

# **Evolving the Integrated Landscape Science Cluster**

## ***Context and introduction to the Integrated Landscape Science Workshop***

Prepared by Prof Wayne Meyer  
Cluster Convenor

### **1 Policy context**

As public awareness of the state of our environment has increased, Government has responded with regulation and incentive policy that aim to manage the real and perceived problems. In SA, this Government response is mostly embodied in the *Natural Resources Management Act 2004 (SA)* and subsequent plans. There are many other complementary pieces of legislation but the Government response in setting up statutory NRM regions clearly identified the importance of trying to manage the condition of critical natural resources as part of a holistic system. In the State NRM Plan 2006, three of the four goals specifically highlight the need for “integrated” management and “landscape scale” interventions and maintenance.

Partly in response to this policy context, and being aware of national and international trends in natural systems thinking, a workshop sponsored by ICEWaRM and DWLBC as part of the Living Laboratories initiative was convened on 19 July 2007. The presentations made at this “Integrated Landscape Science and Management Workshop” can be viewed at <http://www.icewarm.com.au/page.php?pId=237>. My presentation “[The vision for integrated landscape science and management in SA](#) – Changing with the Changes” triggered significant interest among a group of ecologists, modellers, policy developers and others to explore collaborating in order to garner additional support for furthering “integrated landscape science” in SA. What evolved from this has been a “community of interest” and a smaller core group that have tried to refine the aspirations and intent coming from the initial workshop. As part of this process we have experimented with different group names and possible arrangements. This included identifying with the SA Strategic Plan<sup>1</sup> and accompanying Science Technology and Innovation Plan (STI<sup>10</sup>)<sup>2</sup> part of which is encouragement of science “alliances and clusters”. Hence the “Integrated Landscape Science Cluster” (ILSC) evolved.

### **2 Business case planning workshops with core group**

Between July and December 2007, a series of workshops were conducted with the core group in order to develop a shared vision and mission for the cluster. Workshop participants also recognised that “integrated landscape science” can mean different things to different people and therefore it was important to clarify the cluster’s understanding of this term. The key outcomes of these workshops are presented below:

---

<sup>1</sup> <http://www.stateplan.sa.gov.au/>

<sup>2</sup> <http://www.innovation.sa.gov.au/>

## **2.1 Definition of 'Integration' and 'Landscape'**

From the cluster's perspective, "integration" describes the deliberate process of considering and modelling the resources, people and institutions in a region in a holistic and systemic way. This integration will use models and descriptions that incorporate biophysical, ecological, social, economic and institutional data. The intent of the modelling is to identify the causes, effects and consequences of existing and potential changes in regional landscapes.

The term "Landscape" refers to the net product of the interaction between people and the natural resource attributes of a region. Landscape attributes are the social and natural resources of a region, including the climate, soil, water, biota, people, institutions and infrastructure.

## **2.2 Vision**

The ILSC aims to be a nationally significant, high performing team of researchers, teachers, managers and communicators who embrace the love of learning that brings new knowledge to the conservation and management of our regional landscapes. It will achieve this through:

- The gathering and analysis of quality data in partnership with managers and policy makers, to
- Improve and embed the ideals and processes of using evidence-based decision making, and
- Educate and train people to apply landscape system models and descriptions that indicate how to better manage our landscapes into a changing future.

## **2.3 Purpose**

Undertake world-class science to integrate our understanding of how landscapes function and respond to pressure (including climate change) and management over time. The emphasis of the research will be on integration and looking at problems as a whole across large areas, rather than focussing on single issues.

# **3 Integrated landscape science national forum and associated science case**

The core group<sup>3</sup>, again with support from ICEWaRM and the engaged agencies and Universities, organised a forum and workshop on 13 and 14 March 2008 to bring together an overview of Australian research group activity in this integrated landscape arena. Presentations and a summary of outputs from the forum and workshop can be found at Building Capacity in Integrated Landscape Science in SA, March Update: Landscape Science Cluster, <http://www.icewarm.com.au/page.php?pId=265>

As preparation for the forum and to help focus our efforts, a science case justifying the need for a more concentrated effort on integrated landscape science in SA was prepared in January of 2008. This case, "Managing natural resources in SA - The role and need for integrated landscape science" is attached.

Coincident with the progress of science thinking to explore complex systems including natural resource systems has been the general trend for research funders to emphasise partnerships and

---

<sup>3</sup> Wayne Meyer(UA), Andrew Lowe (UA/DEH), Brett Bryan (CSIRO), Andrew Fisher (DWLBC), Chris Raymond (DWLBC), Duncan McKay (FU), Peter Hayman (SARDI), Stephanie Williams (CNRM), Brian Cheers (UniSA), Paul Dalby (ICEWaRM)

collaboration. Opportunities for research support are more likely if proposals identify genuine collaborative arrangements both between researchers and between researchers and end-users of the research.

## 4 Future directions

During the last couple of years the SA government arrangements associated with the Centre for Natural Resource Management (CNRM) have closed as the National Action Plan for Salinity and Water Quality (NAP) finished. This beneficial arrangement was replaced with the NRM Research Alliance (NRM RA). This organisation is a high level, strategic grouping of NRM research providers, Government departments and NRM regional Boards. The role of the NRM RA includes advocacy for adoption of research outcomes into NRM based planning, policy and decision marketing, and marketing of the NRM related capabilities available in SA.

The NRM Research Alliance has determined priorities for collaboration and capability development. These have been determined based on:

- The research needs identified by the regional NRM Boards
- The draft NRM Council Science, Technology and Innovation Strategy
- The NRM related policy directions of State and Federal Governments
- The principles underpinning the Federal and State Government funding programs – Caring for Our Country and the Complementary State NRM Program respectively
- An assessment of where the Alliance could both add value by facilitating collaboration and capability development, and adoption of research outcomes; and positioning SA well to attracting investment into NRM research.

Through discussions between me and Kathryn, it has been suggested that the landscape science cluster be one of the areas of focus. Other areas include the human dimensions of NRM and facilitating complementary outcomes for habitat restoration and sustainable production. All clusters would be part of the NRM RA science network, to be supported by the NRM RA, which would facilitate cross cluster networks and collaborations.

In view of this, and given the make up of the landscape science cluster, I have a sense that we need to narrow its focus to a few key research and application themes which centre on the integrated modelling of future landscape scenarios. My suggestion is that we re-think our positioning, intentions and naming to account for the new science research “landscape” to make the most of future opportunities.

One opportunity is for the Integrated Landscape Science Cluster to support a “People, Place and Purpose” conference in Adelaide late 2009. It could have a similar focus and format to the 2007 “Place and Purpose: Spatial Models for Natural Resource Management and Planning” conference held in Bendigo, Victoria (<http://www.dpi.vic.gov.au/dpi/vro/vrosite.nsf/pages/placeandpurpose>). The themes identified at our workshop could form the foundation of a 2009 conference program.

## **5 November 2008 workshop aims and objectives**

The workshop aims to bring together those people previously interested in the ILSC together with those new to the arena and to:

- Review the progress of the ILSC
- Identify the changes to and the opportunities available for the science and its application, including naming
- Obtain workshop participant support to stage a “People, Place and Purpose” conference in 2009.
- Categorise projects and/or funding submissions supported by workshop participants into key themes for presentation at a “People, Place and Purpose” conference in 2009.
- Formalise and reaffirm the core group to progress

See attachment 1 for the program. I look forward to seeing you at the workshop.

Wayne Meyer  
ILSC convenor

## Attachment 1

### Integrated Landscape Science Workshop Program

Monday 24<sup>th</sup> November 2008  
8.45am-2pm  
Lirra Lirra Café Meeting Room  
Opposite Gate 4, Waite Road, Urrbrae

| <b>Time</b> | <b>Task</b>  | <b>Role</b>                      |
|-------------|--|----------------------------------|
| 8.45-9.00   | Registration and coffee/tea  |                                  |
| 9.00-9.15   | Welcome, introductions and workshop objectives and agreements  | Facilitator                      |
| 9.15-9.45   | Background to the NRM RA and Integrated Landscape Cluster  | Wayne Meyer,<br>Kathryn Bellette |
| 9.45-10.00  | Questions for Wayne and Kathryn<br><br>Identification of level of support for a “People, Place and Purpose Conference” | Wider group                      |
| 10.00-10.45 | Small group exercise: linking current projects and emerging opportunities to conference themes                         | Small groups                     |
| 10.45-11.15 | Morning tea/networking   |                                  |
| 11.15-12.00 | Wider group sharing of projects and related themes   | Small group leaders              |
| 12.00-12.30 | Refining of research and application themes  | Wider group                      |
| 12.30-13.00 | Identification of theme leaders and agreement on roles and responsibilities.   | Wider group                      |
| 13.00-13.15 | Agreement on next steps  | Facilitator                      |
| 13.00-14.00 | Catered lunch and drinks   |                                  |