

## Dr. Rebecca Nelson

UNIVERSITY OF MELBOURNE

### Regulating the cumulative impacts of groundwater withdrawals: Australia and further afield

#### Abstract

The regulation of groundwater extraction has shifted dramatically through an intense era of intense water reforms spanning three decades. A key outstanding issue is controlling withdrawals with an eye to their cumulative impacts on groundwater resources and dependent systems. Such control is complicated not just by the incremental additive effects of many small withdrawals, but also by interactive and synergistic effects. This complexity is intensified further by data paucity, potentially significant time lags, and simultaneous background changes to natural systems, such as those caused by climate change.

Much of the attention to regulating cumulative impacts has focused on ensuring that traditionally unregulated types of groundwater withdrawals are controlled or at least monitored, and on special-purpose regulation of clusters of withdrawal activities, as in coal seam gas extraction. This talk suggests that a broader view is necessary and possible, inspired by national, state and interstate water law and policy, as well as comparative overseas experience. This broader view would encompass a wide and diverse set of regulatory and non-regulatory mechanisms for dealing with cumulative impacts, where those impacts are understood to include a broad scope of impacting activities and complex, interconnected receptor systems.

#### About Rebecca

Dr Rebecca Nelson is a Senior Lecturer, Melbourne Law School, University of Melbourne, Fellow (Non-Resident) of the Woods Institute for the Environment at Stanford University, and practising lawyer and policy consultant. Dr Nelson's research, teaching and practice focus on water (particularly groundwater) and environmental law and policy in Australia and the United States, with an emphasis on empirical research and practical solutions. From 2010-2014, she led the Comparative Groundwater Law and Policy Program, a joint initiative of the Stanford Woods Institute and the Bill Lane Centre for the American West at Stanford University, and the United States Studies Centre at the University of Sydney. The Program focused on undertaking empirical research and convening stakeholder workshops to improve groundwater sustainability in the western US and Australia. She formerly worked as a lawyer at the Murray-Darling Basin Authority and at an international law firm. In 2014 she was named the Law Council of Australia's Young Environmental Lawyer of the Year for her contribution to water law and environmental law. Dr Nelson is also a Director of Bush Heritage Australia. She holds a Doctor of the Science of Law from Stanford University, where her dissertation focused on empirically assessing regulatory arrangements for managing impacts on surface water and ecosystems from pumping groundwater. She also holds a Masters in Law (Stanford) and BE (Environmental) /LLB (University of Melbourne).



#### Lecture dates

Melbourne	18 October 2016
Hobart	20 October 2016
Perth	26 October 2016
Brisbane	3 November 2016
Canberra	10 November 2016
Sydney	10 November 2016
Adelaide	30 November 2016
Darwin	1 December 2016

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p: 08 8201 2643

**Your attendance must be registered by**  
**September 30 2016**