



University of Western Australia researchers are looking to engage with local governments to help build Western Australia's coastal resilience.

Dr Abbie Rogers, Co-Director of the UWA Centre for Environmental Economics and Policy, is leading two new research projects that aim to help local governments and coastal managers prioritize adaptation responses to coastal hazards. This information sheet provides an overview of the two projects, and details about opportunities to participate in this research.

Project 1: Coastal Values

Identifying and quantifying the values that the community holds for natural and public assets that might be impacted by coastal hazards.

Through collaboration with the Department of Planning, Lands and Heritage, this project will align with the Coastal Hazard Risk Management and Adaptation Planning (CHRMAP) guidelines to help coastal managers identify which community assets are most important to manage for coastal risks.

This research centres on estimating community values for changes in social or environmental outcomes associated with assets that could be impacted by coastal hazards or adaptation responses. Assets that will be valued include: beach areas, foreshore reserve areas, natural reserve areas, beach access, and publicly accessible facilities (e.g., retail, food, public service facilities).

Eight case studies will be implemented across metropolitan and regional areas (with some case studies including multiple coastal locations) to measure coastal values through community surveys. Values for coastal assets will be captured for residents and visitors of the areas, and also people who might not visit the case study sites but could still value the existence of particular assets.

We will also develop and test public communication materials for coastal managers to use in community engagement activities, explaining how community values are being measured and used to support decision making.

Outputs of this project will include:

- Case study reports documenting community values;
- A 'value repository' summarising the information from the case studies;
- Guidelines on how to use the repository to extrapolate values for other sites across the WA coastline;
- Demonstration of how the values can be used in decision-support tools, like benefit-cost analysis, to help with coastal hazard management decisions;
- Training workshops for coastal managers to learn how to use the repository;
- Valuation information templates for community engagement;
- A range of publicly-available guidance materials to assist coastal managers in utilising the project outputs.

Project 2: Decision Tool

Developing a decision-support tool to prioritise investments in adaptation responses to coastal hazards for long-term coastal sustainability.

Through the Premier's Science Fellowship Program, funded by the Department of Jobs, Tourism, Science and Innovation, this project will assist coastal managers in choosing the management approaches that are most likely to deliver the greatest net-benefits to communities.

This research centres on the development of a prioritisation tool that will assist coastal managers in choosing management options to help deal with the impacts of coastal hazards. The tool will integrate information on financial, environmental, social and cultural values.

This work is expected to enable more efficient investment in coastal protection measures that are resilient, and that benefit multiple stakeholders.

Outputs of this project will include:

- A spreadsheet-based computer program to help prioritise adaptation options;
- Linking of the value repository delivered in Project 1 with the computer program, to enable inclusion of community values for social and environmental outcomes relative to the financial benefits and costs of different coastal adaptation options;
- Training workshops for coastal managers to learn how to use the program;
- A range of publicly-available guidance materials for using the program.

Engagement opportunity: Local Government Area case studies

The project team will be engaging with local governments along the Western Australia coastline to participate in this research.

There will be a range of opportunities to participate, including through:

- The case studies selected for valuation surveys or development of community engagement materials in Project 1.
- Working groups to test and validate the prioritisation tool in Project 2.
- Training workshops for both projects.
- Regular project updates provided at WALGA meetings, coastal conferences or workshops, and dedicated sessions available on request.

This research depends on participation across a diverse range of local governments. While there are some efficiency and feasibility requirements that must be met in selecting case studies that will enable a representative collection of data for the value repository, the project team would like to be as inclusive as possible across the full list of participation opportunities above.

All coastal local governments, managers and other interested stakeholders are welcome to contact Dr Abbie Rogers for more information or to discuss participation: abbie.rogers@uwa.edu.au.



Department of **Planning, Lands and Heritage**
Department of **Transport**



Government of **Western Australia**
Department of **Jobs, Tourism, Science and Innovation**

