

## Group Guidance Page – Catherine Hill Bay Landcare



Group Action	Priority	Method
TZ 1 – Secondary weeding of Bitou, Lantana, Coastal Morning Glory and Blackberry.	H	Hand weed small plants, cut and paint larger Bitou and Lantana, scrape and paint Coastal Morning Glory and Blackberry
TZ 2 – Primary and secondary weeding of Bitou, Lantana, Coastal Morning Glory and Blackberry.	M	Hand weed small plants, cut and paint larger Bitou and Lantana, scrape and paint Coastal Morning Glory and Blackberry
TZ 3 – If possible, primary weed Bitou, Lantana.	L	Hand weed small plants, cut and paint larger Bitou and Lantana.
TZ 4 – Follow up weeding of Bitou and Lantana, push Kikuyu back from shrub structure.	L	Hand weed small plants, cut and paint larger Bitou and Lantana. Hand weed Kikuyu from shrub layer heading back up the dune.

Priority Ranking		
	L	To be dealt with when possible (approx. 5% of group effort onsite).
	M	Consideration given when onsite (approx. 15% effort onsite).
	H	This should be the group's main focus (approx. 80% of group effort)



**Guiding Principles:**

1. Work from Good to Bad - Secure the best areas first,
2. Minimise disturbance to the natural conditions - don't damage soil and surrounding vegetation,
3. Don't overclear - let natural regeneration set the pace.

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# Catherine Hill Bay Landcare

## Agreed Action Plan for 2020-2023

Thank you for volunteering your time and effort for Landcare. Your hard work benefits the natural environment, your local community and also yourself. Your Action Plan has been designed to guide you and your team through the rehabilitation of your Landcare site. Your Action Plan shows activities that have been approved by Lake Macquarie City Council.

Please consult your plan for priority tasks and important site information. If your plan no longer adequately represents your site, please contact the Landcare Resource Office for a plan re-assessment.

### **Site Specific Actions:**

The Landcare site is broken up into treatment zones. These zones identify the priority actions on a site, what weeds are present, how to deal with those weeds, and any other site-specific, relevant information.

The actions outlined will have a priority ranking. As a rule of thumb;

- High Priority – spend 80% of your time tackling these issues,
- Medium priority – spend 15% of time on these actions,
- Low priority – Spend 5% of time on these actions.

Ideally, plans are put together with a 3-year timeframe in mind. In some sites, priorities will shift over that timeframe. If your action plan no longer reflects the priorities on your site, please contact the LRO. We can arrange a site visit with a Landcare Support Officer to guide your works, or reassess our plan.



Figure 1. Landcare site 1 – Graveyard beach.

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Figure 2. Landcare site 2 – Surf Club.

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Figure 3. Treatment Zones – Graveyard Beach.

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Figure 4. Treatment Zones – Surf Club.

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## WHAT ARE THE LANDCARE GROUP'S ACTIONS FOR THIS SITE?

Group Action	Priority	Method
TZ 1 – Secondary weeding of Bitou, Lantana, Coastal Morning Glory and Blackberry.	H	Hand weed small plants, cut and paint larger Bitou and Lantana, scrape and paint Coastal Morning Glory and Blackberry
TZ 2 – Primary and secondary weeding of Bitou, Lantana, Coastal Morning Glory and Blackberry.	M	Hand weed small plants, cut and paint larger Bitou and Lantana, scrape and paint Coastal Morning Glory and Blackberry
TZ 3 – If possible, primary weed Bitou, Lantana.	L	Hand weed small plants, cut and paint larger Bitou and Lantana.
TZ 4 – Follow up weeding of Bitou and Lantana, push Kikuyu back from shrub structure.	L	Hand weed small plants, cut and paint larger Bitou and Lantana. Hand weed Kikuyu from shrub layer heading back up the dune.

Priority Ranking		
	L	To be dealt with when possible (approx. 5% of group effort onsite).
	M	Consideration given when onsite (approx. 15% effort onsite).
	H	This should be the group's main focus (approx. 80% of group effort)

**General site issue** – Across the sites, Bitou is an ongoing priority. Lantana is also extensive across the sites. Beach users accessing the dunes is a concern. There are tracks already being used, however opening up new areas may encourage beach users to access more of the dunes. Removal of vegetation needs to take this in to account, and not create new tracks to the beach.

**Treatment Zone 1** – TZ1 Is the high priority site initially. Some excellent work has been done in this area, and follow up weeding of Bitou specifically will help to preserve the gains made. Concentrate on removing Bitou to allow native regeneration to occur. Wait for natural regeneration before considering planting tubestock.

### 1. Priority weeds:

- a. Bitou: Outlier plants to be targeted first. Small plants to be hand weeded and left onsite. Larger plants should be pruned with secateurs/loppers and 100% Glyphosate painted on fresh cuts. Material to be placed in knee-high piles onsite to retain habitat. Large stands to be mosaic weeded, gradually removing the weeds over time. Allow the rate of regeneration to determine the rate of weed removal. Try to cover exposed sites with branches to prevent erosion.



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- b. Lantana: Small solitary plants can be hand weeded. Larger plants to have their branches cut back with secateurs/loppers and 100% Glyphosate painted on cuts. Pile branches up in knee-high piles to provide habitat. Large stands to be mosaic weeded. Choose small areas and make some inroads with secateurs or loppers. The cleared area should be allowed to naturally regenerate or, if there's no signs of regeneration, planted with tubestock. Push back the stands of Lantana gradually, allowing regeneration to determine the pace of clearing.
  - c. Coastal Morning Glory: Hand remove as much along the ground as possible. For runners going up trees, cut them at base of tree and leave material in trees. Scrape and paint remaining runners along the ground with straight glyphosate immediately after scraping. Ensure any hand weeded runners are kept off the ground to prevent sending out new roots.
  - d. Blackberry: Scrape along 1/3 the length of branches with secateurs blade. Paint with 100% Glyphosate immediately. Hand pulling will likely leave the growth point in the ground and won't prevent regrowth. Leave material onsite.
  - e. Environmental Weeds: Other weeds onsite can be treated as necessary, however, the priority weeds identified should be the priority tasks. As priority weeds are treated or eliminated, other weeds may become a higher priority to deal with. Please contact LRC for further advice if the Action Plan is no longer adequate.

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## **Treatment Zone 2 –**

Treatment Zone 2 is the next zone to move into after Zone 1 has been effectively swept. Primary weeding will be needed across the site, as well as some follow up from previous works.

1. Priority Weeds:
  - a. Bitou: as above.
  - b. Lantana: as above.
  - c. Coastal Morning Glory: as above
  - d. Blackberry: as above
  - e. Environmental Weeds: as above

## **Treatment Zone 3 –**

If the team is able to make it to TZ 3, look to extend primary weeding from the boundary with TZ 2 and head in a north-east direction. The priority level for this Treatment Zone is low, as it is critical to maintain the gains in TZ 1 and 2 before concentrating on more primary weeding in TZ 3.

1. Priority Weeds:
  - a. Bitou: as above
  - b. Lantana: as above
  - c. Environmental Weeds: as above

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## **Treatment Zone 4 –**

Landcarers have historically invested a lot of effort into Treatment Zone 4. There is a native structure that has been established to the north of the Surf Club. This area has been identified as a lower priority site. Follow up weeding of transformer weeds would be beneficial; however, this section of the Landcare site is also the area with the most ongoing negative impacts from other beach users. Over both Landcare sites, the best gains would be made at Graveyard Beach.

### 1. Priority Weeds:

- a. Bitou: as above.
- b. Lantana: as above.
- c. Kikuyu: The Kikuyu appears to be invading from the maintained Parkland to the west of the site. Where a native shrub structure exists, the Kikuyu has been slowed down. Hand weeding around the interface with the shrub structure may allow the shrubs to slowly creep back up the dune and compete with the Kikuyu.
- d. Environmental Weeds: as above.

## **Special Requirements for Site:**

Only Local Provenance species provided by the LRC Nursery are to be planted onsite. Please contact the LRC to request plants.

This plan only gives permission for Landcare- style environmental rehabilitation activities on the site. It does not constitute permission to undertake mowing, whipper snipping, chemical spraying or any works of extensive clearing, excavation or engineering associated with other projects, or uses of the site. It also does not provide permission to erect, place or repair structures on the site.

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## **Aboriginal Heritage Information Management System (AHIMS) search**

**conducted:** Yes

Date Search conducted: 11/1/21

Search Findings: Indicates the presence of an Aboriginal site.

Type of Aboriginal site: Artefact, midden, open camp.

As a result of the findings: works on the site needs to be changed to minimise harm and to help and protect these sites by:

- Avoiding soil disturbance
- Keeping objects/sites protected from vandalism, erosion and other threats
- Avoid the use of chemicals and weed removal immediately around objects/sites where work may expose or damage them.
- Planting Tubestock up to 25mm in size only

What is an Aboriginal site?

An Aboriginal site is a part of the Aboriginal landscape. The Aboriginal landscape is everything in a place, including the interconnectedness of the plants, rocks, creek/water, animals and landforms. Aboriginal landscapes have cultural importance than others, but the whole landscape is just as important as all places are interconnected not simply isolated sites.

The presence of Aboriginal landscapes and sites should be considered by all bush regenerators, as they are part of remnant natural areas.

The Aboriginal perspective that the landscape is important as a whole contrasts with earlier archaeological viewpoints, where Aboriginal sites were usually defined as a distinct place that contained physical evidence of Aboriginal occupation and use of an area. Most current legislation still reflects this earlier viewpoint.

The following legislation will apply and must be considered before working on this site:

- Protection of Aboriginal Cultural heritage in NSW
- National Parks and Wildlife Act 1974
- The Due diligence code of practice FOR Aboriginal objects in NSW

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- Middens

For further information, please follow the links below:

[http://greater-sydney.lis.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0010/721819/Bushcare-with-Care-Book-2014\\_LR-1.pdf](http://greater-sydney.lis.nsw.gov.au/__data/assets/pdf_file/0010/721819/Bushcare-with-Care-Book-2014_LR-1.pdf)

<http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf>

Previous works onsite by the Landcarers have also identified some headstones that had been covered by weed growth. Care must be taken around these sites to prevent any damage to the graves.

## **Site Description:**

**Where is Landcare site situated:** There are two sites that Catherine Hill Bay Dune Care look after. Landcare site 1 is known as Graveyard Beach and is 800m up the coast from site 2. It extends from Catherine Hill Bay Cemetery north to Middle Camp Gully. Landcare site 2 is located around the Catherine Hill Bay Surf Club, bounded by Flowers Drive on the west and the Tasman Ocean on the east. There are no private properties adjacent to the site.

**Site features and relevant site history:** Both of the sites are predominately dune. The Catherine Hill Bay Cemetery impacts the southern area of Graveyard beach. The northern boundary of the site is the Middle Camp Gully that exits into the Tasman Sea. A number of informal tracks run through the site, all well used by residents and beach visitors. A number of headstones have been found in the dunes (human and animal). Aboriginal cultural heritage artefacts have also been recorded within the Landcare site. The Surf Club site is impacted by surf club users, beach users and local residents. Historical use of the area included having a railway run through the site, servicing the local coal mines.

**Geographical description:** The Surf Club is a sloped dune with a creekline running through the middle of it. Some areas have a significant drop off to the beach. Removal of vegetation will leave area exposed to erosion. Graveyard Beach is a more extensive site. The dunes aren't as steep as the surf club site, however, the area does undulate significantly. Removal of vegetation will expose areas to erosion.

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**Mapped and ground truthed plant community:**

50a - Coastal Sand Fore dune Scrub

50b - Coastal Sand Banksia scrub

50c - Bitou Bush Scrub

53 - Beach spinifex

**Weed density and predominant Vegetation make-up:**

Weed density differs across the sites. Across the Graveyard Beach site (1), there are areas where Bitou has mostly been eradicated, and a native structure dominates. Other sections show Bitou starting to dominate, and the native species in decline. The Catherine Hill Bay surf club site (2) has an excellent structure of native vegetation extending down the fore dune, with Kikuyu and some Bitou, Lantana and Coastal Morning Glory starting to encroach in sections.

**Lot, DP and Address:**

1. Catherine Hill Bay Cemetery, 8 Northwood Road, CATHERINE HILL BAY  
- Lot 7079 DP 1029250
2. 85 Flowers Drive, CATHERINE HILL BAY - Lot 213 DP 883941

**Ownership:** Crown (1) and LMCC (2).

**Land Categories:** Park, Natural area and 'Uncategorised' (cemetery).

**Vegetation Community:**

50a - Coastal Sand Fore dune Scrub

50b - Coastal Sand Banksia scrub

50c - Bitou Bush Scrub

53 - Beach spinifex

**Size of Land Parcel:** 3.8Ha

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**APZ Check:** No APZ

**AHIM's search result:** Artefacts identified. Extensive search carried out.

**Aboriginal Land Council:** Bahtabah

**Site Assessed by:** Simon Lubinski **When:** 11/1/21

**Who was present?** Simon and Catherine Hill Bay Dunecare Team Leader.

Thank you again for giving your time and energy for Landcare. Your hard work is valued by Council and the Community, and we look forward to supporting you in your future Landcare work.

**Jason Harvey**

**Landcare Coordinator for Lake Macquarie City Council**

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**Species List:**

<b>Weed Common Name</b>	<b>Weed Scientific Name</b>
Bitou Bush	Chrysanthemoides monilifera
Blackberry	Rubus fruticosus species aggregate
Coastal Morning Glory	Ipomea carica
Fleabane	Conyza spp.
Green Cestrum	Cestrum parqui
Kikuyu	Pennisetum clandestinum
Lantana	Lantana camara
Rhodes Grass	Chloris gayana

<b>Native Scientific Name</b>	<b>Native Common Name</b>
Acacia sophorae	Coastal Acacia
Banksia integrifolia	Coastal Banksia
Breynia obliquifolia	Coffee Bush
Carpobrotus glaucescens	Pigface
Casuarina equisetifolia	Coastal She-Oak
Cupaniopsis anacardioides	Tuckeroo
Dianella caerulea	Flax Lily
Ficinia nodosa	Club Rush
Hibbertia scandens	Guinea Flower
Leptospermum laevigatum	Coastal Tea Tree
Monotoca elliptica	Tree Broom Heath
Omalanthus Populifolius	Bleeding Heart
Pelargonium australe	Native Pelargonium
Spinifex sericeus	Spinifex



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Stephania japonica

Snake Vine

Westringia fruticosa

Native Rosemary