



GHD Water economics and policy



GHD's economics and policy offering provides advice in economics, policy, regulation, management and operations, with a particular focus on the infrastructure sector. Our client list includes regulators and suppliers, government and private enterprises, industry and industry associations. Our services include:

Economic and financial evaluation

- **Business case development** - assessing robustness and feasibility of integrated water and wastewater systems' infrastructure, programs and policies, ranging from treatment plants, dams, pipelines and irrigation projects to catchments management using cost-benefit analysis, computable general equilibrium modelling, wider economic benefit analysis, supply and demand forecasting, elasticity analysis, demographics, water availability marginal cost curves, trade and market analysis
- **Tariff pricing models** - including full cost recovery of potable water, irrigation and trade waste services in alignment with National Water Initiative (NWI) pricing principles
- **Project funding** - submission preparation and assessment of water projects including metering, asset management, drought contingency, flood management and water quality programs





Economic regulation, policy and strategy

- **Regulatory economics and policy analysis** - including third party access and interface management advice, in alignment with National Water Commission (NWC) and Council of Australian Governments (COAG) directions for policy, institutional and regulatory arrangements
- **Strategic planning** - including strategic options analysis, project implementation planning and value chain assessments

Corporate governance and operations

- **Corporate governance and compliance** - including corporatisation, privatisation, organisational restructuring and change management advice
- **Operational structure** - due diligence - modelling, efficiency performance measurement and productivity analysis at national, industry and individual enterprise level

Recent water projects

State Priority Projects: Quality Assurance of draft due diligence Assessments under Water for the Future Program - Department of Sustainability, Environment, Water, Population and Communities

We were engaged by the Water Efficiency Division of the Department of Sustainability, Environment, Water, Population and Communities to undertake a review of its draft due diligence assessment reports on State Priority Projects under the Water for the Future Program. The reviews were focused on the value for money criterion and the positive cost-benefit outcome aspect of it. The seven reports reviewed included: Basin Pipes (NSW), Healthy Floodplains (NSW), Irrigated Farm Modernisation (NSW), Metering Project (NSW), Sunraysia Modernisation (Victoria), Coorong, Lower Lakes & Murray Mouth Recovery (SA) and Riverine Recovery (SA).

Capital prioritisation in the Australian Urban Water Industry: practices review, principles and guideline - Water Services Association of Australia (WSAA)

Snapshot of the Australian urban water sector with respect to capital prioritisation practices, establishment of a common set of principles and a guideline for capital prioritisation. Seventeen WSAA members contributed to this project with questionnaire responses, practice information and case studies. The project was also supported by research into accepted national and international capital prioritisation practices, and interviews with State and Territory economic regulators.





Water tariff pricing model - confidential client

GHD developed a water pricing model engaging key stakeholders to articulate a long term strategic tariff structure. We reviewed current status and possible future approaches for water tariff strategy, assessing pricing principles, tariff options, policy and regulatory environment, as well as stakeholder considerations and transition issues.

Assessment of technology, procurement and funding for NSW Metering Scheme Murray-Darling Basin - State Water Corporation (and associated NSW agencies)

We provided analysis and recommendations to build a robust business case to apply for Commonwealth funding under the "Sustain the Basin" program. Project lifecycle costs were also developed and analysed economic and funding scenarios for the proposed NSW Metering Scheme, which includes regulated, non-regulated and groundwater sources in NSW's Murray-Darling Basin.

Due diligence - Membrane technologies market sector review – confidential client

A market share review of a confidential membrane technology company was completed as part of a due diligence study. The market sector review included identification of market trends in water and wastewater treatment membrane technologies' industry as well as assessment of service and product offerings, competitors and target markets.

Financial model for water infrastructure planning – Water Secure

Development of financial models to support infrastructure planning decisions. Appropriate financial rules, time profile and escalation factors were identified, and sensitivity analysis of significant variables was completed including demand profiles, capital and operational expenses and pricing options.

Operational model and costing, operational structure peer review – Gladstone Area Water Board

We developed operational model and associated costing for operations and maintenance services, including quality assurance and risk management strategies for the Gladstone water supply network. We were also engaged to peer review Gladstone Area Water Board's operational structure assessment.

Economic valuation of intangible benefits for alliance projects - Melbourne Water Corporation

We analysed non-financial outcomes that alliance-style project delivery has provided Melbourne's major water utility. Economic valuation techniques for non-financial outcomes and information requirements for implementation were identified.





Business case for treasury funding, aesthetic water quality program - Water Corporation

A business case was developed to secure funding required to deliver treatment solutions to aesthetic water quality problems in regional towns supplied by the Water Corporation. The business case was used to seek funding from Treasury (Victoria).

Financial review of urban water and desalination plant submissions - Federal Department of Environment, Water, Heritage and the Arts

GHD reviewed project proponent funding submissions in partnership with the client team. Items assessed included company financial viability, eligibility of capital costs, financial viability and cost effectiveness of the project in terms of levelised costs of water produced.

Profiling for drought contingency planning – confidential client

GHD was engaged to identify key challenges, stakeholders and information gaps to ensure security of water supply under severe drought conditions. We profiled acceptable levels of risk for equitable service provision, infrastructure and non-infrastructure implementation constraints and risks as well as likelihood and consequences of failure outlining relevant demand and supply management, capital investment, pricing and regulatory initiatives issues.

Due diligence – SE Queensland Water Reform program

We were asked to review and report upon the status of each of ten Council-managed water businesses that are now the three new water distribution entities in SE Queensland, enabling the incoming executive to understand the status of planning and compliance risks. A team was mobilised to cover a variety of areas including a review of existing demand forecasts for water and wastewater services and developing a regional wide forecast growth to 2040, assessing sensitivity to drought response and restrictions, embedded savings based on water efficiency, and pre-drought consumption.



Key people



Steve Kanowski - Business Group Manager

Steve is the Business Group Manager for Economics and Policy. With more than 26+ years' consulting experience in the infrastructure and resources sectors, he has worked on economic and financial analysis & modelling, demand analysis, pricing and cost modelling, operations and efficiency reviews, strategic infrastructure planning, public project investment evaluation, public private partnerships, privatisation, transaction support, due diligence and performance benchmarking. His experience in the water sector includes two-part tariff water-pricing and funding models as well as modelling of major water infrastructure economic impacts.



Tomas Nohel - Consultant

Tomas has been responsible for delivery of major and stakeholder-sensitive infrastructure projects. Tomas brings a combination of technical skills and understanding of commercial environment coupled with extensive experience in strategic planning, management and facilitation of large infrastructure projects. His recent experience includes funding submissions, metering scheme installation plans, policy advice on irrigation efficiency targets and cost efficiency and effectiveness review for the Murray-Darling Basin Commission.



Jan Paul van Moort - Executive Consultant

Jan Paul has more than 15 years' experience in rural development, research and environmental management. He is recognised for his ability to strategically integrate technical, business and social dimensions from local to national scales to provide high quality solutions. Jan Paul holds knowledge at strategic, policy and operational levels where he combines excellent problem solving and interpersonal skills to effectively work with landholders, community, research organisations, state and federal governments and industry. Jan Paul takes a key role in the provision

of evaluation services, particularly the development of evaluation frameworks. Over a period of two years, he has facilitated the Social and Economic National Coordinating Committee, which was convened by the National Land and Water Resources Audit to identify and recommend a set of social and economic indicators and protocols to assist assessment of the impact of NRM programs. He has facilitated numerous workshops with national and state jurisdictions for Commonwealth agencies on issues such as water standards, environmental information, water policy, socio-economic impacts and coordinated monitoring and evaluation.



John Roberts - Executive Consultant

John has considerable experience in the areas of resources, water, industry development, science and technology and agriculture gained in senior positions across several WA government agencies including the Departments of Water, Agriculture and Food, Resources Development and Commerce and Trade, the Water Corporation and University of Western Australia. He has more than 10 year's consulting experience, predominantly in the areas of water, agriculture and natural resources. John has considerable experience in socio-economic analysis,

especially in regional areas. His studies have involved the application of a range of socio-economic methodologies, including benefit cost analysis, social impact assessment, economic impact analysis and survey methodologies. John is also experienced in community and stakeholder consultation. John was closely involved in the privatisation of WA's irrigation schemes and in 2004/05 was a member of the State Government's Irrigation Review Taskforce, which recommended far-reaching reforms of Western Australia's water and irrigation industries. John currently holds the position of Adjunct Associate Professor in the Centre for Planning at Edith Cowan University, and has been recently appointed Deputy Chair of WA's Water Corporation's Water Supply and Demand Advisory Panel.



Peter Sutherland - Water Resources Business Leader

Peter is GHD's Business Leader for Water Resources. He has more than 30 years' experience in leadership of major government sector reforms in water resource policy and natural resource management, having led the establishment of catchment management authorities in both Victoria and NSW.

Prior to joining GHD, Peter held senior executive roles in major water and catchment management reform. Peter led implementation of water reforms in Victoria and NSW, under the COAG reform agenda and National

Water Initiative. He was responsible for the establishment of NWI compliant water legislation in NSW, involving new water planning and entitlement systems, trading regimes and licensing and compliance systems. He had overall responsibility in both states for water policy, planning and management programs, including environmental water management and waterway health initiatives. Peter has a unique understanding of multijurisdictional program evaluation and an ability to network at a senior level with water and environmental agencies in the States and Commonwealth.



Phil Potterton - Executive Consultant

Phil is a public policy economist with 30 years experience in the infrastructure sector. As head of the Australian Government Bureau of Infrastructure, Transport and Regional Economics for five years until September 2009, he directed projects in economic investment appraisal, pricing and regulation, aviation and transport demand forecasting and national transport database development. His previous experience includes reforming government business legislative frameworks (Northern Territory), directing a within government program evaluation function,

authoring the original Australian Government Handbook of Cost-Benefit Analysis that was reissued in updated form in 2006 and appraising infrastructure projects for Australian overseas aid funding. Since joining GHD, Phil has provided infrastructure analysis and advice to government agencies including the Department of Sustainability, Environment, Water, Population and Communities (quality assurance review of draft due diligence assessments of State Priority Projects under the Water for the Future Program), the National Transport Commission and the New Zealand Ministry of Transport. Phil is a member of the board of advice of the Institute of Transport and Logistics Studies, University of Sydney, the Canberra section committee of the Chartered Institute of Logistics and Transport in Australia and the Australasian Evaluation Society.



Wennie Van Lint - Executive Consultant

Wennie's areas of speciality are Capital Project Appraisal, Strategic Cost Analysis, Corporate Planning, Logistics and Financial Modelling. Wennie has worked across a number of industries including logistics, manufacturing, education and consulting. He has held various senior management positions charged with responsibility for corporate planning, production planning and capital expenditure evaluation. Since his appointment at GHD, Wennie has worked on a wide range of Australian and overseas projects, with an emphasis on project evaluations, financial modelling, strategic cost analysis and comparative cost and pricing models. Wennie was Head of School

(Accounting) at La Trobe University and held lectureships at other Australian and overseas universities. He has presented seminars and conference papers in Australia and overseas, particularly on Activity Based Costing. Wennie has completed financial modelling and pricing studies for water authorities in Victoria and Queensland.



Gloria Vega - Consultant

Gloria has engineering and economics consultancy experience in integrated water management, cost analysis and modelling including studies for drainage networks, water distribution systems, stormwater networks and wastewater treatment plant upgrades, from onsite treatment and reuse water solutions to centralised systems. Gloria's recent experience includes economic assessment of water reuse options, water market sector commercial reviews, financial modelling of infrastructure projects, economic impacts of climate change legislation in the wastewater sector, water tariff pricing modelling, and economic valuation of ecosystem services.

To talk further about water economics and policy, contact:

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