

Love Your Lagoons Final Report

Full Report is downloadable from

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PROJECT TIMELINE

Nov-Dec 2013	Jan-Feb 2014	Mar-Jun 2014	Jul- Aug 2014	Sept 2014	Oct- Nov 2014	Dec 2014
Recruited research team, participating schools and community partners	Planned and implemented Love Your Lagoons Conference and Planning Day UWS Campbell-town (incorporating first teacher professional learning day)	Second teacher professional learning day, schools scheduled wetlands activities, researcher Visits and community partner liaison	Close of data collection Third teacher professional learning day (collaborative data analysis) Plan Expo	Love Your Lagoons school students present at the Macarthur Sustainable Schools Expo, one teacher was a keynote speaker	Researchers prepare individual case studies for each school and a case study on community partner perspectives Prepare lit review Plan publications Presentations at AAEE conference	Draft case studies Completed and sent to schools for comment Final report in preparation Two Presentations at AARE conference, Brisbane.
Result	Result	Result	Result	Result	Result	Result
5 UWS researchers visited 10 schools. 12 community partners approached	300 students from 9 schools attended 3 keynote presentations, 8 partner workshops 12 displays fieldwork practice & mini-project	7 teachers from 7 schools attended; 6 schools continued with the project and scheduled wetlands visits	15 data collection visits for final visit to each site by lead researcher	7 teachers attended collaborative data analysis day 6 schools presented student run workshops at Expo 1 staff presentation	Case studies drafted, 3 teachers from 2 schools directly co-authoring Lit review drafted	Schools in process of commenting on case studies drafts, Presentations to AARE conference under review for refereed publication

Background

PROJECT DESCRIPTION

Wetlands, streams and rivers are key sites for environmental action and education (Somerville and Green, 2012). In this multi-council and school environmental education project 300 school students were empowered to learn about environmental sustainability through taking action in their local area. Each of the proposed shire councils - Camden City Council, Wollondilly Council and Campbelltown City Council - were partnered with local schools to work with UWS and community and government organisations, to undertake a participatory action research study of place based wetlands education in local primary and high schools. This assisted in the preparation of teachers for the introduction of sustainability as a cross-curriculum priority area (ACARA, 2012).

Five researchers from The Centre for Educational Research at UWS, headed by Prof. Margaret Somerville and funded by AGL, conducted *Love Your Lagoons* from September 2013 to September 2014 with six schools from South-Western Sydney.

The project partnerships were facilitated via the UN RCE GWS network.

Highlights and successes

1. Participation

a. Engagement

Interest from schools was high. The number of schools wishing to attend the planning day exceeded the 340 maximum capacity of the main UWS lecture theatre. Approximately three hundred primary and secondary students from three local government areas of the Macarthur region attended the planning day on 18 February 2014 with their class teachers and community educators.

b. Sustained interest

After the planning day, nine schools were offered and six schools actively took up the research project opportunity to integrate sustainability into their curriculum through investigating a local wetland.

c. Extension to wider groups of students

Mt Annan and CPAHS high schools chose to extend Love Your Lagoons activities to all students at a particular year level; eg Mt Annan at Year 7 and CPAHS at Year 9.

2. Partnerships

a. Local government

Environmental officers from Wollondilly, Camden and Campbelltown Shire Councils were involved in Love Your Lagoons; officers worked directly with schools with environmental talks on site at Campbelltown Central Park and the Bargo River, tree plantings at Picton, visits directly to schools and as part of the Macarthur Sustainable Schools Expo on Sept 10, 2014 as the culminating activity of the project.

b. Public, community and business agencies

Mt Annan High School was particularly active and persistent in its take-up of partnership opportunities,

- worked with SWISI TAFE to construct a greenhouse at the school
- Invited the Australian Museum to bring their Museum in a Box water cycle demonstration to the year 7 Lake Annan excursion on 27 March 2014.
- Included 3-D models of wetlands creatures in a Love Your Lagoons display at the school's science fair on 27/08/2014.

Picton High School developed a partnership with Wollondilly Council sustainability educator . A group of 15 students had several visits from and planted and tended native plants on the Redbank Creek bank on their weekly walks to the creek.

Campbelltown Performing Arts High School Year 9 students investigated a wetland running through Central Park, Campbelltown, used extensively for recreation by residents, shoppers, business people and visitors to the nearby Campbelltown Hospital. They developed strong partnerships with park maintenance workers and the Campbelltown Council's environmental officer talked to the students on one of their field trips to the park about managing water quality and wildlife and subsequently attended Year 9 students' presentations about their Love Your Lagoons work. The Council plans to take up some of the students proposals about how to better care for the wetlands and its creatures as well as improving the park's human amenity.

3. Outcomes

An outstanding success of Love Your Lagoons was the variety and richness of the many ways that different schools decided to take up the opportunities offered by the project.

1. **At Tahmoor Public School, Love Your Lagoons became an interdisciplinary exercise.**

- The two Opportunity and Enrichment classes (years 4-6) produced a multimedia 'virtual wetland' incorporating original music and imagery, scientific studies of water quality, 3-D models and ecological surveys.
- Students were mentored in higher order thinking about their work by reflecting on how they had implemented steps in classic scientific processes of inquiry.

2. **Campbelltown Performing Arts High School students creatively contributed to their community by**

- Conducting a series of workshops for other students at the Sustainable Schools Expo incorporating Dance choreography based on the turtle traps at Campbelltown Park Central, storytelling based on a storybook they had created about *Eric the Eel*, based on their knowledge of the migration journeys of the Short- finned Eel, *Anguilla australis*.
- Making individual and small group presentations to Council and researchers in August included a re-designed turtle trap, an originally designed website about the park, a rap song performance, suggestions for improvements in litter management and shade shelter and superb

pencil drawings about the relationships between aged and young park users.

3. Macarthur Anglican School's senior and junior schools implemented exemplary practice

- Co-operated with a private regeneration company in surveying, re-modelling and re-planting the school's dam to begin regenerating an area of Cumberland Woodland within the school grounds, which adjoin Cobbitty Creek, a tributary of the Nepean River.
- Macarthur Senior School work included an interdisciplinary focus on science, art and regeneration; one previously undecided senior (Year 11) student has now chosen to pursue environmental work as his future career as an outcome of the project; Textile work and weaving using wetlands plants facilitated by Bundanon Trust Education manager.
- Junior school students were excited, inspired and informed by highly magnified live dinoscope imagery of water creatures from their own school wetland; Master teacher from the Macarthur Junior School presented a model of integrated curriculum design to fellow teachers at the Sustainable Schools Expo on September 10, 2014.

4. Ongoing work

All project schools indicated a level of success in integrating sustainability into their curriculum through the medium of their local wetlands.

There was a range of involvement, with many highlights represented by just a few examples in this report.

- All schools have indicated an interest in continuing similar projects as part of their future educational activities
- Some have requested to be included in any future projects
- A detailed survey of research literature has revealed a gap in the research literature
- The sustainability education examples in *Love Your Lagoons* will contribute to empirical research literature on Education for Sustainability in school contexts
- Three teachers are involved in direct co-authorship of LYL case studies
- Case studies are being co-authored by project researchers and teachers for an invited book proposal to be considered by Palgrave McMillan Academic publishers in 2015

Community continuity

- Wollondilly Shire Council LYL Schools folded into the 'adopt an environment program' with council
- Australian Museum in a box has been very successful with five boxes being accessed by schools

- Macarthur Centre for Sustainable Living has connected in an ongoing way to Mount Annan High School to use sites at their Eco farm as a practical demonstration project for the year 11 primary industry program delivered by VET

APPENDIX 1:
Break-up of LGAs

Wollondilly Shire	Camden LGA	Campbelltown LGA
Picton High School	Camden Public School	Campbelltown Performing Arts High School
Tahmoor Public School	Mt Annan High School	
	Macarthur Anglican School	

APPENDIX 2: List of community partners:

Wollondilly Council environmental officer
 Camden Council environmental officer
 Campbelltown Council environmental officer
 Dharawal Elder
 Australian Museum
 Bundanon Trust
 Camden Park Environmental Education Centre
 Eaton Gorge Theatre Company
 Macarthur Centre for Sustainable Living
 SWSi TAFE
 The Red Room Company/ Westwords
 University of Western Sydney Reptile Display
 Wooglemai Environmental Education Centre
 Australian Botanic Gardens, Mount Annan