

# Statement of Capabilities

Beyond Consulting

www.egc.com.au





Brisbane Gladstone

## **Successfully Managing Environmental Projects for Over Two Decades**

EGC is a 100% Australian-owned environmental consultancy with a proven track record in delivering innovative, sustainable and practical solutions which are easy to understand and implement.

Established over 25 years ago, with offices in Brisbane and Gladstone, we have experience in partnering industry, communities and government on environmental projects throughout Australasia and internationally.

EGC provides a wide range of environmental management, development and monitoring services, specialising in environmental impact assessment, geology and hydrogeology, ecological investigations, waste management, industrial development approvals, climate change and sustainability issues, air and noise assessments, chemical and process engineering and environmental auditing.

The multi-disciplinary scientific expertise of EGC staff, combined with our focus on fully understanding your needs and desired outcomes, results in a personalised, effective and highly professional service.







## We select the best personnel and implement the right strategy in order to deliver exceptional results.





EGC is a progressive company which follows the principles of best practice and the triple bottom line ethos. We endeavour to set a higher standard of service than that offered by our competitors, while our consultants act with the highest integrity and respect to deliver environmental solutions which exceed the requirements of our clients

#### Our core aims are:

- "...to be proud of the environmental solutions provided to our clients..."
- "...to apply an innovative technological and scientific approach..."
- "...to ensure that our advice is always in accordance with the ethics of environmental sustainability..."

The high quality of our work has been recognised by a number of international awards and commendations in the area of environmental management, including the BP Chairman's Award for Excellence and Innovation in Health, Safety & Environmental Performance and the Queensland Resources Council High Achievement Award.

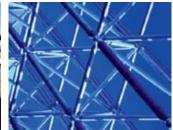
EGC guarantees a highly professional service through our Quality Management System certified to ISO 9001:2008 standards

### **Environmental Services**

Today's society places more emphasis on environmental practices and compliance than ever before. EGC has the capabilities and expertise to meet and exceed these demands for our clients. From concept to completion, EGC are fully committed to helping our clients achieve their environmental and company goals.









#### **Environmental Impact Assessment**

Development of a natural resource, whether you are in mining or urban expansion, is going to create significant environmental impacts. EGC specialises in the preparation of Environmental Impact Statement (EIS) documents for large and small projects across the entire spectrum of developments. We'll conduct the assessment, co-ordinate specialists in other fields where appropriate, and make comprehensive recommendations which will speed up the development process.

#### Fauna and Flora Assessments / Spotter-Catcher Services

The accurate and precise description of faunal and floral communities is a critical component to many development applications, and forms the basis of best practice environmental monitoring programs. EGC consultants are experienced in both terrestrial and aquatic systems and will tailor the investigation to suit your needs and ensure an outstanding result. Our capabilities include fauna spottercatcher services in remote areas.

#### Acid Sulfate Soil Investigations

Exposure of acid sulfate soils to air during disturbances such as earthworks, dewatering, dredging or land clearing can lead to the production of sulphuric acid and the release of iron, aluminium and heavy metals from the soil. This can result in significant environmental damage. Our capable scientists are experienced in the identification, assessment and management of acid sulfate soils and the regulatory processes involved, providing expert advice to deliver reliable outcomes.

#### Development Approvals (DA), Permits and Licences

The maze of current environmental and planning legislation can cause unnecessary delays to your project unless the right actions are taken at the right time. With years of experience in obtaining permits, environmental licences and DA's throughout Australia, EGC will successfully guide you through the regulatory process and assist you with long term environmental and planning compliance.

#### Environmental Management Plans (EMP's)

Environmentally responsible management is critical to the success and regulatory approval of a project and can be provided through development of Environmental Management Plans (EMP), which specify performance indicators and management techniques to successfully manage or mitigate impacts of a project. We have generated numerous EMP's, tailored for a range of clients and projects, to achieve the required environmental objectives and gain the necessary regulatory approvals.

#### **Environmental Compliance Monitoring**

Environmental monitoring programs allow for the early identification of environmental issues and provide an opportunity for scientifically reliable and effective responses. Our dedicated team of scientists has a wide range of expertise in the design and implementation of comprehensive monitoring programs aimed at protecting a variety of ecosystem types.

### ISO 14001 Environmental Management Systems (EMS) and Auditing

Best practice environmental performance requires a commitment to continuous improvement. EGC is experienced in the development and implementation of environmental management systems to the international standard ISO 14001 and will provide your organisation with continued support for the ongoing maintenance of your system. Whether auditing to verify the effectiveness of your EMS or with other requirements, our staff will help design and conduct an audit program to assist your organisation and provide expert advice.

#### Geographical Information Systems (GIS)

GIS can illustrate complex scientific data, such as vegetation change or hydrological monitoring, in a simple user-friendly manner. Our GIS expertise not only encompasses a complete suite of mapping and analysis services, but also includes software customisation for the development of environmental management and information systems for a range of clients and industries.

## **Contaminated Sites and Waste Management**



### Installation of Groundwater Wells at a Tank Farm

EGC specialises in the evaluation of sediment and groundwater contamination resulting from chemical spills, landfills or from operational activities. We advise on remediation activities necessary to ensure compliance with legislation and company environmental goals.



#### Contaminated Site Audits and Assessments

The contamination of land and/or water by historical sources can pose significant damage to the environment and public health, while future development may be affected due to intensive legislative and financial restrictions placed on property owners. Underpinned by years of experience in contaminated site assessments, audits and producing reports for regulatory authorities, EGC consultants can predict the likelihood of land and/or water contamination and assist you with its prevention. We also provide expert practical advice on your obligations under current legislation governing environmental protection, land/water contamination issues and waste management and help you navigate your way through the regulatory requirements.

#### Geophysical Evaluation of Contamination

EGC offers services in terrain evaluation based on geophysical electromagnetic investigations and a range of sensing data including satellite imagery. Our terrain analysis expertise, when linked with our in-house GIS capability, provides a unique data management, analysis and mapping service to manage contamination and the associated costs. This service is invaluable for studies in land planning, rehabilitation and contamination investigations and can be called on for current and future projects.



#### Sludge Removal

EGC developed specialised equipment - a 'mud sucker' for shallow sludge thickening lagoons, which allows for fast and efficient removal of residue at petrochemical sites.

### Site Remediation and Validation

EGC's team of experienced scientists can develop sitespecific remediation options, prepare specifications for contractors, supervise the remediation process and carry out site validations. We also have a proven record in cleaning up accidental spills including hydrocarbon, caustic and cyanide contamination and restoring sites to their prespill state. Our comprehensive knowledge of contaminated land issues and innovative remediation solutions can streamline the remediation process and contribute to significant cost savings.

### Water and Wastewater Treatment and Re-use

EGC enjoys a long history of providing a range of specialist services in water, wastewater and sewage treatment, encompassing treatability and quality assessments, treatment process design, equipment selection and operational advice. Our professionals have developed numerous water management plans for industrial sites on a range of scales in which the careful implementation of wastewater recycling and effluent reuse strategies have resulted in reduced water demand, lower overall costs and more sustainable performance.

### International Routes for Recycling/Disposal

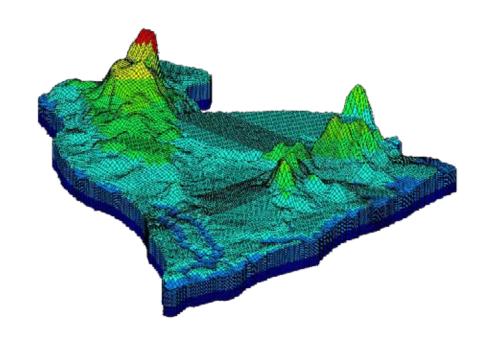
Waste that cannot be processed in Australia (i.e. spent catalyst from oil refineries) must adhere to strict national and international regulations concerning its packaging, transport and recovery. EGC has unique experience in the preparation of feasibility studies, detailing the options and routes of transport, organisation of permits and accurate recording of procedures to ensure a smooth and safe waste disposal process. We can turn waste from a liability into an asset.

## Surface Water and Groundwater Management









#### **Surface Water Modelling**

During the development of surface water management plans, EGC employs conceptual and numerical computer models. Depending on the requirements of the project, EGC modelling specialists tailor the analysis to your needs, including estimation of peak flows, volumes and flood levels. Where these levels are excessive, our trained staff will provide a range of design options to reduce the magnitude of flooding.

#### Stormwater Management

The accurate assessment of surface runoff on existing or proposed sites can be vital in determining the potential impact of stormwater on the environment. Our team of experienced scientists utilise advanced computer modelling combined with physical monitoring using specialised field equipment and chemical and microbial analysis. This comprehensive approach results in high quality recommendations for the installation of suitable Stormwater Quality Improvement Devices (SQID), and the minimisation of stormwater impact on a site. We will also manage the permitting process associated with implementation of stormwater management devices.

## Groundwater Resource Development, Management & Modelling

Groundwater has become increasingly critical with the advance of water supply and contamination issues nationally. EGC hydrogeologists have substantial skills and experience in the development and management of groundwater, including the establishment of water supplies for both domestic and industrial applications, the organisation and supervision of drilling contractors, field well installation and groundwater pump testing.

Employing industry standard modelling systems such as the GMS software suite, our trained scientists will develop a far greater understanding of the groundwater environment, predicting aquifer flow rate and direction, yield and the effects of pumping on an aquifer. Our integrated approach to empirical studies and computer modelling will assist with your decision making process.

#### Constructed Wetlands

Constructed wetlands act as a polishing system for industrial wastewater or stormwater, and offer secondary benefits such as the creation of habitat and green space. EGC has considerable experience in providing these services to industry, government and the private sector. International awards and commendations such as the BP Chairman's Award for Excellence and Innovation in Health, Safety and Environmental performance attest to the quality of our work in this field.

#### Ecotoxicology

Protection of aquatic ecosystems from contamination via surface and groundwater includes both effluent management and monitoring, and the evaluation of impacts on benthic organisms, fish and other fauna and flora. EGC can assess the toxicity of contaminants entering the aquatic environment and assist in the identification and removal of selected toxic streams during production, thereby reducing the risks to the environment and your project's long term liability.



## **Air and Noise Investigations**







#### Ambient Air Monitoring

We recognise that ambient air monitoring often requires skills and experience beyond the traditional scope of compliance monitoring, contaminant sampling and plume dispersion modelling. With a team of experienced professionals, EGC will meet and exceed your requirements, and can also perform surveys and impact assessments for environmental noise and odours.

#### Workplace Monitoring

In any company, healthy staff equals a healthy business. Effects of poor air quality in the workplace can have significant adverse effects on your staff, and ultimately, business productivity. We are experienced in workplace air monitoring, designing and conducting workplace and hazardous substance audits including asbestos, contaminant sampling programmes, and providing expert advice to determine how to maintain your workplace environment in the best shape.

#### **Noise Assessments**

As an employer, you have a duty of care under health and safety law to minimise the risk of hearing damage to your employees. A noise assessment is the best method to determine the size and scope of the noise problem, how to control noise exposure and to educate staff in order to minimise risk. Our team of scientists have years of experience performing comprehensive noise assessments and monitoring, and providing practical advice and actions plans to mitigate noise and ensure regulatory compliance. EGC also provides acoustic mapping for industrial sites and traffic noise assessments.

#### **Dust and Vibration Assessments**

EGC have a wealth of experience in the quantiative measurement of dust emissions and vibration. Whether for licence compliance needs, performance testing or scientific research, EGC will provide easy to interpret results and practical advice.

#### National Pollutant Inventory (NPI) Reporting

Facilities that use NPI substances above certain thresholds must report any emissions of those substances for environmental compliance purposes. Having performed numerous NPI reports for large industries, principally in the mining and refining sectors, EGC have a deep understanding of NPI methodology and will provide expert advice to ensure you achieve your statutory and corporate environmental reporting targets.

#### Coal Seam Methane Evaluation

EGC uses advanced technology for measuring and evaluation of coal seam methane both in open cut mines as well as in extraction wells. We provide in-field expertise and detailed reports on the volume and characteristics of methane gas deposits. The qualitative and quantitative results can be presented to your company in a GIS format to allow you to make informed decisions for exploration and financial purposes.



## **Occupational Health and Safety Services**

#### **OHS Management Systems**

OHS management systems provide a systematic approach for the successful management of all health and safety risks in the workplace and can help reduce the potential of work-related death, injury and disease. We understand the interrelationships between OHS, quality and environmental management, allowing us to develop and implement integrated systems which will optimise your work practices, policies and procedures.

#### OHS Systems/Compliance Auditing

EGC specialises in OHS management system and compliance audits, helping government, industry and the wider community not only to meet but to exceed their OHS commitments. Utilising various audit tools, our team will deliver comprehensive OHS and dangerous goods/hazardous substance audits that are tailored to your organisation's policies and business operations.

#### Contractor Management

In modern industry, effective management of out-sourced staff can enhance quality of work, OHS performance, company reputation, and make the difference between a good and great project. Our team will provide expert advice and assistance in contractor Health, Safety and Environment (HSE) management by developing contractor assurance systems ensuring compliance with legislation. We can also assist to implement criteria and assessment tools to ensure the contractors are compliant with your OHS requirements.



#### Accident/Incident Investigation

To ensure an organisation learns from accidents/incidents in the workplace, thorough investigation into the root cause is essential to prevent recurrence. EGC has conducted numerous detailed investigations of accidents in the workplace, developing comprehensive systems and strategies to ensure organisations achieve relevant Workplace Health and Safety legislation, reporting and notification obligations.

#### **Construction Safety**

EGC has assisted numerous

principal contractors with development, implementation and review of the construction workplace plan and work method statements. Construction workplace health and safety obligations have to be met through facilitation of risk assessments, development and delivery of site induction materials, performing hazard inspections/surveys and providing specialist health, safety and environmental advice.

## Mine Rehabilitation and Management

#### Mine Rehabilitation

Sustainable development is a key challenge for Australia's mining industry in the future, with poorly rehabilitated mines often providing a testing legacy for governments, communities and companies.

EGC has successfully rehabilitated mine sites, and is experienced in the management of restoration works, transitional environmental programs, tailings and drainage management, and revegetation regimes. By implementing leading practice integrated restoration programs, our scientists and consultants will help return the land to the best possible condition and maintain your reputation in the industry.





## **Climate Change and Sustainability**

#### Green Asset Management

Climate change is a global problem that requires the drive of many individuals to resolve. Yet the plethora of options in the green marketplace can be hard to navigate for companies wishing to boost corporate sustainability. By utilising scientific principles and cutting edge technology, EGC professionals can offer expert advice in the identification and quantification, development and management of your 'green assets' to help you make informed sustainability choices that best serve your business.



#### Greenhouse Gas Assessments and NGERS Reporting

With an Australian Emissions Trading Scheme (ETS) in the making and regulatory programs already in force, such as the National Greenhouse Emissions Reporting Scheme (NGERS), many facilities and companies desire to achieve a better understanding of their emissions footprint. Following best practice international and national guidelines, EGC quantify your emissions in a simple and effective manner, and can guide you through the regulatory jungle.

#### Energy, Water and Waste Management

EGC provides specialist services in energy, water and waste auditing, and development of water efficiency management plans (WEMP's) for your business. In addition to becoming more sustainable, your company may benefit through reduced costs, ensuring regulatory compliance, and becoming better prepared for future environmental challenges.

## **Professional Training**

#### **Professional Training Courses**

EGC offers a wide range of professional courses for industry all over Australia.

QSA accredited Lead Auditor Courses in:

- Occupational Health and Safety Management Systems;
- Environmental Management Systems; and
- Quality Management Systems.

EGC also develops and delivers a range of customised training and awareness courses relating to health, safety and environment. We offer customised training in hazardous substances and dangerous goods management, environmental management systems, technical environmental topics, practical risk assessment, working at heights, personal protective equipment (PPE), site-specific hazards, various occupational health topics, electrical safety and a range of other topics of interest.

Training and awareness courses can be delivered at your place of work, or we can arrange suitable training venues.

### "We care and we deliver."



### **Contact Us**

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