



Environmental Results is an acoustical and environmental consultancy with vast experience in noise assessment, noise modelling, noise measurement, architectural and building acoustics and occupational noise.

As well as providing assessments for local and state government requirements, we develop solutions for noise management in industry and commerce, transportation, major infrastructure and residential development.

Environmental Results professionals are skilled in acoustics, environmental assessment including planning and environmental legislation.

Our clients include:

- aircraft, rail and road agencies
- infrastructure managers and developers
- architects, planners and developers
- industry of all types
- residential and commercial property developers
- the construction industry
- government organisations

## **Noise Assessments**

Noise impact assessments can be required for developments where noise may affect residents and other activities.

We prepare noise assessments to meet local government, New South Wales Department of Environment and Conservation (DEC), Liquor Administration Board or Department of Infrastructure, Planning & Natural Resources (DIPNR) requirements.

Where noise problems cause concern to residents, we can investigate and develop options for reducing noise problems using measurement instrumentation and computer modelling of noise sources.

We use noise maps to model traffic, rail and industry noise sources to assess noise impacts for all types of projects.

We have experience in preparing noise assessments for:

- Residential developments
- Commercial developments
- Industrial developments
- Hotels
- Theatres, cinemas, auditoriums, music rooms, recording and rehearsal studios
- Churches

## **Noise Mapping**

We have state-of-the-art noise mapping software (SoundPlan) to assess noise levels from industry and all transportation sources.

Noise maps are colour coded maps showing noise levels from either individual or collective noise sources. Noise maps are invaluable aids in community consultation programs and for planning new developments and managing noise in a local setting.

Noise mapping can be used as a management tool to monitor and ensure that areas maintain and improve their acoustical amenity. They can be used to evaluate 'what if' options to optimise locations of noise sources and receivers.

## **Aircraft, Road and Rail Noise**

Environmental Results provides specialist services in aircraft noise, road and rail noise assessment, measurement and computer modelling.

Our services include:

- Aircraft, road and rail noise assessment reports when needed for development applications to councils based on AS2021 (aircraft) and AS3671 (road traffic)
- Road traffic noise measurement and assessment
- Noise barrier design to achieve design noise level goals
- Design of building facades to reduce aircraft, road and rail noise
- Rail environmental noise and vibration measurement, assessment, modelling and noise barrier design.

Our experience in relation to aircraft, road and rail includes:

Consultants to the Sydney Aircraft Noise Insulation Project involving extensive testing, research and design of dwellings, schools, churches and other buildings

Rail noise assessments for new developments; measurement (using state of the art PC based multi-channel noise instrumentation); review of existing noise issues involving community; rail noise research; Road traffic noise assessment, measurement and computer modelling for new and existing roads; optimising the use of facade and noise barriers to provide the best and most cost effective mix of these traffic noise controls for different locations.

### **Building Acoustics and Design**

Good acoustical design at the project design stage can prevent noise problems such as noise from traffic, noise from adjacent residences and can allow acoustical privacy in the workplace.

We assist in the design of new buildings & provide advice on modifying existing structures to minimise sources of internal and external noise and vibration.

Our experience in relation to building acoustics & design includes residential, commercial and public buildings including schools, churches, hospitals and universities.

For projects where noise measurement is needed we have state-of-the-art NATA calibrated instrumentation for reverberation time, background noise and sound insulation testing.

### **Community Consultation and Mediation**

Consulting with the community is fundamental to the success of any project regardless of the project scale. Environmental Results:

- Develops communication strategies;
- Designs and manages community consultation processes;
- Conducts mediation sessions.

### **Environmental impact assessments**

We have highly experienced professionals in environmental impact assessment and related legislation and requirements for all types of projects from infrastructure through to private sector developments.

We project manage environmental assessments in a one-stop-shop process from the early identification of environmental requirements through to the preparation of Reviews of Environmental Factors and Environmental Impact Statements and obtaining statutory approvals.

Community consultation is an important component of all parts of the environment assessment process. Our advice and approach is to involve community consultation as early as possible with our highly experienced professionals.

### **Environmental Policy and Strategy**

Organisations are increasingly in need of sustainable approaches to the range of environmental issues that affect them. It's good for business and the environment.

We have developed and advised on strategy documents and policy for both public and private sector organisations. We design approaches to environmental issues that suit your organisation whether it's a corporate environmental strategy, policy or an environmental management plan.

### **Noise Measurement**

Environmental Results is equipped with the latest computer-based noise measurement and data logging equipment to assess the noise impact of a wide variety of developments and activities.

We have building acoustics instrumentation for the testing of walls and floors.

Our instrumentation can be used for both data logging (long term noise monitoring) and attended measurements, allowing noise assessments to be tailored to meet the specific needs of clients.

We have designed the facades of buildings near roads and rail lines using our PC based noise instrumentation. For a block of units adjacent to a new freeway, we identified the actual nature of the problem using instrumentation that simultaneously stores the noise data on a notebook computer and makes an audio recording of the noise source for later analysis. By making measurements before and after the facade insulation we were able to play and audio recording that demonstrated the reduction in noise due to the insulation as well as show the overall reduction in noise in decibels.

Measuring the transmission loss ratings of panels is carried out with instrumentation using speakers as sound sources (for the transmission loss of internal walls) and multi-channel instrumentation. We use transportation noise sources (eg aircraft) using ISO140 to assess the transmission loss of windows and doors installed in buildings.