

Monitoring change in wetland extent across the Great Barrier Reef catchments—2013 update

Wetland mapping and data enable wetland managers to make confident, effective and accurate decisions about the management and care of wetlands. This project is reviewing and updating previous mapping, and providing new mapping for the 2013 extent of wetlands in Great Barrier Reef (GBR) catchments. A report on extent and changes in extent of wetlands across all areas will provide a critical input to the Reef Plan Report Card.

Background

Wetlands and adjoining riparian communities are an essential part of catchments, and are important in maintaining the health of the GBR. They are recognised as playing a vital role in water quality improvement, as well as providing a range of other unique ecosystem services.

In recognition of the importance of wetlands in the GBR catchments the Queensland and Australian governments, through the Reef Water Quality Protection Plan 2013, have set the target: 'there is no net loss of the extent, and an improvement in the ecological processes and environmental values, of natural wetlands'.

The range of activities underway by government and non-government partners to achieve this target cover the whole management spectrum from policy and planning, through on-ground support to monitoring, communication and coordination.

This project is one of four projects funded by the Queensland Government's 'Queensland Regional Natural Resource Management Investment Program', under the Queensland Wetlands Program (QWP):

- Department of Science, Information Technology, Innovation and the Arts (DSITIA)—Monitoring change in wetland extent across the Great Barrier Reef Catchments
- Department of Agriculture, Fisheries and Forestry (DAFF)—WATER (Wetlands in Agriculture: training, extension and resources)
- Department of Environment and Heritage Protection (EHP)—Critical Reef Support
- DSITIA—Wetland values assessment, monitoring and reporting—Great Barrier Reef Catchments.

Objectives

The three major objectives of this project are:

- to monitor and report on the change in extent of wetlands across the GBR as required by Reef Plan target for wetland extent
- to report on the original wetland extent (pre-clear) and 2001, 2005, 2009 and 2013 extent by wetland type and catchment
- to update the spatial accuracy of the wetlands mapping and incorporate improvements in the processing of the mapping. These improvements are essential as the wetland mapping provides the spatial basis for policy, assessment and planning decisions.

Method

The methods follow those previously used and documented in the published [regional ecosystem](http://www.qld.gov.au/environment/plants-animals/plants/herbarium/mapping-ecosystems/) (www.qld.gov.au/environment/plants-animals/plants/herbarium/mapping-ecosystems/) and [wetland mapping methods](http://www.wetlandinfo.ehp.qld.gov.au/wetlands/facts-maps/wetland-background/) (www.wetlandinfo.ehp.qld.gov.au/wetlands/facts-maps/wetland-background/). In addition to the updated mapping the project is updating and documenting the automated models used to generate the mapping, as previous mapping was generated from older platforms.

Outputs

- New models that will automate the generation of the wetland extent mapping from the regional ecosystem and water body inputs.
- New wetland extent mapping across the GBR catchments for 2013 and updated wetland extent mapping for original (pre-clear), 2001, 2005 and 2009 periods. The 2013 wetlands mapping will be made available through the Queensland Government Information System (OGIS) and the *WetlandInfo* website (www.wetlandinfo.ehp.qld.gov.au).

- A report documenting the original and current (2001, 2005, 2009, 2013) extent and change in extent of wetlands across the GBR catchments.

Scope

The scope of the report includes:

- mapping the extent of palustrine, lacustrine and mangrove/salt-flat estuarine wetlands across the GBR catchments
- providing a report on original (pre-clear) and current (2001, 2005, 2009, 2013) extent and change in extent of wetlands across the GBR catchments.

The scope does not include:

- wetland condition assessment
- marine and estuarine waters
- riverine and fringing riverine wetlands (which are included in the Queensland Wetland mapping but for reef plan reporting purposes and mapped in a separate project).

Dependencies

This project relies on the 2013 Statewide Landcover and Trees Study (SLATS) woody vegetation which is due in September 2014.

The project also relies on the ongoing regional ecosystem mapping program.

Project governance

The project is being undertaken by the Queensland Herbarium (DSITIA) but is being run by a project management group with representatives from the Queensland Wetland Program (EHP) and Water Policy (Department of Natural Resources and Mines—DNRM).

The expert panel and other stakeholders groups provides knowledge and inputs into the mapping, feedback on draft versions of the mapping as well as a quality assessment of the final product(s).

All products will be approved through the Queensland Wetlands Program Governance Group prior to release.

The Queensland Wetlands Program supports projects and activities that result in long-term benefits to the sustainable management, wise use and protection of wetlands in Queensland. The tools developed by the Program help wetlands landholders, managers and decision makers in government and industry. The Queensland Wetlands Program is currently funded by the Queensland Government.

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or visit www.wetlandinfo.ehp.qld.gov.au

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