



Lake Macquarie  
Landcare

# Case Study

## Foreshore Site

### Sunshine Silverwater Landcare



#### Project Partners:

- Lake Macquarie Landcare Resource Office (Lake Macquarie City Council and Lake Macquarie Landcare Inc.)
- Sunshine Silverwater Landcare
- Crown Lands (Department of Primary Industries)
- Delta Electricity (Sunset Power International)



Department of  
Primary Industries  
Lands

## Background

The suburbs of Sunshine and Silverwater are located on a peninsula 8 kilometres east of the town of Morisset on the south western side of Lake Macquarie Local Government Area in NSW.

Early industries in the area included fishing, timber-cutting, subsistence farming and boatbuilding.

## Site Information

The Sunshine Silverwater Landcare site on the Morisset peninsula extends from Johnys Point in the north (at the end of Beach Road, Silverwater) to Sunshine Park and adjoining bushland in the south. The site is an area of Lake Macquarie City Council owned foreshore reserve varying from Eucalypt Open Forest to under-scrubbed foreshore parkland.

The bushland section of the reserve maintains its structure with all layers of vegetation represented. The area is extensive at 28.22 hectares and is divided into 4 broad management zones: the foreshore zone, the bushland open forest zone, the parklike zone at Sunshine Park, and the tracks.

## Lake Macquarie

Lake Macquarie is located on the NSW east coast, It contains mountains, forests, waterfalls, extensive beaches, and a large coastal estuarine lake with an area of approximately 110 square km, and a catchment area of 605 square km.

These areas support a wide range of habitats and uses including nature conservation, recreation, residential and commercial development and rural activities. As a result, the natural environment has suffered a high degree of modification and degradation.

## Aboriginal Heritage

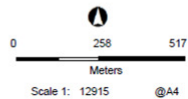
Lake Macquarie is rich in Aboriginal cultural heritage dating back tens of thousands of years. The people who lived around Lake Macquarie and Newcastle were known as the Awabakal which means "*the people of the flat surface*" presumably referring to the Lake and its flat surrounds.



**Sunshine Silverwater Landcare Site**



Date: 23-Sep-15



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**Above: Site locality map**

The lakeside reserve is a popular walking area for both the local and wider community. At the end of the road, in Sunshine Park is a popular boat ramp and other facilities (toilets, BBQs, fish cleaning table, children's playground etc) which are extensively used by both locals and visitors (many from Sydney) to the area.

Many visiting sailing "families" come to this area for local, state and national sailing competitions, for a variety of classes of boats. These visitors make extensive use of Sunshine Reserve for picnicking, walking and viewing sailing events.

## Vegetation

The Vegetation Community is mapped as MU30 Coastal Plains Smoothbarked Apple Woodland on the ridge and MU38 Foreshore Redgum Roughbarked Apple Swamp Forest on the fringe of the lake (Endangered Ecological Community: River-flat Eucalypt Forest on Coastal Floodplain).

The Eucalypt Open Forest includes *Eucalyptus tereticornis* Forest Redgum, *Angophora costata* Sydney Redgum, *Corymbia gummifera* Red Bloodwood, and *Eucalyptus piperita* Sydney Peppermint species.

During spring, many wildflowers can be seen flowering, including Native Holly and other pea flowers, Lady Finger Orchids, Wattles, Pomaderris, Travellers Joy and also the vulnerable *Tetradthea juncea*



*Eucalyptus tereticornis* - Forest Red Gum



Native Holly *Podolobium ilicifolium*



Sun Orchid (left) and Greenhood Orchid (right). Photos by Marion Lugg



## Fauna

The Sunshine Silverwater Landcare site is home to a variety of native fauna species. Bird species that have been sighted include Eastern Rosella, Rainbow Lorikeet, King Parrot, Superb Fairy Wren, Eastern Whipbird, Azure Kingfisher, Tawny Frogmouth, Satin Bowerbird, Australian Wood Duck and many more. Recently sighted was a small Lace Monitor.



King Parrot at Johnys Point

## Landcare group

The Sunshine Silverwater Landcare group formed in 1994 and was previously known as Southlakes Landcare. There are 9 regularly active members and a number of additional members who work occasionally. On average the group performs 20-40 volunteer hours of work per month on their Landcare site. The group undertake regular letterbox drops to encourage new members to participate.

The Sunshine Silverwater Landcare group are one of more than ten different Landcare groups working to improve and maintain



Members of Landcare group from left to right: (Geoff, Jean, Kelvin, Julie and Marion)

**April 2007: Erosion on the foreshore of Lake Macquarie at Silverwater.**



the beauty of the Morisset area. The group aims to ensure habitat for native animals through maintaining and restoring the natural bush areas, while providing a pleasant area for walks, picnics and barbeques.

Over the years the group have been able to clear weeds to allow access along the foreshore reserve between Sunshine Park and Johnys Point which was impossible to traverse twenty years ago.

The Landcare group's greatest challenges have been both erosion and weed infestation of the fringing areas of the site. Other challenges include the illegal dumping of garden refuse, vandalism and theft on site, and inappropriate use of the site by locals. These challenges have been addressed with the installation of a security gate to limit access to the site, and increased respect from residents and visitors to the area who continually appreciate the beauty in which they find themselves.

The Sunshine Silverwater Landcare group are well respected in the local community. They have received past support from many local residents and businesses, organisations, media, the local business chamber of commerce, town coordinator, and the progress association. They have also been supported by Scouts and Cubs who have assisted with planting native plants.

# Projects and achievements

## Caring For Our Country Community Coastcare Grant

The Sunshine Silverwater Landcare group secured a \$22,900 Australian Government Caring for Our Country Community Coastcare grant in 2008 to arrest the severe erosion on 160 metres of their Landcare site on the foreshore of Lake Macquarie. The project was titled the 'Lake Macquarie Foreshore Erosion and Siltation Control project'. The Landcare group matched this funding, dollar for dollar, through local donations and voluntary work. Additional assistance and funding was provided by Coles at Bonnells Bay and Eraring Energy.

The erosion problem was undermining the lake foreshore on the site and resulted in foreshore trees falling into the lake. The erosion

also caused siltation of the lake and subsequent destruction of the adjoining marine habitat. The popular use of the site as a walking trail was contributing to the severity of the erosion.

The Landcare group sought funding to provide a boardwalk on site to redirect walkers away from the





foreshore edge. The boardwalk provides a safer walking trail for the public with greater access for visitors, while protecting the fragile environment.

The project involved the construction of 160 metres of track, mostly across a steep slope. The construction of a retaining wall and a handrail, backfilled with crushed, recycled concrete minimised erosion during construction and negated any possible disturbance of unknown heritage sites. The inaccessibility of the site and the slope of the foreshore reserve increased the difficulty and the expense of this project.

The Coastcare grant also provided funds for bush regeneration works including weed removal and the planting of 2000 locally



**January 2010: The walkway had to be built around the existing trees and incorporate steps to climb up the hilly steep slopes.**

**January 2010: Parts of the track have to cross deep gullies, that were revealed when the site was cleared of weed species. Larger beams had to be used to support the walkway.**





indigenous native plants. Water retention contours were also constructed where needed. These environmental improvements have contributed towards providing a natural wildlife corridor connecting the two larger bushland areas at Sunshine Park and Johnys Point.

As part of the project the Landcare group also conducted an education campaign in the local community using information leaflets and field days to encourage an appreciation of the need to protect the foreshore reserve and lake edge. This was particularly important for the landowners adjacent to the foreshore reserve. Funding from the grant also provided information signage on the Landcare site and information pamphlets.

Council completed the project with foreshore stabilisation to reduce erosion from lake-based activity.

### **Boardwalk extension**

An additional 21 metres of boardwalk was completed in 2012 over a flood-prone section of the track close to the park. This project cost \$7,540 using funds donated entirely by local residents, and reduced the damage being caused by walkers to tree roots and vegetation in that section.

### **Crown Lands Public Reserve Management Fund**

The Crown Lands Public Reserve Management Fund provided \$9000 in 2014/15 and \$10,788 in 2015/16 to target Weeds of National Significance (and newly listed Noxious Weeds) including Asparagus Fern and Climbing Asparagus at Johnys Point.

Primary weeding by a professional bush regeneration team, to assist the work of the Landcare group, removed Asparagus Fern, Lantana, Bitou and Climbing Asparagus in an area of 2ha at Johnys Point. Garden escapes like



**Above: Bush regenerator hand-removing Asparagus in a dense infestation**



Before (left) and after (right) shows the removal of Asparagus Fern through the Crown Lands project

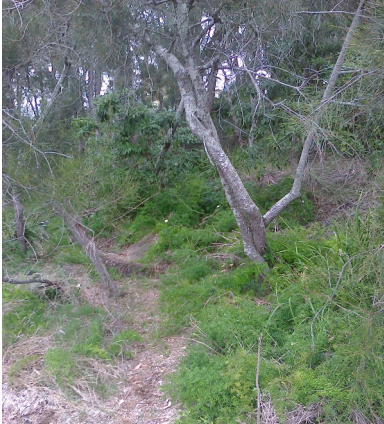
Ochna and *Thunbergia alata* (Black-eyed Susan) were also removed. The professional crew extended the weeding into areas too densely weed-infested or too close to cliff edges for the Sunshine Silverwater Landcare group to work.

Use of a professional crew using minimal disturbance techniques also allowed for Middens in the area to be protected from any damage caused by nearby weeding.

A further 1800m<sup>2</sup> of adjacent area was maintenance weeded with Morning Glory, Lantana, Asparagus Fern, Blackberry, and Bitou removed. Sunshine Silverwater Landcare group were assisted by a professional Bush Regeneration crew and by a volunteer Green Team (with paid supervisor), funded through Lake Macquarie City Council's Landcare budget. This maintenance weeding will help reduce weed incursion to the area weeded through the grant.

### **Delta Electricity**

In 2015, \$10,000 funding from Delta Electricity (now Sunset International) was also put towards weed removal at Johnys Point to support the efforts of the Landcare group. On multiple occasions volunteers from the Sunshine Silverwater Landcare group weeded alongside the Bush Regeneration Crew, providing an opportunity for capacity building and learning for the volunteer group.



**Above: Before (left) and after (right) weed control works during the Delta project**

### **Green Army**

Following the major storm in April 2015, a Green Army team was allocated to the region to assist storm-damaged areas with clean up and bush regeneration. The Landcare group had worked on clearing that up over several work sessions at the expense of regular weeding in the bush. The Green Army assisted the group in the control of Asparagus Ferns and Morning Glory at Johnys Point. They have also tackled some Blackberry, Fishbone Fern and Thunbergia (Black-eyed Susan).



**Above: Landcare volunteer chipping out the crown of an Asparagus Fern at Sunshine Reserve**



## References and Further Information

Australian National Botanic Garden - [www.anbg.com.au](http://www.anbg.com.au)

Bell and Driscoll, 2014, *[Vegetation mapping of Lake Macquarie LGA: Stages 1 – 5](#)*, available at [www.lakemac.com.au](http://www.lakemac.com.au)

Buchanan, R, 2009, *[Restoring Natural Areas in Australia](#)*

LMCC, 2004, *Lake Macquarie Coastal Planting Guide*, available at [www.lakemac.com.au](http://www.lakemac.com.au)

Weeds Australia - [www.weeds.org.au](http://www.weeds.org.au)

The Lake Macquarie Landcare website [www.lakemacquarielandcare.org](http://www.lakemacquarielandcare.org) provides links to newsletters, environmental programs, grants, Landcare, weeds and trees.

If you wish to know more about this and other projects in Lake Macquarie please contact the Landcare Resource Centre.

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### Landcare Resource Centre

Cnr Toronto and Five Islands Rds, Teralba, NSW  
2284

Postal Address: Box 1906 HRMC NSW 2310

Phone: (02) 4921 0392

Email: [lro@lakemac.nsw.gov.au](mailto:lro@lakemac.nsw.gov.au)

[www.lakemacquarielandcare.org](http://www.lakemacquarielandcare.org)

