

Howard River environmental flows and social values:

A project to support water planning in the Howard River catchment

Background to the project

Next year the NT Department of Natural Resources, Environment and the Arts will be preparing a water allocation plan that includes the Howard River area. This plan will need to be built on knowledge of:

- environmental and social values (including cultural values),
- how much water is required for different uses and when, and
- current and potential effects of groundwater use.

The plan will state how groundwater in the Howard River area is to be shared between current uses and to protect all values. The public will be involved in this planning process.

What are the project's aims?

The project aims to support the water allocation plan by recommending 'cultural and environmental water requirements for the Howard River sub-catchment'.



This project seeks to understand how much water is needed for the social values, and the environmental requirements of fish of the Howard River.

Social values refer to the features of water and water bodies that people consider to be important. This includes the ways in which each of the many groups and cultures in the region use water, such as for fishing, hunting, camping or picnicking, or appreciate water bodies for their beauty and inspiration.

Who's involved in the project?

The project team is made up of a number of researchers from Charles Darwin University (CDU), CSIRO, Griffith University, the NT Departments of Primary Industry, Fisheries and Mines, and Natural Resources Environment and the Arts. The project is funded by the Natural Heritage Trust.

CSIRO staff will be focusing on the social values and uses, while CDU's Michael Douglas will coordinate the environmental research. The CSIRO staff will be Sue Jackson, Anna Straton, Emma Woodward and Barbara McKaige.



Michael Douglas



Sue Jackson



Anna Straton



Barbara McKaige



Emma Woodward

What are the social and environmental values in the NT water management system?

Water management decisions, such as how much water should be allocated to horticulturalists, follow the management system laid out in the NT's water law, the NT Water Act.

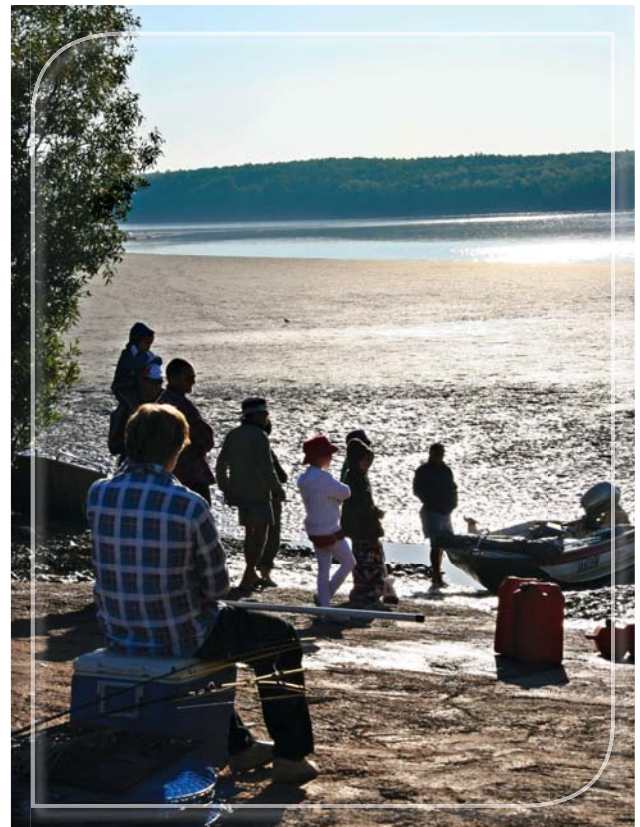
The Water Act provides for a range of water uses to be protected by water plans. These uses are called 'beneficial uses'. Everyone in the regional community can help decide how a particular water body should be used and managed by nominating it for one or more Beneficial Use Categories.

The values we are focusing on in this project relate to the following beneficial uses:

Cultural – water to meet aesthetic, recreational and cultural needs

Environment – water to maintain the health of rivers, waterways, wetlands, and other ecosystems that rely on groundwater or surface water

Riparian – public rights to take water for homes and/or cattle on properties that run along rivers or waterways



What information do we need?

The project team would like to collect the following information for the Howard River area:

- The importance of water and water places to people such as hunters, recreational fishers, environment groups like bird watchers and people who like plants, or visit springs and jungles



- What water places are used by people
- What environmental changes people have seen and their views of waterway and wetland health
- People's views about the pressures these places may be under
- Fish communities and their habitats

The project will also talk with people about future water use plans for the Howard River area. We will discuss people's views on current groundwater use and how it affects the environment and what they value about water, as well as the effects of changes in groundwater use.

How will the information be collected?

For Social Values

We will be working closely with the Larrakia Nation and with other people and groups who have interests in the Howard River area, such as fishing groups.

We will be meeting with people individually and in small groups. We will develop maps and record information from our interviews. We will also ask people for feedback about the project's findings.

For Environmental Requirements

To find out more about the water requirements for fish, we will be collecting fish and mapping fish habitats (depth, flow and aquatic plants) at several sites along the Howard River. Fish will be collected by electro-fishing which involves using high voltage electricity to stun fish for long enough to catch them in a net. The fish are then identified and returned unharmed to the river.





Once we have collected information on social and environmental values we will then assess the potential impact of changes to water use on those values. This information will be used to help develop options for the management of the Howard River area.

This impact assessment will take place in a focus group setting and will help the project team to suggest ways of protecting or enhancing social and environmental values. A range of options will be compared using a method called 'multi-criteria evaluation', where each option is weighed on whether it can achieve certain objectives.

Recommendations can then be made to a community-based group, called a water allocation committee, which will be given the task of preparing the water plan for the Howard River area sometime in 2008.

When would we like to start?

The fish sampling will start in July 2007 and the study of social and cultural values will commence in August. We plan to finish the project within 9 months.



If you would like more information on this research please contact:

For social and cultural values:

Sue Jackson
CSIRO Sustainable Ecosystems
PMB 44, Winnellie NT 0821
Phone: 8944 8415
Email: sue.jackson@csiro.au

For environmental values:

Michael Douglas
Tropical Rivers and Coastal Knowledge
Research Hub
Charles Darwin University
Darwin NT 0909
Phone: 8946 7261
Email: michael.douglas@cdu.edu.au

For water use and water planning:

Chris Wicks
Water Resources Planner
Water Management Branch
NT Department of Natural Resources,
Environment and the Arts
PO Box 30, Palmerston NT 0831
Phone: 8999 4640
Email: chris.wicks@nt.gov.au