



## SYDNEY BEACHES VALUATION PROJECT: PROJECT SUMMARY SHEET



The Sydney Coastal Councils Group (SCCG) has engaged the University of New South Wales to undertake a valuation of Sydney beaches, and develop a process to assist Local and State Governments to make more informed decisions on how to protect coastal property, infrastructure, beach environments and amenity at threat of coastal erosion due to enhanced climate change impacts.



This project is being undertaken as a three-year PhD project, supported by a grant from the NSW Greenhouse Office Community Action Grants Program. Total project support from all project partners is more than \$220,000. The project began in December 2006, following the appointment of the PhD candidate, David Anning. The working title of the project is: **“Quantifying the Value of Sydney (NSW) Beaches in order to assess cost / benefit of necessary coastal protection / abatement measures as a result of enhanced climate change impacts”**

### Elements of the Research Project

#### Project Objectives:

This project will determine the total economic value of selected Sydney beaches, in three different Local Government areas. Two oceanic sites and one estuarine site have been selected. These case-study sites represent different biophysical environments and highlight the key coastal management issues of the region, threats to infrastructure and the loss of amenity values. This will provide a baseline value against which changes (natural or otherwise) may be tracked. The results of the valuations, including identification of stakeholder preferences for coastal attributes, will also be key knowledge inputs to the future management of the NSW coastal zone, particularly in the decision in how to protect coastal assets in response to sea level rise and other enhanced climate change impacts.



These results will then be used in developing a process for assessing coastal protection measures against social, environmental and economic criteria. This will enable more efficient utilisation of available beach management resources at a state and regional level, and explicitly demonstrate consistency with the principles of Ecologically Sustainable Development.

#### Key Project Components

##### Stage 1: Calculation of economic value of selected Sydney beaches

###### **1A: Calculation of value from existing data sets within Sydney and NSW**

Existing proxy data sets from a number of key sectors (housing, tourism, etc.) will be identified, and information sharing arrangements with relevant data holders will be established. Environmental values captured by surrogate markets (such as the effect of proximity to the coast on housing values) will then be calculated for the three study sites, using a range of methods.

*Expected completion June 2008*

###### **1B: Estimation of willingness to pay (WTP) for coastal goods and services**

Key stakeholder groups will be involved in the development and testing of a questionnaire to determine willingness to pay for coastal amenities. Stakeholders will include: domestic and international tourists, residents of ‘at risk’ coastal locations, local business owners, and decision-makers in Local and State Governments. A number of survey delivery methods will be employed to capture values for both users and non-users. Questionnaires will be designed in such a way that they can be used at other sites in the Sydney region and elsewhere on the NSW coast.

*Expected completion early 2009*





**1C: Integration of values derived from previous steps**

The results of these valuations will then be combined with estimates of the value of environmental goods and services (using the benefit transfer method) to give an estimate of the Total Economic Value (TEV) of beaches in the three study sites, to be displayed graphically. The spatial distribution of values can be used to identify key privately and publicly owned coastal assets threatened by enhanced climate change impacts, and prioritise sites for allocation of coastal protection resources. The impacts of different management options on the economic values of the beaches can also be investigated. The method/s of coastal asset valuation, including identification of publicly available and controlled information sources, will be transferable between locations and at a number of spatial scales. *Expected completion early-mid 2009*

**Stage 2: Development of process for assessing coastal protection proposals**

**2A: Analysis of existing coastal management framework and suggestions for improving the decision-making process**

The next component of the project is to develop a decision-making process in partnership with the coastal councils that will allow them to prioritise beach protection works necessary to respond to enhanced climate change impacts. A key objective is to identify a process that allows for rapid assessment of projects against a range of environmental, social and economic criteria, and is transferable between locations and at different spatial scales. The selection of criteria will be informed by the values of coastal assets and social preferences identified during the valuation process.

**Stage 3: Write up of method, results, and transferability to other coastal locations**

The findings will be presented in a final report to the SCCG and the NSW Greenhouse Office, will be broadly distributed in the wider media and made available to all interested stakeholders. Regular project updates will also be available via the SCCG website.

**Project Outcomes:**

The project will benefit stakeholders in the Sydney region through:

- Enhancing the understanding of the likely impacts of climate change and available coastal protection measures in the Sydney region
- Working with stakeholders (eg. SCCG member councils and other stakeholders) to improve the management of coastal assets in response to climate change impacts
- Developing a baseline value for coastal assets in three study sites to inform management actions, and against which management effectiveness can be assessed
- Identification of a process to value coastal assets, transferable between locations and at different spatial scales
- Developing an open and transparent decision making process to assess coastal protection options against social, environmental and economic criteria

**Project Management**

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