Native Vegetation and Weed Action Plan 2015 – 2020. Management Zone Recommendations

GREAT OCEAN ROAD COAST COMMITTEE





Great Ocean Road Coast Committee Inc





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1 INTRODUCTION

The Great Ocean Road Coast Committee (GORCC) manages 37 kilometres of coastline between Torquay and Lorne. This area supports significant native vegetation with high social, biodiversity and economic value. GORCC has committed to protecting these values in the Great Ocean Road Coast Committee Coastal Management Plan (GORCC 2013).

The GORCC Native Vegetation and Weed Action Plan 2015 – 2020 (Beacon Ecological 2015) guides onground management to protect and enhance ecological values over the next five years. This plan reviews and builds on the first GORCC Native Vegetation and Weed Action Plan prepared in 2009 (Coomes 2009).

The GORCC Native Vegetation and Weed Action Plan 2015 – 2020 (Beacon Ecological 2015) is presented as two volumes, the plan is the overview document and this technical document related to management zone recommendations.

1.1 MANAGEMENT RECOMMENDATIONS

The GORCC managed coastline is divided into four management areas. These areas have been divided up into 41 smaller management zones to assist with identifying management issues and objectives. The following is detailed for each management zone:

- A description of management zone including ecological vegetation classes and main management issues.
- Review of significant management issues taken from the GORCC 2009 Native Vegetation and Weed Action Plan (Coomes 2009). Note that issues which appear to have improved are in green bold text, issues which appear to have remained stable or difficult to determine change are in orange bold text and issues that appear to have deteriorated are in red bold text.
- A management table detailing:
 - Level of service.
 - Ecological Vegetation Classes
 - Level of environmental community group activity.
 - Vegetation quality.
 - Any significant ecological values.
 - Five year objectives for weed threats and other management issues.

The proposed objectives have been incorporated into the 2015 annual works plan. This has provided an estimation of which objectives can be classed as *Currently Sufficient Resources to* Achieve (High Priority Actions) and which objectives which will not be achieved: Additional Resources Required (Lower Priority Actions) with the current available resources. Common names of mapped weed species have been used. For a list of common and scientific names of mapped species see Appendix 1.



2 RECOMMENDATIONS MANAGEMENT AREA A (TORQUAY)

Management Area A is the largest of the four management areas. It extends along 11 km of coast and is 230 hectares in size adjacent to the townships of Torquay and Jan Juc. It begins in the north east at Point Impossible and finishes in the south west at Bones Road, adjacent to the eastern end of Bells Beach Surfing Reserve.

The landscape changes from sandy dune systems in the east to rocky clifftops in the west. The native vegetation is of very high value in the eastern and western sections and is fragmented by modified vegetation and intensive recreational use at Torquay, Whites Beach and Jan Juc main beaches. All of Area A is located within the Otway Plain bioregion.

The 12 sections in Management Area A are:

- Point Impossible A1.1
- Whites Beach A1.2
- Zeally Bay A2.2
- Yellow Bluff A2.3
- Torquay Foreshore A2.4
- Spring Creek A2.5

•	Rocky Point	A2.6
•	Jan Juc Dunes	A2.7
•	Taylor Park	A3
•	Torquay Caravan Park*	A4
•	Jan Juc Clifftops	A5.1
•	Jan Juc Heath	A5.2

*Note that the Torquay Caravan Park was not assessed as part of this plan.

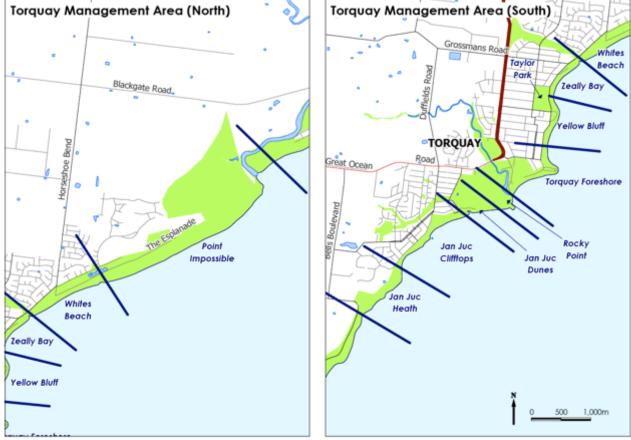


Figure 1. Management Zones within the Torquay area.



A1.1 POINT IMPOSSIBLE MANAGEMENT ZONE

Point Impossible is the largest management zone within the Torquay Management Area A. The dune system contains extensive areas of intact Coastal Dune Scrub, and Coastal Alkaline Scrub dominated by stands of Moonah *Melaleuca lanceolata* in the rear dunes. The state significant Coast Wirilda Acacia uncifolia is present as a large, healthy population along the rear dunes as well as several smaller populations amongst the middle dunes. Numerous national and state significant bird species have been noted in the adjacent Thompson Creek estuary and beach by local bird watchers from the Torquay Coast Action Group.

Weed cover is generally low, apart from large infestations of Coast Tea-tree. Management objectives reflect this with the majority of infestations aiming to have control all woody weed mature plants and all non-woody weed infestations controlled annually. Coast Tea-tree is proposed to be reduced to a core infestation area with outlying infestations controlled.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

- **Boneseed:** In 2009 mapped as widespread as small, localised populations. 2014 mapping indicates very few records, suggesting a significant decrease in cover.
- African Boxthorn: Noted as being largely under control in 2009. Only isolated specimens recorded in 2014.
- **Bridal creeper:** Despite annual control over the past five years this species is persisting in with a limited distribution of small populations.
- **Thistles and Mustard Weed:** These species were not noted in 2009 however are now present as light infestations in the rear dunes in the north of the zone.
- **Rabbits:** Rabbit numbers were noted as being low in 2009 due to fumigating and baiting by GORCC. Fumigation is continuing on a biannual basis, integrated with adjacent landholders, the Surf Coast Shire and Sands Golf Course. Evidence of significant rabbit populations was noted during the 2014 assessment.
- Foxes: While note noted in 2014 den fumigation is occurring annually.
- **Coast Tea-tree:** This species appears to have increased in cover from sporadic populations in 2009 to now dominating some areas.
- Serrated Tussock: Was noted in one location in 2009. This infestation has persisted as well as a second being recorded.

Relatively severe rabbit infestations are present within the zone. The area also has some informal tracks through native vegetation used by the public to access the beach. Illegal camps were also noted within this zone.



Level of Service	Conserve and Enhance
EVCs Present	Coastal Dune Scrub (EVC 160 depleted) Coastal Alkaline Scrub (EVC 858 endangered)
Environmental Community Group Activity	Occasional weed control working bees by Torquay Coast Action.
Vegetation Quality	Excellent. Large areas of relatively intact native vegetation, amongst major weed infestations of Coast Tea-tree.
Significant Ecological Values	Hooded Plover (EPBC Act vulnerable, FFG listed, VROT vulnerable) Coastal Moonah Woodland (FFG Listed) Wirilda Acacia uncifolia (VROT rare) Coast Bitter-bush Adriana quadripartita (VROT vulnerable) Numerous national and state significant bird species have been noted in the adjacent Thompson Creek estuary and beach
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)
Coast Tea Tree (50% cover)	Eliminate all outlying mature plants and prevent increase of core infestation.
Woody weeds: Boxthorn, Italian Buckthorn, Myrtleleaf Milkwort, Mirror Bush, Sallow Wattle	Eliminate all mature plants annually.
Bridal creeper, Angled Onion, Carpet Weed, Agapanthus, Dolichos Pea, False Capers	Control all infestations annually. Reduce number of infestations by 50%.
Mustard Weed, Spear Thistle, Scotch Thistle, Twiggy Mullein	Contain to existing infestations.
Serrated Tussock	Control annually. Reduce number of infestations by 50%.
Weedy grasses: Kikuyu, Buffalo Grass	Contain to existing infestations.
Revegetation	Revegetate sites along gravel road with indigenous species
Rabbits	Fumigation of all rabbit warrens twice annually.
Foxes	Den fumigation annually.
Informal Access	Tracks formalised with inappropriate access reduced.
Illegal Camping	Contact local laws to move on illegal campers when located.
Additional Resources Required (Lower Prior	rity Actions)
Coast Tea Tree	Removal of all mature Coast Tea Tree from Zone.
Mustard Weed, Spear Thistle	Control all infestations annually. Reduce infestations.
Domestic dogs impacting coastal and estuarine migratory birds in adjacent Thompsons Creek	Alter dog restrictions to ensure that this area is dog free at all times.

Table A1.1 Point Impossible Values and Objectives







A1.2 WHITES BEACH MANAGEMENT ZONE

The Whites Beach management zone is a continuation of the Point Impossible dune system. The management zone covers the foredunes and is dominated by Coastal Dune Scrub vegetation. The area immediately north of the zone supports walking tracks through a mix of mown grass recreational areas, artificial wetlands and revegetation areas managed by the Surf Coast Shire. This zone receives high public visitation to access Whites Beach.

Weed Cover across the zone is variable with only scattered woody weeds remaining apart from Coast Tea-tree which provides dense infestations in some areas. Non woody weed cover is also variable with infestations generally located along the north of the zone adjacent to modified recreation areas and particularly the northeast corner with infestations of grassy weeds such as Kikuyu and Buffalo grass as well as annual herbs such as Petty Spurge, Mustard Weed and Twiggy Mullein. Bridal Creeper is also present as scattered infestations across the zone.

The foredune of the Whites Beach management zone is in good condition with an absence of Marram Grass, Sea Spurge and Sea Wheat Grass. This area should be monitored for these species and controlled if noted.

- The mouth of Deep Creek: In 2009, Dense Coast Tea-tree and other weeds including These include Red-eyed Wattle, Coast Banksia, Sea Spurge, Dolichos Pea, and Cotoneaster were identified as a serious threat, particularly to vegetation north along Deep Creek. These weeds have all been removed with only a low cover (1-10%) of Coast Tea-tree persisting.
- **Italian Buckthorn:** in 2009 noted as Invading from the west with 13 infestations noted and should be controlled. Only three small infestations noted in 2014.
- **Bridal creeper:** Despite annual control over the past five years this species is persisting in with a limited distribution of small populations.
- Serrated Tussock: Was not noted within this zone in 2009. In 2014 this species was noted in 4 locations along the walking track which borders the north of the zone and must be controlled immediately.



Table A1.2 Whites Beach Values and Objectives

Level of Service	Conserve and Enhance	
EVCs Present	Coastal Dune Scrub (EVC 160 depleted)	
Environmental Community Group Activity	Occasional weed control working bees by Torquay Coast Action.	
Vegetation Quality	Vegetation structure altered with moderate to severe infestations particularly of Coast Tea-tree.	
Significant Ecological Values	Hooded Plover (EPBC Act vulnerable, FFG listed, VROT vulnerable)	
	Habitat for Rufous Bristlebird (VROT near threatened, FFG Listed)	
Weed Threat/Management Action	5 Year Objectives	
Currently Sufficient Resources to Achieve		
Coast Tea Tree	Eliminate all outlying mature plants and prevent spread of core infestation.	
Woody weeds: Myrtleleaf Milkwort, Sallow Wattle,	Eliminate all mature plants annually.	
Non-woody weeds: Mustard weed, False Capers, Agapanthus, Twiggy Mullein	Control all infestations annually. Reduce number of infestations by 50%.	
Bridal creeper	Control annually. Reduce number of infestations by 50%.	
Mustard Weed,	Contain to existing infestations.	
Serrated Tussock	Control annually. Reduce number of infestations by 50%.	
Weedy grasses: Kikuyu, Buffalo Grass	Contain to existing infestations. Reduce population sizes in stages to creating revegetation sites.	
Foredune weeds: Marram Grass, Sea Spurge, Sea Wheat Grass	Monitor for new incursions of these species.	
Revegetation	Revegetate sites along gravel track with indigenous species	
Illegal camping and fires	Contact police to move on illegal campers when located.	
Additional Resources Required		
Coast Tea Tree	Removal of all mature Coast Tea Tree from Zone.	
Rabbits	Rabbit proof fencing of zone and eradication of rabbits.	







A2.2 ZEALLY BAY MANAGEMENT ZONE

The Zeally Bay management zone supports Coastal Dune Scrub vegetation of varying condition. Over the last few years Coast Tea-tree infestations have been removed from in front of the Anglers Club in the west of the zone and planted out with native species.

This zone supports high public visitation with the Anglers Club, boat ramp, Sailing Clubrooms and beach access points. Weed cover is restricted to some small but dense infestations of Coast Tea-tree with other scattered woody weeds including Italian Buckthorn and Mirror Bush. Non-woody weeds within dune areas are restricted to small infestations of Carpet Weed and Angled Onion.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

- Boneseed: In 2009 noted in two locations. Not recorded within management zone in 2014.
- Myrtle-leaf Milkwort: In 2009 this species was noted in the east of the site. Not recorded within management zone in 2014
- Italian Buckthorn: In 2009 noted as two infestations in the east. Two juvenile infestations noted in the centre of the zone in 2014.

Level of Service	Maintain and Monitor
EVCs Present	Coastal Dune Scrub (EVC 160 depleted)
Environmental Community Group Activity	No.
Vegetation Quality	Vegetation structure altered with moderate to severe infestations particularly of Coast Tea-tree.
Significant Ecological Values	Nil
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve	
Coast Tea Tree	Eliminate all mature Coast Tea-tree
Woody weeds: Italian Buckthorn, Mirror Bush.	Eliminate all mature plants annually.
Non-woody Weeds: Carpet Weed, Angled Onion	Control all infestations annually.
Revegetation	Complete revegetation of primary dune system in zone.
Additional Resources Required	
Grassy Weeds	Annual control of grassy weeds to eliminate from native vegetation within zone.

Table A2.2 Zeally Bay Values and Objectives







A2.3 YELLOW BLUFF MANAGEMENT ZONE

The Yellow Bluff management zone comprises areas of native vegetation and recreation areas including mown lawn areas with non-native trees and the Elephant Snail playground. Ecological values are contained to vegetation with affinities to Coastal Headland Scrub along the coastal cliffs. The recreational areas receive high visitation while areas of native vegetation are fenced and too steep for pedestrian access.

Condition of native vegetation is moderate with areas of good quality vegetation interspersed with infestations of woody weeds.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

• Woody Weeds: The GORCC NVWAP (Coomes 2009) does not specifically map or address management issues within the Yellow Bluff Management zone. Significant control of woody weed species has been undertaken within this zone over the past five years with ecological values returning in some locations.

Level of Service	Conserve and Rehabilitate
EVCs Present	Coastal Headland Scrub (EVC 161 vulnerable)
Environmental Community Group Activity	There has been significant activity by Torquay Coast Action in this zone with successful grants for revegetation and woody weed removal. Contractors used abseiling equipment in steep locations.
Vegetation Quality	Mix of areas of vegetation in good condition interspersed with dense infestations of woody weeds.
Significant Ecological Values	Nil
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve	
Woody Weeds: Coast Tea Tree, African Boxthorn, Mirror Bush, Italian Buckthorn, Sweet Pittosporum	Eliminate all mature plants
Non-woody weeds: Angled Onion, Carpet Weed, Climbing Groundsel	Control all infestations annually. Reduce number of infestations by 50%.
Foredune weeds: Marram Grass, Sea Spurge, Sea Wheat Grass	Monitor for new incursions of these species.
Revegetation	Revegetate sites along gravel track with indigenous species
Illegal camping and fires	Contact police to move on illegal campers when located.
Additional Resources Required	
Weedy grasses: Kikuyu	Contain to existing infestations. Reduce population sizes in stages to creating revegetation sites.

Table A2.3 Yellow Bluff Values and Objectives







A2.4 TORQUAY FORESHORE MANAGEMENT ZONE

The Torquay Foreshore management zone comprises a mix of ecological and recreation areas at Cosy Corner, as well as Point Danger and Torquay Beach. Ecological values include remnant Moonahs at the southern end of Cosy Corner and areas of relatively intact Coastal Headland Scrub at Torquay Beach. Point Danger supports some ecological values however is fairly degraded.

Woody weed infestations include significant stands of Coast Tea-tree and scattered African Boxthorn, Italian Buckthorn, Mirror Bush and Hollyhock. Some areas of Coast Tea-tree are providing amenity value and should be removed using a staged approach over the long term. Non-woody weeds include Angled Onion and Blue Periwinkle. Grassy weeds invading from adjacent recreation areas are also an issue.

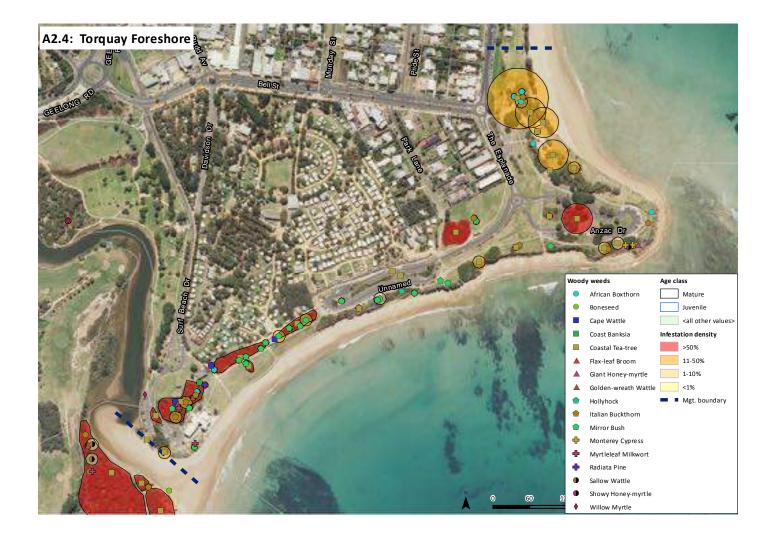
- African Boxthorn: Several infestations recorded across the zone in 2009. This species was absent from the Torquay Foreshore area in 2014 but present at Point Danger and Cosy Corner.
- Blue Periwinkle: In 2009 noted in two infestations. In 2014 noted in only one infestation.
- Italian Buckthorn: Similar levels of infestation noted between 2009 and 2014.
- Angled Onion: Four infestations noted in 2009. Similar levels of infestation noted in 2014.
- Mirror Bush: In 2009 noted in three locations on Torquay Foreshore. Additional infestations noted in 2014. Some of these infestations are in amenity areas.



Table A2.4 Torquay Foreshore Values and Objectives

Level of Service	Maintain and Monitor
EVCs Present	Coastal Headland Scrub (EVC 161 vulnerable)
	Coastal Alkaline Scrub (EVC 858 endangered)
Environmental Community Group Activity	Nil.
Vegetation Quality	Mix of areas of vegetation in good condition interspersed with dense infestations of woody weeds.
Significant Ecological Values	Coastal Moonah Woodland (FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve	
Coastal Tea-tree	Eliminate mature plants on Torquay foreshore.
Woody Weeds: African Boxthorn, Italian Buckthorn, Mirror Bush, Hollyhock	Eliminate all mature plants along Torquay foreshore and Point Danger cliffs.
Non-woody weeds: Angled Onion, Blue Periwinkle	Control all infestations annually. Reduce number of infestations by 50%.
Grassy Weeds: Kikuyu	Maintain buffer of Kikuyu control along edge of native vegetation.
Revegetation	Revegetate woody weed removal areas with indigenous species.
Additional Resources Required	
Coast Tea-tree and other woody weeds	Staged removal of large amenity plantings and replacement with locally indigenous species.
Weedy grasses: Panic Veldt-grass	Reduce population sizes with annual control.







A2.5 SPRING CREEK MANAGEMENT ZONE

Spring Creek is dominated by large recreation areas supporting non-locally indigenous tree and shrubs over mown grass. One area of native vegetation with affinities to Coastal Alkaline Scrub vegetation is present in the north of the zone. This area supports relatively intact native vegetation dominated by Moonahs with very little woody weed infestation. The understorey supports moderate levels of introduced grasses such as Panic Veldt-grass, Prairie Grass and Cocksfoot.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

• Agapanthus: In 2009 noted in several locations within native vegetation at Spring Creek. This species was not noted in 2014.

Level of Service	Conserve and Rehabilitate
EVCs Present	Coastal Alkaline Scrub (Endangered)
Environmental Community Group Activity	Nil
Vegetation Quality	Excellent. Relatively intact native vegetation with some grassy weed in the understorey.
Significant Ecological Values	Coastal Moonah Woodland (FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve	
Woody Weeds: Willow Myrtle	Eliminate all mature plants.
Grassy Weeds: Panic Veldt-grass, Prairie	Control all infestations annually. Reduce number of infestations by 50%.

Table A2.5 Spring Creek Values and Objectives







A2.6 ROCKY POINT MANAGEMENT ZONE

Rocky Point is a small rocky headland dominated by vegetation with affinities to Coastal Headland Scrub. This zone is unique as it is small isolated area where weed cover has been kept to a minimum and supports excellent quality native vegetation despite high recreation use in the area.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

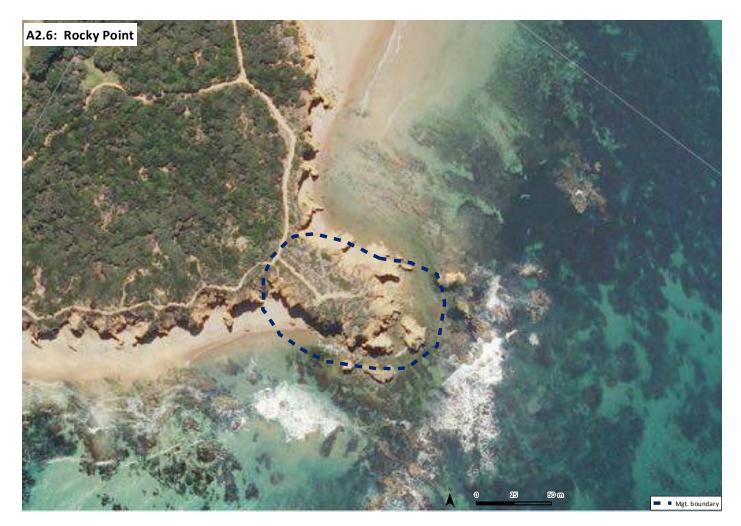
- African Boxthorn: In 2009 noted as small infestations. While several small infestations were noted in 2014 evidence of controlled plants was noted.
- Italian Buckthorn: In 2009 noted as small infestations. This species was not noted in 2014.
- Green Honey-myrtle: In 2009 this species was not noted. This species was noted as seedlings only in 2014 with evidence of control of mature plants over the last 5 years.
- **Coast Tea-tree:** This species was not noted in 2009. 2014 mapping noted seedlings only with evidence that mature plants had been controlled over the last five years.

Level of Service	Conserve and Rehabilitate
EVCs Present	Coastal Headland Scrub (EVC 161 vulnerable)
Environmental Community Group Activity	Historically there has been a Rocky Point Coast Action Group however this group has not been active for several years.
Vegetation Quality	Excellent. Relatively intact native vegetation with scattered woody weeds.
Significant Ecological Values	Coast Twin-leaf (VROT rare)
Weed Threat/Management Action	5 Year Objectives
	5 Tedi Objeciives
Currently Sufficient Resources to Achieve	J redi Objectives
	Eliminate all mature plants.
Currently Sufficient Resources to Achieve Woody Weeds: Coast Tea-tree, African	

Table A2.6 Rocky Point Values and Objectives







A2.7 JAN JUC DUNES MANAGEMENT ZONE

The Jan Juc dunes are a large area of sand dunes supporting affinities to Coastal Dune Scrub vegetation. While some ecological values are present, overall the vegetation condition is poor with large areas dominated by woody weeds. This zone is subject to illegal camping and fires with campsites noted during the field assessment.

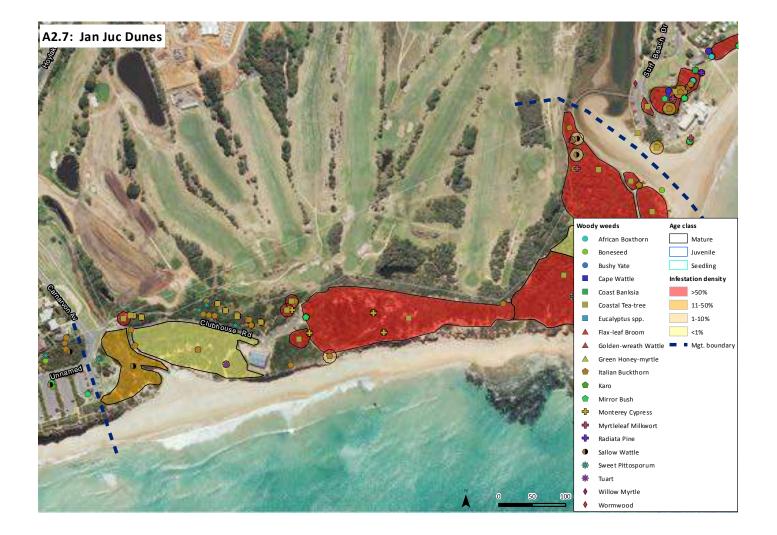
Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

- Woody Weeds (Coast Tea-tree, Italian Buckthorn, Myrtle-leaf Milkwort, Boneseed, African Boxthorn, Sallow Wattle, Sweet Pittosporum): In 2009 noted that this zone is dominated by numerous woody weeds. The 2014 mapping notes that this is still the case with reduced levels of Boneseed and Italian Buckthorn through control by GORCC staff and funding for contractors.
- Gazania: In 2009 two infestations were noted in sand dunes adjacent to the Jan Juc Creek Rivermouth. The 2014 mapping identified that these infestations are still present.

Level of Service	Maintain and Monitor	
EVCs Present	Coastal Dune Scrub (EVC 160 depleted)	
Environmental Community Group Activity	No	
Vegetation Quality	Degraded. While the site supports some ecological values, woody weeds such as Coast Tea-tree, Sallow Wattle and Italian Buckthorn dominate the overstorey.	
Significant Ecological Values	Coast Twin-leaf (VROT rare)	
Weed Threat/Management Action	5 Year Objectives	
Currently Sufficient Resources to Achieve		
Currently Sufficient Resources to Achieve		
Currently Sufficient Resources to Achieve Woody Weeds: Coast Tea-tree, Sallow Wattle	Contain to zone.	
Woody Weeds: Coast Tea-tree, Sallow	Contain to zone. Eliminate all mature plants.	
Woody Weeds: Coast Tea-tree, Sallow Wattle Woody Weeds: Italian Buckthorn, African		

Table A2.7 Jan Juc Dunes Values and Objectives







A3 TAYLOR PARK MANAGEMENT ZONE

Taylor Park supports an overstorey of large, planted, non-locally indigenous trees dominated by Sugar Gum *Eucalyptus cladocalyx*. Native vegetation is of low quality with some small areas supporting native understory species representative of Grassy Woodland (EVC 175).

Weed cover across the site is high with only species that pose a risk to the adjacent native vegetation at Zeally Bay mapped during the current mapping, particularly Serrated Tussock, Sallow Wattle Coast Teatree and Italian Buckthorn. The ELMP (Ecology Australia *et al* 2006) identifies the planted Yellow Gums *Eucalyptus leucoxylon* posing a genetic pollution threat to nearby state significant Bellarine Yellow Gums *Eucalyptus leucoxylon* subsp. *bellarinensis*. *I*

Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

- **Bridal Creeper:** While not mapped in 2009, removal of Bridal Creeper is identified as a high priority action. This species was not recorded at Taylors Park in 2014.
- **Boneseed:** While not mapped in 2009, removal of Boneseed is identified as a high priority action. This species was not recorded at Taylors Park in 2014.
- Crassula and Blanket Weed: While not mapped in 2009 staged removal of these two species is a medium priority action. 2014 cover of these species suggests that staged removal has not occurred.
- Italian Buckthorn: While not mapped in 2009, removal of Buckthorn is identified as a high priority action. One infestation was noted in 2014.

Level of Service	Maintain and Monitor	
EVCs Present	Grassy Woodland (EVC 175 endangered)	
Environmental Community Group Activity	No.	
Vegetation Quality	Degraded. While the site supports some ecological values, mostly understorey species with affinities to Grassy Woodland, weeds dominate Taylors Park.	
Significant Ecological Values	Potential Swift Parrot habitat (EPBC listed – endangered, VROT endangered, FFG Listed)	
Weed Threat/Management Action	5 Year Objectives	
Currently Sufficient Resources to Achieve		
Woody Weeds: Coast Tea-tree, Sallow Wattle, Sweet Pittosporum, Italian Buckthorn	Eliminate all mature plants.	
Grassy Weeds: Serrated Tussock and Chilean Needle Grass	Control annually. Reduce infestations by 50%.	
Additional Resources Required		
Various weeds	Control all weed species along boundary with foreshore and revegetate with locally indigenous species.	

Table A3 Taylor Park Values and Objectives







A5.1 JAN JUC CLIFFTOPS MANAGEMENT ZONE

The Jan Juc Clifftops are bordered to the north by the Jan Juc township. Vegetation condition is generally excellent supporting remnant native vegetation and revegetation with affinities to Coastal Headland Scrub. Remnant grassland vegetation dominated by Kangaroo grass is also present in the centre of the zone. Given the close proximity to residential areas and high visitation rates the majority of tracks have been fenced to prevent inappropriate access.

Woody weeds are restricted to scattered seedlings. Non-woody weeds include several pasture grasses, particularly Toowoomba Canary-grass, Cocksfoot, Yorkshire Fog, Vulpia and Rats-tail Fescue. Gazania is present through the centre of the zone despite several years of continuous control. Several illegal campsites were noted within Moonah stands at the western end of the zone.

- Woody Weeds (Coast Tea-tree, Italian Buckthorn, Myrtle-leaf Milkwort, Boneseed, African Boxthorn, Sallow Wattle, Sweet Pittosporum): In 2009 noted that this zone is supports numerous small infestations and seedlings of various woody weeds. The 2014 mapping notes that all mature plants eliminated and only seedlings present.
- **Non-woody Weeds** (Diosma and Crassula): these species were noted west of the Bird Rock lookout in 2009. Both these species were not recorded within the management zone in 2014.
- **Gazania:** 2009 mapping indicates that Gazania is a conspicuous weed that should be removed over 3-5 years. Despite consistent control of this species by volunteers, GORCC staff and contractors Gazania is still present however likely to be reduced in cover.
- Inappropriate access: The 2009 report noted that inappropriate access was occurring in some areas of native vegetation, particularly grassland vegetation. The majority of native vegetation within the Jan Juc Clifftops is now fenced with post and wire fencing.
- Adjacent landholders: Given the proximity of residential gardens and risk of garden escapees the 2009 report identified engagement of the local community as an important action. Efforts have been made to raise awareness of Gazania, however, other invasive species have not been targeted.



Level of Service	Conserve and Enhance
EVCs Present	Coastal Headland Scrub (EVC 161 vulnerable)
Environmental Community Group Activity	Jan Juc Coast Action Group undertakes monthly working bees in this zone targeting woody weed seedlings, Gazania and grassy weeds.
Vegetation Quality	Excellent. Zone supports several significant ecological values .
Significant Ecological Values	Coast Twin-leaf (VROT rare) Rufous Bristlebird (VROT near threatened, FFG Listed) Swamp Diuris (VROT rare) Mornington Daisy-bush (VROT poorly known) Bellarine Yellow Gum (VROT rare, FFG listed) Coastal Moonah Woodland (FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve	
Woody Weeds: Coast Tea-tree, Italian Buckthorn, Myrtle-leaf Milkwort, Boneseed, African Boxthorn, Sallow Wattle, Sweet Pittosporum	Eliminate all mature plants.
Non-woody weeds: Toowoomba Canary-grass, Cocksfoot, Rats-tail Fescue, Panic Veldt-grass	Contain to existing infestations.
Gazania	Contain to existing infestations.
Bridal Creeper	Control annually. Reduce infestations by 50%.
Serrated Tussock	Control annually. Reduce infestations by 50%.
Revegetation	Revegetate small areas as required.
Additional Resources Required	
Non-woody weeds: Toowoomba Canary-grass, Cocksfoot, Rats-tail Fescue, Panic Veldt-grass	Control core infestations.
Garden escapees	Education program targeting adjacent landowners of the risk of invasive species in gardens.

Table A5.1 Jan Juc Clifftops Values and Objectives







A5.2 JAN JUC HEATH MANAGEMENT ZONE

The Jan Juc Heath is a large area dominated by high quality native vegetation with affinities to Coastal Headland Scrub and Clay Heathland. This zone supports a single walking track along the northern edge with a car park and beach access to the surf breaks Steps and Boobs at the eastern end. Low density residential areas abut the zone to the north and the Bells Beach Recreation Reserve managed by the Surf Coast Shire to the west.

Weeds are restricted to isolated occurrences of woody weed seedlings and juviniles such as Boneseed, Sallow Wattle and Coast Tea-tree across the zone and Myrtle-leaf Milkwort at the eastern end. Eucalypts at the western end of the zone were recently identified as non-locally indigenous Large-fruited Yellow Gum *Eucalyptus megalocarpa* and were removed. Non-woody weeds include various pasture grasses scattered mostly along the walking track edge and one area with small infestations of Serrated Tussock and Bridal creeper. Several illegal campsites were noted within Moonah stands at the eastern end of the zone.

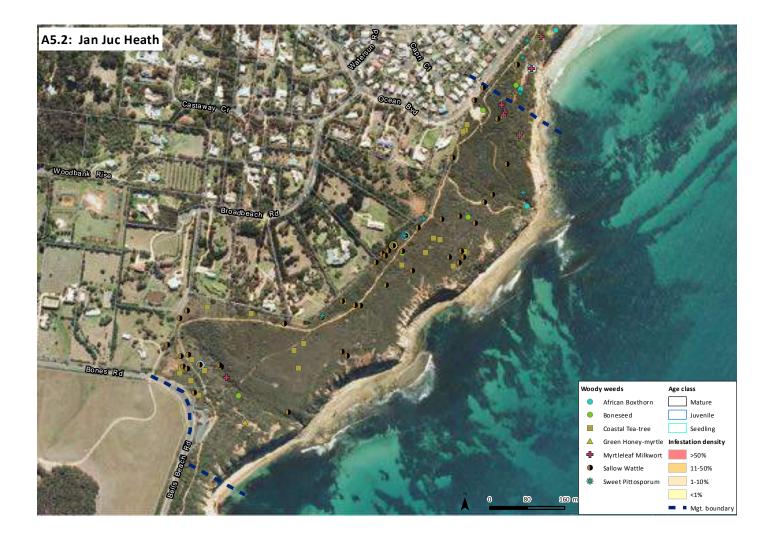
- **Boneseed:** In 2009 noted as numerous infestations, particularly around beach access track in east of zone. In 2014 greatly reduced number of infestations with most records juvenile plants.
- Woody Weeds (Coast Tea-tree, Myrtle-leaf Milkwort, African Boxthorn, Sallow Wattle, Sweet Pittosporum, Mirror Bush): In 2009 noted that this zone is supports numerous small infestations and seedlings of various woody weeds. The 2014 mapping notes all mature plants eliminated and only seedlings present.
- **Black Kennedia:** In 2009 recorded as one infestation on the north border of the zone. This species was not recorded in 2014 and is considered absent from the zone.
- Serrated Tussock: In 2009 this species was recorded as two infestations. 2014 mapping indicates that these infestations persist and may have increased.
- **Bridal Creeper:** In 2009 this species was recorded as one infestation. 2014 mapping recorded three small infestations.



Table A5.2 Jan Juc Heath Values and Objecti	ves
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Level of Service	Conserve and Enhance
EVCs Present	Coastal Headland Scrub (EVC 161 vulnerable)
	Clay Heathland (EVC 7 vulnerable)
Environmental Community Group Activity	While within the Jan Juc Coast Action Group area, this group undertakes little activity in this zone.
Vegetation Quality	Excellent. Zone supports relatively intact native vegetation and significant ecological values.
Significant Ecological Values	Coast Twin-leaf (VROT rare)
	Rufous Bristlebird (VROT near threatened, FFG Listed)
	Bellarine Yellow Gum (VROT rare, FFG listed)
	Paper Flower (VROT <i>rare</i>)
	Coastal Moonah Woodland (FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve	
Woody Weeds: Coast Tea-tree (and hybrids), Italian Buckthorn, Myrtle-leaf Milkwort, Boneseed, African Boxthorn, Sallow Wattle, Sweet Pittosporum,	Eliminate all mature plants.
Bridal Creeper	Control annually. Reduction of infestations by 50%.
Serrated Tussock	Control annually. Reduction of infestations by 50%.
Non-woody weeds: Toowoomba Canary-grass, Cocksfoot, Panic Veldt- grass, Sweet Vernal-grass	Control annually to prevent spread along tracks.
Illegal camping and fires	Contact police to move on illegal campers when located.
Additional Resources Required	
Non-woody weeds: Toowoomba Canary-grass, Cocksfoot, Rats-tail Fescue, Panic Veldt-grass	Control core infestations.
Garden escapees	Education program targeting adjacent landowners of the risk of invasive species in gardens.







3 RECOMMENDATIONS MANAGEMENT AREA B (ANGLESEA)

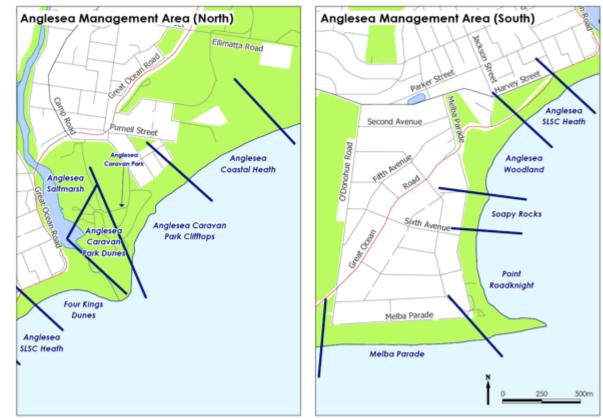
Management Area B covers approximately five kilometres of coast and is 99 Hectares in size. It begins at the Anglesea Coastal Heath in the north east at Inverlochy St and finishes in the south west at the intersection of O'Donohue Road and Melba Parade. All of Area B is located within the Otway Plains bioregion.

The landscape is variable with coastal cliffs in the east and sand dune and saltmarsh systems bordering the Anglesea River mouth. Coastal cliffs dominate the centre of the area with dune systems at the western end. The Anglesea township borders the majority of the management area. The community environmental group ANGAIR and subgroup Friends of Anglesea Coast are active across the majority of this area.

The 11 sections in Management Area B are:

- Anglesea Coastal Heath B1.1
- Anglesea Caravan Park Clifftops B1.2
- Anglesea Caravan Park Dunes B1.3
- Anglesea Saltmarsh B1.4
- Anglesea Caravan Park*
 B2
- Four Kings Dunes B3.1

- Anglesea S.L.S.C Heath B3.2
- Anglesea Woodland B3.3
- Soapy Rocks B3.4
- Point Roadknight B3.5
- Melba Parade B3.2



*Note that the Anglesea Caravan Park was not assessed as part of this plan.

Figure 2. Management Zones within the Anglesea area.



B1.1 ANGLESEA COASTAL HEATH MANAGEMENT ZONE

The Anglesea Coastal Heath is a large area supporting significant ecological values, dominated by high quality native vegetation with affinities to Clay Heathland and Heathy Woodland. Anglesea Coastal Heath is part of an area which has been listed on the Register of the National Estate by the Australian Heritage Commission recognising the high habitat and biodiversity value (ELMP 2006). This zone supports a walking track along the southern edge with a car park and access track at the eastern end. Residential areas abut the zone in the east, Barwon Water sewerage works to the north and The Great Otway National Park to the west.

Woody weeds are restricted to isolated, scattered infestations mostly of seedlings and juveniles. Nonwoody weeds also occur as isolated infestations. The native species Prickly Tea-tree may be increasing in cover across the heathland area adversely impacting ecological values and biodiversity of the site. The cover of this species should be monitored and action such as a prescribed burn or manual removal of shrubs implemented if required. While the walking tracks are not fenced, this area does not appear to receive high levels of visitation and access appears restricted to existing paths.

- Woody Weeds (Coast Tea-tree, African Boxthorn, Sallow Wattle, Sweet Pittosporum, Radiata Pine, Green Honey-myrtle): In 2009 noted that this zone is supports numerous small infestations and seedlings of various woody weeds. The 2014 mapping notes virtually all mature plants eliminated and only seedlings or juveniles present.
- Spanish Heath: One infestation noted in 2009. Not recorded in 2014.
- **Boneseed**: In 2009 noted as numerous infestations. In 2014 greatly reduced number of infestations with most records juvenile plants.
- **Gravel Pit rehabilitation**: In 2009 it was noted that the old gravel pit required ongoing rehabilitation and revegetation. The 2014 site assessment and comparison of historical aerial photos noted that this area has improved in condition.
- Watsonia: One infestation of the species was mapped in 2009 adjacent to the Barwon Water sewerage works. Two Watsonia infestations were mapped along residential areas in the east in 2014.
- Freesia: This species was not recorded in 2009. 2014 mapping identified several infestations in the northeast.
- **Bluebell Creeper:** This species was not recorded in 2009. Several small infestations were mapped in 2014.
- **Bridal Creeper:** This species was not recorded in 2009. One infestation was mapped in the east in 2014.



Level of Service	Conserve and Enhance
EVCs Present	Heathy Woodland (EVC 48 least concern)
	Clay Heathland (EVC 7 vulnerable)
Environmental Community Group Activity	ANGAIR runs annual working bees in this area controlling woody weeds.
Vegetation Quality	Near pristine. Zone supports relatively intact native vegetation and significant ecological values.
Significant Ecological Values	Spiral Sun orchid (EPBC listed vulnerable, VROT vulnerable, FFG listed)
	Rufous Bristlebird (VROT near threatened, FFG Listed)
	Swamp Antechinus (VROT near threatened, FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve	
Woody Weeds: Coast Tea-tree, African Boxthorn, Sallow Wattle, Sweet Pittosporum, Radiata Pine, Green Honey- myrtle, Boneseed,	Eliminate all mature plants.
Non-woody weeds: Bridal Creeper, Watsonia, Bluebell Creeper, Freesia	Control annually. Reduction of infestations by 50%.
Additional Resources Required	
Garden escapees	Education program targeting adjacent landowners of the risk of invasive species in gardens.
Prickly Tea-tree becoming too dominant	Monitor Prickly Tea -tree distribution and take appropriate action if deemed to be adversely impacting ecological values and reducing biodiversity.

Table B1.1 Anglesea Coastal Heath Values and Objectives







B1.2 ANGLESEA CARAVAN PARK CLIFFTOPS MANAGEMENT ZONE

The Anglesea Caravan Park Clifftops is a thin strip of native vegetation with affinities to Costal Headland Scrub along the clifftops and an area of Moonah dominated Coastal Alkaline Scrub at the west end of the zone. The zone is adjacent to the Anglesea Caravan Park. Fencing exists for the Coastal Headland Scrub vegetation but not for the Coastal Alkaline Scrub. Two walking tracks are present in the east which merge to form a single track along between the caravan park and native vegetation.

This zone appears to have a reduction in woody weeds with various woody weeds in the east although mostly as seedlings and juveniles with scattered mature Coast Tea-tree present along the clifftops. Non woody cover is low except for Bridal Creeper which becomes more apparent in the western end of the zone closer to the sand dunes at the Anglesea Rivermouth which support a large infestation.

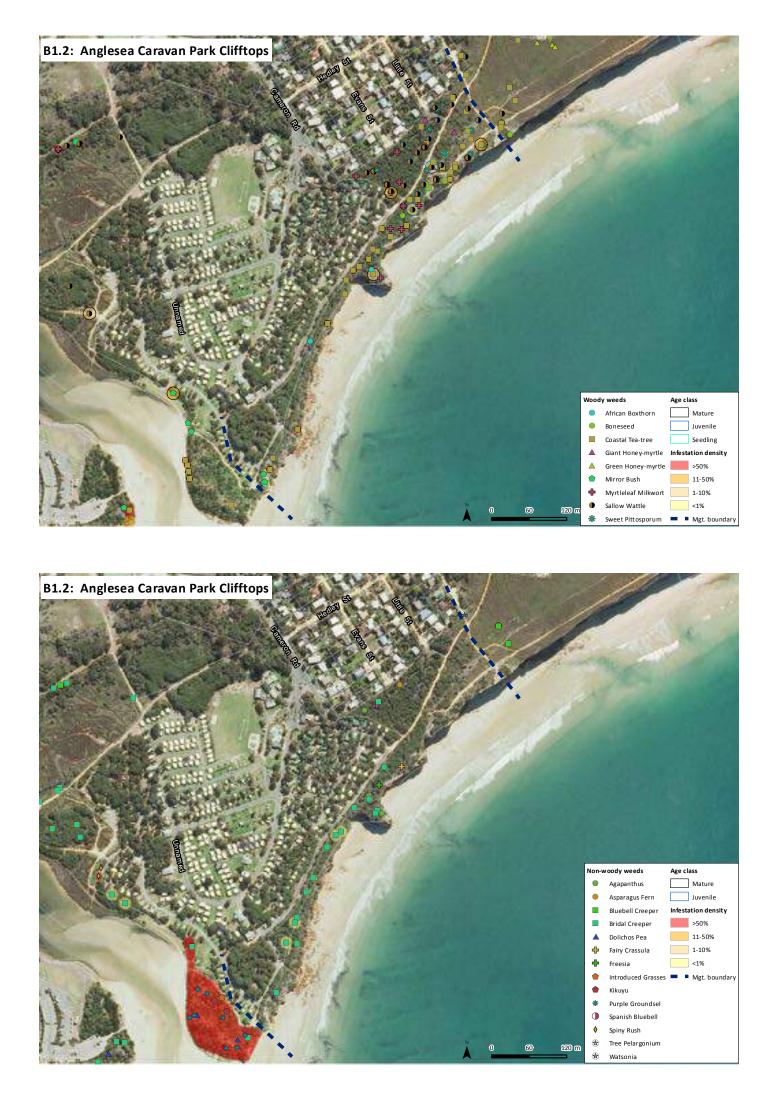
- Woody Weeds (African Boxthorn, Sallow Wattle, Sweet Pittosporum, Sweet Hakea, Boneseed, Mirror Bush): In 2009 noted that this zone is supports numerous infestations of various woody weeds, particularly in the east. The 2014 mapping notes many of the mature plants eliminated and only seedlings or juveniles present.
- **Coast Tea-tree:** Recorded across the zone in 2009. Numerous infestations were mapped in 2014 but a great proportion of these are seedlings. Several mature plants are present on the cliff edge where removal may be unsafe for occupational health and safety or erosion.
- **Inappropriate access:** The 2009 plan identifies that inappropriate access through native vegetation is occurring in in this zone. The 2014 assessment noted that many paths have been rationalised and gravelled, reducing inappropriate access.
- Freesia: One Freesia infestation was noted in 2009. One Freesia infestation was noted in 2009.
- Asparagus Fern: This species was not recorded in 2009. One infestation recorded in the north east of the zone. This species is highly invasive and must be targeted for control.
- **Bridal Creeper:** One infestation noted at the west end in 2009. Numerous infestations noted in 2014. Bridal Creeper appears to be expanding in cover and moving east. **This species is a high** *priority for control.*



Table B1.2 Anglesea Caravan Park Clifftops and Objectives

Level of Service	Conserve and Rehabilitate	
EVCs Present	Coastal Alkaline Scrub (EVC 858 endangered)	
	Coastal Headland Scrub (EVC 161 vulnerable)	
Environmental Community Group Activity	No.	
Vegetation Quality	Very Good. Areas of relatively intact native vegetation interspersed with woody and non-woody weed infestations.	
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed)	
	Coastal Moonah Woodland (FFG listed)	
Weed Threat/Management Action	5 Year Objectives	
Currently Sufficient Resources to Achieve		
Coast Tea-tree	Staged removal of all mature plants over five years.	
Woody Weeds: Coast Tea-tree, African Boxthorn, Sallow Wattle, Sweet Pittosporum, Boneseed,	Eliminate all mature plants.	
Non-woody weeds: Fairy Crassula, Agapanthus, Freesia	Control annually.	
Asparagus Fern	Control annually. Eliminate infestation.	
Bridal Creeper	Control annually. Reduce infestations by 50%. Focus on the east end of the infestation.	
Additional Resources Required		
Garden escapees	Education program targeting adjacent landowners of the risk of invasive species in gardens.	





B1.3 ANGLESEA CARAVAN PARK DUNES MANAGEMENT ZONE

The Anglesea Caravan Park Dunes is on the east side of the Anglesea river mouth and supports modified Coastal Dune Scrub. These dunes are fenced on the caravan park border only. A shrub layer of native coastal scrub is present over a highly modified understory with severe infestations of Bridal Creeper and introduced grasses.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

- Sea Spurge: Two infestations were noted in 2009. This species was not noted in 2014 mapping.
- **Bridal Creeper:** This species is noted in the 2009 mapping but no indication of size or severity. 2014 mapping indicates that while cover is low in the dunes it is relatively consistent across the site.

Level of Service	Monitor and Maintain	
EVCs Present	Coastal Dune Scrub (EVC 160 depleted)	
Environmental Community Group Activity	No.	
Vegetation Quality	Degraded. Native remnant shrub species are present over a highly modified understorey.	
Significant Ecological Values	Nil.	
Weed Threat/Management Action	5 Year Objectives	
Currently Sufficient Resources to Achieve		
Coast Tea-tree	Eliminate mature plants.	
Bridal Creeper	Control annually. Reduce infestation risk outside zone.	
Purple Groundsel	Control annually. Contain to zone.	
Dolichos Pea	Control annually.	
Introduced grasses (Hare's Tail-grass, Prairie Grass, Panic Veldt-grass	Control annually. Contain to zone.	
Additional Resources Required		
Bridal Creeper	Control annually. Reduce infestation by 50%	
Introduced grasses	Control annually. Reduce infestation by 50%	

Table B1.1 Anglesea Caravan Park Dunes Values and Objectives







B1.4 ANGLESEA SALTMARSH MANAGEMENT ZONE

The Anglesea Saltmarsh supports a mix of Coastal Saltmarsh and Coastal Alkaline Scrub vegetation. Coastal Saltmarsh vegetation meets the condition thresholds for the EPBC listed Subtropical and Temperate Coastal Saltmarsh community. This zone is bordered by the walking tracks on all sides with the Anglesea River to the west, Surf Coast Shire managed Fairylands to the north and Anglesea Caravan Park to the southeast.

A stormwater outflow pipe from the caravan park enters the Coastal Saltmarsh in the north of the zone. This may be may be altering local conditions and reducing biodiversity. The increase in Common Reed cover is consistent with reported negative impacts of stormwater on Saltmarsh systems (Victorian Saltmarsh Study 2011, TSSC 2013). It is recommended to relocate the outflow pipe away from areas of saltmarsh vegetation. For more detail see Vegetation Assessment to investigate impacts of the Anglesea Caravan Park Stormwater Outflow, Anglesea, Victoria (Beacon Ecological 2014).

Weed infestations are negligible within this zone excepting a few isolated woody weeds and Bridal Creeper infestation in the west. This area was not assessed as part of the GORCC NVWAP (Coomes 2009).

Level of Service	Conserve and Enhance	
EVCs Present	Coastal Saltmarsh (EVC 9 endangered)	
	Coastal Alkaline Scrub (EVC 858 endangered)	
Environmental Community Group Activity	No.	
Vegetation Quality	Pristine. Native vegetation within this area is relatively into with very little weed cover.	
Significant Ecological Values	Subtropical and Temperate Coastal Saltmarsh (EPBC listed, vulnerable)	
	Coastal Moonah Woodland (FFG Listed)	
	Salt Lawrencia (VROT rare)	
Weed Threat/Management Action	5 Year Objectives	
Weed Threat/Management Action Currently Sufficient Resources to Achieve (
Currently Sufficient Resources to Achieve (Woody Weeds (Boneseed, Myrtle-leaf	High Priority Actions)	
Currently Sufficient Resources to Achieve (Woody Weeds (Boneseed, Myrtle-leaf Milkwort, Mirror bush)	High Priority Actions) Eliminate mature plants.	
Currently Sufficient Resources to Achieve (Woody Weeds (Boneseed, Myrtle-leaf Milkwort, Mirror bush) Bridal Creeper	High Priority Actions) Eliminate mature plants. Control annually. Reduce infestation by 50%. Control annually. Reduce infestation by 50%.	
Currently Sufficient Resources to Achieve (Woody Weeds (Boneseed, Myrtle-leaf Milkwort, Mirror bush) Bridal Creeper Spiny Rush	High Priority Actions) Eliminate mature plants. Control annually. Reduce infestation by 50%. Control annually. Reduce infestation by 50%.	

Table B1.4 Anglesea Saltmarsh Values and Objectives







B3.1 FOUR KINGS DUNES MANAGEMENT ZONE

The Four Kings Dunes is immediately west of the Anglesea river mouth and supports Coastal Dune Scrub vegetation. This zone is adjacent to a large car parking area and receives high visitation as a main access point to Anglesea Beach.

Significant weed control and revegetation by has been undertaken by ANGAIR in conjunction with GORCC over the last five years. Infestations are now mostly scattered woody and non-woody weeds with Coast Tea-tree dominant on the foredune.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

- Woody Weeds (Myrtle-leaf Milkwort, Mirror Bush, Boneseed, Coast Tea-tree): The 2009 mapping and vegetation description indicates that this area supported dense infestations of woody weeds. 2014 mapping indicates a significant reduction woody weed levels. Coast Tea-tree infestations are still present on the foredunes.
- Bridal Creeper: This species is noted as several infestations in the 2009 mapping. 2014 mapping indicates that this species is persisting but possibly at lower cover.
- **Dolichos Pea:** This species is noted as several infestations in the 2009 mapping. 2014 mapping indicates that infestations are at a similar level.

Level of Service	Conserve and Rehabilitate	
EVCs Present	Coastal Dune Scrub (EVC 160 depleted)	
Environmental Community Group Activity	Significant weed control and revegetation by ANGAIR.	
Vegetation Quality	Very good. Significant resources over the last five years have enhanced vegetation quality of this zone.	
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed) Coast Twin-leaf (VROT rare)	
Weed Threat/Management Action	5 Year Objectives	
Currently Sufficient Resources to Achieve (High Priority Actions)		
Coast Tea-tree	Eliminate all mature plants.	
Woody Weeds (African Boxthorn, Mirror Bush, Myrtle-leaf Milkwort)	Eliminate mature plants.	
Bridal Creeper	Control annually. Reduce infestation by 50%.	
Dolichos Pea	Control annually. Reduce infestation by 50%.	
Non-woody weeds (Purple Groundsel, Agapanthus, Blue Periwinkle, Bluebell Creeper)	Control annually. Reduce infestation by 50%.	
Additional Resources Required (Lower Prior	rity Actions)	
Monterey Cypress	Remove mature trees.	

Table B3.1 Four Kings Dunes Values and Objectives







B3.2 ANGLESEA S.L.S.C. HEATH MANAGEMENT ZONE

Anglesea S.L.S.C Heath is between the Anglesea S.L.S.C and the Great Ocean Road lookout. The Coastal Headland Scrub is exposed to ocean influences supporting a diversity of low heath species. Native vegetation is fenced with a walking path along the northern boundary.

Significant weed control and ongoing follow up has been undertaken by ANGAIR in conjunction with GORCC over the last five years. Infestations are now mostly scattered woody and non-woody weeds.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

- Woody Weeds (Coast Tea-tree, Green Honey-myrtle, Sweet Pittosporum, Sallow Wattle, Monterey Cypress, Boneseed): The 2009 mapping and vegetation description indicates that this area had recently been cleared of the majority of woody weeds. 2014 mapping indicates a significant follow up weed control is being implemented with only woody weed seedlings and juvenile plants present.
- Watsonia: This species is noted as a single infestation in the 2009 mapping. 2014 mapping indicates that this species is persisting and a second infestation was noted.
- **Bluebell Creeper:** This species was not noted in the 2009 mapping. 2014 mapping indicates that several infestations are present in the centre of the zone.

Level of Service	Conserve and Enhance	
EVCs Present	Coastal headland Scrub (EVC 161 vulnerable)	
Environmental Community Group Activity	Significant weed control by ANGAIR.	
Vegetation Quality	Pristine. Significant woody weed control over the last fir years have enhanced vegetation quality of this zone.	
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed) Paper Flower (VROT rare)	
Weed Threat/Management Action	5 Year Objectives	
Currently Sufficient Resources to Achieve (High Priority Actions)		
Woody Weeds	Eliminate all mature plants.	
	Control annually. Reduce infestation by 50%.	
Watsonia	Control annually. Reduce infestation by 50%.	

Table B3.2 Anglesea S.L.S.C. Heath Values and Objectives







B3.3 ANGLESEA WOODLAND MANAGEMENT ZONE

Management of the Anglesea Woodland has been handed GORCC within the last five years. This area supports vegetation with affinity to Coastal Headland Scrub in areas exposed to the ocean and Heathy Woodland moving away from the coast. An unfenced walking track is present along the south of the zone. The dense nature of the native vegetation is preventing inappropriate access off the trackz. A detailed description of vegetation present within this zone is provided *Soapy Rocks*. Ecological Management Plan (Beacon Ecological 2013).

Since starting management of the site GORCC has undertaken significant woody weed control within areas of heathy woodland and also targeted Bridal Creeper. Woody species such as Sweet Pittosporum, Boneseed and Sallow Wattle are still present across the zone with Coast Tea-tree present within areas of Coast Headland Scrub. Several Asparagus Fern and Watsonia infestations are present which must be controlled immediately. This area was not assessed as part of the GORCC NVWAP (Coomes 2009).

Level of Service	Conserve and Enhance	
EVCs Present	Heathy Woodland (EVC 48 least concern)	
	Coastal Headland Scrub (EVC 161 vulnerable)	
Environmental Community Group Activity	No	
Vegetation Quality	Excellent. While this zone supports a variety of woody and non-woody weeds, cover of these species is generally low.	
Significant Ecological Values	Paper Flower (VROT rare)	
	Otway Grey Gum (VROT vulnerable)	
	Habitat for Southern Brown Bandicoot (EPBC listed endangered, VROT near threatened, FFG Listed)	
	Habitat for Eastern Pygmy Possum (VROT near threatened)	
	Habitat for White Footed Dunnart (VROT near threatened, FFG listed)	
Weed Threat/Management Action	5 Year Objectives	
Currently Sufficient Resources to Achieve (I	High Priority Actions)	
Woody Weeds	Eliminate all mature plants where access is possible.	
Asparagus Fern, Bridal Creeper,	Control annually. Reduce infestations by 50%.	
Watsonia, English Ivy Agapanthus,		
Seaside Daisy		

Table B3.3 Anglesea Woodland. Values and Objectives







B3.4 SOAPY ROCKS MANAGEMENT ZONE

Soapy Rocks supports areas of relatively intact native vegetation and areas dominated by introduced woody weeds. Heathy Woodland is present on the clifftop and Coastal Headland Scrub on the exposed coastal cliffs. A large portion of the zone was subject to a landslip during the 1970's and was then planted back out with non-locally indigenous trees and shrubs. IN association with school groups, GORCC and ANGAIR have removed some large woody weed infestations over the last five years and implementing minor amounts of supplementary planting as required. A detailed description of vegetation present within this zone is provided *Soapy Rocks*. *Ecological Management Plan* (Beacon Ecological 2013).

- Woody Weeds (Coast Tea-tree, Green Honey-myrtle, Sweet Pittosporum, Sallow Wattle, Boneseed and many more): The 2009 mapping indicates that Soapy Rocks supports infestations of numerous woody weeds. 2014 mapping indicates that woody weed removal of the clifftops and an area within the landslip has occurred. Follow up weed control is being implemented with only woody weed seedlings and juvenile plants present.
- Agapanthus: This species is noted as a single infestation in the 2009 mapping. 2014 mapping indicates that this species is persisting.
- Freesia: This species was not noted in the 2009 mapping. Several infestations of this species were noted in the 2041 mapping.
- **Pampas Grass:** This species is not noted in the 2009 mapping. 2014 mapping identified several infestations. These are likely to be removed as staged woody weed control is implemented.



Table B3.4 Soapy Rocks Heath Values and Objectives

Level of Service	Conserve and Rehabilitate		
EVCs Present	Heathy Woodland (EVC 48 least concern) Coastal headland Scrub (EVC 161 vulnerable)		
Environmental Community Group Activity	Significant woody weed control by ANGAIR.		
Vegetation Quality	Degraded. While this site supports some areas of relativintact native vegetation. Large areas dominated by woo weeds persist.		
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed)		
	Coast Twin-leaf (VROT rare)		
Weed Threat/Management Action	5 Year Objectives		
Currently Sufficient Resources to Achieve (High Priority Actions)			
Woody Weeds	Eliminate all mature plants outside containment area. Assist community groups with core infestation control.		
Non-woody weeds (Agapanthus, Freesia, Bluebell Creeper, Watsonia	Control annually. Reduce infestation by 50%.		
Introduced grasses (Kikuyu, Panic Veldt- grass)	Control annually. Reduce infestation by 50%.		
Additional Resources Required (Lower Prio	Additional Resources Required (Lower Priority Actions)		
Woody Weeds	Staged removal of all woody weeds.		







B3.5 POINT ROADKNIGHT MANAGEMENT ZONE

Point Roadknight supports relatively intact native vegetation with affinities to Coastal Alkaline Scrub dominated by an overstorey of Moonah. ANGAIR have removed woody weed infestations, particularly Myrtle Leaf-milkwort with follow up control over many years. This zone also includes a native botanic garden walk in the north of the zone planted out and interpretive signage erected by ANGAIR.

Weed cover at Point Roadknight is generally low with mapped woody weeds noted as seedlings or juvenile plants only.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

- Myrtle-leaf Milkwort: In 2009 recorded as numerous infestations. IN 2014 mapped as scattered juveniles and seedlings only.
- Boneseed: Several infestations noted in the north in 2009. This species not mapped in 2014.
- **Pampas Grass, Mirror Bush, Cape Ivy:** Single infestations of each of these species were noted in 2009. These species were not recorded in 2014.
- **Bluebell Creeper:** Several infestation were noted in the north of this zone in 2009. 2014 mapping indicates that these infestations appear to be persisting at similar levels.
- Italian Buckthorn: One infestation noted in the sailing club car park in 2009. Three infestations noted in 2014 mapping.
- **Coast Tea-tree**: This species was not noted in 2009. Three isolated infestations of mature plants were recorded in 2014.
- Fairy Crassula, Freesia, Purple Groundsel, Agapanthus: These species were not recorded in 2009. One or two infestations of each species were recorded in 2014.

Level of Service	Conserve and Enhance	
EVCs Present	Coastal Alkaline Scrub (EVC 858 endangered)	
	Coastal headland Scrub (EVC 161 vulnerable)	
Environmental Community Group Activity	Significant weed control by ANGAIR over several years.	
Vegetation Quality	Very Good. Vegetation generally dominated by native species with isolated weed infestations.	
Significant Ecological Values	Coastal Moonah Woodland (FFG listed)	
	Rufous Bristlebird (VROT near threatened, FFG Listed)	
Weed Threat/Management Action	5 Year Objectives	
Currently Sufficient Resources to Achieve (High Priority Actions)		
Woody Weeds	Eliminate all mature plants outside containment area. Assist community groups with core infestation control.	
Non-woody weeds (Agapanthus,	Control annually. Reduce infestation by 50%.	
Freesia, Bluebell Creeper, Watsonia)		
Introduced grasses (Kikuyu, Panic Veldt-	Control annually. Reduce infestation by 50%.	
grass)		

Table B3.5 Point Roadknight Heath Values and Objectives







B3.6 MELBA PARADE MANAGEMENT ZONE

Melba Parade comprises large dune systems supporting Coastal Dune Scrub in exposed areas and Moonah dominated Coastal Alkaline Scrub in the rear dunes. ANGAIR in conjunction with local schools have removed woody weed infestations particularly Coast Tea-tree and Myrtle-leaf Milkwort in the read dunes. Supplementary planting has been implemented in some areas to assist with rehabilitation. Panic Veldt Grass is present in some locations beneath the Moonah trees.

- **Myrtle-leaf Milkwort:** Numerous infestations noted in the rear dunes in 2009. Virtually all mature plants removed in 2014 with mapped infestations generally seedlings and juveniles.
- Mirror Bush: Several infestations noted across the zone in 2009. One infestation noted in 2014.
- **Boneseed:** Numerous infestations noted across the zone in 2009. Greatly reduced numbers of infestations noted in 2014. Infestations noted as juveniles and seedlings only.
- **Coast Tea-tree:** This species is mapped as infestations across the zone in 2009 although difficult to determine how widespread this species was. 2014 mapping identifies varied levels of infestation on top and foredunes scattered mature trees in east. Seedlings only in rear dunes where substantial removal and follow up work has occurred.
- Italian Buckthorn: A few infestations of this species noted in the east in 2009. Similar levels of infestation noted in 2014 mapping.
- **Purple groundsel:** This species was noted as relatively small infestations in the centre and east of the zone. Despite annual control 2014 mapping indicates this species is spread along the entire foredune system.
- **Bridal Creeper:** This species was not recorded in 2009. Two infestations were mapped in 2014. **This** species is of high importance to control given that it is new and emerging in this zone.
- Agapanthus and Spanish Bluebell: These species were not recorded in 2009. 2014 mapping identifies a few scattered infestations of these species in the east.



Table B3.6 Melba Parade. Values and Objectives

Level of Service	Conserve and Rehabilitate	
EVCs Present	Coastal Alkaline Scrub (EVC 858 endangered)	
	Coastal Dune Scrub (EVC 160 depleted)	
Environmental Community Group Activity	Significant weed control by ANGAIR and local schools in rear dunes over several years.	
Vegetation Quality	Good. Some areas of relatively intact native vegetation however some dune areas are dominated by Coast Tea-tree. Rehabilitation areas are in early stages .	
Significant Ecological Values	Coastal Moonah Woodland (FFG listed)	
	Rufous Bristlebird (VROT near threatened, FFG Listed)	
	Coast Twin-leaf (VROT rare)	
Weed Threat/Management Action	5 Year Objectives	
Currently Sufficient Resources to Achieve (High Priority Actions)		
Coast Tea-tree	Eliminate mature plants from outside containment area. Staged removal of larger infestations on top of dunes.	
Woody Weeds (Myrtle-leaf Milkwort, Boneseed, Sallow Wattle, Italian Buckthorn)	Eliminate all mature plants	
Non-woody weeds (Bridal Creeper, Agapanthus, Spanish Bluebell)	Control annually. Reduce infestation by 50%. Aim to eradicate Bridal Creeper	
Purple Groundsel	Control annually. Reduce infestation by 50%.	
Introduced grasses (Kikuyu, Panic Veldt- grass)	Control annually. Reduce infestation by 50%.	
Revegetation	Implement supplementary revegetation as required	
Additional Resources Required (Lower Prio	rity Actions)	
Coast Tea-tree	Staged removal of all woody weeds.	







4 RECOMMENDATIONS MANAGEMENT AREA C (AIREYS INLET)

Management Area C covers approximately 12 kilometres of coast and is 96 hectares. The eastern end begins at Boundary Road in Aireys Inlet finishing at Eastern View in the west. Aireys Inlet east of Mogg's Creek is located within the Otway Plain bioregion, while the area west of Mogg's Creek is located within in the Otway Ranges bioregion.

The landscape varies from coastal cliffs at Aireys Inlet to estuarine systems at the mouth of the Painkalac Creek and dune systems from Fairhaven to Eastern View. The Aireys Inlet township supports residential areas adjacent to the management zone. Fairhaven to Eastern view supports low-density residential areas separated from the management zone by the Great Ocean Road. The Friends of Aireys Inlet Coast Reserve have been very active over the last 15 years, gradually removing woody weed infestations on the clifftops.

C2.1

The 8 sections in Management Area C are:

- Boundary Road Clifftops C1.1
- Eagle Rock Parade C1.2
- Split Point East C1.3
- Split Point West

•	Painkalac Dunes	C2.2
•	Fairhaven	C2.3
•	Moggs Creek	C2.4
•	Easternview	C2.5



Figure 3. Management Zones within the Aireys Inlet area.



C1.1 BOUNDARY ROAD CLIFFTOPS MANAGEMENT ZONE

The Boundary Road Clifftops at Aireys Inlet support Coastal Headland Scrub vegetation dominated by Moonah in the north and other native coastal scrub species in the south. Native vegetation is relatively intact with only scattered weeds present. The zone is bordered by Eagle Rock Parade to the west with a walking track along the clifftops with occasional access tracks through native vegetation to the street. Parks Victoria managed land and access to Sunnymede beach is present to the north.

- **Boneseed:** Numerous infestations mapped throughout zone in 2009. While still present there is a significant reduction in the number of infestations mapped in 2014.
- **Coast Tea-tree:** Numerous infestations mapped throughout zone in 2009. Significantly less infestations mapped with most present in the south.
- Sugar Gums: Two infestations of mature trees mapped in 2009. 2014 mapping indicates that Infestations persist.
- **Bluebell Creeper:** In 2009 several scattered infestations were mapped. 2014 mapping indicates that infestation levels appear similar.
- Hottentot Fig: 2009 mapping indicates one infestation on the roadside. 2014 mapping indicates that this infestation is still present.
- Introduced melaleucas: Various introduced species were mapped in 2009. These species persist as isolated infestations.
- Myrtleleaf Milkwort: One infestation noted in the north in 2009. This infestation persist in 2014.



Table C1.1 Boundary Road. Values and Objectives

Level of Service	Conserve and Enhance	
EVCs Present	Coastal Headland Scrub (EVC 161 vulnerable)	
Environmental Community Group Activity	Control of woody weeds has been implemented by the Friends of Aireys Inlet Coastal Reserve	
Vegetation Quality	Good. Relatively intact native vegetation with scattered weeds present.	
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed)	
Weed Threat/Management Action	5 Year Objectives	
Currently Sufficient Resources to Achieve (High Priority Actions)		
Woody Weeds (Coast Tea-tree, Myrtle- leaf Milkwort, Sweet Pittosporum, Boneseed, Pin-cushion Hakea, Giant Honey-myrtle, Flax-leaf Broom)	Eliminate all mature plants.	
Bluebell Creeper	Control annually. Reduce infestation by 50%.	
Non-woody weeds (Hottentot Fig, Agapanthus)	Control annually. Reduce infestation by 50%.	
Additional Resources Required (Lower Prio	Additional Resources Required (Lower Priority Actions)	
Sugar Gums	Eliminate mature Sugar Gums	







C1.2 EAGLE ROCK PARADE MANAGEMENT ZONE

Eagle Rock Parade supports Coastal Headland Scrub vegetation dominated by native coastal scrub and introduced woody weeds in some locations. Over many years the Friends of Aireys Inlet Coast Reserve have removed large woody weed infestations in stages to retain habitat for the Rufous Bristlebird (DEPI 2007). The majority of mature woody weeds have been removed with some patches in the south remaining as well as inaccessible areas on the coastal cliffs. The zone is bordered by Eagle Rock Parade to the east and supports a walking track along the cliff edge. Beach access is at the south and north of the zone.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009). Note that the 2009 mapping appears to have only mapped the clifftops edges and not the entire zone:

- Woody Weeds (Coast Tea-tree, Boneseed, Cape Wattle, Sweet Hakea, Sweet Pittosporum, Giant Honey-myrtle, Myrtle-leaf Milkwort, Sallow Wattle): While much of the management zone appears to have been left out of the 209 mapping presence of cut stumps and woody weed seedlings suggests that the infestation level of woody weeds has decreased. Some significant infestations still remain in the south of the zone which are proposed for removal in the next five years by the Friends of Aireys Inlet Coast Reserve.
- **Bluebell Creeper:** 2009 mapping identifies several infestations in the north with one infestation in the centre. 2014 mapping indicates that this species may have similar infestations levels.
- Sweet Violet: One infestation note din 2009 in the centre of the zone. While this infestation has been treated several times, 2014 mapping notes it still persisting.
- **Dolichos pea:** This species was not recorded in 2009. One infestation was noted on to the east of the centre car park.
- Bridal Creeper: Not noted in 2009. One infestation in south in 2014.



Level of Service	Conserve and Rehabilitate
EVCs Present	Coastal Headland Scrub (EVC 161 vulnerable)
Environmental Community Group Activity	Control of woody weeds has been implemented by the Friends of Aireys Inlet Coastal Reserve
Vegetation Quality	Good. Relatively intact native vegetation amongst woody weed infestations.
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)	
Woody Weeds (Coast Tea-tree, Myrtle- leaf Milkwort, Sweet Pittosporum, Boneseed, Pin-cushion Hakea, Giant Honey-myrtle, Flax-leaf Broom)	Eliminate all mature plants where accessible.
Bluebell Creeper	Control annually. Reduce infestation by 50%.
Non-woody weeds (Dolichos Pea, Sweet Violet, Agapanthus)	Control annually. Reduce infestation by 50%.
Additional Resources Required (Lower Priority Actions)	
Introduced grasses	Control significant infestations and revegetate.







C1.3 SPLIT POINT EAST MANAGEMENT ZONE

Split Point East is a small management zone from the Split Point Lighthouse car park to the Split Point Lighthouse. Steep coastal cliffs support Coastal Headland Scrub vegetation dominated by native coastal species with scattered weeds. The zone is bordered by private properties to the east, several of which have weed species in their gardens. Access through the zone is difficult with no walking tracks.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009). Note that the 2009 mapping appears to have only mapped the clifftops edges and not the entire zone:

- Woody Weeds: Scattered Cape Wattle, Coast Tea-tree, Myrtle-leaf Milkwort, Boneseed and Sweet Hakea mapped in 2009. Similar levels of infestation mapped in 2014.
- Hottentot Fig: One infestation recorded in 2009. One infestation recorded in 2014.
- **Dolichos pea:** This species not recorded in 2009. Three infestations mapped in 2014.
- Agapanthus: Two infestations noted in 2009. Numerous infestations noted in 2014.

Level of Service	Conserve and Rehabilitate
EVCs Present	Coastal Headland Scrub (EVC 161 vulnerable)
Environmental Community Group Activity	No.
Vegetation Quality	Good. Relatively intact native vegetation amongst scattered woody weed infestations.
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)	
Woody Weeds (Cape Wattle, Coast Tea- tree, Myrtle-leaf Milkwort, Boneseed and Sweet Hakea)	Eliminate all mature plants where accessible.
Non-woody weeds (Dolichos Pea, Agapanthus, Hottentot Fig)	Control annually. Reduce infestation by 50%.
Additional Resources Required (Lower Priority Actions)	
Garden escapees	Implement education plan with adjacent neighbours. Weeds replaced with locally indigenous species.

Table C1.3 Split Point East. Values and Objectives







C2.1 SPLIT POINT WEST MANAGEMENT ZONE

Split Point West is bordered by the Split Point Lighthouse in the east and Painkalac Creek in the west. Walking tracks and lookouts at the bas of the lighthouse receive high tourist visitation. Coastal Headland Scrub vegetation dominates the zone, in good condition in the east with higher weed cover in the west. Common woody weeds are present including Coastal Tea-tree, Sallow Wattle, Sweet Pittosporum, Boneseed, Myrtle-leaf Milkwort and Sweet Hakea. Non-woody weeds of note include several Bridal Creeper and Agapanthus infestations that should be controlled immediately. Introduced grasses are prevalent in the west of the zone, particularly Panic Veldt-grass and Kikuyu.

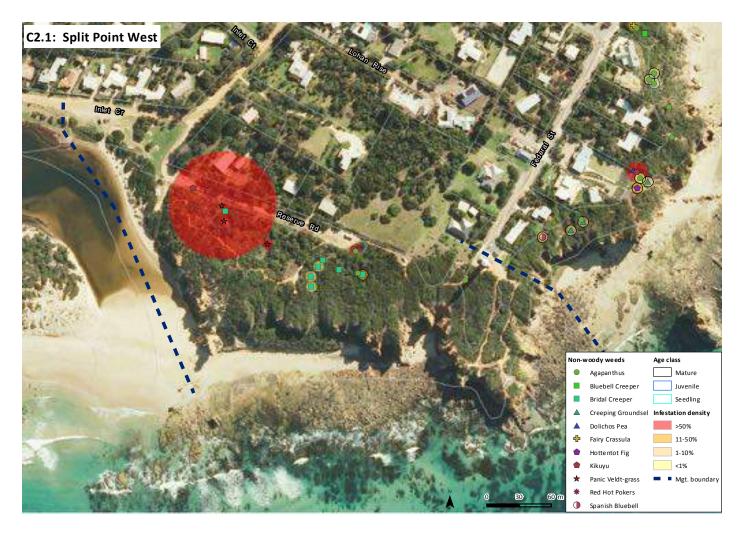
This area was not mapped in the 2009 GORCC NVWAP (Coomes 2009).

Level of Service	Conserve and Rehabilitate	
EVCs Present	Coastal Headland Scrub (EVC 161 vulnerable)	
Environmental Community Group Activity	No.	
Vegetation Quality	Good. Relatively intact native vegetation in the east, becoming more weedy in the west.	
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed) Swamp Antechinus (VROT near threatened, FFG Listed) Coastal Moonah Woodland (FFG Listed)	
Weed Threat/Management Action	5 Year Objectives	
Currently Sufficient Resources to Achieve (High Priority Actions)		
Woody Weeds (Coastal Tea-tree, Sallow Wattle, Sweet Pittosporum, Boneseed, Myrtle-leaf Milkwort and Sweet Hakea)	Eliminate all mature plants.	
Non-woody weeds (Bridal Creeper, Agapanthus)	Control annually. Reduce infestation by 50%.	
Additional Resources Required (Lower Priority Actions)		
Introduced grasses	Eliminate grasses and revegetate.	

Table C2.1 Split Point West. Values and Objectives







C2.2 PAINKALAC DUNES MANAGEMENT ZONE

Painkalac Dunes is a dune system on a large sandy spit bordering the Painkalac Creek estuary system. Coastal Dune Scrub dominates the zone with areas of Coastal Alkaline Scrub bordering the estuary system to the north. There is no public access to vegetation within this zone.

Weed cover is generally low, apart from large infestations of Coast Tea-tree. Scattered infestations of other woody weed species are present, Myrtle-leaf Milkwort in particular which after removal of mature plants is present as dense regrowth of seedlings and juveniles. Fox dens have been annually fumigated in this zone for several years.

Five year management objectives aim for control of most species with Sallow Wattle and Coast Tea-tree to be contained to core infestations.

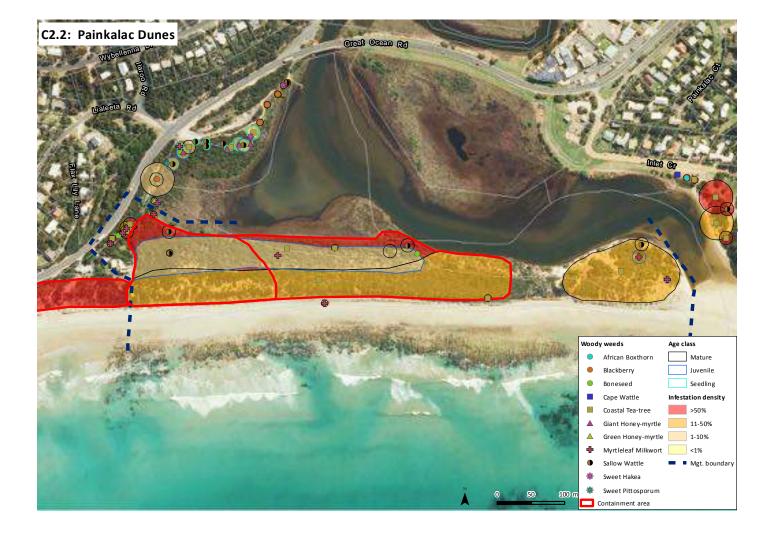
- Myrtle-leaf Milkwort: 2009 mapping indicates significant infestations noted in the west with scattered infestations noted throughout remainder of zone. 2014 mapping indicates that infestation level remains similar although the majority of mature plants have been controlled with juvenile and seedlings present.
- **Boneseed:** Numerous infestations noted across the zone in 2009. Significant reduction with only one infestation noted in 2014.
- Sea Spurge: Three infestations noted in 2009. Two infestations noted in 2014.
- **Coast Tea-tree:** This species appears not to have been mapped in 2009 despite significant stands of mature plants present in 2014.
- Purple Groundsel: Not mapped in 2009. Numerous infestations noted in 2014.



Table C2.2 Painkalac Dunes. Values and Objectives

Level of Service	Conserve and Rehabilitate
EVCs Present	Coastal Dune Scrub (EVC 160 depleted)
	Coastal Alkaline Scrub (EVC 858 endangered)
Environmental Community Group Activity	No.
Vegetation Quality	Very Good. Supports a mix of high quality vegetation as well as areas dominated by woody weeds.
Significant Ecological Values	Hooded Plover (EPBC Act vulnerable, FFG listed, VROT vulnerable)
	Rufous Bristlebird (VROT near threatened, FFG Listed)
	Swamp Antechinus (VROT near threatened, FFG Listed)
	Coastal Moonah Woodland (FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Weed Threat/Management Action Currently Sufficient Resources to Achieve (
Currently Sufficient Resources to Achieve (High Priority Actions)
Currently Sufficient Resources to Achieve (Coast Tea-tree	High Priority Actions) Eliminate outlying infestations. Contain to core infestation.
Currently Sufficient Resources to Achieve (Coast Tea-tree Sallow Wattle	High Priority Actions) Eliminate outlying infestations. Contain to core infestation. Eliminate outlying infestations. Contain to core infestation.
Currently Sufficient Resources to Achieve (Coast Tea-tree Sallow Wattle Myrtle-leaf Milkwort	High Priority Actions) Eliminate outlying infestations. Contain to core infestation. Eliminate outlying infestations. Contain to core infestation. Eliminate all mature plants. Control all plants annually. Reduce infestations by 50%.
Currently Sufficient Resources to Achieve (Coast Tea-tree Sallow Wattle Myrtle-leaf Milkwort Purple Groundsel	High Priority Actions) Eliminate outlying infestations. Contain to core infestation. Eliminate outlying infestations. Contain to core infestation. Eliminate all mature plants. Control all plants annually. Reduce infestations by 50%.







C2.3 PAINKALAC ESTUARY MANAGEMENT ZONE

Painkalac Estuary supports vegetation with affinities to Coastal Alkaline Scrub and has recently been transferred from Surf Coast Shire to GORCC management. The zone is bordered by Painkalac Creek to the east and a walking path to the west. Dominant weed species include common woody weeds, Bluebell Creeper and Blackberry.

Five year management objectives aim for elimination of all mature woody weeds and control of all nonwoody weeds. The site was not mapped in detail for the 2009 GORCC NVWAP (Coomes 2009)

Level of Service	Conserve and Rehabilitate
EVCs Present	Coastal Alkaline Scrub (EVC 858 endangered)
Environmental Community Group Activity	No.
Vegetation Quality	Very Good. Supports a mix of high quality vegetation with scattered weeds. Many infestations were seedling and juvenile regrowth.
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)	

Table C2.3 Painkalac Estuary. Values and Objectives

Woody Weeds (Coast Tea-tree, Giant Honey-myrtle, Sweet Hakea, Sallow Wattle)	Eliminate all mature plants.
Bluebell Creeper	Control all plants annually. Reduce infestations by 50%.
Blackberry	Control all plants annually. Reduce infestations by 50%.
Non-woody weeds (Silver Arctotis Montbretia)	Control all plants annually. Reduce infestations by 50%.







C2.4 FAIRHAVEN MANAGEMENT ZONE

Fairhaven supports a long thin stretch of Coastal Dune Scrub bordered by Moggs Creek to the west. Vegetation condition varies with heavy infestations of Coast Tea-tree in the east and west. Area free of woody weeds in the centre of the zone supports Moonah trees often with an understorey dominated by Panic Veldt-grass. This zone supports many beach access points and pedestrian traffic.

Five year management objectives aim for elimination of all mature woody weeds and control of all nonwoody weeds except for Coast Tea-tree which is to be controlled outside of containment areas.

- Sea Spurge: Numerous infestations noted in 2009. Two infestations noted in 2014.
- Boneseed: Numerous infestations noted in 2009. Not recorded in 2014.
- Myrtle-leaf Milkwort: 2009 mapping indicates several infestations west of the Fairhaven S.L.S.C. 2014 mapping indicates that infestation level remains similar.
- **Coast Tea-tree:** 2009 mapping indicates that this species is present. 2014 mapping identified significant infestations of Coast Tea-tree.
- **Dolichos Pea:** Infestation noted to the west of Fairhaven S.L.S.C in 2009. Same infestations noted in 2014.
- Blue Periwinkle: One infestation noted on roadside in 2009. Same infestation noted in 2014.
- **Purple Groundsel:** Noted as one infestation in 2009. Infestation appears to have increased in size due to sand dune disturbance for the construction for the new Fairhaven S.L.S.C. This infestation should be controlled immediately.
- Giant Honey-myrtle: Not recorded in 2009. Two infestations noted in 2014.



Level of Service	Conserve and Enhance
EVCs Present	Coastal Dune Scrub (EVC 160 depleted)
Environmental Community Group Activity	No.
Vegetation Quality	Very Good. Supports a mix of high quality vegetation amongst significant weed infestations.
Significant Ecological Values	Hooded Plover (EPBC Act vulnerable, FFG listed, VROT vulnerable)
	Rufous Bristlebird (VROT near threatened, FFG Listed)
	Coastal Moonah Woodland (FFG Listed)
	Hooded Plover
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)	
Coast Tea-tree	Eliminate outlying infestations. Contain to core infestations.
Woody Weeds (Giant Honey-myrtle, Mirror Bush, Myrtle-leaf Milkwort)	Eliminate all mature plants.
Non-woody Weeds (Dolichos Pea, Blue Periwinkle, Purple Groundsel)	Control annually. Reduce infestations by 50%.
Additional Resources Required (Lower Priority Actions)	
Coast Tea-tree	Eliminate all mature plants within core infestation.
Grassy Weeds	Control all grassy weeds and revegetate.







C2.5 MOGGS CREEK MANAGEMENT ZONE

Moggs Creek supports a long thin stretch of Coastal Dune Scrub bordered by Moggs Creek to the east and Coalmine Creek to the west. Vegetation condition is generally good with scattered infestations across the zone. Infestations of mature Coast Tea-tree are present in the west. Significant woody weed control has occurred in the rear of the dunes in the west of the zone. Tennis courts were historically present within the centre of this zone and are potential sources of infestations of introduced grasses Buffalo Grass and Kikuyu. These grasses This zone supports several beach access points and pedestrian traffic. The nationally significant Hooded Plover often nests within this zone.

Five year management objectives aim for elimination of all mature woody weeds and control of all nonwoody weeds.

- **Coast Tea-tree:** While only mapped as one infestation in 2009, the 2014 mapping indicates that considerable control has occurred over the last several years with mostly seedlings and juveniles recorded.
- **Boneseed:** 2009 mapping indicates one infestation in the east of the zone. Not recorded in 2014.
- Agapanthus: 2009 mapping indicates one infestation in the east of the zone. Not recorded in 2014.
- Gazania: 2009 mapping indicates one infestation in the centre of the zone. Not recorded in 2014.
- **Giant Honey-myrtle:** 2009 mapping indicates one infestation in the west of the zone. Not recorded in 2014.
- **Dolichos Pea:** 2009 mapping indicates three infestations in the east and one in the west of the zone. 2014 mapping indicates five infestations across a similar area.
- Sea Spurge: 2009 mapping indicates one infestation. 2014 mapping noted three infestations.
- Flax leaf Broom: 2009 mapping indicates two infestations in the west of the zone. 2014 mapping indicates infestations remain at same levels.
- Cape Wattle: 2009 mapping indicates two infestations in the west of the zone. 2014 mapping indicates four infestations in the west of the zone.
- Tree Pelargonium: Not recorded in 2009. Several infestations noted in 2014.
- **Blackberry:** Not recorded in 2009. Numerous infestations noted within zone in 2014, mostly along roadside.
- Bluebell Creeper: Not recorded in 2009. One infestation noted in 2014.



Table C2.5 Moggs Creek. Values and Objectives

Level of Service	Conserve and Enhance
EVCs Present	Coastal Dune Scrub (EVC 160 depleted)
Environmental Community Group Activity	Friends of Moggs Creek have been active in this zone targeting woody weeds, Dolichos Pea and Sea Spurge. This group is also active in protecting any Hooded Plovers that nest on the beach.
Vegetation Quality	Very Good. Supports a mix of high quality vegetation amongst scattered weed infestations.
Significant Ecological Values	Hooded Plover (EPBC Act vulnerable, FFG listed, VROT vulnerable)
	Rufous Bristlebird (VROT near threatened, FFG Listed)
	Coastal Moonah Woodland (FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)	
Woody Weeds (Coast Tea-tree, Flax-leaf Broom, Cape Wattle, Blackberry)	Eliminate all mature plants.
Non-woody Weeds (Dolichos Pea, Tree Pelargonium, Bluebell Creeper)	Control annually. Reduce infestations by 50%.
Additional Resources Required (Lower Priority Actions)	
Introduced grasses (Buffalo Grass, Hares- tail Grass)	Control all grassy weeds and rehabilitate.
Hooded Plover	Staff time to assist Friends of Moggs Creek with education of beach users regarding threats to Hooded Plovers.







C2.6 EASTERNVIEW MANAGEMENT ZONE

Easternview supports a thin stretch of Coastal Dune Scrub bordered by Coalmine Creek to the west and rocky outcrops to the west. The zone supports some ecological values however dense infestations of woody weeds and Blackberry are also present. Infestations of mature Coast Tea-tree are present across the zone. This zone supports several beach access points including the tourist the Great Ocean Road sign tourist icon which receives high public visitation.

Five year management objectives aim for elimination of all mature woody weeds and control of all nonwoody weeds.

- Sea Spurge: 2009 mapping indicated numerous infestations across the zone. 2014 mapping indicates two infestations only.
- Boneseed: Numerous infestations noted in 2009. Not recorded in 2014.
- Dolichos Pea: One infestation noted in 2009. Not recorded in 2014.
- Climbing Groundsel: One infestation noted in 2009. Not recorded in 2014.
- Mirror Bush: One infestation noted in 2009. Not recorded in 2014.
- Coast Tea-tree: Not noted in 2009. Moderate to dense infestations noted in 2014.
- Blue Periwinkle: Not noted in 2009. Two infestations noted in 2014.
- Cape Wattle: 2009 mapping indicates 2 infestations. 2014 mapping indicates four infestations across the zone.
- Flax-leaf Broom: Not recorded in 2009. Two infestations recorded in 2014.
- **Blackberry:** One infestation recorded in 2009. Numerous infestations noted within zone in 2014, mostly along roadside.



Table C2.6 Easternview. Values and Objectives

Level of Service	Conserve and Rehabilitate
EVCs Present	Coastal Dune Scrub (EVC 160 depleted)
Environmental Community Group Activity	No.
Vegetation Quality	Good. Supports a mix of moderate quality vegetation amongst scattered weed infestations.
Significant Ecological Values	Hooded Plover (EPBC Act vulnerable, FFG listed, VROT vulnerable)
	Rufous Bristlebird (VROT near threatened, FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)	
Coast Tea-tree	Eliminate mature plants outside containment areas.
Woody Weeds (Coast Tea-tree, Flax-leaf Broom, Cape Wattle, Blackberry)	Eliminate all mature plants.
Non-woody Weeds (Dolichos Pea, Tree Pelargonium)	Control annually. Reduce infestations by 50%.
Additional Resources Required (Lower Priority Actions)	
Coast Tea-tree	Remove all mature plants from core infestations.
Introduced grasses (Buffalo Grass, Hares- tail Grass, Kikuyu)	Control all grassy weeds and rehabilitate.







5 RECOMMENDATIONS MANAGEMENT AREA D (LORNE)

Management Area D is 113 hectares, covering approximately eight kilometres of coast as well as Queens Park and the Cumberland River Caravan Park Reserve. The eastern end begins at Stony Creek and finishes at St George River in the west with the addition of the Cumberland River Caravan Park Reserve. All of Management Area D is located within the Otway Ranges bioregion.

The landscape varies from primary dunes along the Lorne Foreshore to steep forest vegetation within Queens Park. Residential and highly modified recreation areas border the majority of the Lorne foreshore which generally supports highly modified weedy vegetation with some areas of ecological value. Queens Park and the Cumberland River Caravan Park border the Great Otway National Park. Community environment group LorneCare is active in this area, particularly around eth two Fat Ladies car park, Lorne Point and Queens Park. The Friends of Queens Park are also active in Queens Park.

D2.1

D2.3

The 11 sections in Management Area D are:

- Stony Creek to Fat Ladies Carpark D1.1
- Fat Ladies Carpark D1.2
- Erskine Estuary D1.3
- Lorne Foreshore
- Lorne Point D2.2
- Point Grey
- Lorne Backbeaches D2.4

Lorne Foreshore Caravan Park	D3
Queens Park Townside	D4.1
Queens Park St George Side	D4.2
Queens Park Oceanside	D4.3
Slaughterhouse	D4.4

D5

Cumberland River

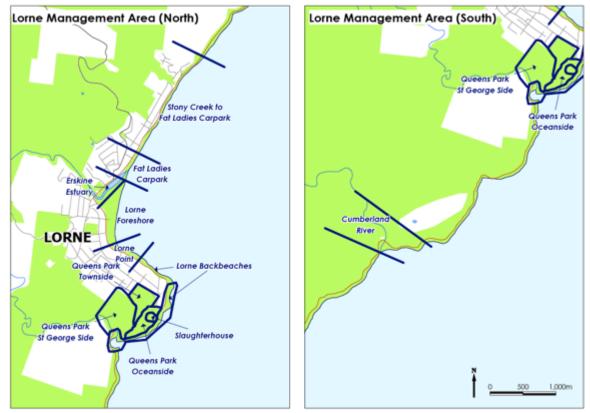


Figure 4. Management Zones within the Lorne area.



D1.1 STONY CREEK TO TWO FAT LADIES CARPARK MANAGEMENT ZONE

Stony Creek to the Fat Ladies Carpark supports a thin stretch of highly modified Coastal Dune Scrub. The zone supports some ecological values however the majority of the area comprises dense infestations of weed cover. Five year management objectives aim for control of woody weeds to protect scattered state significant Otway Grey Gums and for a revegetation site at Stony Creek.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

• All weed species: The 2009 mapping indicated numerous infestations of various species. As this is a low priority site, little control has been implemented and the site condition is unlikely to have altered.

Level of Service	Maintain and Monitor
EVCs Present	Coastal Dune Scrub (EVC 160 depleted)
Environmental Community Group Activity	No.
Vegetation Quality	Highly degraded. Vegetation generally dominated by introduced species.
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed)
	Otway Grey Gum (VROT vulnerable)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)	
Woody Weeds (Various)	Remove mature woody weeds around Otway Grey Gums
Woody Weeds (Various)	Remove mature woody weeds around Stony Creek Rivermouth restoration site.
Revegetation	Implement revegetation at Stony Creek Rivermouth.
Additional Resources Required (Lower Prior	rity Actions)
Woody Weeds Various	Remove all mature plants and revegetate with locally indigenous species.
Non-woody weeds and introduced grasses	Control all non-woody weeds and introduced grasses annually and revegetate.
Weed invasion from neighbouring properties	Undertake community education program to educate about the threat of weeds in gardens.

Table D1.1 Stony Creek to Two Fat Ladies Carpark. Values and Objectives







D1.2 TWO FAT LADIES CARPARK MANAGEMENT ZONE

The Two Fat Ladies Carpark supports a thin stretch of Coastal Dune Scrub that has been worked on by LorneCare volunteers to remove weeds and implement revegetation with locally indigenous species. The zone supports car parking, toilets and beach access and receives moderate amounts of public visitation.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

- **Coast Tea-tree:** Two infestations noted in 2009. Not recorded in 2014.
- **Mirror Bush:** Several infestations noted in 2009. While several infestations were noted in 2014, infestations appear to have been reduced.
- Agapanthus: Several infestations noted in 2009. Several infestations noted in 2014.
- Angled Onion: One infestation noted in 2009. One infestation noted in 2014.
- **Red Hot Pokers:** Several infestations noted in 2009. Despite control several infestations persist in 2014.
- English Ivy: One infestation noted in 2009 in north. Two infestations noted in 2014.
- Spanish Heath: One infestation noted in 2009 in north. Two infestations noted in 2014.
- Blackberry: One infestation recorded in 2009. Numerous infestations noted within zone in 2014.

Level of Service	Conserve and Rehabilitate
EVCs Present	Coastal Dune Scrub (EVC 160 depleted)
Environmental Community Group Activity	LorneCare has been active in this zone, removing weeds and implanting revegetation.
Vegetation Quality	Very Good. Ongoing weed control has reduced infestation levels and allowed regeneration of native species.
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)	
Woody Weeds (Coast Tea-tree, Mirror Bush, Spanish Heath)	Eliminate all mature plants.
Non-woody Weeds (Blackberry, English Ivy, Agapanthus, Angled Onion, Red Hot Pokers)	Control annually. Reduce infestations by 50%.
Revegetation	Implement revegetation as required.
Additional Resources Required (Lower Priority Actions)	
Pine trees	Eliminate large Pines on Erskine River.

Table D1.2 Two Fat Ladies Carpark. Values and Objectives







D2.1 LORNE FORESHORE MANAGEMENT ZONE

Lorne Foreshore supports a thin strip of highly modified Coastal Dune Scrub between the Erskine Rivermouth and Lorne S.L.S.C. The zone supports some ecological values however the majority of the area comprises dense infestations of weed cover. Given the high cover of Coast Tea-tree five year management objectives aim for prevention of the spread of this species, control of other woody weeds and some control of non-woody weeds.

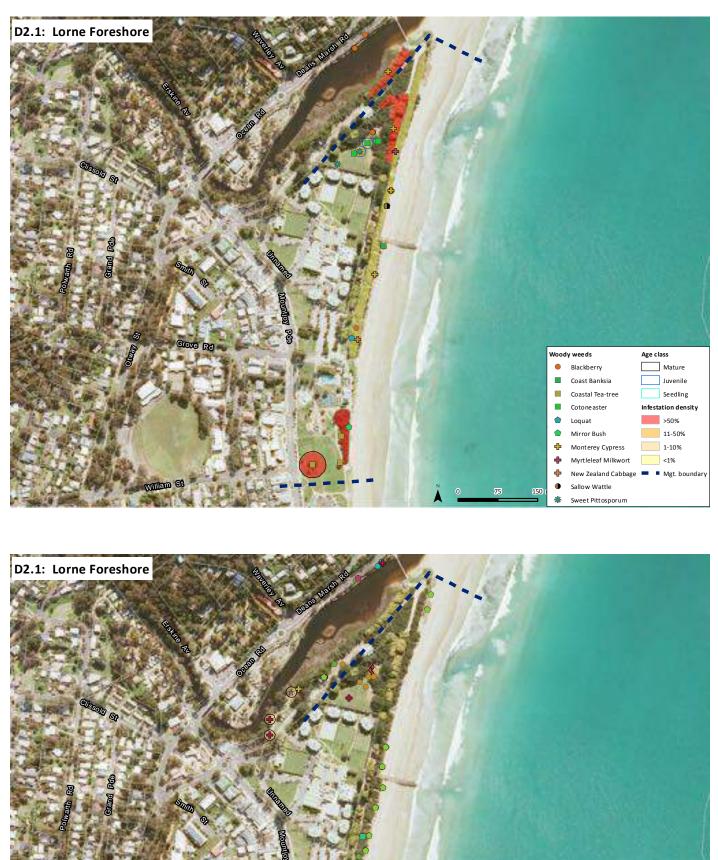
Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

• All weed species: The 2009 mapping indicated numerous infestations of various species. As this is a low priority site, little control has been implemented and the site condition is unlikely to have altered significantly.

Level of Service	Maintain and Monitor
EVCs Present	Coastal Dune Scrub (EVC 160 depleted)
Environmental Community Group Activity	No.
Vegetation Quality	Highly degraded. Vegetation generally dominated by introduced species.
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)	
Coast Tea-tree	Prevent spread outside current distribution.
Woody Weeds (Coast Banksia, Blackberry, Myrtle-leaf Milkwort, Sweet Pittosporum, Cotoneaster)	Eliminate mature all mature plants.
Non-woody Weeds (Montbretia, Blue Periwinkle, Asparagus Fern, Sweet Violet)	Control annually. Reduce infestations by 20%.
Additional Resources Required (Lower Priority Actions)	
Coast Tea-tree	Remove all mature plants and revegetate with locally indigenous species.
Non-woody weeds and introduced grasses	Control all non-woody weeds and introduced grasses annually and revegetate.

Table D2.1 Lorne Foreshore. Values and Objectives

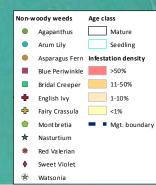




Grove Rd

5

villiam St



D2.2 LORNE POINT MANAGEMENT ZONE

Lorne Point supports a thin strip of Coastal Dune Scrub and Herb-rich Foothill Forest along the Doug Stirling Track from the Lorne S.L.S.C halfway to the Point Grey pier. Weed control and revegetation implemented by GORCC and LorneCare have reduced weed cover and protected ecological values, particularly swards of Kangaroo Grass *Themeda triandra* and Moonahs.

- **Coast Tea-tree:** Several infestations noted in 2009. Not noted in 2014.
- Sweet Pittosporum: Two infestations noted in 2009. Not noted in 2014.
- Boneseed: One infestations noted in 2009. Not noted in 2014.
- Cape Broom: Numerous infestations noted in 2009. Not noted in 2014.
- Agapanthus: Several infestations noted in 2009. Not noted in 2014.
- Arum Lily: Two infestations noted in 2009. Not noted in 2014.
- Watsonia: Numerous infestations noted in 2009. Despite ongoing control numerous infestations were mapped in 2014.
- Blue Periwinkle: One infestation mapped in the west in 2009. Numerous infestations mapped across zone in 2014.
- Cape Ivy: Not noted in 2009. One infestation noted in 2014.
- Myrtle-leaf Milkwort: Not noted in 2009. Two infestations noted in 2014.
- Blackberry: One infestation recorded in 2009. Several infestations noted in 2014.
- Cotoneaster: Not noted in 2009. Two infestations noted in 2014.



Table D2.2 Lorne Point. Values and Objectives

Level of Service	Conserve and Rehabilitate
EVCs Present	Coastal Dune Scrub (EVC 160 depleted) Herb-rich Foothill Forest (EVC 23 depleted)
Environmental Community Group Activity	LorneCare has implemented weed control and revegetation in this zone for several years.
Vegetation Quality	Very good. Weed control and revegetation has protected swards of Kangaroo Grass and Moonah Trees.
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)	
Woody Weeds (Blackberry, Myrtle-leaf Milkwort, Cotoneaster)	Eliminate mature all mature plants.
Non-woody Weeds (Watsonia, Montbretia, Blue Periwinkle, Montbretia, Morning Glory)	Control annually. Reduce infestations by 50%.
Revegetation	Revegetate with locally indigenous species as required.
Additional Resources Required (Lower Priority Actions)	
Introduced grasses	Control introduced grasses and revegetate with shrub and groundcover species, particularly beneath Blue Gums in Herb- rich Foothill Vegetation







D2.3 LORNE BACKBEACHES MANAGEMENT ZONE

Lorne Backbeaches supports a thin strip of highly modified Coastal Headland Scrub. The zone supports areas dominated by weed species amongst mown grass at the northern end and a mix of native species and woody weeds at the southern end. Given the high weed cover five year management objectives aim for containing weedy species and controlling outlying infestations only.

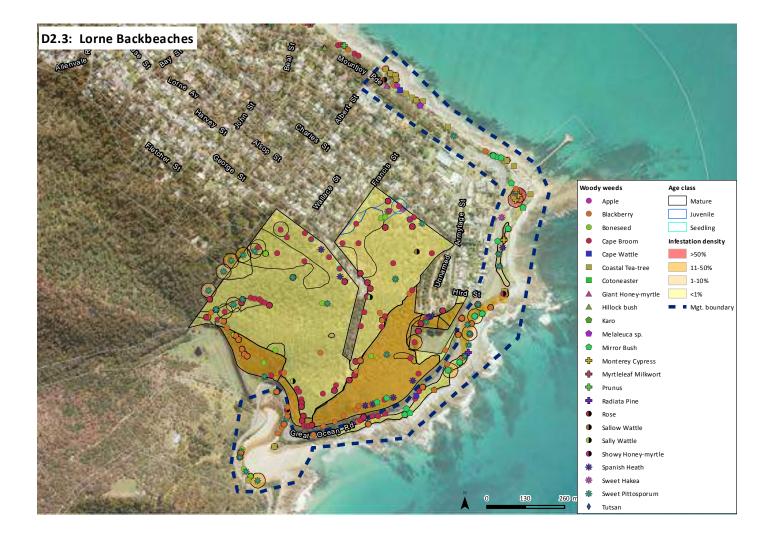
Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

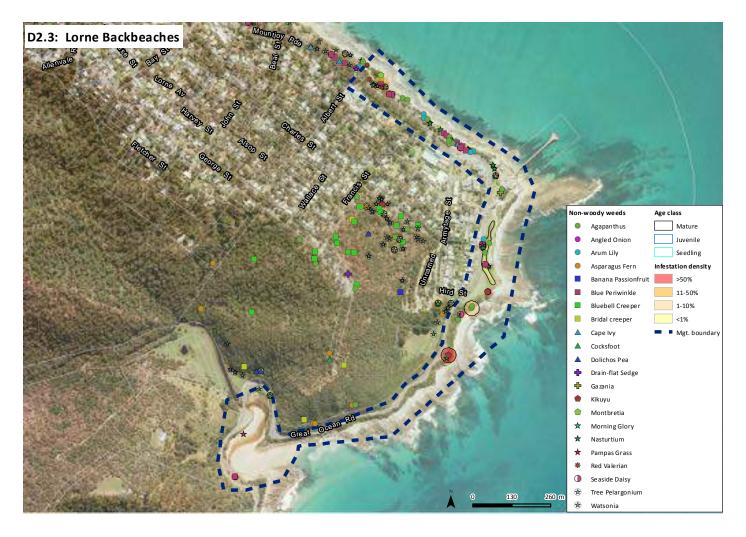
• All weed species: The 2009 mapping indicated numerous infestations of various species. As this is a low priority site, little control has been implemented and the site condition is unlikely to have altered significantly.

Level of Service	Maintain and Monitor
EVCs Present	Coastal Headland Scrub (EVC 160 vulnerable)
Environmental Community Group Activity	No.
Vegetation Quality	Degraded. Vegetation generally dominated by introduced species or in association with native species.
Significant Ecological Values	Rufous Bristlebird (VROT near threatened, FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)	
Woody Weeds (Coast Tea-tree, Sweet Pittosporum, Blackberry, Cape Wattle, Boneseed, Mirror Bush)	Remove all mature plants in south of zone.
Watsonia and Nasturtium	Control outlying infestations.
Additional Resources Required (Lower Priority Actions)	
Woody Weeds	Staged elimination of all mature plants with follow up revegetation.
Non-woody weeds and introduced grasses	Control all non-woody weeds and introduced grasses annually with follow up revegetation.

Table D2.3 Lorne Backbeaches. Values and Objectives







D3 ERSKINE ESTUARY MANAGEMENT ZONE

Erskine Estuary includes a thin strip of riparian vegetation along the Erskine River as well as the Lorne Foreshore Caravan Park. The overstorey is generally dominated by introduced Cypress and Coast Teatree with remnant Blue Gums in the west.

Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

- Sweet Pittosporum: Three infestations noted in 2009. Noted in park area only which was not assesse in 2009.
- Cape Broom: One infestation noted in 2009. Not noted in 2014.
- Agapanthus: Two infestations noted in 2009. One infestation noted in 2014.
- Coast Tea-tree: One infestation noted in 2009. Infestations still present in 2014.
- Fairy Crassula: Not recorded in 2009. One infestation noted in 2014.
- English Ivy: Not recorded in 2009. Two infestations noted in 2014.
- Asparagus Fern: Not noted in 2009. Several infestations noted in 2014.
- Sweet Violet: Not noted in 2009. Several infestations noted in 2014.

Table D3 Erskine Estuary. Values and Objectives

Level of Service	Maintain and Monitor
EVCs Present	Shrubby Foothill Forest (EVC 45 least concern)
Environmental Community Group Activity	No.
Vegetation Quality	Degraded. Large areas dominated by overstorey of introduced species. Some areas of remnant vegetation in west of zone.
Significant Ecological Values	Nil.
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)	
Coast Tea-tree	Eliminate all mature plants outside containment area.
Woody Weeds (Cotoneaster, Sweet Pittosporum, Blackberry)	Eliminate all mature plants.
Non-woody Weeds (Japanese Honeysuckle , Watsonia, Fairy Crassula, Montbretia, Agapanthus, Asparagus Fern, Sweet Violet)	Control annually. Reduce infestations by 50%.
Revegetation	Implement revegetation as required.
Additional Resources Required (Lower Priority Actions)	
Cypress trees	Eliminate large Cypress on Erskine River and revegetate.





D4.1 QUEENS PARK TOWNSIDE MANAGEMENT ZONE

Queens Park Townside management zone is bordered by George Road to the west, the fire track to the southeast and Lorne residential areas to the northeast. Native vegetation communities include Lowland Forest on the ridge line and Herb-rich Foothill Forest on slopes. Vegetation is generally intact with scattered Boneseed and Sweet Pittosporum as well as infestations of Cape Broom. Slashed asset protection zones are present along Francis Street and Charles Street. See Queens Park, Lorne. Weed Management Plan (Beacon Ecological 2012b) for detailed vegetation descriptions and management actions.

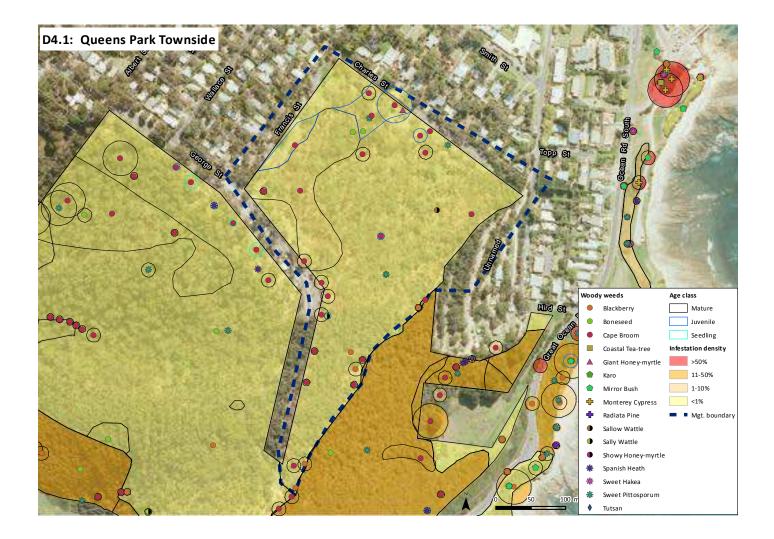
- Sweet Pittosporum: Scattered infestations noted in 2009. Scattered juvenile plants noted in 2014.
- English Ivy: One infestation noted in 2009. Not noted in 2014.
- **Boneseed**: Two infestations noted in 2009. 2014 mapping identified scattered juvenile plants across the zone.
- Cape Broom: Several infestations noted in 2009. 2014 mapping shows these infestations are persisting and possible expanding.
- **Blackberry:** Two infestations noted in 2009. Four infestations noted in 2014. 2009 infestations appear to have been controlled. 2014 infestations noted along fire track.
- Agapanthus: One infestation noted in 2009. One infestation noted in 2014.
- Bridal Creeper: Not noted in 2009. Group of small infestations noted in 2014. Control immediately.
- Bluebell Creeper: Not noted in 2009. Numerous infestations noted in 2014. Control immediately.
- Watsonia: Two infestations noted in 2009. Numerous infestations noted in 2014.



Level of Service	Conserve and Enhance
EVCs Present	Lowland Forest (EVC 16 depleted)
	Herb-rich Foothill Forest (EVC 23 depleted)
Environmental Community Group Activity	Friends of Queens Park and LorneCare have been active working on woody weeds with a focus on Boneseed, Sweet Pittosporum and Cape Broom.
Vegetation Quality	Near Pristine. Large areas dominated by native species with scattered Boneseed and Sweet Pittosporum. Some infestations of Cape Broom.
Significant Ecological Values	Potential Swift Parrot habitat (EPBC listed endangered, VROT endangered, FFG Listed)
	Swamp Antechinus (VROT near threatened, FFG Listed)
	Grey Goshawk (VROT vulnerable, FFG Listed)
	Long Nosed Potoroo (EPBC listed vulnerable, VROT near threatened, FFG Listed)
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)
Cape Broom	Eliminate mature plants in outlying infestations. Reduce core infestation.
Woody Woods (Popped Sugat	
Woody Weeds (Boneseed, Sweet Pittosporum, Sally Wattle, Blackberry)	Eliminate all mature plants.
	Eliminate all mature plants. Control annually. Reduce infestations by 50%.
Pittosporum, Sally Wattle, Blackberry) Non-woody Weeds (Bridal Creeper,	Control annually. Reduce infestations by 50%.
Pittosporum, Sally Wattle, Blackberry) Non-woody Weeds (Bridal Creeper, Agapanthus, Watsonia)	Control annually. Reduce infestations by 50%.

Table D4.1 Queens Park Townside. Values and Objectives







D4.2 QUEENS PARK ST GEORGE SIDE MANAGEMENT ZONE

Queens Park St George Side management zone is bordered by the fire break track to the west, Lorne Caravan Park to the north, and the Great Ocean Road to the east. Native vegetation communities include Lowland Forest on the ridge line and Herb-rich Foothill Forest on higher slopes and Coastal Headland Scrub on lower slopes. Vegetation is highly modified with dense infestations of Boneseed and Sweet Pittosporum generally. See Queens Park, Lorne. Weed Management Plan (Beacon Ecological 2012b) for detailed vegetation descriptions and management actions.

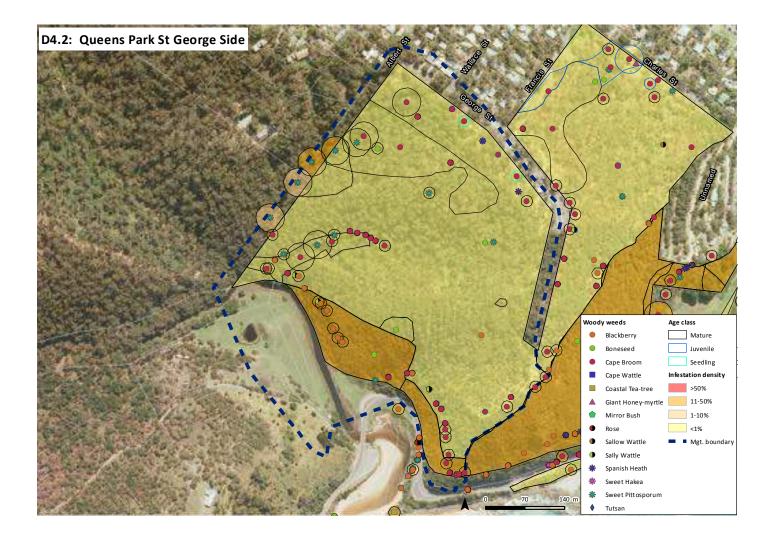
- Sweet Pittosporum: Scattered infestations noted in 2009. Scattered juvenile plants noted in 2014. Dense infestations noted within gullies and on the slope down to St George River.
- **Boneseed:** Scattered infestations noted in 2009. Scattered juvenile plants noted in 2014. More dense infestations noted on the slope down to St George River.
- Pampas Grass: One infestation noted in 2009. Not noted in 2014.
- **Spanish Heath:** One infestation noted in 2009. While this infestation appears to have been controlled two new infestations were noted within the asset protection zone.
- Bluebell Creeper: two infestation noted in 2009. Three infestations noted in 2014. Control immediately.
- **Cape Broom:** Infestations noted in the north in 2009. 2014 mapping shows these infestations are persisting and possible expanding as well as new infestations mapped in gullies.
- **Blackberry:** One infestation noted in the north in 2009. While this infestation appears to have been controlled, numerous infestations were noted along St George River in 2014.
- Asparagus Fern: Not noted in 2009. Three infestations noted in 2014. Control immediately.
- Dolichos Pea: Not noted in 2009. One infestation noted in 2014. Control immediately.
- Watsonia: Not note in 2009. Several infestations noted along walking tack in 2014.

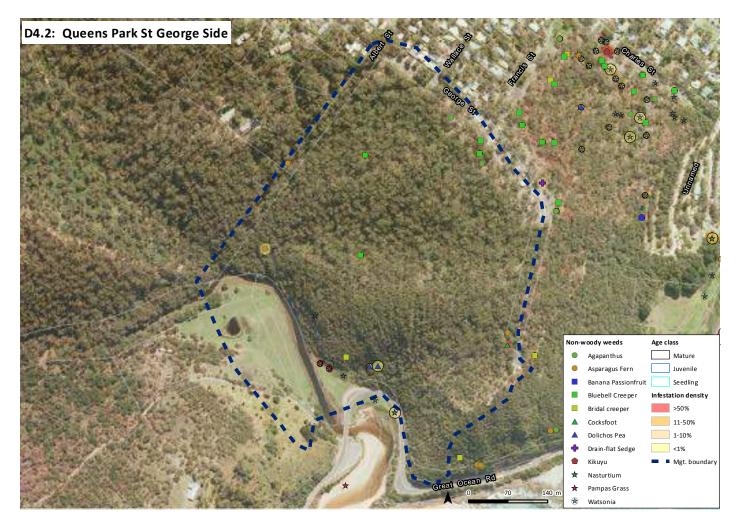


Level of ServiceConserve and EnhanceEVCs PresentLowland Forest (EVC 16 depleted) Herb-rich Foothill Forest (EVC 23 depleted)Environmental Community Group ActivityFriends of Queens Park and LorneCare have be working on woody weeds with a focus on Bonesed Pittosporum and Cape Broom.Vegetation QualityNear Pristine. Large areas dominated by native sp	en active
Environmental Community Group Activity Friends of Queens Park and LorneCare have be working on woody weeds with a focus on Bonesee Pittosporum and Cape Broom.	en active
working on woody weeds with a focus on Bonese Pittosporum and Cape Broom.	en active
Vegetation Quality	
scattered Boneseed and Sweet Pittosporum. infestations of Cape Broom.	ecies with Some
Significant Ecological Values Potential Swift Parrot habitat (EPBC listed endange endangered, FFG Listed)	red, VROT
Swamp Antechinus (VROT near threatened, FFG Liste	ed)
Grey Goshawk (VROT vulnerable, FFG Listed)	
Long Nosed Potoroo (EPBC listed vulnerable, V threatened, FFG Listed)	ROT near
Weed Threat/Management Action 5 Year Objectives	
Currently Sufficient Resources to Achieve (High Priority Actions)	
Cape Broom Eliminate mature plants in outlying infestations. Rec	duce core
Woody Weeds (Boneseed, Sweet Eliminate all mature plants. Pittosporum, Blackberry), Spanish Heath)	
Non-woody Weeds (Bluebell Creeper, Control annually. Reduce infestations by 50%. Dolichos Pea, Agapanthus, Watsonia,)	
Additional Resources Required (Lower Priority Actions)	
Cape Broom Eliminate all mature plants.	

 Table D4.2 Queens Park St George side. Values and Objectives







D4.3 QUEENS PARK OCEANSIDE MANAGEMENT ZONE

Queens Park St George Side management zone is bordered by George Road to the east, St George River and the Great Ocean Road to the south and Parks Victoria managed land to the west. Native vegetation communities include Lowland Forest on the ridge line and Herb-rich Foothill Forest on slopes. Vegetation is generally intact with scattered Boneseed and Sweet Pittosporum as well as infestations of Cape Broom. Dense infestations of Cape Broom and Sweet Pittosporum are resent in some difficult to access gullies. Slashed asset protection zones are present along George Road opposite residential areas. See Queens Park, Lorne. Weed Management Plan (Beacon Ecological 2012b) for detailed vegetation descriptions and management actions.

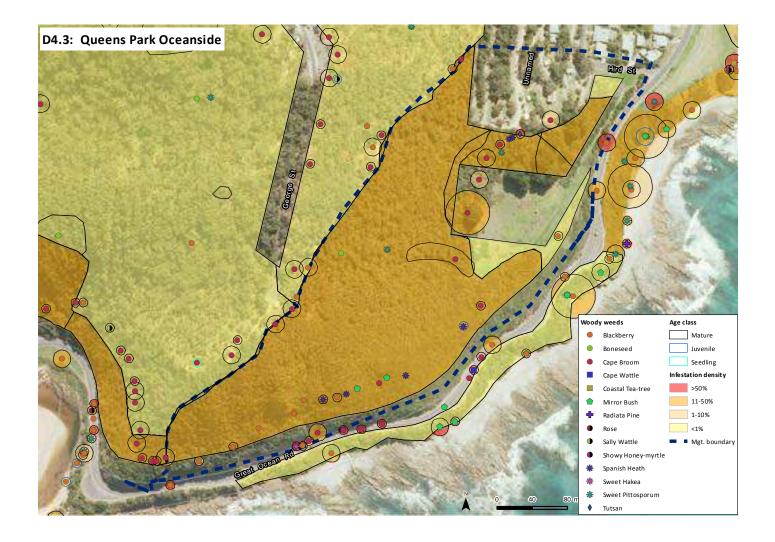
Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

• All weed species: The 2009 mapping does not map specific species in this zone. Boneseed, and Sweet Pittosporum are described a dominant with patches of Cape Broom and this appears to have remained the same. Additional weed species were mapped in 2014, particularly along the tramway path around the bottom of the slope.

Level of Service	Monitor and Maintain
EVCs Present	Herb-rich Foothill Forest (EVC 23 depleted) Coastal Headland Scrub (EVC 160 vulnerable)
Environmental Community Group Activity	No.
Vegetation Quality	Degraded. The majority of vegetation is dominated by Boneseed and Sweet Pittosporum.
Significant Ecological Values	Nil.
Weed Threat/Management Action	5 Year Objectives
Currently Sufficient Resources to Achieve (High Priority Actions)	
Isolated Woody Weeds (Spanish Heath, Cape Broom, Mirror Bush, Blackberry,)	Eliminate all mature plants.
Non-woody Weeds (Asparagus Fern, Agapanthus)	Control annually. Reduce infestations by 50%.
Additional Resources Required (Lower Priority Actions)	
Dominant Woody Weeds (Boneseed, Sweet Pittosporum)	Staged removal of infestations, moving away from areas of intact vegetation along fire track, with supplementary revegetation as required.

 Table D4.3 Queens Park Oceanside. Values and Objectives







D5 CUMBERLAND RIVER MANAGEMENT ZONE MANAGEMENT ZONE

Cumberland River includes the Cumberland River Foreshore Caravan Park and small areas of native vegetation along the western border. The Caravan Park supports numerous environmental weeds as part of the park landscaping that should be gradually removed and replaced with locally indigenous species. Native vegetation with affinities to Damp-sands Herb-rich Woodland is present in the west of the park where it abuts the Great Otway National Park.

Sweet Pittosporum is present within the area of native vegetation and should be controlled to prevent spread into the nearby national park.

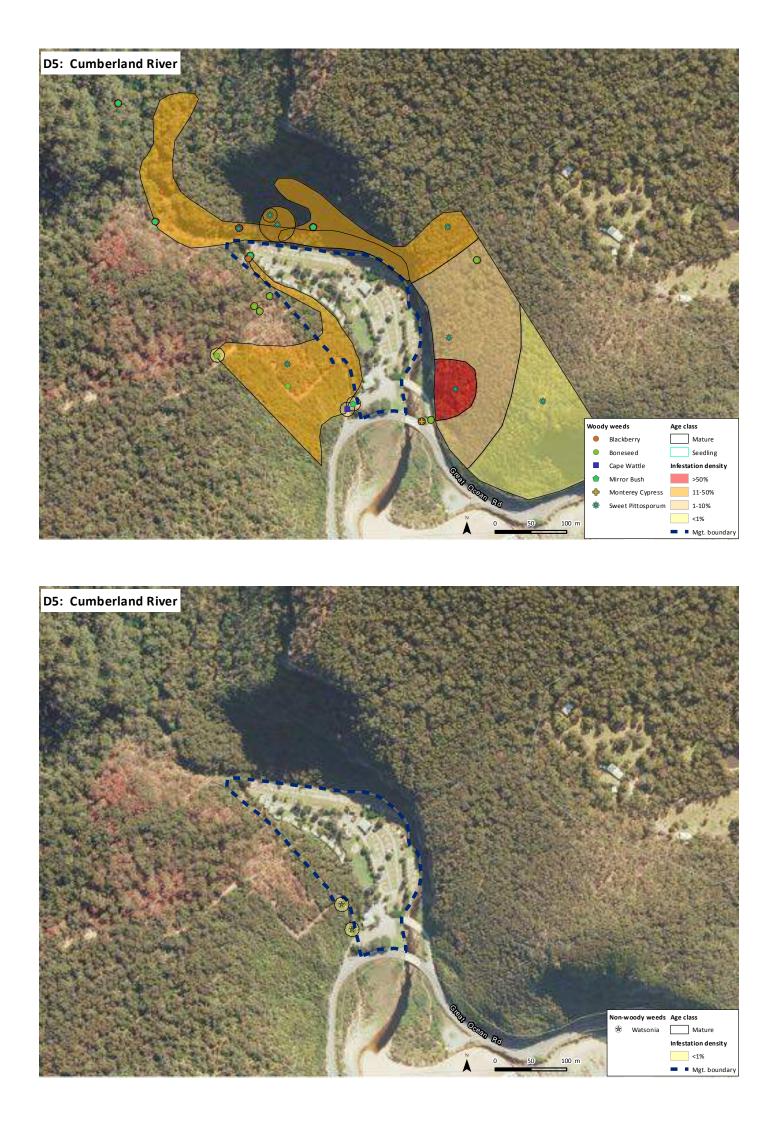
Review of significant management issues noted in GORCC NVWAP (Coomes 2009):

• Woody Weeds: The GORCC NVWAP (Coomes 2009) does not specifically map or address management issues within the Yellow Bluff Management zone.

Level of Service	Maintain and Monitor
EVCs Present	Damp-sands Herb-rich Woodland (EVC 3 vulnerable)
Environmental Community Group Activity	No.
Vegetation Quality	Degraded. The majority of the park supports introduced species with some areas of native vegetation along the western boundary.
Significant Ecological Values	Nil.
Weed Threat/Management Action	5 Year Objectives
Weed Threat/Management Action Currently Sufficient Resources to Achieve (
Currently Sufficient Resources to Achieve (Woody Weeds (Sweet Pittosporum,	High Priority Actions) Eliminate all mature plants.
Currently Sufficient Resources to Achieve (Woody Weeds (Sweet Pittosporum, Boneseed, Blackberry)	High Priority Actions) Eliminate all mature plants.

Table D5 Cumberland River. Values and Objectives





REFERENCES

- Beacon Ecological 2012 Queens Park, Lorne. Weed Management Plan. Unpublished report by Beacon Ecological for GORCC
- Beacon Ecological 2014. Vegetation Assessment to investigate impacts of the Anglesea Caravan Park Stormwater Outflow, Anglesea, Victoria. Unpublished letter report for GORCC.
- Beacon Ecological 2015 Great Ocean Road Coast Committee – Native Vegetation and Weed Action Plan 2015 - 2020. Unpublished report for GORCC.
- Coomes 2009. Great Ocean Road Coast Committee – Native Vegetation and Weed Action Plan. Unpublished report by Coomes Consulting in association with Mark Trengove Ecological Services.
- Ecology Australia, Robin Crocker and Associates and Context 2006. Environment and Land Management Plan for Coastal Crown land Reserves Between Torquay and Lorne. Unpublished report for Great Ocean Road Coast Committee.
- GORCC 2006 Great Ocean Road Coast Committee Environment and Land Management Plan. Unpublished Report by Ecology Australia.
- GORCC 2013. Great Ocean Road Coast Committee Coastal Management Plan. Published by the Great Ocean Road Coast Committee.
- Nillumbik Shire Council 2013. Environmental Works Bushland and Wetland Reserves Prioritisation and Planning Guidelines. Report published by the Nillumbik Shire Council



APPENDIX



APPENDIX 1. COMMON AND SCIENTIFIC NAMES OF MAPPED WEED SPECIES

Common Name	Scientific Name
African Boneseed	Chrysanthemoides monilifera subsp. monilifera
African Boxthorn	Lycium ferocissimum
African Daisy	Osteospermum spp.
Agapanthus	Agapanthus praecox
Aloe spp	Aloe spp.
Angled Onion	Allium triquetrum
Apple	Malus spp.
Arum Lily	Zantedeschia aethiopica
Asparagus Fern	Asparagus scandens
Banana Passionfruit	Passiflora mollissima
Blackberry	Rubus fruticosus spp. agg.
Blue Periwinkle	Vinca major
Bluebell Creeper	Billardiera heterophylla
Bridal Creeper	Asparagus asparagoides
Buffalo Grass	Stenotaphrum secundatum
Bushy Yate	Eucalyptus lehmannii
Cape Ivy	Delairea odorata
Cape Wattle	Paraserianthes lophantha
Carpet Weed	Galenia pubescens
Climbing Groundsel	Senecio angulatus
Coast Banksia	Banksia integrifolia
Coast Tea-tree	Leptospermum laevigatum
Cocksfoot	Dactylis glomerata



Common Name	Scientific Name
Cotoneaster	Cotoneaster spp.
Desert Ash	Fraxinus angustifolia
Dolichos Pea	Dipogon lignosus
Drain-flat Sedge	Cyperus eragrostis
English Ivy	Hedera helix
Eucalyptus spp.	Eucalyptus spp.
Fairy Crassula	Crassula multicava
Flax-leaf Broom	Genista linifolia
Freesia	Freesia spp.
Gazania	Gazania linearis
Giant-honey Myrtle	Melaleuca armillaris
Gladiolus	Gladiolus spp.
Golden-wreath Wattle	Acacia saligna
Green Honey-myrtle	Melaleuca diosmifolia
Hillock Bush	Melaleuca hypericifolia
Hollyhock	Alcea spp.
Hottentot Fig	Carpobrotus edulis
Italian Buckthorn	Rhamnus alaternus
Japanese Honeysuckle	Lonicera japonica
Karo	Pittosporum crassifolium
Кікиуи	Pennisetum clandestinum
Loquat	Eriobotrya japonica
Paperbark	Melaleuca spp.
Mirror Bush	Coprosma repens



Common Name	Scientific Name
Montbretia	Crocosmia x crocosmiiflora
Monterey Cypress	Cupressus macrocarpa
Montpellier Broom	Genista monspessulana
Morning Glory	Ipomoea purpurea
Mustard Weed	Brassicaceae spp.
Myrtle-leaf Milkwort	Polygala myrtifolia
Nasturtium	Tropaeolum majus
New Zealand Cabbage	Cordyline australis
Pampas Grass	Cortaderia selloana
Panic Veldt-grass	Ehrharta erecta
Paspalum	Paspalum dilatatum
Petty Spurge	Euphorbia peplus
Pincushion Hakea	Hakea laurina
Prunus	Prunus spp.
Purple Groundsel	Senecio elegans
Radiata Pine	Pinus radiata
Rats Tail Fescue	Sporobolus africanus
Red Hot Pokers	Kniphofia uvaria
Red Valerian	Centranthus ruber
Rose	Rosa spp.
Sallow Wattle	Acacia longifolia subsp. sophorae
Sally Wattle	Acacia floribunda
Sea Rocket	Cakile maritima
Sea Spurge	Euphorbia paralias



Common Name	Scientific Name
Seaside Daisy	Erigeron glaucus
Serrated Tussock	Nassella trichotoma
Showy Honey-myrtle	Melaleuca nesophila
Silver Arctosis	Arctotis stoechadifolia
Spanish Bluebell	Hyacinthoides hispanica
Spanish Heath	Erica Iusitanica
Spear Thistle	Cirsium vulgare
Spiny Rush	Juncus acutus
Sugar Gum	Eucalyptus cladocalyx
Sweet Hakea	Hakea drupacea
Sweet Pittosporum	Pittosporum undulatum
Sweet Violet	Viola odorata
Tall Wheat-grass	Thinopyrum ponticum
Toowoomba Canary Grass	Phalaris aquatica
Travellers Joy	Clematis vitalba
Tree Pelargonium	Pelargonium cucullatum
Tuart	Eucalyptus gomphocephala
Tutsan	Hypericum androsaemum
Twiggy Mullein	Verbascum virgatum
Watsonia	Watsonia meriana
Willow Myrtle	Agonis flexuosa
Wormwood	Artemisia absinthium

