

Seymour Community Action Group Inc



2020 - UPDATE (6)

Gorse Eradication Strategy for



Seymour Wetlands Restoration

Weed and Disease Management Plan (including options for hygiene management)

QUENTIN & KERRYN SMITH / TODD DUDLEY / DANIEL STEINER
FIONA EVERTS

11 May 2017 to 28 Aug 2020

Guidelines for the long-term control of Gorse - *Ulex europaeus* on Crown Land at Seymour PID 6406669 on the East Coast of Tasmania.

Version Control

Version	Date	Author	Notes
DRAFT 1	27 June 2017	F Everts	
DRAFT 2	27 July 2017	F Everts	
2017 10 UPDATE	05 October 2017	F Everts	
2018 03 UPDATE	05 April 2018	F Everts / Q	Updating activity from July 2017
		Smith / D	to March 2018
		Steiner	
2018 03 Update	10 May 2018	D Steiner	Photo / map updates
2018 04 Update	22 June 2018	D Steiner	Up to date activity and mapping
2019 05 Update	4 June 2019	D Steiner	Activity, phase 2, mapping and
			photos
2020 06 Update	28 Aug 2020	D Steiner	Tree planting & weed
			maintenance

Distribution

Version	Recipient	Date	Notes
1	Q Smith, T Dudley, P	27 June 2017	For final markup on
	Buchorn, A Hugo, G		draft version 1
	Stewart		
2	S Matuszek, Q Smith,	28 July 2017	For comment
	T Dudley, P Buchorn, A		
	Hugo, G Stewart		
3	Q Smith, T Dudley	5 June 2019	For comment on
	Fiona Everts		update
6	Q Smith, T Dudley	28 Aug 2020	For comment on
	Fiona Everts		update

Photographs by T Dudley, Q Smith, M Manton & D. Steiner

1. **INTRODUCTION**

In 2016 following a fuel reduction burn, members of the Seymour Community Action Group recognized an opportunity to revisit the enhancement efforts and to highlight the ecological significance of the Seymour Swamp as an important freshwater wetland within their local landscape. Referencing recommendations from a report "Break O Day Coastal Lagoon Assessment December 2009" North Barker Ecosystem Services, the group then incorporated to protect and restore the natural environment around Seymour. The Seymour Community Action Group Inc decided that the restoration of the Seymour Swamp would be one of their priority actions.

North Barker Ecosystem Service's site-specific recommendation was to implement a weed control program.

The wetland is home to a diverse range of coastal species of flora and fauna.



Refer to Figure 2 below 2016 Fuel Reduction Burn

Known Values of Seymour Swamp

- Vegetation buffer to Templestowe Beach and Templestowe Lagoon
- Spawning and feeding habitat for many fish species such as the Australian grayling Prototroctes maraena.
- Feeding and nesting habitat for endemic and migratory birds such as the Pacific Golden Plover *Pluvialis fulva*, Sharp-tailed Sandpiper *Calidris acuminata*, and Ruddy Turnstone *Arenaria interpres*.
- Habitat for threatened species such as the Green and Gold Frog Litoria raniformis and flora species such as leafy flatsedge Cyperus lucidus.
- Supports threatened vegetation communities of Melaleuca ericifolia swamp forest (NME) and Fresh water aquatic sedgeland and rushland (ASF)
- Habitat for the endangered listed Tasmanian Devil Sarcophilus harrisii and the vulnerable listed White-bellied Sea Eagle Haliaeetus leucogaster as well as for the Tasmanian Wombat Vombatus ursinus tasmaniensis.
- The swamp has important heritage values; in 1857, it was a source of clay for brickmaking for the growing coal mining area surrounding the township of Seymour.
- The Seymour area has some significant geoheritage values being situated across a rocky Granite headland with surrounding complex coastal dune systems including the only example of an active Holycene bypass dunefield system within mainland Tasmania.
- Water levels within the swamp fluctuate seasonally with differing rainfall. The presence and health of endemic vegetation in swamp systems has impact upon the acidification levels of surrounding landscapes.
- The site contains considerable infestations of Gorse *Ulex europaeus* as well as lesser infestations of other weeds such as Blackberry *Rubus fruticosus*, Spanish Heath *Erica lusitanica*, Montpellier Broom *Genista monspessulana*, Pampas Grass *Cortaderia* spp. There are also infestations of environmental weeds, which are listed later in this plan.
- The group to date has actively sought funding, in kind support and advice from a variety of sources to support the attainment of their aims and objectives. They have also participated in a number of coordinated on ground working bees with good result.

1.1 PURPOSE AND SCOPE

The purpose of this Weed and Disease Management Plan (WDMP) is to detail requirements for the management of weeds associated with works for the Seymour Wetlands Restoration Project. The WDMP identifies site-specific mitigation measures and environmental controls for weed management to ensure weeds and diseases are effectively managed during works and into the future. The WDMP identifies measures to control, eradicate and prevent the spread of declared weeds and environmental weeds.

The members of SCAGI are aware of the necessity for consistent follow up works for some years to ensure the success of the project. The effective lifetime of this WDMP will be for a period of ten years, with all stakeholders holding the opportunity to contribute to an annual review. It is recommended that a thorough milestone review should be undertaken at the five-year mark to test the efficacy of the plan. This document is designed to be a flexible planning tool for stakeholders and land managers to contribute details of the history of restoration works in this area as well as identifying priority works for the future. Its integrity is reliant upon the diligent reporting of works and outcomes by all stakeholders involved in this project, most especially the community back to the land manager – Crown Land Services, Department of Primary Industries, Parks, Water and Environment, Tasmania.

1.2 BACKGROUND, AIMS AND OBJECTIVES

The members of SCAGI aims for this project are -

- To restore the endemic native vegetation of the wetland.
- To protect and sympathetically enhance habitat for endangered fauna and flora.
- To restore the land values such that the area can be considered for reclassification to Seymour Conservation Area.
- To recreate a reserve that can be enjoyed for its natural and aesthetic values by the whole community including residents and visitors to the area.
- To reduce the need for future fuel reduction burns and thereby impacts on the local community.
- To bring a sense of pride to the local community through their involvement in this project.
- To encourage and facilitate local adjoining landowners to address their own weed management issues.

Table 1 Activity Record

For more detail see the News-Action pages on the SCAGI website: https://scagi7215.wixsite.com/scagi/news-action

DATE	STAKEHOLDER	ACTIVITY	FUNDING	RESULT
Pre 1995	CLD	The site was part of Crown Lands that had a grazing license held on it.		Inspection of the site by Crown Lands Officer reports that "there are few exotic weeds present and the area generally is in very good condition."
2002	PWS	Report		Weeds in the Seymour area listed as Gorse, Blackberry, Lupin & Pampas
October 2003	Seymour Conservation Group with PWS Ranger and contractor "On Road Off Road Pty Ltd" and CVA volunteers	Gorse Munching	NHT Grant	Infestation area estimated to be 20-23Hectares. 12 Ha of Gorse was munched. Group planned to undertake follow up cutting and pasting to be completed with revegetation works.
July 2004	Seymour Conservation Group with PWS Ranger	Revegetation	NHT Grant	1000 plants of local provenance planted
April 2005	PWS Ranger with contractor Rod Bowerman	Herbicide spraying	PWS	10 Hours spraying completed
2010	PWS Ranger & contractor undertake Gorse work in nearby Seymour Conservation Area	Gorse bull- dozed and burnt	PWS	Gorse bulldozed and burnt

DATE	STAKEHOLDER	ACTIVITY	FUNDING	RESULT
2014	PWS Ranger has on site visit discussions with BODC & NRM Weed Management Officers	Discussions around possible community engagement.		Gorse equally spread on Public Reserve and private land not much on CA. Spanish Heath on edge on Public Reserve and road edge (sprayed)
Pre 2016	Local Community Members	Cutting and pasting Gorse	NRM & BODC	Some minor control
August 2016	Parks & Wildlife Service / Crown Land Services	Fuel reduction burn	PWS	Area of Gorse burnt - 14Ha. Germination and regrowth of Gorse seed bank – 8Ha
November 2016	BODC, NRM, Green Army, SCAGI	Gorse regrowth survey	NEBN, NRM, BODC, PWS	Map showing the effect of the burn on Gorse regrowth and native veg
14 – 20 February 2017	DPIPWE Crown Land Services Grant	CLS authorization for works Munching & spraying gorse	\$2000	Munching & spraying completed 3Ha
22 February 2017	Earth Ocean Network grant	Long standing partnership	\$500	Increased awareness through publicity in local publication
Applied 28 February 2017	NRM North Community grant application for funding \$5000	Munching & spraying of gorse by contractor & cutting & pasting by SCAGI	\$	Pending
20 March 2017	Todd Dudley Ecological Restoration Consultant	Consultation on methodology	NEBN	Summary of Methodology
21 March 2017	DPIPWE Crown Land Services Grant & Authorisation for works – SCAGI with Contractor	Munching & spraying of gorse by contractor	From previous grant 14/02/17	Munching & spraying completed 2.5Ha
8 May 2017	Break O Day Council Community Grant & SCAGI	Replace Wetlands Sign & restore and delineate wetlands parking area. Any remaining funds to go on gorse eradication	\$5000	Delineate & expand carpark, sign being manufactured to be installed in August 2017

DATE	STAKEHOLDER	ACTIVITY	FUNDING	RESULT
4 April 2017	BODC Weed Management Officer & Contractor Tim Reid	Herbicide spraying	BODC	Gorse sprayed on southern road verge Champ Street
4 April 2017	SCAGI Working Bee	Cut & paste Gorse amongst remnant veg	NEBN donation of tools, safety glasses, gloves, herbicide, dabbers.	North side of wetland cut and pasted
Applied 27 April 2017	Suez Community Grant	Munch & spray	\$15000	Pending
27 April 2017	SCAGI	Working Bee		Cut & paste of Gorse on edge of wetland on the North West side
30 May 2017	DPIPWE Crown Land Services Grant & Authorisation for works – SCAGI with Contractor	Munching & spraying of gorse by contractor	From previous grant 14/02/17	Munching & spraying completed 2.5Ha
16 June 2017	BODC NRM Officer & Green Army Volunteers	Cut & paste herbicide	NEBN, NRM, BODC, PWS	Herbicide application to Gorse southern side of site
Current Application	DPIPWE Crown Land Services	Munching & spraying	\$	Pending
27 July 2017	Suez Community Grant	Munch & spray	\$15000	Unsuccessful
18 August 2017	Break O Day Council Community Grant & SCAGI	Daniel Steiner installs the new Wetlands sign in the car park area	From previous grant 08/05/2017	Installation of the sign completes the carpark restoration works
20 August 2017 – 30 August 2017	Tasmania Fire Service (Bicheno Brigade)	Attend a peat fire which has escaped from private property	TFS	The fire burns private property and crown land within the project area, in the vicinity of the junction of Champ & Montagu Street but is eventually extinguished
20 August 2017	SCAGI Quentin & Kez Smith, K & A De Jonge, D Steiner & M Manton NRM A Hugo & P Buchorn PWS F Everts	SCAGI meeting with NRM & PWS to discuss ongoing funding for works	\$9000	SCAGI members contribute \$9000 to complete munching works NRM funds are secured with restriction on amount of money to be paid to contractors

DATE	STAKEHOLDER	ACTIVITY	FUNDING	RESULT
30 August 2017	TFS Fuel Reduction Unit (Sandy Wight) through PWS Fire Management Branch	Munching & spraying	\$3500	Release of grant monies for munching of regrowth
04 September 2017	NEBN Todd Dudley, SCAGI Daniel Steiner & Green Army	Cut & paste Gorse	Labour	Area treated – south side of Champ St road verge
		Weed surveying & tagging		Area surveyed – West side of beach access track
04 September 2017	SCAGI Kez Smith, Daniel Steiner, NEBN Todd Dudley, PWS Fee Everts, Lucy Norton	Meeting to discuss funding and site inspection	Labour	Inspection of plan area and other impacting land management issues including potential removal of derelict caravans & dump site
06 September 2017	SCAGI Daniel Steiner & Melissa Manton	Cut & paste Gorse & Lupin	Labour	Area treated Wetland buffer to NW to Templestowe Beach
09 September 2017	SCAGI Daniel Steiner & Melissa Manton	Rubbish removal	Labour	Many bins of rubbish removed and taken to Bicheno WMC from area of crown land recently burnt by fire
11 September 2017	Green Army	Cut & paste Gorse	Labour	Area treated south side of Champ Street
03 October 2017	NRM North	Confirmation of NRM North Community grant monies	\$5K	Funds provided for mulching contractor \$1.5K, balance for fencing, Information Day, chemicals and chem handling
05 October 2017	Tas Eco Mulching Rob Selwood	Mulching / Munching Gorse	Mulching - SCAGI \$9K Donation & TFS \$3.5K grant, NRM Nth \$1.5K Accom for R Selwood provided by Q & K Smith	Final munching commenced on all dead and burnt Gorse to the north and west of the already mulched areas, he started on the eastern side of the Templestowe Beach access track
06 October 2017	Tas Eco Mulching Rob Selwood SCAGI Quentin Smith	Mulching Gorse & spot cutting & pasting Gorse	Mulching - SCAGI \$9K & TFS \$3.5K / In kind support (accom) Q & K Smith SCAGI labour	Completed mulching all areas east of the Templestowe Beach access track Spot cutting & pasting regrowth on eastern mulching perimeter in native veg zone

DATE	STAKEHOLDER	ACTIVITY	FUNDING	RESULT
07 October 2017 - 08 October 2017	Tas Eco Mulching Rob Selwood SCAGI Quentin & Kez Smith	Mulching & Rubbish removal	Mulching - SCAGI \$9K Donation & TFS \$3.5K grant Accom for R Selwood provided by Q & K Smith Mulching covered by TFS grant SCAGI labour	Areas to the west of the Templestowe Beach access track being progressively mulched Spot treatment continues in native veg areas, old tree guards & other rubbish items removed and taken to Bicheno WMC
09 October 2017	Tas Eco Mulching Rob Selwood	Mulching	Mulching - SCAGI \$9K Donation & TFS \$3.5K grant Accom for R Selwood provided by Q & K Smith	All mulching completed except for small area in NW corner of plan area where access strips were mulched to enable future spraying \$9K Donation monies expended, \$3.5K TFS grant expended, \$? Other funds?
11 October 2017	Green Army SCAGI Quentin Smith	Removal of previously treated Gorse Spot Spraying	Labour	Previously treated Gorse removed from ? site Spot Spraying of Gorse continues in native veg zone
12 October 2017	Bob Oates	Drone photography	Funding Q Smith / In kind support R Oates	Photography of entire plan site included completed mulching works
15 October 2017	Green Army SCAGI Quentin Smith	Removal of damaged fencing materials	Labour	Burnt and damaged fencing materials removed from site previously burnt by fire in August of 2017
26 October 2017	GSBC Amanda Brooks SCAGI Quentin Smith	Spraying of Gorse	Labour 8 hours	Area treated both sides of Templestowe Beach access track
04 December 2017	SCAGI David Quon	Supply of equipment	Loan of equipment	David Quon agrees to lend his sprayer unit to SCAGI for use on Crown Land

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06 December	BODC Chris Hughes	Grant	SCAGI	Acquittal of \$5K Grant
2017		acquittal	Quentin	from the BODC
			Smith	Community Grant refer
				08/05/17. 95% of the
				burnt Gorse mulched,
				spot spraying in native
				veg areas, car park
				restoration works
				completed & new
				wetlands sign installed.
10 December –	GSBC Jarrod Maclain	Spot spraying	Loan of	Area treated – edges of
11 December	SCAGI Quentin	of Gorse &	equipment	mulched Gorse, taller
2017	Smith	Blackberry	D Quon	regrowth areas
			Labour	
			SCAGI &	
			GSBC	
			Chemical	
			SCAGI,	
			NRM Nth &	
110	604.014.5.15		PWS	
14 December	SCAGI Melissa	Spot spraying	Loan of	Area treated – both sides
2017	Manton	of Blackberry	equipment	of Templestowe Street
			M Manton	where the fire burnt in
			Labour	August of 2017
			SCAGI	
			Chemical M	
45 Danaudan	CCACL Daniel Chairean	Const annual data	Manton	Anna turata di adala af
15 December	SCAGI Daniel Steiner	Spot spraying	Loan of	Area treated – edges of
2017	GSBC Jarrod Maclain	of Gorse &	equipment	mulched Gorse, taller
		Blackberry	D Quon Labour	regrowth areas
			SCAGI &	
			GSBC	
			Chemical	
			SCAGI,	
			NRM Nth &	
			PWS	
21 December	SCAGI Melissa	Spot spraying	Loan of	Area treated – both sides
2017	Manton	of Blackberry	equipment	of Templestowe Street
			M Manton	where the fire burnt in
			Labour	August of 2017
			SCAGI	
			Chemical M	
			Manton	
24 December	SCAGI Melissa	Spot spraying	Loan of	Area treated – both sides
2017	Manton	of Blackberry	equipment	of Templestowe Street
		,	M Manton	where the fire burnt in
			Labour	August of 2017
			SCAGI	
			Chemical M	
			Manton	
28 December	SCAGI Quentin	BODC	Labour	Grant application for \$5K
2017	Smith	Community	SCAGI	prepared ready for
		Grant app.		submission to council

DATE	STAKEHOLDER	ACTIVITY	FUNDING	RESULT
02 January 2018	BODC	BODC Community Grant Application	Labour SCAGI	Grant application for \$5K submitted to council
05 January 2018	All Weed Solutions Maurice Snare SCAGI Quentin Smith	Quote	Labour SCAGI	Quotation obtained from contractor for boom spray of mulched areas including spot spraying & follow up. Quote amount \$4K
7 January 2018	SCAGI Daniel Steiner & Quentin Smith	Mapping of sprayed areas	Labour SCAGI	Map prepared of sprayed areas to be provided to Boom spray contractor
23 January – 24 January 2018	All Weed Solutions – 2 people	Spot spraying & boom spraying of previously mulched Gorse & boundaries	Funding SCAGI / Chemical PWS	Areas of Gorse originally burnt, then mulched being boom & spot sprayed, areas bounded by native veg also spot sprayed.
21 February 2018	SCAGI	Renew Landcare Membership	Labour SCAGI	Membership renewed till 21/02/19. Insurance cover to 01/04/19
21 February 2018	Hydro Community Grant	Grant application \$5K	Labour SCAGI	Grant application submitted for spraying and reveg works
23 February 2018	Crown Land Services Grant and GOA (Grant of Authority)	Grant application \$5K and request for GOA	Labour SCAGI	Grant application submitted for follow up spraying, completion of mulching and reveg works including request for GOA to do so
05 March 2018	All Weed Solutions – 1 person	Continuation of works commenced 23/01/18	Funding SCAGI / Chemical PWS	Areas of Gorse originally burnt, then mulched being boom & spot sprayed, areas bounded by native veg also spot sprayed.
03 April 2018	All Weed Solutions -	Continuation of works commenced 23/01/18	Funding SCAGI / Chemical PWS	Follow up spraying finished. \$4K funds expended.
10 April 2018	SCAGI – Quentin Smith	NRM North Grant completion report	Labor SCAGI	2017/2018 Final Grant Report submitted to Alison Hugo
17 April 2018	BODC – Chris Hughes	Report of unsuccessful Grant applic.	BODC	SCAGI 2017/2018 Community Grant application was unsuccessful.
19 April 2018	Crown Land Services Phil Thompson (Parks)	Authority Letter – Jesse Walker	DPIPWE	Letter of Authority for weed management on Crown Land to end of June 2019

DATE	STAKEHOLDER	ACTIVITY	FUNDING	RESULT
29 April 2018	SCAGI – Field Day	Working bee	NRMNorth	29 People attended incl.
		and Picnic	Grant -	Fiona Everts (Parks) for a
		Rubbish	SCAGI	successful day.
		removal and		
		cut & past		
		gorse		
7 May 2018	All Weed Solutions –	Quote from	SCAGI	Quote for spraying
	SCAGI Daniel Steiner	Maurice		north-west corner
19 May 2018	SCAGI – Quentin	Hydro TAS	SCAGI	SCAGI's 2017/2018
	Smith	Grant		Hydro TAS Community
		application		Grant application was
2011 2012	20101 5 11	\$5000	22121	unsuccessful.
20 May 2018	SCAGI – Daniel	Field Survey	SCAGI	Field survey and mapping
	Steiner	gorse re-		of re-growth.
24.14. 2040	CCACL Desired	growth	66461	6 1
21 May 2018	SCAGI – Daniel	Cut and paste	SCAGI	Cut and pasted most
22 Mari 2040	Steiner	De alma d	CCAC:	flowering gorse regrowth
22 May 2018	SCAGI – Melissa	Backpack	SCAGI	Spraying and cut &
F I 2010	Manton & DS	spray	CCAC	pasted gorse as mapped.
5 June 2018	SCAGI Daniel Steiner	Grant	SCAGI	SUEZ Community Grant
40 lum = 2040 lum	All Mac al Calcutton	Submission	DDIDA	submission for \$6000
10 June 2018 to	All Weed Solutions	Spraying	DPIPWE	David assisted Paul with
13 June 2018	SCAGI David Quon	quoted area	SCAGI	water for 3 days of
		and re-growth		spaying
25 June 2010	DODC Carracil	gorse	SCAGI	CCACL 2017/2010
25 June 2018	BODC Council	voted not to fund this	SCAGI	SCAGI 2017/2018
	meeting with Kez			Community Grant
	attending.	project with a community		application was unsuccessful.
		grant.		unsuccessiui.
5 July 2018	SCAGI – Quentin	Growth survey	SCAGI	Getting on top of
0 00.1, 2020	Smith	and cut &		flowering gorse
		paste		regrowth.
12 July 2018	SCAGI – Quentin	Cut and paste	SCAGI	Catching up with
	Smith			flowering gorse
17 July 2018	DPIPWE - SCAGI	Grant	DPIPWE	Funding agreement for
		notification		All Weed Solutions
		2K		invoice 13 June 2019
31 July 2018	SCAGI	Landcare	SCAGI	Outcome expected Sep
		Grant \$3000		2018
		submission		
7 Aug 2018	SCAGI – Quentin	Growth survey	SCAGI	Catching up with
	Smith	and cut &		flowering gorse along the
		paste		edges.
13 Aug 2018	SCAGI - Daniel	Cut & Paste	SCAGI	Northern perimeter of
	Steiner	gorse and		wetland.
		lupin		
14 Aug 2018	SCAGI - Daniel &	Cut & Paste	SCAGI	Western perimeter of
	Quentin	gorse		wetland.
16 Aug 2018	SCAGI working bee	Cut & Paste	SCAGI	North western perimeter
	with new members	gorse		of wetland
	Allison & Paul with			
	Kez, Quentin and			
	Daniel			

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17 Aug 2018	Landcare	Grant	Landcare	\$120 LAP Grant received
20 Aug 2018	BODC	Inspection	BODC	Heather Worby Weed
				officer visit to inspect
		_		gorse along road verge.
19 Sep 2018	Landcare	Grant	Landcare	We were NOT successful
		announcement		with our grant for \$3000
11.0-+ 2010	CCACL Davids	Manding bes	SCAGI -	submission.
11 Oct 2018	SCAGI - Parks	Working bee Cut & paste	Parks	Friends of Freycinet and other Friends of SCAGI -
		and spray	raiks	20 people working day.
		gorse		20 people working day.
29 Nov 2018	SCAGI – Quentin and	Gorse survey	SCAGI	Report to All Weed
	Daniel	of sprayed		Solutions and mapping.
		areas		
30 Nov 2018	SCAGI – Daniel	African	SCAGI	3 large bushes cut &
	Steiner	Boxthorn		pasted east of wetland.
		removal		
1 Dec 2018	SCAGI – Daniel	Lupin and	SCAGI	All lupin but north-west
	Steiner	gorse removal		corner.
6 Dec 2018	RACT – SCAGI Daniel	Grant received	RACT	Cussessful grant of \$1500
9 Dec 2018	SCAGI – Melissa	Spraying of	SCAGI	Successful grant of \$1500 Sprayed regrowth after
J Dec 2018	Manton	blackberry	JCAGI	fire south of
	- Wanton	bidekberry		Templestowe St.
22 Dec 2018	SCAGI – Melissa	Spraying of	SCAGI	Sprayed all regrowth to
	Manton	blackberry		south of Templestowe St.
		gorse and		
		thistles		
11 Jan 2019 & 12	All Weed Solutions –	Follow up	AWS -	Quentin helped Paul to
Jan 2019	SCAGI Quentin	spraying	follow-up	spray 2 full days follow
42.12040	Smith	61	CCACL	up to the last spray.
13 Jan 2019	NE Bioregional Network	Stage 2 Document	SCAGI	Ecological Restoration document written by
	Network	Document		Todd Dudley.
18 Jan 2019	SCAGI	Progress	SCAGI	Update was sent to Phil
10 3411 2013		report to	00,101	Thompson, Crown Land
		DPIPWE		Manager.
25 Feb 2019	SCAGI – Quentin	2019 Field Day	SCAGI	Peter Stronach suggested
	Smith			to incorporate Landcare
				25 Year anniversary.
2 March 2019	SCAGI	New member	SCAGI	The wetlands new
				neighbor to the north-
				west Richard Cooke is
				interested to join SCAGI
9 March 2019	NE Bioregional	Seed collection	SCAGI	Todd, Kez and Quentin
	Network - SCAGI			collected seeds from the
				site for 2 nd phase of
31 March 2019	SCAGI – Quentin	Submission to	SCAGI	project. Communities
JI WIGHT ZUIS	JCAGI - QUEIIIIII	local MP Brian	30/101	Environment Program
		Mitchell		Grant interest registered.
1 April 2019	SCAGI	Renewal of	PWS – Kylie	Application for renewal
		site authority	Lemin	of site authority
		·		

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11 April 2019	SCAGI	Drone spray	SCAGI	Jamie Cooper of FMS
		demonstration		Environmental visited to
				showcase the latest
				technology.
12 April 2019	SCAGI	Aerial	SCAGI	Bob Oates met with
		photography		Quentin and Daniel to fly
				his drone for oblique
				aerial photos.
14 April 2019	SCAGI	Aerial		Bob Oates returned with
-		photography		Quentin and Daniel to fly
				his drone for high-
				resolution aerial photos.
14 April 2019	EON	Contribution	EON	EON's support of SCAGI
		of \$500		is greatly appreciated by
				all.
16 April 2019	NE Bioregional	To Todd -	SCAGI	For the Stage 2
	Network - SCAGI	payment of		Restoration Plan, help
		\$250		and guidance with
				seed collection and
				organising Habitat
				Nursery to propagate the seeds.
29 April 2019	Dr Vishnu Prahalad	Made	_	"Seymour Swamp" needs
73 Whill 7013	from UTAS	academic	-	to be called "Seymour
	II OIII O IA3	point		Marsh" due to a lack of
		point		2m high trees within the
				marsh.
6 May 2019	Feral Management	Quote for	SCAGI	Quote received for
0 111dy 2013	Solutions	spraying	36,161	future spraying, passed
		56.078		on to Parks & DPIPWE
16 May 2019	Landcare	LAP Grant	Landcare	LAP Grant of \$120
		\$120		received.
18 May 2019	SCAGI - Landcare	Annual Field	SCAGI –	Collection of rubbish and
		Day	RACT -	gorse treatment by 44
			Landcare	people, young and older.
19 May 2019	SCAGI – Melissa	Weeding	SCAGI	Backpack spraying and
	Daniel and Quentin	follow up		cut & pasting follow up.
19 May 2019	All Weed Solutions	Quote	-	Large quote for future
				follow up spraying.
22 May 2019	SCAGI – Melissa	Weeding		Backpack spraying and
	Daniel and Quentin	follow up		cut & pasting follow up.
3 June 2019	SCAGI - Daniel	Mapping	Parks	Fiona Everts organised
				printing of latest aerial
				photographs.
3 June 2019	GSBC	Quote for	-	Amanda Brooks quotes
		spraying		for future spraying - as
				part of potential
				Landcare grant.
3 June 2019	SCAGI - Landcare	Grant	SCAGI	Landcare Action Grant
		application		2019 application for
				\$4250 in progress.
4 June 2019	SCAGI - Parks	Integration of	Parks	Nick Graham (Parks)
		our WMP into		confirms receipt of our
		Parks Freycinet		WMP and endeavors to
		WMP		collate them.

DATE	STAKEHOLDER	ACTIVITY	FUNDING	RESULT	
for more detail see	the News-Action pages on ti	he SCAGI website: http:	 s://scagi7215.w	ıxsite.com/scagi/news-action	
6 June 2019	SCAGI Parks	Ver.5 Update of WMP	SCAGI	Update published by Daniel Steiner	
27 July 2019	SCAGI	AGM	SCAGI	Meeting at Quent & Kez	
29 July 2019	SCAGI	AGM Minutes	SCAGI	Kez mailed out minutes	
30 July 2019	SCAGI	2019 Weed Action Grant application	SCAGI	Daniel submitted applic. to DPIPWE	
31 July 2019	SCAGI	Working Bee	SCAGI	5 Members spent 20 hrs on site	
2 Aug 2019	Parks	Sea Spurge initiative	SCAGI	Sea Sperge action day @ Larapuna, Quent, Daniel	
3 Aug 2019	Parks	Sea Spurge initiative	SCAGI	Sea Sperge action day @ Larapuna, Quentin & Kez	
13 Aug 2019	Fed Gov CEP	Invitation to submit EOI	SCAGI	EOI sent to MP for Lions Brian Mitchel	
15 Aug 2019	Parks	Letter of authority	Parks	Received renewed Crown Land authority	
30 Aug 2019	SCAGI – GSBC	Spraying of flowering gorse	Landcare Grant	Kez, Quentin, Paul & Alison helped Jarrod Maclain GSBC	
5 Sep 2019	SCAGI	Cut and paste working bee	SCAGI	Klaas, Paul, Alison, Kez and Quentin joined in	
17 Sep 2019	Fed Gov CEP	Invitation to submit grant application	SCAGI	CEP Grant application preparation	
3 Oct 2019	SCAGI - Landcare	Grant confirmation	Landcare	Round 1 confirmed Landcare Action Grant	
27 Oct 2019	Landcare - SCAGI	Landcare Conference	EON Landcare	Kez and Quentin attend. Conference	
20 Nov 2019	DPIPWE - SCAGI	Grant confirmation	DPIPWE	Stage 1 Grant of \$5000 for area west of track	
8 Dec 2019	SCAGI	Weed spraying & Lupin removal	SCAGI	Melissa and Daniel worked on Thistle and Lupin eradication	
9 Dec 2019	Fed Gov CEP	Grant confirmation	Fed Gov CEP	Fed. Gov. Communities Environment Program	
11 Dec 2019	SCAGI	Weed spraying	SCAGI	Melissa sprayed Thistles	
13 Dec 2019	SCAGI	Weed spraying	SCAGI	Melissa sprayed Thistles	
16 Dec 2019	SCAGI	Weed spraying	SCAGI	Melissa sprayed weeds	
20 Dec 2019	SCAGI	Cut and paste	SCAGI	Daniel finished Lupins	
21 Dec 2019	SCAGI	Fixing vandalised sign	SCAGI	David and Daniel fixed sign	
24 Dec 2019	SCAGI	CEP 2019 Grant	SCAGI	Additional info sent to Adrian Rowe re grant	
5 Jan 2020	SCAGI	CEP 2019 Grant	SCAGI	Letter to confirm 3 distinct project areas	
19 Jan 2020	Tas Eco Mulching	Site Meeting	SCAGI	Introducing neighbours to mulcher by Quentin	
21 Jan 2020	SCAGI	Grant info to neighbours	SCAGI	Quentin forwarded Landcare Grant info	

DATE	STAKEHOLDER	ACTIVITY	FUNDING	RESULT			
for more detail see the News-Action pages on the SCAGI website: https://scagi7215.wixsite.com/scagi/news-action							
21 Jan 2020	BODC	Meeting with BODC Polly B	SCAGI	Temp weed officer inspection of road verge			
3 Feb 2020	SCAGI	Site clearing	SCAGI	Quentin and Warren removed old fencing			
6 Feb 2020	Tas Eco Mulching	Mulching	Fed Gov CEP 2019	Mulching unburnt gorse with Quentin on site.			
7 Feb 2020	Tas Eco Mulching	Mulching	DPIPWE	North-west burnt gorse corner with Quentin			
10 Feb 2020	Tas Eco Mulching	Neighbouring properties	Neighbours	Buffer to south and west			
25 Feb 2020	GSBC Jarrod	Gorse spray	DPIPWE WAG 2019	Western side of track with Kez and Quentin			
3 March 2020	GSBC Jarrod	Gorse spray	DPIPWE WAG 2019	Western side of track with Cheryl and Quentin			
4 March 2020	SCAGI	Invitation for working bee	SCAGI	Quentin sent invitation for 7 March 10:30			
7 March 2020	SCAGI	Working bee	SCAGI	10 people contributed to a successful working bee			
8 March 2020	SCAGI	Rain event	-	First water in the wetland in a long time			
17 March 2020	GSBC Jarrod	Gorse spray	Landcare Action Grant	Quentin and Jarrod sprayed eastern side of track			
27 March 2020	Tim Reed	Gorse spray	Landcare Action Grant	Quentin David and Paul assisted with the backpacks			
2 April 2020	Landcare	Mid project report	SCAGI	Report prepared and submitted.			
2 April 2020	BODC	New weed officer introd.	SCAGI	Quentin introduced our project to Kaylen			
13 April 2020	Fed Gov. CEP Grant	Request for time extension	SCAGI	Response to Lara and Tayla re CEP grant ext.			
7 May 2020	SCAGI	Gorse cut and past	SCAGI	Quentin on site to cut and paste			
13 May 2020	SCAGI	Gorse cut and past	SCAGI	Quentin & Paul on site to cut and paste			
15 May 2020	SCAGI	Planting commitment	Neighbour	100 Trees ordered by neighbour			
21 May 2020	SCAGI	Gorse cut and past	SCAGI	Quentin on site to cut and paste			
28 May 2020	SCAGI	Gorse cut and past	SCAGI	Quentin & Paul on site to cut and paste			
29 May 2020	SCAGI	Tree planting working bee	SCAGI	Quentin organised for 20 June			
18 June 2020	SCAGI	Tree tube stock pick-up	SCAGI Landcare	Quentin pick-up from Liffey Habitat Nursery			
19 June 2020	SCAGI	Stakes and protectors	SCAGI Landcare	Organised and picked up by Quentin			
19 June 2020	SCAGI	Planting lay- out	SCAGI	Todd prepared planting lay-out on site			

DATE	STAKEHOLDER	ACTIVITY	FUNDING	RESULT	
for more detail see	the News-Action pages on t	the SCAGI website: http:	s://scagi7215.w	ıxsite.com/scagi/news-action	
20 June 2020	SCAGI - Landcare	Tree planting	Landcare Action Grant	21 people came together to plant 300 trees east of the access track	
7 July 2020	SCAGI	Tree planting round 2 invitation	SCAGI	Quentin sent out invitation for the 2 nd round of planting	
9 July 2020	SCAGI	Tree watering	SCAGI	Watering of planted trees	
18 July 2020	SCAGI	Round 2 tree planting	Landcare Action Grant	15 group members & friends and 20 UTAS students planted trees	
19 July 2020	SCAGI	Site maintenance	SCAGI	UTAS students were introduced to an art project by Sue Lovegrove	
3 Aug 2020	SCAGI	Site care	SCAGI	Kez and Quentin watered and fixed protectors	
5 Aug 2020	SCAGI	Planning for next season planting	SCAGI	Todd recommends seed collection and planning for planting in 2020	
18 Aug 2020	SCAGI - PWS	Meeting with Parks	SCAGI	Site meeting with Jason Jacobi & John Lloyd PWS	
26 Aug 2020	SCAGI	Bob Oats drone photography	Fed Gov CEP 2019	Photography for WMP update 2020	
26 Aug 2020	SCAGI	Seed collection	SCAGI	Quentin collected seeds	
27 Aug 2020	SCAGI	Seed germination		Quentin to drive to Habitat Nursery in Liffey	

This WDMP aims to provide a detailed methodology for mitigating and managing impacts associated with the presence, emergence and spread of weeds, throughout the project.

The objectives of the Weed and Disease Management Plan are to:

Record the distribution of weeds declared under the Weed Management Act 1999.

Record the distribution of significant; non-declared, environmental and agricultural weed species.

Record the presence and distribution of pathogens.

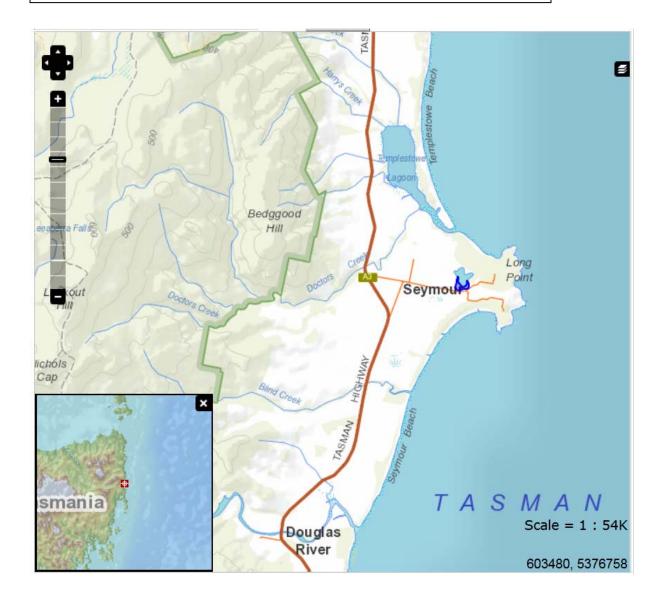
Provide control measures for identified weeds and pathogens and prevent new weeds and pathogens from establishing and spreading.

Establish an ongoing monitoring and control program for weeds and pathogens into the future for the site.

1.3 SITE DESCRIPTION AND LOCATION

The site is located to the West of the township of Seymour on the East Coast of Tasmania. The land tenure is Crown Land - Public Reserve. The site is abounded by a mixture of private land tenure and coastal conservation area.

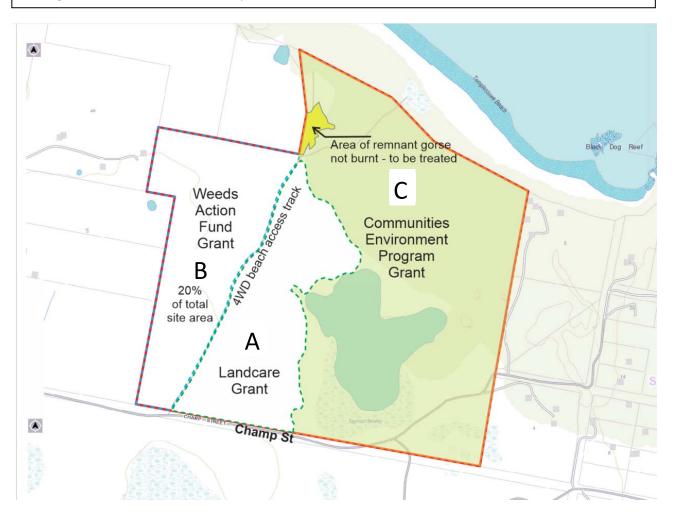
List Map showing location of Seymour on Tasmania's East Coast



List map showing the subject site with land tenure



Management Areas 2019 on LIST map



- A Landcare Action Grant, Round 1 3 Oct 2019 to 3 Oct 2020
- **B** Weeds Action Fund Grant, Stage 1 20 Nov 2019 20 Nov 2020
- C Communities Environment Program Grant 1 Nov 2019 to 30 June 2021

General access to and from the site is off Champ Street via the 4WD track which crosses over Conservation area closer to the coast. Parking is located in the small parking area and a phytophthora wash down area has been designated near the junction of the Beach Access Track and Champ Street as shown in Figure 1 below.



1.4 SUPPORTING DOCUMENTS AND CONSULTATION

Review of the site through the Natural Values Atlas revealed below on Table 2

Table 2 NVA Report Results

Criteria	Results of Report
Phytophthora management zones	No features found
Tas Vegetation	Acacia longfolia and coastal scrub
Threatened Fauna	Identified nearby Wedge Tailed Eagle Aquila
	audax Endangered (unofficial) & Green and Gold
	Frog Littoria raniformis vulnerable
Threatened Vegetation Communities	Melaleuca ericafolia swamp forest (NME) &
	Freshwater Aquatic Sedgeland and Rushland (ASF)
Wetland Values	Low values recorded for southern end of swamp
Weeds	Gorse Ulex europaeus
	Sharp Rush Juncus acutus
	Blackberry Rubus fruticosus
	Spanish Heath Erica lusitanica

Other supporting documents include -

1.5 GLOSSARY

Table 3 Glossary

Abbreviations	Definitions
BODC	Break O'Day Council
CA	Conservation Area
DPIPWE	Department of Primary Industries, Water and Environment
EON	Earth and Ocean Network
NEBN	North East Bioregional Network Inc
NRM	Natural Resource Management
NVA	DPIPWE's Natural Values Atlas
PC	Phytophthora cinnamomi
PWS	Parks and Wildlife Service
SCAGI	Seymour Community Action Group Inc
WDMP	Weed and Disease Management Plan
WMC	Waste Management Centre

[&]quot;Break O'Day Coastal Lagoon Assessment 2009" North Barker Ecosystem Services.

[&]quot;Seymour Swamp Ecological Restoration Project 20 March 2017 incl Brief Summary of Methodology" Todd Dudley, Ecological Restoration Consultant, President North East Bioregional Network Inc.

[&]quot;Seymour freshwater wetland reserve – gorse and fire hazard management - Gorse regrowth survey – 3 months after burn" Break O'Day NRM, NEBN, PWS, Green Army and Seymour Community Action Group volunteers.

2. LEGISLATION, STRATEGIES AND PLANS

Grant of Authority - Crown Land Services 14/02/2017

Break O'Day Coastal Lagoon Assessment, December 2009 - North Barker Ecosystem Services

Weed Management Act 1999, Declared Weeds

Gorse, National Best Practice Manual 2006 - Australian Government National Gorse Taskforce

Seymour Swamp Ecological Restoration Project; Brief Summary of Methodology 2017 - Todd Dudley

Draft Statewide General Management Plan 2013; Northeast Reserve Reports – Parks and Wildlife Service, DPIPWE

WONS Weed Management Guides and Strategic Plans - Australian Government

Keeping it Clean – A Tasmanian field hygiene manual to prevent the spread of freshwater pests and pathogens

Weed and Disease Planning and Hygiene Guidelines – Invasive Species Branch Dept. of Primary Industries, Parks, Water and Environment

3. EXISTING AND POTENTIAL WEED AND DISEASE ISSUES

Weeds, diseases and other pests have the potential to establish and/or spread across the project site during works. Increased weed colonization could potentially have some impact on the ecological values of adjacent remnant vegetation through displacement of native species and degradation of fauna habitat.

Weeds may be introduced and spread by contractor's vehicles or by contaminated equipment brought into the construction area (Vehicles, machinery, equipment, clothing and boots).

Refer to Figure 1 on page 15 for details of parking and wash down area.

3.1 RECORDED WEED SPECIES

In November 2016, Break O'Day NRM in partnership with NEBN and PWS undertook mapping of the wetland site post burn with assistance from the Green Army and volunteers from SCAGI. The map below Figure 3NRM "Seymour Freshwater Wetland Reserve – gorse and fire hazard management" identifies Gorse in line with National best practice models.

In May of 2017, Daniel Steiner from SCAGI undertook comprehensive mapping of the site. The maps include: Extent of burned areas, priority staging, weed areas, mulching areas and Wetland buffer.



Sample of 2017 mapping

All burnt gorse stalks have been mulched and the gorse regrowth was boom-sprayed by All Weed Solutions, and other contractors since March / May 2018.

Other maps produced by Daniel identify known weed species present within the site. Further mapping of species other than Gorse is planned by PWS to coincide with yearly monitoring reporting planned.

Declared Weeds:

Gorse - Ulex europaeus

Blackberry - Rubus fruticosis aggregate

Spanish Heath - Erica lusitanica

Montpellier Broom – Genista monspessulana

Pampas Grass – Cortaderia spp.

Declared weeds in Tasmania are plants that have been declared under the Weed Management Act 1999. The legislation requires that these species be controlled or eradicated according to the relevant statutory management plan.

5 species of declared weeds were recorded during the survey and/or identified from other sources. Numbers and coverage of plants of some of these species require further mapping as Gorse has been the primary focus to date. Refer to Figures 3 on page 21 and Figure 3NRM on page 18.

Detailed management strategies for declared weeds are provided in the table below.

Environmental Weeds

- S Sharp Rush Juncus acutus
- Y Yorkshire Fog Grass Holcus lanatus
- P Paspalum Paspalum dilatatum
- R Rats Tail Grass Sporobulus africanus
- L Tree lupin *Lupinus arboreus*
- T Californian Thistle –

Although many common weeds are not listed under legislation, and are therefore not legally required to be controlled they have the potential to pose a threat to the ecological and agricultural assets present in the project area and interfere with different stages of the restoration.

6 Species of environmental weeds were recorded during the survey and/or identified from other sources. The number and coverage of these weeds is yet to be determined, as Gorse has been the priority focus to date.

Detailed management strategies for environmental weeds are provided in Table 4 on page 32.







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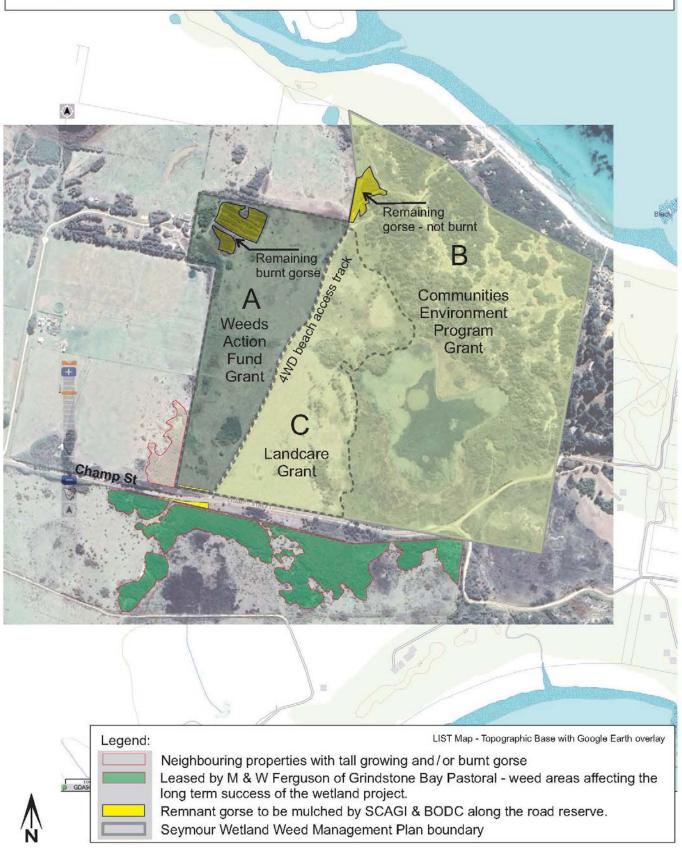
Lupins and Pine seedi under management Fig. 3 - Key Seymour Wetland - Weed Controll Munched gorse areas Cut & paste locations Spanish heath sites Future Blackberry treatment source: LISTMap.tas.gov.au Wor. Draft: C-1 June 17

Figure 3 below details the extent of known weed infestations as at May 2017.



Gorse Eradication Strategy for Seymour Wetlands Restoration PID 6406669

Weed Management Areas - supporting SCAGI and the Seymour Wetland Management Plan



Situation Report as at March 2018

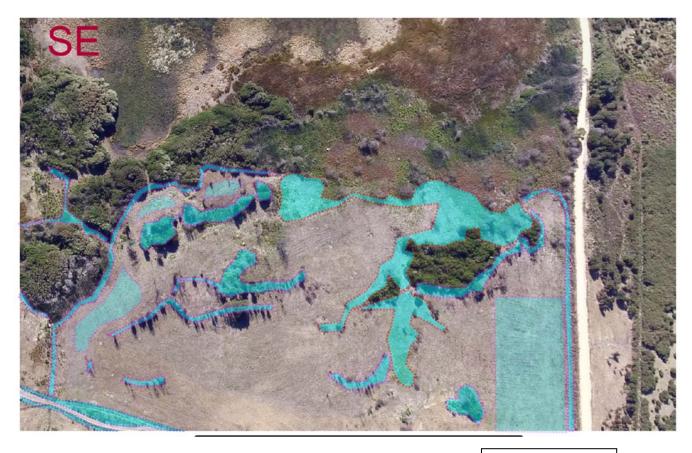
Following completion of works mainly to spray regrowth areas of Gorse, previously burnt and mulched the following maps were produced by D. Steiner and Q. Smith of SCAGI.



Spot sprayed areas

(c) scagi7215@gmail.com - SCAGI January 2018

North East Sheet 1 of 4





Spot sprayed areas

(c) scagi7215@gmail.com - SCAGI January 2018

South West Sheet 3 of 4



North West Sheet 4 of 4



May 2018 - progress comparison

below showing dense impenetrable gorse clusters over 2 metres in height before the burn in Aug 2016





Aerial 16 April 2019







Table 4 Weed Distribution

The table below should be viewed in conjunction with Figures 3 on page 16 and Figure 3NRM on page 13 and Figure 5 on page 17 for Map zoning

Common Name	Scientific Name	Status	Municipal Zone A or B	Map Zones
Gorse	Ulex europaeus	Declared	В	A-E
Blackberry	Rubus Fruticosis	Declared	В	A B
Spanish Heath	Erica lusitanica	Declared	В	A
Montpellier Broom	Genista monspessulana	Declared	В	To be determined
Pampas Grass	Cortaderia spp	Declared	В	А
Sharp Rush	Juncus acutus	Environmental	В	А
Yorkshire Fog Grass	Holcus lanatus	Environmental	В	AC
Paspalum	Paspalum dilatatum	Environmental	В	AC
Rats Tail Grass	Sporobulus africanus	Environmental	В	AC
Tree Lupin	Lupinus arboreus	Environmental	В	AC

3.2 RECORDED DISEASES OR SYMPTOMS

Due to the presence of species such as the Green and Gold Frog, Banksia marginata and Xanthorrhoea a great deal of care must be taken to ensure that appropriate site controls are in place at all times, as these species are extremely vulnerable to attack from Chytrid Frog Disease and Phytophthora cinnamomi (PC) respectively.

Refer to Figure 1 on page 15 for Site hygiene management.

Appropriate site controls include:

- Parking area outside of the contamination zone to reduce vehicle/machine spread of any contaminants.
- Site Induction and safety briefing of any individuals including contractors who are involved in works on site before commencement of works.
- Identification and use of a washdown station for vehicles and machinery prior to commencement of any works. Washdown station to include the use of water sourced from a potable council approved supply to reduce the risk of spread of Chytrid frog disease to protect habitat of the Green and Gold Frog.
- Identification of hot spots for the spread of any existing pathogens/disease and limiting travel through or onto those areas. For example, the 4WD track that extends from Champ Street through the swamp area to the coastline, this track is subject to water inundation during winter rainfall and becomes muddy and prone to erosion resulting in an increased risk of transference of weed seeds and other plant material.
- Reduce any disturbance of soil and vegetation on the site to reduce the spread of weeds to areas that are barren of vegetation.
- Avoid creating tracks near Xanthorrhoea.
- Utilise "frog friendly" herbicides wherever and whenever possible, for example Roundup Biactive ®,
 Weedmaster Duo ®.

• Site areas to burn cut weed material onto bare areas of ground such as road pull offs or turning circles rather than onto areas where vegetation is being rehabilitated to avoid fire scar.

These measures will be implemented to ensure that causing pathogens such as PC and amphibian Chytrid fungus are not introduced to the project area, and if detected, within the project area, that quarantine measures will be instigated to ensure that it is contained.

The main activities at risk of introducing or spreading Phytophthora and Chytrid include:

- Through soil, sand gravel or other materials attached to vehicles and machinery used as part of the restoration works.
- Importing water or soil, sand and gravel material for construction purposes (e.g. roading, landscaping, filling, bedding, etc.)
- Spreading the pathogen/disease from infected sites (contaminated) to uninfected (clean) sites.

4. MANAGEMENT PRIORITIES

Priorities for management of weeds at the Seymour Swamp site are included in the table below

Table 5 Options for Weed Management

Management Zone	Weed	Control Method	Chemical	Timing	Frequency of Control
ABCDE	Gorse	Munching	N/A	Year round	1 treatment with follow up and monitor and respond in subsequent years
ABCDE	Gorse	Spray application / cut and paste	Glyphosate	Flowering July to October. Spring to Early Summer for herbicide application	1 treatment with follow up and monitor and respond in subsequent years
AB	Blackberry	Spot spray, remove cut material and burn when dry	Roundup Bioactive near waterways / Garlon can be used on less sensitive areas	Sept to April for herbicide application burning pending fire weather conditions	1 treatment with follow up
A	Spanish Heath	Double bag any heads of flowering plants and solarize. Remove small seedlings by hand pulling following rain. Cut and paste larger plants with Glyphosate.	Glyphosate	Early Autumn for herbicide application	1 treatment with follow up

Management Zone	Weed	Control Method	Chemical	Timing	Frequency of Control
A	Pampas	Double bag any heads of flowering plants and solarize. Cut back large plants, allow to reshoot effectively to carry herbicide then apply	Roundup Biactive	Flowering late Summer, Autumn and Spring. November to April for herbicide application	1 treatment with follow up
To be determined	Montpellier Broom	Glyphosate. Cut and paste or hand pull small plants following rain events	Triclopyr (avoid use near watercourses)	Sept – Dec (Spring) for herbicide application	1 treatment with follow up
AC	Lupin	Hand pull small plants or cut and paint.	Glyphosate	Early spring for herbicide application	1 treatment with follow up
AC	Rats Tail Grass	Hand weeding or spot spraying	Roundup Biactive	Nov – Jan (Early Summer) for herbicide application	1 treatment with follow up
AC	Yorkshire Fog Grass	Hand weeding or spot spraying	Roundup Biactive	Nov – Jan (Early Summer) for herbicide application	1 treatment with follow up
AC	Paspalum	Hand weeding or spot spraying	Roundup Biactive	Nov – Jan (Early Summer) for herbicide application	1 treatment with follow up
A	Sharp Rush	To be determined after mapping assessment			

5. MANAGEMENT AND CONTROL OF WEEDS AND DISEASES

Priorities for the management of weeds on the site were primarily taken from the Methodology provided by Todd Dudley. Consultation with both the Natural Resources Management Weed Officer and the Break O'Day Council Weed Management Officer have been undertaken.

Following fuel reduction burning, in February of 2017 the members of SCAGI formally engaged Todd Dudley, Ecological Restoration Consultant and President of the North East Bioregional Network Inc to devise a brief summary of methodology for the ongoing project. See below.



Brief Summary of Methodology

1. Areas of good native natural regeneration identified.

Weeds in these areas will be carefully spot sprayed or cut and painted to assist natural regeneration and minimise damage to native vegetation. Weeds and natural regeneration will be monitored. Follow up weed control will be carried out where necessary. If natural regeneration is inadequate some planting or direct seeding of local provenance plants may be considered.

- 2. Areas that are dominated by Gorse identified. These areas will be "munched". The purpose of the munching is to knock down the standing dead or reshooting Gorse bushes so that access for follow up weed maintenance is much easier. After munching, the area will be monitored for weed regrowth and will be sprayed at the appropriate time seeking to avoid impact to any native regrowth where possible. It is anticipated that follow up will be required for a few years afterwards to exhaust the seedbank. Once the Gorse has been satisfactorily controlled revegetation strategies include protecting any natural regeneration, encouraging the spread of natural regeneration from the good areas into the munched areas, direct seeding and planting of local provenance species.
- 3. There are some other areas of Blackberry infestation which are accessible and need to be sprayed.
- 4. Professional contractors will be employed to undertake the munching and most of the spraying.
- 5. Some smaller more manageable areas will be used by the Group to conduct working bees/Field Days (i.e. cut and painting small areas where there is Gorse growing in predominantly native vegetation)

Todd Dudley

Ecological Restoration Consultant

OBO Seymour Community Action Network Inc.



5.01 Seymour Swamp ecological restoration project - (Phase 2)

The Seymour Swamp revegetation project has now been running for approximately two and a half years. The Seymour Community Action Group has done an excellent job in doing primary and secondary treatment of weeds over most of the site. It is now time to assess progress made so far and plan for next steps.

- 1. Assess the level of natural regeneration and weed populations/regrowth over the project area.
- 2. In the next few years introduced grasses such as Paspalum dilatatum (Paspalum), Holcus lanatus (Yorkshire Fog Grass), Sporobulus africanus (Rats Tail Grass), Dactylis glomerata (Cocksfoot Grass) as well as Scotch and Californian Thistle and Blackberries will need to be carefully monitored and controlled as they may colonise areas opened up by the absence of mature gorse plants.....and of course Gorse regrowth will require ongoing attention.
- 3. In areas of good natural regeneration maintain the condition by careful selective weeding where necessary to allow natives to dominate (some planting to expand around the edges of good regeneration areas could also be undertaken).
- 4. In areas of low or little natural regeneration.
- It is recommended that planting of these sites commence using locally sourced species.
- Direct seeding is another option, but it would require fencing off regeneration areas to avoid browsing from native and introduced animals ie rabbits, wallabies etc and would also need quite a lot of seed to be collected. A trial plot could be established to assess viability of this method, but it would potentially require more weed management.
- Planting should proceed from south to north as much as possible to avoid shading of plants which would occur if planting north to south.
- Make a list of available local provenance plant species suitable for replanting (list attached at the end of report)
- Identify suitable areas for planting and develop a planting/maintenance plan commencing from Autumn 2020 for the sites selected
- Collect the seed and cuttings required (this would best be done by Habitat Nursery) so that plants can be propagated to be ready for planting out in mid- late Autumn 2020
- Areas with poor drainage will need to be planted with different species than drier areas
- Some seed could be collected and broadcast over the site for future regeneration (ie germinated by next fire). The remnant patch on the south side of Champ st has a good variety of native understorey species (see photos below). Some understorey species may regenerate more successfully by direct seeding than by planting ie peas such as Aotus ericoides and Dillwynia glaberrima)
- Watering of trees/shrubs could be undertaken via a water tank loaded on a ute. ie Parks and Wildlife fire fighting vehicle.

Dry areas

Banksia marginata

Eucalyptus globulus (dry or moistish areas)

Eucalyptus amygdalina

Allocasuarina littoralis

Allocasuarina monilifera

Bursaria spinosa

Monotoca elliptica

Lomandra longifolia (dry or moistish)

Diplarrena moraea (moistish areas)

Leptospermum scoparium (moistish areas)

Acacia genistifolia

Calytrix tetragona

Hibbertia riparia

Wetter areas

Melaleuca ericifolia

Hakea teretifolia

Acacia verticillata

Eucalyptus ovata

Regeneration area south of Champ Street



Hibbertia riparia (Erect Guineaflower) and Eurymyrtus ramosissima (Rosy Heathmyrtle)



Diplarrena moraea (White Flag Iris)



Dillwynia glaberrima (Smooth Parrotpea), Burchardia umbellata (Milkmaids) and Lepidosperma concavum (Sword Sedge) regenerating amongst dead Gorse.



flowering

Xanthorrhoea australis (Grass Tree)



Hibbertia riparia, Leucopogon (Bearded Heath) and Epacris impressa (Common Heath)



Holcus lanatus (Yorkshire Fog Grass) weed



Sporobulus africanus (Rats Tail Grass) weed.



Californian Thistle and Yorkshire Fog Grass weeds adjacent to Champ St next to culvert

Todd Dudley

North East Bioregional Network

January 2019



5.1 HYGIENE, SAFETY & OTHER CONSIDERATIONS

Refer to Figure 1 on page 15 for Site plan of key management zones

The table below identifies risks and mitigation strategies to address those risks.

Risk	Mitigation strategies	Who
Spread of new weeds / PC from other areas within the management zone / erosion.	Minimise vehicular travel within the management zone, particularly during the wetter months of the year as main access track is vulnerable to erosion. Careful monitoring of roadsides and turn in points. Ensure wash down procedures are adhered to. If materials (gravel, water, rocks) must be imported onto the site to undertake works ensure they are from clean sources.	All personnel on site
Spill of chemical into wetland area	Follow SDS sheets for chemicals especially disposal methods. Wherever possible utilize frog friendly chemicals.	Volunteer Leaders, participants, contractors
Injury resulting from unsafe participation in works	All participants to undertake a site-specific safety briefing and adhere to actions from Job Risk Analysis / SDS information sheet. Develop a clear communications plan (check in & check out) for each working event and always work in pairs. Have two forms of communications on hand on site.	Volunteer Leaders, participants, contractors
Re-infestation resulting from lack of access to planning documentation	Ensure good records are kept of chemical usage and other works and share this information with other stakeholders	Volunteer Leaders, stakeholders, land managers
Destruction of habitat, loss of species	Gorse that was not affected by fire during the 2016 burning represents potential habitat for native animals. Large scale removal of this burnt vegetation, especially during the bird breeding season is not best practice. It is preferable to wait for some significant increase in regrowth of standing native vegetation before any large-scale removal takes place. Interim measures such as removal of seed-bearing heads and treatment with herbicide are preferable in these circumstances.	Volunteers and Volunteer Leaders
Unanticipated discovery of Aboriginal Cultural Heritage such as sites and objects	During works it is possible that contractors and workers on site may come across sites / objects of Aboriginal Cultural Heritage values. If this is the case, then works on the entire site should cease immediately. Volunteer Leaders should then follow the actions as outlined in the "Unanticipated Discovery Plan" advice from Aboriginal Heritage Tasmania that is attached to this document.	Volunteers and Volunteer Leaders

6. COMMUNICATION AND REPORTING

All stakeholders including contractors to have a copy of this WDMP so they are aware of their responsibilities.

Key communications are held through toolbox meetings at the start of each community working bee or contractor commencing works on site.

Strategies include posting information on the SCAGI website. Including details on proposed works as well as linking to works that have been completed previously.

Temporary signage will be installed at the car parking area to explain the project and any works that may be in progress on the site to visitors and locals. Signage will be updated as works progress. Signage will include information on how people can contribute to assist the aims of the project.

SCAGI to contribute articles to the Bicheno Forward community newsletter promoting the project and encouraging community involvement.

PWS to distribute electronic copies of this plan to all stakeholders linked with the project.

PWS to upload copy of this plan onto the electronic Asset Management System so that any future works in the area do not adversely impact on the project.

Plan to be reviewed annually by stakeholders and updated in July of each year. Updated plans to be disseminated to key stakeholders including community groups and government agencies.

7. MONITORING

The table below indicates the timeframe, responsibility, reporting procedure and subsequent possible actions for monitoring of the site.

Table 6 Monitoring Schedule

Timeframe	Responsibility	Reporting Procedure	Actions
Annually May	PWS (DPIPWE) & SCAGI	To Ranger in Charge Freycinet (delegate for Crown Land Services)	Gorse: Identify effectiveness of previous spraying/munching. Remap boundary of infestation. Plan control priorities / methods for June to Feb. Lupin: Map, plan control priorities / methods for June to Aug. Blackberry: Map, plan control priorities / methods for Sept to Oct.
Annually July	PWS (DPIPWE) & SCAGI	To Ranger in Charge Freycinet (delegate for Crown Land Services)	<u>Update Plan</u> – Gorse Eradication Strategy for Seymour Wetlands Restoration. Circulate to stakeholders.

Timeframe	Responsibility	Reporting Procedure	Actions
Annually September	SCAGI	To Ranger in Charge	Montpellier Broom:
		Freycinet (delegate for	Map, plan control
		Crown Land Services)	priorities / methods for
			Sep to Dec.
Annually December	SCAGI	To Ranger in Charge	Pampas: Map, plan
		Freycinet (delegate for	control priorities /
		Crown Land Services)	methods for March to
			May.
			Montpellier Broom:
			Map, plan control
			priorities / methods for
			Jan to Feb.

Table 7 Strategic Action Plan for July 2017 to June 2022

Listed in order of priority

Timeframe	Management	Action	Note	Cost estimates
	Zone			
June 2017	Α	Cut and paste or spot spray Gorse	Commenced	
		around wetland and along		
		roadside Champ Street, plus areas		
		of good regrowth within the Gorse		
		infested area		
Sept 2017	ABCDE	Remove flowering heads from any	Commenced	
		known Pampas plants.		
Aug/Sept	B (Burnt &	Refer to Figure 3 Page 21.	Contractor 1 day @	\$1500
2017	partially	Munch burnt Gorse and spray any	\$1500	
	munched)	regrowth in area adjacent to 4WD		
		track on southwestern boundary		
		indicated by two green vertical		
		lines. (1.1Ha)		
Aug/Sept	C (Burnt, Sparse	C – Cut and paste	PWS Herbicide /	
2017	infestations)		SCAGI Labour	
Aug/Sept	E (Unburnt)	Munch Gorse and spray herbicide	Contractor 1 day @	\$1500
2017		(1Ha)	\$1500	
Aug/Sept	D (Burnt)	Munch Gorse and spray herbicide	Contractor 4	\$6000
2017		(2.5 & 2.8Ha)	day@\$1500	
Aug/Sept	ABC (Burnt)	Boundary of ABC munch Gorse	Contractor 1 day @	\$1500
2017		and spray any regrowth	\$1500	
2017 Early	E	Northern section of 4WD track	Labour SCAGI	
Spring		grub out or cut and paint Lupins		
Aug/Sept	ABCDE	Mapping of species other than	PWS in kind	
2017		Gorse	support	
Sept 2017	AC	Spot spray Blackberry infestations	PWS Herbicide /	
– Apr 2018			SCAGI Labour	
Dec 2017	ABCDE	Reporting schedule	All	
2018 Mar	ABCDE	Follow up from 2017 work – cut	Supply of chemical	
& Oct		and paste Gorse regrowth in both	PWS / Labour	
		burnt & unburnt areas, map larger	SCAGI	
		Gorse infestations for contract		
		work. In areas with good native		
		regrowth judiciously cut and paint		
		or spot spray Gorse		

Timeframe	Management Zone	Action	Note	Cost estimates
2018 Mar	ABCDE	Follow up from 2017 work –	Contractor 4 days	\$6000
& Oct		contract spray herbicide	@ \$1500	
July 2018		Review WDMP & plan, prioritise	PWS	
		revegetation works		
Feb 2019	ABCDE	Collect seed of local providence	PWS	
		and engage nursery to propagate		
		seedlings for planting in Autumn		
		of 2020		
2019 Mar	ABCDE	Follow up from 2018 work – cut	Supply of chemical	
& Oct		and paste Gorse regrowth in both	PWS / Labour	
		burnt & unburnt areas, map larger	SCAGI	
		Gorse infestations for contract		
		work. In areas with good native		
		regrowth judiciously cut and paint		
221211		or spot spray Gorse		4.500
2019 Mar	ABCDE	Follow up from 2018 work –	Contractor 3 days	\$4500
& Oct		contract spray herbicide	@ \$1500	
July 2019		Review WDMP	PWS	
2020 Mar	ABCDE	Follow up from 2019 work – cut	Supply of chemical	
& Oct		and paste Gorse regrowth in both	PWS / Labour	
		burnt & unburnt areas, map larger	SCAGI	
		Gorse infestations for contract		
		work. In areas with good native		
		regrowth judiciously cut and paint or spot spray Gorse		
2020 Mar	ABCDE	Follow up from 2019 work –	Contractor 2 days	\$3000
& Oct	ABCDL	contract spray herbicide	@ \$1500	33000
May 2020	ABCDE	Commence revegetation works	SCAGI / PWS	\$2000
July 2020	ABCBL	Review WDMP	PWS	72000
2021 Mar	ABCDE	Follow up from 2019 work – cut	Supply of chemical	
& Oct	ABCBL	and paste Gorse regrowth in both	PWS / Labour	
		burnt & unburnt areas, map larger	SCAGI	
		Gorse infestations for contract		
		work. In areas with good native		
		regrowth judiciously cut and paint		
		or spot spray Gorse		
2021 Mar	ABCDE	Follow up from 2020 work –	Contractor 1 day @	\$1500
& Oct		contract spray herbicide	\$1500	
July 2021		Review WDMP	PWS	
2022 Mar	ABCDE	Follow up from 2021 work – cut	Supply of chemical	
& Oct		and paste Gorse regrowth in both	PWS / Labour	
		burnt & unburnt areas, map larger	SCAGI	
		Gorse infestations for contract		
		work. In areas with good native		
		regrowth judiciously cut and paint		
		or spot spray Gorse		
2022 Mar	ABCDE	Follow up from 2021 work –	Contractor 1 days	\$1500
& Oct		contract spray herbicide	@ \$1500	
July 2022		Strategic Critical Plan Review	PWS	
				\$29 000

8. IMPORTANT CONTACTS

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Introduction of the project to: Jason Jacobi General Manager of Parks and Wildlife Service and John Lloyd Director Operations Parks and Wildlife Service - Aug 2020









Latest drone photography by Bob Oats - 26 Aug 2020







Tree planting - drone photography by Bob Oats - 26 Aug 2020

























