

Darwin Harbour Water Quality Protection Plan: Phase 2

Aim and background

The aim of this project is to finalise the Darwin Harbour Water Quality Protection Plan (WQPP) to protect water quality of Darwin Harbour. The overall aim of the WQPP is to ensure that water quality objectives (local guidelines) are maintained and that community's values for waterways are protected. The WQPP is an action plan developed under the National Water Quality Management Strategy.

Phase 1 of the WQPP occurred several years ago and included development of water quality objectives, Beneficial Uses, monitoring activities, and pollutant load data monitoring and evaluation. Phase 2 is the current project from 2011 to 2013 funded by the Australian Government.

Components of the WQPP

Components of the WQPP Phase 2 include:

- Identifying further research that needs to be undertaken as part of the monitoring and modelling strategy to improve understanding of the water quality issues;
- Update of selected water quality objectives;
- Development of an Integrated Decision Support System (DSS) for Darwin Harbour catchment to improve understanding of the effect of various processes and potential developments on water quality in the catchment (see more detail below);
- Recommending management actions (eg. Water Sensitive Urban Design, WSUD) to be implemented and gain endorsement from key stakeholders;
- Identifying strategies for monitoring, modelling and reporting on the effectiveness of each control action;

- Identifying gaps in the legislation and identify any gaps that should be addressed;
- Identifying river flow objectives (this will be part of the Water Allocation Process); and
- Incorporation of Larrakia knowledge and water quality monitoring by Larrakia sea rangers.

Integrated decision support system

An Integrated Decision Support System (DSS) will be developed for Darwin Harbour catchment to improve understanding of the effect of various processes and potential developments on water quality in the catchment. The DSS will combine both catchment and urban modelling and harbour water quality hydrodynamic modelling to help identify actions (eg. WSUD, riparian vegetation etc.) to help protect water quality, and to predict their effects on water quality in the Darwin Harbour. The DSS will be available to stakeholders to assist them to help identify what, where, at what cost, trade-offs and how effective proposed management actions and scenarios would be on water quality.

Further information

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