

Aquatic Conservation Assessment (ACA) for the riverine and non-riverine wetlands of the Queensland Fitzroy Great Barrier Reef connecting catchments (version 2.1)

Information Sheet

The Queensland Department of the Environment, Tourism, Science and Innovation (DETSI) has completed an updated Aquatic Conservation Assessments (ACA) for 18 drainage catchments in the Queensland Fitzroy Great Barrier Reef connecting catchments (FGBRCC ACA) using the Aquatic Biodiversity Assessment and Mapping Method (AquaBAMM).

This assessment includes the Boyne, Calliope, Curtis Island, Comet, Dawson, Fitzroy, Isaac, Mackenzie, Nogoa, O'Connell, Pioneer, Plane, Proserpine, Shoalwater, Styx, Waterpark, Whitsunday Island and Fitzroy Other islands drainage catchments. Separate assessments have been completed for riverine (Figure 1) and non-riverine (Figure 2) freshwater wetlands within each catchment.

AquaScores for all study areas range from Very High to Very Low. A range of factors influence the scores, such as the presence of special features (fauna, flora, hydrology and geomorphology), the number of pest species recorded within the area, to the prevalence of anthropogenic influences on water quality and in-stream connectivity.

A few areas have many wetlands with Very High and High AquaScores, particularly those which contain large national parks, conservation areas or relatively intact ecosystems. Inland catchments have large expansive areas of anthropogenic landuses (mining, grazing and agriculture) and surface water barriers, which lowers the naturalness of the wetlands and the connectivity between wetlands ecosystems.

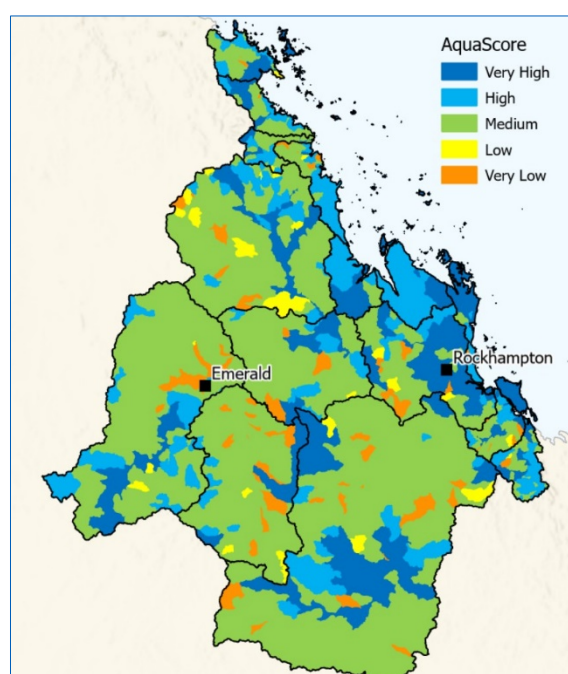


Figure 1 FGBRCC ACA – Riverine Results

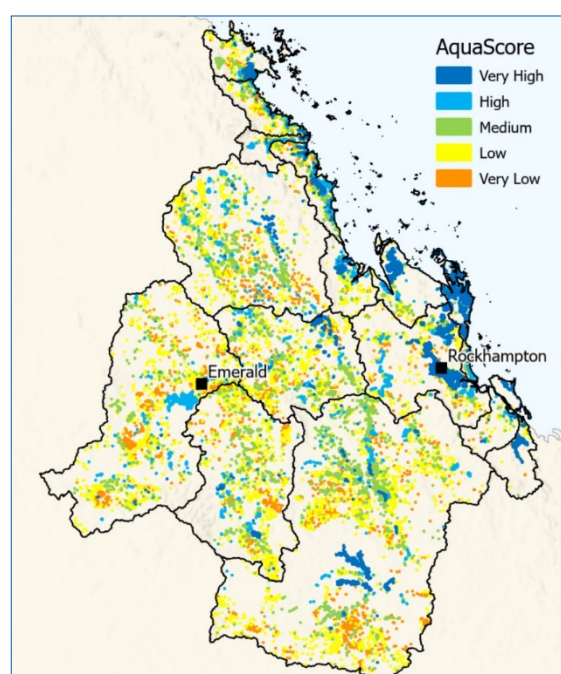


Figure 2 FGBRCC ACA – Non-riverine Results

What is AquaBAMM?

The Aquatic Biodiversity Assessment and Mapping Method (AquaBAMM) is a comprehensive method developed by DETSI for assessing the conservation values of wetlands. This method identifies relative wetland conservation values within a study area (usually a drainage catchment) using available data and expert opinion.

Each assessment uses available comprehensive digital data and expert knowledge to evaluate ecological relevant measures of: aquatic naturalness of the wetland, catchment naturalness surrounding the wetland, diversity and species richness, presence of threatened and priority species and ecosystems, special features of the wetlands as identified by expert opinion, physical and ecological connectivity between wetlands, and representativeness of the wetland within the wider catchment.

Aquatic Conservation Assessments (ACA) undertaken using AquaBAMM provide a non-social, non-economic and tenure-blind assessment of wetland conservation values at a user-defined scale. The method is based on a series of criteria, indicators and measures founded upon a large body of national and international literature. Measure data are mathematically combined into scores at the indicator and criterion level. A decision filter table comprised of a series of if/else statements is then used to calculate an overall aquatic conservation score (AquaScore).

AquaBAMM applications

ACA results have application in:

- Matters of State Environmental Significance (MSES)
- priorities for protection, regulation or rehabilitation of aquatic ecosystems
- on-ground investment in aquatic ecosystems
- development and impact assessment
- local and regional planning
- water resource management and planning

Assessments conducted to date

ACAs have been completed for the state (Figure 3) with continuing updates.

Accessing AquaBAMM results

The AquaBAMM methodology and assessment results (including summary report, expert panel reports and GIS results) are available from:

- WetlandInfo - <http://wetlandinfo.des.qld.gov.au/wetlands/assessment/assessment-methods/aca/>
- WetlandMaps - <http://wetlandinfo.des.qld.gov.au/wetlands/facts-maps/get-mapping-help/wetland-maps/>
- Queensland Spatial Catalogue - <http://qldspatial.information.qld.gov.au/catalogue/custom/index.page>
- Queensland Globe - <https://qldglobe.information.qld.gov.au/>
- Biomaps - <https://apps.information.qld.gov.au/Storymaps/Biomaps/>
- Environmental Reports Online – <https://www.qld.gov.au/environment/management/environmental/environmental-reports-online>

For more information or advice on how to use Aquatic Conservation Assessments email: biodiversity.planning@qld.gov.au

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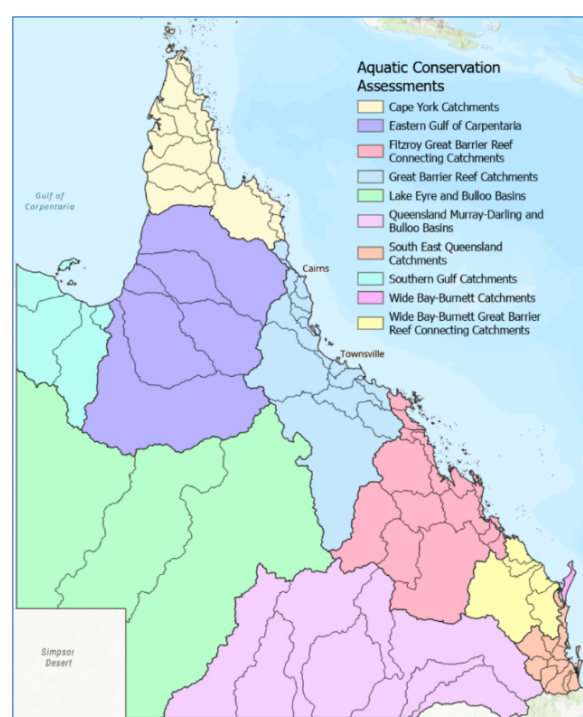


Figure 3. Areas covered by released ACAs