# **Burrabru and Sugarloaf Point Reserve Actions**

Priorities will be given to programs for long term benefit to the reserves. Natural assets at greatest risk will be given priority to avert irreversible deterioration. All measures cannot be implemented simultaneously as resources may not be available or it may not be appropriate.

# A. Sugarloaf Point and Road Islands

- 1. Contractors to manage weedy vine species including Balloon vine in Casuarina glauca near foreshore and screen property edges with native plants.
- 2. Maintain stormwater drain and clear sediment basin regularly.
- 3. Encroachments to be addressed. Re-align the existing fence of No. 361 to property boundary.
- 4. Reposition dislodged stone edging of road islands as required.

# B. Former Edinburgh Road Reserve

- 5. Upgrade sandstone steps to foreshore minimising stormwater spill.
- 6. Continue restoration of vegetation to re-establish native understorey.
- 7. Place marker posts for directional signage.
- 8. Increment stabilising of sandstone wall on foreshore.

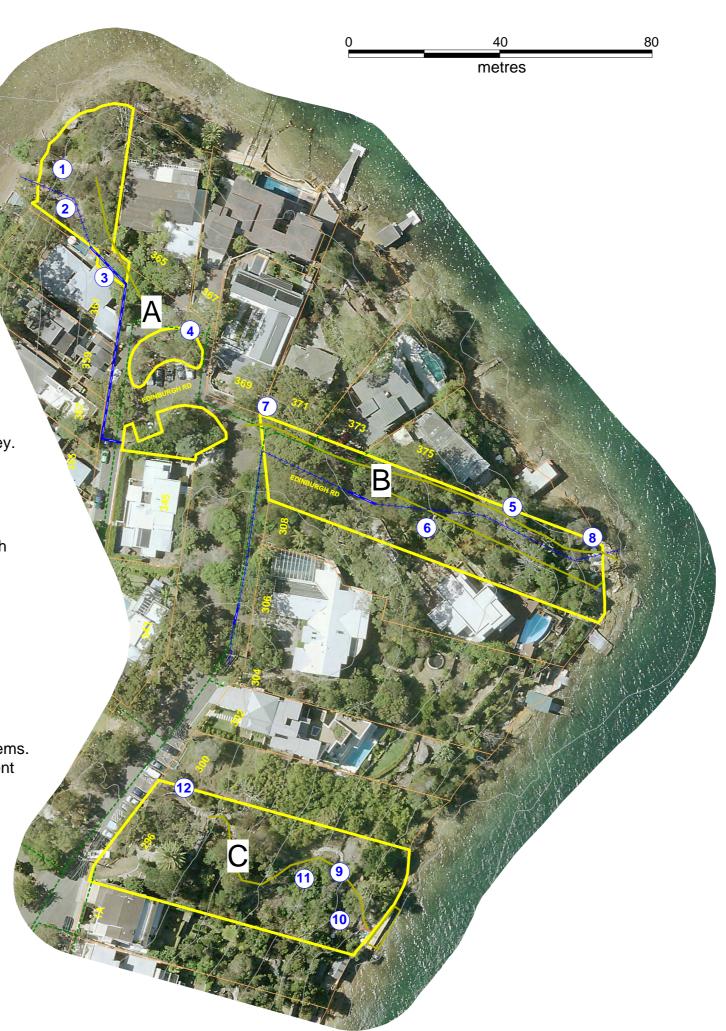
# C. Burrabru Reserve

- 9. Continue to target bamboo on northern boundary in conjunction with regeneration of site incorporating native plants.
- 10. Expose feature rocks on site to reflect original landscape.
- 11. Create sitting terraces next to path route after primary weed removal.
- 12. Minimise impact of adjacent building site by establishing native vegetation screen boundary.

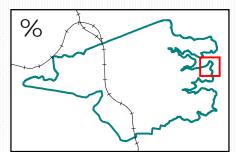
# **General Actions**

- 13. Develop interpretive signage to incorporate the following themes:

  Aboriginal heritage, site history and marine and estuarine ecosystems.
- 14. Contractors to continue weeding across all areas, including adjacent road islands where applicable, and define boundaries with private property.
- Plantings to be consistent with Coastal Sandstone Gully Forest (S\_DSF09).



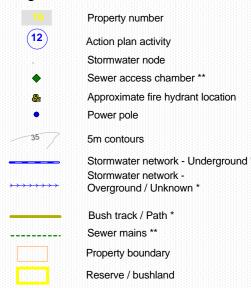




# Plan details

Status: Final
Prepared by: R. O'Brien
Drawn by: N.Prasad
Date printed: 06/09/2019
Approximate Scale: 1:1000

### Legend



- \* The accuracy of this data is not guaranteed and must be verified prior to use.
- \*\* Data as at 14-07-2007. Please check with Dial Before You Dig prior to any earth works.
- \*\*\* No responsibility is taken for the accuracy of this data. Please check with Energy Australia, Dial Before You Dig or any other relevant authorities prior to undertaking any wor

The information contained herein has been provided in good faith Effort has been made to ensure it's accuracy and completeness.

Willoughby City Council does not take any responsibility for errors or omissions nor any loss or damage that may result from the use of this information.

#### Reference

PROJECTS/MANAGEMENT PLANS/RESERVE ACTION PLANS/BURRABRU AND GARLOAF POINT RESERVE - TORQUAY ESTATE RESERVES RAP 2018-2019/

# **Draft Burrabru and Sugarloaf Point Reserve Action Plan**

#### **Reserve Profile**

These reserves are small, relatively natural spaces in a crowded residential area where the built environment is displacing private gardens. They are within the former Torquay Estate in Castlecrag.

There are three sections in the former Torquay Estate Reserves.

#### **Sugarloaf Point and Road Islands**

Sugarloaf Point is a small triangle-shaped reserve bounded by two houses and the shoreline of Middle Harbour. A lot of approx. 670 m² combines with a drainage reserve and former road reserve of approx. 75 m². Access is via a narrow opening between two properties. The upper level is flat, having been terraced, then drops away to the shore. Access to the shore is possible but difficult. Native plants have been mostly planted.

Although the road islands are classified as reserve, much of the area has been utilised as car parking spaces and roadway. Two main areas remain unpaved: The northern section acts as a road island and the southern section abuts a residence with no obvious boundary. Native plants have mostly been planted.

#### Former Edinburgh Road Reserve

This is an area of approx. 1,920 m<sup>2</sup> that intended to be an original extension of Edinburgh Rd. A set of stone steps leads to Middle Harbour. A drain runs parallel to the steps on the southern side. Regeneration of native plants has occurred at the south-west section of the pathway.

#### Barrabru Reserve

Burrabru Reserve was land previously owned by the Roads and Traffic Authority. It is approx. 1075 m² and runs from Edinburgh Rd to the foreshore. Weed control measures have been extensive and foreshore access has been achieved since transfer to WCC. The top of the reserve has provision of parking and seating.

PLANT COMMUNITY: Remnant vegetation has been classified as Urban Exotic/Native (Urban\_E/N), the areas described in this Reserve Action Plan would have been Coastal Sandstone Gully Forest (S\_DSF09), a continuation from The Escarpment, Castlecrag.

HABITAT: Habitat value is depleted. However, these reserves have value as a link in the continuity of foreshore reserves and fauna habitat around the the headland. There is potential for improvements to enhance the linkage and habitat values.

#### Statement of Significance

Sugarloaf Point and Burrabru Reserve have bushland as defined in State Environmental Planning Policy No 19, and is protected under State and Commonwealth Legislation. All areas discussed in this reserve action plan are zoned E2 Environmental Conservation in the Willoughby Local Environment Plan (WLEP)

ABORIGINAL CULTURAL SIGNIFICANCE: The Camaraigal people of the Guringai nation originally occupied the area. A midden and engravings still exist around the point making these areas culturally significant.

NATURAL HERITAGE SIGNIFICANCE: These reserves are remnants of natural vegetation communities which preceded development of this area. They provide important habitat linkage between the Castlecrag Northern Escarpment and foreshore reserves to the east and south. Sightings in this area include echidna, swamp wallaby and foreshore bird species. White faced herons nest in this locality.

Burrabru and Sugarloaf Point Reserves provide superb views of Middle Harbour and many of the surrounding bushland areas. The reserves together provide a significant natural landscape which can be viewed from the waterways and opposite shores.

HISTORIC CULTURAL SIGNIFICANCE: These reserves were part of the Torquay Estate subdivision in 1911. At that time, except for "Mr. Willis' ostentatious home", only "week-end dwellings in most inaccessible spots"\*\* existed in the area.

The first public wharf in Middle Harbour, which opened in 1916, was at the bottom of the former Edinburgh Road extension. Council and the Torquay Estate vendors each contributed half its cost. A service was provided twice a week to The Spit before it was declared dangerous and demolished in 1954.

During the 1950s three lots of land were set aside for a bridge planned to cross Middle Harbour. Since then 2 of these lots have been transferred to Council.

Atop Burrabru Reserve there is a restored seat that commemorates long-term local residents, Eileen and Les Vaughan.

HABITAT SIGNIFICANCE: The remaining areas of native plants soften a congested built-up area and provide some habitat. With nearby small and larger natural areas, they help provide a vegetation and habitat link around the shore of Middle Harbour.

#### Reserve Impacts

Major impacts on the reserves are from encroachments that add to nearby residential land, and land set aside for vehicle use.

Poor soil quality, especially in Sugarloaf Point Reserve, has affected survival rates for native plants.

Weeds have, and continue, to impact strongly on Sugarloaf Point, Road Islands, Former Edinburgh Road and Burrabru Reserve.

The close proximity of homes will limit, but not exclude, the use of fire for regeneration. Flame weeding and small burns could assist regeneration as well as reducing hazard.

ENCROACHMENTS: Major encroachment by 361 Edinburgh Rd at the Sugarloaf Point Reserve entry. Minor encroachment by 365 Edinburgh Rd on western boundary of house.

Road reserve areas not defined from 367 and 369 Edinburgh Rd.

#### Wildlife Habitat Issues

Habitat is fragmented and limited. Some of the better current habitat is in weedy areas. Weeding will need to be done strategically, with concern for habitat retention and improvement.

#### **Achievements**

**Sugarloaf Point Reserve and Road Islands:** Replacement of existing seating with bush furniture. Road islands have also been defined with sandstone edging.

Former Edinburgh Road Reserve: Improved access has been achieved including handrail installation. A new seat on the foreshore has been established. An eroding embankment has been stabilised using sandstone boulders and crushed sandstone fill. Boat racks have been installed at the foreshore. Stone step pathway has been upgraded and continues to be maintained. The drainage channel adjacent to the pathway steps has been cleared and repaired.

Barrabru Reserve: Native trees planted reinforcing ridge canopy species on both street and Open Space reserve. Parking spaces have been created rear to kerb along Edinburgh Road. Lockable bollard has been replaced with new sandstone entry portal. Established seating, picnic and lookout area located on upper terrace, surfaced with decomposed granite. Installed new sandstone garden edging and constructed new sandstone stair access to lower levels of reserve. Re-established native screen planting alongside boundaries using: Banksia serrata, Callicoma serratifolia and Callitris rhomboidea. Landing platform retained and used as part of foreshore access.

#### <u>Bushland Management Goals – Burrabru and Sugarloaf</u> Point

This bushland Reserve Action Plan has identified the following management aims from the Urban Bushland Plan of Management 2014 as priority objectives:

5.3b: To create and or maintain conditions in which creek and drainage lines are protected from increased erosion and/or sedimentation due to urban impacts.

5.4b: To maintain the integrity of bushland reserves through the reduction of encroachments and other boundary impacts.

6.2f: To preserve and increase ecological links across the LGA and regionally to assist the movement of fauna.

6.2g: Maintain natural habitat formations and supplement with manufactured structures where natural habitat has been depleted.

6.3b: To implement weed control programs which are based on regeneration and restoration principles and which increase bushland resilience to further weed infestation.

7.1g: To manage fire such that the fire regime and implementation of the burn is beneficial to flora and fauna diversity and habitat.

10.1b: To ensure that leases and licences for activities undertaken in, or adjoining, or impacting on, bushland areas are compatible with the sustainable management of bushland.

# Bushland Management – General Principles for all Reserves

- a. Bushland regeneration is a long term process requiring staged weed removal to ensure establishment of native plant communities. Work will proceed from good bush to degraded areas with techniques that encourage regeneration.
- b. If possible, weed refuse and natural debris composted on-site.
   c. If natural regeneration is deemed inadequate, supplementary plantings to mimic local plant communities and landscapes will be used with local provenance species.
- d. Standing dead trees and forest litter (including logs/branches) to be kept for wildlife habitat unless deemed a risk to safety.
- e. Monitor, maintain and enhance vegetation connectivity for wildlife habitat within the reserve and reserve networks.
- f. Phytophthora cinnamomi (a root rot pathogen) is listed as a key threatening process in NSW. Bushland workers are to use hygiene protocols to minimise risk.
- g. Report and record all reserve encroachments. Monitor for tree vandalism and/or removal and report to Council Compliance for appropriate action.
- h. Monitor wildlife habitat and supplement where necessary.
- i. Monitor feral animal activity and implement appropriate management actions where necessary.
- j. Encourage the community to report wildlife sightings via the Wildlife Watch Program.
- k. Bushfire management will be achieved through implementation of a strategic hazard reduction program consistent with the Bushfire Risk Management Plan.
- I. Species diversity will be maintained by an ecological burn program in a mosaic pattern.
- m. Monitor and protect Aboriginal cultural heritage sites. Bushland staff to notify Aboriginal Heritage Office prior to a burn to identify sites and implement protection measures.
- n. Preserve natural features for educational purposes and continue to inform the community of bushland issues through onsite activities and signage. Maintain appropriate signage.
- o. Formal tracks to be maintained and unwanted tracks to be closed to prevent damage to habitat and to impede access of feral animals, unless used for access by bushland workers.
- p. Establish photo points to monitor work and review annually.
- q. Protection of habitat is required for flora and fauna species found in reserves listed under State and Commonwealth legislation as threatened species.
- r. The collection of rubbish from bushland is carried out by council contractors and bushland field staff as required.

| Plant List for Castlecr                 | FABACEAE FABOIDEAE                                       | Persoonia linearis                        |
|---|--|---|
| PSILOTACEAE                             | Aotus ericoides  | Persoonia pinifolia                       |
| Psilotum nudum                          | Bossiaea heterophylla                                    | Telopea speciosissima                     |
| CONIFERS                                | Bossiaea scolopendria                                    | Xylomelum pyriforme                       |
| CUPRESSACEAE                            | Dillwynia floribunda                                     | RHAMNACEAE                                |
| *Callitis rhomboidea                    | Dillwynia retorta  | Pomaderris lanigera                       |
| Callitris muelleri                      | Dillwynia sp.  | RUBIACEAE                                 |
| PODOCARPACEAE                           | Glycine clandestina                                      | Opercularia aspera                        |
| Podocarpus spinulosus<br>FERNS          | *Hardenbergia violacea<br>Hovea linearis                 | RUTACEAE *Crowea saligna                  |
| ADIANTACEAE                             | Hovea purpurea   | Phebalium squamulosum                     |
| *Adiantum aethiopicum                   | *Kennedia rubicunda                                      | Zieria pilosa                             |
| ASPLENIACEAE                            | Pultenaea daphnoides                                     | Zieria smithii                            |
| *Asplenium flabellifolium               | Pultenaea elliptica                                      | SANTALACEAE                               |
| BLECHNACEAE                             | Pultenaea flexilis                                       | Leptomeria acida                          |
| Blechnum cartilagineum                  | Pultenaea stipularis                                     | SAPINDACEAE                               |
| Blechnum nudum                          | Viminaria juncea   | *Dodonaea triquetra                       |
| Doodia aspera                           | FABACEAE-MIMOSOIDEAE                                     | STERCULIACEAE                             |
| CYATHEACEAE                             | *Acacia ulicifolia                                       | Lasiopetalum ferrugineun                  |
| Cyathea australis                       | *Acacia elata  | THYMELIACEAE                              |
| Cyathea cooperi                         | *Acacia falcata  | Pimelea linifolia                         |
| DENNSTAEDTIACEAE                        | *Acacia floribunda                                       | TREMANDRACEAE                             |
| Histiopteris incisa                     | Acacia irrorata  | Tetratheca ericifolia                     |
| Pteridium esculentum                    | *Acacia linifolia  | VERBENACEAE                               |
| DICKSONIACEAE<br>*Calochlaena dubia     | *Acacia longifolia var. longifolia<br>*Acacia suaveolens | Avicennia marina                          |
| Calochiaena dubia GLEICHENIACEAE        | *Acacia suaveolens  *Acacia terminalis                   | Clerodendrum tomentosu VIOLACEAE          |
| Gleichenia dicarpa                      | *Acacia terminalis<br>*Indigophora australis             | Viola hederacea                           |
| Sticherus flabellatus                   | GERANIACEAE  | VITACEAE                                  |
| INDSAEACEAE                             | *Geranium homeanum                                       | *Caryratia clematidea                     |
| Lindsaea linearis                       | Geranium neglectum                                       | Cissus hypoglauca                         |
| indsaea microphylla                     | GOODENIACEAE   | *Cissus antarctica                        |
| OSMANDACEAE                             | Goodenia sp  | MONOCOTS                                  |
| Todea barbara                           | LAMIACEAE  | COMMELINACEAE                             |
| TERIDACEAE                              | Prostanthera linearis                                    | Commelina cyanea                          |
| Pteris tremula                          | LOBELIACEAE  | CYPERACEAE                                |
| SCHIZAEACEAE                            | Lobelia gibbosa  | Carex inversa                             |
| Schizaea bifida                         | Lobelia gracilis   | Caustis flexuosa                          |
| Cheilanthes distans                     | LORANTHACEAE   | Caustis pentandra                         |
| Cheilanthes sieberi                     | Amyema miquelii  | Cyperus gracilis                          |
| AIZOACEAE                               | MALVACEAE Hibiscus heterophyllus                         | Cyperus laevis Cyperus polystachos        |
| AIZOACEAE<br>Tetragonia tetragonioides  | MENISPERMACEAE   | Gahnia erythrocarpa                       |
| NETAGONIA TETRAGONIOIDES                | Stephania japonica                                       | *Gannia erytnrocarpa<br>*Gahnia spp.      |
| Actinotus helianthi                     | MORACEAE   | Lepidosperma filiforme                    |
| Actinotus minor                         | *Ficus rubiginosa  | Lepidosperma laterale                     |
| Centella asiatica                       | MYRSINACEAE  | Lepidosperma limicola                     |
| Platysace linearifolia                  | Aegiceras corniculatum                                   | Schoenus paludosus                        |
| Kanthosia pilosa                        | Rapanea variabilis                                       | IRIDACEAE                                 |
| ARACEAE                                 | MYRTACEAE  | Patersonia glabrata                       |
| Alocasia macrorrhiza                    | *Acmena smithii  | JUNCACEAE                                 |
| ARALIACEAE                              | Angophora bakeri   | *Juncus usitatus                          |
| Polyscias sambucifolia                  | *Angophora costata                                       | LILIACEAE                                 |
| ASTERACEAE                              | *Angophora hispida                                       | *Dianella caerulea                        |
| Cotula australis                        | Corymbia gummifera                                       | Dianella laevis                           |
| Ozothamnus diosmifolium                 | Eucalyptus haemastoma                                    | *Dianella revoluta<br>Sowerbaea juncea    |
| BAUERACEAE<br>Bauera rubioides          | Eucalyptus maculata *Eucalyptus piperita                 | Stypandra glauca                          |
| BIGNONIACEAE                            |  |   |
| Pandorea pandorana                      | *Kunzea ambigua  | LOMANDRACEAE                              |
| CAMPANULACEAE                           | Leptospermum polygalifolium                              | Lomandra glauca                           |
| Wahlenbergia gracilis                   | Leptospermum squarrosum                                  | *Lomandra longifolia                      |
| CASSYTHACEAE                            | Leptospermum trinervium                                  | Lomandra obliqua                          |
| Cassytha pubescens                      | Micromyrtus ciliata                                      | ORCHIDACEAE                               |
| CASUARINACEAE                           | *Tristaniopsis laurina                                   | Dendrobium linguiforme                    |
| Allocasuarina distyla                   | OLEACEAE   | Pterostylis sp.                           |
| Allocasuarina littoralis                | Notelaea longifolia                                      | PHILESIACEAE                              |
| Allocasuarina verticillata              | Notelaea ovata   | *Eustrephus latifolius                    |
| Casuarina glauca                        | PITTOSPORACEAE   | Geitonoplesium cymosum                    |
| CUNONIACEAE                             | Billardiera scandens                                     | POACEAE                                   |
| Callicoma serratifolia                  | Pittosporum revolutum                                    | Agrostis aemula                           |
| Ceratopetalum apetalum                  | Pittosporum undulatum                                    | Cymbopogon refractus                      |
| Ceratopetalum gummiferum                | POLYGALACEAE   | Danthonia sp.                             |
| DILLENIACEAE<br>Hibbortia, dontata      | Comesperma volubile                                      | *Danthonia tenuior                        |
| Hibbertia dentata                       | Comesperma volubile PROTEACEAE                           | Dichelachne crinita                       |
| Hibbertia diffusa<br>Hibbertia scandens | *Banksia ericifolia                                      | *Entolasia marginata<br>Entolasia stricta |
| ELAEOCARPACEAE                          | *Banksia integrifolia                                    | Eragrostis brownii                        |
| Elaeocarpus reticulatus                 | Banksia marginata  | *Imperata cylindrica                      |
| PACRIDACEAE                             | Banksia oblongifolia                                     | *Microlaena stipoides                     |
| Epacris longiflora                      | *Banksia serrata   | Oplismenus imbecillis                     |
| Epacris microphylla                     | *Banksia spinulosa                                       | Paspalidium criniforme                    |
| Epacris pulchella                       | Conospermum ericifolium                                  | Stipa mollis                              |
| eucopogon amplexicaulis                 | Grevillea buxifolia                                      | Tetrarrhena juncea                        |
| Leucopogon microphyllus                 | *Grevillea linearifolia                                  | *Themeda australis                        |
| Leucopogon setiger                      | *Grevillea sericea                                       | RESTIONACEAE                              |
| Styphelia laeta                         | Grevillea speciosa                                       | Restio fastigiatus                        |
| Styphelia longifolia                    | Hakea dactyloides  | SMILACACEAE                               |
| Styphelia tubiflora                     | Hakea gibbosa  | Smilax australis                          |
| Woollsia pungens                        | *Hakea sericea   | *Smilax glyciphylla                       |
| UPHORBIACEAE                            | Hakea teretifolia  | XANTHORRHOEACEAE                          |
| Breynia oblongifolia                    | Lambertia formosa  | Xanthorrhoea arborea                      |
| Glochidion ferdinandi                   | Lomatia myricoides                                       | Xanthorrhoea media                        |
| Omalanthus populifolius                 | Lomatia silaifolia                                       | Xanthorrhoea minor                        |
| Phyllanthus hirtellus                   | Persoonia levis  | Xanthorrhoea resinosa                     |