

RESERVE ACTIVITY PLAN 2012 – 2017



ROSCOMMON RESERVE

Prepared by Watershed Tasmania

For Clarence City Council

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1 BACKGROUND

Clarence City Council owns and manages a diverse range of natural areas across the city, Roscommon is an integral part of the natural area network, contributing recreational amenity for the city and the broader Tasmanian community. The reserve also makes an important contribution to the protection of natural assets of local and state significance. In recognition of the vital role that natural areas play, Clarence City Council has developed a city wide framework for its approach to protecting, enhancing and managing the City's natural assets, the Clarence Bushland and Coastal Strategy (Watershed Tasmania, 2011). The Strategy recognises the important role that each reserve plays as part of the network and a key priority action is the preparation and implementation of Reserve Activity Plans for each reserve. Roscommon has been selected as a priority area for the development of a RAP. Appendix 1 is included to assist in demonstrating the role of the RAP within the Strategic Framework of the Clarence Bushland and Coastal Strategy.

Roscommon Reserve (see Figure 1) has a diversity of natural and recreational values that will benefit from the development of an RAP, particularly its key role as the State Equestrian Centre, a key location for the sport of Archery, a node in the Tangara Trail, a highly cherished neighbourhood asset for walking/cycling and locally significant site for protecting native wildlife. The RAP is designed to be the primary source of information and guidance on the reserve and to detail the values, issues and actions necessary to ensure the Roscommon Reserve continues to be a valuable community asset.

Watershed Tasmania was engaged to facilitate the development of the Roscommon RAP including the active involvement of the community. An additional role that Roscommon plays is in managing stormwater for the catchment, an artificial wetland has been constructed that reduces the impacts of flooding and increasing water quality prior to the water entering Ralphs Bay a nationally important wetland.

A Bushfire Management Plan (BMP) is already in place for Roscommon Reserve and the adjacent Lauderdale Dunes Coastal Reserve (AVK Environmental Management, 2011). The BMP provides extensive supporting information on the values and risks as they relate to managing bushfire on the site, in particular flora and fauna values. This RAP builds on the BMP and is to be applied in conjunction with it. The recommendations contained within this Roscommon reserve Activity Plan are intended to provide guidance for on-ground activities that can be implemented by Council in many cases in collaboration with the active efforts of local residents and landcare and coastcare groups (including Lauderdale Coastcare group, Tasmanian Equestrian centre and the Hobart Archery Club). Naturally implementation of the recommended actions will be subject to available funding and associated resources.

It is important to acknowledge that there are many individuals and community groups that have for many years taken pride in and played a key role in caring for Roscommon Reserve, Council will need to maintain positive collaboration with the community to ensure the RAP is successfully delivered.

‘this small "Bush" patch surpasses the beach, it’s great to have it at my back door’

(Rob Bowering reserve neighbour for nearly forty years).

2 OBJECTIVES

The objectives of the Roscommon 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 2012-2017; and
- Encourage community engagement through raising awareness of the reserve's values and encourage participation in activities to minimise threats to these values.

The most important outcome of the Reserve Activity Plan will be a Council endorsed 5 year prioritised and costed activity schedule. This has been based on priority management actions drawn from assessment of the natural, recreational, social and cultural aspects of the reserve along with detailed community consultation with key stakeholders and the community in general.

In developing the priority actions a key focus has been open, transparent engagement with the local residents and community, particularly key community groups. The community has a valuable understanding of the reserve and will assist to define the priority issues and actions. This will ultimately enhance the environmental health of the reserve as well as recreation and visitor use opportunities.

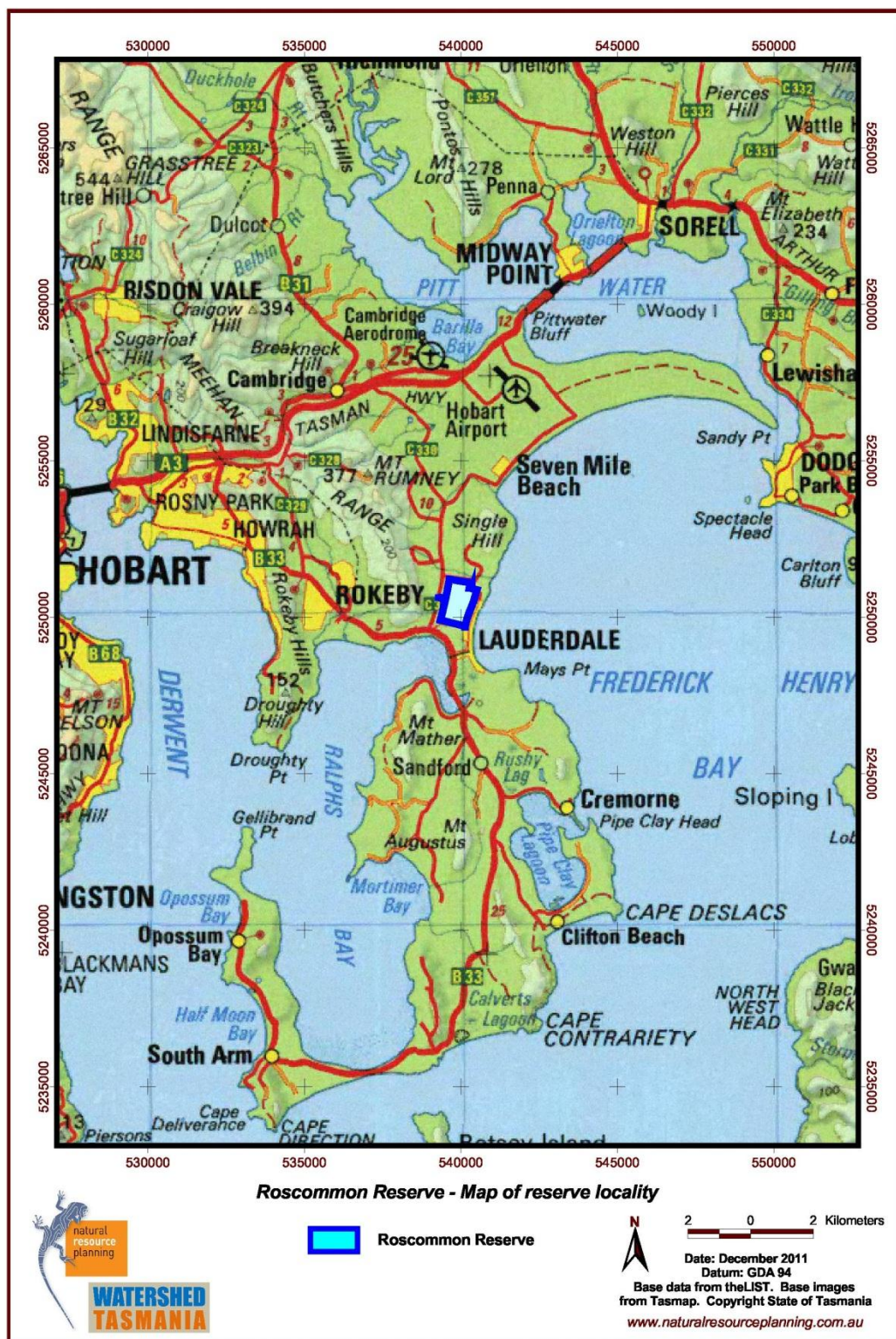
3 SITE DESCRIPTION

Roscommon Reserve is an 115ha rectangular shaped reserve bounded to the east by Terrina St. which fringes the urban area of Lauderdale and to the north, south and west by rural residential developments. (see Figure 2.). The central and southern portions of the reserve are leased to the Tasmanian Equestrian Centre (TEC), the northern part of Roscommon is used by the Hobart Archery Club (HAC), whilst a 5 ha artificial wetland has been constructed in the south eastern corner. The Tangara Recreational Trail provides a major access route from southern to northern sections of the reserve via a trail along the eastern boundary. A network of trails and fire breaks as defined in the Roscommon BMP are used by the local community for walking. There are a number of points of entry including those dedicated to the TEC and Hobart Archery clubs (see Figure 2.).

The area is predominantly cleared of native vegetation (previous land use was agriculture) with some small patches of locally important native vegetation, providing examples of the now extensively cleared vegetation of flatlands in the local area.



Figure 2. Ringwood Road entrance to Roscommon Reserve



4 SITE VALUES

The key values that have been identified by the community or through analysis of natural and recreational resource information are:

- This is the State base for equestrian activities and a range of other regionally important recreational pursuits including archery;
- The vegetation is mainly grassland dominated by introduced grasses with isolated patches of locally important Black Peppermint Coastal Forests, Black Gum Woodlands and Blue Gum Coastal Forest;
- The reserve forms a critical link and node of the Tangara Trail a major trail that traverses much of southern Clarence City;
- It also forms a valuable backdrop to Lauderdale and Roche's beach; and
- Local biodiversity benefits from the habitat that has been retained in the reserves. It also provides habitat for threatened fauna, namely eastern barred bandicoot and bettongs and breeding and foraging habitat for swift parrots.
- A key role is assisting to manage water quality and quantity for the local catchment. An artificial wetland has been constructed to enable water that flows out of the reserve to be as clean as possible and mitigate the impacts of flooding on downstream properties.

The Regional Ecosystem Model approach has been applied to the reserve to assist in defining both the immediate and potential priorities for landscape scale land management (Knight and Cullen, 2010). The REM is a systematic, computer based Natural Resource Management decision support tool that collates and organises spatial biodiversity focussed NRM information about an area of land and provides an assessment of potential management priorities (both immediate and longer term).

4.1 Native flora and fauna

Whilst the majority of the reserve is a grassland dominated by introduced pasture species, there is a small patch of forest in the southern end of *Eucalyptus amygdalina* coastal forest and woodland (DAC) adjacent to an area of *E. ovata* heathy woodland (DOW). The change in vegetation community is due to a shift from a slightly higher area of sandy coastal deposition (DAC) to a heavy clay back plain area (DOW). The understorey is mainly composed of bracken (*Pteridium esculentum*) although there are areas with more complete understorey plant diversity. This reflects the recent fire history that has tended to favour the profusion of the bracken fern. A very small patch of *E. globulus* dry Forest and woodland (DGL) is found on the western edge of the reserve where a drainage line leaves the hills and enters the coastal plain. Both the DOW and DGL communities are threatened vegetation under Schedule 3A of the Tasmanian Nature Conservation Act 2002. A description of the vegetation communities is provided in Table 1 (Appendix 2).

A key factor in the significance of the remnant native vegetation is the lack of living mature canopy trees and the consequent lack of trees hollows which are essential for native fauna breeding. There has been a historical bias in the clearing of the flatter landscape units of this type of ecosystems.

There is an opportunity to restore a considerable area of native vegetation that builds on the existing small remnants. In addition, restoration of the understorey will have city wide significance in terms of its contribution to critical fauna habitat and potentially as a revenue raising opportunity in the storage of carbon.

The Roscommon Fire Management Plan is a complementary plan that provides critical direction on the need for regular and focussed fire management actions.

An analysis of the flora species has been undertaken based on a search of the Natural Values Atlas (DPIPWE 2011). Of key note is the presence nearby (within 500m and on similar landscape units) of coastal houndstongue (*Cynoglossum australe*) and roundleaf wilsonia (*Wilsonia rotundifolia*) both of which are listed as rare in the Tasmanian Threatened Species Protection Act 1995 (TSP Act). Whilst not confirmed in the reserve, the proximity of the records in a nearby but very disturbed landscape is sufficient to justify management consideration of these species.

Table 2. Flora species of conservation significance of relevance to the reserve.

Flora species	Common name	Conservation status		Habitat / Comments
		TSP Act	EPBC Act	
<i>Cynoglossum australe</i>	coast Hounds tongue	Rare	—	Several records within 500 m in the Lauderdale beach area.
<i>Wilsonia rotundifolia</i>	roundleaf wilsonia	Rare	—	A record within 500 m in the Lauderdale beach area.
<i>Eucalyptus morrisbyi</i>	Morrisbys gum	Endangered	Endangered	A planting by Lauderdale Primary School and TEC

The reserve is likely to contain habitat for a diversity of locally important native wildlife. The analysis of fauna records (DPIPWE, 2011) reveals that whilst no threatened fauna species are recorded in the reserve the nature of the habitat present means it is likely to support eastern barred bandicoots and bettongs as well fulfilling a small role as breeding and foraging habitat for Swift Parrot (due to the presence of some individual hollow bearing Eucalyptus trees). The threatened status of these species is detailed 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>Perameles gunnii</i>	eastern barred bandicoot	—	Vulnerable	Evidence of eastern barred bandicoot burrowing is very common in the native vegetation remnants and adjoining lands.
<i>Lathamus discolor</i>	swift parrot	Endangered	Endangered	Some large stags* and mature Eucalypts that can provide nesting hollows.
<i>Bettongia gaimadi</i>	Tasmanian Bettong	-	-	Regional Forest Agreement priority species

* Stags is a term used to describe dead standing trees that, whilst dead, provide essential habitat for hollow dwelling fauna.

Artificial Wetland

A wetland constructed in the south eastern corner of the property has been designed and built is consistent with the guidance provided by Blake (2002). This wetland plays an important role in delivering key outcomes for Water Sensitive Urban Design (WSUD), particularly improving water quality of first flush flows through the contributing catchment and retaining high flows to reduce the effects of downstream flooding. This role is critical given the receiving waters are Ralphs Bay which is an important habitat for the spotted handfish (*Brachionichthys hirsutus*) an endangered species. It represents an excellent site to educate the community on the benefits of WSUD.



4.2 Geoconservation sites

The Reserve is not known to contain any geoconservation sites of significance. However, two sites, both of country level significance, are located in the vicinity, they are:

- Single Hill Dolerite Intrusion exposures (Part of a suite of sites identified as definitive of Jurassic dolerite intrusion in Tasmanian); and
- Frederick Henry Bay Beach Alignment (Notable example of type).

4.3 Cultural heritage

The Mumirimina band of the 'Oyster Bay' tribe lived in the broader area that includes the reserve. Their connection with the coastal landscape is known to have been strong and rich. The area would have been suitable for larger marsupials such as Bennett's Wallaby, Forester Kangaroo and Tasmanian Emu and as such formed part the resources of the Mumirima band. Their connection with the landscape was dramatically affected by British colonisation and from 1842 much diminished (TAC, 2010). Aboriginal Heritage Tasmania does not currently have any registered sites located within the reserve. Although there are only a few registered sites in the broader area it does not mean that there are not further sites yet to be discovered (Karen McFadden, pers. com.).

As British colonisation of the Hobart area expanded (from the 1805 onwards) the Eastern Shore became an important agricultural area providing grains and livestock (Andrew, 2008). This reserve is part of a land grant to E.S.P. Bedford, marked off by Assistant Surveyor Wedge in September 1862. [LTO Monmouth 27; Diary of John Helder Wedge Memorandum Book 1824-1835. p.30].. This early plan depicts the landscape as being lightly timbered although this may be just cartographic license. Farming flourished in the area (Andrew, pers. comm.). It is presumed that during this time much of the native vegetation would have been removed for firewood and to aid in agricultural production. The last private land owners that undertook farming was the Wicks Family, purchased in 1952 from Mr Roy Reynolds (Stephen Wicks, pers. com.), their farm was originally a highly successful dairy, with the Wicks Family winning many prizes for their dairy herd. However, with changes in weather patterns they shifted to grain production. They are also the source of the areas name 'Roscommon' which comes from a namesake town in Ireland. The Wicks family sold the flat lands to the council around 1971 and it now forms the reserve.

Under the Tasmanian Aboriginal Relics Act 1975 (The Aboriginal Relicts Act), it is an offence to 'destroy' damage, disfigure, conceal, 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 will be immediately reported to Aboriginal Heritage Tasmania and an Aboriginal Heritage Officer engaged to assess the area prior to any further on ground work occurring. AHT has prepared an Unanticipated Discovery Plan (AHT, 2011) to assist in applying the correct approach in the event that any material culture, including human remains, are discovered.

4.4 Recreational values

The key recreational values of the reserve are:

- Equestrian, (both event based and trail riding on Tangara Trail)
- Archery
- Walking, cycling including Mountain biking
- Nature appreciation

The reserve plays a very important role in meeting recreational needs of the local community and Tasmania as a whole. As the home of the Tasmanian Equestrian Centre (TEC) it fulfils a State level role in providing a venue for a range of equestrian activities (Jumping, Dressage, Cross Country and associated training activities). The TEC has an exclusive use license of a large part of the reserve and a non-exclusive use license for the balance of the site that incorporates an area in the northern end, sub leased to the Hobart Archery Club (HAC). The infrastructure assets that the TEC use are modest and require regular maintenance. A major proposed initiative of the TEC is the development of an Indoor Equestrian Arena; this would enable the centre to become an all-weather all year facility thus further optimising its usage.

HAC has also had a long term presence in the Reserve. Archery requires a large area of land for safety purposes and the reserve has provided an excellent venue for their sport. HAC conduct both range archery and field archery activities a club house is located in the far north east corner of the site and is directly accessible from the road. Both the TEC and HAC have endeavoured to work collaboratively on maintaining their respective areas of the reserve. Their involvement in the management of the reserve will continue.

4.5 Education values

Lauderdale Primary School is immediately adjacent to the south west corner of the reserve. The teachers and students have made use of the reserve for a range of purposes; most importantly it represents an opportunity to learn about the natural environment and to contribute to its protection and management. The TEC has collaborated with Lauderdale Primary School staff and students in a local Landcare project, the revegetation of an area in the south west corner, predominantly using *Eucalyptus morrisbyi*, a local native tree listed as Endangered both under Tasmanian and Commonwealth legislation. The area is the focus of continued revegetation and school based learning for the students.

Clarence Polytechnic has been involved in the design, construction and maintenance of the artificial wetland, and considers that the site is a key area for educational demonstration of Artificial Wetlands as a Water Sensitive Design technique.

5 STAKEHOLDER CONSULTATION

The RAP has been developed with active consultation with the local community and key community organisations with an interest in the reserve. A public meeting (a 'Walk and Talk') was conducted by Council and Watershed Tasmania on the 2nd of October 2011. The aim of the meeting was to gain input from stakeholders regarding the values and issues relating to the site. Twenty community members attended, with 6 community members also submitting written feedback based on a mail out to local residents. The issues raised are summarised in the Appendix 3. Responses from the community were considered throughout the development of the RAP.

Key community groups with an interest in the area are:

- Tasmanian Equestrian Centre;
- Hobart Archery Club;
- Tangara Recreational Trails Committee; and
- Lauderdale Coastcare Group

Where possible, all relevant community feedback has been considered in the development of the Roscommon Reserve Activity Plan. However some issues identified during 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 considered through other processes.



Figure 3. Local Community Walk and Talk at Roscommon Reserve.

6 WEED MANAGEMENT

6.1 Weed species present

A number of significant weeds are present in key locations within the reserve (See Appendix 5). The majority of the site is essentially modified grassland dominated by introduced pasture species. However there are areas which have more serious infestations of weeds that should be a focus of weed management actions. The key weed species is Serrated Tussock Grass (*Nasella dichotoma*) a Weed of National Significance (WoNS) in an area that is a hot spot for its control and eradication. The TEC is very aware of its presence and have worked collaboratively with Council to ensure it is contained and eventually eradicate from the site. A list of weed species is provided in Appendix 4 with accompanying maps in Appendices 5. To assist with identification, a picture of each weed species is provided.

6.2 Recommendation for primary weed control work

The primary weed control work should be focussed on declared weeds and other environmental weeds whose current distribution in Tasmania is limited. The sequence of work should be to protect the native vegetation patches first and the key points of entry to minimise further spread into and out of the reserve, before tackling the primary weeds on the balance of the property.

Recommendation 1: Council should continue to collaborate with the TEC in the surveillance and control of Serrated Tussock grass.

Controlling declared weeds whose distribution in the reserve is currently limited or can be controlled with a minimum of resources. These include Boneseed and Spanish heath. A very small patch of Spanish heath exists and it is critical that it is tackled as a matter of urgency.

Recommendation 2: A priority should be controlling the declared weeds Boneseed and Spanish heath.

There are areas that have been regularly mowed and maintained by the TEC for their equestrian activities and this has involved the accumulation of spoil heaps of soil that it is presumed will be used for use in the construction of additional horse riding challenges. These soil heaps and the highly maintained areas are a source of new and recurring weed infestations and need to be a focus of control particularly for the control of Capeweed.

Recommendation 3: The TEC and Council should collaborate on the treatment of the spoil heaps and develop a staged approach to reducing the extent of infestation of Capeweed. A strengthened lease arrangement would assist in clarifying each parties roles and responsibilities

6.3 Non priority weed species

Once priority weed control actions have been successfully completed, there are several known and suspected non priority weed species (see Appendix 4 & 5). The key species are monterey (or radiata) pine and wild turnip.

Recommendation 4: Following control of priority declared weeds, monterey pine, willow should be targeted.

6.4 Maintenance of weed control work

Weeds will be a persistent management issue for decades to come, through a combination of germination of existing soil seed banks, re-sprouting and the continued risk of new infestations from both existing and new weed species. A long term commitment is required to ensure that any investment in weed control is cost effective and successful.

An annual program of weed control that addresses tasks in priority order is essential, particularly for primary weed control priorities. This should be undertaken during spring and summer to align with the active growing period of most weeds, making them most obvious during surveillance. Previously treated areas should be checked and new areas tackled. These should represent the next highest priority and be of a suitable size that can be accommodated into ongoing maintenance capacity.

Recommendation 5: An annual survey and follow up of control of all targeted weeds should be undertaken during spring/summer.

Mapping the presence and density of weeds is important for assisting in determining management priorities and as a record of treatment work undertaken and the level of success for otherwise.

Recommendation 6: Spatially accurate weed mapping should be conducted at least on a five yearly basis to monitor progress and inform future weed management prioritisation. Information should be captured using standardised approach and the data submitted to the State Government to assist in broader scale weed management knowledge.

7 REGENERATION AND REVEGETATION

The site is comprehensively cleared and only small scale revegetation has been attempted in the south west corner. The vegetation communities that would have once occurred here have been reduced to small remnant patches predominantly in the southern part of the site. The opportunity exists to consider a medium scale revegetation program across the site that would be an excellent contribution to priority threatened vegetation communities and enhance the sites visual amenity. There is also the potential to provide functional wildlife corridors linkages with the Meehan Range and make a contribution to capturing and storing carbon, which may involve Council receiving a financial benefit through new Federal Legislation currently being put in place (Clean Energy Legislation package and the Carbon Farming Initiative Act 2011).

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

Issue	Description	Recommendation
Weed control	There are areas under the control of the TEC (see map?) that would benefit from weed control actions that would enable native species to recover more quickly.	Conduct weed control in TEC controlled areas (particularly in the north west corner of the license area) and where spoil has been stockpiled. This needs to be consistent with the weed management priorities discussed in section 6.
Replanting work in the south west corner	The Lauderdale primary and the Tasmanian Equestrian Centre have collaborated on a replanting project with the primary school students. They have primarily planted rows of <i>Eucalyptus morrisbyi</i> . The trees have proved to be of mixed success in terms of growth performance.	Develop a replating program that is based on species suitable to each land unit present on the site.
Areas of bracken dominated understorey	The existing patches of native vegetation commonly have a bracken dominated understorey or have predominantly lost the canopy and only bracken remains.	Investigate the use of strategic burns that enable other understorey (and canopy species) to better compete with bracken and increase native plant diversity.

Recommendation 7: Ensure active weed management to minimise this threatening process to existing native vegetation and planned restoration and regeneration projects.

Recommendation 8: Progressively develop wildlife corridors in the south west corner to enable improved wildlife movement between Lauderdale Beach Coastal Reserve, through Roscommon and on to the Meehan Range. A north-south wildlife corridor functionality should also be reinstated. This would also be a suitable focus for on-going collaboration between Council TEC and the Lauderdale Primary School. The use of artificial nest boxes to enhance initial habitat functionality should be considered.

Recommendation 9: Consider the creation of a 35-45 ha bushland node that expands on the existing remnant native vegetation to increase corridor and local habitat function, increase visual amenity and provides a screening between the TEC and Hobart Archery license areas. The use of artificial nest boxes to enhance initial habitat functionality should be considered. The revegetation would need to be mindful not to restrict the usage of the area by the TEC and Hobart Archery groups.

8 RESERVE ENTRANCES

Roscommon Reserve has 5 entrances, as highlighted in Figure 2. The table below summarises the issues surrounding the use of these entrances.

Table 5: Management activities required for reserve entrances

Issue	Description	Recommendation
Signage	Inconsistent signage to identify reserve and reserve boundaries	Install reserve signs that are consistently themed and informative. This should include interpretive signage that promotes the values of the reserve including the Artificial wetland. Generations of people have participated in the heritage of the area and this should be reflected in the signage and planting.
Track Condition	Some entrances are overgrown and narrow	Upgrade entrances to a suitable design standards.
Visual Amenity	The visual amenity is degraded	Improve the visual amenity of entrances through localised landscaping.
Encouragement of park users.	There is limited formal parking near entrances (unless attending a TEC or Hobart Archery activity). The Ringwood Rd entry point has the potential to offer a small (say 4-5 bay) formal car parking area that would encourage greater use. It is also the primary point of access for the large residential community in the nearby Roche's Beach Living (a retirement living facility). There is also great potential in encouraging the residents of Lauderdale Beach by capitalising on the adjacent council lands that could form a linkage park and thoroughfare from Roche's Beach Reserve to the Reserve that would align with an enhanced entrance between 24 and 26 Terrina Street.	Develop a formal parking area at the Ringwood Road and Equestrian Drive entrances (suitable for Horse Floats) Establish a primary entry point at an existing minor entrance between 24 and 26 Terrina St and support this with the installation of signage that encourages Roche's beach Reserve visitors to use Roscommon Reserve.

Recommendation 10: Installations of signs, improving amenity and developing thematic names for 3 major entrances (Terrina St, Equestrian Drive and Ringwood Rd). See Appendix 7.

9 WALKING TRACKS

There are 4 main walking tracks on the reserve (see Map 2), which are for walking, mountain biking and horse riding (sometimes on separate tracks). The condition of the track is important for the safety and amenity. The key management issues identified with walking tracks are summarised in Table 6 below.

A draft Tangara Trail Network Activity Plan (2012) identifies a desire for new track connections from the Equestrian Drive entrance linking across to Roches Beach Rd and at the South Eastern corner to Balook St and Manatta St. The draft Tangara Trail Network Activity Plan suggests naming the sections of Tangara Trail that run through Roscommon as Roscommon Track East and Roscommon Track West. This could create a perimeter track around the reserve. Track intersections with Roscommon Reserve will require signage consistent with the Clarence City Council Signage Guidelines.

There is a diversity of interests and potential safety issues with the development of a perimeter/circuit trail around Roscommon, which would require detailed discussion and consideration of the most feasible approach to meet the diversity of needs.

A primary hub on council owned land adjacent to the reserve on Roche's Beach would provide centralised parking and information for all trail users. Close proximity to the Roscommon/State Equestrian Centre means that it will be particularly important for horse riders.

Table 6: Track management Issues identified within the reserve.

Description	Recommendation
Track does not meet Australian standards	Audit the existing track and upgrade to Class 2 or Class 3 track where appropriate.
Dead tree limbs overhanging the track	Maintenance of vegetation adjacent to and above walking tracks
Debris on the track making it hard to traverse	Maintenance of track to remove unsafe debris.
None or inadequate signage	Directional signage to be installed at track intersections and interpretive signage to be installed at relevant sites within Roscommon
Lack of perimeter track in northern section of reserve	Investigate appropriate alignment and construct missing sections of track.

Recommendation 11: Undertake an Audit of the existing walking tracks against the track standards and guidelines (ie. Guide to Road Design Part 6A: Pedestrian and Cyclist Paths (Austroads 2009) and Australian Walking Track Standards (AS 2156.1). Upgrade and maintain tracks in accord with Best Management Practice and Australian Standards.

Recommendation 12: That a feasibility study be undertaken including assessment and subsequent delineation of a suitable alignment, the values of the resultant connectivity provided by the alignment and the resolution of perceived and actual safety issues associated with the preferred alignment).

Recommendation 13: Develop a primary trail hub on the parcel of Council-owned land near to the Roscommon/State Equestrian Centre on the northern side of Roche's Beach Road.

Recommendation 14: Continue to liaise with the landowner to establish a shared trail connection from the proposed Roche's Beach Primary Hub (northern side of Roche's Beach Road), through to the Tasmanian Equestrian Centre and existing section of the Tangara Trail which follows the boundary of Roscommon.

10 INFRASTRUCTURE

The main focus of infrastructure development is the benefits for many less active walkers of seating, a rotunda and bridging in the vicinity of the artificial wetland. This would make the area much more appealing for older community members, particularly those at *Roche's Beach Living*, a nearby retirement complex. The provision of seating, trail hubs and observation points needs to be supported by adequate shading, to maximise use of the facilities all year round.

Seating should be of a type that is robust enough to withstand anticipated vandalism and be of a colour that blends into the environment. The community has suggested that a simple approach would be to place a large log and cut a seat into it.

Recommendation 15: New outdoor seats and a rotunda of suitable design and materials to be installed at key locations in the Reserve.

The Tasmanian Equestrian Centre has a number of key built assets that will require ongoing maintenance. In addition, the TEC is planning to develop an indoor equestrian facility that will maximise the use of the facility. Whilst funding has yet to be secured this is a major activity for the TEC and would be a priority once funds are available. The Hobart Archery Club also has aspirations to develop an indoor facility to enable all weather use of the site. The club is keen for it to be a shared facility to maximise its use.

Recommendation 16: Clarence City Council to investigate means to assist the Tasmanian Equestrian Centre to advance their vision for an Indoor Equestrian Centre and the Hobart Archery Club's aspiration to develop a shared indoor facility that could maximise the wet weather use of the site.

Whilst not seen as a large proportion of walkers, there are many who also walk their dogs. The risk of site pollution and loss of amenity from dog faeces would be best managed by considering suitable waste facilities being installed and maintained.

Recommendation 16: Dog waste dispensers and bins should be installed at all main entrances to the reserve.

There are no public toilet facilities within the reserve, although both the TEC and Hobart Archery do have facilities for their members, they are not accessible to the public. Whilst no specific comment was made by the community, it is suggested that the installation of a public toilet would be of benefit to the reserve users. The best options for consideration are the Ringwood road entrance although passive surveillance is somewhat compromised, or the Balook Street entrance.

Recommendation 18: That a public toilet be installed to cater for reserve users, particularly walkers, near an entrance at the southern end of the reserve.

There was a view in the community that there was a lack of play area for children (e.g. swing set, “kickabout” and kite flying particularly in the corner where the artificial wetland is. In addition, another view was the area could benefit from having a fitness node for adults to use whilst exercising through walking.

Recommendation 19: That an assessment be made of the sub regional demand for child playground node and fitness nodes to confirm whether the Roscommon Reserve is the best location for them.

11 Water Management

The single most common issue raised through community consultation is the state of the drainage area behind the houses in Terrina Street. The consistent concern was the need for more proactive maintenance to limit the risk of the drain overflowing into private property during high rainfall events.

The Artificial wetland accumulates sediment from the contributing catchment; this is a key part of its role as an infrastructure asset. The accumulation of sediment causes changes to the capacity of the wetland and its overall functionality.

The artificial wetland is also affected by the presence of a surface water plant azolla (*Azolla filiculoides*) which is well established in the 6 permanent pools within the wetland system. It is suspected of being a response to high nutrient levels, it is a non-poisonous native plant but has a tendency to dominate (if unmanaged), cover small water bodies and change water temperature, oxygen content and the ability of other flora and fauna to thrive. Azolla does provide important filtering functions as a nitrogen and pollution accumulator but it does need to be monitored and actively managed. There is a range of control methods and it may be necessary to establish a series of trials to establish the best option for this situation for example:

- Coordinated azolla removal in all upstream ponds and the establishment of sheet flow zones that allow the azolla to be deposited prior to being transported to next pond
- Establish deep rooted perennials up stream to capture some of the nutrient load
- Netting and scoping out and disposal on dry land and/or
- Herbicides suitable for aquatic environments

Recommendation 20: Undertake annual maintenance of the artificial wetland to ensure it functions effectively. This will need to include removal of over accumulations of azolla where it is affecting wetland pond ecology, a trial of each likely approach can be used initially to confirm the best approach.

Recommendation 21: Need to plan and implement a major upgrade of the flow lines into and through the wetland and its receiving watercourse. This will include a program to re-establish full functionality in relation to Water Sensitive Design attributes. It is anticipated to involve re-grading of the water course to establish the original fall of around 1:1000 throughout the wetland to the pump station and excavation of the 6 permanent pools to remove the accumulated sediment and possible removal of most of the azolla (an aquatic plant species that can affect wetland performance).

12 Climate Change

Clarence City Council has developed a comprehensive understanding of the potential implications of climate change on public assets and areas of high value (CCC, 2009). It is clear that under certain scenarios coastal infrastructure is at risk of damage or loss. The Council is aware of the need to

evaluate options for cost effectively dealing with climate change impacts on communities and its infrastructure particularly the need to relocate or rebuild elsewhere. This highlights the need to consider the potential roles that Roscommon Reserve may play in the future, given the outcomes described.

Once a strategic approach has been developed by Clarence City Council, the Feasibility of Roscommon as an alternative site is warranted (in 4th 5th yr). RAP derived activities should be in accord with the RCAP outcomes -- see Clarence City Council website for Regional Climate Change Adaptation Decisions Pathway (RCCADP) project.

Recommendation 22: That a feasibility study be undertaken (in year 4 or 5) to confirm the strategic opportunities and benefits of Roscommon as an alternative recreation node for activities that may become displaced from other parks at risk from climate change.

Given the low lying nature of the reserve it would be prudent to undertake an evaluation of the risk posed to all infrastructure assets to ensure that the implications of potential sea level rise are manageable. For example, the artificial wetland could lose functionality, but also play an enhanced role with modifications, if there was a change in sea level.

Recommendation 23: Undertake a climate change risk analysis for all infrastructure assets in the reserve.

13 OTHER MANAGEMENT ACTIVITIES

Other issues were:

- Mowing of the perimeter, particularly where a fire hazard exists;
- Rubbish still gets dumped occasionally and needs to be picked up before it scatters;
- spoil heaps near pump station causing altered flood flows

Recommendation 24: A review of the existing reserve maintenance program should be undertaken to address the issues raised during the stakeholder consultation.

14 COMMUNITY PARTICIPATION AND AWARENESS

Roscommon Reserve has already benefited from the active interest and activities of the local community and the TEC . Hobart Archery, Tangara Recreational Trails Committee, Sandford Scouts and the friends of the Roscommon Artificial Wetland. Their care of the reserve has been of significant assistance to Council. It will be valuable to continue to enhance and find ways to strengthen the relationship between council and volunteer groups actively caring for the reserve.

Recommendation 25: Facilitating a strengthened partnership with TEC, Hobart Archery and Tanagra Recreational Trails Committee that supports the co-ordination of an on-going community participation and awareness program involving all the volunteer stakeholder groups such as , Coastcare group, Wetland care, Scouts, School and other interested community. This will need to include assistance in the development of funding submissions.

Many local residents, though, do not have a good understanding of this public space on their doorstep and would benefit from learning about it and encouragement in becoming involved in its use and care.

Recommendation 26: Community education should be undertaken to facilitate change in behaviour and encourage ownership and appreciation of the values of the reserve. Define the nature of engagement incl. gardening focus and waste mgt. and the benefits of the greenways and their role that they can contribute. A key example is raising community awareness and involvement in active sound fire management on and adjacent to the reserve. For example, the Roscommon Reserve Fire Management Brochure (see Appendix 10).

Table 7. Management issues requiring 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 (e.g. to improve views is illegal. It encourages the establishment of weeds and reduces species diversity and animal behaviour.
Environmental weeds	Weeds in adjacent gardens pose a threat to existing native vegetation within the reserve.

The Lauderdale Coastcare group has been actively involved in the creation and maintenance of the Artificial Wetland and has a keen interest in the future of the reserve. A collaborative approach between Clarence City Council and the coastcare group will be valuable in encouraging locals to become more interested and involved in management of the natural assets of the reserve.

Recommendation 27: Council should consider a collaborative program of reserve care that respects the efforts of the Lauderdale Coastcare group and fosters the groups' capacity to grow.

15 IMPLEMENTATION PLAN

An implementation plan has been developed that identifies the key management activities, in order of priority, based on key recommendations contained in the *Roscommon Reserve Activity Plan*. The priority stages are:

- Priority 1:
- Priority 2:
- Priority 3:

This plan aims to guide future management goals for Clarence City Council, depending on the level of adequate resources. It is assumed that, due to resource constraints, not every prescribed activity can be achieved. It is important that the plan is reviewed at least every 5 years to ensure that resources are correctly prioritised.

Recommendation 28: An annual review of the Implementation Plan, using established performance criteria, should be adopted.

There is also a need to undertake more frequent operational monitoring of management actions to ensure that assumptions made about priorities and appropriate actions have been correct. A cost effective annual monitoring program is desirable that measures more immediate outputs and contribution to longer term outcomes. This can take the form of:

- simple regular photo-point monitoring of works activities
- Surveillance of specific management actions to confirm success
- Permanent monitoring points that measure broader range of biophysical attributes (e.g. bird diversity, landscape function and soil health, invertebrate diversity and composition).

Recommendation 29: Develop an annual monitoring program that cost effectively measures the outputs of actions undertaken. Can be initiated using monitoring of 5 – 10 photo points.

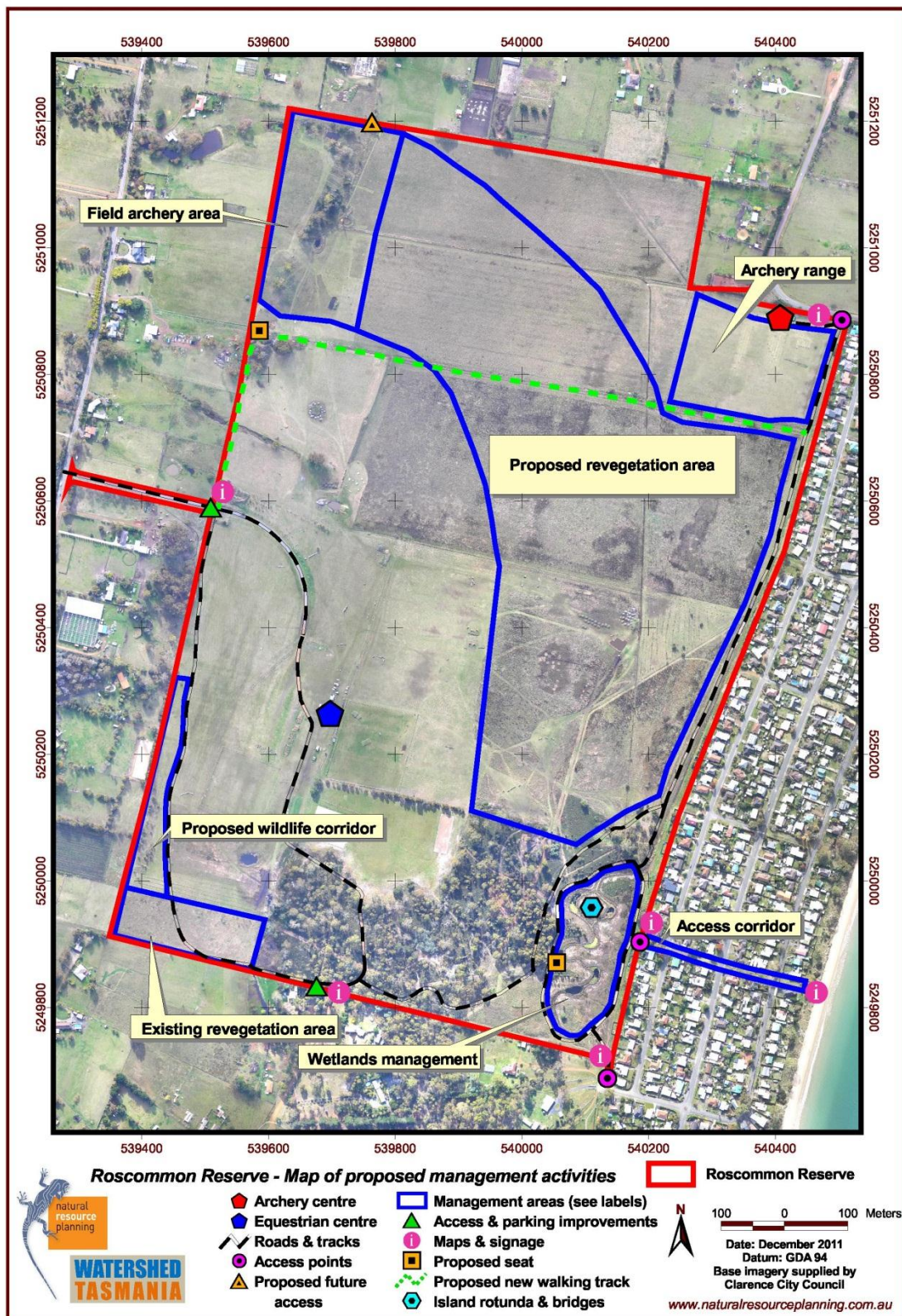


Table 8: Implementation Plan, highlighting the prescribed management activities in Roscommon Reserve.

Priority	Action	Seasonal timing	Performance measure	Responsibility
Weed Control				
1	Control the declared weeds Boneseed and Spanish heath.	Spring – summer for spot spraying all year round for mechanical techniques.	All declared weeds eradicated	Council
2	The TEC and Council should collaborate on the treatment of the spoil heaps and develop a staged approach to reducing the extent of infestation of Capeweed.	Spring – summer for spot spraying all year round for mechanical techniques.	All spoil heaps free of weeds.	Tasmanian Equestrian Centre (TEC) and Council.
2	Following control of priority declared weeds, Monterey Pine, willow should be targeted.	All year round for mechanical techniques.	All monterey pine and willow plants removed	Council
1	An annual survey and follow up of control of all targeted weeds should be undertaken.	spring/summer	All targeted weeds are eradicated.	Council, TEC, Hobart Archery, volunteer groups.

3	Undertake GPS mapping of all weeds	Spring – summer	Weed maps and Council database are updated within five years.	Council
Revegetation and landscaping				
2	Consider the creation of a wildlife corridor in the south west corner to enable improved wildlife movement between Roscommon and the Meehan Range. This would also be a suitable focus for on-going collaboration between Council TEC and the Lauderdale Primary School.		Agreed revegetation approach for south west corner.	Council, TEC, Lauderdale Primary School
3	Consider the creation of a 35-45 ha bushland node that expands on the existing remnant native vegetation to increase habitat function, increase visual amenity and provides a screening between the TEC and Hobart Archery license areas.		Decision made on whether to create bushland node.	Council
Access management				
	Installations of signs, improving amenity and developing thematic names for entrances.		Reserve signage in place.	Council
Walking tracks				

	Undertake an Audit of the existing walking tracks against the Guide to Road Design Part 6A: Pedestrian and Cyclist Paths (Austroads 2009).		Audit completed	Council
Infrastructure				
1	New outdoor seats of suitable design and materials installed at key locations in the Reserve.	N/A	Seat installed	Council
2	Clarence City Council to investigate means to assist the Tasmanian Equestrian Centre to advance their vision for an Indoor Equestrian Centre and the Hobart Archery Club's aspiration to develop a shared indoor facility that could maximise the wet weather use of the site.	N/A	Indoor Equestrian Centre development Plan prepared and funded. Hobart Archery Indoor facility development Plan prepared and funded	Council, TEC Council and Hobart Archery Club
2	Dog waste dispensers and bins should be installed at all main entrances.	N/A	Bins installed	Council
3	Public toilet installation.	N/A	Toilet installed	Council
3	Assessment made of the sub regional demand for child playground node and fitness nodes to confirm whether the Roscommon Reserve is the best location	N/A	Assessment completed and option approved.	Council

	for them.			
Other management issues				
1	A review of the existing reserve maintenance program should be undertaken to address the issues raised during the stakeholder consultation.	Summer	Review completed and concerns addressed where practicable	Council
Community participation and awareness				
2	Community education should be undertaken to facilitate change in behaviour and encourage ownership and appreciation of the values of the reserve.	Spring/summer	Increased community participation I reserve activities	Council
2	Council should consider a collaborative program of reserve care that respects the efforts of the Lauderdale Coastcare group and fosters the groups' capacity to grow.	Spring/summer	Increased number of volunteers actively involved in reserve care	Council
Implementation Plan				
1	An annual review of the Implementation Plan, using established performance criteria, should be adopted.	In line with Council budgetary planning cycle	Annual review completed	Council
Future Priorities				

3	RAP reviewed to assess progress and determine ongoing management priorities.	2017	Review completed	Council
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16 FUTURE PRIORITIES

A review of the Roscommon Reserve Activity Plan will be required at least in 2017, to ensure that:

- The outlined objectives are being fulfilled
- The Reserve Activity Plan is being appropriately assessed against performance measures
- On-going management activities adapt to the changes in the x number years ahead.

Recommendation 30: The Roscommon Reserve Activity Plan should be reviewed in 2017 to assess progress to date and define future management activities for the site.

17 REFERENCES

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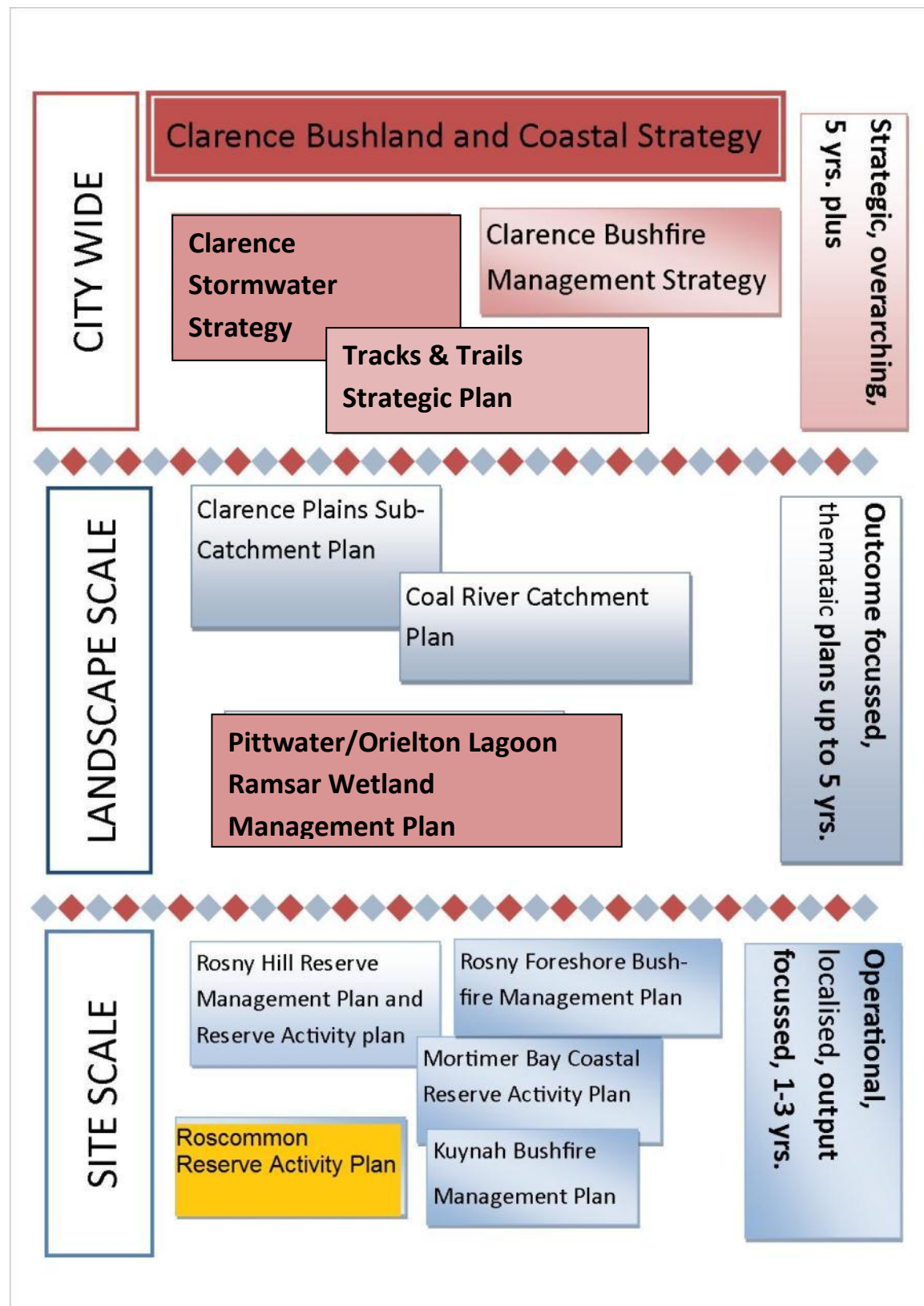
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APPENDIX 1. Clarence City Bushland and Coastal Strategic Planning Framework.



(Activity Plan highlighted).

APPENDIX 2. Native vegetation communities within the Roscommon Reserve.

Community name	TASVEG code	Description/Comments
<i>Eucalyptus amygdalina</i> coastal forest and woodland	DAC	<p><i>Eucalyptus amygdalina</i> coastal forests and woodlands are dry sclerophyll communities dominated by <i>E. amygdalina</i>. They vary from open forest to low open woodland. The community can form pure stands of scattered trees or mallee-form trees emerging from a heathy understorey. The trees rarely exceed 25–30 m in height and on many sites are less than 25 m tall.</p> <p>Note: This patch is moderately disturbed with many mature trees suffering or succumbed to Tree Decline. The hollow bearing capacity has been compromised by wood hooking and selective removal of mature trees over recent decades.</p>
<i>Eucalyptus ovata</i> heathy woodland	DOW	<p><i>Eucalyptus ovata</i> heathy woodland (DOW) is a woodland community with a characteristically dense and species-diverse, heathy understorey. It is most common in coastal areas growing in association with heath communities; however, it does grow in other situations. The trees are well-spaced, short and have a mallee form.</p> <p>Note: This is a very small patch which abuts the DAC patch it is presumed to be a remnant of a much larger area that would have covered the majority of the site which is a coastal back plain. Bracken does occur but the understorey is commonly more diverse.</p>
<i>Eucalyptus globulus</i> dry forest and woodland	DGL	<p><i>Eucalyptus globulus</i> dry forest and woodland is dominated by a canopy of <i>E. globulus</i> that varies in height from about 40 m in productive coastal areas to < 20 m on poor soils in more arid inland areas. The understorey in this forest community is usually dominated by native grasses and</p> <p><i>Lomandra longifolia</i>, with a sparse cover of tall shrubs and a sparse low shrub layer.</p> <p>Note: This patch is very disturbed with mature trees and limited native understorey retained with considerable presence of weeds particularly Briar Rose and African</p>

boxthorn.		
Wetland (undifferentiated)	AWU	<p>This is an artificial wetland that fulfils roles in water quality improvement and reduction I peak flows of moderate flood events.</p> <p>Note: This area has been replanted with locally appropriate endemic wetland and woodland species. Establishment is in an advanced stage but canopy closure and full species diversity is not anticipated for a considerable period of time.</p>
<i>Pteridium esculentum</i> fernland	FPF	<p>A fernfield dominated by the strongly rhizomatous bracken, <i>Pteridium esculentum</i>, on well-drained soils. The height is usually between 30 and 60 cm. There may be other grasses and herbs associated with the bracken.</p>

APPENDIX 3: SUMMARY OF STAKEHOLDER CONSULTATION

A public meeting on 2nd October 2011 invited the community to raise issues about Roscommon Reserve, to assist in the development of the *Roscommon Reserve Activity Plan*.

20 stakeholders attended the walk and talk, a further 6 written comments were received. Table X summarises the responses provided.

Table 9: Summary of stakeholder feedback in October 2011

Management issue	Number of respondents
Vegetation management	
Mature eucalypts are dying or been cut down, need to plant more native trees and provide artificial nesting hollows for fauna.	3
Continue to replant natives in the area surrounding the artificial wetlands.	1
Weed Control	
Get rid of the pine trees	1
Undertake weed control activities	2
Landscaping	
Provide a better standard of tracks, particularly around the artificial wetland for the mobility impaired or for prams.	3
Provide seating and a small bridge that shortens the distance for a walk around the wetlands.	3
Infrastructure	
Clean out the drains more regularly behind the Terrina street properties. There are spoil heaps near the pump station that are also affecting flows.	4
Install better signage to let people know what you can do here	1
Consider providing play infrastructure for children and youths (e.g. swing set and skate park in the vicinity of the south east corner).	2
Install a fitness node for adults to use during exercise walks.	2
Other management issues	

Accommodating multiple recreational uses	
Managing the presence of both feral and pet cats and dogs through proper fencing and signage	2

Responses from the community were considered throughout the development of the *Roscommon Reserve Activity Plan*, however, where feedback did not fall within the scope of the project, they were noted by Council and will be addressed through other means if possible.

Actions were also suggested to address the issues as follows:

- Proactive weed management and weed hygiene practices for recreational users;
- Preventative fire management practices; and
- Program of recreational infrastructure development.

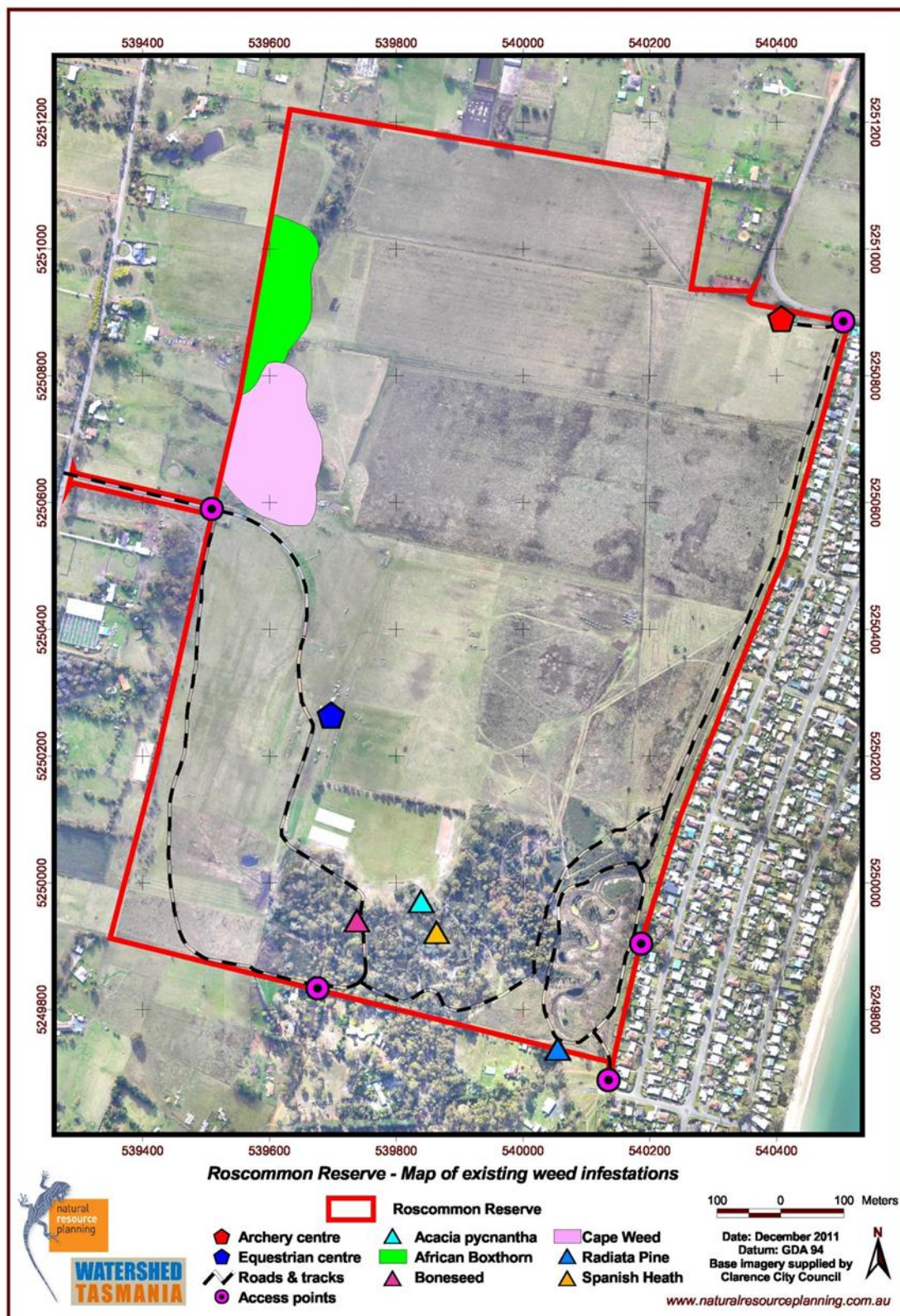
APPENDIX 4: WEED SPECIES PRESENT AND RECOMMENDED CONTROL TECHNIQUES

Common Name	Scientific name	Status	Recommended technique
Monterey Pine	<i>Pinus radiata</i>		Cut down mature trees and monitor for seedlings which can be manually removed
Boneseed	<i>Chrysanthemoides monilifera ssp. monilifera</i>	Declared WONS	Hand pull
cape weed	<i>Arctotheca calendula</i>		Use suitably approved weed herbicide.
Serrated tussock	<i>Nassella trichotoma</i>	Declared WONS	Chip out and dispose of safely or apply chemical as per the Serrated Tussock WONS Best Practice Weed Management Manual
Sweet Briar rose	<i>Rosa rubiginosa</i>		
Blackberry	<i>Rubus fruticosus agg</i>	Declared WONS	Apply techniques as per the Blackberry WONS Best Practice Weed Management Manual
Nodding Thistle	<i>Carduus nutans</i>	Declared	
Yorkshire Fog grass	<i>Holcus lanatus</i>		Keep areas well slashed
Wild turnip	<i>Brassica rapa spp. silvestris</i>		
Golden Wattle	<i>Acacia pycnantha</i>		Cut and paste with suitably approved herbicide, monitor for seedlings that can be hand pulled.

In addition to weeds present on the reserve, a number of other weeds are known from a search of the Natural Values Atlas (DPIPWE, 2011) to be in close proximity and active surveillance needs to be conducted to ensure they do not become a future weed problem for the reserve. They are:

Common Name	Scientific name	Status	Recommended technique
bridal creeper	<i>Asparagus asparagoides</i>	Declared WONS	Apply techniques as per the Asparagus Weeds WONS Best Practice Weed Management Manual
bluebell creeper	<i>Billardiera heterophylla</i>		
spanish heath	<i>Erica lusitanica</i>	Declared	
fennel	<i>Foeniculum vulgare</i>	Declared	
canary broom	<i>Genista monspessulana</i>	Declared	
African boxthorn	<i>Lycium ferocissimum</i>	Declared	

APPENDIX 5: LOCATION OF WEED SPECIES



APPENDIX 6: LOCAL NATIVE SPECIES SUITABLE FOR REVEGETATION AND LANDSCAPING WORK

The following tables provide lists of species that are appropriate for revegetation works in Roscommon. They are drawn from the Tasmanian Vegetation TASVEG Vegetation Community Benchmarks (DPIPWE, 2012). Each native vegetation community that has been mapped in Roscommon Reserve (see Appendix 2) has a list of species that are considered to be representative of that community. These lists should form the basis of plant selection for any revegetation projects that occur in the reserve. Whilst not all species will be available from nurseries, the opportunity does exist to work with the community to produce less commonly available plants, for example through the Understorey Network (see www.understorey-network.org.au). It is important to note that the artificial wetland (mapped as AWU) is not a native vegetation community and

DAC-Heathy – *Eucalyptus amygdalina* coastal forest and woodland (Heathy inderstorey)

Plant Form Code*	Species name (scientific and common)
T	<i>Acacia dealbata</i> silver wattle
T	<i>Acacia melanoxylon</i> blackwood
T	<i>Allocasuarina littoralis</i> black sheoak
T	<i>Banksia marginata</i> silver banksia
T	<i>Eucalyptus amygdalina</i> black peppermint
T	<i>Exocarpos cupressiformis</i> common native-cherry
T	<i>Melaleuca squarrosa</i> scented paperbark
T	<i>Olearia lirata</i> forest daisybush
S	<i>Amperea xiphoclada</i> broom spurge
S	<i>Bossiaea</i> spp. bossia
S	<i>Epacris impressa</i> common heath
S	<i>Euryomyrtus ramosissima</i> subsp. <i>ramosissima</i> rosy heathmyrtle
S	<i>Leptospermum scoparium</i> common teatree
S	<i>Leucopogon</i> spp. beardheath

S	<i>Lissanthe strigosa</i> peachberry heath
S	<i>Pultenaea</i> spp. bushpea
S	<i>Tetratheca</i> spp. pinkbells
PS	<i>Acrotriche</i> spp. ants delight
PS	<i>Astroloma humifusum</i> native cranberry
PS	<i>Bossiaea</i> spp. bossia
PS	<i>Hibbertia</i> spp. guineaflower
PS	<i>Kennedia prostrata</i> running postman
H	<i>Dichondra repens</i> kidneyweed
H	<i>Drosera</i> spp. sundew
H	<i>Euchiton</i> spp. cottonleaf
H	<i>Gonocarpus</i> spp. raspwort
H	<i>Goodenia lanata</i> trailing native-primrose
H	<i>Helichrysum</i> spp. everlasting
H	<i>Orchidaceae</i> orchids
H	<i>Viola</i> spp. native violet
H	<i>Wahlenbergia</i> spp. bluebell
G	<i>Austrostipa</i> spp. speargrass
G	<i>Deyeuxia</i> spp. bentgrass
G	<i>Poa labillardierei</i> silver tussockgrass
LSR	<i>Dianella revoluta</i> spreading flaxlily
LSR	<i>Diplarrena moraea</i> white flag-iris
LSR	<i>Gahnia</i> spp. cutting grass
LSR	<i>Lomandra longifolia</i> sagg
SSR	<i>Schoenus</i> spp. bogsedge
GF	<i>Pteridium esculentum</i> bracken
SCE	<i>Cassytha</i> spp. Dodderlaurel

DOW - *Eucalyptus ovata*, heathy woodland

Plant Form Code*	Species name (scientific and common)
T	<i>Acacia verticillata</i> prickly moses
T	<i>Banksia marginata</i> silver banksia
	<i>Eucalyptus ovata</i> black gum
T	<i>Leptospermum lanigerum</i> woolly teatree
T	<i>Leptospermum scoparium</i> common teatree
S	<i>Acacia suaveolens</i> sweet wattle
S	<i>Allocasuarina paludosa</i> scrub sheoak
S	<i>Callistemon viridiflorus</i> prickly bottlebrush
S	<i>Melaleuca gibbosa</i> slender honeymyrtle
PS	<i>Astroloma humifusum</i> native cranberry
PS	<i>Bossiaea prostrata</i> prostrate bossia
H	<i>Burchardia umbellata</i> milkmaids
H	<i>Dichondra repens</i> kidneyweed
H	<i>Orchidaceae</i> orchids
H	<i>Viola</i> spp. violet
G	<i>Austrodanthonia</i> spp. wallabygrass
G	<i>Ehrharta</i> spp. ricegrass
G	<i>Poa</i> spp. tussockgrass
LSR	<i>Gahnia radula</i> sawsedge
LSR	<i>Lepidosperma filiforme</i> common rapiersedge
LSR	<i>Lepidosperma longitudinale</i> swordedge
LSR	<i>Lomandra longifolia</i> sagg
MSR	<i>Luzula</i> spp. woodrush

MSR	<i>Schoenus spp. bogsedge</i>
GF	<i>Asplenium spp. spleenwort</i>

DGL - *Eucalyptus globulus* dry forest and woodland

Plant Form Code*	Species name (scientific and common)
T	<i>Acacia dealbata</i> silver wattle
T	<i>Acacia mearnsii</i> black wattle
T	<i>Acacia melanoxylon</i> blackwood
T	<i>Allocasuarina verticillata</i> drooping sheoak
T	<i>Banksia marginata</i> silver banksia
T	<i>Bursaria spinosa</i> prickly box
T	<i>Eucalyptus globulus</i> tasmanian blue gum
S	<i>Cassinia aculeata</i> dollybush
S	<i>Epacris impressa</i> common heath
S	<i>Hibbertia</i> spp. guineaflower
S	<i>Leptomeria drupacea</i> erect currantbush
S	<i>Lissanthe strigosa</i> peachberry heath
S	<i>Pimelea</i> spp. riceflower
PS	<i>Astroloma humifusum</i> native cranberry
PS	<i>Bossiaea</i> spp. bossia
PS	<i>Hibbertia</i> spp. guineaflower
H	<i>Bossiaea prostrata</i> creeping bossia
H	<i>Dichondra repens</i> kidneyweed
H	<i>Gonocarpus</i> spp. raspwort
H	<i>Helichrysum</i> spp. everlasting

H	<i>Leptorhynchus squamatus</i> scaly buttons
H	<i>Orchidaceae</i> orchids
H	<i>Pimelea</i> spp. riceflower
H	<i>Senecio</i> spp. groundsel
H	<i>Viola hederacea</i> ivyleaf violet
H	<i>Wahlenbergia</i> spp. bluebell
G	<i>Austrodanthonia</i> spp. wallabygrass
G	<i>Austrostipa</i> spp. speargrass
G	<i>Dichelachne</i> spp. plumegrass
G	<i>Ehrharta</i> spp. ricegrass
G	<i>Poa</i> spp. tussockgrass
G	<i>Themeda triandra</i> kangaroo grass
LSR	<i>Dianella revoluta</i> spreading flaxlily
LSR	<i>Lepidosperma</i> spp. sword-sedge
LSR	<i>Lomandra longifolia</i> sagg
SSR	<i>Arthropodium</i> spp. vanilla-lily
GF	<i>Pteridium esculentum</i> bracken
SCE	<i>Billardiera</i> spp. appleberry

AHL - Lacustrine herbland more like Saline sedgelands ARS and Saline aquatic herbfield

Plant Form Code*	Species name (scientific and common)
H	<i>Crassula</i> spp. stonecrop
H	<i>Isolepis fluitans</i> floating clubsedge
H	<i>Lepilaena</i> spp. watermat
H	<i>Mimulus repens</i> creeping monkeyflower

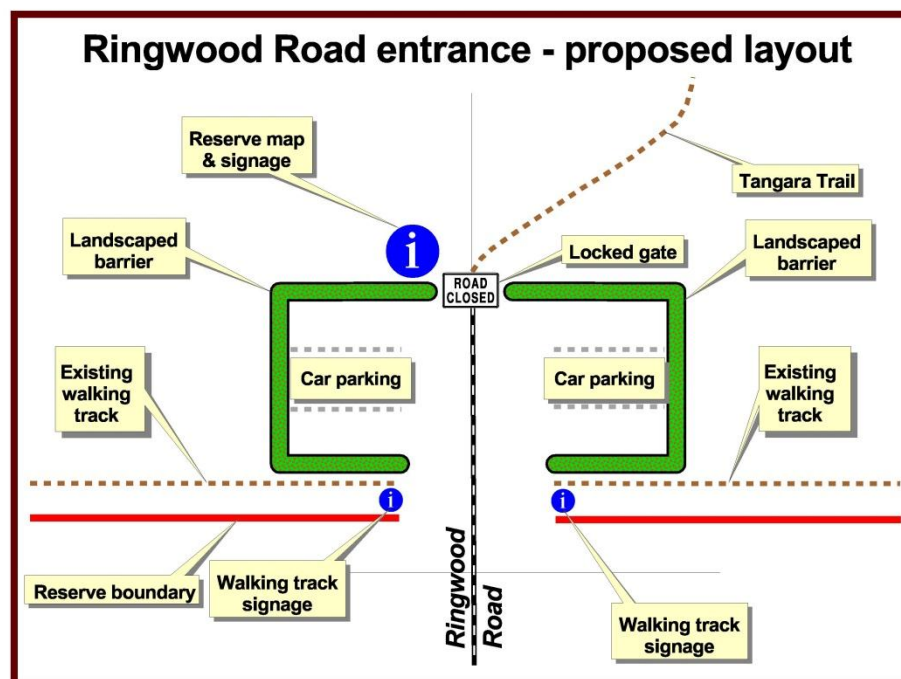
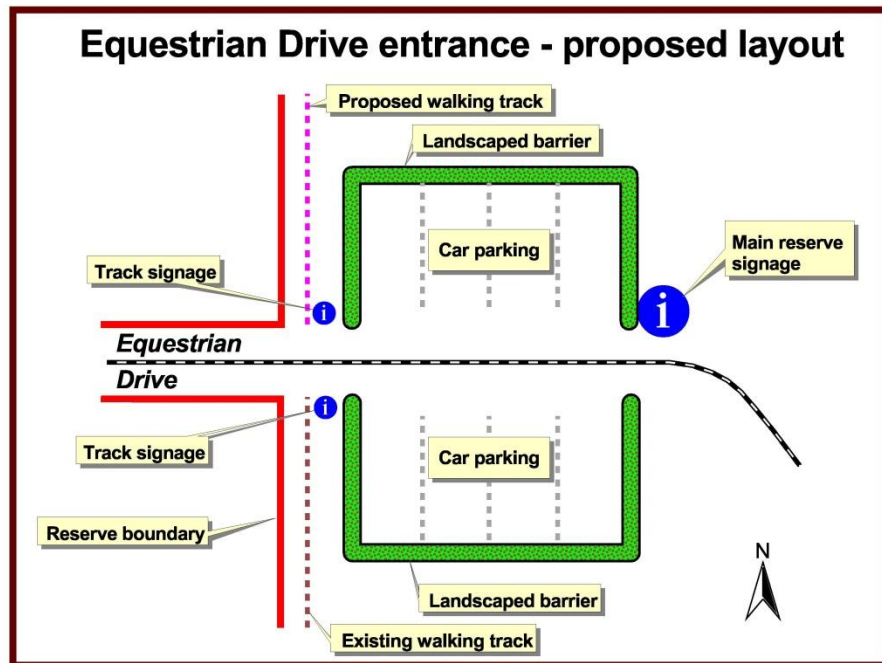
H	<i>Myriophyllum</i> spp. watermilfoil
H	<i>Potamogeton</i> spp. pondweed
H	<i>Scoenoplectus pungens</i>
H	<i>Schoenus fluitans</i> floating bogsedge
H	<i>Schoenus nitens</i> black fruited bogsedge
H	<i>Triglochin procerum</i> greater waterribbons
H	<i>Villarsia reniformis</i> running marshflower

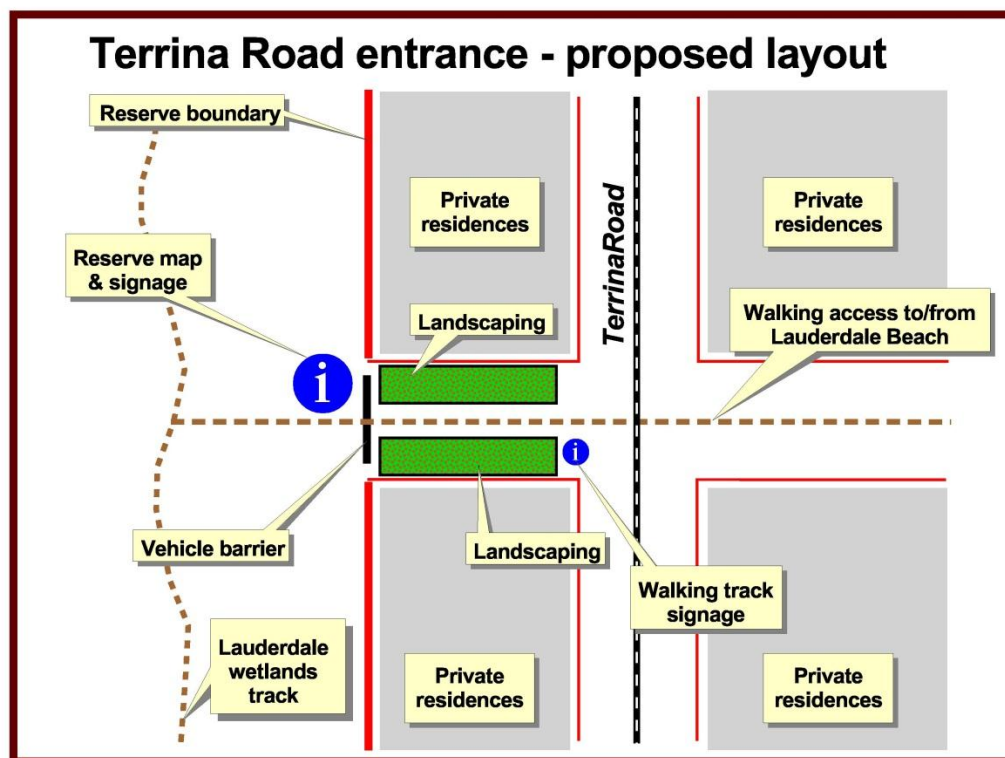
APPENDIX 7: CLARENCE FORESHORE TRAIL SIGNAGE PLAN

- **Post signs** - (150mm x 100mm) x 8
- **Hub signage** (1200 x 745mm) X 1
Includes colour map, track information & code of etiquette for users
- **Blade signage** – attached to street sign poles x6
- **Interpretive signs** x 3
- **Totem signs** (200mm x 300mm)
Roscommon Reserve x 4

APPENDIX 8. ENTRANCE ENHANCEMENT DIAGRAMS.


The following diagrams provide a conceptual layout for the enhancement of primary entrances at Ringwood Rd and Equestrian Drive.





APPENDIX 9: ROSCOMMON RESERVE FIRE MANAGEMENT BROCHURE

PAGE 1.



Clarence - a brighter place

Play your part

Bushfire Management for Ross Common Reserve

Lyndall,

BLIGH ST


Play your part!

Bushfire Management in Ross Common Reserve



Is all vegetation a bushfire hazard?

Research has found that fine fuel (dead plant matter less than 2 mm diameter) has a far greater influence on bushfire intensity than larger fuels such as logs and fallen branches. Trees are mainly a hazard where there is a lot of fine fuel underneath them that allows a fire to climb into the canopy. Council is managing the fine fuel in the Reserve by manual removal or slashing of fine fuel in fuel breaks and by periodic burning. You also need to manage the fine fuel on your property by maintaining a Building Protection Zone, but please don't dump the vegetation you remove in the Reserve. **Please use Council's free Green Organics Collection Service by calling 6245 8600.**

Building Protection Zone (BPZ)

A BPZ is an area of managed vegetation around your home that won't burn in most bushfires. You need a BPZ even if you don't plan to defend your home during a bushfire. Within the BPZ there should not be enough fine fuel to carry a fire from surrounding bushland to the walls of your house, or for wind-blown embers to start small fires. More information on establishing and maintaining a BPZ is available on the Clarence City Council website: www.ccc.tas.gov.au – Council Services.

Prepare a **Bushfire Survival Plan**, see www.fire.tas.gov.au for details.

Properties within 100 metres of unmanaged vegetation on Ross Common Reserve are in a Bushfire Prone Area. Council has prepared a bushfire management plan for Ross Common Reserve that aims to reduce the bushfire risk to surrounding residents, but you also need to manage the vegetation on your property to ensure it is not a threat to your home.

What can you do to help?

- Maintain a Building Protection Zone around your home. This will reduce the bushfire risk to your home if a bushfire does spread onto your property – see notes in this brochure and visit www.ccc.tas.gov.au - Council Services.
 - Use Council's free **Domestic Kerbside Green Organics Collection Service**. Call **6245 8600** for more information on this service. Do not dump rubbish, particularly prunings, grass clippings and other garden waste in the Reserve.
 - Observe Total Fire Bans.
 - Report any fires in the Reserve to the **000** emergency number.
 - Report any suspicious activity in the Reserve to Tasmania Police.
 - Contact Council's Bushfire Management Officer (**6245 8677**), if you find any fallen trees or branches blocking fire trails, or anything else you think may increase the risk of bushfires in the Reserve.
- #### What is Council doing?
- During the next five years Council will undertake bushfire management activities in the Reserve including:
- Maintaining and improving fire trails.
 - Two planned burns to reduce the bushfire hazard and maintain the health of the native vegetation in the Reserve (see map).
 - Maintaining fuel breaks along the eastern and southern boundary of the Reserve.
 - Weed control in conjunction with the planned burns.

Planned Burning

Nearby residents will receive notice of each planned burn by letterbox drop. If you have any questions or concerns about the planned burning program please contact Council's Bushfire Management Officer on **6245 8677**.

The Reserve has been divided into a number of **Vegetation Management Units** (see map). Some of these will be burnt progressively in a mosaic pattern.

The sequence and timing of the planned burns has been carefully planned to ensure the long-term health of the native vegetation and threatened species in the Reserve. Most native vegetation benefits from periodic burning whilst long-term exclusion of fire can be as damaging as too frequent burning. The burns will also reduce fuel loads and make it easier for the Tasmanian Fire Service to control wildfires.

Planned burns are done in accordance with Council's **Bushfire Management Strategy** available on Council's website: www.ccc.tas.gov.au



APPENDIX 10: SUMMARY OF ON GROUND MANAGEMENT RECOMMENDATIONS

Weed management
<ul style="list-style-type: none"> • Council should continue to collaborate with the TEC in the surveillance and eradication of Serrated Tussock grass. • Next priority should be controlling the declared weeds Boneseed and Spanish heath. • The TEC and Council should collaborate on the treatment of the spoil heaps and develop a staged approach to reducing the extent of infestation of Capeweed. A strengthened lease arrangement would assist in clarifying each parties roles and responsibilities • Following control of priority declared weeds, Monterey Pine, willow should be targeted. • An annual survey and follow up of control of all targeted weeds should be undertaken during spring/summer. • Spatially accurate weed mapping should be conducted at least on a five yearly basis to monitor progress and inform future weed management prioritisation. Information should be captured using standardised approach and the data submitted to the State Government to assist in broader scale weed management knowledge.
Regeneration and revegetation
<ul style="list-style-type: none"> • Consider the creation of a wildlife corridor in the south west corner to enable improved wildlife movement between Roscommon and the Meehan Range. This would also be a suitable focus for on-going collaboration between Council TEC and the Lauderdale Primary School. • Consider the creation of a 35-45 ha bushland node that expands on the existing remnant native vegetation to increase habitat function especially north south and east west wildlife corridor function, increase visual amenity and provides a screening between the TEC and Hobart Archery license areas.
Reserve entrances
<ul style="list-style-type: none"> • Installations of signs, improving amenity and developing thematic names for entrances.
Walking tracks
<ul style="list-style-type: none"> • Undertake an Audit of the existing walking tracks against the Guide to Road Design Part 6A: Pedestrian and Cyclist Paths (Austroads 2009). • That a feasibility study be undertaken including assessment and subsequent delineation of a suitable alignment, the values of the resultant connectivity provided by the alignment and the resolution of perceived and actual safety issues associated with the preferred

alignment).
Infrastructure
<ul style="list-style-type: none"> • New outdoor seats of suitable design and materials be installed at key locations in the Reserve. • Undertake annual maintenance of the artificial wetland to ensure it functions effectively. • Clarence City Council to investigate means to assist the Tasmanian Equestrian Centre to advance its vision for an Indoor Equestrian Centre. • Dog waste dispensers and bins should be installed at all main entrances to the reserve. • That a public toilet be installed to cater for reserve users, particularly walkers, near an entrance at the southern end of the reserve. • That an assessment be made of the sub regional demand for child playground node and fitness nodes to confirm whether the Roscommon Reserve is the best location for them. • Undertake a climate change risk analysis for all infrastructure assets in the reserve.
Other management activities
<ul style="list-style-type: none"> • A review of the existing reserve maintenance program should be undertaken to address the issues raised during the stakeholder consultation. For example, maintenance of the drains and artificial wetland. That a feasibility study be undertaken (in year 4 or 5) to confirm the strategic opportunities and benefits of Roscommon as an alternative recreation node for activities that may become displaced from other parks at risk from climate change
Community participation and awareness
<ul style="list-style-type: none"> • Community education should be undertaken to facilitate change in behaviour and encourage ownership and appreciation of the values of the reserve. • An interpretation plan is required that will raise awareness regarding: <ul style="list-style-type: none"> • Heritage values • Biodiversity • Artificial wetlands functions and benefits • The plan will detail the nature of the audience, the messages and the communications tools most appropriate, (e.g. signage, brochures, events, etc.) Council should consider a collaborative program of reserve care that respects the efforts of the Lauderdale Coastcare group and fosters the groups' capacity to grow.
Implementation Plan
<ul style="list-style-type: none"> • An annual review of the Implementation Plan, using established performance criteria, should

be adopted. This will need to be cognisant of the outcomes of the TTCCAPP and Clarence City Council's responses.

A monitoring, evaluation, reporting and improvement approach needs to be adopted, that ensures regular assessment of the delivery of the RAP. It needs to be based on a structured approach that assesses operational delivery through to the achievement of higher level long term goals. An annual review and report will be the foundation for confirming operational delivery, linked to a mid-term review that assess broader strategic direction and external factors that may be relevant to longer term site level goals.

Future Priorities

- The Roscommon Reserve Activity Plan should be reviewed in 2017 to assess progress and determine ongoing management priorities for the Reserve.

Appendix 11. FUNDING ESTIMATES FOR ROSCOMMON RESERVE ACTIVITY PLAN 2012-17

ACTION	ESTIMATED COST (\$)				
	2012-13	2013-14	2014-15	2015-16	2016-17
WEED CONTROL					
Undertake primary control of all declared weeds and WONS	1200				
Control all other environmental weeds identified in Section 6		600	600	600	600
Undertake annual sweep and follow-up control of all targeted weeds		600	600	600	600
Undertake follow-up GPS mapping of all weeds					600
Total cost of weed control activities	1200	1200	1200	1200	1800
REGENERATION AND REVEGETATION					
Establish a photo point in the existing revegetation area in the south west corner and the area of bracken fern field	400				
Undertake additional plantings in the south west corner in conjunction with TEC and Lauderdale Primary School	500	500	500	500	500
Undertake strategic control of pastures in proposed major corridor/revegetation node and targeted plantings of native plants.		2000	2000	2000	2000
Total cost of revegetation and regeneration activities	900	2500	2500	2500	2500
ACCESS MANAGEMENT					
Install large information and interpretive signs at the main reserve entrance on Equestrian Drive	2000				
Install small identification signs at all	1000				

other reserve entrances that require it					
Install small identifying signs at Roche's beach reserve and along the easement that links it to Roscommon to encourage combined use of both reserves.		700			
		700			
Total cost of access management activities	3000	1400			
WALKING TRACKS					
Extend, upgrade and maintain walking tracks to AS 2156.1-2001			10,000	15,000	15,000
			10,000	15,000	15,000
Total cost of walking track activities					
INFRASTRUCTURE					
Install seating at priority sites and rotunda/shade structure in vicinity of the artificial wetland.	5,000	10,000			
Clean out of artificial wetland of accumulated sediment	3,000				
Implementation of entrance landscape plans	5,000	10,000	10,000		3,000
Total cost of infrastructure	13,000	20,000	10,000		3,000
OTHER MANAGEMENT ISSUES					
Review of the existing reserve maintenance program		1,000			
Total cost of other management issues		1,000			
COMMUNITY PARTICIPATION AND AWARENESS COSTS					
Undertake awareness raising of the issue of fire management/natural and recreation values (possibly brochure) of the reserve and local participation	5,000	5,000			5,000
Total cost of community participation					

and awareness costs.	5,000	5,000			5,000
IMPLEMENTATION PLAN					
Conduct a mid-term review of the Roscommon Reserve Activity Plan			2,000		10,000
Undertake a full review of the Roscommon Reserve Activity Plan					
Total cost of implementation Plan review			2,000		10,000
TOTAL COST OF ALL RESERVE ACTIVITIES	23,100	31,100	25,700	18,700	38,300

Notes & assumptions

1. Labour costs = \$600/day (based on two people at contractor rates).
These will be significantly less if work is undertaken by Council or volunteers.
2. Minimum \$3,000/annum allocated for revegetation activities (labour + materials).
Additional funds may be required for revegetation following large scale weed control activities.
3. Cost of upgrading gravel tracks = \$30 / lineal metre, plus labour.
4. N/A = Council in kind support is anticipated for this activity.