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RESEARCH DIRECTIONS

Water Quality Assessment

Mr Bruce Simmons, Mr Gavin Beveridge and Associate Professor Basant Maheshwari from the School of Natural Sciences are collaborating with partner organisation Realty Realizations Pty Ltd to explore the impacts of urban development on the water catchment areas of Lake Wollumboola and the Crookhaven River.

'Lake Wollumboola, situated on the South Coast of NSW, is recognised for its conservation attributes, and in 2002 was included in the Jervis Bay National Park' explains Mr Simmons. 'Large numbers of migratory birds visit the lake, including over 20 species protected by international treaties. The Crookhaven River lies just north of Lake Wollumboola and there are significant tourism, recreational and commercial values associated with the waterway. There is also a highly productive estuary populated by seagrasses, fish, crustaceans and molluscs, and the river provides habitat for waterbirds. Urban development has been proposed within these two catchment areas, raising possible concern that urban stormwater and pollution may threaten the associated values of the waterways. This project aims to study best-practice stormwater management to facilitate urban development without adverse impacts on the lake and river system.'

The project team will identify and measure the types of pollution that occur in Lake Wollumboola and the Crookhaven River, and what potential impact this has in relation to urban development. This will be done by field and laboratory analyses of water and sediment/soil samples to evaluate various physical, chemical and biological condition indicators. These indicators will provide an insight into the potential for the impact of urban development on the ecological, tourism, recreational and commercial values of the

area. A comparison of past water and sediment/soil attributes with the current state of the catchments will also be conducted.

This project will enhance our understanding of how urban development can co-exist with important water catchment and ecological protection areas. The knowledge gained in the Shoalhaven may then be used in other catchment areas where similar conflicts between different community and conservation needs are encountered.

Project Title: Water Quality Assessment – Lake Wollumboola and Crookhaven River (Determining the relationship between land use and water quality)
Funding has been set at: $19,771
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July 2008