

BUSHCARE SITE ASSESSMENT PLAN

SITE LOCATION: KAHIBAH CREEK BUSHCARE

AIMS

- To enhance the genetic integrity and biodiversity of the bushland
- To reduce weed impacts throughout site
- To create a green corridor habitat for native wildlife
- To establish a sense of place within the surrounding community as to benefits of a natural bushland area.

SITE DESCRIPTION AS AT July 2010

General Description

Location: Northern end of Kahibah Rd – (access via Kahibah rd or eastern end of Amaroo cres) area adjoins Balmoral Park.

Aspect: Located on a steep North facing slope

Soil: The soil is mapped as Hawkesbury Soil Landscape. It contains Hawkesbury Sandstone rocky outcrops but also has areas of disturbance due to dumped land fill on the reserve. Classed as sandy loam in most of the reserve and Sandy clay loam in the areas containing miscellaneous fill.

Catchment: Hunters Bay and Middle Harbour

Vegetation Community: Disturbed Sydney sandstone Gully Forest (Flora and Fauna survey 06-07) and Sydney Sandstone Gully Forest.

Canopy species: *Angophora costata*, *E.botryoides*, *E.piperita*, *Corymbia gummifera* and *Ficus rubiginosa*.

Other: Open drainage line on the site.

Site Management Issues:

- Land fill in areas adjoining residential properties,
- Weed infiltration from adjoining properties
- Excess nutrients from storm water runoff
- Erosion in disturbed areas
- Weeds invasion into better areas
- Low presence of midstorey species due to lack of fire

MANAGEMENT PLAN July 2010 – June 2012

Weed Management

Priority Weeds:

- Morning Glory (*Ipomea indica*)
- Coastal Morning Glory (*Ipomea cairica*)
- Fishbone Fern (*Nephrolepis cordifolia*)
- Trad (*Tradescantia fluminensis*)
- Senna (*Senna pendula*)
- Palm grass (*Setaria palmifolium*)
- Ehrharta (*Ehrharta erecta*)
- Bidens (*Bidens pilosa*)
- Madiera Vine (*Anredera cordifolia*)
- Turkey rhubarb (*Acetosa cordifolia*)

| | Task | Month | Bushcare Support |
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| 2010 | Target of Coastal Morning Glory, Morning glory and Anredera from work area. | July | |
| | Follow – up Target control of vines and target removal of woody weeds. Create a boundary around trad infestation (using logs found on site) – Create a compost pile using black plastic | August | Contract support to place a sediment or geotextile fence bordering residential properties. Spot spray emerging annuals. |
| | Sweep through Zone 1. Undertake tree planting (1/2 tray of plants – 25 plants) | September | |
| | Continue sweep through zone 1. Undertake planting ½ tray of plants. Control Morning Glory | October | |
| | Target emerging Acetosa and Madeira vine. Hand weed in zone 1 in preparation for a spot spray. Scrape and paint regrowth of any emerging morning glory. Mulch zone 1 | November | Supply of Mulch for Zone 1 |
| | Christmas break | December | |
| 2011 | Break? | January | Bushcare support – sweep and spot spray to control annuals and vines |

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| | | | throughout all zones + creek line and spread any excess mulch. |
| | Sweep through Zone 1 and 2. | February | |
| | Sweep through zone 1 and 2 to target acetosa, Madeira vine – morning glory and annuals – spray prep hand weed | March | Bushcare Support – Weed control |
| | Planting – Zone 1 & Zone 5 | April | |
| | Planting (continued) sweep for weeds Zone 1 & 2 | May | |
| | Sweep for annual weeds & push back trad. zone 3 | June | |
| | Primary removal of fishbone fern – Zone 4. Zone 5 control Morning Glory | July | |
| | Zone 5 control morning glory and sweep through Zone 3 | August | |
| | Sweep through Zone 1 & 2 | September | |
| | Planting | October | |
| | Sweep through Zone 1 & 2 | November | |
| | Christmas? | December | |
| 2012 | Work along creekline. Transplant Bracken from Zone 2 | January | Bushcare Support weed control |
| | Work along creek line and zone 3 and 5 Create burn pile in Zone 3 | February | Bushcare officer to list burn pile. |
| | Sweep through zone 1 and 2 (spray preparation hand weeding) supervisor to follow-up spray. | March | Contractors to top-up mulch |
| | planting | April | |
| | Sweep through Zone 3 and 5 | May | |

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| | Sweep through zone 1 and 2 | June | |
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Note: Work plan may change due to seasonal fluctuations and volunteer numbers.

Native Vegetation Management

The General health of the site is expressed in the 06/07 Flora and Fauna survey as Greater than 70% weed cover in the eastern section of the reserve and 30-70% weed cover in the western end of the reserve. Native vegetation cover is regarded as less than 30% in the western end of the reserve and 30-69% in the eastern end on the reserve.

Zone 1 and 2 has been maintained over a long period of time by the bushcare group.

Zone 1: is bare in sections and will require mulching/ jute matting and planting as there is little natural resilience in these areas due to the disturbed soil profile and miscellaneous fill. Brush matting in these areas is recommended to reintroduce seed source in the soil. *Omolanthus* has been sighted as naturally regenerating in these areas along with *Commelina* and basket grass. Continue with maintenance sweeps in these areas. Main management problems are weed infestation from adjoining residential properties and existing seed source in soil. A sediment fence will need to be erected to create a physical barrier between weed sources up slope (i.e. properties) and the worked area.

Zone 2: This area is adjacent area 1 and is covered with naturally regenerating bracken. The bracken is part of the succession of the site due to disturbance and will assist shading out annual weeds from the zone. Vines and Turkey Rhubarb are a problem in this location and will need to be followed up during the growing seasons (summer). A sediment fence will need to be installed to control weed seed infiltrating from upslope of the work site.

Zone 3: This area has been only occasionally worked by the bushcare group in the past. The area potentially contains good resilience and will benefit from an ecological burn in the area. The area will initially require a sweep for woody weeds such as *Senna pendula* and *Ligustrum sinense* and phoenix palm. This area contains sections of morning glory which will need to be targeted and *Tradescantia fluminensis*.

Zone 4: Is a full of weeds both noxious and environmental. The area contains potential resilience and will benefit from slow reduction in weed cover, targeting vines and fishbone fern first then annuals and then woody weeds (to be used for a pile burn.)

Zone 5: Is located north of zone 3 (below zone 3). The area is infested with Trad, Morning glory, Palm grass and Ehrharta as the main weed species. Work in this area should begin with target control of vines and then progress on to trad and then annuals. The area will be impacted by what works are occurring in zone 3.

Zone 6: this area is located along the creek line and is currently impacted by weed sources from upstream. The main weeds found along the creekline include Anredera, trad, mistflower, crofton weed and palm grass. These weeds should be progressively removed being mindful of the potential to cause erosion along the creekline.

Transplanting of bracken fern from zone 2 can be undertaken as an experiment. The creek will need to be planted out with appropriate riparian species.

A sighting of a Powerful Owl was seen in nearby Lawry Plunkett reserve (noted in 06/07 Flora and Fauna Survey) and the area is therefore a potentially important foraging ground for the Powerful Owl.

Tracks and Public Access

- There are two tracks located on the bushcare site. They are located N/S Kahibah rd to balmoral oval and E/W Amaroo rd to the Kahibah rd-Balmoral oval track. Pruning of tracks may be required from time to time and the location of plantings will need to consider potential to affect the track in the future.

Drainage / Water Management

- There is a drainage line with a stormwater outlet flowing from the top of the N/S track – Kahibah st track flowing down to Balmoral oval.
- The stormwater is a source of weed propagules and the area will need to be continuously maintained by an annual sweep around spring before flowering and the main growing season.

Fire Management

- There is low fire risk on the site.
- A burn pile is proposed for area 3 and 4 in future works. Any burn piles should be reviewed at the beginning of the calendar year to ensure the pile is scheduled for burning.

Major Projects / Tree Works

- Any potential tree removals (hazardous or weed tree removal) are to be addressed with the bushcare officer.

