysis, using GIS software, of all property sales data and cadastral data (lot and title boundaries) in the Oberon LGA,” says Kath. Another economic modelling technique Kath will use is choice modelling to determine the native vegetation and biodiversity values of the land from a social perspective i.e. what people are prepared to pay to protect native vegetation and biodiversity in agricultural landscapes. This will involve focus groups and surveying the state wide population. The third technique Kath will be using is agricultural production modelling to work out an agricultural value for each of the land parcels. The information gleaned from the three different techniques will be used for an integrated landscape model.

#### CONTACT:

Kath Behrendt  
CSU Bathurst  
[kbehrendt@csu.edu.au](mailto:kbehrendt@csu.edu.au)

#### Albury-Wodonga Campus

PO Box 789  
Elizabeth Mitchell Drive, Thurgoona  
ALBURY NSW 2640  
Australia

TEL +61 2 6051 9992  
FAX +61 2 6051 9797  
EMAIL [ilws@csu.edu.au](mailto:ilws@csu.edu.au)