



Dr Joel Byrnes

Associate Director

Qualifications	<p>Doctor of Philosophy, University of New England, 2008 Bachelor of Economics (Hons 1), University of New England, 2002</p>
Professional affiliations	<p>Adjunct Professor, Regional School of Business, Albury Wodonga Campus, Latrobe University Centre for Water Policy and Management, Latrobe University Centre for Local Government, University of New England Friend of the Peter Cullen Trust (Invitation only)</p>
Employment history	<p>Mar 2015 to present Associate Director, Marsden Jacob Associates</p> <p>Oct 2014 to Feb 2015 Principal Economist, E2Designlab</p> <p>Jan 2010 to Sept 2014 Associate Director and Director of Economics, Australia & New Zealand, AECOM</p> <p>Jan 2008 to Dec 2009 Snr Manager and Associate Director, KPMG</p> <p>Jan 2005 To Dec 2007 Academic economist, University of New England, Armidale</p> <p>Jan 2002 to Dec 2004 Senior Policy Analyst, Payments Policy Department, Financial Systems Division, Reserve Bank of Australia</p> <p>Oct 1999 to Dec 2001 Academic economist, University of New England, Armidale</p> <p>Dec 1996 to Oct 1999 Reinsurance Claims Analyst, Reinsurance Australia Corporation (ReAC)</p>
Skills and expertise	<p>Joel provides infrastructure related economic and policy advice across a range of sectors including marine, transport, energy and water. He leads small, focussed teams that have a reputation for delivering quality work that is delivered on time and within budget. When leading the preparation of infrastructure business cases, Joel typically writes the executive summary personally to ensure that the key messages that resonate with policy makers and decision makers are communicated with clear, compelling and concise language.</p> <p>Prior to commencing his consulting career in 2008 Joel was an academic economist, teaching a wide range of microeconomic subjects, and publishing widely on water resource and local government matters. He taught a post graduate courses in Banking and Finance and Financial Instruments, Markets and Institutions.</p> <p>Joel also spent three years at the Reserve Bank of Australia developing policy to improve the financial system in Australia. This included working on policy to manage</p>

Relevant consulting experience	<p>the financial risks associated with the clearing and settling of transactions on Australia's financial exchanges and settlement of foreign exchange transactions.</p>
	<p>Economic evaluation of alternative options for optimal sand delivery, Department of Trade and Investment (NSW), 2015. Marsden Jacob Associates is preparing an economic analysis of alternative options to deliver sand to Gold Coast beaches from south of the Tweed River. Joel Byrnes is leading the analysis. The current arrangements involve a private sector contractor delivering these services under a long-term contract. The financial incentives in that contract are currently not aligned to the risks borne by the public and private sector. MJA have proposed an alternative contract that re-aligns financial incentives. The use of performance bonds is included in the proposed contractual settings as a means of off-setting the risk to the public sector from sub-optimal sand delivery by the contractor.</p>
	<p>Alternative management and funding models for operation and maintenance of stormwater civil infrastructure, Environment and Planning Directorate (ACT), 2015. Marsden Jacob Associates is preparing an analysis of existing arrangements in the ACT for operation and maintenance of urban stormwater civil infrastructure assets. Joel Byrnes is leading the analysis. A key component of this project is assessing various financing mechanisms that could be employed to provide long-term, sustainable funding of O&M activities. A number of options propose contracting O&M functions to private sector providers. Performance bonds have been assessed as a means of managing the financial risk to the ACT Government should those private sector contractors fail to meet stormwater water quality objectives.</p>
	<p>Assessment of approaches taken by water market exchanges to guarantee completion of trades, Commonwealth Environmental Water Holder, 2015. Marsden Jacob Associates was engaged to assess the benefits, costs and risks to the Commonwealth Environmental Water Holder from trading water on water exchanges. Joel Byrnes led the analysis of the various mechanisms employed by water exchanges to guarantee completion of trades on those exchanges. He found that most exchanges have poor arrangements that do not protect the interests of those trading water products. Furthermore, the typical safeguards to manage counterparty risk on financial instrument exchanges (lines of credit, collateral guarantees etc) are not required on most rural water markets. This led MJA to conclude that the risks from trading via exchanges outweighed the potential benefits in many cases.</p>
	<p>VicIron. While at AECOM Joel advised an Australian mining firm on the options to obtain the necessary water to support a medium scale mining venture in regional Victoria. This advice focused on how best to navigate the regulatory and policy constraints, and how to evaluate the investment in water from a whole-of-life perspective.</p>
Publications	<p>Thesis: Byrnes, J.D., "Putting Water to Work: A Study of Relative Economic Efficiency in the Urban Water and Wastewater Sectors of Regional New South Wales and Victoria", unpublished PhD Thesis, University of New England.</p> <p>Selected Journal Articles</p> <p>Byrnes, J. "A Short Institutional and Regulatory History of the Australian Urban Water Sector", <i>Utilities Policy</i>, Vol. 24, 11 - 19, 2013.</p> <p>Byrnes, J., Crase, L. Villano, R. and Dollery, B. E. "The Relative Economic Efficiency of Urban Water Utilities in Regional New South Wales and Victoria", <i>Resource and Energy Economics</i>, 32, 439 – 455, 2010.</p>

Byrnes, J., Crase, L. Dollery, B. E. and Villano, R. "An Analysis of the Relative Efficiency of Wastewater Utilities in Non-metropolitan New South Wales and Victoria", *Australasian Journal of Regional Studies*, 15(2), 153-169, 2009.

Crase, L., Byrnes, J. and Dollery, B. E. "The Political Economy of Urban-Rural Water Trade", *Public Policy*, 2(2), 130-141, 2007.

Dollery, B.E., Byrnes, J.D. and Crase, L "The Infrastructure Crisis in Australian Local Government: A Proposed Federal Asset Fund Solution", *Australasian Journal of Regional Studies*, 13(1), 3-19, 2007.

Crase, L., Dollery, B. E. and Byrnes, J. D. "An Inter-sectoral Comparison of Australian Water Reforms", *Water Policy*, 10, 43-56, 2007.

Byrnes, J. L., Crase, L. and Dollery, B. E. "Regulation Versus Pricing in Urban Water Policy: The Case of the Australian National Water Initiative", *Australian Journal of Agricultural and Resource Economics*, 50, 437-449, 2006.

Byrnes, J.D., Crase, L and Dollery, B.E. "Water Option Contracts to Facilitate Intersectoral Trade", in Bjornlund, H (ed.), *Incentives and Instruments for Sustainable Irrigation*, WIT Press, Southampton, pp. 123-135, 2010.

Conference Papers

Byrnes, J. "The Economics of Integrated Water Cycle Management", Paper accepted for presentation at OzWater 2014

Byrnes, J. "Water and Australia's Productivity Slump", Paper presented at OzWater 2013

Byrnes, J. "Australia's Urban Water Institutions – A Short History", Paper presented at OzWater 2012

Byrnes, J and Sullivan, E. "Water Options Contracts – Bringing Irrigators and Environmental Managers Together", Paper presented at OzWater 12

Byrnes, J. "WSUD and Urban Water Authorities: Too Hard a Nut to Crack?", Paper presented at 7th International Conference on Water Sensitive Urban Design

Byrnes, J. "Growing Pains – The Costs and Benefits of Regional Water Utilities Getting Bigger", Paper presented at OzWater 2011.
