With commercially equipped drilling units and sampling gear, CQG’s project team are sought out for their ability to get the job done to a high standard on time and within budget.

Our team has a track record working in the Great Barrier Reed World Heritage Area and other sensitive marine environments. Examples of the type of work CQG’s team is typically involved in include:

- Design and implementation of Water Quality Monitoring Plans (WQMP) and Acid Sulfate Soil Investigations
- Sampling and monitoring of estuarine and marine waters and sediments
- Receiving environment monitoring programs (REMPs)
- Dredge monitoring and auditing
- Surveys with traditional owners to record cultural values
- Marine nutrient and contamination analysis
- Interpretation of licence conditions and determination of water release limits into receiving waters
- Ecological assessments:
  - mangrove and marine plant surveys
  - marine mammal, crustacean and reptile surveys
  - seagrass surveys
  - fish surveys
- Marine pest assessments
- Reef surveys and health monitoring
- River and waterway health monitoring
- Ecological mapping (GIS)
- Vessel based scientific research
- Regulatory regulatory advice for permit applications / approvals

*We listen, we understand, we deliver.*

Rockhampton | Gladstone | Brisbane | Mackay
CQG’s lead marine scientist is a Master Class 5 commercial skipper with over fifteen years’ experience operating commercial vessels off the Australian east coast. She is supported by other CQG and CQU staff who are holders of open coxswain licences.

The vessels are OVID (Offshore Vessel Inspection Database) and OVMSA (Offshore Vessel Management and Self-Assessment) certified by the OCIMF (Oil Companies International Marine Forum), this certification ensures the vessels are operated and managed to the highest of standards which is recognised by the International Maritime Organisation.

The vessels:
- are commercially registered
- carry Great Barrier Reef (GBR) Marine Parks Permits (southern GBR to Hinchinbrook)
- are trailer transportable
- can be towed to all locations between the Gold Coast and Townsville

We listen, we understand, we deliver.
Rockhampton | Gladstone | Brisbane | Mackay
Wongai Coal Terminal Environmental Impact Assessment (EIS)

Aust-Pac Capital

CQG has a trusted reputation as the consultancy of choice for Traditional Owner groups in Central Queensland and Cape York, for the provision of environmental surveys and EIS delivery. CQG was approached by the Wongai Project Traditional Owners to prepare an EIS for a proposed underground coal mine, eco-tourism resort and a jetty-loading facility for Bathurst Heads in Cape York.

Camping on-country, CQG staff worked closely with the Traditional Owners in the field to gather information on the cultural and environmental values of the land and surrounding waters.

Field studies in this remote setting including surface water, groundwater and marine water quality investigations, sediment and acid sulfate soil sampling as per the NAGD (2009), noise surveys, contaminated land sampling, ecological studies and vegetation surveys.

Our scientists conducted water and sediment in-situ monitoring and depth-profiling sampling within Princess Charlotte Bay from an in-survey marine vessel. The work which was conducted under a GBRMPA permit provided valuable data on the baseline values of this sea-country. The data was compared to Water Quality Objectives for the region and statistically assessed to determine site specific trigger values and to inform future programs. CQG also coordinated the preliminary geotechnical and hydrogeological surveys for the project.

This remote area work required our team to implement the highest standards of safety practices, in crocodile infested waters inshore and outside satellite phone coverage.

Relevant Services

Marine water, surface water, sediment and groundwater monitoring, acid sulfate soils and geotech investigations, remote work, working with Traditional Owners, logistic planning for sample dispatch and interpretation of laboratory results.
Following initial government rejection of the client’s redevelopment plans (prepared by Tower’s original EIS team), CQG was engaged to project manage the EIS for the project. CQG was responsible for the preparation of the technical scopes and coordination of a project team comprising more than 90 technical experts over a two year period to produce the completed Environmental Impact Statement (EIS) for the GKI Revitalisation Plan. CQG’s team prepared several of the technical reports in addition to the review of all the individual reports and liaison with the authors to finalise for inclusion in the EIS.

Our team worked closely with the Queensland Coordinator-General’s office, GBR Marine Park Authority officers and the Federal Environmental department to ensure the EIS met the requirements stipulated in the terms of reference and the guidelines.

CQG was also responsible for government liaison, community and stakeholder engagement, risk assessments, key environmental studies, including ecological surveys, water quality sampling and in-situ monitoring, sediment sampling, noise surveys, coordination of groundwater bore installation and groundwater monitoring, contaminated land assessments, GIS mapping, and report writing. CQG also prepared the cumulative impact assessment report and environmental management plans for the project.

After a major flood event, our team conducted offshore sampling and in-situ monitoring of marine waters at nominated locations around the Island.

CQG enabled the client to deliver an EIS which was ultimately approved by the Federal, Queensland and local governments in 2013.
Great Keppel Island Utilities Cable Project (Rejuvenation Program)
Department of Innovation, Tourism Industry Development

Due to CQG's long term association with Great Keppel Island and environmental monitoring in Keppel Bay, CQG was engaged to assist the DITID project team with:

- background advice on the approvals process
- review of the application to revise the GBRMPA permit conditions
- coordination of liaison with the Woppaburra and Darumbal Traditional Owner groups and their advisors
- review of budgets presented for the cultural heritage management plans
- coordinating an off-shore survey at Haven Beach to inform the appropriate location for the cable corridor and review of the report
- preparing GIS maps for the land and marine based elements to inform discussions with Traditional Owners and government agencies
- to source quotes and coordinate a geophysical survey off Haven Beach for the mainland connection
- provide background information on the Pre-construction Survey Program

Relevant Services
Approvals support, geophysical survey, marine monitoring, cultural heritage advice

Cape York Traditional Owner Training, Community Engagement and World Heritage Mapping (Aurukun and Coen)
Wik Projects and Balkanu Development Corporation- Federal Government Funded Project

CQG assisted two Traditional Owner groups in Cape York in their ventures to identify and map proposed world heritage areas. This project demonstrates CQG's ability to work in sensitive environments including on sea country on the eastern and western regions of Cape York, to deliver outcomes and to work with government agencies.

The issues in this project included budgetary constraints, working with and training Indigenous people, working in an area (Aurukun) known for its community unrest and remoteness.

World Heritage Areas assessment training on country including community workshops, on country meetings, media interaction and facilitating on country meetings with MP Tony Burke, the then Federal Minister for Environment and Traditional Owners.

Relevant Services
Training, Community Engagement, working in sensitive environments
CQG undertook the EIS for the proposed Fitzroy Terminal Project at Port Alma in Central Queensland. CQG’s team also undertook the full scope of the water and sediment monitoring under our GBRMPA permit.

This comprehensive monitoring program was conducted over a two year period to gather water quality (including depth profiling) and sediment quality data in the Fitzroy Delta and Keppel Bay to inform the impact assessment report and compare with Water Quality Objectives in this study area.

This work included sampling and sorting sediment cores from a jacked up barge at Port Alma over a week.

As the EIS project manager, CQG was also responsible for government liaison, community consultation, land access agreements, cumulative impacts, EMPs, flora and fauna surveys, sediment analysis plans, sediment sampling and reporting against the National Assessment Guidelines for Dredging (2009), acid sulfate soil investigations, social impact assessments, coordination of bathymetric surveys, wave data monitoring, water quality monitoring, waste management, planning and approvals and reporting.

CQG also coordinated the geotechnical investigations for the project and worked closely with the field team in the coring and sampling events to inform the project design.

**Relevant Services**
Ecological survey, marine water quality and sediment sampling, data management and analysis, laboratory liaison, reporting.
ConocoPhillips (ABUE) – Vegetation Monitoring, Assessment and Planning
ABUE Australian Business Unit East (ABUE)

Our team was engaged to undertake mangrove monitoring of sites located within a critical operational area close to sensitive receptors including the GBR Marine Park and within the GBR World Heritage Area. The scope included mangrove monitoring, crab hole count and pore water quality, statistical analysis, marine work and preparation and implementation of various safety plans.

In the interest of developing the skills of local Indigenous people, we engaged Gidarjil as a sub-consultant, to provide technical support officers in the field.

Our team was required to collate field survey data from marine and terrestrial monitoring, conduct statistical analysis of the data and to prepare reports on a quarterly basis.

Relevant Services
Mangrove monitoring, event monitoring, water sampling, reporting, marine survey work in the Gladstone Harbour.

Fitzroy River Health Partnership - Monitoring Efficiency Review
Fitzroy River Health Partnership

CQG was one of the founding members of the FRPH. We have contributed our time over several years, on a pro-bono and reduced rate arrangement for the partnership in the interests of improving water quality data sharing across the region.

CQG’s team provided technical GIS and scientific support for the partnership for the water quality Monitoring Efficiency Review Project that required a review of significant amounts of water quality data that had been collected across the region. Working with FPRH and CQUniversity, we prepared a document that forms a valuable overview of water quality data in the Fitzroy catchment, including Keppel Bay.

CQG has been engaged by the partnership to prepare a catchment wide Receiving Environment Monitoring Program, to roll out in 2019 in partnership with the CQUniversity. This program will replace numerous REMPs, reduce duplication of monitoring efforts and enable improved consolidation of data.

Relevant Services
Sample plans, quality assurance, sampling, data management, calibration of equipment, reporting.
**Boat Creek Ecological Assessment**  
Rio Tinto Alcan Yarwun (RTAY)

This project is an example of one of many small ecological surveys conducted by our team to determine impacts from industrial operations on receiving marine environments in the GBR World Heritage Area.

Our team conducted fresh and estuarine water and sediment sample collection program along Boat Creek for RTAY. Mangrove assessment was also undertaken as part of the ecological assessment.

The project required development of the sampling design, in-situ monitoring, sampling, laboratory liaison and reporting of in-situ and analysis results.

**Relevant Services**

- Sediment sampling, mangrove assessments

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**Environmental Advisory**  
Cheetham Salt

As Cheetham Salt’s environmental advisors since 2003, CQG has conducted water, acid sulfate soils, dust monitoring, waste sampling and monitoring across the company’s saltfields and surrounding environs adjacent to the GBR World Heritage Area near Port Alma in Central Queensland.

We have also undertaken mangrove historical imagery review, involving the collation of historic aerial imagery and GIS-based spatial assessment of changes in mangrove vegetation over time identifying visual changes from prior to operations to the current period.

CQG has conducted water sampling training courses for Cheetham's employees and represented the company in its discussions with the Department of Environment and Science during amendments to its environmental authority.

**Relevant Services**

- Full suite of environmental monitoring, regulatory support, data management, quality assurance, reporting.
Western Basin Dredging Project
Gladstone Ports Corporation

CQG was engaged by the Gladstone Ports Corporation (GPC) to conduct a Third Party Audit on the Western Basin Dredging Project, Early Off-shore Disposal Option and Environmental Approval Conditions for Fisherman's Landing Haul Road and Quarry.

This project included a review of water and sediment quality monitoring within the GBR World Heritage Area and the attendance on the dredge by our Principal Scientist to assess the implementation of the appropriate procedures.

Relevant Services
Dredging, auditing and approvals

Port Options Studies - Barging and Transhipping - Abbot Point, Hay Point, Bundaberg, Gladstone
Mitchell Ports (MP)

With the banning of capital dredging in non-priority ports, CQG’s team investigated options for the export of coal, sugar and other commodities from various ports along the Queensland Coast adopting alternative options to traditional port designs.

These studies included review of historical water quality and sediment data, site inspections, preparation of concept plans, review of historical data, engagement with stakeholders – port authorities, land owners, coal and iron ore mining companies, Aurizon and other interested parties e.g. Queensland Sugar Limited, Bundaberg Sugar, small bauxite mining companies.

Of those studied, the Port of Hay Point was chosen as the preferred option and subsequently saw the preparation of concept designs, marine modeling, preparation of an EPBC referral and an Initial Advice Statement for the export of up to 22 mtpa coal via transshipping (Bowen Basin Terminal Project – currently in early phases of EIS). This project will facilitate additional export out of an existing port with minimal land based infrastructure.

Field survey work included noise monitoring (including acid sulfate soils), ecological surveys, water quality monitoring and soil sampling.

Relevant Services
Noise monitoring, ecological surveys, water quality monitoring and soil sampling.
CQG Consulting

Rockhampton
180 Quay Street Rockhampton Q 4700
PO Box 8384 Allenstown Q 4700
+61 (7) 4922 9252

Gladstone
15 Lord Street Gladstone Q 4680
PO Box 142 Gladstone BC Q 4680
+61 (7) 4976 9252

Mackay
+61 488 585 308

Brisbane
+61 419 760 411

ABN: 61 107 574 514

cqgroup.com.au