

**Aims and objectives**

On successful completion of this subject, the student should be able to:

- Investigate and evaluate current domestic and major industry land and water dependent industries.
- Assess the social and economic impact of degradation on associated communities.
- Analyse and evaluate the effectiveness of the social, economic and environmental effects of implementing remedial processes.
- Develop a change process for the sustainable management of a local land and/or water local challenge

**Teaching methods**

2 on campus full day workshops, 1 field trip, 8 online tutorials.

**Assessment**

Journal article, integrated landscape management project and oral presentation.

**Content**

This unit introduces students to the principles, benefits and challenges of managing Australia's land and water in a sustainable manner. Students are introduced to the concept of the triple bottom line: the need to balance social, environmental and economic aspects when managing a variety of landscapes (including regional and urban, aquatic and terrestrial). We explore the consequences of historical and current perceptions of the environment, and learn how we can use education, science and policy to improve or adapt current management practices. Students gain practical skills in developing, writing and presenting comprehensive, integrated landscape/catchment management projects.

**Topics**

- Australia's Changing Land and Water Ecosystems
- Biodiversity Conservation and Restoration Ecology
- Science, Risk and Uncertainty
- Perspectives, Values and Expectations
- Agriculture, Livelihoods and Landscapes
- People and Participation
- Urban Living and Landscape Health
- Institutional and Policy Responses

**Lecturer: Dr Chantelle Sinclair**

Chantelle completed a PhD in dryland salinity at the Centre for Environmental Stress and Adaptation Research (CESAR) in 2003. Since then, she has been passionately involved in the field of sustainability, working as a consultant and researcher for a wide variety of groups and projects including:

- Residential developments aiming for carbon neutral status (requiring energy efficient techniques and appliances, renewable energy sources and a local carbon emissions sequestration/offset revegetation program),
- A sustainability analysis of single use cup options. An assessment of the environmental impact of all disposable cups commercially available in Australia and their relative environmental impacts (energy, water, atmospheric and waterborne emissions and solid wastes).

- Water management projects for developments, including water saving techniques, as well as innovations such as grey and black water treatment for re-use in non-potable uses (e.g. toilet flushing and snow making facilities).
- The EcoRecycle “Waste Wise Business Program”, uncovering industry case studies that demonstrate triple bottom line success stories.

Chantelle enjoys educating and inspiring those around her to see the social, economic and environmental benefits of living sustainably.

**Recommended reading (2008, note this may be revised for 2009)**

Note that *Resetting the Compass* is FREE to download from the CSIRO website  
<http://www.publish.csiro.au/nid/18/pid/2418.htm>

Yencken, D & Wilkinson, D 2001, ‘*Land and waters*’ Chapter 9 in *Resetting the compass; Australia’s progress towards sustainability*, CSIRO Publishing, Canberra, pp. 224-270.

Yencken, D & Wilkinson, D 2001, ‘*Present policies and future targets*’ Chapter 11 in *Resetting the compass; Australia’s progress towards sustainability*, CSIRO Publishing, Canberra, pp. 307-323.

**Comments from previous students**

*“The lecturers are great. Very knowledgeable and helpful”*

*“Lecturers gave very informative talks – well prepared”*

*“Excellent access to readings and relevant information”*

*“Workshops/fieldtrips were well run and relevant/enjoyable”*

*“This has been a really informative and extremely thorough unit.  
I have learnt so much more than I thought I would –  
things that I will take with me forever – thank you! “*