

A case study of

Crabs Beach, Swansea Heads

Crabs Beach Landcare

Protect Cultural Heritage

Dune Stabilisation

Project Partners:

- Lake Macquarie Landcare Resource Office (Lake Macquarie City Council and Lake Macquarie Landcare Network Inc.)
- Crabs Beach Landcare
- Bahtabah Local Aboriginal Land Council
- Hunter Water Corporation



March 2008: Whale watching platform at Crabs Beach



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Lake Macquarie

Lake Macquarie is a large coastal estuarine lake in NSW with an overall length of some 22 kilometres in the north-south direction and 10 kilometres in width. The lake covers an area of approximately 110 square kilometres and has a catchment area of 605 square kilometres. The lake contains 12 major, and many more minor, estuarine creek zones where freshwater tributaries interface with the saline body of the main lake.



March 2008: Management techniques helped to stabilise this dune. It has since grown to help protect the beach & the shell midden below.

Site Information

Crabs Beach, Swansea Heads

Crab's Beach lies off Pacific Drive, Swansea Heads in Lake Macquarie. It supports an important coastal dune ecosystem and a culturally significant Aboriginal Shell Midden.

Dune Stabilisation

Crab's Beach is a popular surfing beach and therefore requires ongoing management to ensure visitor impacts are minimised. Managing access to the beach by the most appropriate path is critical to the health of the flora that stabilises the dunal system, and the fauna that depend on the resulting habitat.

Sand dunes act as a buffer against wave damage during storms, protecting the land behind from saltwater intrusion. They also protect the surrounding plant communities and ecosystems. The sand barrier allows the development of more complex plant communities in areas protected from salt water inundation, sea spray, and strong winds.

If the dunes are degraded, communities and ecosystems may be threatened. Fences on the fore dunes and behind the dunes protect stabilising vegetation from visitors and vehicles. Fences may also be used to protect cultural values.

Pathways guide beach users to where they want to go, minimizing the damage to the native vegetation growing in the dunal paddocks between each path.

The 2005 Landcare project at Crabs Beach involved stabilising a dune 'blow-out' using revegetation and wind fencing techniques.





Crabs beach Landcare planted *Lomandra longifolia* in 2005 to stabilise the dunal system.

Crabs Beach Landcare

Crab's Beach Landcare Group was formed in 2003 led by Noel and Janice Mathews after local residents became concerned about the state of the environment on Crab's Beach. Noel and Janice have since moved on, but Crab's Beach Landcare group is still going strong under the guidance of Doug and Barbara Smith. The group has eight members who meet on the first and third Tuesdays of each month to work on the Crab's Beach site.

The group's key objective is maintenance of the dunal system. Crab's Beach Landcare Group are proud of their achievements and are consistently praised for their efforts by visitors to the area. The array of native bird species and other fauna, such as echidnas, that they regularly encounter on site motivates them further to continue with their valuable work.

The 2005 Crabs Beach Landcare project involved the rehabilitation of a dune blow-out, construction of a whale watching platform to provide an alternative viewing area for visitors, and provision of access to the beach that minimised damage to the dunal system and the midden site



Improved beach access via designated pathways diverted visitors away from the sensitive areas of Crabs Beach (2008)



**CRABS BEACH SWANSEA HEADS
LOCALITY MAP**

contained within the dune. The pathway, a Bicentennial project, was also refurbished, an intensive Bitou Bush removal project was undertaken together with replanting of native species, and fencing was erected or replaced to manage access to the beach.

The Crab's Beach project involved the Aboriginal community to ensure a successful project outcome without compromising Aboriginal heritage values.



Crabs Beach Landcares successful planting project resulted in increased vegetation cover and enhanced dune stabilisation.

Cultural Heritage

The area of Swansea Heads is listed in the National Heritage List as an Indicative Place for its Indigenous heritage values. Aboriginal occupation of the area has been dated at approximately 8,000 years ago using evidence uncovered from a midden discovered in Swansea Heads in 1972. It is the earliest archaeological site so far discovered in the Lake Macquarie region. Aboriginal archaeological sites are fragile and irreplaceable; they are also protected by the National Parks and Wildlife Act 1974.



March 2008: Crabs Beach Landcare were involved in the construction of a whale watching platform and improved visitor access.



March 2008: Michael Green from Bahtabah Local Aboriginal Land Council talking about the cultural and spiritual significance of the area.

An example of a shell midden like that found on Crabs Beach



The presence of an Aboriginal Midden on Crab's Beach is of particular cultural importance. It is archaeologically significant because it links with other cultural sites within the Swansea Heads region.

A Midden provides physical evidence of past Aboriginal occupation and lifestyle within an area. Middens are accumulations of shells that have been discarded after human consumption. They also contain other discarded remnants such as animal bones, stone tools or charcoal from a hearth.

Cultural and spiritual significance is also attributed to coastal landscapes, including rock platforms by the Awabakal peoples. Their connections are conveyed through their stories, land use and Aboriginal naming of significant landforms.

Some important Awabakal words and stories about places around Swansea Heads are:

- **Yirri-ta-ba**

Swansea Heads – an important spiritual place. Several Aboriginal burials were found there in the 1970s and are now reburied within the Swansea Heads reserve.



Shells are the main component of middens, but they also contain bones, stone tools and charcoal.



Old aerial photo of Yiri-ta-ba (Swansea Heads) showing the re-burial site and other culturally significant site such as Nir-rit-ti-ba (Moon Island) and Mul-lung-bu-la

- **Mul-lung-bu-la**

Two large vertical rocks at Swansea Heads, believed to be two women who were transformed into rocks as a consequence of being beaten to death.

- **Nir-rit-ti-ba**

Moon Island – a place where mutton birds abound.

Threatening Processes on Crabs Beach

Prior to suburban development natural erosion processes reduced the integrity of the dunal system and the Aboriginal shell midden cultural site, which was at risk of being buried from shifting sands.

Today many of the threats to the Crab's beach sand dunes and cultural heritage site are directly related to our appreciation of the beach. Physical disturbance, fire, litter & clearing threaten both the natural and cultural aspects of Crab's Beach as a direct result of human visitation to the area. Weed invasion and feral animals are threats that impact on the site from the local suburban area.

Community Partnerships

Lake Macquarie is part of the traditional country of the Awabakal people. Crab's Beach is situated in the area under Bahtabah Local Aboriginal Land Council (BLALC) stewardship. Lake Macquarie City Council (LMCC) is

March 2008: Walkway and fencing has been put in place to provide better access to the beach and help combat beach erosion.



committed to working with BLALC to ensure that Council's activities respect cultural heritage values and protect remaining Aboriginal sites wherever possible. The Landcare program, supported by LMCC, embraces the concepts of community participation in natural resource management and community stewardship of our environment. Council encourages these concepts by supporting the Landcare Resource Office and providing professional support staff. Landcare, Coastcare & Dunecare groups are invaluable in the management of beaches and dunes and the ecosystems they sustain. The Landcare Resource Office provides information on these groups as well as access to volunteering opportunities.



In the past the integrity of the Crabs Beach environment was threatened by lack of management. (Crabs Beach 2005)

Hunter Central Rivers Catchment Management Authority



The Hunter Central Rivers Catchment Management Authority provides support to this and other projects through the Catchment Officer, Regional Facilitator and Community Support Program supporting Catchment Action Plan Management Targets of:

- Protect culturally significant areas (MT05)
- Dune stabilisation (MT27)

If you would like to know more about the Hunter Central Rivers Catchment Management Authority please phone: 4324 3844

or go to www.hcr.cma.nsw.gov.au

References

- Photo of Swansea Heads - Lake Mac Infohunt.
www.lakemac.infohunt.nsw.gov.au/library/lhist/suburb/swansea
- Plants - Australian National Botanic Garden
www.anbg.com.au



Crabs Beach, as viewed from Illawong Park.



May 2010: Whale watch platform with the addition of timber boards at the base of the fence to stop erosion.



March 2008: The access track up to Pacific Drive.



May 2010: (Top & bottom) Ongoing work carried out by the Landcare Green Team at Crabs Beach, below the Whale watch platform to counteract erosion.



Resources

Publications such as the *Lake Macquarie Coastal Planting Guide* (LMCC), *Attack of the Killer Weeds* (Coastcare), *Weeds of the Hunter and Central Coast* (Weeds Committee Information Booklet), *Foreshore Stabilisation and Rehabilitation Guidelines* (LMCC) and *Native Plant or Weed, Pick the Difference, Volumes 1 & 2* (Ann Loughran) and *Restoring Natural Areas in Australia* (Robin Buchanan), are some of the documents used by volunteers throughout Lake Macquarie in protecting our natural areas.

In addition, the Community Support Information Pack produced by Lake Macquarie City Council and the Hunter Central Rivers Catchment Management Authority is available in limited hardcopy and CD format covering a wide range of resources used in natural resource management in Lake Macquarie.

Contacts

If you wish to know more about this and other projects in Lake Macquarie, please contact the Landcare Resource Office on **4921 0392**.

LML's website www.lakemacquarielandcare.org can provide links to newsletters, environmental programs, grants, Landcare, weeds and trees.

Images courtesy of:

2005 & 2008 Lake Macquarie Landcare

Shell Midden courtesy of Bahtabah Local Aboriginal Land Council

Denis Hilder of Landcare Resource Centre 2008



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