



Lake Macquarie
Landcare

Case Study

Foreshore Site

Lakeside Drive Landcare



Lakeside Drive Landcare site at Osmond Park, Swansea

Project Partners:

- Lakeside Drive Landcare group
- Lake Macquarie Landcare Resource Centre

Background

Lakeside Drive Landcare Site is located in Swansea on the Eastern side of Lake Macquarie.

The Awabakal People would have utilised the area's rich seafood resources, which later also attracted Chinese fishers.

In the early-mid 1900s The foreshore along the Lake was occupied by cottages between the foreshore and Lakeside Drive. Lakeside Drive Landcare Team Leader, Garry Stewart's family were living on these leased sites and Garry's house on Lakeside Drive was one of the cottages that was moved from the leased land. Garry has a keen recollection of the history of his site and the surrounding Caravan Park site, which once housed a Dog Track, and the changes that human habitation have imposed on the local environment.

Site Information

The Lakeside Drive Landcare site is an area of waterfront reserve known officially as Osmond Reserve that lies between the caravan park and the eastern shore of Lake Macquarie at Swansea Flats.

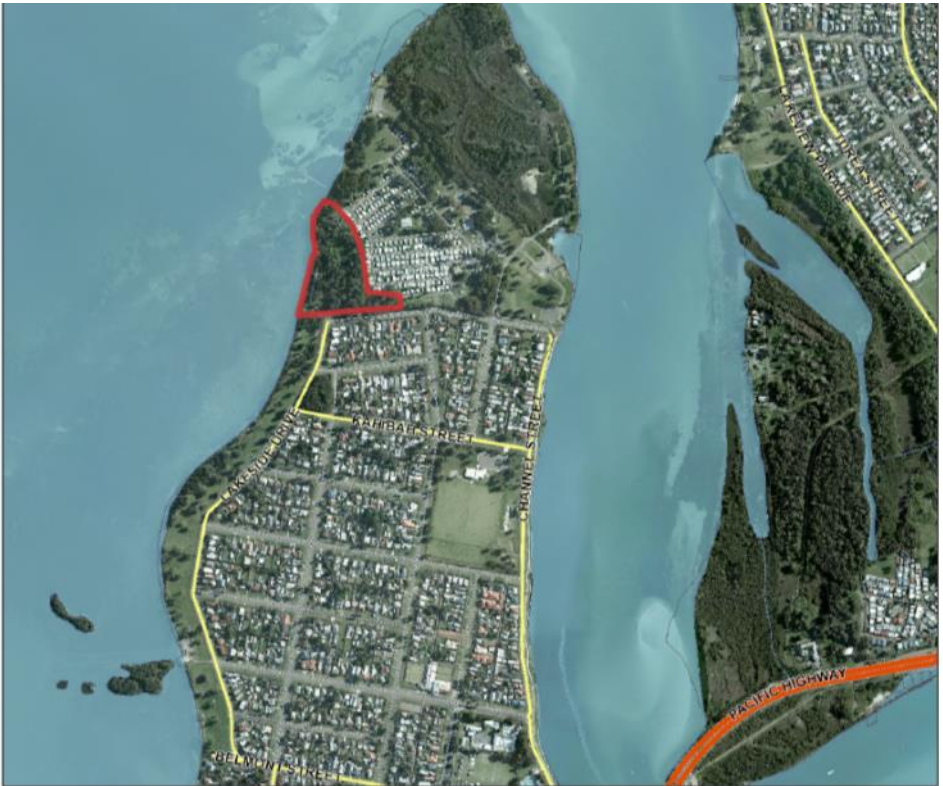
Lake Macquarie

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.

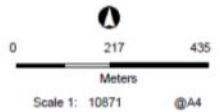
These areas support a wide range of habitats and uses including nature conservation, recreation, residential and commercial development and rural activities. As a result, the natural environment has suffered a high degree of modification and degradation.

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.



Date: 1-Jul-14



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Above: Site locality map (site shown in red)

Vegetation

Lakeside Drive supports two Endangered Ecological Communities (EEC) Swamp Oak Floodplain Forest and Coastal Saltmarsh. An EEC is an ecological community listed as facing a very high risk of extinction in NSW under the Threatened Species Conservation Act 1995.

Swamp Oak Floodplain Forest is found in close proximity to rivers and estuaries and is generally found on salty soils. At Lakeside Drive, the main canopy species are Swamp Oak (*Casuarina glauca*) and Broad-leafed Paperbark (*Melaleuca quinquenervia*). There are also occasional rainforest species like Sandpaper Fig (*Ficus fraseri*) Tuckeroo (*Cupaniopsis anacardioides*), Cockspur Thorn (*Maclura cochinchinensis*), Cheese Tree (*Glochidion ferdinandi*), Cunjevoi/ Elephants Ear (*Alocasia brisbanensis*).

Coastal Saltmarsh lives between high and low tide. It is mostly a treeless plant community, distinguished by a low succulent herbs and salt tolerant grasses and sedges. It is found in the tidal flats of estuaries and on edges of intermittently opened coastal lagoons, both saline and brackish. The Lakeside Drive site contains a fringing band of salt tolerant species like Grey Mangrove (*Avicennia marina*), Sea Rush (*Juncus kraussii*) and Saltwater Couch (*Sporobolus virginicus*).

Right: Cabbage Tree
Palms *Livistona
australis* at Lakeside
Drive



Bountiful Bush Tucker

Lakeside Drive Landcare site has a variety of indigenous bush tucker plants that have been enhanced by the Landcare group's plantings. Species include:

- Native quince (*Alectryon subcinereus*)
- Tuckeroo (*Cupaniopsis anacardiodes*)
- Coastal Wattle (*Acacia sophorae*)
- Paroo Lily (*Dianella caerulea*)
- Warrigal greens (*Tetragonia tetragonoides*)
- Mat rush (*Lomandra longifolia*)
- Coastal Banksia (*Banksia integrifolia*)
- Native violet (*Viola hederacea*)
- False Sarsparella (*Hardenbergia violacea*)
- Creek Lilly Pilly (*Acmena smithii*)
- Cumbungi (*Typha sp.*)
- Broad-leaved Paper Bark/ Tea Tree (*Melaleuca quinquenervia*)



Above: Tuckeroo



**Left:
Native Violet *Viola hederacea* are re-establishing in areas cleared of Lantana**

Fungi

Lakeside drive is home to a range of fungi species. The Landcare group have hosted a number of workshops and tours to showcase fungi species and Team Leader Garry Stewart is an avid photographer, capturing and recording many species.



Top: A Bracket Fungi, possibly Rainbow Bracket (*Trametes versicolour*) - photo Garry Stewart



Middle: Red Woodchips Fungus, with added fungal growth on top



Bottom: Starfish Fungus or Anemone Stinkhorn (*Aseroe rubra*) - photo Garry Stewart

Fauna

The reserve is home to Lewins Rail and Eastern Whipbird, along with Eastern Rosella and Rainbow Lorikeet (which are using the nest boxes).

The Landcare group have documented more than 70 bird species on site since 2006.



**Above: Buff Banded Rail,
Below: Rainbow Lorikeet and nest (Photos:
Garry Stewart).**



**Above: the Powerful Owl
sighted at Lakeside Drive
in 2014 (Photo: Garry
Stewart).**



**Above: The Black-bellied
Swamp Snake or Marsh
Snake has been signed at
Lakeside Drive. They mostly
feed on small reptiles and
frogs. (Photo: Garry
Stewart).**

Lakeside Drive Birds List

Compiled by Garry Stewart 15/4/14

Note: (V) = Visiting as opposed to Resident, (N) = Nesting

1. Australian Hobby (V)
2. Australian Magpie (N)
3. Australian Magpie-lark (N)
4. Australian Pelican (V)
5. Australian Raven (Crow) (N)
6. Azure Kingfisher
7. Australian King Parrot (V)
8. Black-faced Cuckoo-shrike (N)
9. Black-tailed Godwit (V)
10. Black Swan (V)
11. Blue-faced Honeyeater (V)
12. Buff-rumped Thornbill
13. Buff-banded Rail (N)
14. Brown Quail (N)
15. Brown Thornbill (V)
16. Butcherbird (N)
17. Common Mynah (N)
18. Crested Pigeon (N)
19. Crimson Rosella (V)
20. Dollar Bird
21. Drongo (V)
22. Eastern Curlew (V)
23. Eastern Rosella (N)
24. Eastern Whipbird (N)
25. Eastern Yellow Robin (V)
26. Figbird (N)
27. Fork-tailed Swift (V)
28. Galah (N)
29. Great Egret
30. Grey Fantail (V)
31. Grey Butcherbird (N)
32. Grey Teal Duck (N)
33. Kookaburra (N)
34. Lewins Rail
35. Little Corella (V)
36. Little Egret
37. Little Lorikeet (V)
38. Little Wattlebird (V)
39. Maned (wood) Duck (N)
40. Masked Lapwing (Plover) (N)
41. Masked Wood Swallow (N)
42. Noisy Miner (N)
43. Noisy Friarbird (V)
44. Olive Backed Oriole (V) (N)
45. Pheasant Coucal (V)
46. Pied Currawong (N)
47. Pied Oystercatcher
48. Powerful Owl (V)
49. Rainbow Lorikeet (N)
50. Red-browed Firetail
51. Red-rumped Parrot (V)
52. Red Wattlebird (V)
53. Royal Spoonbill (V)
54. Rufous Night Heron (V)
55. Sacred Ibis (V)
56. Satin Bowerbird
57. Scaly-breasted Lorikeet (N)
58. Silvereye (V)
59. Spotted Pardalote
60. Spotted Turtle-dove (N)
61. Striated Thornbill
62. Striped Honeyeater (N)
63. Sulphur-Crested Cockatoo (V) (N)
64. Superb Fairy-wren
65. Tawny Frogmouth (N)
66. Welcome Swallow (V) (N)
67. White-browed Scrub Wren (N)
68. White-faced Heron (V) (N)
69. White-throated Needle Tail Swiftlet (V)
70. White-throated Treecreeper
71. Willie wagtail (N)
72. Yellow-tailed Black Cockatoo (V)

Landcare group

Lakeside Drive Landcare Group formed in 2006. Garry Stewart (Team Leader) was joined by John Adams, followed soon after by Graham Healy, John Cornish and James Cameron, and in 2013 by Scott Aldritt. The team undertakes approximately 90 hours of work on site per month, working every Friday from 9am to 3pm and at other times when organised.

The Landcarers are weeding, regenerating, and planting sections of the reserve in mosaics, constructing informal access paths, and erecting nest boxes for birds and possums.

Garry Stewart and John Adams have completed Certificate II in Conservation & Land Management since commencing the group. Garry lists this as one of the groups' greatest achievements, along with the propagation of plants for planting on the site. Over 2,000 native plants have been propagated by Garry for the site.



The Lakeside Drive Landcare team:

Left (from Left) Garry Stewart, John Adams, Graham Healy, John Cornish, James Cameron and Sam (the dog).

Right: with additional team member Scott Aldritt who joined in 2013

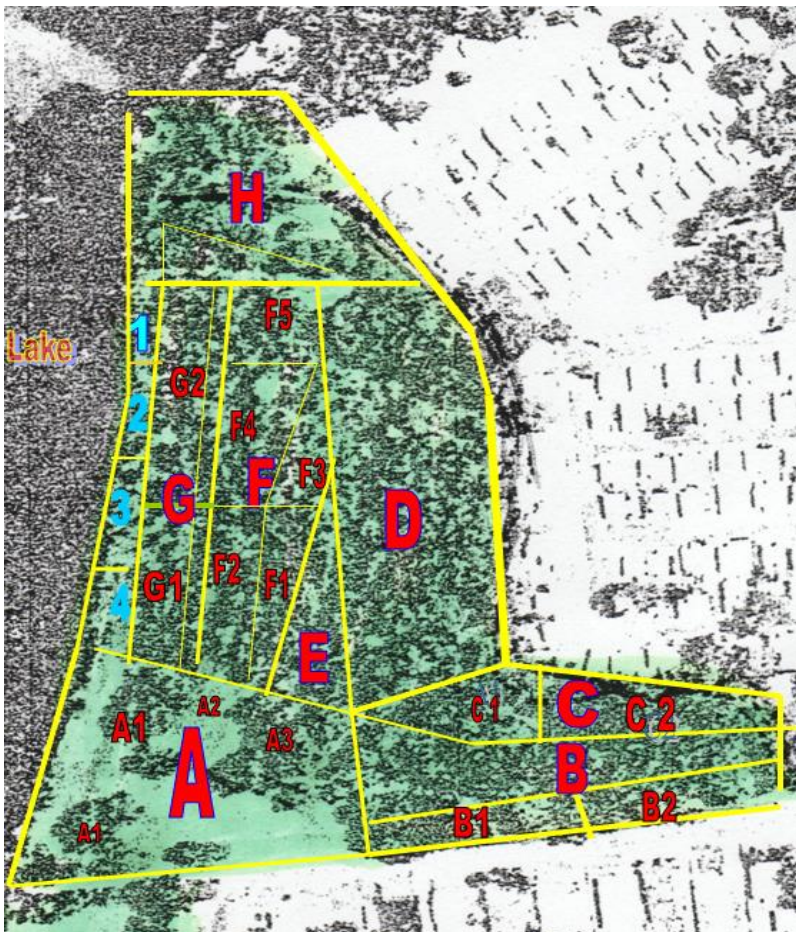




Left:
Garry with the
2000th plant
that he grew



Right: Garry's
home nursery
has
propagated
many native
plants



Below: The Landcare group's work zones for the site

Target Weeds

Lakeside Drive Landcare group list their greatest challenge as controlling Lantana and Morning Glory.

Bitou Bush, American Pennywort, Madeira Vine, Asparagus Fern, Cassia, Mickey Mouse Plant, Glory Lily, Wild Tobacco tree & Camphor Laurel are also present on the Lakeside Drive site.

Projects and achievements

Lakeside Drive Landcare are very proud of their achievements, making an incredible improvement to the site since 2006. They have been weeding in mosaic sections, careful to leave till last those areas that provide habitat and dense areas that restrict access to sensitive parts of the site. The Landcare group are enthused by the cross-country runners and walkers who use the site regularly, as well as the wildlife that inhabit the site.

Lakeside Drive Landcare Group would like to acknowledge the Wallarah Street Landcare Group, in particular Susan and John Parnaby and Barry Twig, who undertook Landcare work on the same site between 2001 and 2003. They would also like to thank Conservation Volunteers Australia for their assistance with Landcare work in 2008.

The site has received funding to assist with weed removal and planting through Catchment Management Authorities wetland improvement program in 2006 and through Envirofund in 2007.



Above: The path constructed by Lake Macquarie City Council in 2011-2012, in consultation with the Landcare group, is popular with cyclists and walkers



Above: Site A1 and 2 - before, in 2006, trees covered in Morning Glory

Below: After, in 2014. Weed removal in this area included assistance by volunteers from Galgabba Landcare





Left: Before (in 2008) at the top of area known as D3, and Below: after (in 2011)





Above: Site A1 and 2 - before, in 2006, trees covered in Morning Glory

Below: After, in 2011, Morning Glory removed





**Above: Morning Glory (also called Mile-a-minute) and Cape Ivy covered Site A1 in 2006,
Below: After in 2011**



References and Further Information

Australian National Botanic Garden - www.anbg.com.au

Buchanan, R, 2009, *Restoring Natural Areas in Australia*

LMCC, 2004, *Lake Macquarie Coastal Planting Guide*, available at www.lakemac.com.au

Moore, S & O'sullivan, P, 2014, A guide to common fungi of the Hunter-Central Rivers region, Hunter Local Land Services, NSW, available at www.ils.nsw.gov.au/hunter

Weeds Australia - www.weeds.org.au

The Lake Macquarie Landcare website 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.

Produced at the Landcare Resource Centre 2014



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