



Dodges Ferry Recreation Reserve

Reserve Management Plan 2024-2029

9th August 2024

For Sorell Council

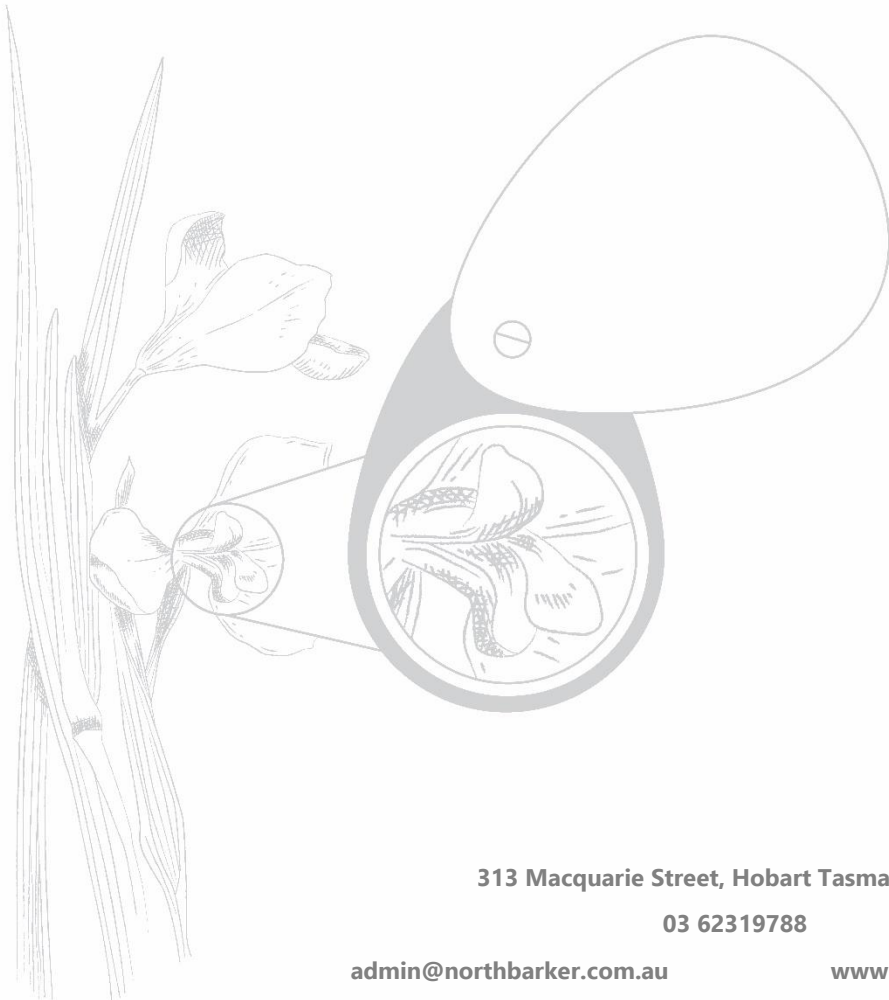
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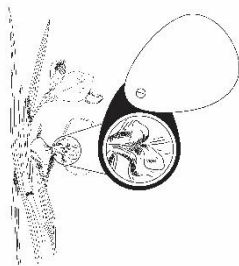
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1. INTRODUCTION

1.1. BACKGROUND

Sorell Council have engaged North Barker Ecosystem Services (NBES) to prepare an updated Reserve Management Plan (RMP) for the Dodges Ferry Recreation Reserve ("Reserve"). The Reserve is owned and managed by Sorell Council and is the largest area of remnant native bushland within Dodges Ferry. The RMP is to provide a detailed management strategy for the existing infrastructure and bushland areas of the site. Recommended actions have been tabulated with designated timeframes and a clear understanding of roles and responsibilities. The success of this plan requires joint commitment of Council, relevant stakeholders and the community.

The RMP also provides a natural values assessment based upon current site conditions including vegetation descriptions and mapping, flora species list, weed mapping, fauna habitat assessment and mapping of habitat trees.

A Bushfire Mitigation Plan (BMP) has also been prepared for the reserve by Fire Risk Consultants. The BMP identifies areas requiring fuel management within defined hazard management areas as well as fire trail requirements and locations. Bushfire management requirements outlined in the BMP have been developed to align with the state risk planning framework and industry best practices. Details of the report relating to vegetation management have been incorporated into this plan.

1.2. SITE DESCRIPTION

This RMP covers Council owned land within the Reserve and adjacent football oval (Property ID 3306953). The location of the site and extent of land covered by this RMP is shown in Figure 1. Adjacent Crown land, including the Dodges Ferry Primary School and Okines Community House and gardens, that are not owned or managed by Council is outside the scope of this report. Council also own and manage the nature strip on the eastern side of Old Forcett Road but this area is not included in the RMP (however it is discussed in relation to wildlife corridors in the broader study area). It should be noted that although the oval and football clubhouse are included in the boundaries of the reserve, the management of these facilities is beyond the scope of this plan. Management of vegetation around the edge of the oval is addressed in this plan. It is recommended that the study area outlined in Figure 1 is separated into different zones depending upon intended use and subsequent management actions required. Zones may relate to recreation, biodiversity and fire management zones (eg: HMAs).

TasWater also hold a lease over a section of the reserve which is utilised for wastewater treatment for the school and community house. This is discussed further in Section 7.

The site is 0-20m asl with the highest points along the ridge line track above the school and towards the north-eastern corner of the site. An unnamed seasonal waterway extends through the reserve bushland from the south east to the lowest part of the site at the north western corner. The geology of the site consists of Pleistocene sand gravel and mud of alluvial, lacustrine and littoral origin.

The bushland part of the site is bound by Old Forcett Road along the eastern boundary, Rantons Road along the north, residential houses along the western boundary and Dodges Ferry Primary School and associated access road along the southern boundary.

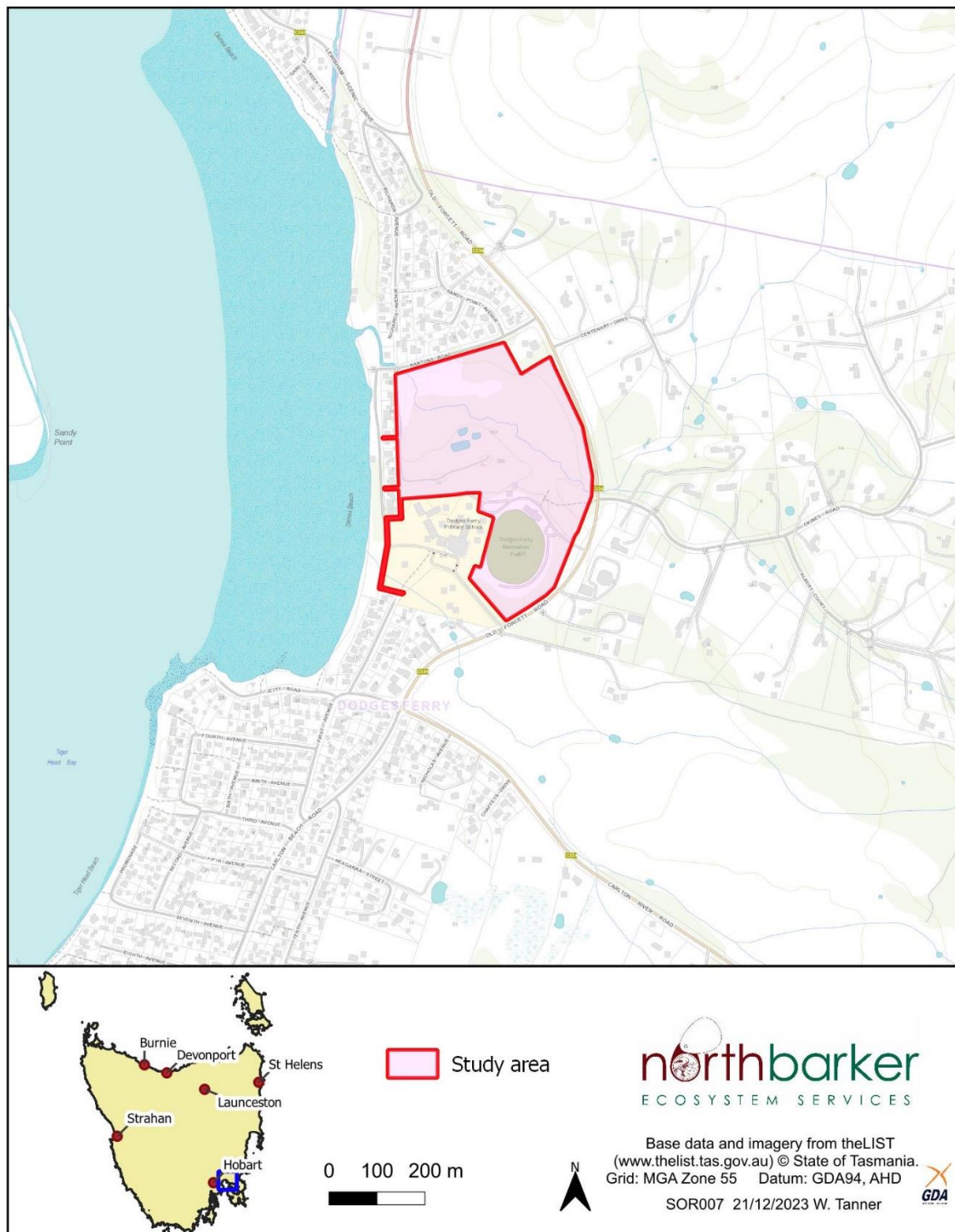


Figure 1: Site location

1.3. VISION AND GOALS

Vision:

The Dodges Ferry Recreation Reserve is valued by the Dodges Ferry and broader community as an ecological and culturally significant location.

The management of this reserve aims to preserve and protect the native vegetation and habitat, to rehabilitate the natural vegetation where necessary and to promote the area for passive recreation.

Goals:

- To identify, manage, restore and protect the natural bushland environment to ensure the long-term conservation of flora and fauna values while also managing bushfire risk.
- To identify appropriate areas for managed recreational opportunities.
- Provide land managers with a 'working manual' of prioritised action plans.
- To enable the budgeting and allocation of resources.
- Explore ways of engaging the local community to be involved in caring for and experiencing the reserve.
- To incorporate bushfire mitigation measures recommended in the BMP.

1.4. STAKEHOLDER CONSULTATION

Council held a community consultation session onsite on the 10th November 2023 to seek community input on their vision for the reserve and current issues with management. The session was attended by approximately 25 people as well as representatives from NBES, Fire Risk Consultants and council staff. The majority of attendees were from the Southern Beaches Landcare and Coastcare Inc. (SBLC) who have been very active in the management of vegetation within parts of the reserve.

An online feedback form was also established for the month of November to allow community members the opportunity to have their say on the development of all five management plans being prepared by NBES. A total of five submissions were received online.

Appendix A provides a summary of the feedback received both from the online forum and the onsite field day.

Further community consultation was undertaken in July 2024 through exhibition of the draft report. Specific feedback has been incorporated into the final plan.

Key stakeholders identified include:

- Sorell Council
- Southern Beaches Landcare and Coastcare Inc.
- Surrounding neighbours
- Okines Community House and Garden
- Dodges Ferry Primary School and School Association
- Dodges Ferry Football Club
- Dodges Ferry Volunteer Fire Brigade
- The Southern Beaches community
- Youth groups including local skateboarders
- Southern Beaches Historical Society
- Dog Walking Groups
- Local Aboriginal Community
- Southern Beaches Regional Arts
- Home school groups

1.5. LAND TENURE, ZONING AND CODE OVERLAYS

Bushland areas of the site are zoned Environmental Management (zone 23) under the Sorell Local Provisions Schedule (LPS) of the Tasmanian Planning Scheme (TPS). The football oval, clubhouse and vegetation surrounding the oval are zoned Recreation (zone 28) under the LPS. The primary school and Okines Community House and associated grounds are zoned Community Purpose (zone 27).

Three areas of Priority vegetation are mapped within the Reserve and adjacent areas, one within the school grounds, a second across the slope above the school and a third around the Dodges Ferry Fire Station (refer to Figure 2). The overlay excludes the majority of vegetation within the Reserve which seems like a significant oversight considering it is the largest area of remnant native bushland within Dodges Ferry.

The unnamed waterway which extends through the site is covered by the Waterway and coastal protection area overlay. This overlay also extends along Okines Beach and across the south-western corner of the Okines grounds, where a smaller unnamed waterway crosses the site.

In addition, the reserve is not included in the LGA Reserves layer on the LIST but the roadside reserve areas on the eastern side of Old Forcett Road are included.

Recommendation:

Any future updates to the Natural Assets Code overlay should incorporate all areas of bushland within the site, particularly given the presence of a threatened vegetation community as well as habitat for threatened flora and fauna. Vegetation on the eastern side of Old Forcett Road which links to larger areas of priority vegetation further east and would assist with maintaining and preserving existing connectivity through this area should also be included in the overlay.

The reserve should be added to the LGA Reserves layer on the LIST. Council to investigate planning options to ensure the long-term protection and conservation of the bushland areas of the reserve.

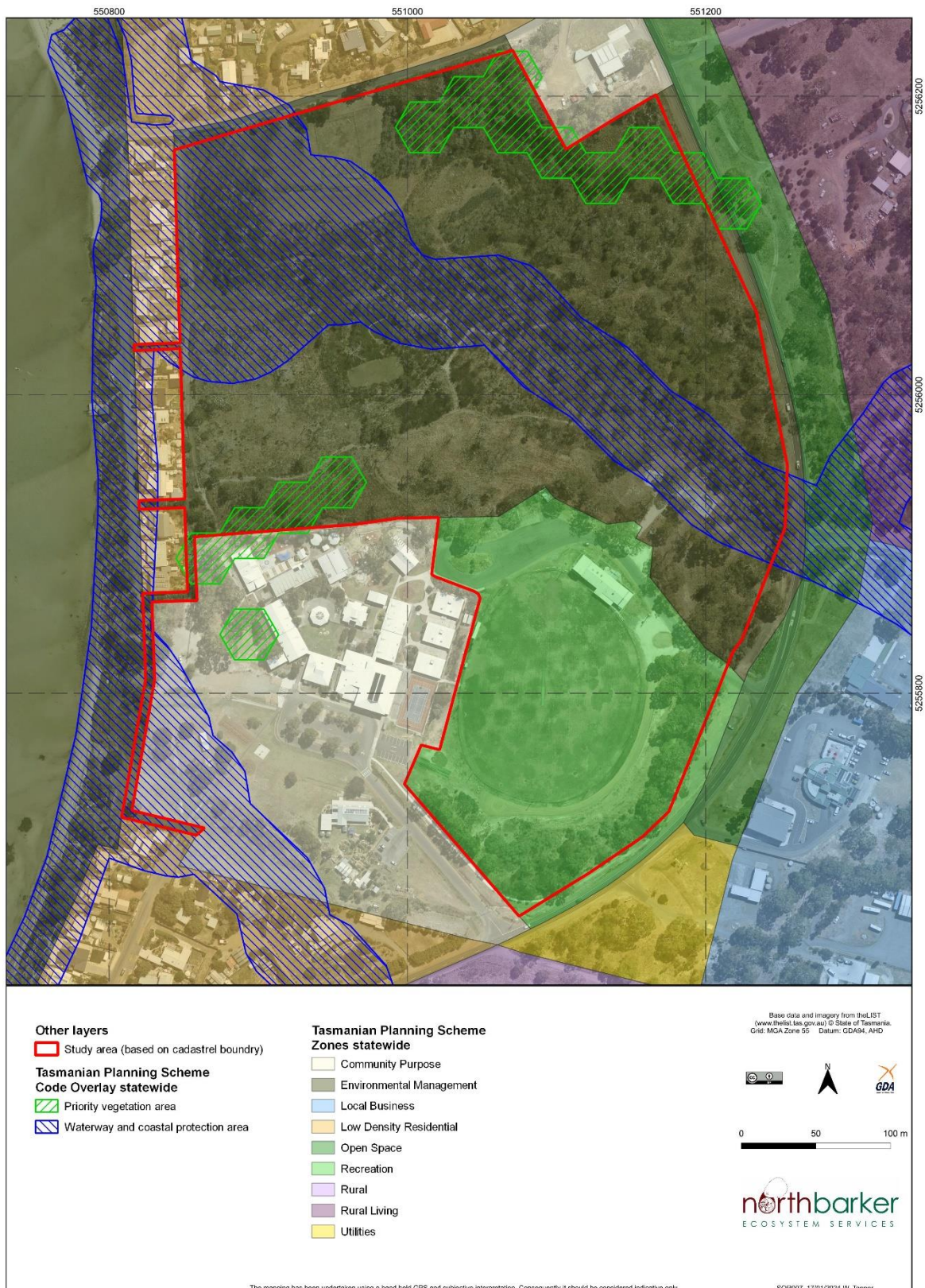


Figure 2: Planning overlays and zoning

1.6. PREVIOUS MANAGEMENT PLANS

A draft Dodges Ferry Recreation Reserve Management and Action Plan was originally prepared in 2009 by local residents Chris and Sally Johns and this plan was later updated by Sorell Council in 2015. The plan covered the bushland area only. The plan defined a number of actions required to conserve and rehabilitate the area and guide future works. Actions were prioritised according to key criteria developed from the community consultation including:

- PROTECT existing habitat
- ENHANCE the reserves bushland to provide healthy habitat for the future
- INVOLVE the local community through on-ground activities and education

These foundations are still relevant for the management of the reserve today. In preparing this updated plan, a review of the actions proposed in 2015 was undertaken to get an understanding of progress over the last 8-9 years, what worked, what didn't work, what is no longer relevant and what is more relevant than ever.

This RMP aims to build upon the foundations of the 2015 plan. Additional information on natural values is provided in this plan including mapping of vegetation, weeds, fauna habitat as well as detailed species lists for the reserve. This plan also aims to provide a more concise action plan, with a clear definition of roles, responsibilities and timeframes so all stakeholders have a better understanding of their part to be played in ensuring the long-term management and restoration of this ecologically and culturally significant site.

1.7. RESERVE NAME

The 2009 and 2015 plans noted that community consultation identified that a change in the name of the reserve was desirable. One community member from the online feedback form noted their desire to change the name to "Dodges Ferry Flora Park". To change a place name there are legislative requirements that must be met in accordance with the Rules for Place Names in Tasmania. Council have indicated that a change in the name of the reserve is not relevant at this stage.

1.8. STRUCTURE OF THIS REPORT

Sections 1 and 2 provide background information and an overview of the project area including mapping and descriptions of natural values as well as recreational, cultural, social and scientific values.

Sections 3 to 6 provide details on vegetation management issues and threats as well as recommendations regarding flora, fauna, weeds, revegetation/rehabilitation works and fire management.

Section 7 provides details on existing infrastructure within the reserve and recommendations on future management.

Section 8 discusses collaboration between Council and SBLC.

Section 9 addresses risk management in relation to Council's ownership and management of the reserve and its use.

Section 10 provides a tabulated summary of all recommendations from the plan allocated by roles and responsibilities as well as timing and priority of recommended actions.

Appendix A – summary of stakeholder feedback

Appendices B to D – Flora species list, weed management guidelines and record sheet.

2. SITE VALUES

2.1. BIOLOGICAL VALUES

2.1.1. Vegetation

As part of the development of this plan detailed surveys were undertaken to map and classify vegetation within the Reserve. Site surveys were undertaken between November and December 2023. Vegetation across the site has been modified as a result of past land uses and practices including development, alterations to drainage, site history, previous land use, climate change, fire etc. This has resulted in vegetation of varying condition and integrity across the Reserve.

The dominant vegetation type within the Reserve is dry eucalypt forest and woodland. The best example occurs in the 'Flora Park' where considerable volunteer work has resulted in an open woodland with high floristic diversity in the understorey. Areas of dry eucalypt forest in the western part of the reserve, across the sand dunes, have been impacted by weed invasion, fire management practices and climate change. Many of the eucalypts through this area, particularly on the northern side, are dead or dying and little regeneration of canopy trees was noted. In some areas the eucalypt forest/woodland is being replaced by regenerating dense patches of silver wattle and native hop bush. Eucalypt forest/woodland in the north-eastern part of the reserve was burnt in 2021 (refer to Plate 4). The intensity of the fire has resulted in dieback of the overstorey trees and a bracken dominant understorey. Other vegetation types noted include several small areas of saline saltmarsh within low-lying areas of the seasonal creek at the north-western end, near Rantons Road.

Six TASVEG (4.0) vegetation mapping units occur within the site:

- DVC – *Eucalyptus viminalis* – *Eucalyptus globulus* coastal forest and woodland
- ARS/ASS - Saline sedgeland/rushland and Succulent saline herbland
- FRG – Regenerating cleared land
- FWU – Weed infestation
- FUM – Extra-urban miscellaneous

The vegetation communities are described below and vascular plant species lists for each community are given in Appendix B.

The distribution of TASVEG units recorded within the survey area are illustrated in Figure 3. The mapping varies considerably from the TASVEG 4.0 mapping layer and provides a more accurate representation of vegetation within the Reserve and its current condition.

2.1.1.1. DVC – *Eucalyptus viminalis* – *Eucalyptus globulus* coastal forest and woodland

This community occurs across the southern and eastern half of the reserve. The dominant canopy tree is *Eucalyptus viminalis* (white gum) with *E. amygdalina* (black peppermint) occurring more frequently through the eastern side of the reserve. The condition of this community varies greatly across the site and has been separated into four distinct units as described below.

Flora Park (Plate 1)– This area occurs around the skate park in the south-eastern part of the reserve. It consists of an open forest (10-20% canopy cover) with mature *Eucalyptus viminalis* and *E. amygdalina* up to 25m tall and up to 100 cm DBH. The midstory is very sparse (<5% cover) with *Dodonaea viscosa*, *Exocarpus cupressiformis* and *Bursaria spinosa*. The ground layer is dominated by native grasses, primarily *Austrostipa* sp., and *Lomandra longifolia*. A diversity of small shrubs and herbs occur throughout this area as well as a number of orchid species. SBLC have worked in this area extensively, planting numerous species and controlling bracken.

Primary school HMA (Plate 2) – Sparse canopy dominated by *Eucalyptus viminalis* with occasional *E. amygdalina*. This area has been previously cleared for hazard management purposes which has controlled midstory development although in some areas this disturbance has resulted in dense patches

of *Acacia dealbata* and *Dodonaea viscosa* regeneration. The ground layer varies and includes areas dominated by *Lomandra longifolia*, *Pteridium esculentum* and native grasses, primarily *Austrostipa* sp. Despite previous land management this area still comprises a diversity of native herbs/shrubs including *Cynoglossum australe*. Regenerating canopy trees were also evident across some parts of the slope.

Burnt DVC (Plate 3) – This area of DVC was burnt in the spring of 2021 as part of a planned controlled burn. The canopy comprises *Eucalyptus viminalis* with *E. amygdalina*. Many of the smaller canopy trees through the central part of this area have died, possibly as a result of the intensity of the 2021 fire. Larger canopy trees occur along the outer edges of this zone along Old Forcett Road and Rantons Road. The midstory is sparse and comprises *Acacia dealbata* and *Exocarpus cupressiformis*. *Pteridium esculentum* dominates the ground layer throughout this area, along with *Lomandra longifolia*. Closer inspection revealed a moderate diversity of smaller herbs and shrubs amongst the bracken including *Epacris impressa*, *Indigophora australis*, *Hibbertia* sp., *Styphelia* spp., *Lissanthe strigosa* and *Bossiaea cinerea*. The tiger orchid was also observed in this area at the time of the survey. Minimal regeneration of canopy eucalypts was noted in the area.

Shrubby DVC (Plate 5) – This area of DVC occurs along the seasonal creek and associated low-lying wet areas. The community typically has a denser midstory of shrubs with *Acacia verticillata* common. Other shrubs include *Banksia marginata*, *Bursaria spinosa*, *Allocasuarina littoralis* and *Dodonaea viscosa*. *Pomaderris apetala* was also noted in the creekline. The ground layer comprises sedges and rushes with ferns. Small patches of *Phragmites australis* and *Typha* sp. occur at some locations along the waterway where standing water occurs and these have been included in this mapping unit.



Plate 1: “Flora Park” in south-eastern part of the reserve with mature canopy trees and diverse native ground layer.



Plate 2: Southern slope of dune (school HMA) showing varying ground layer (sagg/grasses and bracken in distance) with patches of regenerating hop bush and silver wattle in distant left.



Plate 3: Area of DVC burnt in 2021 with dense bracken ground layer



Plate 4: Area of reserve subject to planned burn in October 2021



Plate 5: Shrubby low-lying areas of DVC along the seasonal creek support a dense midstory of prickly wattle with a sedgy/rush dominant ground layer.

2.1.1.2. ARS/ASS – Saline sedgeland/rushland and Succulent saline herbland

A small area of saline saltmarsh occurs within a low-lying area at the north-western end, behind houses along Rantons Road. This area comprises a mosaic of rushes (*Juncus kraussii*) and the saltmarsh species (*Salicornia quinqueflora*, *Selliera radicans* and *Distichlis distichophylla*) with small stands of *Phragmites australis* around the perimeter and along the drainage channel adjacent to the fire trail. Given the small size of these areas they have been mapped collectively as ARS/ASS. Some areas of *Salicornia quinqueflora* are currently being slashed/mown along the edge of the fire trail behind the houses on Rantons Road. Some sections of this community, particularly at the northern end, are slowly being encroached upon by regenerating *Acacia verticillata* which may displace this community in the long-term.



Plate 6: Large area of ASS (*Salicornia quinqueflora*) adjacent to the fire trail which is subject to mowing



Plate 7: ARS with *Phragmites australis* and *Acacia verticillata* shrubland in background

2.1.1.3. FRG - Cleared regenerating land

This mapping unit has been used to describe areas of the reserve which have been previously cleared and now comprise a dense regenerating shrubland or grasses/rushes comprising a mix of native and exotic species. The following mapping units are described:

FRG (*Acacia dealbata*) – This includes areas of the site where dense stands of pure *Acacia dealbata* are regenerating and no native canopy trees are present. These areas comprise minimal other shrub species and typically have a sparse ground layer due to the density of regenerating silver wattles. Without any intervention these areas are likely to develop into the TASVEG unit NAD (*Acacia dealbata* forest). SBLC have been controlling patches of dense regenerating silver wattle in areas of DVC, particularly along the top of the dune ridgeline and the school HMA. These areas are mapped as DVC due to the presence of mature and regenerating white gums.

FRG (*Dodonaea viscosa*) – Some smaller areas of the site comprise dense stands dominated by regenerating *Dodonaea viscosa* with little to no native canopy trees present. These occur along the track leading up to the ridgeline and in some sections of the school HMA and on the southern side of the water treatment ponds. Scattered boneseed occurs in some of these areas.

FRG (native shrubland with boneseed) – This unit describes areas of the site which comprise a mix of native shrub species (and general absence of regenerating eucalypts) along with a high proportion of boneseed. Common native species include *Acacia dealbata*, *A. verticillata* and *Dodonaea viscosa* along with some areas of *Banksia marginata*, *Bursaria spinosa* and *Allocasuarina littoralis*. Boneseed is prevalent in the understory varying from occasional mature plants to dense thickets. Patches of native grasses and sagg occur in some areas, on the north dune slope the exotic yellow pigface is dense in some areas of the ground layer.

FRG (DVC with boneseed) – This unit occurs in the north-western corner of the site in a low-lying area along the waterway where native shrubs and regenerating white gums are present along with patches of boneseed, blackberry and some other weeds. Given time (and weed control) this area will regenerate into shrubby DVC similar to that further upstream.

FRG (grasses/rushes) – This unit includes unmanaged grassland areas around the dog exercise area which were cleared in the past for the Pony Club. This area comprises a mix of native and exotic grasses with patches of rushes. Occasional thistles, briar rose and blackberry occur in this area.



Plate 8: FRG (*Dodonaea viscosa*) mapped on hill leading up to the ridge of the dune.



Plate 9: Regenerating grassland with FRG (*Acacia dealbata*) in distance

2.1.1.4. FWU - Weed infestation

This mapping unit has been assigned to vegetation within the fenced treatment ponds¹ and some sections in the north-western part of the reserve where blackberry is dominant. Despite the presence of some native trees, boneseed is prevalent throughout the ponds area with greater than 50% cover. Most eucalypts in this area are dead and natives include *Acacia dealbata*, *Acacia mearnsii*, *Exocarpus cupressiformis* and *Dodonaea viscosa*. Yellow pigface forms a dense groundcover across the dam walls.



Plate 10: Dense boneseed within the water treatment pond area

2.1.1.5. Modified land (FUM)

Roads, managed fire trails, football oval, skate park and the dog exercise area have been mapped as FUM (Extra-urban miscellaneous). A row of planted blue gums along the southern side of the oval have also been mapped as FUM. These trees do however provide foraging habitat for the threatened swift parrot.

¹ Note: no access to this area was possible for a detailed survey

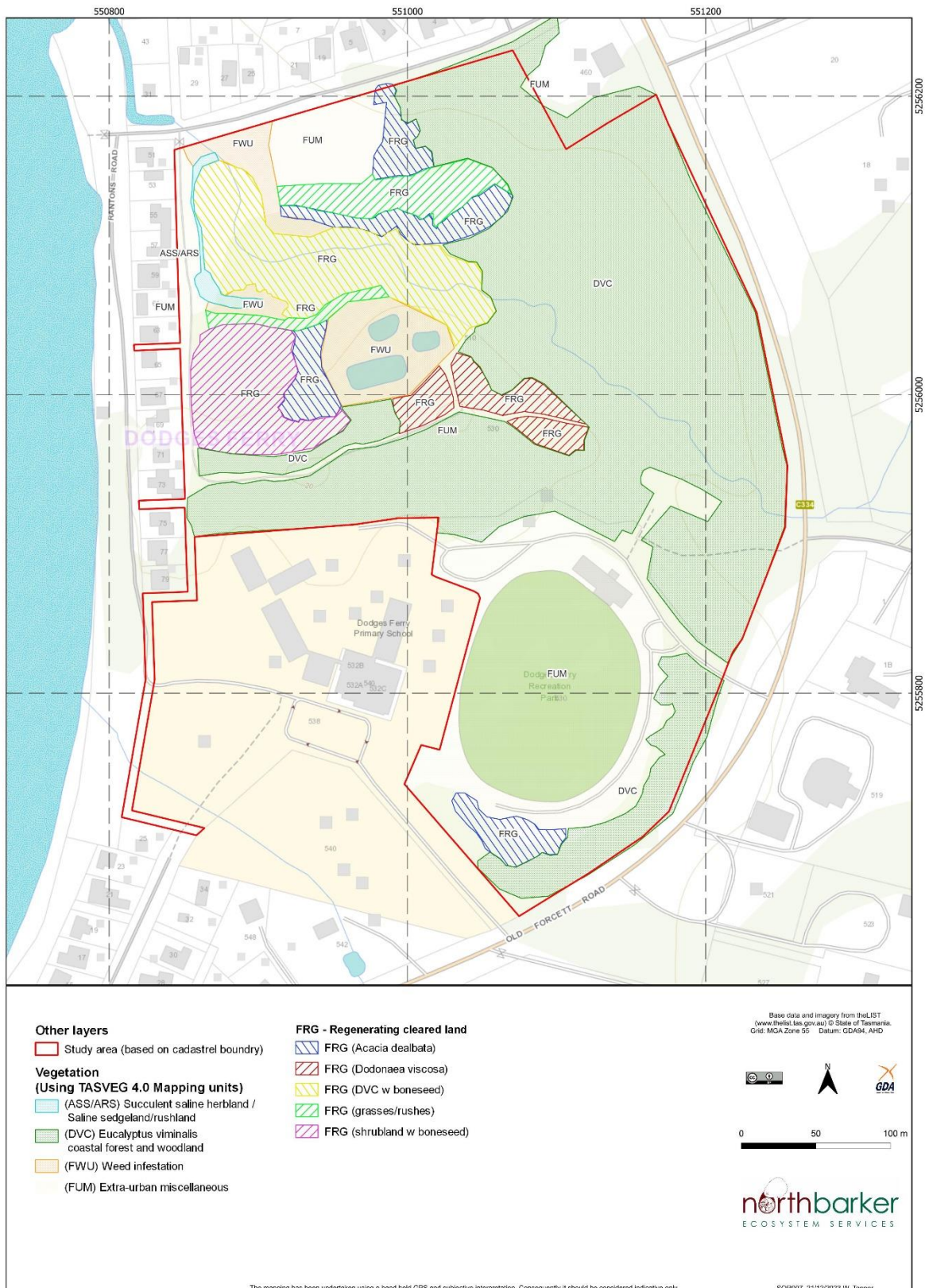


Figure 3: Vegetation communities

2.1.2. Threatened vegetation

DVC is listed as a threatened vegetation community under the Tasmanian *Nature Conservation Act 2002* (NCA). This threatened vegetation community generally occurs at relatively exposed sites in coastal and near-coastal areas on Holocene and Pleistocene sands. *Eucalyptus viminalis* – *Eucalyptus globulus* coastal forest and woodland has an approximate Tasmania-wide extent of 4600 hectares with the majority of patches averaging around 10 ha in size². Based on the Threatened Native Vegetation Community (TNVC) (2020) mapping there is approximately 40 ha of DVC within the Sorell Council LGA, half of which is located in reserved areas. Figure 3 shows the TASVEG units which have been mapped across the Reserve and comprises 7.2 ha of DVC (an additional 1 ha of regenerating DVC has been mapped). Within the reserve this community is at risk from invasion by woody weeds, inappropriate fire regimes and dieback of *E. viminalis*.

ARS and ASS are not included in the Wetlands threatened vegetation community under the NCA. Also, the mapped area of ASS/ARS does not qualify as the threatened community Subtropical and Temperate Coastal Saltmarsh under the EPBC Act due to the small size and lack of tidal connection.

Recommendations:

- In order to provide quantitative data on the condition of DVC within the reserve and allow continued assessment over time on the effectiveness of proposed works outlined in this plan, it is recommended that a Vegetation Condition Assessment (VCA) is undertaken. Management of the community should respond to the limiting constraining score of the VCA.
- The Priority Vegetation layer under the Natural Assets Code should be updated to incorporate all areas of *Eucalyptus viminalis* – *Eucalyptus globulus* coastal forest and woodland (DVC) mapped within the reserve.

2.1.3. Conservation significant flora

Over 100 flora species were recorded across the Reserve (Appendix B). No threatened flora species were recorded during the surveys undertaken by North Barker Ecosystem Services or Fiona Walsh of Enviro-Dynamics. In addition, the SBLC have not noted any threatened flora species within the areas they work.

A search of the Natural Values Atlas³ shows no previous records for threatened flora species within 500m of the site. Ten threatened species have previously been recorded within a 5 km radius of the Reserve and are listed below in Table 1. Those species with some potential to occur within the reserve based upon habitat are discussed further below.

Table 1: Threatened flora previously recorded within 5km of the reserve

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
<i>Caladenia caudata</i>	tailed spider-orchid	v	VU	e	8	17-Sep-2016
<i>Caladenia sagitticola</i>	sagg spider-orchid	e	CR	e	4	17-Sep-2016
<i>Cuscuta tasmanica</i>	golden dodder	r		n	2	31-Mar-2017
<i>Lepilaena preissii</i>	slender watermat	r		n	1	01-Oct-1978
<i>Pterostylis wapstrorum</i>	fleshy greenhood	e	CR	e	2	01-Jan-1925
<i>Ruppia megacarpa</i>	largefruit seatassel	r		n	3	08-Dec-2020
<i>Ruppia tuberosa</i>	tuberous seatassel	r		n	17	08-Dec-2020
<i>Stuckenia pectinata</i>	fennel pondweed	r		n	2	08-Dec-2020
<i>Vittadinia gracilis</i>	woolly new-holland-daisy	r		n	1	15-Apr-2005
<i>Vittadinia muelleri</i>	narrowleaf new-holland-daisy	r		n	68	01-Jan-2010
<i>Vittadinia muelleri</i> (broad sense)	narrow leaf new holland daisy	p		n	2	15-Apr-2005

The following threatened flora species have suitable habitat within the Reserve:

² NRE (2022) *Eucalyptus viminalis* – *Eucalyptus globulus* coastal forest and woodland profile available at [23. Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland.pdf \(nre.tas.gov.au\)](https://www.nre.tas.gov.au/-/Eucalyptus-globulus-coastal-forest-and-woodland.pdf)

³ Natural Values Atlas: report nvr_1_08-Dec-2023.pdf

- *Caladenia caudata* (tailed spider orchid) – This species occurs in heathy and grassy open eucalypt forest and woodland on sandy and loamy soils. It is known to occur in coastal *Eucalyptus viminalis* forest on deep sands. Previously recorded in Parnella Reserve approximately 2.2 km from the Reserve. The species is often found on sunny, north-facing, highly insulated sites.
- *Caladenia saggicola* (sagg spider-orchid) – This species is only known from two sites, Milford Forest at Cambridge and Parnella Reserve in Dodges Ferry. Both sites contain white gum woodland with a sagg understory.
- *Vittadinia gracilis* (woolly new-holland daisy) - occurs in dry grassy habitats, often in relatively degraded grasslands and grassy woodlands. It has been found to occur in low-rainfall areas, on a range of substrates.
- *Vittadinia muelleri* (narrowleaf new-holland daisy) - occurs in dry native grasslands and grassy woodlands particularly in open areas with lighter grass cover and patches of bare ground such as rock plates. It freely colonises disturbed sites such as roadside cuttings. It is widely dispersed through the Midlands and South East.

Additional flora species noted as being of significance which have been recorded in the Reserve include:

- *Cynoglossum australe* (coast houndstongue) – This species was noted during the surveys across the Hazard Management Area, above the primary school, and around the skate park. It is an uncommon erect, native herb with small blue flowers and occurs in a few dry parts of Tasmania.
- *Diuris pardina* (leopard orchid) – This species of orchid was recorded in 2011 on the NV Atlas in the 'Flora Park' in the south-eastern corner of the bushland reserve.
- *Diuris sulphurea* (tiger orchid) – This species was recorded in the current surveys within areas of DVC.
- *Pterostylis concinna* (trim greenhood) – Natural Values Atlas record from 2009 located in open area below the water treatment ponds.
- *Thelymitra pauciflora* (slender sun-orchid) – Recorded during the current survey within the flora park area.
- *Thelymitra arenaria* (forest sun-orchid) – Recorded during the current survey within the flora park area.

2.1.4. Native fauna

A survey of the vertebrate fauna of the reserve was undertaken in 2008⁴. The survey included a desktop database search as well as day and night site surveys over a 12 month period. The scope of the current project did not include detailed fauna surveys. Any incidental records of fauna including diggings, scats, etc were noted during the survey as well as a general habitat assessment. The following provides a summary of fauna values within the reserve:

Marsupials: Evidence of Tasmanian pademelons, Bennetts wallabies and Tasmanian bettongs were recorded in the study area in the 2008 survey. Signs of bettongs and wombats have also been observed by SBLC in the park more recently and there is a 2020 bettong roadkill record along Old Forcett Road directly adjacent to the reserve. This species is also known to occur within bushland areas further east. These larger marsupials are known to have greater home ranges than the study site alone can provide for and would regularly move into and out of the reserve boundaries.

The Southern brown bandicoot was recorded during the recent survey and is regularly sighted by locals. The 2008 report notes that the generalist nature of this species food requirements means there may be adequate food availability in the reserve however, preservation of genetic diversity is reliant upon maintaining and restoring corridors to larger areas of bushland further east.

⁴ Airey & Marino (2008)

The long-nosed potoroo, echidna, ringtail and brushtail possum were all recorded in the reserve in the 2008 survey. These species have smaller home ranges and may spend large amounts of their time in the reserve.

Bats: The site provides excellent roosting habitat for forest dwelling bats. Species considered likely to occur include little forest bat, goulds wattle bat and the lesser long-eared bat.

Amphibians: Areas of saltmarsh, low-lying wet areas along the seasonal creek and the water treatment ponds offer potential habitat despite the degraded nature of some of these habitats. Frogs previously recorded and noted in the 2008 report include the brown tree frog, the eastern banjo frog and the common froglet.

Reptiles: All three Tasmanian species of snake as well as lizards including several skink species and mountain dragon are likely to occur in the reserve. Blue tongue lizards are often seen. The likelihood of the threatened tussock skink being present is low.

Birds: The park provides a variety of habitats for many types of birds including parrots, cockatoos, honeyeaters, wrens, robins, pardalotes, cuckoos, etc.

Hollow-dependent fauna: The reserve contains a number of large mature trees which are likely to support hollows suitable for a wide variety of fauna species. Trees with Diameter-at-Breast-Height (DBH) >70 cm are considered potential nesting trees in dry forest and have been mapped for the reserve and are indicated in Figure 4. Trees of this size have the potential to support hollows. In addition, the SBLC have installed a number of nest boxes within areas of DVC across the southern part of the reserve. Rosella's have been observed utilising these boxes. However, SBLC have noted that there are insufficient resources available to maintain them.



Plate 11: Southern brown bandicoot observed during the field survey.



Plate 12: Blue-tongue lizard observed within the Flora Park near the skate park.

Recommendations:

- Undertake wildlife monitoring through the use of motion detector cameras in consultation with SBLC and local residents. Opportunity to collaborate with local schools.
- SBLC to seek funding or assistance from council to maintain nestboxes. Opportunity to collaborate with the local school students on this project.
- Control weeds along the drainage line and in areas of saltmarsh to improve habitat values for frogs.
- Leave fallen logs on the ground outside of HMAs. Further tree management recommendations are outlined in Section 3.1.
- Retaining patches of shrubland and open grassy ecosystems by creating a mosaic of different vegetation structure across the site will assist with retaining suitable habitat for a diversity of species.

2.1.5. Threatened fauna and habitat

The Natural Values Atlas report⁵ shows records for five threatened fauna species within 500 m of the Reserve. These species are listed below in Table 2. A number of additional species have been recorded within 5kms and are listed in Table 3.

⁵ Natural Values Atlas report: nvr_1_08-Dec-2023.pdf

Table 2: Threatened fauna recorded within 500 m of the Reserve

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
<i>Hirundapus caudacutus</i>	white-throated needletail		VU	n	1	25-Feb-2016
<i>Megaptera novaeangliae</i>	humpback whale	e		m	1	08-Jul-1997
<i>Perameles gunnii</i>	eastern barred bandicoot		VU	n	1	21-Jun-2019
<i>Thinornis cucullatus</i>	hooded plover		PVU	ae	1	25-Jun-2016
<i>Thymichthys politus</i>	red handfish	e	CR	e	1	30-Apr-2021

Table 3: Threatened fauna recorded within 5 km of the Reserve.

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
<i>Aquila audax</i>	wedge-tailed eagle	pe	PEN	n	2	12-Jul-2014
<i>Aquila audax subsp. fleayi</i>	tasmanian wedge-tailed eagle	e	EN	e	7	20-Aug-2021
<i>Arctocephalus forsteri</i>	new zealand fur seal	r		n	2	04-Jul-2018
<i>Arctocephalus forsteri subsp. doriferus</i>	new zealand fur seal	r		n	2	25-Jul-2005
<i>Arctocephalus tropicalis</i>	sub-antarctic fur seal	e	VU	n	2	05-Jun-2021
<i>Brachionichthys hirsutus</i>	spotted handfish	e	CR	e	2	03-Sep-2013
<i>Dasyurus maculatus subsp. maculatus</i>	spotted-tailed quoll	r	VU	n	1	14-Mar-2008
<i>Eagle sp.</i>	Eagle	e	EN	n	1	08-Aug-2012
<i>Eubalaena australis</i>	southern right whale	e	EN	m	47	26-Jun-2021
<i>Gazameda gunnii</i>	Gunn's screw shell	v		ae	8	05-Dec-2011
<i>Haliaeetus leucogaster</i>	white-bellied sea-eagle	v		n	20	26-Oct-2020
<i>Hirundapus caudacutus</i>	white-throated needletail		VU	n	3	09-Feb-2019
<i>Lathamus discolor</i>	swift parrot	e	CR	mbe	5	06-Jan-2018
<i>Litoria raniformis</i>	green and gold frog	v	VU	n	3	17-Sep-2007
<i>Megaptera novaeangliae</i>	humpback whale	e		m	16	10-May-2020
<i>Mirounga leonina subsp. macquariensis</i>	southern elephant seal	pe	PVU	n	2	18-Dec-1974
<i>Neophema chrysostoma</i>	blue-winged parrot		VU	n	1	04-Jan-2014
<i>Numenius madagascariensis</i>	eastern curlew	e	CR	n	1	07-Jun-2019
<i>Parvulastra vivipara</i>	live-bearing seastar	e	VU	e	4	13-Dec-2020
<i>Perameles gunnii</i>	eastern barred bandicoot		VU	n	17	10-Feb-2022
<i>Podiceps cristatus</i>	great crested grebe	v		n	1	07-Nov-2015
<i>Pterodroma lessonii</i>	white-headed petrel	v		n	1	13-Nov-1984
<i>Sarcophilus harrisii</i>	tasmanian devil	e	EN	e	21	14-Mar-2022
<i>Seriola bama</i>	Blue Warehou		CD	n	1	01-Jan-1995
<i>Sterna striata</i>	white-fronted tern	v		n	1	01-Jan-1900
<i>Thinornis cucullatus</i>	hooded plover		PVU	ae	12	15-May-2021
<i>Thinornis rubricollis</i>	hooded plover		VU	n	6	19-May-2012
<i>Thymichthys politus</i>	red handfish	e	CR	e	1	30-Apr-2021
<i>Tyto novaehollandiae</i>	masked owl	pe	PVU	n	9	30-Jun-1996
<i>Tyto novaehollandiae subsp. castanops</i>	masked owl (Tasmanian)	e	VU	e	1	25-Mar-2023

Those species which may utilise the site are discussed further below:

- Eastern barred bandicoot – although there are no records of this species within the reserve, there are a couple of roadkill records along Old Forcett Reserve in close proximity to the Reserve. The reserve provides suitable habitat for this species and it is likely to utilise the site for foraging and nesting. Areas of dense weeds, grasses and sagg provide habitat for this species. Numerous conical shaped diggings were evident across the site which could be attributed to this species (as well as the southern brown bandicoot which was observed onsite during the surveys).
- Swift parrot – potential nesting trees (eucalypts >70 cm DBH) were mapped across the site and are shown in Figure 4. Some suitable foraging trees (*Eucalyptus globulus*) also occur in the southern part of the reserve. Swift parrots tend to nest near significant stands of forage trees, particularly blue gum. No swift parrots were observed during survey.
- Masked owl – Some larger more mature trees (>100cm DBH) which occur in the reserve may provide hollows large enough for this species. The site also provides suitable foraging habitat, including open grassy areas around the dog exercise area and the sports field. In general the site is optimal masked owl foraging habitat.
- Forty-spotted pardalote – White gums within the reserve provide a potential foraging resource for this species although it has not been recorded in the area and is unlikely to occur with the

nearest documented nesting colony located over 13km away at Lime Bay on the Tasman Peninsula (although surveys in 2010 failed to locate any birds at this location).

- Wedge-tailed eagle and white bellied sea-eagle – these species may utilise the reserve as part of a larger foraging home range. There are no known nests nor suitable trees.
- Tasmanian devil and quolls – the reserve provides suitable foraging habitat for these species but limited denning resources, although the eastern quoll may utilise dense groundcover vegetation along the creek or areas of dense sedges and bracken. These species may traverse the area utilising areas of native vegetation and farmland further east of the reserve.



Figure 4: Swift parrot foraging and potential nesting trees

2.2. LANDSCAPE SETTING AND CONNECTIVITY

The DFRR currently has a significant role in the wider landscape of the southern beaches area, both as 'green space' and habitat for native wildlife. By itself the reserve is too small to support any large populations of fauna; animals probably move in and out of the reserve opportunistically as food sources change. Links or vegetation corridors that animals can move through should be developed and maintained between this reserve, public and private land areas as well as to larger bushland areas to the east. With increasing development along coastal areas, the reserve is one of the few places which provides connectivity between the coast and inland areas. The existing low density development allows for animal movement but general residential density would not. Old Forcett Road is a major hazard to the movement of wildlife between the reserve and bushland further east and a number of roadkill records occur in this area.

Recommendations:

- Maintain and improve connectivity between the reserve and native bushland to the east.
 - Council to consult with relevant stakeholders to investigate revegetation options within the road reserve along Old Forcett Road.
 - Council to work with private landowners located between the reserve and the larger tract of bushland to the east to encourage the conservation of existing vegetation and future revegetation projects through this area. Incentives may include a rate rebate scheme or assistance with applying for the Land for Wildlife program.
 - Council to investigate updates to the priority vegetation overlay to include vegetation within the reserve and patches of vegetation on private land which provides links to the east.
- Reduce the speed limit along Old Forcett Road adjacent to the reserve and install wildlife crossing signs to reduce roadkill. Council have noted that they are currently investigating this action and reducing the speed limit to 50km/hr.
- Investigate option to install wildlife friendly fencing (three strand plain wire fence) along part or all of the eastern edge of the reserve adjacent to Old Forcett Road.



Figure 5: Potential wildlife movement corridors to and from the reserve.

2.3. CULTURAL VALUES

The broader Dodges Ferry region includes features of cultural significance to European settlement and has sites of cultural significance to the indigenous community. No formal Aboriginal Heritage survey has been conducted within the reserve. Council have noted that a desktop search of the Aboriginal Heritage Tasmania (AHT) database did not reveal any known sites within the reserve. However, this does not reflect an absence of cultural values simply that no previous surveys have been undertaken within the reserve. The area was the territory of the Moomairemener tribe, one of the ten bands of the Oyster Bay People and the largest tribe in Tasmania⁶. An Aboriginal heritage values assessment was undertaken along the foreshore between Lewisham and Connelly's Marsh as part of the Foreshore Access Management Strategy in 2002. That report notes a number of midden sites along the foreshore. In addition, a number of the plants in adjacent areas of coastal vegetation would have been utilised by Aboriginal people⁷. The Southern Beaches Historical Society also notes that a natural spring and wetland once occurred behind Okines Beach and would have been utilised by the Moomairemener tribe⁸.

Under the Tasmanian *Aboriginal Relics Act 1975*, it is an offence to 'destroy, damage, disfigure, conceal, uncover, expose, excavate or otherwise interfere with a relic' unless a permit has been granted. It is therefore important to ensure that no Aboriginal artefacts or other cultural material are exposed or disturbed without a permit during Reserve management activities.

Recommendations:

- In the event that an Aboriginal artefact is inadvertently uncovered, an Unanticipated Discovery Plan⁹ should be implemented immediately and the items reported to Aboriginal Heritage Tasmania for advice.
- Sorell Council, in consultation with relevant stakeholders, engage a consultant to undertake an Aboriginal Heritage Survey of the reserve to identify significant features and ensure inclusion into future management decisions.
- Investigate opportunities to incorporate cultural burning practices within the reserve. This should include consultation and engagement with the Aboriginal community to facilitate cultural burns and training workshops, particularly in areas of native grassland. Cultural burning identified as a key management tool to maintain and enhance species richness in native grasslands and woodlands.

2.4. RECREATIONAL VALUES

The reserve provides opportunities for passive recreation including walking, nature enjoyment and bird watching. Some areas of the reserve that have been dedicated to recreation include the football oval, dog exercise area and the skateboard park. Further information on these facilities and walking trails is provided in Section 7.

2.5. OTHER VALUES

In addition to the values detailed above, the reserve provides opportunities for social interactions and connection through volunteering, education programs, collaboration and use of the reserve's facilities. SBLC currently undertake activities with the local home school group and Dodges Ferry Primary School students within the reserve. Recent activities involved education around pollinators and the importance of these. The reserve, in particular the Flora Park area, offers many opportunities for school or childcare based education as well as accessible excursions for groups such as the elderly and the disabled

⁶ Foreshore Access Management Strategy (2002)

⁷ Foreshore Access Management Strategy (2002)

⁸ [Southern Beaches Historical Society | Lewisham, Forcett, Dodges Ferry, Carlton, Carlton River, Primrose Sands](#)

⁹ [UDP.pdf \(aboriginalheritage.tas.gov.au\)](#)

community. However, existing infrastructure is limited with regards to facilitating this. Further recommendations are detailed in Section 7.1.

The reserve also offers further opportunities for scientific study and research for high school, TAFE and university students. These projects would also assist with increasing our knowledge of the reserve's flora and fauna. Activities could incorporate surveying and monitoring programs which link in with the management recommendations in this plan. Cultural burning workshops are also a great way to manage our grassy ecosystems, control shrub invasion and promote floristic diversity while also educating people about Caring for Country.

3. VEGETATION/HABITAT MANAGEMENT ISSUES

3.1. TREE MANAGEMENT

Bushland areas of the site have numerous mature eucalypts which provide significant habitat for fauna species and are a crucial component of the reserve. Council routinely undertakes a hazardous tree assessment as part of their routine asset and risk management procedures as well as in response to community feedback. SBLC have requested that hazardous trees/limbs requiring removal are placed on the ground as valuable habitat rather than chipped. SBLC have also expressed concern over a deterioration in tree health due to vehicles and heavy machinery used within the reserve and specifically within the Tree Protection Zone¹⁰ (TPZ) of mature white gums and black peppermints onsite.

Tree vandalism can also be an issue within bushland reserves, particularly those in urban settings. No stakeholder feedback was received on this or whether it is an issue in the park. Trees on the site are unlikely to be restricting views for surrounding residences so this is likely to limit vandalism which often results from view enhancement in coastal areas. Illegal firewood collection may also be an issue in the reserve.

Impacts on tree health relating to drought and climate change are discussed in Section 3.6.

Recommendations:

- Council to implement procedures to ensure any hazardous trees and/or limbs which represent a public safety risk and require removal are not chipped and are placed in bushland areas as valuable habitat. This excludes Vegetation Management Units¹¹ 6 and 8 which are to be managed in a low fuel state. All fallen logs in VMU 6 and 8 are to be relocated outside these areas. The removal of hazardous trees/limbs should always be considered in the context of the habitat provided.
- The felling of trees and/or limbs should be undertaken without the use of heavy machinery where possible. All such equipment including vehicles should utilise the designated fire trail where possible and avoid the TPZs of mature eucalypts.
- Council should investigate any reports of tree vandalism and illegal firewood collection within the reserve.
- Protect hollow logs, dead trees and hollow bearing trees from fire by using wet lines or brush cutting/raking fine fuels away from logs and the base of trees prior to undertaking controlled burns.

3.2. VEGETATION/RUBBISH DUMPING AND UNAUTHORISED MOWING

Boundaries between residential properties and urban bushland reserves are often a source of problems due to encroachment and garden waste/rubbish dumping as well as a source of weed propagules. Dodges Ferry Recreation Reserve fortunately only has one boundary (western) which adjoins residential properties and the fire trail also acts as a buffer between these properties and adjacent bushland which will ultimately assist with controlling weeds from adjacent yards. The following issues were observed along this area and noted in the stakeholder feedback:

- Dumping of vegetation and garden waste including grass clippings
- Dumping of rubbish (including concrete)
- Mowing/brush cutting by residents within the reserve, beyond the HMA (often perceived fire risk is associated with this activity)
- Weed encroachment and weed seed source from adjacent backyards

¹⁰ The radius of the Tree Protection Zone (TPZ) is calculated to be 12 times the DBH of the tree. Refer to the Australian Standard, Protection of Trees on Development Sites (AS4970-2009).

¹¹ Refer to Section 6 for the location and extent of VMUs

Recommendations:

Dumping along this area is likely to continue unless an example is made and all rubbish along this section of the reserve is removed by Council and local residents are informed that dumping of garden waste/rubbish is not permitted and will not be tolerated. Information regarding council's obligations to manage this HMA in a low fuel state should be communicated to residents along with the extent of the HMA (10m wide) and state that residents are not to undertake mowing or brush cutting in the reserve. Those residents with invasive or declared weeds encroaching into the reserve should be informed of their presence and their obligations to prevent the spread of weeds to reserved land. If such engagement fails to get a positive outcome then land holders should a notice under the *Biosecurity Act 2019* is warranted. Council to continue education around responsible waste management and Council's green waste collection.

3.3. OFF ROAD TRAIL BIKES

The previous management plans note the inappropriate use of off-road trail bikes within the reserve which are impacting vegetation and increasing erosion of existing walking trails as well as being a risk to walkers. SBLC have indicated that trail bikes are no longer a significant issue since the reserve was fully fenced and signs prohibiting this activity within the reserve were installed.

3.4. DOGS AND CATS

Dogs are prohibited from the reserve both off and on lead. The dog exercise area was completed 5-8 years ago and provides a secure area for dogs to be off-lead. The construction of this area is likely to have reduced off-lead dog walking within the reserve although no data or feedback on this is available. Stakeholder feedback notes that the fire trail behind the houses on Rantons Road is still being used by dog owners with their dogs on and/or off lead and this was observed during the site surveys. There are currently signs indicating "no dogs allowed" at the skate park entrance and around the football oval however no such signs occur at the northern or southern entrance to the fire trail behind Rantons Road or the pedestrian access off Old Forcett Road.

It is recommended that Council investigate options to allow dogs on leads through the reserve or at least along the fire trail so that locals can walk their dogs to the dog exercise area.

Since the 2015 management plan was prepared the reserve has been declared a Cat Prohibited Area under the Cat Management Act. Signs have been installed at various locations around the reserve perimeter asking residents to contain their pets within their property boundaries at all times. Council have noted that the trapping of cats within the reserve has not commenced so no data is available as to the effectiveness of this action. A cat was observed during the site surveys entering the reserve from residences off Rantons Road.



Plate 13: Signage installed around the perimeter of the reserve regarding its designation as a Cat Prohibited Area



Plate 14: Cat observed entering the reserve from residences on Rantons Road.



Plate 15: Cat/dog door cut into fence to allow access to the reserve.

Recommendations:

- Council to investigate options to allow dogs on lead along the fire trail so local residents can access the dog exercise area.
- Install additional signs indicating dog restrictions (areas where they are prohibited or where they can be on a lead) at the northern and southern entrance to the fire trail behind Rantons Road and also update the existing sign to include dogs at the pedestrian access path off Old Forcett Road.
- Continue to educate residents and the broader community about responsible pet ownership and why it's important to control dogs and cats within the reserve. This could incorporate information on the threatened Eastern barred bandicoot which is likely to utilise the reserve.
- Consider installing wildlife cameras within the reserve to determine the extent to which cats are using the reserve. This data should dictate the need to undertake trapping.

3.5. TIMING AND EXTENT OF MOWING/SLASHING

The timing, frequency and method of vegetation maintenance activities including mowing and slashing can impact upon the condition of groundcover vegetation, particularly if native flora species are not allowed time to flower and set seed. In addition, mowing of exotic grasses in spring can serve to reduce weed propagules and assist native grasses.

Recommendations:

- Groundcover vegetation within the Flora Park area (VMU 7) is to be maintained by SBLC through hand weeding. Any areas which require slashing/mowing should be undertaken in late summer to allow native seed set and is to be undertaken in consultation with SBLC. Works should be undertaken using a brush cutter to minimise impacts.
- Groundcover vegetation within the Hazard Management Areas (HMAs) is required to be kept at a height of less than 100mm as per the recommendations in the BMP (refer to Section 7). Consequently, the timing of slashing in these areas is likely to be dictated by groundcover height rather than seed setting time.
- Slashing to be undertaken within other areas of the reserve (VMUs 1-5 and around the football oval) should have minimal impact on the ongoing viability of native grasses etc.

3.6. CLIMATE CHANGE

The Reserve is the largest area of coastal vegetation in Dodges Ferry and provides an important habitat and refuge for flora and fauna. While it is beyond the scope of this report to accurately predict possible impacts of climate change on the landscape, the following issues should be considered:

- Increased risk of uncontrolled fires
- Drought or reduced annual rainfall: this will impact revegetation projects as well as the composition and health of plant communities in the long-term, including DVG and wetland habitats in the reserve (see notes below on white gums).
- Increased severity of storm events: this can impact stream dynamics and associated runoff from the catchment. This could impact the reserve through increased flows along the waterway, increased debris, possible erosion and weed incursion.
- Sea level rise: this could impact areas of saltmarsh within the reserve as well as freshwater systems further upstream. Projected sea level rises for the reserve are shown in Plate 16. The Future Coastal Refugia Area overlay also shows this NW corner as a compatible area for potential future coastal saltmarsh and tidal wetland areas (refer to Section 5.2.6).
- Ongoing decline in the health of white gums (see notes below).

Eucalyptus viminalis is known to be highly susceptible to stress due to climatic factors and climate change projections indicate an increasing frequency and intensity of heat waves. 'Ginger tree syndrome' is the term given to a condition affecting eucalypts, often following extreme heat events. Elevated ambient air temperatures can cause water stress and hence shrinkage of the bark and trunk leading to the production of kino (Mitchell 2015). The syndrome is typified by the seeping of kino through the bark, turning the trees 'ginger' and providing a visual means of identifying affected trees. Tree mortality typically follows within 12 months. The loss of canopy trees has the potential to substantially alter the character and function of the vegetation community. A few white gums with this 'ginger' look were observed at the time of the survey, although further assessment would be required to confirm this syndrome.

In addition, the intensity of the 2021 planned burn is likely to have resulted in the mortality of a number of smaller white gums through the vegetation management units which were burnt. A number of the white gums across the dunes, particularly on the northern side have also died. It is unclear as to whether

heat stress is responsible for this. Stakeholder feedback also suggested that the use of heavy machinery within the TPZs of some white gums have resulted in the death of the tree.



Plate 16: Coastal projected sea level rise (pale green is predicted rise by 2100, dark green predicted rise by 2050)



Plate 17: Orange stains noted on white gums in the reserve, possibly a result of heat stress and the 'ginger tree syndrome'.

Recommendations:

- Council to provide water to help establish revegetated areas.
- Council will continue to monitor and maintain stormwater infrastructure, including the waterway through the reserve which serves to drain flood waters from upstream residential areas.
- Further monitoring is required to determine if trees on the site are affected by ginger syndrome. Research is currently being undertaken to use genetic traits from dry-zone white gums for restoration projects in an aim to climate-proof this species. Future revegetation projects involving white gums should consider this. The transition of DVC to coastal shrubland on exposed dune slopes in response to climate change is discussed further in Section 5.2.3.
- Consider controlling regenerating shrubs which are encroaching on areas of saltmarsh (refer to Section 5.2.6).

4. WEED MANAGEMENT

4.1. WEED SPECIES PRESENT

A number of weed species occur within the reserve. These are generally concentrated across the western portion of the site. Six declared weeds listed under the Tasmanian *Biosecurity Act 2019* were recorded. These species are mapped in Figure 6 and discussed below:

- Boneseed (*Chrysanthemoides monilifera*) – Dense infestations occur across the western part of the reserve, mostly within areas of regenerating shrubland, although some smaller patches and isolated plants were observed within areas of DVC.
- African boxthorn (*Lycium ferocissimum*) – Few individual plants noted at three locations.
- Montpellier broom (*Genista monspessulana*) – Occurs near low-lying wet areas in the north-west and along the fire trail behind the houses. One large patch was noted in an area of native vegetation (DVC).
- Prickly pear (*Opuntia* sp.) – Few scattered occurrences at the top of the fire trail in adjacent bushland.
- Blackberry (*Rubus fruticosus* agg.) – Mostly around grassland areas associated with the old pony club.
- Californian thistle (*Cirsium arvense*) – Recorded at a couple of locations, generally small infestations.

Sorell Council have prepared a draft Weed Strategy 2023-2028 to guide weed management actions over the next 5 years. In addition to declared weeds which occur within the Sorell LGA, the strategy also identifies a number of environmental weeds considered to be highly invasive and which pose a significant threat to the environment. Five of these environmental weeds identified in the strategy were recorded in the reserve:

- Tree lucerne (*Chamaecytisus palmensis*) – Occurs along the edge of bushland adjacent to the fire trail behind the houses and along the top of the slope. One large mature plant also noted at the southern end of the fire trail near the access way off Rantons Road.
- Gazania (*Gazania linearis*) – Through the regenerating shrubland on the northern dune slope and along the accessway at the southern end of the fire trail behind residences on Rantons Road.
- Mirror bush (*Coprosma repens*) – Mature plant recorded at one location behind the houses on Rantons Road. Species also noted in adjacent backyard.
- Cape ivy (*Delairea odorata*) – Recorded in one location in DVC on the eastern side of the football oval.
- Cotoneaster (*Cotoneaster* species) – Noted at one location within FRG in the north-western part of the reserve.

Weed control methods for all species listed above are provided in Appendix C.

Other weeds worth noting either due to their invasive potential and/or their limited distribution include:

- Agapanthus (*Agapanthus praecox* subsp. *orientalis*) – Scattered minor occurrences through areas of FRG and couple of isolated plants in native vegetation (DVC).
- Lion's tail (*Leonotis leonurus*) – This species is highly invasive and is located along the fire trail behind the houses.
- Trailing daisy (*Dimorphotheca fruticosa*) – Recorded at a couple of locations in native bushland. Also, likely to be scattered through area of FRG on northern dune slope.
- Hawthorn (*Crataegus monogyna*) – Couple of mature plants noted in drainage line at NW end.
- Yellow pigface (*Carpobrotus edulis* subsp. *edulis*) – Common throughout FRG on the northern dune slope and within the water treatment ponds enclosure.
- Snail Vine (*Vigna caracalla*) – noted at one location adjacent to the fire trail behind the houses.

- Radiata pine (*Pinus radiata*) – noted at one location within DVC east of the football oval and also in the grounds of the primary school.
- Briar rose (*Rosa rubiginosa*) – common throughout areas of FRG comprising grasses/rushes.

Many of the weed infestations in the reserve are a result of poor management practices, as well as encroachment from surrounding areas and introduction by birds/dumping etc. Previous burns without pre and post weed management as well as the use of machinery in some areas have resulted in the extensive boneseed infestations. However, fire can also be used as a tool for weed control but without appropriate follow up it can exacerbate existing infestations.

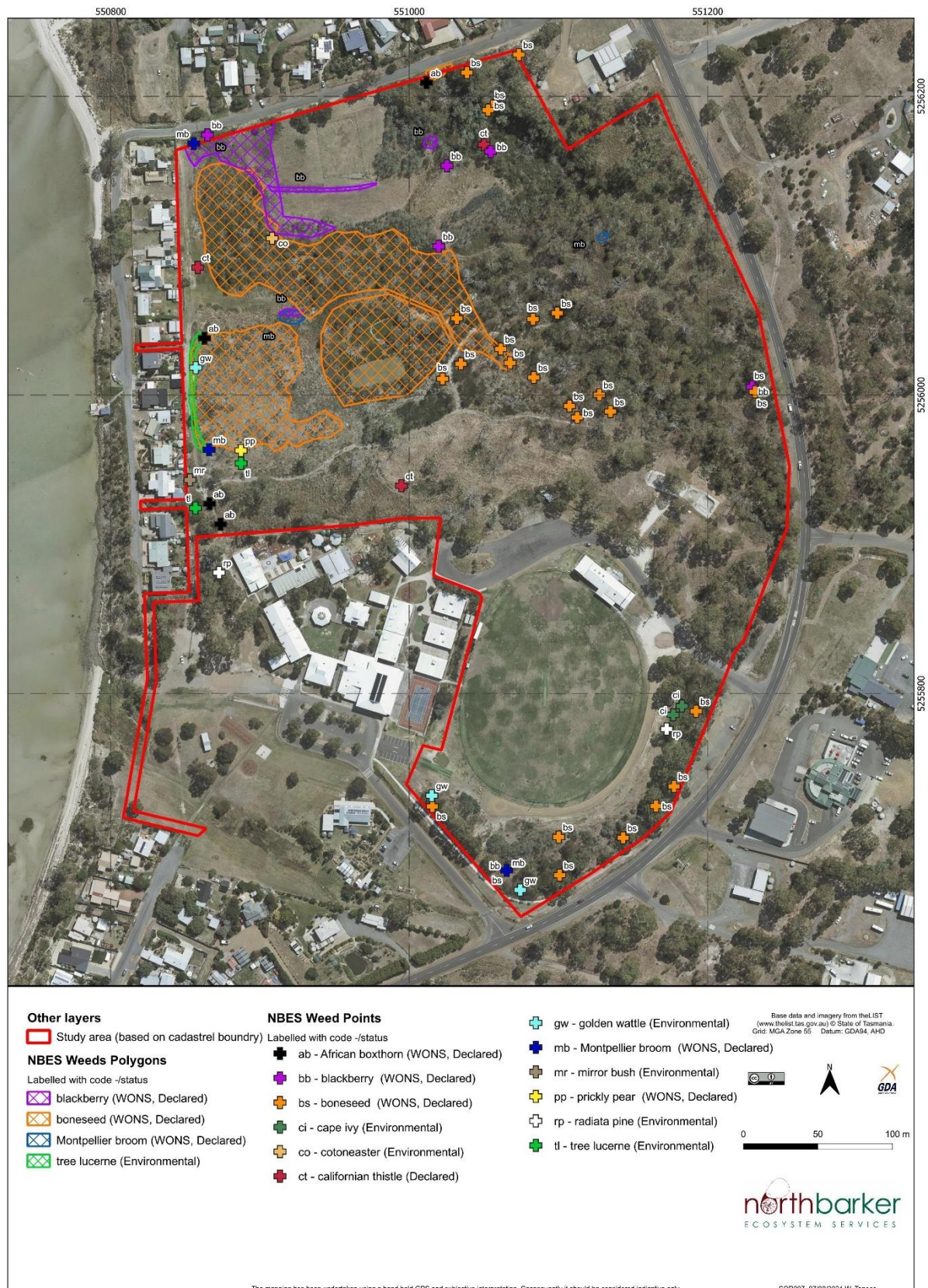


Figure 6: Distribution of declared and invasive environmental weeds across the reserve

4.2. RECOMMENDATIONS FOR WEED CONTROL WORK

4.2.1. Priorities and resourcing

This plan outlines a long-term plan to control and hopefully eradicate declared and invasive environmental weeds from the Reserve. The timing and degree to which these recommendations are implemented will depend upon available resources. At present weed control has mostly been undertaken by SBLC during their weekly working bees. These works have generally focused on the Flora Park area and the school HMA where they have been controlling silver wattle, treating weeds and planting. There has also been some recent funding from council's operational fund to engage contractors and tackle a section of boneseed on the northern dune slope. The success of weed control within the reserve will require collaboration between SBLC and Sorell Council as well as a commitment to resources and ongoing follow-up maintenance activities. It is understood that Council is limited due to resource availability and timing of the on-ground works. Given that the site comprises a threatened vegetation community as well as habitat for threatened species it may be possible to seek certain grant funding from local, State or Commonwealth departments as these become available. Hopefully information in this management plan can be used to acquire funding through grant applications. Sorell Council and SBLC should collaborate on any future applications undertaken.

The following outlines a proposed list of priorities for weed control. Implementation of the actions will depend on available resources. It is recommended that primary weed control works involving larger infestations should be the responsibility of Council and contractors (funded by Council and supported through external grants) with follow up maintenance undertaken by SBLC.

Table 4: Weed control actions

<p>1a) Control isolated occurrences of declared weeds in areas of native bushland. Start with smaller infestations in good areas of bushland and slowly expand scope as resources dictate. Target as a priority:</p> <ul style="list-style-type: none"> • mature boneseed plants in areas of mapped DVC. • The area of Montpellier broom in burnt DVC. Approx. 10m x 5m area of mature saplings. • African boxthorn locations. • Cape ivy locations <p>1b) Follow-up maintenance at these locations every 6 months.</p>
<p>2a) Control isolated occurrences of invasive environmental weeds in areas of native bushland. Start with smaller infestations in good areas of bushland and slowly expand scope as resources dictate.</p> <p>2b) Follow-up maintenance at worked locations every 6 months.</p>
<p>3) Follow-up hand weeding of post burn site every 6-12 months.</p>
<p>4) Undertake walk through of Flora Park, HMA and burnt DVC to control declared and invasive environmental weeds every 6-12 months.</p>
<p>5) Once isolated boneseed infestations have been controlled, start to work on mapped polygons in a staged manner, working from top of slope downwards and from upper catchment downstream (refer to Section 4.2.2 below).</p>

4.2.2. Boneseed

4.2.2.1. Profile

Boneseed typically flowers from mid spring to early summer with seeds shed during summer and autumn. Plants generally don't flower until 18 months, although in some cases after fire flowering can occur in 12 months due to lack of competition. A single plant can produce up to 50,000 seeds per year,

of which approximately 60 per cent are viable¹². Boneseed does not reproduce vegetatively and so relies on its massive seed production for reproduction and spread. The fleshy fruits are attractive to a wide range of animals that spread the seeds. The smooth round seeds also disperse from the parent plant by rolling down slopes. Fire and physical soil disturbance can trigger mass germination events.

4.2.2.2. Managing boneseed

The control and eradication of boneseed from the reserve will require considerable resources and a long-term commitment to ongoing management. Weed control works should focus on controlling isolated occurrences and smaller areas of boneseed which are located in areas of native bushland with limited weeds. Once control of isolated plants is achieved, works should then commence on reducing the size and impact of the main infestation. Always work from the edge of native bushland toward the centre of the infestation. This will allow native propagules to disperse from adjacent areas of bushland into cleared areas. Clearing of dense boneseed infestations at the site should be undertaken in a staged manner to ensure resources are available to manage these areas before moving onto the next area. All weeds should be controlled and native species allowed to establish to assist with inhibiting weed invasion.

The direction of boneseed control is outlined in Plate 18. The control of dense boneseed on the northern dune slope should be undertaken from the top of the slope working downwards. This will help prevent boneseed spreading by seed movement down slope. Boneseed control along the seasonal creek should start at the top of the stream and work along the watercourse from SE to NW. This will allow native seed along the top of the slope and upstream areas in DVC to establish in cleared areas.

4.2.2.3. Methods of control

Small boneseed seedlings can be pulled out by hand or sprayed. Larger plants can be cut and painted with herbicide or drilled. Dense infestations can be over sprayed however this method can cause off-target herbicide damage to native vegetation including ground cover species. Although foliar spraying can be more efficient initially, it can require more follow-up control if additional weeds colonise the bare ground. Resources must be available to ensure treated areas can be maintained over the long-term until native species are established. If resources are limited it may be better to completely control boneseed over a small area than to expend resources on a large area that cannot be followed-up or maintained. Particularly given the presence of other invasive weeds which could create further problems if allowed to establish within cleared areas.

It is recommended that dense infestations of boneseed at the site be controlled and treated in stages using cut and paint or drilling/frilling methods to minimise impacts on native vegetation. It is important to cut stumps low to the ground to prevent trip hazards and reshooting (Plate 19). The drill-and-fill method is suitable for very large plants. Holes should be drilled around the base of the trunk, going into the sapwood no more than 50mm apart and should be done on an angle to allow herbicide absorption. Dead plant material can either be removed from site, burnt or left onsite to decay. If material is left onsite, ensure roots are not in contact with the soil. Plants can be mulched by cutting into small pieces (about 30 cm long) and spread evenly over the ground however this may make control of other groundcover weeds in the area difficult (such as yellow pigface). Alternatively, piles of cut branches could be made ensuring piles are not made on top of existing weeds. Given the high-profile nature of the site (especially the northern dune area) and the proximity to houses and perceived fire risk it may be more suitable to either remove dead plant material or burn it onsite.

Follow-up control of the post-burn site should be undertaken just before seedlings flower as they will thin out naturally through competition (they may flower in the first year after fire). Follow up control of post-burn seedlings to be undertaken by hand pulling or foliar spray. It is understood that the SBLC have seeded this area with native grass seed. Care will need to be taken to avoid any native grasses and

¹² Brougham, KJ, Cherry, H and Downey, PO (eds) (2006).

other species which naturally regenerate if the area is to be sprayed. Use of a selective broad-leaf herbicide, such as metsulfuron-methyl, would treat boneseed seedlings while avoiding impacts to native monocots.

Chemical treatments are best undertaken when the plant is actively growing. For more detailed information on boneseed control techniques and herbicide the following document is helpful: Boneseed Management Manual: Current management and control options for boneseed (Brougham *et al* 2006)¹³.

SBLC have indicated in consultation sessions that the boneseed leaf buckle mite (BLBM) (*Aceria* sp.) is present within the reserve. This mite is a natural enemy of boneseed and has the potential to suppress vigour and indirectly impact on seed production¹⁴. The BLBM induces formation of leaf galls which are initially white but turn brown within a few weeks. Dispersive mites can walk to adjacent uncolonized shoot tips or can be wind-dispersed to other boneseed plants¹⁵. Biocontrol alone will not eradicate boneseed but it does reduce the growth and rate of spread allowing more time for control by other means.

Discussion on boneseed and other weeds in the water treatment ponds area is discussed further in Section 7.8.



Plate 18: Direction of control for large dense infestations of boneseed within the reserve

¹³ Available at [Boneseed management manual: Current management and control options for boneseed \(nsw.gov.au\)](https://www.nsw.gov.au/boneseed-management-manual)

¹⁴ [Fact Sheet Boneseed.pdf \(pir.sa.gov.au\)](https://www.pir.sa.gov.au/fact-sheet-boneseed.pdf)

¹⁵ Morley, T.B and Morin, L (2008)



Plate 19: Reshooting boneseed observed onsite. Cut stumps need to be low to ground or additionally scrapping/frilling around the base and applying herbicide.



Plate 20: Recent area of boneseed was treated and then burnt successfully. Unfortunately seed from dense boneseed upslope will continue to invade this area and require ongoing maintenance. It is recommended that future works in this area start at the top of the slope and work downwards.

4.2.3. Maintenance weed control work

Weed control activities will not be successful unless a commitment is made to undertaking ongoing follow-up maintenance activities. An annual sweep to remove all new germinants of previously targeted weeds (with a focus on declared weeds and invasive environmental weeds) should be undertaken, with ongoing annual follow-up required until the soil seed bank is exhausted. This work could be undertaken by volunteers and/or contractors. Boneseed and montpellier broom are likely to require ongoing follow-up over many years due to the likely significant soil seed bank present.

4.2.4. Non priority weeds

Broadleaf weeds and exotic grasses are common through some areas of the Reserve and are not considered a priority for control except in areas of good condition DVC and where their removal is desirable as part of an ongoing general reserve maintenance program (eg along track edges) or for fuel reduction purposes.

4.3. **BEST PRACTICE WEED MANAGEMENT GUIDELINES**

4.3.1. For contractors and council staff

- Ensure all tools, equipment and vehicles are to be cleaned free of weed propagules and potential pathogens, such as Phytophthora. Treat tools with methylated spirits. Council staff to follow standard operation procedure for hygiene protocol.
- Weeds are to be controlled in accordance with the weed control methods (Appendix C) or using alternative proven best practice species-specific methods.
- Procedures are to be in place to minimise potential for spillage of chemicals and any spills are to be dealt with immediately. Each vehicle should have a spill response kit.
- All herbicides use should be undertaken in accordance with the manufacturer's specifications and should be undertaken by appropriately qualified personnel. Spraying of herbicides should not be undertaken within 6 hours of rainfall and where there is likelihood of rain within 24 hours.
- Any herbicides to be used near waterways should be registered for use in and around waterways, including Roundup Bioactive™ and Weedmaster 360™. These products have improved surfactants, making them safer to use near waterways.
- A qualified bushcare contractor or weed control operator who holds a current NRE Commercial Operators Licence and Certificate of Competency will know the correct herbicides and rates and will have the appropriate qualifications to legally apply them. By law they must record herbicide usage (see Appendix D Weed Management Record template).
- Only registered herbicides and those listed under an off-label permit issued by the Australian Pesticide and Veterinary Medicines Authority (APVMA) (Permit PER84775) for control of environmental weeds are legally allowed to be used in the control of weeds in Tasmania. Workers should regularly consult the AGVET Permits to check on the latest updates.
- Any herbicide use within the reserve should be communicated to the SBLC.

4.3.2. For landcare groups

- Ensure herbicide use is registered with council. Landcare to complete the Weed Management Record (Appendix D) and submit to council when herbicides are used in the reserve.
- Ensure volunteers are suitably trained to use herbicides. Volunteers are not to use any kind of spray application of herbicides within the reserve without appropriate training and approval.
- Those undertaking weed control works are to consult the information contained in the Weed Control Recommendations (Appendix C). Ensure all tools, equipment and vehicles are to be

cleaned free of weed propagules and potential pathogens, such as Phytophthora. Treat tools with methylated spirits.

4.4. WEED MONITORING

In order to monitor the success of the weed control program, follow-up GPS weed mapping should be undertaken after five years to assess progress and facilitate planning of future weed control activities. As well, GPS mapping by contractors and volunteers as they control weeds should be encouraged, with data to be entered into NRE's Natural Values Atlas or provided to Council to enable its database to be updated.

5. REGENERATION AND REVEGETATION

5.1. PRIORITIES AND RESOURCING

Apart from weed control, management activities in areas of intact native vegetation should be limited to encourage the natural regeneration process. Natural regeneration should be encouraged as the most cost effective and natural means of restoring native vegetation in areas where weed control and vegetation clearing has previously occurred. Where natural regeneration is lacking, native seed broadcasting and/or revegetation may be required to assist bushland restoration efforts. The primary purpose of undertaking new revegetation activities is to preserve and enhance existing areas of remnant native vegetation, provide habitat for native birds and animals, and improve the visual amenity for users of the Reserve.

This section discusses proposed revegetation and regeneration activities and provides a long-term vision for the restoration of key zones within the reserve as well as priorities. Any revegetation works should utilise native species listed in Appendix B.

The rehabilitation of the water treatment ponds is discussed in Section 7.8.

5.2. RECOMMENDATIONS

5.2.1. HMA's and Flora Park

Revegetation works and the natural regeneration of tree/shrubs in these areas need to be controlled and meet specific requirements under bushfire regulations etc. HMA's need to be managed in a low fuel state and the Flora Park area (given that it is located along an access to a designated 'Nearby Safer Place') also needs to be maintained as an open woodland community. Patches of shrubs are permitted in accordance with the bushfire requirements. Further specific details are provided in Section 6 of this plan.

Biomass control and reduction will be required in these areas to maintain the existing open structure (specifically of the Flora Park) and continue to encourage native grasses and herbs. This may be achieved through brushcutting and cool burns (in consultation with Council and Dodges Ferry Fire Service).

5.2.2. Old Pony Club area

The dog exercise area has been constructed in the site of the old pony club. An open grassy area dominated by exotics occurs around the fenced dog area. This area is known to get waterlogged at certain times of the year. Significant resources would be required to revegetate this entire area. If resources are available, it is recommended that the eastern part of the grassy zone be revegetated with native species characteristic of the DVC community. A number of native Poa's occur around the eastern edge of this zone and through areas of regenerating silver wattle. Silver wattle is starting to encroach upon this area too. Grassy areas should be maintained through annual slashing to prevent weed growth. Council should investigate a long-term use for this area in consultation with stakeholders and the community. The space could be utilised for recreation purposes.

5.2.3. North facing dune slope

Significant dieback in white gums is apparent across this slope and limited evidence of canopy species regeneration. This is likely a result of climate stress. The slope comprises areas of dense boneseed with patches of regenerating native shrubs and silver wattle. White gum regeneration was noted on the southern side of the dune and within low lying areas at the base of the dune along the waterway. Staged weed control is to be undertaken on this slope working from the top of the slope downwards. The extent to which revegetation is required will depend upon the resilience of the site and the amount of natural regeneration. Small pile burns undertaken in autumn may assist regeneration of native species including white gums. Monitoring of the existing burn site should be undertaken to determine success of native

germination in this area. Any revegetation works utilising white gums should consider utilising seed from mixed provenances or as recommended from trials and research, to maximise the potential for persistence of individual plants. Alternatively, allowing this area to transition from DVC to a native coastal shrubland may be more sustainable in the long-term. Planting of *Banksia marginata*, *Allocasuarina littoralis*, *Bursaria spinosa*, *Acacia longifolia* and *Dodonaea viscosa* may be required where natural regeneration is insufficient.

5.2.4. Burnt areas of DVC

Despite the high intensity burn and canopy dieback this area is regenerating with a moderate diversity of native understory species and some regeneration of canopy trees was noted. Any revegetation works to be undertaken in this area should consist of tree and understorey species indigenous to the site with open grassy areas left to provide foraging opportunities for native fauna. Further monitoring of the site and natural regeneration should be undertaken to determine if revegetation works are required in some areas.

5.2.5. Native shrub invasion

Some areas of the site which have been previously cleared have resulted in a dense regenerating shrubland dominated by silver wattle or native hop bush. Where this is occurring within areas of DVC or inhibiting the development of canopy trees, shrubs should be controlled. Retaining patches of shrubland and open grassy ecosystems by creating a mosaic of different vegetation structure across the site will assist with retaining suitable habitat for a diversity of species. Undertaking burns in spring may reduce grasslands from naturally closing out and transitioning into scrub. Spring burns will encourage grasses to set seed in the spring following fire.

5.2.6. Retaining saltmarsh areas

A small section of saltmarsh has been mapped within the north-western part of the site. Parts of this community are being overtaken by regenerating prickly wattle as well as weeds. This part of the site is identified as a compatible area for Future Coastal Refugia (Plate 20), that is, a potential future coastal saltmarsh and tidal wetland area based on predicted sea level rise for 2100. Conserving existing saltmarsh through shrub and weed control should be considered in the context of available resources and the long-term viability of this community within the reserve.

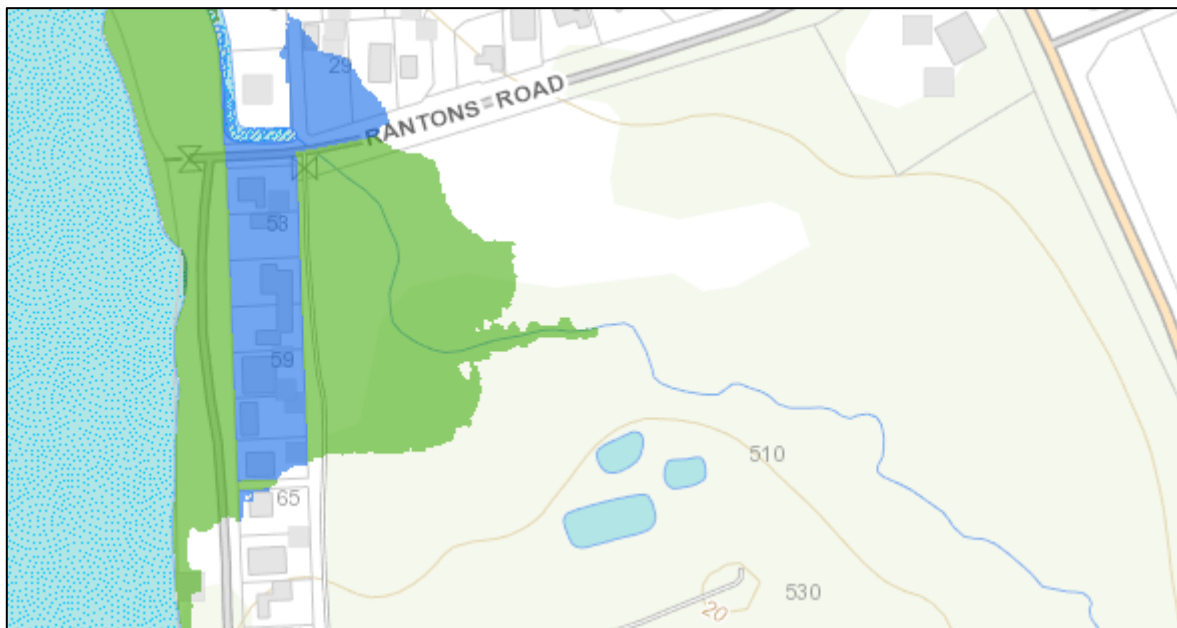


Plate 21: Future Coastal Refugia Area Guidance Map (green is compatible zone)

6. FIRE MANAGEMENT

6.1. INTRODUCTION

A Bushfire Risk Assessment Report and a Bushfire Mitigation Plan 2024-2029 (BMP) have been undertaken by Fire Risk Consultants in conjunction with this Reserve Management Plan. The report provides an update of the existing Fire Management Plan prepared by AVK Environmental Management in December 2009. The updated Risk Assessment Report assesses the current bushfire risk levels, potential bushfire scenarios to impact the reserve and provides a series of recommendation to reduce bushfire risk to internal and external assets. The BMP is a tactical level planning document which functions for a five-year period and identifies key areas for fuel management, guidance regarding planned burning, fuel management, fire trails, fuel breaks, Hazard Management Areas (HMAs) and asset protection work.

There has been some conflict in the past between council, SBLC and local residents over the management and methods of fuel reduction undertaken within the HMAs, particularly the slope above the primary school. The updated report provides a number of recommendations regarding the HMAs and fire trail required in order to meet industry best standards and align with the Tasmanian State Government bushfire risk reduction planning framework. Recommendations are detailed below with regards to vegetation management requirements. Appendix A of the BMP provides a Treatment Plan with specific actions to be implemented.

Fire is an important natural tool for the long-term management of natural areas and associated threats including weeds and wildfire. However, the implementation of strategic fuel reduction burns must be undertaken in a careful and considerate way to ensure the ecological values of the reserve are maintained. This requires specific knowledge around fire intervals and intensity and will vary depending upon vegetation types and the ecology of species present.

6.2. VMUs

The Reserve is divided into eight Vegetation Management Units (VMUs) which mostly correspond to existing trails and vegetation edges in the reserve. These are outlined in Figure 7 and discussed below in Table 5.

Table 5: VMUs and general objectives and prescriptions outlined in the BMP

VMU	Description	Prescriptions outlined in BMP
1	Includes the dog exercise area and adjacent open areas of grassland associated with the old Pony Club.	<ul style="list-style-type: none"> Mow areas within dog park. Maintain the structure and floristics of the vegetation community external to the dog park. Spring burn area adjacent to dog park to reduce grasslands from naturally closing out and transitioning into scrub. Spring burns will encourage grasses to set seed in the spring following fire. Reduce the extent and density of weeds. Withhold fire duration of BMP. Assess requirements next BMP review.
2	Includes areas of DVC in the north-eastern part of the reserve around the Fire Station.	<ul style="list-style-type: none"> Maintain the structure and floristics of the vegetation community. Allow and support recruitment of canopy species. Reduce the extent and density of weeds. Autumn burn to increase species diversity. Withhold fire duration of BMP. Assess requirements next BMP review.

VMU	Description	Prescriptions outlined in BMP
3	Includes the north facing dune (degraded DVC/FRG/NAD with extensive boneseed) as well as the water treatment ponds and the western part of the unnamed seasonal creek which comprises DVC, FRG (shrubland with boneseed) and a small saltmarsh area.	<ul style="list-style-type: none"> • Maintain the structure and floristics of the vegetation community. • Allow and support recruitment of canopy species. • Reduce the extent and density of weeds. • Autumn burn if management objective is to increase species diversity OR spring burn if management objective is to reduce vegetation from naturally closing out and transitioning into scrub. • Withhold fire duration of BMP. Assess requirements next BMP review. •
4	includes the middle part of the seasonal creek and surrounding vegetation comprising mostly DVC with some areas of FRG (shrubland dominated by native hop bush).	<ul style="list-style-type: none"> • Maintain the structure and floristics of the vegetation community. • Allow and support recruitment of canopy species. • Reduce the extent and density of weeds. • Autumn burn if management objective is to increase species diversity OR spring burn if management objective is to reduce vegetation from naturally closing out and transitioning into scrub. • Withhold fire duration of BMP. Assess requirements next BMP review.
5	eastern area of DVC adjoining Old Forcett Road and eastern portion of seasonal creek.	<ul style="list-style-type: none"> • Maintain the structure and floristics of the vegetation community. • Allow and support recruitment of canopy species. • Reduce the extent and density of weeds. • Autumn burn if management objective is to increase species diversity OR spring burn if management objective is to reduce vegetation from naturally closing out and transitioning into scrub. • Withhold fire duration of BMP. Assess requirements next BMP review.
6	HMA on slope above school, comprises open DVC community.	Refer to Section 4.3 below for management prescriptions.
7	Includes skatepark and surrounding areas of open DVC vegetation along access road to school.	This area is to be maintained as an open grassy forest/woodland to ensure safe access to the school as a "nearby safer place". Refer to Section 6.5 below for more details.
8	Includes the HMA along the back of foreshore residences on Rantons Road.	Refer to Section 6.3 below for management prescriptions.

VMUs 2 and 5 were burnt in the Spring of 2021. This planned burn was of moderate to high intensity resulting in significant canopy scorch and a density reduction of overstorey species. This area is dominated by bracken in the understory with limited floristic diversity in some areas.

It should be noted that vegetation around the football oval was identified as being of tolerable fire risk and is not included as a VMU in the Bushfire Mitigation Plan. This area should be reassessed as part of the next review in 5 years time.

6.3. HMAs

VMU 6 is to be maintained as a HMA in low fuel condition. Its extent is defined by the fire trail DF1 and covers a 1.2 ha area. The following vegetation management is required within this unit:

- Thin out understory vegetation to provide horizontal separation between fuels.
- Remove fallen limbs, sticks, leaf litter and bark litter.
- Maintain grass at less than 100mm height.
- Remove pine bark and other flammable mulch.
- Selectively position trees/shrubs to create poorly dispersed, low density discontinuous rows and clumps.
- Prune low-hanging tree branches (<2m from the ground) to provide vertical separation between fuel layers.
- Prune/thin out trees to maintain horizontal separation between canopies.
- Maintain vegetation clearance around vehicular access and water supply points.
- Use low-flammability species for landscaping purposes.
- If safe to do so, use brush cutters to maintain HMA adjacent to school.

Given that this area comprises a threatened vegetation community and the ground layer comprises a high diversity of native flora including species of conservation significance, the use of brush cutters is highly recommended. No heavy machinery (including tractors or slashers) should be used in this area for maintenance. The retention of scattered trees and shrubs should be delineated in consultation with council and SBLC to ensure these areas are not inadvertently slashed and their extent/cover meets HMA requirements. No existing mature trees within VMU 6 require removal to meet the HMA requirements.

VMU 8 is to be maintained as a 10m wide HMA in low fuel condition behind the residences along the foreshore. The same vegetation management requirements outlined above for VMU 6 apply. The extent of the HMA should be clearly marked so that slashing is restricted to this width and native vegetation beyond the 10m mark is allowed to regenerate. Adjacent residences should be informed of the HMA width and management prescriptions outlined above. All garden waste should be removed from the HMA and residents notified that dumping will not be tolerated. Council is required to manage the HMA to meet the low fuel condition requirement and no slashing is to be undertaken by residents. Residents are to notify council if the HMA requires fuel management.

6.4. FIRE TRAILS

One designated vehicle fire trail (DF1) is required in the reserve and is outlined in Figure 7. The alignment mostly follows the existing track although a small section needs to be realigned to meet an existing locked gate opposite the football club. The track needs to be upgraded to meet the Class 5 fire trail category standards (refer to Appendix B of the Bushfire Mitigation Plan). In general, this includes a minimum trafficable width of 4 m plus an additional 1 m cleared on each side of track with passing bays. Based upon current site investigations, the fire trail can be upgraded to meet these standards without the need to remove any existing mature trees. A risk assessment along the fire trail to assess any hazardous trees will be required. Appropriate environmental management measures will need to be undertaken as part of the assessment and construction of the fire trail to ensure impacts are minimised and the stability of the dune is not compromised. The fire trail should be constructed to ensure no washout of gravel etc downslope to areas of the Flora Park.

All other tracks within the reserve have no vehicle access requirements for firefighting and can be managed as 'dormant' fire trail category or as per Council's recreational walking track specifications.

6.5. ACCESS TO "NEARBY SAFER PLACE" (VMU 7)

Dodges Ferry Primary School is identified as a nearby safer place by the Tasmanian State Government within the Community Bushfire Protection Plan for Dodges Ferry. A nearby safer place is a place of last resort for people during bushfire emergencies. VMU 7 occurs along the northern side of the access road

and is to be maintained as woodland forest community to reduce bushfire risk to those seeking shelter at the Dodges Ferry Primary School when enacted as a nearby safer place during a bushfire event. This includes:

- Maintain and enhance the structure and floristics to promote a woodland vegetation community with 10%–30% foliage cover dominated by eucalypts with a prominent grassy understorey.
- May contain isolated shrubs.
- Fallen logs, debris etc can be left on the ground in this VMU.

This area currently comprises an open grassy woodland/forest structure with high floristic diversity in the ground layer. No additional eucalypt trees are to be planted in this VMU unless an existing tree dies and there is adequate space to ensure a canopy cover of 10-30% is maintained. Scattered shrubs or isolated clumps of shrubs are allowed. To meet these specifications, some regenerating shrubs may need to be controlled and any plantings undertaken should be spaced appropriately.

6.6. FUTURE CONTROLLED BURNS

Appendix A of the Bushfire Mitigation Plan outlines a Treatment Plan with regards to the proposed planned burning schedule for 2024-2028. Fire is to be withheld for the duration of the BMP and reassessed in the next review within VMUs 1,2, 5, 6 and 7. Fire is to be avoided in VMU 8. The use of small pile burns within VMUs 3 and 4 may be necessary as part of staged boneseed control works. The effectiveness of this method to stimulate native seed germination should be considered. Any pile burns should be undertaken in autumn. No large-scale controlled burns are recommended within VMUs 3 and 4 for the duration of the BMP. It is not known when these VMUs were last burnt. The BMP notes that the minimum tolerable fire interval for DVC is 10 years (low intensity fire) and 20 years (high intensity fire) with a maximum tolerable fire interval of 40 years. Ideally the interval between a series of planned burns applied to areas of DVC should vary within this minimum-maximum tolerable fire interval. However, shorter fire intervals may be required on occasion to reduce bushfire hazards and/or to achieve desired conservation outcomes.

Council NRM officer is to be notified before any planned burns occur within the reserve.

Pre and post weed control should always be undertaken as part of any future proposed controlled burns. In addition, fauna habitat protection measures should be employed pre burn to protect hollow logs, dead trees and hollow bearing trees from fire by using wet lines or brush cutting/raking fine fuels away from logs and the base of trees.

6.7. COMMUNITY ENGAGEMENT

The BMP recommends an annual community engagement session at the reserve targeting community members, volunteer fire brigades and Landcare groups during each spring prior to the commencement of the bushfire season.



Figure 7: VMUs, HMAs and designated vehicle fire trail (DF1) alignment

7. INFRASTRUCTURE MANAGEMENT AND VISITOR FACILITIES

7.1. ZONING

Given the mixed use of infrastructure and facilities within the Reserve, it is recommended that these are differentiated by specific zoning according to intended purpose of each area and its long-term management objectives. Formal and informal recreation areas should also be considered as part of this zoning.

7.2. SEATING AND FLORA PARK SHELTER

Community facilities within the Flora Park area are limited to a shelter with seating which was noted to have graffiti on it at the time of the survey. Additional seating and a picnic table are provided around the skate park. The Flora Park contains the best example of DVC within the reserve and has the highest floral diversity. This area should be promoted as a focal point for nature enjoyment and education within the reserve. This part of the reserve is also the main entrance point for visitors. The following recommendations are made to improve community use and enjoyment as well as facilitate nature education. Consultation should be undertaken with relevant stakeholders in the planning and implementation of these recommendations.



Plate 22: Timber shelter located in the Flora Park

Recommendations:

- Council to investigate upgrading the existing shelter to improve aesthetics and provide an inviting outdoor classroom space for school groups and other community groups to utilise. An example could be a circular style structure made with natural materials. Alternatively, the existing structure could be updated with mosaics or a mural/artwork, potential to collaborate with primary school.
- The diversity within the Flora Park and the broader reserve should be promoted with the installation of interpretative signs. This could also extend to plant species tags along a formalised circular track within the Flora Park area.

- Council to investigate installing some picnic tables/seating within the broader Flora Park area in consultation with SBLC.

7.3. SIGNAGE AND ACCESS MANAGEMENT

Signs indicating prohibited uses within the reserve are located around the football oval, at the skate park entrance and the pedestrian access off Old Forcett Road. The reserve currently has no interpretative signs however Council have indicated they are currently collaborating with Dodges Ferry school students around creating signs for wildlife. There is currently only a small street sign with reference to the Dodges Ferry Recreation Reserve on Old Forcett Rd at the entrance to the school which is not very visible. Council should investigate options to incorporate the road reserve, which is a designated Council reserve, as part of the Reserve. This could then be formally zoned within the Reserve as a "gateway to Dodges Ferry" and enhanced through planting and better signage which welcomes visitors to Dodges Ferry and highlights the reserve as a key attraction.

In addition, SBLC have indicated that the vehicle gate in the south-west corner of the Flora Park be removed to prohibit vehicle access through this sensitive vegetation area.

Recommendations:

- Council to upgrade existing signs and install additional signs to inform people of prohibited activities/animals e.g. cats, motorbikes, horses, camping etc at all reserve entrances, including pedestrian access at both ends of the fire trail.
- Council and the community to investigate funding to prepare a reserve map showing the tracks and recreation zones. Entrances to the park including existing vehicle gates should be assessed and consolidated as part of this process.
- Install interpretative signage in the Flora Park area around the entrance to inform and educate locals and visitors about the environmental values of the reserve.
- Council to consider installing a larger or more visible sign along Old Forcett Road on the way into Dodges Ferry to highlight the location of the reserve and increase community/visitor awareness of the reserve.
- Council to investigate incorporating the Council Reserve along the road reserve of Old Forcett Rd into the management of the reserve and creating a gateway into Dodges Ferry through plantings and signage.

7.4. WALKING TRAILS

There are a few informal walking trails through the reserve. Walking tracks are shown in Figure 8 and include fire trails, a formed track through the Flora Park via the pedestrian access point on Old Forcett Road as well as informal minor trails through bushland areas (Plate 23). Council have also highlighted an opportunity to create a coastal connection walkway which would include the fire trail behind houses and the existing path which links to First Avenue. A tracks audit was identified as an action in the 2015 plan however, this has not been undertaken to date. There is no signage indicating track network and some parts of the informal tracks network needs to be consolidated. No formal crossing of the waterway exists. One area of building rubble was noted along a track just east of the WTPs (Plate 24).

Current track network is poor with some tracks ending at fences and inadequate linkages. Opportunities to develop a more integrated track system that allows for circular walks of varying scale should be developed. Possible linkages are identified in Figure 8.

A member of the Dodges Ferry Fire Station has indicated that the existing track which exits the reserve through the station should be relocated to an entry/exit along Old Forcett Road as this site may be fenced in the future. A proposed alternative is shown in Figure 8.

Recommendations:

- Council to maintain fire trails as per recommendations in the Bushfire Mitigation Plan 2024-2029.
- The existing track network should be audited and consolidated with those not required revegetated. Tracks should be kept as natural as possible, particularly through bushland areas.
- Council to continue maintenance of walking trails with an annual slashing of track edges with a brush cutter in late winter or at the end of summer. Slashing along informal tracks to be kept to a width of 1 m.
- Council to consider the design, location and investigate funding for a suitable culvert creek crossing for pedestrians.
- Council will work with volunteers to regularly assess trails for risks and hazards.
- Remove hazardous building rubble and reo along track just east of the WTPs.



Plate 23: View of informal track through area of DVC. Informal tracks should be kept as natural as possible.



Plate 24: Building rubble along existing track should be removed for public safety.

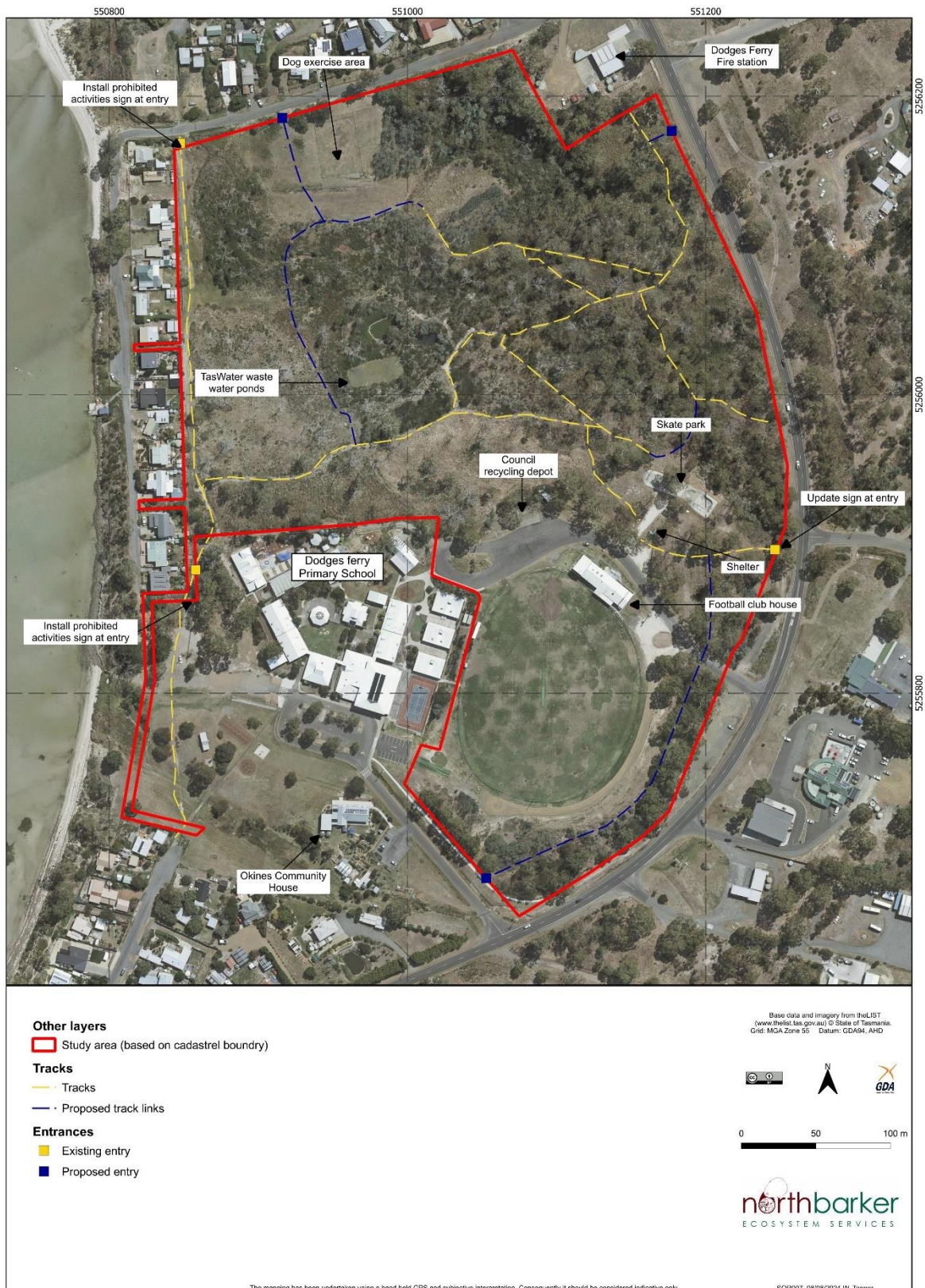


Figure 8: Infrastructure and assets/facilities in the reserve as well as track locations.

7.5. SKATE PARK

The skate park was upgraded in 2017 and is well utilised according to stakeholder feedback however the location of the skate park and access have impacted on the natural values of this area. Consultation has indicated the following issues with regards to the skate park:

- Litter around the park as well as vandalism/trampling of surrounding vegetation;
- Vehicle access to the skate park is impacting on tree roots and affecting tree health;
- The drain in the skate bowl extends to the nearby waterway. A torn bean bag was recently found in the bowl which resulted in extensive polystyrene beans being washed into the waterway through the drain (Plate 25). Chemicals used for cleaning graffiti off the skate park are also likely to end up being washed into the waterway.

Stakeholders have also indicated that the location of the skate park within a bushland area of the reserve and its general location within Dodges Ferry is not an ideal location. The park would be better suited in the central part of Dodges Ferry, near other facilities and where lighting can be provided to reduce safety issues.

Recommendations:

- Council to investigate alternative options with regards to the drain located in the skate bowl.
- Council to consider the long-term option of relocating the skate park to an alternative location given the conflict in objectives for the park.
- Council to investigate options associated with the removal of the vehicle track which extends through the reserve to the skate park edge. It is recommended that this is closed, sufficient parking is provided nearby as well as seating around the skate park.



Plate 25: Polystyrene beans within the waterway from the skate bowl drain (photo courtesy of SBLC)

7.6. DOG EXERCISE AREA

A formalised dog exercise area is located on Rantons Road in the northern part of the reserve. It includes two fenced grassy areas where the old pony club once was. The provision of this facility allows dog owners to exercise their dogs within a safe, contained area without impacting upon the natural values of the reserve. The option of allowing dog owners to walk their dog on a lead along the existing fire trail so as to access the dog exercise area should be permitted.

Recommendations:

- Council should continue to maintain this area as part of their asset management operations and promote the facility on its website as well as on social media and at relevant community events.
- Council to investigate options allowing dogs on lead along certain parts of the reserve (eg: the fire trail) so locals can walk their dogs through the reserve to access this facility.
- Install signage at the exercise park to notify dog owners regarding the rules associated with dogs and the reserve.
- Seek input from the community on how best to improve/manage the facility, for example: the installation of dog play equipment (such as ramps), the need for shade trees or more seating etc.

7.7. RECYCLING CENTRE

The recycling centre has been upgraded and improved since the 2015 plan was completed. The area has been formalised with fencing, signage and a roof. The previous plan noted that litter from the open bins would get blown into the reserve. While the secure fencing is likely to assist with preventing this, stakeholder feedback suggests the site is still a source of litter and is impacting on the natural values of the reserve. Non-recyclable rubbish is still getting dumped at the site or thrown over the fence into the reserve. Council are aware of the problems and are investigating options for an alternative site but at this stage no suitable site has been identified. Sorell Council have recently finalised their Waste Management Strategy¹⁶ and made a commitment to minimising the negative impacts of waste on the natural environment (Goal 3). This includes the following:

- Introduce green waste wheelie bins in residential areas and transition to a food and garden organic waste (FOGO) service.
- Reduce litter and dumped rubbish in public places.
- Ensure waste facilities and infrastructure are designed and maintained to reduce litter

Recommendations:

In order to prevent further dumping of rubbish at this site it is recommended that additional signage be installed with details on the fines associated with dumping. Investigate option to install security cameras at the front of the recycling centre to deter illegal dumping. Continue waste education programs. Collect any reported rubbish dumped at the site in a timely manner to reduce impacts on natural values and deter this behaviour. Council to assess the adequacy of current management operations in relation to capacity and frequency of waste removal.

Council to investigate the relocation of this facility to a more suitable location in the long-term.

7.8. WATER TREATMENT PONDS

The reserve has two wastewater ponds which are used to treat water from the primary school. Although part of the reserve, the area is leased to TasWater and excluded from public access. The ponds are located in a heavily weed infested enclosed area and are not currently maintained. TasWater is in the

¹⁶ Sorell Council (2023)

planning stage to decommission the ponds and will oversee the rehabilitation of this area. A new wastewater system will be required for the school but at this stage the proposed location and size is unknown. TasWater have also indicated that the rehabilitation plan may take up to 3 years to implement.

Recommendations:

- The location of the proposed system should aim to avoid areas of threatened DVC once decommissioned. The proposed plans should be shared with the SBLC and relevant stakeholders.
- The existing ponds should be rehabilitated, that is works should involve, removal of all weed material, pumping out the wastewater, removing any contaminated soil, grading the area back to its original slope and revegetating the area with local native species indicative of the DVC community. The movement of machinery should be restricted to a single access track (utilising the upgraded fire trail where possible) and aim to avoid the TPZs of mature white gums. A Construction Environmental Management Plan (CEMP) should identify the environmental risks associated with the project and outline suitable controls to minimise these risks. As a minimum these should include:
 - manage indirect impacts to adjacent areas of vegetation and fauna habitat.
 - erosion and sediment controls.
 - weed and hygiene measures to control dispersal and the introduction of new weeds.
 - chemical spills and management of any contaminated soil/water on the site.

7.9. STOCKPILE AREA ON OLD FORCETT RD

An informal stockpile area is located on Old Forcett Rd, on the southern side of the reserve entrance road (Plate 26). The stockpiling of material in this area has the potential to impact adjacent areas of vegetation, including mature trees.

Recommendations:

- Council to investigate alternative locations for stockpiling materials.
- In the short-term Council should install some fencing along the edge of the mapped DVC to prevent piles from encroaching into adjacent vegetation and protect tree root zones in this area.



Plate 26: Council stockpile area along Old Forcett Rd

8. COLLABORATION

Effective management of the reserve and implementation of the recommendations outlined in this plan relies on the continued cooperation and collaboration between Sorell Council, SBLC as well as other stakeholders including the Dodges Ferry Fire Service, Dodges Ferry Primary School, TasWater and the Dodges Ferry Football Club.

The existing arrangement where Council depot staff dedicate time on a regular basis to join SBLC during their working bees has highlighted the benefits of such a partnership. This has allowed council staff to gain a comprehensive understanding of the reserve and enhanced their ability to ensure its natural values are protected while undertaking routine maintenance/management works. This arrangement should be continued and will inevitably foster and strengthen relationships between council and SBLC. Over the long-term this arrangement will provide SBLC with a greater capacity to progress through other areas of the reserve by ensuring SBLC can confidently handover management of those sections of the reserve which have been restored to a condition that can be managed by council with minimal input and resources.

Recommendations:

- Continue the existing partnership which allows two depot staff to work with SBLC during their working bees on a regular basis.
- Council to work with volunteers, community groups and schools in organising activities and events, attending when possible and ensuring all OH&S requirements are met, e.g. Weed Buster Week, National Tree Planting Day etc.
- SBLC is to advise council on proposed activities and works within the reserve on an annual basis. An annual works plan should be submitted to council in winter with a subsequent annual meeting to discuss the plan so an agreed works plan is finalised prior to spring works commencing.
- Council is to advise SBLC on any scheduled works in the reserve beyond the general maintenance/management activities outlined in this plan.

9. RISK MANAGEMENT

The Reserve is owned and managed by Sorell Council with risk management carried out under Council's Risk Management policy. The policy should include the following matters in relation to the reserve and its management:

- General Public
- Contractors
- Volunteer Groups
- Events
- Fire management
- Illegal activities in the reserve

While every effort will be made to consult with SBLC regarding the management of the reserve, as the owner and manager Council may undertake works independently as required if SBLC cannot be contacted and/or an agreement cannot be reached.

Recommendations:





- Council will continue to monitor trees within the reserve, in particular adjacent to public walking trails and the Skate Park as part of its ongoing maintenance regime.

- Actions recommended by the arborist should be measured against the possible habitat provided by such trees as well as the impact works will have on nearby flora (refer to Section 2).
- Council contractors are to follow best practice weed management guidelines and adhere to operational recommendations in this plan.
- Council will continue to implement and review the Dodges Ferry Recreation Reserve Bushfire Mitigation Plan 2024-2029
- Council to investigate any illegal activities which are reported.













10. RECOMMENDATIONS AND IMPLEMENTATION PLAN

Table 6 provides a summary of all the recommendations in a consolidated implementation plan with designated priorities and responsibilities. Outcomes achieved by each task in relation to the primary goals of Protect, Enhance and Involve have also been assigned.

Table 6: Implementation Plan

Recommendations		Priority Timing	Responsibility Stakeholder	OUTCOMES ACHIEVED		
				PROTECT	ENHANCE	INVOLVE
1. Land use planning						
1a	Any future updates to the Natural Assets Code overlay should incorporate all areas of bushland within the site, particularly given the presence of a threatened vegetation community as well as habitat for threatened flora and fauna. Consideration should also be given to vegetation on the eastern side of Old Forcett Road which links to larger areas of priority vegetation further east and would assist with maintaining and preserving existing connectivity through this area.	High	Council			
1b	The reserve should be added to the Reserves layer on LIST Map.	High	Council			
1c	Council to consider options to incorporate the areas of Council Reserve located along the road reserve of Old Forcett Rd within the reserve and subsequent management of these areas.	Medium	Council			
2. Flora and fauna management						
2a) Tree and log management						
Council to implement procedures to ensure any hazardous trees and/or limbs which represent a public safety risk and require removal are not chipped/mulched and are placed in bushland areas as valuable habitat. This excludes Vegetation Management Units 6 and 8 which are to be managed in a low fuel state. All fallen logs in VMU 6 and 8 are to be relocated outside these areas. The removal of hazardous trees/limbs should always be considered in the context of the habitat provided. Leave fallen logs on the ground outside of HMAs. The felling of trees and/or limbs should be undertaken without the use of heavy machinery where possible. All such equipment including vehicles should utilise the designated fire trail where possible and avoid the TPZs of mature eucalypts.		Ongoing	Council contractors and			
SBLC to seek funding or assistance from council to maintain nestboxes. Opportunity to collaborate with the local school students on this project.		Medium - 2025	SBLC and Council			

Recommendations		Priority Timing	Responsibility Stakeholder	OUTCOMES ACHIEVED		
				PROTECT	ENHANCE	INVOLVE
2b) Reduce threats to biodiversity						
Council should investigate any reports of tree vandalism and illegal firewood collection within the reserve.		Ongoing	Council	✓		
Install additional signs indicating dog restrictions within the reserve at the northern and southern entrance to the fire trail behind Rantons Road and also update the existing sign to include dogs at the pedestrian access path off Old Forcett Road.		High - 2024	Council	✓		
Continue to educate residents and the broader community about responsible pet ownership and why it's important to exclude dogs and cats within the reserve. This could incorporate information on the threatened Eastern barred bandicoot which is likely to utilise the reserve.		Low - 2027	Council	✓		
Consider installing wildlife cameras within the reserve to determine the extent to which cats are using the reserve. This data should dictate the need to undertake trapping.		Medium – 2025-2026	Council and SBLC	✓		
Engage an ecologist to undertake a Vegetation Condition Assessment (VCA) of the threatened vegetation community (DVC) in order to gain quantitative data on the present condition within the reserve and allow continued assessment over time on the effectiveness of proposed works outlined in this plan.		High – 2024-2025	Council	✓	✓	
3. Manage cultural values and collaborate with the Aboriginal community						
3a	In the event that an Aboriginal artefact is inadvertently uncovered, an Unanticipated Discovery Plan should be implemented immediately and the items reported to Aboriginal Heritage Tasmania for advice.	Ongoing	Council, contractors and SBLC	✓		
3b	Sorell Council, in consultation with relevant stakeholders, engage a consultant to undertake an Aboriginal Heritage Survey of the reserve to identify significant features and ensure inclusion into future management decisions.	Low – 2027-2028	Council	✓		

Recommendations		Priority Timing	Responsibility Stakeholder	OUTCOMES ACHIEVED		
				PROTECT	ENHANCE	INVOLVE
3c	Investigate opportunities to incorporate cultural burning practices within the reserve. This should include consultation and engagement with the Aboriginal community to facilitate cultural burns and training workshops, particularly in areas of native grassland. Cultural burning identified as a key management tool to maintain and enhance species richness in native grasslands and woodlands.	Low – 2027-2028	Council			
4. Enhance landscape connectivity						
4a	Maintain and improve connectivity between the reserve and native bushland to the east. <ul style="list-style-type: none"> Council to consult with relevant stakeholders to investigate revegetation options within the road reserve along Old Forcett Road. Council to work with private landowners located between the reserve and the larger tract of bushland to the east to encourage the conservation of existing vegetation and future revegetation projects through this area. Incentives may include a rate rebate scheme or assistance with applying for the Land for Wildlife program. 	Low priority	Council and private landholders			
4b	Reduce the speed limit along Old Forcett Road and install wildlife crossing signs to reduce roadkill.	High priority – in progress	Council			
4c	Investigate option to install wildlife friendly fencing (three strand plain wire fence) along part or all of the eastern edge of the reserve adjacent to Old Forcett Road.	Low priority	Council			
5. Weed management						
5a	Council (in collaboration with SBLC) to target isolated occurrences of declared and invasive environmental weeds in areas of native bushland. SBLC to undertake follow-up maintenance in these areas.	High 2024-2025	Council, SBLC and contractors			
5b	Control of boneseed infestations should be undertaken in a staged manner as resources dictate and should be progressed from top of the slope and catchment to	Medium 2025-2026	Council, SBLC and contractors			

Recommendations		Priority Timing	Responsibility Stakeholder	OUTCOMES ACHIEVED		
				PROTECT	ENHANCE	INVOLVE
	downslope/downstream areas. Contractors should be engaged to undertake primary weed control with assistance from SBLC for follow-up maintenance.					
5c	Follow-up hand weeding of post burn site every 6-12 months.	High ongoing	SBLC		✓	
5d	Undertake walk through of Flora Park, HMA and burnt DVC to control declared and invasive environmental weeds every 6-12 months.	Medium ongoing	SBLC	✓	✓	
5e	Council staff, contractors and volunteers to follow best practice weed management guidelines outlined in this plan.	Ongoing	Council, SBLC and contractors	✓	✓	
5f	A weed management record is to be completed following all herbicide use onsite by contractors, staff and volunteers.	Ongoing	Council, SBLC and contractors	✓		
5g	Weed control methods outlined in Appendix C of this plan should be consulted.	Ongoing	Council, SBLC and contractors	✓		
5h	Council and SBLC to investigate funding opportunities and grants available to facilitate weed control works.	Ongoing	Council and SBLC	✓	✓	✓
5i	Council in collaboration with SBLC to undertake monitoring of weed control works after 5 years.	Low ongoing	Council and SBLC	✓	✓	✓
6. Climate Change						
6a	Council to provide water to help establish revegetated areas.	As required	Council		✓	
6b	Council will continue to monitor and maintain stormwater infrastructure continue, including the waterway through the reserve which serves to drain flood waters from upstream residential areas.	Ongoing	Council	✓		

Recommendations		Priority Timing	Responsibility Stakeholder	OUTCOMES ACHIEVED		
				PROTECT	ENHANCE	INVOLVE
6c	Further monitoring is required to determine if trees on the site are affected by ginger syndrome. Research is currently being undertaken to use genetic traits from dry-zone white gums for restoration projects in an aim to climate-proof this species. Future revegetation projects involving white gums should consider this.	Low – 2027-2028	SBLC	✓		
6d	Council to assess the coastal refugia overlay and determine whether resources are available to protect areas of saltmarsh in the reserve from shrub/weed invasion.	Low - 2027-2028		✓		
7. Fire Management						
7a	Council will continue to implement and review the Dodges Ferry Recreation Reserve Bushfire Mitigation Plan 2024-2029. This includes fuel management in VMUs 6 and 8, upgrading and maintaining the fire trail and monitoring.	High ongoing	Sorell Council's East Coast Management Committee Representative or their delegate	✓		
7b	SBLC, with assistance from Council, to manage VMU 7 (Flora Park) in accordance with the requirements of the BMP.	High ongoing	SBLC	✓		
7c	All planned burns should be undertaken in consultation with SBLC and key stakeholders. Councils NRM officer is to be notified on any planned burns in advance. Pre and post burn weed control as well as fauna habitat measures outlined in this plan are to be incorporated into these operations.	High – as required.	Sorell Council's East Coast Management Committee Representative or their delegate	✓		
7d	Council to facilitate removal of all rubbish and garden waste along the back of residences and inform residents regarding Council's obligations to manage this HMA in a low fuel state.	High - 2024	Council	✓	✓	

Recommendations		Priority Timing	Responsibility Stakeholder	OUTCOMES ACHIEVED		
				PROTECT	ENHANCE	INVOLVE
7e	Council to undertake an annual community engagement session at the reserve targeting community members, volunteer fire brigades and Landcare groups during each spring prior to the commencement of the bushfire season.	Annually in spring	Council	✓		✓
8. Infrastructure and Access Management						
8a) Shelter and seating						
Council to investigate upgrading the existing shelter to improve aesthetics and provide an inviting outdoor classroom space for school groups and other community groups to utilise. An example could be a circular style structure made with natural materials. Alternatively, the existing structure could be updated with mosaics or a mural/artwork, potential to collaborate with primary school.		Low - 2026	Council, SBLC, Dodges Ferry primary school		✓	✓
Council to investigate installing some picnic tables/seating within the broader Flora Park area in consultation with SBLC.		Low - 2027	Council and SBLC		✓	
8b) Signs						
Council and the community to investigate funding to prepare a reserve map showing the tracks and recreation zones.		Medium - 2025	Council		✓	
The diversity within the Flora Park and the broader reserve should be promoted with the installation of interpretative signs. This could also extend to plant species tags along a formalised circular track within the Flora Park area.		High – 2024-2025	Council and SBLC			✓
Council to upgrade existing signs and install additional signs to inform people of prohibited activities/animals e.g. cats, motorbikes, horses, camping etc at all reserve entrances, including pedestrian access at both ends of the fire trail.		High - 2024	Council	✓		

Recommendations	Priority Timing	Responsibility Stakeholder	OUTCOMES ACHIEVED		
			PROTECT	ENHANCE	INVOLVE
Council to consider installing a larger or more visible sign along Old Forcett Road on the way into Dodges Ferry to highlight the location of the reserve and increase community/visitor awareness of the reserve.	High – 2024-2025	Council			✓
8c) Tracks and Access points					
The number of existing tracks and access points should be audited and consolidated with those not required revegetated. Circular tracks of varying lengths should be encouraged. Tracks should be kept as natural as possible, particularly through bushland areas. Unnecessary vehicle gates should be removed and pedestrian access points consolidated.	Medium – 2026	Council	✓		
Council to continue maintenance of walking trails with an annual slashing of track edges with a brush cutter in late winter or at the end of summer. Slashing along informal tracks to be kept to a minimal width (<1m).	Ongoing	Council and contractors	✓		✓
Council to consider the design, location and investigate funding for a suitable culvert creek crossing for pedestrians.	Low - 2027	Council	✓		
Council will work with volunteers to regularly assess trails for risks and hazards.	Ongoing	Council and SBLC	✓		
Remove hazardous building rubble and reo along track just east of the WTPs.	High - 2024	Council	✓		
8d) Skate Park					
Council to investigate options regarding the drainage from the skate park so as not to impact on the adjacent waterway.	High – 2024-2025	Council	✓		
Council to investigate the closure of the vehicle track which leads to the skate park.	High 2024-2025	Council	✓		

Recommendations	Priority Timing	Responsibility Stakeholder	OUTCOMES ACHIEVED		
			PROTECT	ENHANCE	INVOLVE
Council to investigate alternative more suitable locations for the skate park in the long-term.	Low – 2027-2028	Council, youth groups	✓		
8e) Dogs and the dog exercise area					
Council should continue to maintain this area as part of their asset management operations and promote the facility on its website as well as on social media and at relevant community events.	Ongoing	Council	✓		✓
Council to consider options of allowing dogs on lead along certain tracks of the reserve (eg: the fire trail) to allow locals to walk their dogs to the dog exercise area.	High – 2024-2025	Council	✓		✓
Install signage at the exercise park to notify dog owners of the restrictions relating to dogs in the reserve.	High – 2024-2025	Council	✓		
Seek input from the community on how best to improve/manage the facility, for example: the installation of dog play equipment (such as ramps), the need for shade trees or more seating etc.	Low – 2027-2028	Council			✓
8f) Recycling depot					
In order to prevent further dumping of rubbish at this site it is recommended that additional signage be installed with details on the fines associated with dumping. Investigate option to install security cameras at the front of the recycling centre to deter illegal dumping. Continue waste education programs. Collect any reported rubbish dumped at the site in a timely manner to reduce impacts on natural values and deter this behaviour. Council to assess the adequacy of current management operations in relation to capacity and frequency of waste removal.	High – 2024-2025	Council	✓		
Council to continue to investigate alternative more suitable locations for this facility.	High – 2024-2025	Council	✓		

Recommendations		Priority Timing	Responsibility Stakeholder	OUTCOMES ACHIEVED		
				PROTECT	ENHANCE	INVOLVE
8g) Waste water ponds						
<p>The location of the proposed system should aim to avoid areas of threatened DVC where possible. The proposed plans should be shared with the SBLC and relevant stakeholders.</p> <p>The existing ponds should be rehabilitated, that is works should involve, removal of all weed material, pumping out the wastewater, removing any contaminated soil, grading the area back to its original slope and revegetating the area with local native species indicative of the DVC community. The movement of machinery should be restricted to a single access track (utilising the upgraded fire trail where possible) and aim to avoid the TPZs of mature white gums. A Construction Environmental Management Plan (CEMP) should identify the environmental risks associated with the project and outline suitable controls to minimise these risks. As a minimum these should include:</p> <ul style="list-style-type: none">• manage indirect impacts to adjacent areas of vegetation and fauna habitat.• erosion and sediment controls.• weed and hygiene measures to control dispersal and the introduction of new weeds.• chemical spills and management of any contaminated soil/water on the site.		Next 3 years	TasWater, Council and key stakeholders			
Stockpile area						
Council to investigate an alternative location more suitable for this stockpile area which will not impact on natural values.		Low - 2027	Council and key stakeholders			
Council to install fencing along the edge of the stockpile area so as to reduce impacts on adjacent trees and vegetation.		High – 2024-2025	Council			
9. Collaboration and community engagement						
9a	Continue the existing partnership which allows two depot staff to work with SBLC during their working bees on a regular basis.	Ongoing	Council staff and SBLC			

Recommendations		Priority Timing	Responsibility Stakeholder	OUTCOMES ACHIEVED		
				PROTECT	ENHANCE	INVOLVE
9b	Continue wildlife monitoring through the use of motion detector cameras. Opportunity to collaborate with local schools. Use data to inform management practices.	Low - 2027	Council and key stakeholders	✓	✓	✓
9c	Council to work with volunteers, community groups and schools in organising activities and events, attending when possible and ensuring all OH&S requirements are met, e.g. Weed Buster Week, National Tree Planting Day etc.	Ongoing	Council and key stakeholders	✓	✓	✓
9d	SBLC is to advise council on proposed activities and works within the reserve on an annual basis in winter prior to works commencing in spring.	Ongoing/ Annual	SBLC			✓
9e	Council is to advise SBLC on any scheduled works in the reserve beyond the general maintenance/management activities outlined in this plan.	Ongoing	Council			✓
9f	Council to continue to maintain and supply, when necessary, the equipment in its Landcare trailer and offer it for Community Group's use.	Ongoing	Council	✓	✓	✓

11. MONITORING, REPORTING AND REVIEW

The effectiveness of the RMP will be reviewed after 5 years to ensure its priorities are responsive to the changing needs of the local community and the environment. This review will inform the development of any required updates to the RMP recommendations and the implementation plan. The review will assess the extent to which the RMP has achieved its goals through an analysis of the implementation plans and identification of which actions have been achieved. Established reporting processes will document the review and the implementation plan will be updated accordingly. The following aspects will be considered as part of the review:

1. Review of recommendations

- a) Are the recommendations still relevant?
- b) Are the priorities identified in the implementation table still appropriate, or should they be modified?

2. Progress and effect

- a) Establish and monitor performance indicators for management of weeds, fauna habitat trees, vegetation condition, species diversity, revegetation/regeneration success etc.
- b) Undertake community consultation regarding success of the RMP implementation and performance indicators.
- c) Has sufficient funding been secured?
- d) Have funded projects contributed to the RMP goals?

3. Revision

- a) Have alternate priorities become apparent since the RMP was endorsed?
- b) Has new research or opportunities emerged which should be incorporated into the review?
- c) What limitations or learnings have been identified over the past 5 years?

4. Collaboration

- a) Have all relevant stakeholders been engaged and heard?
- b) Is the Aboriginal community being adequately represented and consulted?
- c) Opportunities for further collaboration.

Sorell Council will be responsible for governing and supporting implementation as well as reporting on outcomes through established processes.

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APPENDIX A – STAKEHOLDER CONSULTATION

Feedback received at the community meeting on 10th November 2023:

- Rehabilitate tracks after TasWater Works
- Pine trees on school grounds
- Tree Lucerne cut down on easement behind Rantons Street Houses
- Boneseed encroachment to all areas
- No excavator in Flora Park
- Dead trees cut up and retained as logs rather than chipped and taken away
- No heavy machinery unless emergency
- Define TPZ everything
- Previous use of 8 tonne excavator with side arm slasher to reduce fuel loads in HMA. This was poorly timed and no preparation undertaken prior.
- The 2021 planned burn was too intense and no preparation was undertaken prior to the fire.
- Unable to maintain nest boxes installed due to lack of resources.
- Bitou invasion is consequence of poor management by council.
- Lack of communication between council and SBLC
- Lack of NRM training within councils operational staff

Feedback received online regarding Dodges Ferry Recreation Reserve:

- That Sorell Council works with SBLC to protect and enhance this reserve. That SBLC is informed of proposed works in the reserve BEFORE they occur. For example, if the recent cleared area of boneseed is to be sprayed can Council please let us know. We have groups of volunteers (including children) to protect. We also conduct trials of seed broadcasting in certain areas and do not want our seeds killed.
- Maintain the present areas of high value flora (eg around the skate bowl) with hand-weeding.
- Exclude heavy machinery from the park. Heavy machinery under the canopy of trees causes severe stress & death.
- Any trees that have to be removed should be felled without heavy machinery. The logs should then be left on the ground to become crucial habitat. They should not be mulched or taken away.
- The Fire Hazard Reduction Zone should be managed with brushcutters in autumn, and in certain areas of grassy weeds also in spring.
- The severe infestations of Boneseed on the north side of the school hill should be removed in a slow and strategic manner so volunteers can achieve the follow-up hand-weeding. The Boneseed should be cut and pashed from the top of the hill down (because seed rolls downhill), and from the best areas to the worst (so any remaining native vegetation in that patch has a chance to spread). Burned and bare areas should be broadcast THE NEXT DAY with appropriate grass seed eg *Poa lab* & *Themeda triandra*. Many follow-up hand-weeding sessions will be required. Any volunteer native species should be protected. Replanting of *Bursaria spinosa*, *Banksia marginata* and *Allocasuarina littoralis* may be required if seedbank is insufficient.
- My vision sees the Rec Reserve renamed to Dodges Ferry Flora Park.
- It will be twelve hectares of healthy coastal heathland, full of local wildflowers and native animals.
- Most of these reserves are of the listed Threatened vegetation community *Eucalyptus viminalis* coastal woodland and thus are protected from removal by law. The original management plans written for these areas by Jamie Kirkpatrick for Southern Beaches Landcare and given to Sorell Council are the best guidelines for their management and contain important and complete species lists for each reserve. Additionally, many threatened and local wildlife live in these reserves and protection from disturbance is important for their success in breeding. The

following link explains how these Threatened communities desperate survival is linked to the reservation and protection of these small reserves.

- <https://www.abc.net.au/listen/programs/ockhamsrazor/big-conservation-small-spaces/103019030>
-
- An excess of bone seed proliferates the reserve creating a need for effective control.
-
- Dodges Ferry Recreation Reserve is vital to retain an unbuilt area for future generations to enjoy on the main route into Dodges Ferry. It gives the school a special rural/ natural backdrop.
 - An upgraded walking trail would be nice,
 - The skate park is well utilised and the dog park is wonderful for those people who have physical disabilities or a dog that is not so confident off lead.
-
- Thinning of feral species including pines trees
 - Fire reduction risks
 - Clearance beside houses beside reserves of weeds to help fire hazard.
-

Additional feedback received following exhibition of the draft report in July 2024:

- In reference to the "unnamed waterway". The waterway drains floodwaters from residential properties located in Centenary Drive and Okines Road. The volume of water drained is significant (*) and reduces flood risk to housing infrastructure. Therefore it is important the drainage easements running through Dodges Ferry Reserve have a maintenance schedule. These easements are currently overgrown.* several mega litres pass through the unnamed waterway after a rainfall event of around 40mm / In a 24 hour period.
- Dodges Ferry Recreation Reserve is vital to retain an unbuilt area for future generations to enjoy on the main route into Dodges Ferry. It gives the school a special rural/ natural backdrop. An upgraded walking trail would be nice. The skate park is well utilised and the dog park is wonderful for those people who have physical disabilities or a dog that is not so confident off lead.
- Thinning of feral species including pines trees. Fire reduction risks. Bird observation hide at blue lagoon. Clearance beside houses beside reserves of weeds to help fire hazard.

APPENDIX B - VASCULAR FLORA SPECIES LIST

Species list - project: SOR007

Status codes:

ORIGIN

i - introduced
d - declared weed WM Act
en - endemic to Tasmania
t - within Australia, occurs only in Tas.

NATIONAL SCHEDULE

EPBC Act 1999
CR - critically endangered
EN - endangered
VU - vulnerable

STATE SCHEDULE

TSP Act 1995
e - endangered
v - vulnerable
r - rare

Sites:

5	Dodges Ferry Rec Reserve – ASS/ARS - E550881, N5256050	3/11/2023	Kelly Simpson
6	Dodges Ferry Rec Reserve - DVC - E, N	3/11/2023	Kelly Simpson
7	Dodges Ferry Rec Reserve - FRG - E550896, N5256009	3/11/2023	Kelly Simpson
8	Dodges Ferry Rec Reserve – FRG (grasses) - E551028, N5256138	23/11/2023	Kelly Simpson

Site	Name	Common name	Status
	DICOTYLEDONAE		
	AIZOACEAE		
6 7	<i>Carpobrotus edulis subsp. edulis</i>	yellow pigface	i
5 6	<i>Carpobrotus rossii</i>	native pigface	
5	<i>Disphyma crassifolium subsp. clavellatum</i>	roundleaf pigface	
6	<i>Tetragonia implexicoma</i>	bower spinach	
	ASTERACEAE		
6	<i>Cassinia aculeata subsp. aculeata</i>	dollybush	
6 7	<i>Chrysanthemoides monilifera subsp. monilifera</i>	boneseed	d
6	<i>Cirsium arvense var. arvense</i>	Californian thistle	d
5 7 8	<i>Cirsium vulgare</i>	spear thistle	i
5	<i>Cotula coronopifolia</i>	water buttons	i
6	<i>Dimorphotheca fruticosa</i>	trailing daisy	i
6 7	<i>Gazania linearis</i>	tufted gazania	i
6	<i>Hypochaeris glabra</i>	smooth catsear	i
5 6 8	<i>Hypochaeris radicata</i>	rough catsear	i
6	<i>Lagenophora stipitata</i>	blue bottledaisy	
6	<i>Senecio quadridentatus</i>	cotton fireweed	
8	<i>Senecio sp.</i>	groundsel	
5	<i>Sonchus sp.</i>	sowthistle	i
	BORAGINACEAE		
6	<i>Cynoglossum australe</i>	coast houndstongue	
	CACTACEAE		
7	<i>Opuntia stricta</i>	prickly pear	d
	CAMPANULACEAE		
6	<i>Wahlenbergia sp.</i>	bluebell	
	CASUARINACEAE		
6	<i>Allocasuarina littoralis</i>	black sheoak	

CHENOPODIACEAE		
5	<i>Sarcocornia quinqueflora</i>	beaded glasswort
CONVOLVULACEAE		
6	<i>Dichondra repens</i>	kidneyweed
DILLENIACEAE		
6	<i>Hibbertia sp.</i>	guinea-flower
ERICACEAE		
6	<i>Epacris impressa</i>	common heath
6	<i>Lissanthe strigosa subsp. subulata</i>	peachberry heath
6	<i>Styphelia ericoides</i>	pink beardheath
6	<i>Styphelia humifusa</i>	native cranberry
EUPHORBIACEAE		
6	<i>Amperea xiphoclada var. xiphoclada</i>	broom spurge
FABACEAE		
6 7	<i>Acacia dealbata subsp. dealbata</i>	silver wattle
6	<i>Acacia howittii</i>	howitt's wattle
7	<i>Acacia verticillata</i>	prickly moses
6	<i>Acacia verticillata subsp. verticillata</i>	prickly moses
6	<i>Aotus ericoides</i>	golden pea
6	<i>Bossiaea cinerea</i>	showy bossiaea
6	<i>Bossiaea prostrata</i>	creeping bossiaea
6 7	<i>Chamaecytisus palmensis</i>	tree lucerne
7	<i>Dipogon lignosus</i>	dolichos pea
6 7	<i>Genista monspessulana</i>	canary broom
6	<i>Indigofera australis subsp. australis</i>	native indigo
6	<i>Kennedia prostrata</i>	running postman
6	<i>Pultenaea sp.</i>	bushpea
8	<i>Vicia sp.</i>	vetch, tare
GENTIANACEAE		
6 8	<i>Centaurium erythraea</i>	common centaury
GERANIACEAE		
6	<i>Geranium potentilloides var. potentilloides</i>	mountain cranesbill
GOODENIACEAE		
6	<i>Goodenia lanata</i>	trailing native-primrose
HALORAGACEAE		
6	<i>Gonocarpus teucrioides</i>	forest raspwort
MYRTACEAE		
6	<i>Eucalyptus amygdalina</i>	black peppermint
6 7	<i>Eucalyptus viminalis subsp. viminalis</i>	white gum
OXALIDACEAE		
6 8	<i>Oxalis perennans</i>	grassland woodsorrel
PITTOSPORACEAE		
6 7	<i>Bursaria spinosa subsp. spinosa</i>	prickly box

PLANTAGINACEAE			
5	<i>Plantago coronopus</i>	buckshorn plantain	i
6	<i>Veronica gracilis</i>	slender speedwell	
POLYGONACEAE			
8	<i>Acetosella vulgaris</i>	sheep sorrel	i
PRIMULACEAE			
6 8	<i>Lysimachia arvensis</i>	scarlet pimpernel	i
5	<i>Samolus repens</i> var. <i>repens</i>	creeping brookweed	
PROTEACEAE			
6 7	<i>Banksia marginata</i>	silver banksia	
RHAMNACEAE			
6	<i>Pomaderris apetala</i>	common dogwood	
ROSACEAE			
6 8	<i>Acaena novae-zelandiae</i>	common buzzy	
7 8	<i>Rosa rubiginosa</i>	sweet briar	i
7 8	<i>Rubus fruticosus</i>	blackberry	d
SANTALACEAE			
6	<i>Exocarpos cupressiformis</i>	common native-cherry	
SAPINDACEAE			
6 7	<i>Dodonaea viscosa</i> subsp. <i>spatulata</i>	broadleaf hopbush	
SOLANACEAE			
6 7	<i>Lycium ferocissimum</i>	african boxthorn	d
STYLIDIACEAE			
6	<i>Stylidium</i> sp.	triggerplant	
THYMELAEACEAE			
6	<i>Pimelea humilis</i>	dwarf riceflower	
GYMNOSPERMAE			
PINACEAE			
6	<i>Pinus radiata</i>	radiata pine	i
MONOCOTYLEDONAE			
AGAPANTHACEAE			
7	<i>Agapanthus praecox</i> subsp. <i>orientalis</i>	agapanthus	i
ASPARAGACEAE			
6 7	<i>Lomandra longifolia</i>	sagg	
ASPHODELACEAE			
6	<i>Bulbine glauca</i>	bluish bulbine-lily	

CYPERACEAE

6	<i>Carex appressa</i>	tall sedge
6	<i>Carex tereticaulis</i>	hollow sedge
8	<i>Ficinia nodosa</i>	knobby clubsedge
6 7	<i>Lepidosperma concavum</i>	sand sword sedge
6	<i>Lepidosperma laterale</i>	variable sword sedge

HEMEROCALLIDACEAE

6	<i>Dianella revoluta</i> var. <i>revoluta</i>	spreading flax-lily
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JUNCACEAE

5 7	<i>Juncus kraussii</i> subsp. <i>australiensis</i>	sea rush
8	<i>Juncus pallidus</i>	pale rush
6 8	<i>Juncus</i> sp.	Rush

ORCHIDACEAE

6	<i>Diuris sulphurea</i>	tiger orchid
6	<i>Thelymitra arenaria</i>	forest sun-orchid
6	<i>Thelymitra pauciflora</i>	slender sun-orchid

POACEAE

6	<i>Aira caryophyllaea</i>	silvery hairgrass	i
6	<i>Austrostipa</i> sp.	speargrass	
6	<i>Briza minor</i>	lesser quaking-grass	i
5 6 7 8	<i>Dactylis glomerata</i>	cocksfoot	i
6	<i>Dichelachne</i> sp.	plume-grass	
5	<i>Distichlis distichophylla</i>	australian saltgrass	
6	<i>Ehrharta erecta</i>	panic veldtgrass	i
6	<i>Lagurus ovatus</i>	haretail grass	i
8	<i>Lolium</i> sp.	ryegrass	i
6	<i>Microlaena stipoides</i>	weeping grass	
5 6	<i>Phragmites australis</i>	southern reed	
5	<i>Poa annua</i>	winter grass	i
6 8	<i>Poa labillardierei</i>	silver tussockgrass	
6	<i>Poa</i> sp.	poa	
6	<i>Rytidosperma</i> sp.	wallabygrass	
6	<i>Themeda triandra</i>	kangaroo grass	

RESTIONACEAE

6	<i>Leptocarpus tenax</i>	slender twinerush
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PTERIDOPHYTA**DENNSTAEDTIACEAE**

6 7	<i>Pteridium esculentum</i> subsp. <i>esculentum</i>	bracken
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DICKSONIACEAE

6	<i>Dicksonia antarctica</i>	soft treefern
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APPENDIX C – Priority Weed Species and Recommended Control Techniques

Species	Status	Profile	Control Options
<u>DECLARED WEEDS</u>			
<i>Chrysanthemoides monilifera</i> Boneseed	Declared (Zone B) WONS	<p>Lifecycle: Perennial 10 to 20 years</p> <p>Reproduction: Seed spread by birds and animals that eat the fruit; water, gravity, humans, soil waste.</p> <p>Flowering: Late winter to early spring</p> <p>First seed produced: second year (occasionally first year)</p> <p>Seed production and viability: Up to 50,000 in one season, 60% viability, down to 25% after 3 years.</p> <p>Seed survival in soil: 10 to 15 years</p>	<p>Hand removal: seedlings less than 900mm tall easily removed especially when soil is moist.</p> <p>Brush-cutting: Not recommended</p> <p>Cut and paste: Use undiluted Glyphosate 360 ml/L or other approved herbicide. Cut the stump as close to the ground as possible and dab within 15 seconds.</p> <p>Foliar spray: Not recommended for volunteers or where off-target damage may occur.</p> <p>Timing of herbicide control: Anytime except mid-winter.</p>
<i>Lycium ferocissimum</i> African boxthorn	Declared (Zone B) WONS	<p>Lifecycle: Perennial</p> <p>Reproduction: Seed spread by birds and animals that eat the fruit.</p> <p>Flowering: Spring and summer</p> <p>First seed set: second year</p> <p>Seed production: Each fruit can have more than 20 seeds.</p> <p>Seed survival in soil: No evidence that seeds are long-lived in the soil.</p>	<p>Hand removal: seedlings</p> <p>Cut and paste: Use undiluted Glyphosate 360 ml/L or other approved herbicide. Cut the stump as close to the ground as possible and dab within 15 seconds.</p> <p>Frill/Drill and fill: Use undiluted Glyphosate 360 ml/L or other approved herbicide. Frill around the trunk or drill angled holes around the trunk ensuring no gaps.</p>
<i>Genista monspessulana</i> Montpellier broom	Declared (Zone B)	<p>Lifecycle: Perennial</p> <p>Reproduction: Seed</p> <p>Flowering: late winter to spring</p> <p>Seed set: second or third year</p> <p>Seed production: High, even for young plants</p>	<p>Hand removal: seedlings ensuring all of the tap root is removed</p> <p>Cut and paste: Use undiluted Glyphosate 360 ml/L or other approved herbicide. Cut the stump as close to the ground as possible and dab within 15 seconds.</p> <p>Foliar spray: Not recommended for volunteers</p> <p>Timing of herbicide control: September to April</p>

Species	Status	Profile	Control Options
		Seed survival in soil: Prolonged survival	
<i>Opuntia</i> sp. Prickly pear	Declared WONS	<p>Lifecycle: Perennial</p> <p>Reproduction: Seed, spread via water, people, animals and vegetatively via root suckers and root fragments.</p> <p>Flowering: summer</p> <p>Seed set: fruiting in late summer</p> <p>Seed production: High</p> <p>Seed survival in soil: Prolonged survival due to hard seed coat</p>	<p>Hand removal: Ensuring all segments and root system are removed. Dispose of to appropriate landfill or by burning or deep burial under 1m topsoil.</p> <p>Chemical control: Opuntia species respond well to stem/ pad injection. Drill a 1cm hole about 10cm deep into the base of the major stems and filling it with an approved herbicide.</p> <p>Foliar spray: Not recommended for volunteers</p> <p>Timing of herbicide control: when actively growing</p>
<i>Rubus fruticosus</i> agg blackberry	Declared (Zone B) WONS	<p>Lifecycle: Perennial</p> <p>Reproduction: Seed, spread via water, people, animals and vegetatively through dumping etc.</p> <p>Flowering: spring through to summer</p> <p>Seed set: not all species produce fruit and seed but those that do can produce numerous seeds.</p> <p>Seed production: High</p> <p>Seed survival in soil: Prolonged survival due to hard seed coat</p>	<p>Hand removal: Small seedlings can be dug out, basal stump of larger plants can be dug out with a mattock. Do not leave canes on the ground.</p> <p>Brush-cutting: In dense thickets, repeated brush-cutting will halve the spread. In many situations a single slash, followed by herbicide control of the resprouting canes is the most appropriate method.</p> <p>Cut and paste: Use undiluted Glyphosate 360 ml/L or other approved herbicide. Cut the canes away and expose the sub-surface basal stump. Scrape away the skin of the stump and dab within 15 seconds.</p> <p>Foliar spray: not recommended for volunteers</p> <p>Ideal control time: September to February before fruit set.</p>
<i>Cirsium arvense</i> Californian thistle	Declared (zone B)	<p>Lifecycle: Perennial (root remains over winter)</p> <p>Reproduction: vegetatively and via seed (if both male and female plants are present), wind can spread it over 1km.</p>	<p>Hand removal: not recommended as the long tap root is difficult to remove and will regrow.</p> <p>Chemical: cut and paste with appropriate herbicide.</p>

Species	Status	Profile	Control Options
		Flowering: summer Seed set: Late summer (if both male and female plants are present) Seed production: High Seed survival in soil: unknown	Foliar spray: not recommended for volunteers. Timing: For newly establishing seedlings, treatment should be applied as soon as germination is complete. For rosettes that have regrown from root stock, spray as soon as the first flowers are seen in an infestation, usually between December and January.
<u>OTHER ENVIRONMENTAL WEEDS</u>			
<i>Chamaecytisus palmensis</i> Tree lucerne	Listed as an environmental weed under Sorell Weed Strategy	Lifecycle: Perennial (to 10 years) Reproduction: seed spread by water, humans. Mass germination following fire and soil disturbance. Flowering: spring to summer Seed set: Autumn to late winter Seed production: large quantities of seed Seed survival in soil: persistent seed bank reported	Hand removal: Seedlings less than 900mm tall easily removed especially when soil is moist. Cut and Paste: Small plants to 3m tall, use undiluted Glyphosate 360 ml/L or other approved herbicide. Cut the stump as close to the ground as possible and dab within 15 seconds. Frill/drill and fill: Larger plants can be frilled around trunk or drilled and treated with herbicide. Timing: any time
<i>Gazania</i> sp. Gazania	Listed as an environmental weed under Sorell Weed Strategy	Lifecycle: Perennial herb Reproduction: seed via wind, water and garden dumping Flowering: spring to summer Seed set: Summer to Autumn Seed production: High Seed survival in soil: persistent	Hand removal: hand pull or dig out Foliar spray: not recommended for volunteers
<i>Coprosma repens</i> Mirror bush	Listed as an environmental weed under Sorell Weed Strategy	Lifecycle: Perennial (10+ years) Reproduction: seed, fleshy berries (spread by birds) and vegetative rooting of lower branches.	Hand removal: Plants less than 300 mm tall easily removed especially when soil is moist. Cut and Paste: Use undiluted Glyphosate 360 ml/L or other approved herbicide. Cut the stump as close to the ground as

Species	Status	Profile	Control Options
		Flowering: spring to summer Seed set: Late summer to Autumn Seed production: Unknown Seed survival in soil: unknown	possible and dab within 15 seconds. Timing: all year round.
<i>Delairea odorata</i> Cape ivy	Listed as an environmental weed under Sorell Weed Strategy	Lifecycle: Perennial Reproduction: vegetatively via root stem fragments and via seed (wind, birds) Flowering: spring Seed set: Summer Seed production: Unknown Seed survival in soil: unknown	Cut off stems and leave drapped over native vegetation to die; dig out and remove all roots and stems in contact with the soil, treat any reshoots. Foliar spray: not recommended for volunteers
<i>Cotoneaster</i> spp. cotoneaster	Listed as an environmental weed under Sorell Weed Strategy	Lifecycle: Perennial, life span 10+years Reproduction: seed, fleshy berried (spread by birds) Flowering: spring to summer Seed set: late summer to late winter Seed production: long-lived Seed survival in soil: unknown	Hand removal: Plants less than 300mm tall easily removed especially when soil is moist. Cut and Paste: Use undiluted Glyphosate 360 ml/L or other approved herbicide. Cut the stump as close to the ground as possible and dab within 15 seconds. Frill/drill and fill: Larger plants can be frilled around trunk or drilled and treated with herbicide. Timing: all year round

APPENDIX D - WEED MANAGEMENT RECORD

Date:	
Project:	
Location:	
Name:	

For herbicide spray:

Weather:	Clear, Sunny	Light Cloud	Heavy Cloud	Showers	Rain
Wind:	Nil	Light	Moderate	Strong	Gale
	Direction:		Variability:		
Temp (°C):	Estimate:		Other:		
Weed Species Targeted:	Growth Stage:	Control method	Numbers / Area / Density:		
Notes:					
Herbicide Name:	1.	2.	3.		
Active constituents and strength:					
Mix/rate:					
Application method:					
Amount applied:					
Area covered:		Time taken:			
Signed (operator):					