

Terry Whiteman



Terry Whiteman is the Lead Economist in Aurecon's Advisory business with over 30 years experience in Applied Economic Analysis, Infrastructure Investment Evaluation, Discounted Cash Flow Analysis, Public Policy Formulation, Regional Economic Strategy Development and Transport Planning. Terry has worked in both the private and government sectors where he has successfully led major multi disciplinary projects. Terry has practised extensively in the Australian market and has experience in undertaking international commissions.

Aurecon Position
Lead Economist/Executive

Specialisation
Multi disciplinary Project
Leader/Feasibility & Regional
Economic Impact
Studies/Infrastructure
Evaluation/Economic
Analysis/Transport Logistics/Property
Discounted Cash Flow Analysis

Years in industry:
33

Qualifications and Memberships
Bachelor of Economics, University of Sydney
International Consulting Economists Association (ICEA)

Expertise
Terry has key experience in infrastructure planning, economics and business case analysis developed over 30 years in both the private and public sectors. He has practised in Australian and international projects across the full range of industry sectors including transport, commercial development, urban development, energy, mining and government utilising strategy and policy development, project coordination and project feasibility analysis. He is also a leading practitioner in the undertaking of cost benefit analysis and business cases for major transport infrastructure projects under state government and Infrastructure Australia guidelines.

Key Project Experience
2000 to present
Aurecon (formerly Connell Wagner), Brisbane, Australia
Executive/Lead Economist

Representative projects in Australia unless otherwise specified.

Infrastructure Evaluation

- **Northern Link EIA (QLD)**
Economics leader for the identification and assessment of the economic impacts for this 6km road tunnel project linking western Brisbane to the Inner City Bypass in northern Brisbane. Project has an estimated capital cost of AUD1.6 billion. The range of economic tasks that were undertaken included the development of the Northern Link Cost Benefit Analysis model, managing of the Computable General Equilibrium (CGE) modelling of the construction and operational expenditure and assessing the wider economic qualitative benefits on a local and regional basis.
- **Cross River Rail (QLD)**
Preparation of the economic impact assessment of the proposed Cross River Rail corridor on local and regional economic activity, residential and commercial property and labour market conditions. The geographic extent of the assessment was between Bowen Hills and Yeerongpilly with particular emphasis on proposed new railway station locations in Brisbane CBD, Exhibition, Gabba, Park Road and Yeerongpilly.
- **Airport Link Detailed Feasibility Study (QLD)**
Economics leader for the identification and assessment of the economic impacts for this major tunnel project in northern Brisbane with an estimated capital cost of AUD2.2 billion. The range of economic tasks undertaken included the development of Airport Link Cost Benefit Analysis model, managing of the Computable General Equilibrium (CGE) modelling of the construction and operational expenditure and the identification and assessment of other qualitative economic impacts in the Airport Link corridor.
- **Northern Busway Concept Development and Impact Management Plan (QLD)**
Economics leader responsible for conducting the economic impact analysis of the AUD536 million Northern Busway Project. This analysis included the cost benefit analysis modelling of public transport and road user benefits, discounted cashflows and the Computable General Equilibrium (CGE) modelling of the capital expenditure and operational maintenance expenditure in conjunction with Monash University's Centre of Policy Studies (COPS).
- **North South Bypass Tunnel (QLD)**

Responsible for undertaking the assessment of tenders with respect to the proposed road user and other economic impacts of the AUD2 billion North South Bypass Tunnel in Brisbane. Tasks included the development of a cost benefit analysis model to assess the proposed traffic forecasts in terms of travel time savings and reduced vehicle operating costs.

- **Gateway Motorway Upgrade Project (QLD)**
Conducted the economic impact analysis and cost benefit analysis for this AUD1.4 billion project in Brisbane which will provide a major duplicated cross Brisbane River bridge to support the future growth of Brisbane Airport, Port of Brisbane, Australia Trade Coast and the broader south east Queensland region.
- **Albury Wodonga National Highway Project (NSW/VIC)**
Responsible for conducting a comparative economic analysis of route options (ranging in costs from AUD60 million to AUD500 million) using inputs from traffic modelling and endorsed economic parameters from ARRB and state road authorities.
- **AusLink Darwin to Brisbane Corridor Study (DOTARS)**
Led this major AusLink Corridor Study that identified current road conditions and industry drivers between Darwin and Brisbane. Other tasks included assessing corridor deficiencies and proposing a range of upgrading and maintenance initiatives to meet future industry and traffic demand.
- **Gladstone to Rolleston and Rockhampton to Barcaldine Corridor Strategies (QLD)**
Led the development of two strategic studies for east-west highway corridors in central Queensland namely the Rockhampton-Barcaldine Capricorn Highway corridor and the Gladstone-Rolleston Dawson Highway corridor. Aurecon undertook an analysis of the current environment along the corridors as well as the future expected environment (based on population and industry projections) and developed strategic objectives for the future development of the corridors.
- **South East Queensland Infrastructure Plan and Program (QLD)**
Through the TrackStar Alliance, successfully prepared best value reports for major rail upgrade projects in South East Queensland under the SEQIPP. Best value reports include the Caboolture to Beerburum track upgrade, Robina to Varsity Lakes Rail Extension and the Corinda to Darra track upgrade
- **Fremantle Eastern Bypass (WA)**
Responsible for conducting a cost benefit analysis and providing economic advice on two major network options costing AUD286 million and AUD130 million respectively for the WA Department of Planning and Infrastructure.

Planning

- **Sunshine Coast Regional Economic Development Strategy (QLD)**
This strategy study was prepared in association with SGS Economics and Planning, and developed planning principals, a shared vision and regional strategies to facilitate the future economic and business development for this major Queensland region. Connell Wagner was presented with the Planning Institute of Australia's award for this study.
- **Western Corridor Land Study (QLD)**
Provided economic demand forecasting for a range of land use scenarios for the Department of Infrastructure and Planning's industrial land site at Ebenezeer west of Ipswich. The work also considered future road and rail freight flows, freight logistics and transport cost structures in the corridor.
- **Temburong District Plan (Brunei)**
Sectoral leader for the macroeconomics, transportation and population tasks that are required for this district plan. The commission is being undertaken for the Brunei Government's Town and Country Planning Department and will provide an economic infrastructure and land use planning framework to guide development in the Temburong District to 2025.
- **Bougainville Wharves Rehabilitation Project (PNG)**
The preparation of the Baseline Survey Report of pre project conditions (ie copra and cocoa production, shipping, materials handling, etc) in Bougainville as part of this AusAid project. The report will in turn be used as a benchmark to identify and monitor economic and social improvements resulting from the rehabilitation and construction of the wharves at Buka and Kangu Beach respectively.
- **South East Queensland Water Infrastructure Projects (Qld)**
Aurecon project leader for all the economic consultancies that were commissioned by Queensland Water Infrastructure (QWI) for the proposed AUD1.7 billion Traveston Crossing Dam and AUD500 million Wyaralong Dam in South East Queensland. These economic consultancies included socio-

economic profiling the regional and local economies with and without the projects and business surveying of the commercial uses of water.

- **Port Macquarie Airport Economic Impact Assessment Study (NSW)**
Project leader for the Port Macquarie Airport Economic Impact Assessment Study that was commissioned by Port Macquarie - Hastings Council. The study identified and measured the range of economic benefits that would accrue from the upgrading the airside and landside infrastructure at Port Macquarie Airport to support larger and heavier passenger aircraft ranging from Dash 8 400 series and Embraer EJ 170/190 series to jet services such as the Boeing 737 700/ 800 series and Airbus A320.
- **Mid North Coast Regional Aviation Plan Economic Impact Study (NSW)**
Project leader for the economic impact study that was collaboratively commissioned by Port Macquarie - Hastings Council, Greater Taree City Council and Kempsey Shire Council to identify and quantify the economic benefits at a regional level that would result from the further upgrading of Port Macquarie Airport and the development of new business precincts adjoining the airports at Port Macquarie, Taree and Kempsey at an estimated capital cost of AUD70 million.
- **Bundaberg Aerodrome Master Plan (QLD)**
Led the forecasting and investment strategy for Bundaberg City Council as part of the Master Plan for Bundaberg Aerodrome. The project also included stakeholder consultation with Councillors and the Aerodrome Users Group and delivered a strategic plan and investment strategy to cater for an infrastructure upgrades to cater for B737 equivalent.
- **Wide Bay Burnett Aviation Infrastructure Requirements Study (QLD)**
Conducted this study for the Queensland government that comprised a detailed analysis of existing aviation industries and services and the provision of an action plan to 2027 for the sustainable development of the aviation industry in the Wide Bay Burnett region. Airports that were in scope of the study were Hervey Bay, Maryborough, Bundaberg, Gympie, Kingaroy and airfields at Childers, Wondai, Nanango and Biggenden.
- **Cairns Regional Performing Arts Centre (QLD)**
Prominent member of the Aurecon team which undertook the site selection study for the proposed new Cairns Regional Performing Arts Centre (estimated cost \$25 million). Other team members included the architectural company Bligh Voller Neld. Specific tasks undertaken included review the demand analysis for the centre, economic modelling and financial projections and assessing the direct and indirect economic impacts of short-listed sites.
- **Tillegra Dam EIA (NSW)**
Project Leader for the economic assessment of the AUD350 million Tillegra Dam project north of Newcastle for Hunter Water using cost effectiveness analysis (CEA) of seven different dam, desalination and indirect potable re-use water supply schemes and a qualitative assessment of socio-economic impacts.
- **Shute Harbour Marina Development EIA (QLD)**
Responsible for identifying and reporting the economic impacts of the proposed AUD130 million Shute Harbour Marina Development project. The scope of economic tasks including assessing the employment and output impacts of the construction and operational phases of the project on the local and state economics.
- **Aldoga Aluminium Smelter EIA (QLD)**
Responsible for analysing and assessing the economic related construction and operational impacts at a local, regional and state level of this \$3.8 billion projects. Other related tasks included preparing an economic profile of the Gladstone region, and the aluminium industry in Australia.
- **Millennium Expansion Project (MEP) EIA**
Project leader for the Economic Impact Assessment Report for Peabody's Millennium Expansion Project (MEP) EIA. MEP involved increasing the annual coal extraction rate at the existing Millennium mine, and extending its operational life from 2015 to 2027. The economic impacts on the local and regional economy were assessed via the use of Input/Output modelling in terms of project's effects on output, value added and employment.
- **Eaglefield Expansion Project (EEP) EIA**
Project leader for the Economic Impact Assessment Report for Peabody' Eaglefield Expansion Project (EEP). As with the Millennium project, EEP involved increasing the annual coal extraction rate at the existing mine site, and extending its operational life by another 11 years after the current approved underground mining is completed. The economic impacts of the project were determined in terms of its effects on output, value added and employment on the local and regional economy.

Business Case Analysis

- **150MW Cogeneration Plant (Thailand)**
Led the preparation of the financial feasibility study for a private client for a 150MW combined cycle cogeneration plant in south-east Thailand. The study included the development of a financial model that was used as the basis for running a number of scenarios for capital costs, gross capacity factors, discount rates and financing options.
- **Banten Rail (Indonesia)**
On site development of the Terms of Reference for the pre-feasibility study to upgrade the railway line between Jakarta and Merak in Western Java. The study sought to identify existing and future demand for rail in Banten Province and the railway engineering investment options to meet forecast demand.
- **Herston Complex Business Case and Strategic Options Study (QLD)**
Led the development of a comprehensive business case that analysed the long-term strategic options for Queensland Main Roads' Pavement Materials and Geotechnical (PMG) services complex at Herston. The objective of this study was to assess both the short and long-term suitability of the current location and facilities and recommend such actions as may be required to bring the current and future accommodation requirements in line with business needs and to maximise returns on existing owned accommodation.
- **North Coast Rail Corridor Analysis and Business Model (QLD)**
The preparation of a report and model which identifies road and rail freight flows, freight logistics and transport cost structures in the Brisbane to Cairns corridor. The report also identified committed and planned major projects and assessed their implications for future rail operations.
- **Coomera Lake Rowing Centre Feasibility Study (QLD)**
Project Leader for the preparation of this major study for Gold Coast City Council. Tasks included the preparation of a needs analysis capital and operational expenditure profiling, risk assessment and identification of prospective approved processes leading to construction

Previous appointments

1989 – 2000 Queensland Transport, Brisbane, Principal Advisor (Rail, Ports and Aviation)

1987 to 1989 Queensland Department of Employment and Industrial Affairs, Brisbane, Policy Advisor (Skills Development and Youth Employment)

1982 to 1987 Australian Bureau of Statistics, Canberra, Assistant Supervisor (Register Administration and Services)

1980 to 1982 Commonwealth Department of Industry, Technology and Commerce, Canberra Principal Research Officer (Tourist Industry)

1975 to 1980 Australian Bureau of Statistics, Canberra, Graduate Clerk – Senior Research Officer (Foreign Investment and National Accounts)