

# Bay Road Heathland Sanctuary

MANAGEMENT PLAN



JUNE 2004

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# Vision, Abstract & Introduction

*Bay Road Heathland Sanctuary preserves a mosaic of indigenous heathland vegetation. The Sanctuary strives for ecological integrity of significant fauna and flora species within a maintained ecosystem.*

Bay Road Heathland Sanctuary is an important link in Bayside's bushland and open space network. It is significant as the closest Sand Heath remnant to the CBD of Melbourne City.<sup>1</sup>

It is a popular area for visitors. Walks are conducted throughout the Sanctuary by volunteer guides, including members of the Friends of Bay Road Heathland Sanctuary. The Friends work to an annual Action Plan in conjunction with Council to achieve the vision of Bay Road Heathland Sanctuary.

The prime objective of the Sanctuary is to optimise indigenous species diversity in a series of mosaics. Another important objective is to promote and use the Sanctuary for both educational and scientific purposes.

Bay Road Heathland Sanctuary was purchased by the former City of Sandringham in 1939 and is located on Bay Road (opposite Marshall Avenue) between George Street and Miller Street in Sandringham. It is approximately two hectares in size and is located twenty kilometres south of the Melbourne GPO.

The Sanctuary is near the crest of a very old sand dune. It slopes gently down to the south and west around a shallow drainage line with an elevation range from approximately 32.5m to 40.5m. Two hundred years ago this area was probably mainly covered with sandy heath plants and some small emergent manna gums. Most vegetation would have been less than three



# Background

## Indigenous Vegetation

Bay Road Heathland Sanctuary is recognised as a site of Biodiversity Significance in the Port Phillip and Westernport Region.<sup>2</sup>

The dominant vegetation community is Sand Heath. Once widespread in Bayside, and famous as part of the ‘Sandringham Flora’, it is now restricted in Bayside to isolated remnants. This vegetation community occurs on deep infertile sands and consists of a low, dense heathy shrub layer with some small trees, grasses and herbs. Although Sand Heath has the greatest diversity of indigenous flora in Bayside, there have been significant species losses due to clearing for housing development in the 1940s and 1950s, and invasion of Coast Tea-tree (*Leptospermum laevigatum*).

Several of the heathy species found within Bay Road Heathland Sanctuary are regionally significant: Green She-oak (*Allocasuarina paradoxa*), Common Aotus (*Aotus ericoides*), Showy Bossiaea (*Bossiaea cinerea*), Common Wedge-pea (*Gompholobium huegelii*), Bundled Guinea-flower (*Hibbertia prostrata*), Wedding Bush (*Ricinocarpos pinifolius*) and Small Grass-tree (*Xanthorrhoea minor*).<sup>3</sup>

## Orchids

Terrestrial orchids are an important facet of the Sanctuary’s flora. Sutton (1911) notes that the Sandringham flora boasted almost sixty species of orchids from seventeen genera. This has been reduced to less than twenty species of eight genera currently surviving in the municipality with only seven species from five genera found within the Sanctuary. To ensure that management of these species is appropriate and timely, Council undertakes annual surveying of orchid colonies. The number of orchid plants in Bay Road Heathland has increased since rabbit controls were implemented within the Sanctuary.



# Management Issues

## FIRE, FAUNA & PEST ANIMAL MANAGEMENT AND POLLUTION

### **Fire Management**

At least three wildfires have occurred in the Sanctuary. Significant regeneration of Sand Heath species after these fires prompted the consideration of an ecological fire regime for the Sanctuary. In 2003, Council implemented a controlled burn to eradicate the dominate Coast Tea-tree (*Leptospermum laevigatum*) and encourage the regeneration of soil stored seed.

### **Fauna Management**

Several species of fauna found in Bay Road Heathland Sanctuary have both municipal and regional significance.<sup>4</sup> In recent years, four fauna studies have been undertaken with reference to the Sanctuary. In addition, there is anecdotal information regarding the presence of unidentified lizard species and frogs species in the Sanctuary.

Based on this information, the requirements of the following fauna species need to be considered when planning management activities: Superb Fairy Wrens, Blotched Blue-tongue Lizards and other skinks, Banjo Frogs, Blue-winged Parrots and Brown Goshawks. Of particular concern are Superb Fairy Wrens as they are sedentary and surveys conducted by the Friends group and others

indicate that numbers within the Sanctuary have fallen in recent years. There also needs to be further work into the identification and breeding levels of other reptiles. Opportunities to encourage additional species into the Sanctuary, through the provision of wildlife corridors, should also be investigated.

### **Pest Animal Management**

Rabbits have not been found in the Sanctuary for several years. Regular monitoring and pro-active control systems assist in maintaining this outcome.

Feral cat trapping is undertaken as individual animals are noted and reported to Council. Fox control will be undertaken at appropriate times if active fox dens or other evidence of fox activity is recorded.

### **Pollution**

Rubbish finds its way into the Sanctuary either via visitors or the wind. The main impacts are its negative impact on flora and fauna and its unsightliness. Food scraps, animal excreta and litter generally increase nutrient levels in the soil and affect the dietary intake of animals, which can lead to disease.



# Management Issues

## VISITOR ACCESS & FENCING

### **Visitor Access**

The Sanctuary is open to the public on Thursdays, from 7.30am to 2.30pm all year round, and on Sundays from 2pm to 4pm during the annual Spring Open Days. The Spring Open Days are a popular event with volunteer guides available to answer questions or take short walks through the Sanctuary. On-site parking is not available at the Sanctuary, but public transport to the area is good.

Bay Road Heathland Sanctuary is a significant asset in Bayside's public open space, however it is not readily obvious or identifiable to visitors. Currently Bay Road Heathland Sanctuary is largely inaccessible to the public as a key is required to gain entry. There is a high security fence on the Bay Road boundary with padlocked gates and smaller locked gates on the Sandringham College oval. Both fences and gates have been damaged on occasion by people seeking access to the Sanctuary.

Council, the Friends of Bay Road Heathland Sanctuary and the Sandringham College Environment Group are the only groups that have key access to the Sanctuary. Some neighbouring properties also have access gates in the eastern boundary fence. Wider community access is only encouraged during opening times of the Sanctuary and during the annual Spring Open Days. There are also many organised educational visits, particularly with secondary and tertiary students.

### **Fencing**

The nature of the Sanctuary and its assets need to be more obvious to the community. Current signage does not identify public opening times or why there is a need for fencing around the Sanctuary. Installation of Council's standard mesh fence would be consistent with fencing in other heathland reserves and also make the Sanctuary more visually appealing to visitors. Rationalisation of fencing within the Sanctuary and removal of superfluous 'rabbit proof' fencing would also alleviate maintenance issues.

Allowing an authorised thoroughfare through the Sanctuary adjacent to the Arboretum would be more welcoming, reduce the incentive for unauthorised access to areas of high conservation value and provide opportunities for the community to become more aware of the conservation values of the Sanctuary. Previously, this area contained a platform, which enabled visitors to view the entire Sanctuary from an elevated position. Subsequent deterioration to this structure forced Council to remove access to ensure public safety. Restoration of the viewing platform would provide an ideal site for interpretation of the Sanctuary's flora and fauna.

Two memorial benches provide seating. One is located in the Arboretum and one along the path through the centre of the heathland.



# Management Issues

## ARBORETUM AND PROMOTION & AWARENESS

### **Arboretum**

The Arboretum was originally established as a specimen area to promote indigenous plants found throughout Bayside. It was comprised of thematic beds containing various species of shrubs as well as trees. Over time, this area has become neglected and most of the interpretative material has been lost. Many of the species planted in these beds are coastal species and not species that would normally be represented in a Sand Heath vegetation community. Furthermore, some have proven to be invasive weeds in the context of a Sand Heath vegetation community.

In its current form, the Arboretum is in direct conflict with the vision of Bay Road Heathland Sanctuary.

### **Promotion & Awareness**

Currently, volunteer guides are available during the Spring Open Day season and a self-guided Nature Walk brochure is available (from local libraries and Bayside City Council). Information boards are located at the entrance to the Sanctuary on Bay Road and by the viewing platform.

The Sanctuary is a popular excursion

destination for local schools. Sandringham College uses the Sanctuary for numerous field work opportunities. Biodiversity is studied in Environmental Science, Biology and Outdoor and Environmental Studies. Environmental Science students use the Sanctuary for practical experience in Bushland Management—working under the supervision of Council to weed, prune, revegetate and collect seeds. Additionally, they use the Sanctuary for case studies in Bushland Management—focussing on threats to specific species and communities, and management strategies to protect these.

Various other opportunities exist to promote the Sanctuary. Educational visits are arranged through CSIRO and the Australian Centre for Research in Urban Ecology and tertiary education institutions also conduct research projects at the Sanctuary.

Interpretative materials are important to gain support for the overall management aims of the Sanctuary and to raise awareness and understanding of the value of the heathland vegetation.



# Management Issues

## VOLUNTEERS, ADJACENT USE

### **Volunteers**

Volunteers have an important role in the management of the Sanctuary. Volunteer activities are facilitated through Council's Service Provider. Currently two volunteer groups work within the Sanctuary: the Friends of Bay Road Heathland Sanctuary and the Sandringham College Conservation Group. Friends groups are involved in the preparation of an Annual Action Plan for their respective group and work within the Sanctuary to implement these plans which are consistent with the Management Plan as agreed by Council.

### **Adjacent Use**

Different land uses surround the Sanctuary ranging from Business Use, Residential Use and Mixed Use (as identified in Amendment C39 of Bayside's Planning Scheme) as well as educational and recreational uses on the neighbouring Sandringham College grounds.

Each of these uses has the potential to impact upon the area. It is important for Council to develop open communication systems and positive relationships with each abutting occupier.

Issues associated with adjacent use include the following:

- Over-shadowing of the Sanctuary by buildings—creating shade, rain or wind shadows that may have a detrimental effect on the vegetation.
- Lighting—development guidelines should recognise that excessive lighting can be harmful to insects that play important ecological roles.
- Environmental weeds—future planting or landscaping of adjacent areas should take into account the type of vegetation planted—no 'environmental weeds' should preferably be planted or retained in adjacent properties<sup>5</sup>.
- Domestic pets—future residential development guidelines should also recognise the detrimental effect of cats on native fauna and consider domestic cat curfews on adjacent properties.

Strategies to address these impacts are referred in the Municipal Strategic Statement (MSS Clause 21.07–Objective 6) and the Local Planning Policy (Clause 22.05).



# Proposed Management Actions

SHORT-TERM PRIORITY: 1–2 YEARS

## **Priority: short term (1–2 years)**

### CAPITAL WORKS (ESTIMATED COST)

- Install standard bushland fencing along western (Arboretum) side and create public access through the Sanctuary adjacent to the Arboretum<sup>6</sup> (\$27,000)
- Reinstate interpretative viewing platform (\$30,000).
- Install interpretative material on the viewing platform to improve visitor understanding and awareness of the values of the Sanctuary (\$5,000).

### MANAGEMENT ISSUES—COVERED IN OPEN SPACE CONTRACT WORKLOADS

- Use plants of local provenance only in any revegetation within the Sanctuary.
- Monitor for new weed species to ensure prompt eradication.
- Ensure volunteer actions plans are complimentary to the objectives of the management of the Sanctuary.
- Control and eradicate weed species within burn sites.
- Monitor regeneration of burn sites.
- Identify and locate populations of significant species within the Sanctuary and collect seed for future propagation.
- Implement an appropriate fire regime for the Sanctuary to achieve maximum diversity of indigenous plants.
- Manage Bracken (*Pteridium esculentum*) to keep in balance with other heath species.
- Survey orchid colonies annually.
- Retain Eucalypt screen along Sandringham College fenceline.
- Maintain ponds as a source of fresh water for local fauna. Ponds to be kept weed free, regularly filled and in good condition.

- Maintain existing internal pathway within the Sanctuary for Spring Open Days and other visitors.
- Retain Coast Tea-tree screen on Bay Road to provide a sense of enclosure and setting to enhance the natural experience of the Sanctuary. Manage and gradually replace Coast Tea-tree with indigenous Sand Heath species to contain the negative influence on the heathland vegetation.
- Monitor for pest animal appearance (foxes, feral cats, rabbits) and control as necessary.
- Continue to promote the Spring Open Day season with Volunteer Guides and coordinate a Volunteer Guide Roster.

### PLANNING ISSUES—COUNCIL STAFF RESOURCES

- Prohibit new entrances to the Sanctuary from adjacent properties to the east or west.
- Prevent future planting of ‘environmental weeds’ from adjacent properties.
- Investigate a ‘cat curfew’ on any new residential property adjacent to the Sanctuary.
- Consider “neighbourhood” planning controls on future adjacent properties to limit wind, sun, rain shadows and artificial lighting on the Sanctuary as specified in the MSS, Local Planning Policy and Industrial Area Strategy.

### RESEARCH PROJECTS

- Identify possible hybrid species and manage to reduce spread throughout the Sanctuary.
- Record changes in vegetation through vegetation surveys and from photo monitoring points.

# Proposed Management Actions

MEDIUM PRIORITY: 3–4 YEARS; LOW PRIORITY: 5–6 YEARS

## **Priority: medium (3–4 years)**

### CAPITAL WORKS —ESTIMATED COST

- Install appropriate signage at access points to show opening times (\$5,000).
- Landscape entry points on Bay Road and Sandringham College oval to provide a ‘visitor friendly’ entrance that conveys conservation values of the Sanctuary (\$8,000).
- Remove high security fence on Sandringham College oval and replace with standard bushland-style fencing<sup>7</sup> (\$18,000)
- Remove high security fence on Bay Road and replace with standard bushland-style fencing<sup>8</sup> (\$16,000).

### MANAGEMENT ISSUES—COVERED IN OPEN SPACE CONTRACT WORKLOADS

- Remove Coast Tea-tree stand located between 2003 burn site and Arboretum to reduce likelihood of seedling invasion into burn site.
- Arboretum—remove planted coastal species and restore heathland species consistent with Sand Heath Ecological Vegetation Class. Tree species to remain in Arboretum unless invasive.

- Monitor for openings in Coast Tea-tree canopy and replant using Eucalyptus pryoriana (or indigenous shrub species).
- Maintain some open grass areas for the provision of habitat for insectivorous birds.
- Collect litter from the Sanctuary.
- Minimise the impact of the adjacent land uses on the Sanctuary by encouraging adjacent land users to become involved with the Sanctuary.

### RESEARCH PROJECTS—COUNCIL STAFF RESOURCES

- Identify indigenous fauna of the Sanctuary to allow appropriate management of habitat requirements for species present.

## **Priority—low (5–6 years)**

### CAPITAL WORKS—ESTIMATED COST

- Install seating/picnic tables alongside Arboretum western fringe (\$24,000)
- Rationalise internal fencing - remove ‘rabbit proof’ fencing (\$3,000).



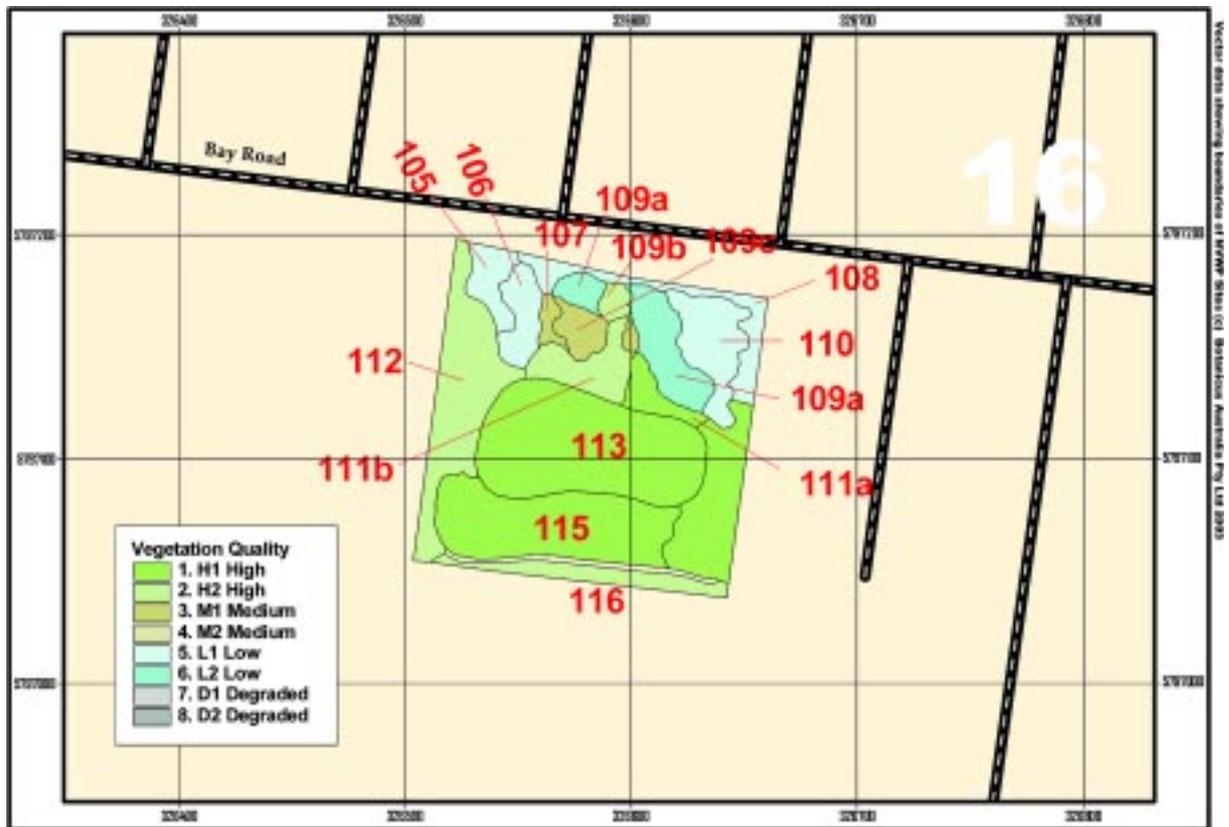
# Endnotes

- <sup>1</sup> Daintry Fletcher, 'The Bushlands of Sandringham', *Sandringham Environment Series No.7*, City of Sandringham, 1988.
- <sup>2</sup> Department of Natural Resources & Environment, *BioSites Project Report—The State of Victoria (Flora & Fauna)*, Port Phillip Region Regional Services Division, 2002.
- <sup>3</sup> Bayside City Council, Bay Road Heathland Management Plan, July 1996.
- <sup>4</sup> Chris Pavey, *Bayside City Council Fauna Survey & Management Guidelines*, WBM Oceanics Australia 1996.
- <sup>5</sup> Deemed as any species listed in *Environmental Weeds—A field guide for SE Australia*, by Kate Blood, CRC Weed Management Systems, 2001.
- <sup>6</sup> The final alignment of proposed bushland fence along the western side of the sanctuary to be determined in consultation with the Friends of Bay Road Heathland Sanctuary.
- <sup>7</sup> Prior to implementation, the medium term actions to replace the high security fencing to the north and south boundaries of the sanctuary are to be reviewed in consultation with the Friends of Bay Road Heathland Sanctuary. The review should have regard to the condition of the fence, and the history and impact of unauthorised access and activities in the sanctuary subsequent to the opening of the western side to the public.
- <sup>8</sup> as above.



# Mapped Details

## VEGETATION QUALITY BAY ROAD HEATHLAND SANCTUARY 2003



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Hours of business: 8.30am–5.00pm  
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