

Water quality and marine ecology monitoring



Trinity Consultants Australia (Trinity) provides specialist water quality and marine ecology monitoring services from its Gladstone office, where the Vision Environment business is based. Vision Environment also has a field office in Christchurch, New Zealand.

Established in 2008, Vision Environment comprises a highly qualified team of full-time research staff, readily mobilised field technical teams, dedicated laboratory facilities, specialised field equipment and commercial vessels.



Core competencies

Real-time, autonomous and manual water quality monitoring and sampling

Design and implementation of environmental plans:

- Water quality monitoring plans (WQMP)
- Receiving environment and compliance monitoring programs (REMP) including dredge monitoring and assessment
- Environmental management plans (EMP)

Use of specialist equipment and technology:

- Telemetered water quality monitoring stations with individual client cloud-based websites
- Multiparameter water quality sondes
- PAR loggers, ADCP and wave droids
- Scientific dive equipment
- Underwater drone/ROV
- Underwater still and video cameras
- Benthic multiplatform sled tow
- Fish survey tools including baited remote underwater video stations (BRUVs)
- Sedimentation loggers
- Stainless steel benthic grab samplers
- Side scan sonar

Ecological surveys and mapping:

- Seagrass
- Sediments
- Macrobenthic
- Fish
- Coral

Land-based ecological surveys:

- Freshwater ecosystems
- Mangroves
- Saltmarsh
- Other estuarine and coastal communities

Design, audit and review of operational plans and manuals:

- Site-based management plans
- Operations manuals
- Groundwater management plans
- Irrigation management plans

Review of licence conditions and negotiation with regulators to assist with approvals process

Introduced marine pest surveys

Collection and analysis of groundwater, soil and sediment samples. Interpretation of resulting analytical data

Three reasons to choose us

1

Qualifications and experience

All of our research staff have postgraduate qualifications and/or have undertaken rigorous further training. Our scientific dive team has comprehensive coral, fish, invertebrate and seagrass survey experience.

2

Expertise and equipment

In addition to our in-house research team, we operate our own commercial in-survey vessels and have experienced coxswains on-staff. This means we can easily mobilise for ad hoc and event monitoring surveys as required.

3

Dashboards and technology

Real-time data is transferred directly to a cloud database and automatically de-confounded. Our manual validated data recovery rate has been greater than 98%. We also offer live data display via custom dashboards for 24/7 project management.

Featured projects & clients

Calibration, maintenance and management of water quality data and instruments

Queensland Alumina

2015 – 2023

Six telemetered monitoring stations onsite and five telemetered monitoring stations in the receiving environment send recorded sensor data to the Vision Environment cloud for real-time viewing. Regular water quality sampling and marine and coastal ecology assessments.

Monitoring for capital and maintenance dredge programs

Gladstone Ports Corporation

2008 – 2021

Long-term partner of choice, undertaking water quality monitoring, marine ecology surveys and annual maintenance dredge compliance monitoring for more than a decade. Projects include Clinton Vessel Interaction Project, Western Basin Dredge and Channel Duplication.

Water quality and environmental compliance

Lyttelton Port of Christchurch, New Zealand

2016 – 2021

Monitoring and environmental compliance for New Zealand's largest ever dredge project, in addition to annual maintenance dredge monitoring.

Groundwater, sediment and soil

Gladstone Regional Council

2008 – 2021

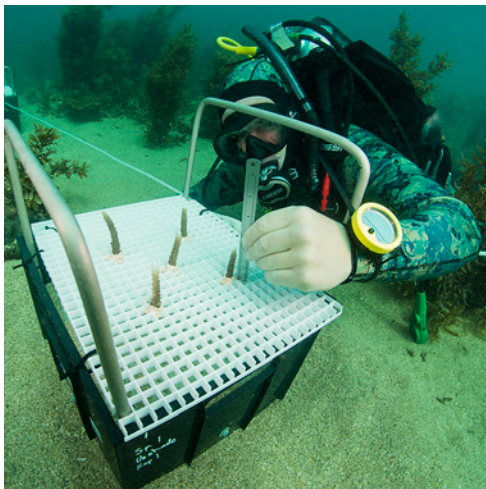
Preferred supplier, undertaking development of environmental management plans, as well implementation of marine, freshwater, groundwater, sediment and soil compliance monitoring at various sites throughout the Gladstone region.

Mangrove surveys

Papua New Guinea LNG Joint Downstream Development Project

2011 – 2019

Assessment of mangrove health and mapping of mangrove habitats in PNG over three surveys. Deliverables included comprehensive report, photographic images and detailed GIS maps upon completion of surveys.



Certifications, permits & insurances

- Health, Safety, Environment and Quality (HSEQ) Management System, certified under ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018
- Great Barrier Reef Marine Park permit to undertake research in the GBRMP, in all zones and locations except Preservation Zones and Special Management Zones
- All diving operations conducted to Australian/New Zealand Diving Standards AS/NZS 2299.2, and VE90 Diving Operations Manual
- Staff hold current Fisheries and Animal Ethics permits
- Appropriate insurances including Professional Indemnity Insurance cover of \$10 million, Public Liability Insurance cover of \$20 million, and Work Cover as per Qld statutory requirements

Contact us

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Get to know our work
Trinity Consultants Australia

