



# CAPABILITY STATEMENT

4t CONSULTANTS PTY LTD

## COMPANY OVERVIEW

4T Consultants Pty Ltd is an Environmental Services company based in Emerald, Queensland.

We recognise that, in order to exist on this planet we must utilise our natural resources – our soil, air, water and minerals. We also recognise that we must share these resources with future generations.

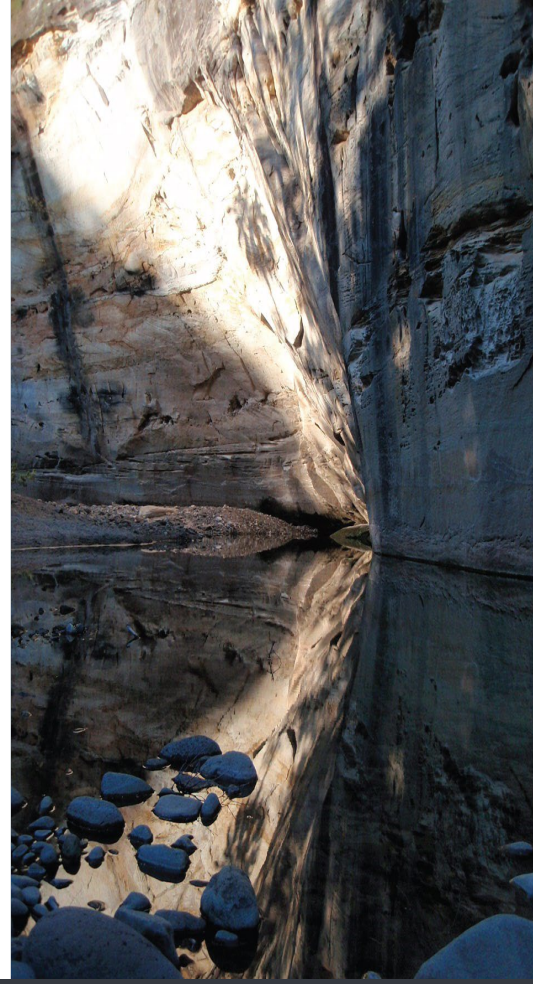
We believe that every person or organization that is responsible for using our natural resources to obtain production has the right to do so.

## BUT ONLY WITH GOOD STEWARDSHIP

That good stewardship endows the trust and respect that some call Social License. Our mission is to help our clients obtain economic production from our natural resources with the least environmental disruption we can manage. Our part is to provide the managers of our air, soil, water and minerals with accurate and reliable data and information, by always working to the highest standards of scientific and ethical integrity.

Only data and information of this quality will allow those managers to make their important production and planning decisions with confidence. Everything we deliver to our clients must be accurate, replicable and reliable. This is the focus of our work, and the commitment we bring to those who work with us.

Over 24 years of serving communities, industry, all levels of government, agribusiness and the resources industry, experience, we have earned our reputation for providing a reliable, safe and efficient service.



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Managing Director  
Ian Rankine

Director  
Bronwyn Reid

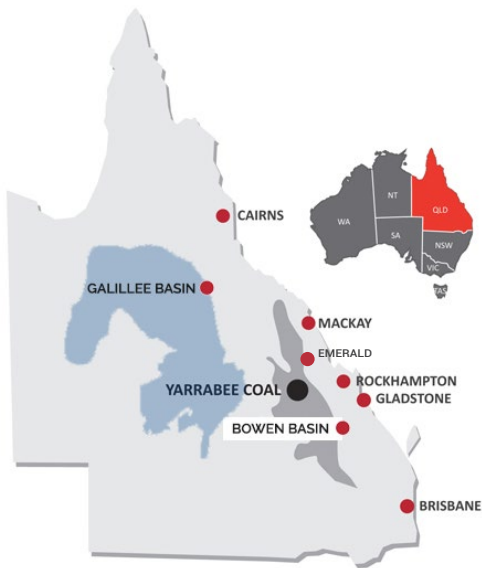
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# Capabilities

## THE WAY 4T WORK

Over 24 years, 4t has committed to achieving 3 important outcomes for our clients:

**Data Integrity** At the heart of 4t's operations is our commitment to scientific field monitoring standards. It is our firm belief that if field monitoring and sample management are not carried out correctly, with every sample replicable, the entire decision-making process following the sampling event is compromised. We ensure clients receive reliable results and reports they can depend on to make the best decisions.

**Exemplary compliance** A simple term, with a big meaning for 4t. Our client's reputations rely on it. The quality of the decisions that need to be made by our clients are directly proportional to the quality of the data collected. You must be confident that your current and future operations are completely compliant with both the law and community expectations.

**Safety and Efficiency** Contractor management is always an issue for clients. 4t has an excellent safety record of 0 LITs over 24 years, has never caused an interruption to client operations, or created an incident. Our documented systems make field work efficient and reliable.

If we say we will do something, we will do it!

Our strategic location allows quick access to the Bowen and Galilee Basins of Queensland, while being able to competitively mobilise North, East, South and West.

## SUPPORTING LOCALS

4T Consultants and Personnel are active members of the local community, supporting:

**Emerald Tigers Ladies Rugby League Team 2014 Sponsor**

**Dan's Fast Run 2012**  
Raising money for Stroke Research

**Emerald Karate Club Inc.**  
Sponsor 2015 - 2016

**CH Wildlife Carers 2018.**  
Sponsor 2016 - 2021

**Bula Boys, Emerald**  
Soccer Team 2021 - Sponsor

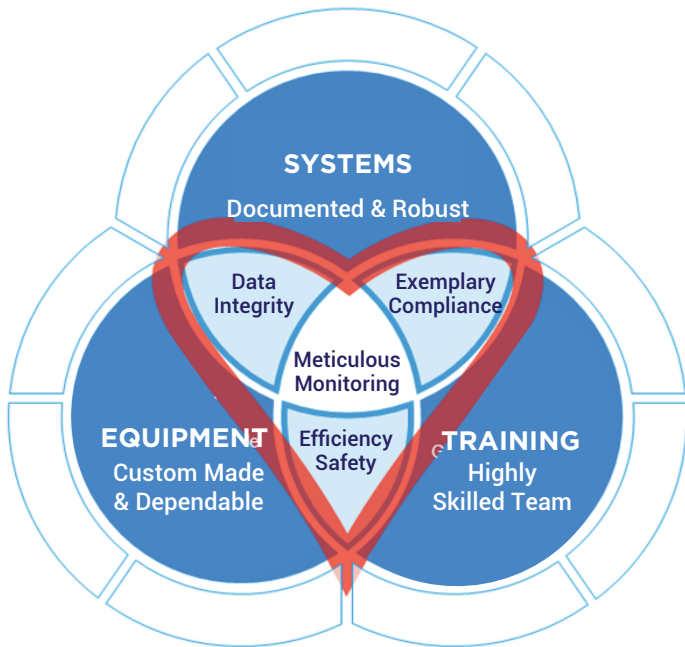
**CH Science Centre**  
Monetary Program & Support

**Mallo's Ride for Cancer**

Sponsor 2015  
4t's Directors and staff are active in many local groups & charities.







# Framework

## HOW-TO-FRAMEWORK

At the centre of our framework is the client, and our promise of meticulous monitoring and support. Around that promise are the three important outcomes that we deliver.

There are three levers that we use to achieve those outcomes.

**Systems** We have robust, documented systems about how we do everything. The only way to continually provide a quality product is to have strong, implemented and controlled business systems.

**Equipment** Our equipment is not rented and unreliable. We have worked for years to design custom and dependable equipment that exceeds standards.

**Training** We don't just grab a graduate. We spend a lot of time and effort to achieve a highly skilled team that works together.

For each of those levers there's a few things we do - these are our 'accelerators'. They make the levers even more effective.

## PARTNERSHIPS

4t Consultants have aligned our company with highly recognised consultants to provide specialist services for soil science, vegetation management, site rehabilitation, groundwater studies and landfill management.

## 4t CAPACITY

Automatic Monitoring Equipment  
Automatic Monitoring Stations  
Dust | Stream Loggers  
Drone Imagery  
Depth Loggers

## DATA MANAGEMENT & REPORTING

Environmental Database  
Automatic Compliance Reporting for routine monitoring.  
REMP, EA & EIS Reports  
Data Visualisation

## MONITORING & INVESTIGATIONS

Surface Water  
Groundwater  
Potable Water  
Air Quality  
Noise  
Aquatic Invertebrates  
Soil & Sediment  
Contaminated Land Investigations  
Spray Drift Investigations

## TRAINING PROGRAMS

Surface Water Sampling  
Groundwater  
Landfill Management



# Capacity



## AUTOMATIC MONITORING EQUIPMENT

Water Quality                      Telemetry                      Weather  
Dust                                      Stream Logger                      Vibration  
Drone Imagery

as well as Monitoring Equipment Hire.

## COMPLIANCE

Data Management and Interpretation  
Compliance Reporting - REMP, EA and EIS  
Environmental Risk Assessment  
Regulatory Report - MCU, RAL and SCL Applications  
Data Visualisation

## STREAM GAUGING & WATER STORAGE PROFILE

Soil Sediment Sampling  
Soil & Sediment Sampling  
Contaminated Land Investigations  
Spray Drift Investigations

## PARTNERSHIPS

4T Consultants have aligned our company with highly recognised consultants to provide specialist services:

Soil Science                      Vegetation Management  
Site Rehabilitation                      Groundwater Studies  
Water Management                      Landfill

## BIOLOGICAL MONITORING

Stygofauna

Aquatic Vertebrates

Macro-invertebrates



## WATER & SOIL

Surface Water Monitoring is completed in accordance with

Monitoring & Sampling  
2018 DERM

AS/NZ 5667.1:1998  
AS/NZ 5667.4:1998  
AS/NZ 5667.6:1998

## GROUNDWATER MONITORING

Groundwater Monitoring is completed in accordance with

Monitoring & Sampling  
2018 DERM

AS/NZ 5667.1:1998  
AS/NZ 5667.4:1998  
AS/NZ 5667.11:1998

Technical Guidance on Low-Flow Purging, Sampling, and Minimum-Purge Sampling  
Second Edition, Nielsen D 2002





# Team Experience



## A GREAT TEAM

It's easy to employ a scientist. But it is not so easy to hire the right person. We do everything we can to find the right people, then ensure they have the practical skills our clients need.

**Internal Competency Standards.** A University degree does not make someone "trained and competent". Field techniques and technical equipment knowledge are rarely taught. 4t has created our own internal competency standards that are assessed by a senior environmental scientist.

**Supportive Mentoring.** We help each person reach those competency standards through supportive mentoring. They will be working with a senior for three months or even more before they are allowed to work solo on a client's site.

**Continuous learning.** It is a KPI for our people that they engage in continuous learning. This includes both internal training and skills training from external providers, with a wide availability of topics. All field personnel meet the criteria for competency as outlined in the DERM Monitoring and Sampling Manual (2018) and AS/NZ Standards. At a minimum, all field personnel have generic black coal inductions, supervisor qualifications and are trained in First Aid.

Our team members hold additional qualifications and training in:

- Aquatic Vertebrate Sampling AusRIVAS
- Environmental Auditing
- Soil Science
- Erosion and Sediment Control
- Hydrology and Hydrography
- Contaminated Land Investigations
- Potable Water
- Cultural Heritage Protection
- Solid Waste | Landfill Management
- Data Visualisation | Data Science
- Campbell Scientific Equipment
- Certified Practising Agriculturalist
- Environmental Health
- Geology
- Zoology

## INDUSTRY ASSOCIATIONS

Four staff are Members for Professional Associations.

## EQUIPMENT, SOFTWARE & SYSTEMS

4t use modern, well-maintained equipment that is calibrated and serviced correctly and regularly.

We have invested heavily in Database Software to assist clients to extract relevant and real-time information from well organised data. EDMS for Environmental Data.

## GROUNDWATER PUMPING

Groundwater pumping is done using low flow pumping techniques to ensure a more accurate sample than traditional sampling methods.

Our Groundwater Pumps have been developed over a long period of time and are manufactured exclusively for 4T Consultants.

## PROJECTS - CLIENTS

- BHP
- Rio Tinto
- Stanwell Corporation
- Barcaldine Regional Council
- Central Highlands Regional Council
- CQ Compost
- Fitzroy Basin Association
- Terracom Resources
- Cowal Agriculture
- Ensham Resources
- Arrow Energy
- Sojitz
- Bravus Resources
- Glencore
- Peabody
- Vale
- Baralaba Coal | Anglo American
- QGC | Hancock Coal
- Aquila Resources
- New Hope Coal



# Equipment



## FIELD WORK IS OUR FORTE!

4T has designed and built custom groundwater monitoring equipment to suit Central Queensland conditions.

We own all our equipment - it is modern, well-maintained, calibrated and serviced regularly.

## MAINTENANCE

We use our equipment constantly and it is important that all equipment is fit for purpose and reliable. This eliminates delays due to failure or downtime.

Our groundwater pumps have completed many thousands of samples without a single interruption to a sampling schedule.

This level of reliability is not possible with rental equipment or alternative equipment (which 4t has previously field tested).

Because we do so much field work, all employees are trained in maintenance and calibration of all equipment. This results in no interruption to sampling schedules due to equipment breakdown.

4t carry spares and back up equipment to avoid work delays. We have a field trailer that allows us to mobilise for several weeks without having to remobilise.

Our Groundwater Pumps have been developed over a long period of time and are manufactured exclusively for 4t Consultants. This also assists local businesses to develop and retain skills.

Groundwater pumps are solar-powered, removing the need for petrol or diesel pumps on site and eliminating any possible contamination from engine fuels. They are also much safer.

All 4t field team members are trained and able to calibrate and undertake basic maintenance on all field equipment. This ensures that monitoring programs remain on schedule.

Field vehicles are fitted with a custom-made canopy that secures all equipment neatly and safely. The canopies are ergonomically fitted out to prevent injury and assist our field officers to work efficiently.

The canopy doors are insulated to provide sun and heat protection for field teams. This is an important consideration when daytime temperatures can exceed 40 degrees in Summer.

## GROUNDWATER EQUIPMENT

4t have super-heavy duty Groundwater Equipment that can get to the screen every-time.

We have never had a bore beat us yet!

## CUSTOMISED EQUIPMENT

The pumping equipment is housed in a purpose-built canopy to provide security, as well as keeping equipment organised and clean. Canopies are insulated to provide heat and sun protection for the field teams. This contributes to their safety and well-being on the job.



Automatic Monitoring Station





# Current & Recent Projects

Groundwater monitoring  
Baseline Groundwater Survey  
Surface Water Monitoring (Routine and Release Events)  
Aquatic Vertebrate Monitoring for REMP  
Spray Drift Investigation  
Baseline Soil Survey  
Contaminated Land Investigation  
Potable Water Sampling  
Automatic Water Monitoring Station Design & Install  
Landfill Design  
Landfill Management Plan  
REMP Design  
Soil Salinity Investigation  
Unplanned Water Release Reports  
Stormwater Management Plans  
International (Vanuatu) Septage Treatment Facility -  
Groundwater Investigation Project

## Why choose 4t?

The 4t team does not aspire to be a full-suite, everything-to-everybody consultancy. We have chosen our niche, honed our skills and methodologies, trained our team, and do those things very, very well.

We're here to make a difference. We want to make a positive contribution to natural resource management, not simply win and do a job.

We are committed to good science. Our commitment is to deliver accurate data and information into the hands of those in charge of environmental hazards so they can make their decisions with confidence.



## CUSTOMISED EQUIPMENT

4T has designed and built custom groundwater monitoring equipment to suit Central Queensland conditions.

The pumping equipment is housed in a purpose-built canopy to provide security, as well as keeping equipment organised and clean. The canopies are insulated, providing heat and sun protection for the field teams. This contributes significantly to their safety and well-being.

## CLIENT TESTIMONIAL

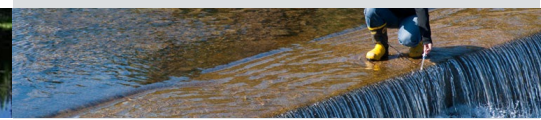
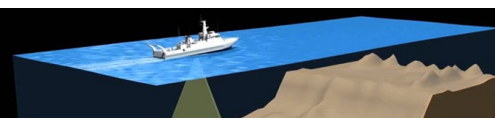
"They were able to accommodate our urgent time-lines, and still deliver a quality product".

## 4T CONSULTANTS

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Ian Rankine

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Bronwyn Reid

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# Management Systems



## FIELD TESTED

Our operational systems are practical and field-tested. We are not just doing things because that's the way everyone else does it. Our methods work in our conditions.

Our systems are all best practice. We follow all the laws, guidelines, and appropriate standards.

Our systems are implemented and controlled. It's no use having systems if they're not being used by everybody, every single day, and being adjusted as necessary

## TKO SYSTEM

4T maintain an electronic employee information system (TKO™ Transform Business Systems), containing all Company Policies, Procedures and other relevant data and information. TKO has full document control and versioning capabilities, designed for ISO9001 compliance.

TKO contains our: Operating Procedures; Quality Management System; Environmental Management System; Business Planning & Operations; Human Resources Management Systems

## HEALTH, SAFETY & ENVIRONMENT (HSE) RISK MANAGEMENT

All 4t Vehicles have mobile radios, and all employees are issued with mobile phones.

Satellite Tracking devices or Satellite phones are used in remote areas.

Safety checks are carried out with other team members at three (3) hourly intervals, when 4T employees are working remotely.

At all mine sites, 4T is currently safely meeting, or exceeding all the KPI's for environmental services. 4T has not sustained a serious LTI injury in over 20 years, and we are totally committed to maintaining our record.

## QUALITY

Everyone shares our commitment to excellence in all aspects of our business and contributes to the continual development of our systems, to provide additional value to our clients 4T operate a very flat management structure. As a result, implementation of improvements is achieved in short time frames. We don't have to seek permission from Head Office to make a change that is needed by our clients.

## INSURANCE

4T maintains all appropriate insurances for equipment and vehicles.

## PROJECT SIZE

4t is capable of undertaking individual projects up to \$2.0m per annum.

## CLIENT SERVICE - RAPID RESPONSE

As a regionally based company employing local staff, 4t is able to provide a high level of service flexibility. This becomes particularly valuable to our clients during rain events, where 4t staff can mobilise rapidly to meet legislative monitoring requirements.

We have team members located in Emerald, Blackwater, Rockhampton and the Sunshine Coast.

