



Lake Macquarie  
Landcare

# Case Study

## Rainforest Site

### GroTrees Grove at Landcare Resource Centre, Teralba



White Beech, one of the rainforest trees planted at Teralba (above left in 2009 and above right in 2014)

#### Project Partners:

- Lake Macquarie Landcare Resource Centre
- The Rotary Club of Chatswood Sunrise, Inc.

## Background

GroTrees involves the planting of native trees under a gifting arrangement through Rotary. The aims are to:

- Provide donors with the opportunity to benefit and beautify the environment
- Support local employment in a rural community

Bingara Central School, in northern NSW was chosen as the first GroTrees Grove site.

The second GroTrees Grove site chosen was at Teralba, Lake Macquarie.



Above: Bob Selinger with Eva and Jennifer (Rotary), with Val Johnston and Carl Fulton (Landcare) looking at the first GroTrees plantings in 2009.

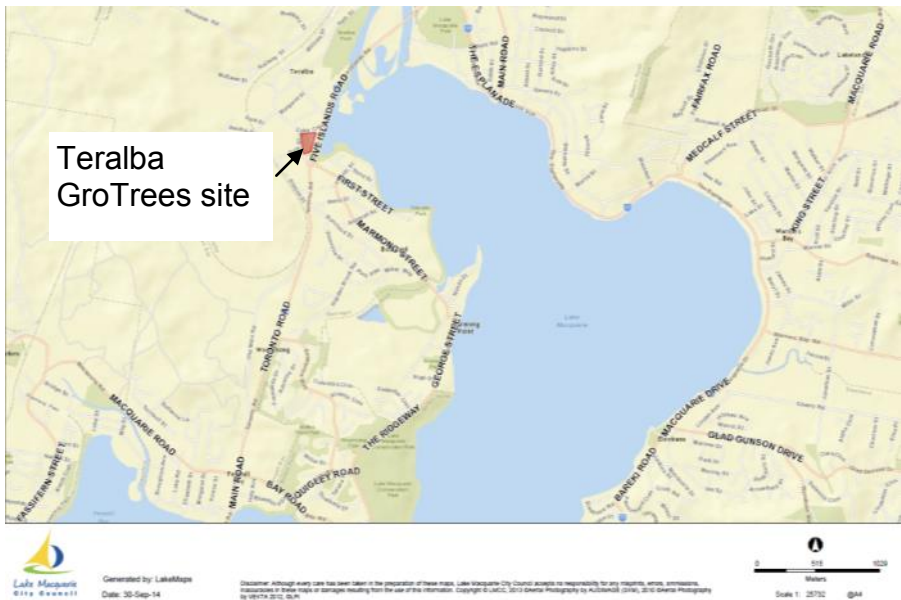
## Lake Macquarie

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.



Above: Site locality map

## Site Information

The Teralba GroTrees site is adjacent to the Landcare Resource Centre at 80 Toronto Road Teralba. The site consists of two areas on either side of a drain which runs from under Toronto Road and on to Lake Macquarie.

## GroTrees Planting Project at Teralba

The aims of the GroTrees Project by Lake Macquarie Landcare were threefold:

- To establish a fire-retardant planting around the new Landcare Resource Centre
- To provide an off-site “refugia” for rainforest plant species that have significance as Bushfood plants or Cabinet Timber species. Some of these are also Threatened Species.
- To provide an off-site arboretum for Regionally Significant rainforest species generally

With the help of the Lake Macquarie Landcare bush regeneration team, the Green Team and the Landcare volunteers, weed species such as Lantana, Cassia, Small-leafed Privet, Large-leafed Privet, African Olive, Camphor Laurel, Jacaranda, and Ochna/Mickey Mouse Plant were removed from the riparian zone of the site and replaced with a mixed species planting of rainforest plants to meet the above aims .

The planted rainforest species occupy the niche left by the removal of the weed species, growing as a mesic (broad-leafed) understorey to the existing eucalypts around the Landcare Resource Centre. The underplanting of rainforest species means that these plants are less likely to carry fire and more likely to act as an ember screen in the event of fire.

The GroTrees planting forms an on-site educational resource for demonstration of rainforest bushfoods, cabinet timber species, and fire-retardant edge plantings.



Above: new plantings in 2009 (left) and now grown in 2014 (right)

## **Bush Food Species**

The GroTrees planting utilises bush food species, including out-of-zone natives, which have gained popularity in the bush foods industry. As well as providing an educational resource, these plants could provide herbs, spices and fruits for harvesting. Any Planting Program should consider the weed potential of any out-of-zone species which is why plants selected for this program did not include Acacia species or wetland species (other than local species) because of the propensity of these species to spread. Fruiting



The Native Hibiscus (*Hibiscus heterophyllus*) - far left - and Bolwarra (*Eupomatia laurina*) - left - are two of the bush food species planted at the Teralba GroTrees Grove

species also need to be maintained (through fruit harvesting) to avoid the spread of out-of-zone natives.

### Cabinet Timber Species

Cabinet timber species have been included in the GroTrees planting as an educational resource for landholders wishing to use more native plants in farm forestry projects. As much cabinet timber was logged from the Lower Hunter previously, it is reasonable to assume that local species such as Red Cedar, White Beech, and Rosewood would grow well, but whether a farm forest could replicate the growing conditions of the original rainforest is debatable and largely untried. Further north, in areas around the Big Scrub remnants in Northern NSW and Southern Queensland, some preliminary work has been done (see for example, [www.bigscrubrainforest.org.au](http://www.bigscrubrainforest.org.au)).



Cabinet timber species include White Beech (*Gmelina leichhardtii*)

### Regionally significant rainforest species

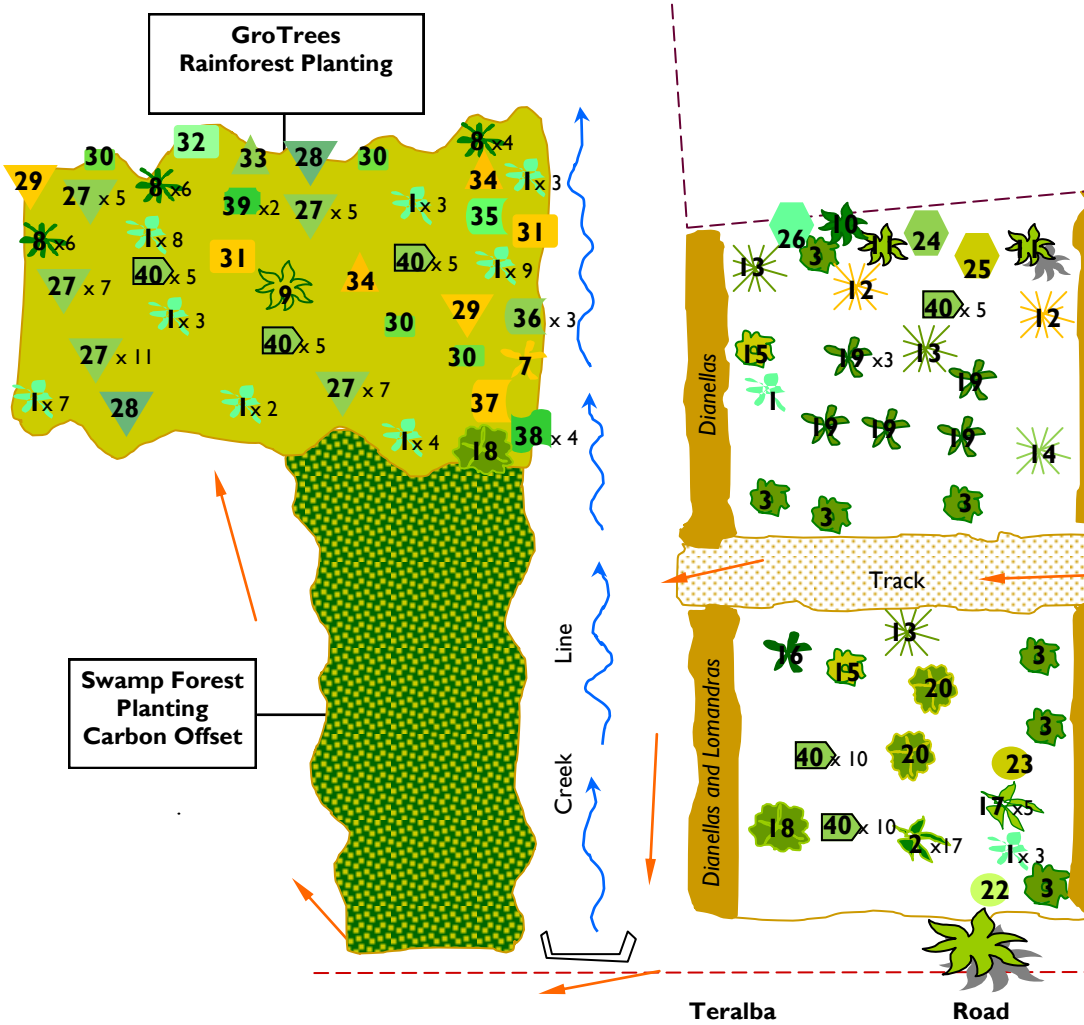
The GroTrees planting includes rainforest species that are listed as rare or threatened that occur in the Lake Macquarie region. Preserving these species is important for the region's biodiversity and their inclusion in an educational setting also helps to raise awareness.



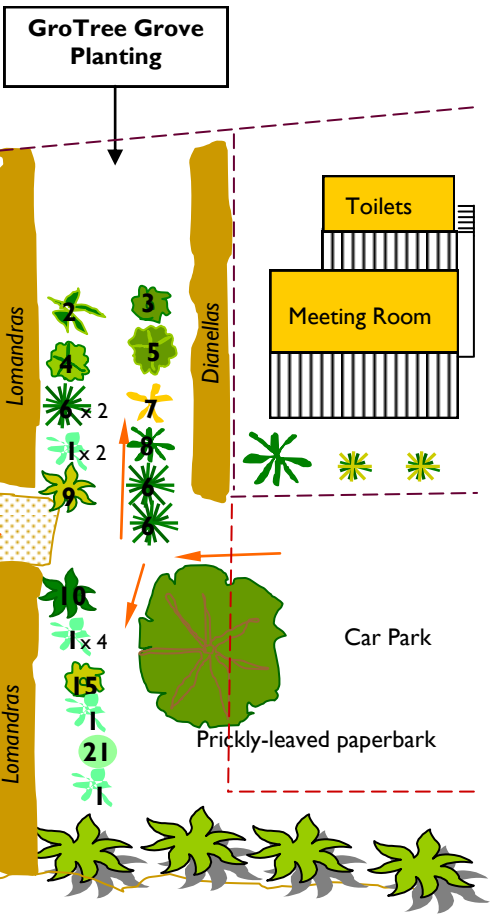
Regionally significant species include the Cabbage Tree Palm (*Livistonia australis*)



# THE GRO TREES GROVE AT TERALBA LANDCARE RESOURCE CENTRE



## Key to planted species (correlated to numbers on map)



1. *Syzygium smithii* - Creek Lilly Pilly (BF)
2. *Atractocarpus fitzalani* - Yellow Mangosteen (BF)
3. *Castanospermum australe* - Black Bean (BF) (CT)
4. *Diplogottis campbellii* - Small-leaved Tamarind (BF) (RS)
5. *Syzygium luehmannii* - Small-leaved Lilly Pilly (BF)
6. *Backhousia citriodora* - Lemon scented-Myrtle (BF)
7. *Toona ciliata* - Red Cedar (CT)
8. *Syzygium paniculatum* - Magenta Lilly Pilly (BF) (RS)
9. *Gmelina leichhardtii* - White Beech (CT)
10. *Elaeocarpus obovatus* - Hard Quandong
11. *Alphina caerulea* - Native Ginger (BF)
12. *Citrus australasica* - Finger Lime (BF)
13. *Ficus macrophylla* - Moreton Bay Fig (BF)
14. *Citrus australis* - Round Lime (BF)
15. *Dysoxylum fraserianum* - Rosewood, Rose Mahogany (CT)
16. *Grevillea robusta* - Silky Oak (CT)
17. *Eupomatia laurina* - Bolwarra (BF)
18. *Ficus Virens* - White Fig (BF)
19. *Archontophoenix cunninghamiana* - Bangalow Palm
20. *Alectryon cariaceus* - Beach Birds Eye (BF)
21. *Elaeocarpus angustifolius* - Blue Quandong (BF)
22. *Alphitonia excels* - Red Ash (CT)
23. *Acacia maidenii* - Maiden's Wattle
24. *Rubus moluccana* var. *trilobus* - Native raspberry (BF)
25. *Maclura cochinchinensis* - Cockspur Thorn (BF)
26. *Cordyline stricta*
27. *Hibiscus heterophyllus* - Native Hibiscus (BF)
28. *Acronychia acidula* - Lemon Aspen (BF)
29. *Ficus fraseri* - White Sandpaper Fig (RS)
30. *Acacia decurrens* - Green Wattle
31. *Ficus coronata* - Sand-paper Fig (BF)
32. *Podocarpus elatus* - Plum Pine (BF)
33. *Myoporum insulare* - Boobialla (BF)
34. *Pouteria (Planchonella) australis* - Black Apple, Black Plum (BF)
35. *Ficus rubiginosa* - Port Jackson Fig
36. *Cassine australis* - Red-fruited Olive Plum (BF)
37. *Hymenosporum flavum* - Native frangipani
38. *Livistonia australis* - Cabbage tree palm (RS)
39. *Pararchidendron pruinosum* - Snow Wood (CT)
40. *Pittosporum undulatum* - Sweet Pittosporum

### Notes:

(BF) = Bush Food

(RS) = Regionally Significant/ Threatened Species

(CT) = Cabinet Timber

## References and Further Information

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