

Noise and vibration monitoring



We help clients to meet all necessary noise and vibration standards and regulations, no matter what the industry or project.

Many of our experienced team of environmental engineers, scientists and technicians have been providing field noise and vibration measurements for more than 30 years.

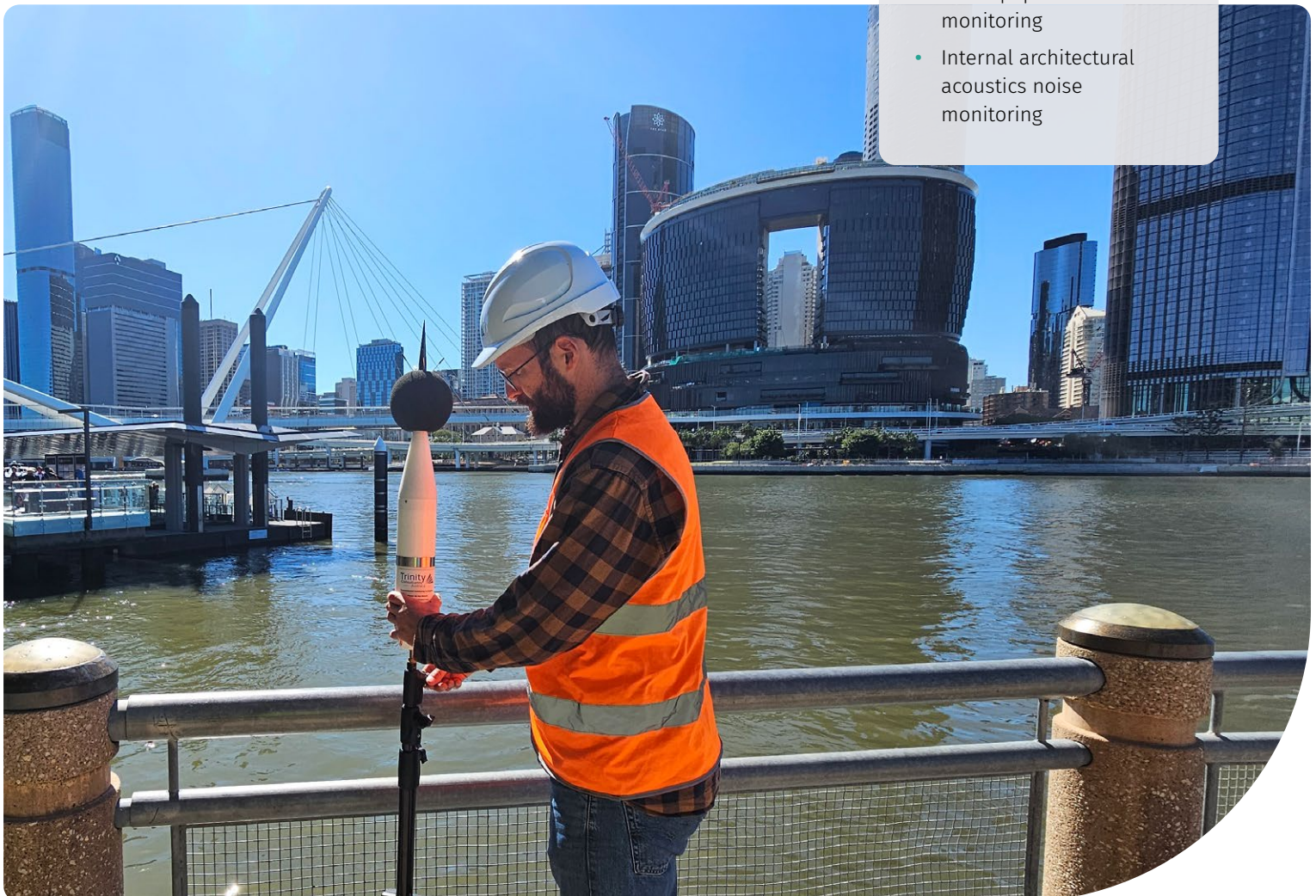
We tailor our noise and vibration monitoring services to suit sectors including transportation, mining, construction and utilities. We are familiar with green field, brown field, city, remote, coastal, road traffic noise corridor, rail corridor, aircraft noise hangar and construction site projects.

Each type of project or industry has unique noise characteristics and our team have discerning data analysis capabilities to ensure we provide high quality, accurate, valid and representative results.

Whether you require short-term, medium-term, or long-term monitoring, Trinity is ready to contribute to the success of your next project.

Our capabilities

- Construction noise monitoring
- Source noise monitoring
- Baseline noise monitoring
- Noise complaints investigation
- Event (concert) noise monitoring
- Liquor licensing monitoring
- Occupational noise monitoring
- Road traffic noise monitoring
- Rail noise monitoring
- Aircraft noise monitoring
- Mechanical plant and equipment noise monitoring
- Internal architectural acoustics noise monitoring



How we help

Here are some of the main ways we support clients with noise and vibration monitoring.

Environmental impact assessments

- A major challenge is negotiating or setting reasonable noise thresholds, which will set your development application conditions, licenses or permits.
- Without representative and accurate noise monitoring data, your DA conditions imposed may be unnecessarily stringent.
- This may result in prohibitive cost of noise mitigation measures, or restricted operations.
- Our team members have in-depth field experience to acquire data sets that are current, accurate and representative, to establish reasonable and fair threshold levels for the project proponents and the surrounding community.

Construction noise and vibration monitoring

- You must balance cost, accuracy and reliability to manage these noise and vibration sources effectively.
- At Trinity, we leverage advanced machine learning and noise recognition capabilities to enhance our monitoring processes.
- Our systems support remote connections, enabling real-time SMS and email alerts to assist with making crucial decisions in a timely manner.

Architectural acoustics refurbishment fit-outs

- Base buildings may have underlying acoustics issues including structure-borne noise, flanking noise and elevated internal noise levels originating from adjacent spaces.
- Baseline noise and vibration monitoring undertaken during the early design phase will assist in identifying the site-specific noise issues and guide our acoustics design advice to meet the design standards.
- Having the baseline data has proven invaluable in helping our clients to make informed decisions, particularly when the measured baseline data indicate that more onerous noise and vibration mitigation strategies will be required.

Dispute and complaint resolution

- When faced with contentious disputes or community complaints, it is paramount to gather high quality, accurate and representative noise data sets to provide indisputable and credible evidence.
- We lean on our team's experience and on our precise and reliable instrumentation to support clients while protecting the community.

Equipment and software

At Trinity, we ensure our equipment always aligns with the latest technological advancements. Our global presence keeps us at the forefront of new developments, and our commitment to innovation enables us to provide innovative and highly effective noise and vibration monitoring solutions.

Trinity owns and maintains a large fleet of noise monitoring instruments. We have a range of in-house equipment including Bruel & Kjaer, Larson Davis, Norsonic and Svantek sound level meters. Our sound level meters are Type 1 in accordance with BS EN 61672-1:2003 and cover the following features:

- Continuous long-term noise logging capabilities with solar power
- Low frequency noise
- 1/1 and 1/3 octave band
- Remote live data and sound recordings
- Building acoustic parameters.

Safety and standards

- Safety is our priority. Each of our team members holds current white construction cards and is site-ready.
- We adhere to the professional code of ethics and actively engage in continuous professional development to stay current across all essential issues and challenges facing our clients.
- JAS/ANZ 3rd Party Certified by SCI Qual International (certification number 4277) for our Quality Management System, which is in conformance with ISO 9001:2015.
- Level 3 Prequalification status with Queensland Government, PQC Registration Certificate Number 4663A.

Our clients

- Scentre Group – construction monitoring for various projects
- James Hardie – source noise monitoring for use in noise impact assessments
- Gladstone Ports Corporation – compliance noise monitoring of port activities
- QRail – rail noise monitoring and noise monitoring within a pedestrian tunnel
- North Byron Parklands – Splendour in the Grass and Falls Festival event noise monitoring