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RESERVE ACTIVITY PLAN 2011-2016



Rosny-Montagu Bay Coastal Reserve

**Advice prepared by Tasflora
for Clarence City Council
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1 BACKGROUND

The Rosny-Montagu Bay Coastal Reserve (the Reserve) is located on the eastern shore in Hobart, and encompasses the area of coastal reserve between Montagu Bay and Kangaroo Bay. The Reserve is valued by locals for its natural environment, recreational values and cultural heritage. It is currently managed by Clarence City Council (Council).

A management plan covering the Reserve was prepared for the Rosny-Montagu Bay Landcare and Coastcare Group in 1998 (de Gryse 1998). This plan identified the Reserve's values, identified management issues and proposed a five year action plan for on ground management activities. A further Reserve Activity Plan was developed for the Reserve by Council in 2003, and included recommendations for weed control, revegetation activities and track maintenance. Tasflora has been engaged by Council to review and update the 2003 plan, including the development of an implementation plan identifying immediate and ongoing management priorities for the Reserve to be undertaken during the period 2011-2016.

The recommendations contained within this *Rosny-Montagu Bay Coastal Reserve Activity Plan* are intended to provide guidance for on-ground activities that can be implemented by Council and/or volunteers (eg Rosny-Montagu Bay Landcare and Coastcare Group, the Sheoak Point Land and Coastcare Group, local residents). It is acknowledged that it may not be possible to undertake all recommended activities due to resource constraints; rather the intent of this plan is to provide a guide to management concepts and outcomes that could be implemented if sufficient funding can be obtained.

2 OBJECTIVES

The objectives of the *Rosny-Montagu Bay Coastal Reserve Activity Plan* are to:

- ensure the Reserve is sustainably managed to preserve and enhance its natural, cultural and social values;
- identify priority management activities to be undertaken within the Reserve by Council and/or volunteer groups as resources become available during the period 2011-2016; and
- encourage community engagement through raising awareness of the Reserve's values and encourage participation in activities to minimise threats to these values.

3 SITE DESCRIPTION

The area covered by the *Rosny-Montagu Bay Coastal Reserve Activity Plan* is illustrated in Figure 1. The Reserve is zoned as Recreation under the *Clarence Planning Scheme 2007* (Clarence City Council 2011), and is comprised of remnant native vegetation (refer Figure 2), with two large open grassy areas adjacent to Rosny Esplanade (refer Figure 3). A sealed walking track, which forms part of the Clarence Foreshore Trail, traverses the length of the Reserve from Montagu Bay to Seabird Lane, and from Seabird Lane through Sheoak Point. Several informal walking tracks are also present below Rosny Esplanade.

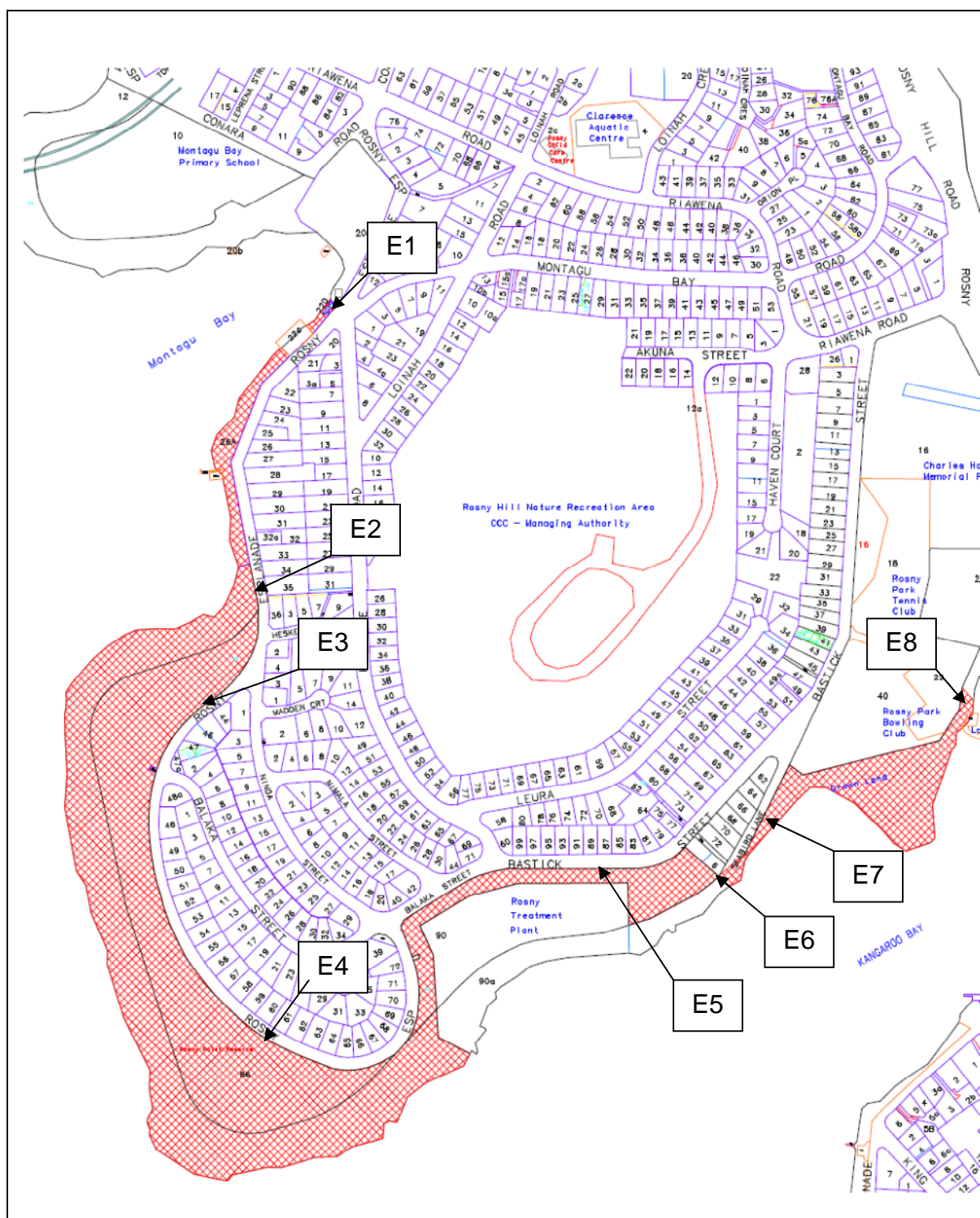


Figure 1: Area covered by the *Rosny-Montagu Bay Coastal Reserve Activity Plan*, including location of main Reserve entrances (E1-8).¹

¹ Base map provided by Clarence City Council.



Figure 2: Typical native vegetation in the Rosny-Montagu Bay Coastal Reserve.



Figure 3: Open grassy area adjacent to Rosny Esplanade.

There Reserve has eight regularly used entrances (E1-8), as illustrated in Figure 1. There is limited formal infrastructure within the Reserve, apart from some playground equipment and a large rotunda in the open grassy areas along Rosny Esplanade, and several seats along the main walking track.

4 SITE VALUES

4.1 Native flora and fauna

Allocasuarina verticillata (sheoak) forest occurs throughout the Reserve. While this is not listed as a threatened vegetation community under Schedule 3A of the Tasmanian *Nature Conservation Act 2002*, it is of local significance to the Clarence municipality. A description of this community is provided in Table 1.

Table 1: Native vegetation communities occurring within the Reserve.

Community name	TASVEG code	Description
<i>Allocasuarina verticillata</i> forest	NAV	Dominated by <i>Allocasuarina verticillata</i> , which may form a closed canopy. Low density emergent eucalypts are present, including <i>Eucalyptus viminalis</i> , <i>E. globulus</i> and <i>E. ovata</i> . <i>Acacia dealbata</i> , <i>A. mearnsii</i> , <i>Bursaria spinosa</i> and <i>Dodonaea viscosa</i> are common understorey shrubs. Ground cover ranges from dense sheoak leaf litter to tussock grassland.

A flora species list for the Reserve has previously been recorded by de Gryse (1998). Four flora species listed as rare under the Tasmanian *Threatened Species Protection Act 1995* (TSP Act) occur within the Reserve (DPIPWE 2011), as summarised in Table 2.

Table 2: Flora species of conservation significance recorded within the Reserve.

Flora species	Common name	Conservation status		Habitat / Comments
		TSP Act	EPBC Act	
<i>Arthropodium strictum</i>	Chocolate lily	Rare	-	Recorded at a single location near the Rosny treatment plant
<i>Asperula scoparia</i> subsp. <i>scoparia</i>	Prickly woodruff	Rare	-	Recorded at a single location adjacent to Rosny Esplanade
<i>Lepidium pseudotasmanicum</i>	Shade peppergrass	Rare	-	Found near the Rosny treatment plant and at Sheoak Point
<i>Vittadinia muelleri</i>	Narrowleaf New Holland daisy	Rare	-	Large populations located in grassy areas along Rosny Esplanade and at Rosny Point

The native vegetation within the Reserve is likely to provide habitat for a range of native animal and bird species. While no threatened fauna species listed under the

TSP Act or Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) have been previously recorded in the Reserve (DPIPWE 2011), suitable habitat exists for several threatened fauna species, as summarised in Table 3.

Table 3: Fauna species of conservation significance that could occur within the Reserve (based on habitat).

Fauna species	Common name	Conservation status		Habitat / Comments
		TSP Act	EPBC Act	
<i>Lathamus discolor</i>	swift parrot	Endangered	Endangered	Nesting habitat is hollows in mature eucalypts with stem diameter greater than 70cm at breast height. Forages in mature <i>Eucalyptus globulus</i> and <i>E. ovata</i> trees. Suitable habitat exists within the Reserve.
<i>Perameles gunnii</i>	eastern barred bandicoot	-	Endangered	Inhabits grassy woodlands, native grasslands and mosaics of pasture and shrubby ground cover. Suitable foraging habitat exists throughout the Reserve.
<i>Tyto novaehollandiae</i> subsp. <i>castanops</i>	masked owl (Tasmanian)	Endangered	-	Inhabits dry eucalypt forest and woodland with old growth eucalypts containing hollows. Suitable nesting habitat exists within the Reserve.

4.2 Geoconservation sites

No geoconservation sites have been previously recorded within 1km of the Reserve.

4.3 Cultural heritage

An overview of the Reserve's cultural heritage values has been previously prepared by de Gryse (1998), including a discussion of aboriginal and historic heritage values.

The Reserve is a known location of aboriginal artefacts. Under the *Tasmanian Aboriginal Relics Act 1975* (the Aboriginal Relics Act), 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 artefacts or other cultural material are exposed or disturbed without a permit during Reserve management activities. Any artefacts that are inadvertently uncovered should be immediately reported to Aboriginal Heritage Tasmania and an

Aboriginal Heritage Officer engaged to assess the area prior to any further on ground work being undertaken.

4.4 Recreational values

The Reserve is currently used for a range of recreational activities by local residents and visitors. These include walking, jogging, cycling, dog exercise and fishing. The main walking track forms part of the Clarence Foreshore Trail and provides a transport linkage for cyclists and pedestrians commuting between Rose Bay and Rosny Park.

4.5 Education values

The Aboriginal Corporation Tasmania (ACT) uses the Sheoak Point area of the Reserve to educate the aboriginal community, students and visitors about the area's aboriginal history. The Sheoak Point Memorial Bench was installed as part of these activities. The Sheoak Point Land and Coastcare Group, consisting primarily of a group of Rosny College students, is supported by the ACT and participates in landcare-type activities to educate students and maintain the Sheoak Point area.

5 STAKEHOLDER CONSULTATION

A public meeting and community 'walk and talk' session was facilitated by Council and Tasflora on 3 April 2011. The purpose of the session was to seek input from residents and other relevant stakeholders on the values and management issues associated with the Reserve. A survey seeking comments on the *Rosny-Montagu Bay Coastal Reserve Activity Plan* was also provided to identified stakeholders. A summary of issues raised during this stakeholder consultation is provided at Appendix 1.

The draft *Rosny-Montagu Bay Coastal Reserve Activity Plan 2011-16* was released for community consultation in September - October 2011. One submission was received.

Where possible, all relevant community feedback has been considered in the development of the *Rosny-Montagu Bay Coastal Reserve Activity Plan*. However some issues identified during the consultation process are beyond the scope of this plan or pertain to issues outside the Reserve. These issues have been noted by Council and will be addressed through other processes where feasible.

6 WEED MANAGEMENT

6.1 Weed species present

Environmental weeds occur throughout the Reserve and are a key management issue affecting its natural values. While much primary weed control work has been undertaken by the Rosny-Montagu Bay Landcare and Coastcare Group, ongoing primary and follow-up maintenance activities will be required for many years.

A list of environmental weed species present in the Reserve, including their status

and recommended control methods, is provided at Appendix 2.² To assist with identification, a picture of each weed species is also provided. Several weed species found in the Reserve are classified as declared weeds under the Tasmanian *Weed Management Act 1999* (the Weed Management Act) and/or Weeds of National Significance (WONS). Where possible, these weeds will be targeted as a priority to prevent their further spread. The distribution of declared and other environmental weed species in the Reserve is illustrated in Appendices 3-4.

While not considered to be environmental weeds, several species of garden plants occur in the Reserve along the roadsides of Rosny Esplanade, Balaka Street and Bastick Street. Broadleaf weeds and exotic grasses are prevalent throughout the Reserve.

6.2 Recommendations for primary weed control work

Primary weed control work within the Reserve should focus on declared weeds and other environmental weeds whose distribution is currently limited.

An annual eradication program for the control of Chilean needle grass and bridal creeper is coordinated by the Southern Tasmanian Councils Authority (STCA) with financial support from key stakeholders, including Council. Annual surveys and treatment programs are currently scheduled to be undertaken in spring 2011 and spring 2012. Continued Council support of this program is an important element in eradicating this weed from the municipality.

Recommendation: Council should continue to support the annual Chilean needle grass and bridal creeper eradication program undertaken by STCA.

There are several areas in the Reserve where sheoaks and dead wood have been intentionally cleared and/or burned to open up the native vegetation and encourage the formation of a native grassland area with emergent eucalypts (refer Section 7.1 for a fuller description of these areas). Significant germination of weed seedlings can be observed in some of these areas (eg Montpellier broom, boneseed) and in some areas primary weed control has not yet been undertaken. Weed control in these areas should be undertaken as an immediate priority to prevent the establishment of large tracts of weeds in areas of native vegetation that were previously weed free. Recommended control techniques for the weed species present are provided at Appendix 2. Further clearing of areas of native vegetation should be minimised until these areas have been rendered weed free and an annual follow-up control program is in place.

Recommendation: Immediate priority should be given to controlling weeds in regeneration areas where native vegetation has been cleared and/or burned.

Next priority should be given to controlling declared weeds whose distribution is currently limited in the Reserve or which can be controlled with minimum resources. These include African boxthorn, boneseed, fennel, gorse and willow. It

² A general overview of weed control techniques is available at: <http://www.nrmsouth.org.au>

is envisaged that these declared weeds could be eradicated from the Reserve within three years if sufficient resources are available and an ongoing maintenance program is implemented.

Recommendation: Priority should next be given to controlling the declared weeds African boxthorn, boneseed, fennel, gorse and willow.

Other declared weeds (including blackberry, Montpellier broom and Mediterranean daisy) are likely to be resource intensive to control due to their presently widespread distribution and/or dense infestations. Initially only isolated patches of these weeds should be controlled to prevent their expansion, while large infestations should only be targeted if there are sufficient resources for ongoing follow-up control.

Recommendation: Blackberry, Montpellier broom and Mediterranean daisy should not be controlled until there are sufficient resources to undertake ongoing follow-up control.

6.3 Non-priority weed species

Following control of the priority declared weeds discussed above, other woody weeds with limited distribution should be targeted. These include agapanthus, aloe, asparagus, banana passionfruit, cape wattle, cumbungi, firethorn, grevillea, hawthorn, mirror bush, myrtle-leaf milkwort, radiata pine, Spanish broom, sweet pittosporum and tree lucerne.

Recommendation: Following control of priority declared weeds, agapanthus, aloe, asparagus, banana passionfruit, cape wattle, cumbungi, firethorn, grevillea, hawthorn, mirror bush, myrtle-leaf milkwort, radiata pine, Spanish broom, sweet pittosporum and tree lucerne should be targeted.

Cotoneaster and sweet briar are widespread throughout the Reserve and should only be targeted following control of the priority weeds discussed above.

Recommendation: Cotoneaster and sweet briar should only be targeted following control of priority declared and environmental weeds.

There are several dense infestations of environmental weeds interspersed with garden plants opposite residences along Rosny Esplanade, Balaka Street and Bastick Street (refer Figure 7) which will require significant primary and follow-up work to ensure their eradication. As these are located primarily along roadsides, it is not recommended that these areas be targeted until there are sufficient resources available to undertake a targeted revegetation program in the area cleared of weeds (refer Section 7).

Recommendation: Dense infestations of weeds and garden plants along Rosny Esplanade, Balaka Street and Bastick Street should not be targeted until resources are available to undertake revegetation activities.

There are several mature macrocarpa pines adjacent to the Rosny treatment plant. While not a priority for removal, these trees could be removed if sufficient

resources become available. Trees should be cut as close as possible to ground level and all cut material stockpiled and burned or removed offsite. Revegetation with natives should be undertaken to improve the visual amenity of these area once the mature trees are removed (refer Section 7).

Recommendation: Mature pines adjacent to the Rosny treatment plant should be removed if resources become available.

Broadleaf weeds and exotic grasses are not considered a priority for control except in regeneration areas where clearing and/or burning of native vegetation has been undertaken, in revegetation areas and where their removal is desirable as part of an ongoing general Reserve maintenance program (eg along track edges, playground areas etc).

Recommendation: Control of exotic grasses and broadleaf weeds is required in revegetation areas, where clearing and burning of native vegetation has been undertaken and where necessary as part of a general Reserve maintenance program.

6.4 Maintenance of weed control work

Regeneration of weeds in the Reserve is likely to continue for many years due to the existing seed bank in the soil and the fact that some weed species have an inherent ability to resprout following primary control (eg African boxthorn, blackberry). Weed control activities will therefore not be successful unless a commitment is made to undertaking ongoing follow-up maintenance activities.

Maintenance of primary weed control work should be undertaken annually, preferably in spring and summer when plants are least likely to be dormant. This can be achieved by performing an annual sweep to remove all new germinants of previously targeted weeds and undertake follow-up control on any plants that may have resprouted. Ongoing annual follow-up will be required until the soil seed bank is exhausted.

Recommendation: An annual sweep and follow-up control of all targeted weeds should be undertaken.

GPS weed mapping of all environmental weeds occurring within the Reserve has been undertaken during the development of this plan. 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 provided to Council to enable its database to be updated.

Recommendation: Follow-up GPS mapping of all weeds in the Reserve should be undertaken after five years to monitor progress and inform future weed control priorities.

7 REGENERATION AND REVEGETATION

7.1 Regeneration

Strategic native regeneration activities are recommended to preserve and enhance the natural values of the Reserve and increase its visual amenity to users. Where possible, natural regeneration should be encouraged over revegetation as the most cost effective and natural means of restoring the Reserve's original vegetation.

Stakeholder consultation has indicated that the density of sheoaks across the Reserve has greatly increased in recent years. This has impacted on several Reserve values, including a loss of open grassy woodland areas, a decline in the number of eucalypt trees present, an increased quantity of dead trees and limbs throughout the Reserve, and a loss of river views for residents in Rosny Esplanade.

Some trial work had already been undertaken by Council to open up areas of the Reserve to encourage natural regeneration of native grasses and eucalypts in areas that are currently dominated by dense sheoaks. This has involved clearing, stockpiling and burning several large areas of dense sheoaks and dead trees and limbs to open up the understorey and provide an environment in which natural regeneration can occur. While the principle behind this activity is sound, a number of management issues at these sites need to be addressed to ensure their success, as summarised in Table 4.

Table 4: Management issues identified with existing regeneration sites within the Reserve.

Issue	Description	Recommendation
Sheoak stems	Sheoak stems have not been cut to ground level and are creating a trip hazard; cut sheoak stems are resprouting	All sheoak stems should be recut to ground level and immediately painted with herbicide to prevent reshooting
Weed control	Primary and/or follow-up weed control has not been undertaken in any areas that have been cleared and burned	Primary and follow-up weed control should be undertaken in all areas that have been cleared and burned as an immediate priority (refer Section 6.3) Slashing of broadleaf weeds (eg mustard weed) should be undertaken on an annual basis to enable regeneration of native grasses
Bare ground	Large bare areas of soil remain following burning, which is likely to encourage germination of broadleaf weeds and grasses	Soil should not be raked bare of all leaf litter
New seedlings	Regeneration of new eucalypts may not occur if there is insufficient seed in the soil	Limited strategic planting of eucalypt seedlings should be undertaken in areas that have been cleared/burned and view corridors

As well as the sites already established by Council, it is recommended that three trial view corridors be established below Rosny Esplanade to facilitate regeneration of a grassy woodland environment in the following locations:

- Opposite 51 Rosny Esplanade (refer Figure 4);
- Opposite 66 Rosny Esplanade (refer Figure 5); and
- Opposite 68 Rosny Esplanade (refer Figure 6).

These areas have been selected due to their already semi-open character. All weeds in these areas should be controlled as discussed in Section 6, dead trees and limbs removed and some live sheoaks removed to reduce their density and improve water views. The lower branches of emergent eucalypts should be removed to create clean trunked trees to frame views.

Recommendation: Trial view corridors should be established in existing semi-open areas opposite 51, 66 and 68 Rosny Esplanade.

The success or otherwise of clearing and burning areas of vegetation to encourage regeneration of native grasses and eucalypts has not yet been established within the Reserve, as most of these regeneration sites have only recently been created. It is therefore recommended that further clearing and/or burning activities be minimised in the Reserve until the existing sites and proposed new view corridors have been monitored and maintained for a period of five years.



Figure 4: Proposed location of trial view corridor opposite 51 Rosny Esplanade.



Figure 5: Proposed location of trial view corridor opposite 66 Rosny Esplanade.



Figure 6: Proposed location of trial view corridor opposite 68 Rosny Esplanade.

Recommendation: Further clearing and burning activities should be minimised until existing regeneration sites and proposed view corridors have been monitored and maintained for a period of five years.

All regeneration sites, including view corridors, should be mapped and photo points be established at each site to facilitate monitoring of annual regeneration growth.

Recommendation: Photo points should be established at each regeneration site to facilitate monitoring of annual regeneration growth.

If resources permit, a small educational sign with information about the importance of encouraging natural regeneration to occur should be erected near a regeneration area to engender community awareness and support for this activity.

Recommendation: A small educational sign should be erected near a regeneration area to facilitate community awareness of the importance of natural regeneration in the Reserve.

Natural regeneration can also be observed in the two large open areas adjacent to Rosny Esplanade, where native grasslands of kangaroo grass (*Themeda triandra*) and several populations of the threatened narrowleaf New Holland daisy have become established. These areas are subject to an existing mowing regime which appears to be encouraging the proliferation of these native plants and should therefore be continued. However, where possible, mowing should be undertaken after native grasses and narrowleaf New Holland daisy plants have shed their seed to encourage further regeneration of these species.

Recommendation: Mowing in the two open areas adjacent to Rosny Esplanade should be undertaken following seed set by native grasses and narrowleaf New Holland daisy plants to maintain regeneration of these species.

7.2 Revegetation activities

The primary purpose of undertaking new revegetation activities in the Reserve is to preserve and enhance existing areas of remnant vegetation, revegetate bare areas created by undertaking large scale weed control activities, provide habitat for native birds and animals, and improve the visual amenity for users of the Reserve. However, revegetation activities are resource intensive and may interrupt the natural regeneration process already occurring within the Reserve.

It is recognised that there is an ongoing desire by members of the Rosny-Montagu Bay Landcare and Coastcare Group and the Sheoak Point Land and Coastcare Group to continue to undertake some revegetation activities within the Reserve. Small scale revegetation activities that could be undertaken by these groups are summarised in Table 5. In general, revegetation activities should be avoided in areas where the original soil and water conditions have been modified (eg areas of runoff where enhanced nutrients may encourage prolific growth of weeds and exotic grasses) unless a specific bioremediation planting regime is deemed necessary. As well, in accordance with the Reserve's fire management plan, no

Table 5: Recommended revegetation activities to be undertaken within the Reserve.

Activity	Purpose	Recommended locations	Priority
Maintain existing revegetation sites	To ensure existing revegetation sites are established and regularly maintained	Sheoak Point At the Montagu Bay end of the Reserve Below the junction of Rosny Esplanade and Balaka Street	To be undertaken in conjunction with other activities as resources become available
Canopy and understorey planting	To improve visual amenity and create habitat in areas where natural regeneration is considered unlikely to occur or requires enhancement	Cleared/burned regeneration areas	Following weed control and ideally within six months of clearing activities
		Sheoak Point	As resources become available
		Two open grassy areas along Rosny Esplanade <ul style="list-style-type: none"> • Informal revegetation areas similar to those at Sheoak Point • Not to be established where native grasses and narrowleaf New Holland daisy are already growing 	As resources become available
		Areas where main walking track has been realigned (refer Section 9)	Immediately following completion of realignment activities
Bioremediation planting	Water sensitive design to improve water quality in areas requiring management of seepage	In the bare grassy area subject to seepage below the Bowls Club at Sheoak Point (sedges and black gums)	As resources become available
Revegetation following weed control	May be required if bare patches are created following primary weed control	To be assessed following primary weed control activities. Only to be undertaken if natural regeneration is considered unlikely to occur.	Immediately following weed control activities

Activity	Purpose	Recommended locations	Priority
Demonstration native cottage gardens ³	To demonstrate how local native plants can be used to create an attractive garden and encourage adjacent landowners to establish the same	Adjacent to the car park and roadside areas in the two open grassy areas along Rosny Esplanade. Not to be established where native grasses and narrowleaf New Holland daisy are already growing.	As resources become available

revegetation activities should be undertaken in the following areas (AVK Environmental Management 2011):

- on the building protection and fuel modified buffer zone established around assets at risk;
- on fuel breaks; and
- within 2 m of the edge of fire trails.

Recommendation: A range of small scale revegetation activities is recommended at sites where natural soil and water conditions exist, including canopy and understorey planting, revegetation following primary weed control, strategic planting of eucalypts and the creation of demonstration native cottage gardens.

Suitable local species for revegetation and landscaping activities within the Reserve are identified at Appendix 5.⁴ Where possible, revegetation plants should be grown from the seed or cuttings of plants local to the area to ensure local variants of plants are planted.

Revegetation activities will not be successful unless a commitment is made to undertake follow-up maintenance activities. In particular, it is important to ensure that sufficient resources are available for ongoing maintenance (eg weeding, watering) before establishing new revegetation sites. For example, revegetation activities have already been undertaken at Sheoak Point, below the junction of Balaka Street and Rosny Esplanade, and at the Montagu Bay end of the Reserve. Many of these sites require immediate attention to control broadleaf weeds and exotic grasses, and replace any plants that have died.

Recommendation: New revegetation activities should not be committed to unless sufficient resources are available to undertake ongoing regular maintenance of newly planted areas.

³ The Adelaide and Mount Lofty Ranges Natural Resource Management Board (2010) has produced a brochure that provides advice on landscaping with native plants in coastal areas. The concepts from this can be adopted within the Reserve using suitable local species. Refer: http://www.amlnrm.sa.gov.au/Portals/2/Coast/coastal_gardensJun2010_web.pdf

⁴ An overview of best practice revegetation and regeneration techniques has been produced by Greening Australia Victoria (2003) and is available at http://live.greeningaustralia.org.au/nativevegetation/pages/pdf/Authors%20C/13_Corr.pdf

8 RESERVE ENTRANCES

There are eight regularly used entrances to the Reserve (E1-8), as illustrated in Figure 1. Key management issues identified for these entrance points to the Reserve are summarised in Table 6. No new formal entrances are proposed within the next five years.

Table 6: Recommended management activities to be undertaken at Reserve entrances.

Issue	Description	Recommendation
Signage	No signs identifying the Reserve	<p>Large Reserve information signs to be installed at the main entrances at either end of the Reserve (E1 and E8) and at the car park at Rosny Point Reserve (E4)</p> <p>Small signs to be installed at minor entrances (E2, E3, E5, E6, E7)</p> <p>Develop identifying names for Reserve entrances E1 and E8</p>
	No signs indicating that the main track forms part of the Clarence Foreshore Trail	Implement Clarence Foreshore Trail signage plan (refer Appendix 6)
	There is no visitor interpretation about the Reserve and its values	<p>Install an interpretation sign at Rosny Point (at the intersection of the main walking track and the track from Rosny Point Reserve) using funding already obtained by the Rosny-Montagu Bay Landcare and Coastcare Group.⁵ This location will maximise the number of walkers through the Reserve who read it.</p> <p>Install an interpretation sign at Sheoak Point near the Reconciliation Park Bench with information about the cultural heritage of the area</p>
Track condition	Reserve entrance E2 is overgrown and narrow	Upgrade track to AS 2156.1-2001 Class 2 standard
	Reserve entrance E5 is steep and narrow	Upgrade track to AS 2156.1-2001 Class 2 standard, and install steps if appropriate
Visual amenity	Many Reserve entrances would benefit from landscaping activities to improve their visual amenity	<p>A thematic entrance design across all entrances should be developed</p> <p>A master plan for improving the visual amenity of the car park at Rosny Point Reserve (Reserve entrance E4) should be developed</p>

⁵ An example of the recommended standard of interpretation sign is located at the main entrance to Cremorne Beach, where the Pipe Clay Lagoon Coastcare Group has displayed information about the Reserve and their Group's current and planned activities.

Recommendation: Several improvements to Reserve entrances should be made to facilitate visitor interpretation, accessibility and visual amenity, including installation of signs, developing identifying names for main entrances, formalising and repairing all access tracks and undertaking native landscaping activities.

9 WALKING TRACKS

The main sealed walking track which traverses the length of the Reserve forms part of the Clarence Foreshore Trail and is currently used by a range of recreational users, including walkers and cyclists. While the condition of the track is generally good, some upgrading and realignment is required to improve its safety in accordance with the *Guide to Road Design Part 6A: Pedestrian and Cyclist Paths* developed by Austroads (2009). A summary of the key management issues affecting the main walking track and proposed mechanisms for addressing these is provided in Table 7.

Table 7: Track management issues identified within the Reserve.

Description	Recommendation
Track does not meet Austroads guidelines for multiuser pathways (eg surface is uneven in places, track width is less than 2.5 m, steep sections and sharp bends require realignment)	<p>Undertake an audit of the existing track condition against <i>Guide to Road Design Part 6A: Pedestrian and Cyclist Paths</i> (Austroads 2009)</p> <p>Address key findings arising from the audit, including recommendations for upgrading and realignment</p> <p>Upon completion of any track realignments, areas of old track to be ripped up and revegetated (refer Section 7)</p>
Wire on fences along the track between Seabird Lane and the Rosny treatment plant have become detached	A review of all fences should be undertaken and damaged fences rewired or replaced
Dead trees and limbs overhanging and/or adjacent to track are unsightly and unsafe	Regular maintenance program to remove all dead sheoak and gum material from within five metres of the track (refer Section 11.1)
Dense vegetation close to the track edges is blocking view lines along the track, making some users feel unsafe	Regular maintenance program to maintain view lines along the length of the walking track (refer Section 11.1)
Sheoak cones make the track surface slippery	Regular maintenance program to sweep track of cones (refer Section 11.1)

Recommendation: An audit of the condition of the main track against Guide to Road Design Part 6A: Pedestrian and Cyclist Paths (Austroads 2009) should be undertaken and key findings addressed.

The gravel track from the car park at Rosny Point Reserve (Reserve entrance E4) to Rosny Point is currently in good condition. While consideration could be given to upgrading this track to AS 2156.1-2001 Class 2 standard, this is not considered to be a priority within the next five years.

Several smaller walking tracks occur throughout the Reserve between Rosny Esplanade and the main walking track. These grassy tracks are not main thoroughfares; rather they appear to be used by local residents to gain access to the Reserve from Rosny Esplanade. While closure of these tracks would be desirable to maintain the integrity of the native vegetation, this may encourage the formation of new tracks by regular users still wishing to gain access from Rosny Esplanade. As there is no evidence that these tracks are contributing to the spread of weeds throughout the Reserve, it is recommended that these tracks remain open and their condition be monitored over the next five years to ascertain whether closure or upgrade is required.

Recommendation: Informal walking tracks between Rosny Esplanade and the main walking track should be monitored for five years to ascertain whether closure or upgrade is required.

There are several locations along the waterfront where recreational fishing is popular, and informal grassy walking tracks between the main walking track and the foreshore are present at several locations. While overdevelopment of these areas should be avoided, the following tracks have been identified for enhancement:

- track to the old jetty at the eastern end of the Rosny treatment plant – erect a safety fence on the lower side and upgrade track to enhance its safety and accessibility; and
- track to the water near Reserve entrance E2 - formalisation of this track with gravel to assist recreational users such as kayakers gain access to the foreshore area where it is proposed that water access be enhanced (refer Section 11.2).

Recommendation: Enhancements should be made to two informal tracks below the main walking track to facilitate foreshore access.

10 INFRASTRUCTURE

Installation of new infrastructure in the Reserve would be desirable to further enhance its recreational value to users.

Several seats have previously been installed along the main walking track, including the Reconciliation Park Bench at Sheoak Point. These are popular with users of the Reserve, and it is recommended that additional seating be established. Depending on the level of funding available, the following initial locations are recommended:

- adjacent to the main walking track near Reserve entrance E2 (looking towards the Tasman Bridge);

- Rosny Point (at the site of the previous seat where a concrete pad still remains); and
- Sheoak Point (to replace a seat which was previously located adjacent to the track on the south east side of the point).

Seats should be metal, set into a concrete foundation to prevent vandalism and coloured to blend into the environment (eg seat painted green and a natural looking material used for the foundation surface such as rock, shell aggregate or coloured concrete). In several cases, the concrete foundation for existing seats has a stepped edge, meaning that accessibility for some users (eg wheelchairs, walking frames) is difficult. These concrete bases should be modified so that their edges slope to allow easier access.

Recommendation: New outdoor seats with an attractive foundation should be installed at various locations in the Reserve.

The Reserve is a popular destination for dog walkers and is a designated off-lead area. While dog waste bag dispensers and bins have been installed at some entrances, dog faeces are commonly visible along the length of the main walking track. Additional dog waste bins and dispensers should be installed at all formalised entrances to the Reserve (with immediate priority to be given to Reserve entrance E1) and regularly maintained to encourage responsible behaviour by dog owners. As well, an additional bin at Rosny Point (at the junction of the main walking track and the track entering from Rosny Point Reserve) is recommended for dog walkers who enter the Reserve from one of the informal walking tracks from Rosny Esplanade rather than formal Reserve entrances.

Recommendation: Dog waste bag dispensers and bins should be installed at all main entrances to the Reserve and at Rosny Point.

There are no toilet facilities within the Reserve, with the nearest public toilets being located at Montagu Bay and Kangaroo Bay. Stakeholder consultation has indicated that it would be desirable to install a small toilet facility at the Rosny College end of Sheoak Point. This area is a popular boat launching area, and members of the public are regularly observed using the vegetation at Sheoak Point rather than the toilet facilities at Kangaroo Bay (Lance le Sage, Aboriginal Corporation Tasmania, pers. comm.). A suitable location for a new toilet facility adjacent to the existing car park has been identified if sufficient resources become available.

Stakeholder consultation has also indicated a desire to install picnic facilities and a barbeque at Sheoak Point. A suitable location has been identified adjacent to the existing gravel parking area at the Rosny College end of the Reserve. It is recommended that these be installed at the same time as the proposed toilet facility as funding becomes available.

Recommendation: The feasibility of installing a small toilet facility and BBQ facilities at the Rosny College end of Sheoak Point should be investigated.

The existing rotunda at Rosny Point Reserve is rarely used, and stakeholder consultation with local residents indicates a desire for it to be removed from its

current location. The status of the Rotunda should be considered through a formal consultation process to determine its ongoing viability as a functional asset, including whether it should be upgraded or removed from the Reserve.

Recommendation: A consultation process should be undertaken to determine the ongoing viability of the rotunda at Rosny Point Reserve as a functional asset.

Any installation of new infrastructure will be subject to funding. With this in mind, no additional infrastructure is recommended within the next five years unless significant funding becomes available. A further review of the infrastructure requirements of the Reserve should be undertaken in 2016.

Recommendation: A review of the infrastructure requirements of the Reserve should be undertaken in 2016.

11 OTHER MANAGEMENT ACTIVITIES

11.1 Reserve maintenance

As an immediate priority, a review of the existing maintenance program for the Reserve is required to address several issues raised during the stakeholder consultation process, including:

- general maintenance of the main walking track (eg removal of dips and holes, drainage issues);
- removal of dead trees and limbs overhanging the walking track;
- mowing of long grass adjacent to track edges;
- pruning vegetation adjacent to the walking track to maintain view lines for users;
- ensuring that mowing of grassy areas at Reserve entrances E3 and E4 is undertaken after native grasses and narrowleaf New Holland daisies have set seed; and
- ensuring vehicle hygiene protocols are implemented to preventing the spread of Chilean needle grass (refer Appendix 2).

Recommendation: A review of the existing Reserve maintenance program should be undertaken to address several issues raised during stakeholder consultation.

11.2 Water access

While there are no sandy beaches within the Reserve, establishment of a safe area for launching kayaks could be achieved with minimum resources. Removal of loose rocks and feral oyster populations at the foreshore area near Reserve entrance E2 could be undertaken without the need for installing any additional infrastructure.

Recommendation: Access to the ocean for kayakers should be enhanced near Reserve entrance E2 through removing loose rocks and feral oyster populations from the waterfront.

11.3 Fauna habitat survey

As discussed in Section 4.1, the Reserve contains suitable habitat for several threatened fauna species. A fauna survey undertaken by a suitably qualified person would be desirable to confirm the presence of any threatened animal or bird species in the Reserve. The outcomes of this survey can be used to further inform on ground management activities and may be used as a basis for attracting external funding for Reserve management activities.

Recommendation: A fauna survey of the Reserve to confirm the presence of threatened animal and bird species should be undertaken to further inform on ground management activities.

12 COMMUNITY PARTICIPATION AND AWARENESS

Community participation and awareness has an important role to play in protecting the natural, cultural and recreational values of the Reserve. In particular, education of residents living adjacent to the Reserve is desirable to foster behavioural change and encourage community ownership and appreciation of the Reserve's values.

Recommendation: Community education should be undertaken to facilitate behavioural change and encourage ownership and appreciation of the values of the Reserve.

Key issues requiring community awareness are summarised in Table 8. A letterbox drop to adjacent landowners with information on each of these issues is recommended as a first step to achieving community awareness and understanding of these issues.

Table 8: Management issues requiring community education and awareness within the Reserve.

Issue	Description
Garden waste dumping	Dumping of garden waste in the Reserve encourages the spread of weeds and is visually unattractive for all users.
Clearing of native vegetation	Removal of native vegetation in the Reserve (eg to improve views) is illegal. It encourages the establishment of weeds and reduces species diversity and animal habitat.
Environmental weeds	Weeds in adjacent gardens pose a threat to existing native vegetation within the Reserve.

Much of the maintenance of the Reserve has to date been undertaken on a voluntary basis by members through the Rosny-Montagu Bay Landcare and Coastcare Group.⁶ However, many local residents are unaware of the work being undertaken by this group or the newly formed Sheoak Point Land and Coastcare

⁶ Details about the Rosny-Montagu Bay Landcare and Coastcare Group Inc. are available at: http://www.scat.org.au/index.php?option=com_content&view=article&id=66:rosny-montagu-bay-landcare-and-coastcare-group-inc&catid=4:general&Itemid=18

Group, or do not know how to become involved in their activities. The installation of interpretation signs (as discussed in Section 8) will provide the opportunity to promote the activities of these groups. As well, individuals wanting to become involved in management activities outside of these groups should be encouraged to contact Council directly.

Rubbish is an ongoing problem along the foreshore, as is the presence of feral oysters. Community involvement in removing rubbish and feral oysters should be encouraged to facilitate ongoing maintenance of the foreshore area. For example, Clean Up Australia Day activities could be planned along the foreshore on an annual basis to help maintain the foreshore area free from rubbish. As well, community groups such as the Montagu Bay Scouts have indicated that they may be interested in foreshore cleanup activities.

Recommendation: Community involvement in foreshore cleanups and feral oyster control should be encouraged.

13 IMPLEMENTATION PLAN

A map illustrating the location of on ground management activities recommended within the Reserve is provided at Figure 7. This is based on the key recommendations contained within this plan, which are summarised in detail at Appendix 7.

Based on these recommendations, an Implementation Plan with associated performance measures has been developed and is provided at Table 9. It identifies three stages of management activities to be undertaken within the Reserve:

- Priority 1 - immediate (6-12 months) management activities.
- Priority 2 – medium term (1-3 years) management priorities.
- Priority 3 – long term (5 years) management priorities

The intent of the Implementation Plan is to provide a guide to outcomes that could be achieved within the Reserve by Clarence City Council, contractors and/or volunteer groups within the period 2011-2016 if sufficient resources are available. While it would be desirable to undertake all the recommended activities, it is acknowledged that this may not be possible due to resource constraints, and implementation will ultimately be guided by what is achievable with resources as they become available. Federal, State and Local Government grants programs may provide an opportunity to obtain resources to implement many of the recommendations contained within this report.

A review of progress against all performance measures should be undertaken annually during the period 2011-2016 to help prioritise available resources.

Recommendation: Progress against all performance measures identified in the Implementation Plan should be reviewed annually.



Figure 7: Overview of key proposed on ground management activities (base image from Google Earth).

Table 9: Implementation Plan for undertaking recommended management activities within the Reserve.

Priority	Action	Seasonal timing	Performance measure	Responsibility	Estimated funding ⁷
Weed control					
1,2&3	Support the annual Chilean needle grass and bridal creeper eradication program undertaken by STCA	Spring annually	Chilean needle grass and bridal creeper eradicated from the Reserve	Council, STCA	\$5,000
1	Control weeds in regeneration areas where native vegetation has been cleared and/or burned	Spring – summer for spot spraying; all year round for other techniques	All weeds eradicated from regeneration areas	Council, contractor and/or volunteer groups	\$1,200
1	Undertake primary control of African boxthorn, boneseed, fennel, gorse and willow	Spring – summer for spot spraying; all year round for other techniques	All targeted weeds are eradicated from the Reserve	Council, contractor and/or volunteer groups	\$6,000
2	Undertake primary control of agapanthus, aloe, asparagus, banana passionfruit, cape wattle, cumbungi, firethorn, grevillea, hawthorn, mirror bush, myrtle-leaf milkwort, radiata pine, Spanish broom, sweet pittosporum and tree lucerne	Spring – summer for spot spraying; all year round for other techniques	All targeted weeds are eradicated from the Reserve	Council, contractor and/or volunteer groups	\$9,000
3	Undertake primary control of primary control of blackberry, Montpellier broom and Mediterranean daisy	Spring – summer for spot spraying; all year round for other techniques	All targeted weeds are eradicated from the Reserve	Council, contractor and/or volunteer groups	\$10,000
3	Undertake primary control of primary control of cotoneaster and sweet briar	Spring – summer for spot spraying; all year round for other techniques	All targeted weeds are eradicated from the Reserve	Council, contractor and/or volunteer groups	\$5,000

⁷ Funding estimate is based on total costs required to undertake all recommended activities over the period 2011-12 to 2015-16.

Priority	Action	Seasonal timing	Performance measure	Responsibility	Estimated funding ⁷
3	Control roadside weeds and garden plants along Rosny Esplanade, Balaka Street and Bastick Street	Spring – summer for spot spraying; all year round for other techniques	Roadside weed infestations are replaced with native plants	Council, contractor and/or volunteer groups	\$5,000
2&3	Undertake annual sweep and follow-up control of all targeted weeds	Ongoing on an annual basis	All targeted weeds are eradicated from the Reserve	Council, contractor and/or volunteer groups	\$3,000-\$5,000 per annum
3	Remove mature pines adjacent to the Rosny treatment plant	All year round	Mature pines are replaced with native plants	Council, contractor and/or volunteer groups	\$15,000
3	Undertake follow-up GPS mapping of all weeds	Spring - summer	Weed maps and Council database are updated within five years	Council and/or contractor	\$1,000
Revegetation and landscaping					
1	Map and establish photo points at all regeneration areas that have been cleared/burned	All year round	Mapping undertaken and photo points established at each regeneration area; photos taken on an annual basis	Council or volunteer groups	\$900
1	Install an interpretation sign near one regeneration area	All year round	Interpretation sign erected near one regeneration area	Council	\$300
2	Establish trial view corridors in existing semi-open areas opposite 51, 66 and 68 Rosny Esplanade	All year round	Three trial view corridors established	Council and/or contractor	\$5,400
1,2&3	Undertake canopy and understorey planting and establish demonstration native cottage gardens as per Table 5	Autumn - winter	New revegetation sites established	Council, contractor and/or volunteer groups	\$3,000 per annum
1,2&3	Undertake revegetation in areas where deemed necessary following weed control	Following primary weed control	No large bare areas where primary weed control has been undertaken	Council, contractor or volunteers	To be assessed following weed control

Priority	Action	Seasonal timing	Performance measure	Responsibility	Estimated funding ⁷
1,2&3	Undertake regular maintenance of all revegetation and landscaping sites	Ongoing	Maintenance of all existing revegetation and landscaping sites undertaken within the last six months	Council, contractor or volunteers	\$3,000 per annum
Access management					
1	Develop identifying names for the Reserve's main entrances	All year round	Reserve entrances E1 and E8 have identifying names	Council	N/A
1	Install signs at all Reserve entrances and signage as indicated on Clarence Foreshore Trail signage plan	All year round	Signs erected at all main Reserve entrances and as per Clarence Foreshore Trail signage plan	Council	\$2,600
2	Upgrade tracks at Reserve entrances E2 and E5 and	All year round	Tracks at Reserve entrances E2 and E5 upgraded and maintained to AS 2156.1-2001 Class 2 standard	Council and/or contractor	\$6,000
3	Develop a master plan for improving the visual amenity of the car park at Rosny Point Reserve (Reserve entrance E4)	All year round	Master plan for Reserve entrance E4 developed	Council or contractor	\$2,000
Walking tracks					
1	Undertake an audit of the main track against <i>Guide to Road Design Part 6A: Pedestrian and Cyclist Paths</i> (Austroads 2009)	All year round	Audit of main walking track completed	Council or contractor	\$2,000
2	Assess and prepare detailed costing of key recommendations arising from the audit of the main walking track	All year round	Budget developed for enhancing main walking track	Council	N/A
3	Enhance two tracks below the main walking track to facilitate foreshore access	All year round	Foreshore access formalised at two locations	Council and/or contractor	\$4,000

Priority	Action	Seasonal timing	Performance measure	Responsibility	Estimated funding ⁷
Infrastructure					
1	Install dog waste bag dispensers and bins at all main Reserve entrances	All year round	Dog waste bag dispensers and bins installed at all main Reserve entrances	Council and/or contractor	\$7,700
2	Install additional seats at various locations throughout the Reserve	All year round	Three new seats installed	Council, contractor and/or volunteer groups	\$6,000
2	Undertake a consultation process regarding the viability of the rotunda at Rosny Point Reserve as a functional asset	All year round	Consultation process completed and future treatment of rotunda determined	Council	N/A
3	Assess viability of installing a small toilet facility and BBQ facilities at the Rosny College end of Sheoak Point	All year round	Feasibility study completed	Council	N/A
Other management issues					
1,2&3	Enhance the existing Reserve maintenance schedule to include regular mowing of track edges, maintenance of view lines and removal of dead trees	Ongoing	Reserve maintenance undertaken within the last six months	Council	N/A
1	Undertake a fauna survey of the Reserve to confirm the presence of threatened animal and bird species	To coincide with threatened bird nesting seasons	Fauna survey completed	Contractor	\$2,000
3	Remove loose rocks and feral oysters from proposed kayak launching area near Reserve entrance E2	All year round	No loose rocks or feral oysters in proposed swimming / kayak launching areas	Council, contractor and/or volunteers	\$2,000

Priority	Action	Seasonal timing	Performance measure	Responsibility	Estimated funding ⁷
Community participation and awareness					
1	Undertake letterbox drops to local residents with information on inappropriate Reserve activities and volunteer groups	All year round	No garden dumpings, illegal tree clearing or unauthorised vehicle access observed	Council	N/A
1	Install interpretation sign at Rosny Point	All year round	Interpretation sign installed at Rosny Point	Council and Rosny-Montagu Bay Landcare and Coastcare Group	\$2,000
2	Install interpretation sign at Sheoak Point	All year round	Interpretation sign installed at Sheoak Point	Council and Sheoak Point Land and Coastcare Group	\$2,000
Implementation plan					
3	Undertake a full review of the <i>Rosny-Montagu Bay Reserve Coastal Activity Plan</i>	All year round	<i>Rosny-Montagu Bay Reserve Coastal Activity Plan</i> reviewed within five years	Council and/or contractor	\$10,000

14 FUTURE PRIORITIES

A review of the *Rosny-Montagu Bay Coastal Reserve Activity Plan* should be undertaken in 2016. The purpose of this review should be to:

- assess progress towards achieving the objectives of the *Rosny-Montagu Bay Coastal Reserve Activity Plan*;
- assess progress against all performance measures; and
- determine ongoing management priorities for the Reserve for the next five years.

Recommendation: The Rosny-Montagu Bay Coastal Reserve Activity Plan should be reviewed in 2016 to assess progress and determine ongoing management priorities for the Reserve.

15 REFERENCES

Adelaide and Mount Lofty Ranges Natural Resource Management Board (2010). *Coastal gardens: a planting guide*. Adelaide and Mount Lofty Ranges Natural Resource Management Board, South Australia.

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APPENDIX 1: SUMMARY OF STAKEHOLDER CONSULTATION

During April 2011, identified stakeholders were invited to provide comments relevant to the development of the *Rosny-Montagu Bay Coastal Reserve Activity Plan*.

A public meeting and community 'walk and talk' session was facilitated by Council and Tasflora on 3 April 2011. The purpose of the session was to seek input from local residents, the Rosny-Montagu Bay Landcare and Coastcare Group and other relevant stakeholders on values and management issues associated with the Reserve. Twenty three stakeholders attended the meeting. Key issues raised during the walk and talk included:

- sheoaks – general concern about the density of sheoaks in the Reserve and the number of dead trees (fire risk, safety risk);
- view corridors - many residents indicated that their views have become blocked by native vegetation over the years;
- rotunda – general agreement that the rotunda in Rosny Esplanade is rarely used and should be relocated elsewhere;
- weeds – support for controlling weeds within the Reserve; and
- walking track security – some concern that track edges should be kept clear of vegetation for public safety reasons.

Following the community session, a feedback form seeking input to the *Tranmere Coastal Reserve Activity Plan* was provided to stakeholders. Eleven written responses were received, which are summarised in Table A.



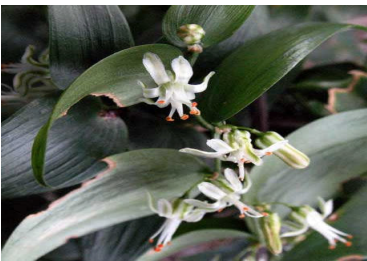
Table A: Summary of written responses received in April 2011.

Management issue	Number of respondents
Track management	
Repair/maintenance of track	1
Clear vegetation from track edges / below track	3
Access walkways needed from Kelatie Road, Nimala Street and Bastick Street	1
Vegetation management	
Clean up dead trees (especially sheoaks) / undergrowth / scrub	10
Cut down some sheoaks and replant with gums to create an open grassy woodland	2
Any removed sheoaks to be cut to ground level	1
Tidy up / replant Bastick Street verge	2
Trim tall gums by half	2




Management issue	Number of respondents
Cut down large sheoaks	1
Revegetation and landscaping	
Revegetate to shield the fence around the water treatment plant	2
Don't plant tall trees	1
Weed control	
Undertake weed control activities	4
Remove pine trees along Bastick Street to treatment plant	4
Infrastructure	
Relocate Rotunda	3
Upgrade rotunda if not relocated	1
Install drinking fountains along main track	1
Other management issues	
Create easy access points to foreshore	1
Create a dog off lead area at Sheoak Point	1
Fire management required	2
Ensure Montagu Bay boat shed lease holder complies with lease	1
Preserve cultural heritage values of the area	1




Where possible, all relevant community feedback has been considered in the development of the *Rosny-Montagu Bay Coastal Reserve Activity Plan*. However some issues identified during the consultation process are beyond the scope of this plan or pertain to issues outside the Reserve. These issues have been noted by Council and will be addressed through other processes where feasible.




APPENDIX 2: WEED SPECIES PRESENT AND RECOMMENDED CONTROL TECHNIQUES

Common name	Species	Status	Picture	Recommended control technique
<u>DECLARED WEEDS</u>				
African boxthorn	<i>Lycium ferocissimum</i>	Declared		Cut and paste or spot spray. Care should be taken to avoid the spines on this species as they can produce painful puncture wounds and/or an allergic reaction.
Blackberry	<i>Rubus fruticosus</i> aggregate	Declared WONS		Large stands - spot spray using an appropriate herbicide (as per the DPIPWE Control Guide) in non-fruiting periods. Isolated patches - spot spray or cut and paste.
Bridal creeper	<i>Asparagus asparagoides</i>	Declared WONS		Hand dig isolated individuals (remove all root material) or spot spray.




Source: <http://stca.tas.gov.au/>




Common name	Species	Status	Picture	Recommended control technique
Boneseed	<i>Chrysanthemoides monilifera</i>	Declared WONS		Hand pull seedlings. Cut and paste larger plants. Fruit should be bagged and disposed of responsibly.
Chilean needle grass	<i>Nassella neesiana</i>	Declared WONS	 Source: weeds.org.au	Hand dig or spot spray. Seed heads should be double bagged and deep buried. No mowing to be undertaken for at least two weeks following spot spraying. Strict vehicle hygiene (eg mowers) is important in areas where this weed has been recorded.
Fennel	<i>Foeniculum vulgare</i>	Declared		Cut and paste or spot spray.




Common name	Species	Status	Picture	Recommended control technique
Gorse	<i>Ulex europaeus</i>	Declared WONS		Hand pull small plants. Cut and paste larger plants. Spot spraying may be appropriate for larger infestations.
Mediterranean daisy	<i>Urospermum dalechampii</i>	Declared		Hand pull, dig or spot spray. Spot spraying may be the most appropriate given the large number of plants present.
Montpellier broom	<i>Genista monspessulana</i>	Declared		Hand pull seedlings. Cut and paste larger plants. Spot spraying may be appropriate for larger infestations.

Common name	Species	Status	Picture	Recommended control technique
<u>OTHER ENVIRONMENTAL WEEDS</u>				
Agapanthus	<i>Agapanthus praecox</i> ssp. <i>orientalis</i>			Hand dig clumps and roots. Dispose of flower heads before they set seed.
Asparagus	<i>Asparagus officinale</i>			Crown cut method (ie cut out underground growing heart of the plant with a knife) or spot spray. Dispose of all crown material and any berries offsite. Hand pull emerging seedlings following crown removal.
Banana passionfruit	<i>Passiflora tarminiana</i>			Cut and paste all stems. Leave dead material in situ.

Common name	Species	Status	Picture	Recommended control technique
Cape wattle	<i>Paraserianthes lophantha</i>			Hand pull seedlings. Cut and paste larger plants.
Cotoneaster	<i>Cotoneaster</i> sp.			Hand pull seedlings. Cut and paste larger plants.
Cumbungi	<i>Typha</i> sp.			Hand pull and remove all the rhizome.

Common name	Species	Status	Picture	Recommended control technique
Firethorn	<i>Pyracantha</i> sp.			Hand pull small plants. Cut and paste larger plants.
Hawthorn	<i>Crataegus monogyna</i>			Hand pull small plants. Cut and paste larger plants.
Mirror bush	<i>Coprosma repens</i>			Hand pull seedlings. Cut and paste larger plants.

Common name	Species	Status	Picture	Recommended control technique
Myrtle-leaf milkwort	<i>Polygala myrtifolia</i>			Hand pull small plants. Cut and paste larger plants.
Radiata pine	<i>Pinus radiata</i>			Hand pull small plants. Cut and paste larger plants.
Red valerian	<i>Centranthus ruber</i>			Hand pull or spot spray.

Common name	Species	Status	Picture	Recommended control technique
Spanish broom	<i>Spartium junceum</i>			Hand pull small plants. Cut and paste larger plants.
Sweet briar	<i>Rosa rubiginosa</i>			Cut and paste or spot spray.
Sweet pittosporum	<i>Pittosporum undulatum</i>			Hand pull small plants. Cut and paste larger plants.



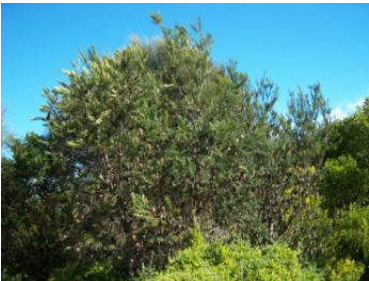
Common name	Species	Status	Picture	Recommended control technique
Willow	<i>Salix</i> sp.			Hand dig or cut and paste small plants. Drill and fill larger plants. Remove all cut material off site.




APPENDIX 3: LOCATION OF DECLARED WEEDS

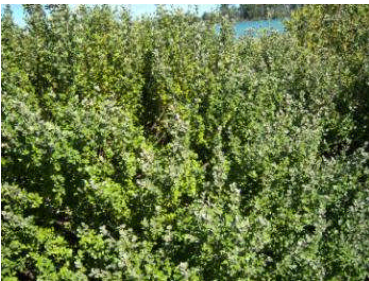


APPENDIX 4: LOCATION OF NON-DECLARED ENVIRONMENTAL WEEDS






APPENDIX 5: LOCAL NATIVE SPECIES SUITABLE FOR REVEGETATION AND LANDSCAPING WORK

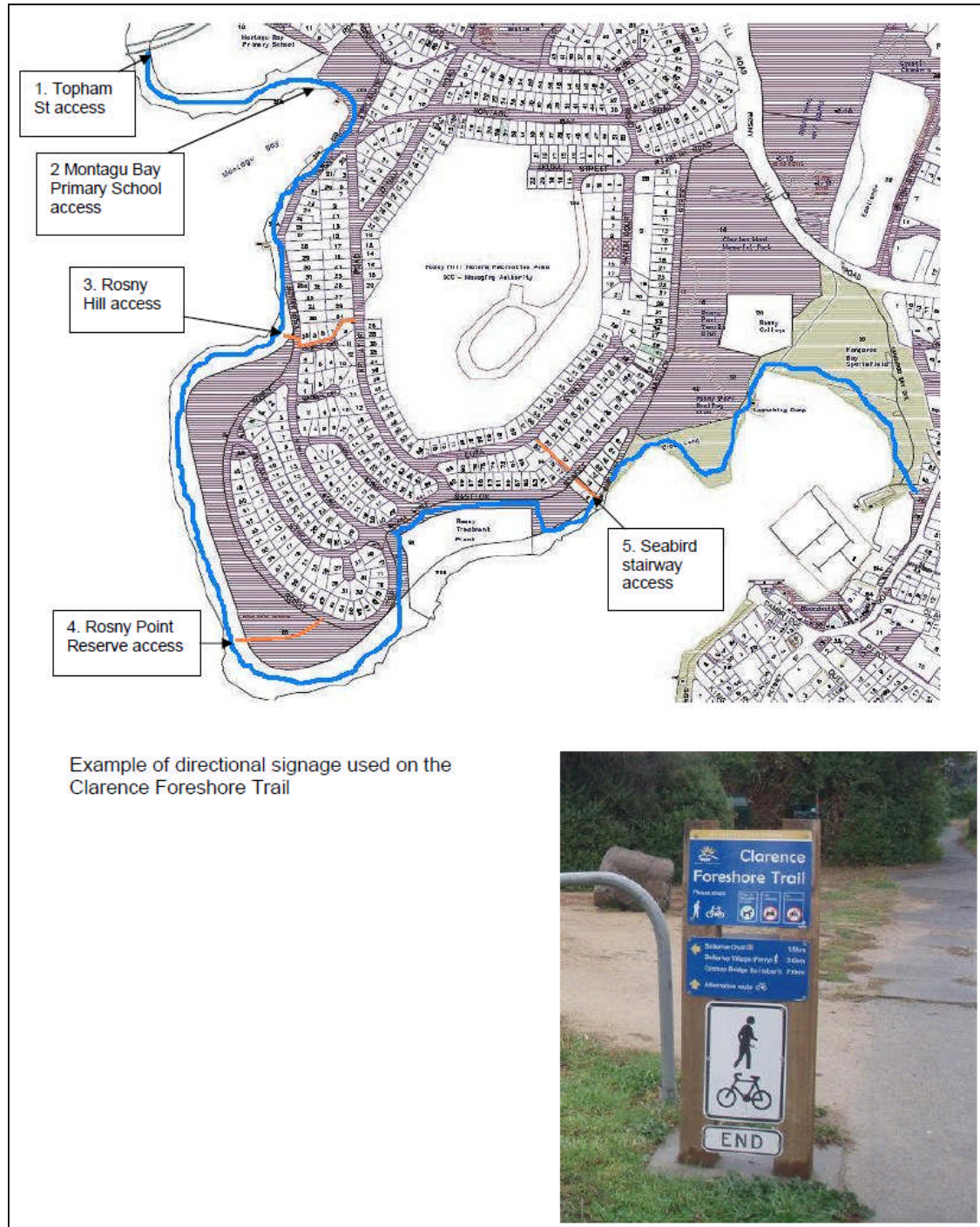
Species	Common name	Picture	Minimum spacing
<u>Trees</u>			
<i>Eucalyptus globulus</i>	blue gum		10-15 m
<i>Eucalyptus viminalis</i>	white gum		10-15m
<u>Tall shrubs</u>			
<i>Banksia marginata</i>	silver banksia		2m

Species	Common name	Picture	Minimum spacing
<i>Acacia verticillata</i>	she-oak		2m
<i>Bursaria spinosa</i>	prickly box		2m
<i>Dodonaea viscosa</i>	native hop		2m




Species	Common name	Picture	Minimum spacing
<u>Low shrubs</u>			
<i>Correa alba</i>	white correa		1.5m
<i>Goodenia ovata</i>	hop primrose native-		1m
<u>Grasses and sedges</u>			
<i>Austrostipa stipoides</i>	coast speargrass		0.5 m

Species	Common name	Picture	Minimum spacing
<i>Ficinia nodosa</i>	knobby clubsedge		0.5m
<i>Lomandra longifolia</i>	sagg		0.5m
<i>Poa poiformis</i>	coast tussockgrass		0.5m

APPENDIX 6: CLARENCE FORESHORE TRAIL SIGNAGE PLAN FOR ROSNY-MONTAGU BAY SECTION⁸



⁸ Plan developed by Clarence City Council.

	<p>1. Topham St access</p> <p><u>Side 1 (South direction)</u> ↑ Montagu Bay 0.4km ↑ Rosny Hill access 0.9km</p>
	<p>2. Montagu Bay Primary School access</p> <p>Existing signage.</p>
	<p>3. Rosny Hill access</p> <p><u>Side 1 (South direction)</u> ↑ Rosny Point 0.8km ↑ Kangaroo Bay Regional Park 2.6km ← Rosny Hill via Heskett Crt 0.2km</p> <p><u>Side 2 (north direction)</u> ↑ Montagu Bay 0.5km ↑ Tasman Bridge 0.9km → Rosny Hill via Heskett Crt 0.2km</p>
	<p>4. Rosny Point Reserve access</p> <p><u>Side 1 (South direction)</u> ↑ Kangaroo Bay Regional Park 1.8km ↑ Bellerive Boardwalk 2.1km ← Rosny Point Reserve 0.1km</p> <p><u>Side 2 (north direction)</u> ↑ Rosny Hill access 0.8km ↑ Tasman Bridge 1.7km → Rosny Point Reserve 0.1km</p>
	<p>5. Seabird Stairway access</p> <p><u>Side 1</u> ↑ Seabird stairway</p>

APPENDIX 7: SUMMARY OF ON GROUND MANAGEMENT RECOMMENDATIONS

Weed management
<ul style="list-style-type: none"> • Council should continue to support the annual Chilean needle grass and bridal creeper eradication program undertaken by STCA. • Immediate priority should be given to controlling weeds in regeneration areas where native vegetation has been cleared and/or burned. • Priority should next be given to controlling the declared weeds African boxthorn, boneseed, fennel, gorse and willow. • Blackberry, Montpellier broom and Mediterranean daisy should not be controlled until there are sufficient resources to undertake ongoing follow-up control. • Following control of priority declared weeds, agapanthus, aloe, asparagus, banana passionfruit, cape wattle, cumbungi, firethorn, grevillea, hawthorn, mirror bush, myrtle-leaf milkwort, radiata pine, Spanish broom, sweet pittosporum and tree lucerne should be targeted. • Cotoneaster and sweet briar should only be targeted following control of priority declared and environmental weeds. • Dense infestations of weeds and garden plants along Rosny Esplanade, Balaka Street and Bastick Street should not be targeted until resources are available to undertake revegetation activities. • Mature pines adjacent to the Rosny treatment plant should be removed if resources become available. • Control of exotic grasses and broadleaf weeds is required in revegetation areas, where clearing and burning of native vegetation has been undertaken and where necessary as part of a general Reserve maintenance program. • An annual sweep and follow-up control of all targeted weeds should be undertaken. • Follow-up GPS mapping of all weeds in the Reserve should be undertaken after five years to monitor progress and inform future weed control priorities.
Regeneration and revegetation
<ul style="list-style-type: none"> • Trial view corridors should be established in existing semi-open areas opposite 51, 66 and 68 Rosny Esplanade. • Further clearing and burning activities should be minimised until existing regeneration sites and proposed view corridors have been monitored and maintained for a period of five years. • Photo points should be established at each regeneration site to facilitate monitoring of annual regeneration growth. • A small educational sign should be erected near a regeneration area to facilitate community awareness of the importance of natural regeneration in the Reserve. • Mowing in the two open areas adjacent to Rosny Esplanade should be undertaken following seed set by native grasses and New Holland daisy plants to maintain regeneration of these species. • Immediate priority should be given to maintaining existing revegetation sites. • A range of small scale revegetation activities is recommended at sites where natural soil and water conditions exist, including canopy and understorey planting, revegetation following primary weed control, strategic planting of eucalypts and the creation of demonstration native cottage gardens.

<ul style="list-style-type: none"> New revegetation activities should not be committed to unless sufficient resources are available to undertake ongoing regular maintenance of newly planted areas.
Reserve entrances
<ul style="list-style-type: none"> Several improvements to Reserve entrances should be made to facilitate visitor interpretation, accessibility and visual amenity, including installation of signs, developing identifying names for main entrances, formalising and repairing all access tracks and undertaking native landscaping activities.
Walking tracks
<ul style="list-style-type: none"> An audit of the condition of the main track against <i>Guide to Road Design Part 6A: Pedestrian and Cyclist Paths</i> should be undertaken and key findings addressed. Informal walking tracks between Rosny Esplanade and the main walking track should be monitored for five years to ascertain whether closure or upgrade is required. Enhancements should be made to two informal tracks below the main walking track to facilitate foreshore access.
Infrastructure
<ul style="list-style-type: none"> New outdoor seats with an attractive foundation should be installed at various locations in the Reserve. Dog waste bag dispensers and bins should be installed at all entrances to the Reserve and at Rosny Point. The feasibility of installing a small toilet facility and BBQ facilities at the Rosny College end of Sheoak Point should be investigated. A consultation process should be undertaken to determine the ongoing viability of the rotunda at Rosny Point Reserve as a functional asset. A review of the infrastructure requirements of the Reserve should be undertaken in 2016.
Other management activities
<ul style="list-style-type: none"> A review of the existing Reserve maintenance program should be undertaken to address several issues raised during stakeholder consultation. Access to the ocean for kayakers should be enhanced near Reserve entrance E2 through removing loose rocks and feral oyster populations from the waterfront. A fauna survey of the Reserve to confirm the presence of threatened animal and bird species should be undertaken to further inform on ground management activities.
Community participation and awareness
<ul style="list-style-type: none"> Community education should be undertaken to facilitate behavioural change and encourage ownership and appreciation of the values of the Reserve. Community involvement in foreshore cleanups and feral oyster control should be encouraged.
Implementation Plan
<ul style="list-style-type: none"> Progress against all performance measures identified in the Implementation Plan should be reviewed annually. The <i>Rosny-Montagu Bay Coastal Reserve Activity Plan</i> should be reviewed in 2016 to assess progress and determine ongoing management priorities for the Reserve.