



CLIENTS | PEOPLE | PERFORMANCE

# ENVIRONMENT SERVICES



GHD IS AN INTERNATIONAL PROFESSIONAL SERVICES COMPANY. OUR PEOPLE DELIVER INNOVATIVE SOLUTIONS BY COMBINING TECHNICAL SKILL AND EXPERIENCE WITH AN UNDERSTANDING OF OUR CLIENTS' OBJECTIVES AND ASPIRATIONS.

## ENVIRONMENT SERVICES

Managing the developmental impact on our natural resources continues to intensify, with communities and stakeholders increasingly scrutinising the environmental performance of organisations. Communities demand a sustainable approach to the management of the environment to protect biodiversity, and provide economic and social sustainability.

GHD's integrated solutions for the environment help clients enhance performance through sustainable outcomes. We assist clients - state, federal and local government authorities together with public and private organisations in all industries - transform concepts into reality, while meeting regulatory, community and environment requirements.

GHD's Environment Group has earned a reputation for excellence and integrity – based on a commitment to high performance standards in environmental planning, engineering, science and management services. Our environmental specialists leverage GHD's global network to provide the most effective team for your project, either directly or through an alliance partner.

## OUR EXPERIENCE

### ENVIRONMENTAL IMPACT ASSESSMENT

Our clients are increasingly faced with the challenge of meeting the requirements of more stringent legislation and maturing community expectations. As a result, Environmental Impact Assessments are becoming a central element of development approvals on a global scale.

GHD's Environmental Impact Assessment team is recognised for its ability to manage and prepare solutions for a wide range of environmental issues. Our environmental and community planning specialists, engineers and scientists collaborate extensively to understand the complex environmental and social impacts of new developments. Two of our signature Environmental Impact Assessment projects include a multi-billion Aluminium project in Saudi Arabia for Ma'aden and the exclusive Palm Jumeirah in Dubai for property developer Nakheel.

### CONTAMINATED LANDS

Contamination of land or groundwater can pose a heavy legal, financial, community and environmental burden on the property owner. Substantial cost savings can be made through the use of innovative remedial solutions to contamination problems.

GHD has a proven record in dealing with some of the most difficult contaminants in soils and groundwater including Scheduled Wastes (pesticides and PCBs), dioxins, gasworks contamination, and contamination involving hydrocarbons and metals. Our teams of accredited auditors, specialist scientists and engineers have assisted clients in remediating some of the largest projects of their type in Australia, including the Newstead Gasworks site in Brisbane. Internationally, GHD is leading a team in Bangladesh, funded by AusAid, to determine the most effective methods of assisting millions of people at risk of arsenic poisoning from groundwater.

### AIR AND NOISE

Air quality and noise control play an important part in minimising our footprint on the environment. GHD's noise capabilities are drawn from acoustic science, mechanical engineering and structural engineering disciplines. In 2005, GHD created history





with its innovative design and development of a noise attenuation package for Caterpillar 789C haul trucks, resulting in the world's quietest Caterpillar truck.

Whether they be inventories of regional or national emissions or definition of specific releases for the purpose of modelling, our air quality management solutions are practical and built on a solid scientific foundation.

#### TERRESTRIAL SCIENCES

Salinity, land clearance and degradation, water quality and availability, loss of biodiversity, pollution and coastal zone management are just some of the issues impacting our biological environment, economic development and community health throughout the world. GHD's Terrestrial Sciences team combine technical capabilities in the natural sciences with engineering, planning, management and consultation skills for a fully integrated solution.

#### SUSTAINABILITY

GHD's sustainability consulting services help public and private sector businesses to explore opportunities to reduce their environmental impact, maximise their efficiencies and develop strategies for continuous improvement. A triple bottom line approach to reporting performance allows organisations to understand the economic, social and environmental influences and attributes of their business. Many organisations are adopting this approach as the way to evolve into a more sustainable enterprise and promote continual improvement.

Recent projects include a new Environmental and Social Risk process for the ANZ Banking Group and embedding sustainability into the decision-making approach for numerous infrastructure projects.

#### WASTE MANAGEMENT

Waste avoidance, recovery and reuse of discarded materials, effective landfill management and responsible management of hazardous wastes, are all critical elements of sustainable development.

GHD's waste management team provides advice and solutions for the complete range of waste management issues, and work closely with environmental planners, scientists and community consultation specialists to provide an integrated service offering to our clients.

More recently, we have assisted the Blue Mountains City Council, NSW, to undertake an Environmental Impact Assessment, and provided concepts and detailed designs for tender and financial modelling to extend the current Blaxland landfill facility.

#### ENVIRONMENTAL AUDITING AND MANAGEMENT SYSTEMS

Environmental audits can identify opportunities to implement or improve a management system, minimise risk of environmental fines, and reduce energy, water and other resource use. GHD's environmental auditors have extensive experience in environmental management and auditing, including due diligence assessments. They are accredited to ISO 14012 standards and registered with the Quality Society of Australasia. Our team has carried out environmental due diligence assessments for the sale of airlines, defence agencies, power utilities, oil and gas production and distribution facilities.



Implementing an effective Environmental Management System (EMS) can help to make sure that environmental risks are appropriately managed, and demonstrates a commitment to meeting legal requirements. Companies seen to be effectively managing their environmental impacts demonstrate leadership and generate positive exposure for themselves amongst their community, customers, clients and regulators. GHD has a successful record in developing Environmental Management Systems (EMS), including achieving ISO 14001 certification for its own EMS.

## AQUATIC SCIENCES

The determination of ecological health is emerging as a key issue in the aquatic environment, heralded in part by extensive changes to national and international Water Quality Guidelines.

Our Aquatic Sciences specialists are industry leaders in the design and implementation of habitat assessment, biological monitoring, water and sediment monitoring, hydrology catchment management and waterway rehabilitation. They have been engaged by clients to help protect coral reefs and mangrove systems in Australia and the Middle East, in harbour and port developments as well as offshore oil and gas installations.

Our services are complemented by close links with leading universities, specialist sub-consultants and research organisations, such as the CSIRO. In addition, our water quality assessment tools have benefited clients by determining the relationship between land use inputs, physical processes and the aquatic environment.

## SERVICES

- ▶ Air quality, modelling and odour control
- ▶ Aquatic sciences, marine biology
- ▶ Cleaner production and eco-efficiency
- ▶ Community consultation
- ▶ Contaminated site assessment/remediation
- ▶ Corporate reporting
- ▶ Environmental audits
- ▶ Environmental due diligence
- ▶ Environmental impact assessment
- ▶ Environmental management systems
- ▶ Environmental planning and approvals
- ▶ Environmental risk management
- ▶ Expert witness
- ▶ Forestry and carbon sequestration greenhouse gas assessment
- ▶ Hazardous materials audits
- ▶ Landfill design management and rehabilitation
- ▶ Mine rehabilitation and management
- ▶ Natural resource management
- ▶ Noise assessment and attenuation
- ▶ Waste avoidance, waste management and resource recovery



## ABOUT GHD

GHD is an international professional services company. Our people deliver innovative solutions by combining technical skill and experience with an understanding of our clients' objectives and aspirations.

With more than 6000 people in a network of 100-plus offices throughout Australia, New Zealand, Asia, the Middle East, the Americas and Europe, we serve clients in the global market sectors of infrastructure, mining and industry, defence, property and buildings and the environment.

Central to our clients' prosperity and GHD's success are forward-thinking engineers, architects, planners, scientists, drafters, project managers, economists and supporting staff. Our people embrace the core values that have sustained the company since inception – **Teamwork, Respect and Integrity.**

Established in 1928, GHD is ranked as one of the world's leading engineering, architecture and consultancy firms. We are dedicated to our clients and their stakeholders, to being a responsible corporate citizen and to improving the quality of life around the world.

We contribute to the goals of sustainable development and are committed to managing the social, economic and environmental impacts of our operations and assisting our clients to manage theirs in the provision of our technical consulting services. We recognise innovation as the key to realising this objective.

As a member of the World Business Council for Sustainable Development (WBCSD), GHD actively participates in the public debate on the role business has to play in managing climate change, energy, development and ecosystems.

GHD operates under a Practice Quality Management System that is certified to AS/NZS ISO 9001:2000 and our Environmental Management System (EMS) is accredited to international standard ISO 14001 by NATA Certification Services International (NCSI).

For more information, visit [www.ghd.com.au](http://www.ghd.com.au)



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