Department of Environment Land, Water & Planning Annual Report Form

Enter management year here: Year _____3____ (2021-2022) (describing works Sept 2021-Apr 2022) **Enter Landowner name(s) here: Wellington Shire Council__**

Management Agreement: CW_CFL-3055_01 **Site Code:** _____1A

Year	Site-Zone	Month works completed	Standard to be achieved	Management action description	Timing	Action Completed (Yes/No)	Description of Actions and observed outcomes (Include or attach evidence of actions completed / comments / observed outcomes)
FENCING							
2021-2022	1A	Ongoing	**No vehicle or machinery access over offset site** **Visible to vehicles and aircraft and personnel, Compliant with Civil Aviation Standards**	Fencing: restrict and prohibit vehicle access across offset site Inspect markers and replace or repair as necessary	Summer, Autumn, Winter, Spring	Yes	Installation of site markers completed. No vehicle access noted during on ground implementation works. No vehicle access noted during on ground implementation works
2021-2022	1A	Ongoing	**Maintain fencing to DEWLP fencing standards in BushBroker Info Sheet 12 – Standards for Management _ Fencing**	Maintain fencing in good condition around entire boundary of all sites where fencing exists or is required/ Conduct yearly monitoring to ensure all fencing meets the required standard	Ongoing	Yes	Airport fencing is constructed of chainmail to prevent animals or unauthorised entry into the operating airport runways. There have been no breaches during the 2021-2022 year
WOODY WEEDS							
2021-2022	1A	Sept, Nov, Jan, Feb	**<1% cover of all listed woody weeds at the end of Year 10. Minimise off-target damage (avoid all native plants).**	Monitor for any re-sprouting or seedlings and eradicate (either spot spray or hand pull) (African Boxthorn and Blackberry)	Spring-Autumn	Yes	**See Appendix 2 to this annual report 'Daily works and spray records'** 10.09.2021: high threat woody weeds along western side of main grassland treated, with Garlon 600 11.11.2021: contractors visited to target blackberry (and other weeds) but none found 21.01.2021: contractors visited to treat woody weeds in drain and across entire site 03.02.2022: contractors visited to target blackberry (and other weeds). No African Boxthorn noted.

Year	Site-Zone	Month works completed	Standard to be achieved	Management action description	Timing	Action Completed (Yes/No)	Description of Actions and observed outcomes (Include or attach evidence of actions completed / comments / observed outcomes)
2021-2022	1A	Apr	**<1% cover of all listed woody weeds at the end of Year 10.**	Monitor for and eliminate all new and emerging woody weeds	Ongoing	Yes	**See Appendix 2 to this annual report 'Daily works and spray records'** No new woody weeds reported but contractors noted Lightwood *Acacia implexa* as a target species on 05.04.2022 and reported that they 'checked the main grassland not checked last visit for wattles…and cut out wattles found.'
HERBACEOUS WEEDS							
2021-2022	1A	See far right column	**Aim to reduce the cover of all listed high threat herbaceous and grassy weeds to<5% by end of Year 5.** **<5% cover of all high threat herbaceous and grassy weeds at end of Year 10** **Minimise off-target damage (avoid all native plants)**	Monitor for and reduce cover of all high threat herbaceous and grassy weeds (Table 3: 17 high threat herbaceous or grassy weeds recorded within offset site: *Cirsium vulgare* Spear Thistle, *Hypericum perforatum* St John's Wort, *Agrostis capillaris* Brown-top Bent-grass, *Aira* sp. Hair Grasses, *Cynodon dactylon* Couch, *Pennisetum clandestinum* Kikuyu, *Phalaris aquatica* Toowoomba Canary Grass, *Sporobolus indicus var africanus* Rat-tail Grass, *Anthoxanthum odoratum* Sweet Vernal Grass, *Bromus catharticus* Prairie Grass, *Conyza bonariensis* Fleabane, *Conyza sumatrensis* Tall Fleabane, *Dactylis glomerata* Cocksfoot, *Festuca arundinaceae* Tall Fescue, *Holcus lanatus* Yorkshire Fog, *Paspalum dilatatum* Paspalum, *Rumex dumosus* Dock, *Solanum nigrum* Blackberry Nightshade	Winter Spring Autumn	Yes	**See Appendix 1 to this report *"Indigenous Design West Sale Aerodrome EPBC 2017/8106 - Y3 monitoring results"- Section 4.3*** **See also Appendix 2 to this annual report 'Daily works and spray records'** 10.09.2021: Broadleaf weeds and grasses treated along western side of main grassland. **St John's wort** targeted in the northwest corner on 20.01.2022 and 03.02.2022 **Kikuyu** targeted on 11.11.2021 (none found); 07.12.2021; 20.01.2022, 21.01 2022 (contractors returned to target kikuyu working on pushing it back in the buffer along the western edge of the grassland); and 05.04.2022: no mention of its extent **Brown-top Bent**: contractors visited to target this on 11.03.2021 (no specific mention of its spread) **Sweet vernal-grass:** contractors visited to target canary-grass, sweet vernal grass on 07.12.2021:, no specific mention of extent; again on 03.02.2022, on 20.01.2022 and on 03.02.2022; no mention of extent **Toowomba canary-grass:** contractors visited to target this 03.02.2022 no specific mention of extent **Fleabanes:** C. sumatrensis and C. bonaniernsis targeted on six separate occasions. On 05.04.2022 'We checked the main grassland not checked last visit for … fleabane and…handweeded fleabane'. **Cocksfoot** listed as target species on eight visits by contractors, no specific mention of its extent **Yorkshire Fog** targeted on four occasions; no specific mention of extent **Paspalum** targeted on six occasions; contractors noting on 03 .02.2022 'We also worked on pushing

Year	Site-Zone	Month works completed	Standard to be achieved	Management action description	Timing	Action Completed (Yes/No)	Description of Actions and observed outcomes (Include or attach evidence of actions completed / comments / observed outcomes)
							back the kikuyu and paspalum in the buffer along the western edge of the grassland.' Note: no Spear Thistles, Hair grass, Couch, Prairie grass, Dock or Blackberry Nightshade mentioned.
2021-2022	1A	See far right column	**No increase in cover beyond the cover listed in Table 5 of OMP for all herbaceous weeds (20%)** **Minimise off-target damage (avoid all native plants)**	(Table 4: herbaceous weeds: *Sonchus olaraceous* Sow thistle, *Briza minima* Lesser Quaking -grass, *Centaurium erythraea* Common Centaury, Briza *maxima* Large Quaking-grass, *Hypochaeris radicata* Flatweed, *Anagallis arvensis* Pimpernel, *Plantago sp.* Plaintain/Ribwort, *Romulea rosea* Onion grass, *Rumex acetosella spp agg* Sheep Sorrel, *Trifolium* sp. Hare's Foot Clover	Spring Summer Autumn	Yes	**See Appendix 1 to this report *"Indigenous Design West Sale Aerodrome EPBC 2017/8106 - Y3 monitoring results- Section 4.3 for discussion of exotic cover*** **See also Appendix 2 'Daily works and spray records'** 13.01.2021: herbaceous weeds sprayed Large quaking grass targeted on one occasion 11.11.2021; no comment made about extent Sow thistles: targeted on 20.01.2022 and 30.02.2022; no mention of extent Flatweed targeted on two occasions (11.11.2021 and 03.03.2022) 10.09.2021: herbaceous weeds sprayed No Lesser Quaking-grass, common centaury, pimpernel, no buck's horn plantain, no onion grass, sheep sorrel, hare's foot clover
2021-2022	1A		**<1% cover of all new and emerging herbaceous weeds at end of Year 10**	-	Ongoing	Yes	*Disa bracteata* African orchid noted and treated along western corner in 2021
PEST ANIMALS							
2021-2022	1A	Ongoing	**No surface disturbance within the credit site** **No active rabbit warrens to be present** **No active fox dens to be**	Monitor for and control rabbits and foxes. Refer to Table 6 for list of control methods and timing of actions	See Table 6 OMP	Yes	Airport staff inspect for rabbits daily as burrows and holes can impact aircraft using the grass runways and taxiways. If there is any sign of rabbits, Pindone is immediately deployed.

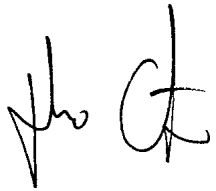
Year	Site-Zone	Month works completed	Standard to be achieved	Management action description	Timing	Action Completed (Yes/No)	Description of Actions and observed outcomes (Include or attach evidence of actions completed / comments / observed outcomes)
			present\No rubbish **Minimal artificial piles of logs and rocks**				
2021-2022		Ongoing	**Control numbers of rabbits and foxes**	Monitor for and control rabbits and foxes	Ongoing	Yes	As above; monitoring occurs regularly and if action is required it occurs promptly. No rabbits or foxes noted.
2021-2022		Ongoing	**Control numbers of any new and emerging pest animals**	Monitor for and control all new and emerging pest animals	Ongoing	Yes	No new and emerging pest animals detected
BIOMASS MANAGEMENT FOR HIGH RAINFALL PLAINS GRASSLAND							
2021-2022	1A	Feb 2021	**Complete biomass reduction at a 3-5 year interval from date of last burn. Use monitoring to inform application of the recommended mosaic approach to burning where no more than 50% of the site is burnt in any one year.**	Ecological burning or slashing of grassland	Autumn-winter	No	Entire 3ha offset site was burnt in February 2021 so no burn scheduled for 2022 (site will be surveyed in late September 2022 – after submission of this annual report – to determine if and when next burn should occur)

Year	Site-Zone	Month works completed	Standard to be achieved	Management action description	Timing	Action Completed (Yes/No)	Description of Actions and observed outcomes (Include or attach evidence of actions completed / comments / observed outcomes)
2021-2022	1A	Dec 2021	**Annually**	Monitor biomass accumulation	Autumn/Winter	Yes	Biomass accumulation monitored as required using golf ball method (see pp 6, 9 & and 15 of **See Appendix 1 to this report *"Indigenous Design West Sale Aerodrome EPBC 2017/8106 - Y3 monitoring results. Section 4.4*** Site reported as having medium biomass and monitoring for thickening to continue; only four of the 18 quadrats required no action with all others to be monitored for thickening. Annual monitoring of biomass as opposed to the original schedule in OMP Table 5 of Year 1, 3, 6, 8, & 10 recommended.
ANNUAL REPORT							
2021-2022			**Annual report is signed, dated and submitted by the landowner at least 2 months prior to the anniversary date of the agreement** **Report provides enough detail in the form of written comments and supporting evidence than an assessor can easily determine the completion of/ progress against the commitments for each zone** **Obligations of the landowner (compliance with Section 6 of the Landowner Agreements) have been met**	Prepare and submit an annual report	September 2022	Yes	

Year	Site-Zone	Month works completed	Standard to be achieved	Management action description	Timing	Action Completed (Yes/No)	Description of Actions and observed outcomes (Include or attach evidence of actions completed / comments / observed outcomes)
			and the obligations forms is read, signed, dated and submitted with the annual report				

Site-Zone	Management Action	Management action description	Timing	Completed (Yes/No)	Include or attach supporting evidence of actions completed / comments / observations
	Annual reporting				
All	Annual report is signed, dated and submitted by the landowner at least 1 month before the anniversary date of the agreement The annual report is a useful opportunity to make comprehensive comments and observations, giving a picture of the current condition of the site(s), issues identified, works undertaken and actions still required. You are encouraged to create a separate report to include in your annual reporting each year that captures this detailed information. The benefits of monitoring your vegetation condition and identifying issues and management undertaken, is that it aids you to gauge the success of management on the condition of native vegetation over time. The Department is also able to use this information to assist with the assessment of your compliance with the agreement and provides us with useful information and data for future management advice. Obligations of the landowner (compliance with section 6 of the Landowner Agreement) have been met, and I have read, signed, dated and submitted the obligations form with the annual report.	Prepare and submit an annual report providing evidence of works carried out. Where the actions were not carried out provided evidence as to the reason why. Include supporting evidence by: - detailed written observations & additional report - photo point monitoring - map of zones & photo points - photographs of works undertaken - receipts/invoices for materials & works carried out, including by contractors - log books of works carried out - obligations of the landowner form - payment method is correct - Receipts of seeds / seedlings ordered or purchased including a table/list of the species, numbers of each species (can estimate if using seeds), provenance - Site log - table/list of numbers of species planted/recruiting or germinated, including: numbers of each species by life form that are present/survived and/or were replaced for that year	Submit at least 1 month prior to agreement anniversary date		☐ obligations of the landowner form **SIGNED AND INCLUDED** ☐ where applicable: payment method is correct **NOT APPLICABLE** ☐ detailed written observations & additional report **APPENDIX 1** ☐ photo point monitoring **APPENDIX 1** ☐ map of zones & photo points **APPENDIX 1** ☐ photographs of works undertaken **APPENDIX 1** ☐ receipts/invoices for works carried out, including by contractors ☐ log books of works carried out **APPENDIX 1&2** ☐ Receipts seeds/seedlings, provenance, table of species list & numbers **NOT APPLICABLE** ☐ Site log / table of plantings/germination & survival numbers by life form **NOT APPLICABLE**

I hereby declare that the supplied information is accurate and complies with reporting requirements under General Conditions under the Second Schedule of the DELWP Management Agreement.

Signed: 

Date: 05/SEP/2022

Compliance with the Obligations of the Landowner (as contained in the Landowner Agreement)

Management of the site

In relation to the Site, the Landowner covenants and agrees:

5.4 to complete the Management Actions for the purpose of achieving the Management Commitments, to the standards required by the Site Management Plan and to the satisfaction of the Secretary, regardless of whether all Native Vegetation Credits have been sold to other people. Where the Landowner has completed the Management Actions specified in the Site Management Plan to the satisfaction of the Secretary, but a Management Commitment is not achieved for reasons out of the control of the Landowner, the Secretary will not withhold any payment to the Landowner;

5.5 to allow the Secretary and the Secretary's officers, employees, agents, contractors, invitees and licensees access to, and entry onto the Site in accordance with this Agreement or the Conservation Forests and Land Act 1987; and

5.6 to undertake the works required to implement the Site Management Plan in compliance with all relevant laws, regulations and statutes, including subordinate instruments and authorisation.

Protection of Native Vegetation

5.7 The Landowner must:

5.7.1 not cause or consent to the removal, destruction, lopping or any other interference with any Native Vegetation on the Site;

5.7.2 take all reasonable steps to ensure that no Native Vegetation on the Site is removed, destroyed, lopped or otherwise interfered with; and

5.7.3 subject to clause 6.4, not apply for, or consent to an application for, a permit under the Planning and Environment Act 1987 (Vic) to remove, destroy or lop Native Vegetation on the Site.

Protection of other habitat

5.8 Subject to clauses 2.13 and 6.4, the Landowner must:

5.8.1 not cause or consent to the removal or interference with any rocks or fallen vegetation on the Site; and

5.8.2 take all reasonable steps to ensure that no rock or fallen vegetation on the Site is removed or interfered with.

Exclusion of livestock

5.9 Subject to clauses 2.13 and 6.4, and except as provided for in any Management Notice under clause 7, the Landowner must:

5.9.1 not cause or consent to the introduction of any livestock on the Site; and

5.9.2 take all reasonable steps to ensure that no livestock enter or remain on the Site.

Introduction of animals other than livestock

5.10 Subject to clauses 2.13, 5.11 and 6.4, the Landowner must:

5.10.1 not bring, or consent to the bringing of, any Domestic Animal onto the Site; and

5.10.2 take all reasonable steps to exclude any Domestic Animal that enters onto the Site.

5.11 The Landowner may bring domestic dogs on to the Site provided that any dogs so brought are under the immediate control of the Landowner or another person authorised by the Landowner at all times.

Installation or upgrade of fencing

5.12 This clause applies if the Site is adjacent to any land from which any stock or person (whether or not the person is in a vehicle):

5.12.1 has ready access to the Site;

5.12.2 is reasonably likely to have ready access to the Site; or

5.12.3 becomes reasonably likely to have ready access to the Site.

5.13 If clause 5.12 applies, the Landowner must, subject to clause 6.4, ensure that there is adequate fencing and gates between the land and the Site so as to protect the Site from being readily accessible by stock or persons.

5.14 Subject to clause 6.4, any works required under clause 5.13 must be carried out:

5.14.1 in the case of a site to which clauses 5.12.1 or 5.12.2 apply at the Commencement of this Agreement, within three months of the Commencement Date of this Agreement or at any earlier time specified in the Site Management Plan; or

5.14.2 in any other case, within three months of any change in circumstance that creates a reasonable likelihood of any stock or person having ready access to the Site for the purposes of clause 5.12.3, or at any earlier time specified by the Secretary by written notice to the Landowner.

Maintenance of fencing

5.15 Subject to clause 6.4, the Landowner must maintain any fencing required by clause 5.10.2 or clause 5.13 in good repair and condition at all times.

Statutory pest management obligations

5.16 From the Commencement Date of this Agreement and on an ongoing basis, the Landowner must, in relation to the Site, ensure compliance with:

5.16.1 the requirement to prevent the growth and spread of Regionally Controlled Weeds under section 20(1)(e) of the Catchment and Land Protection Act 1994 (Vic);

5.16.2 the requirement to prevent the spread of, and as far as possible, eliminate established pest animals under section 20(1)(f) of the Catchment and Land Protection Act 1994 (Vic); and

5.16.3 the requirement to eradicate Regionally Prohibited Weeds under section 20(1)(d) of the Catchment and Land Protection Act 1994 (Vic).

Weeds identified in Site Management Plan

5.17 The Landowner must, to the extent specified in the Site Management Plan, eradicate or prevent the growth and spread of any Weed or other plant as specified in the Site Management Plan.

Application of fertiliser

5.18 The Landowner must:

5.18.1 not apply any fertiliser to any part of the Site;

5.18.2 not consent to the application of any fertiliser to any part of the Site; and

5.18.3 take all reasonable steps to ensure that fertiliser is not applied to any part of the Site.

Buildings and structures

5.19 Subject to clauses 2.13, 6.4 and 5.20, the Landowner must:

5.19.1 not erect or place any building or structure on the Site; and

5.19.2 take all reasonable steps to ensure that no building or structure is placed on the Site by any other person.

5.20 The Landowner may erect temporary structures on the Site as part of any grazing of livestock authorised under the Site Management Plan, consent under clause 6.4 or Management Notice under clause 7.

Alterations to the natural state of water bodies

5.21 Subject to clauses 2.13 and 6.4, the Landowner must not cause or consent to, and must take all reasonable steps to avoid any occurrence of, any act which alters the natural state of, or the flow, supply, quantity or quality of, any body of water on to or from the Site.

Rubbish and other materials

5.22 The Landowner must not cause or consent to, and must take all reasonable steps to avoid, the dumping of any rubbish or the storage of any materials on the Site.

Further restrictions on using the land

5.23 Subject to clause 6.4, the Landowner must not cause or consent to any of the following, and must take all reasonable steps to ensure that the following do not occur on the Site:

5.23.1 the removal, introduction or disturbance of any soil, rocks or other minerals or the construction of dams or modification of existing dams;

5.23.2 subdivision;

5.23.3 the operation of any trade, industry or business;

5.23.4 the recreational use of trail bikes or four wheel drive vehicles;

5.23.5 the carrying out of any works on the Site other than those required by this Agreement or by law; and

5.23.6 the carrying out of any other activities not consistent with the purposes of this Agreement.

Extractive industry and utility installations

5.24 The Landowner must not permit, unless required by law:

5.24.1 the issue of any licence or approval for exploration, mining, extraction or production of gas, petroleum, minerals or other substances on the Site; or

5.24.2 the installation of any transmission lines or other services or works on the Site.

5.25 The Landowner must bring this Agreement to the attention of any person who notifies the Landowner that they have applied for or will be applying for a licence, approval or proposal to take an action of the kind described in clauses 5.24.1 and 5.24.2, and to any other person or body whose approval is required to take that action.

5.26 The landowner must notify the Secretary of any notification of an application for a licence, approval or proposal to take an action of the kind described in clauses 5.24.1 and 5.24.2.

Have you complied with all the above conditions?

Yes / No (please circle) If no, provide details below

_____

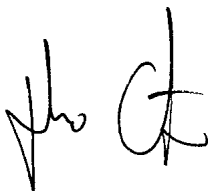
_____

_____

_____

_____

_____

Signed  **Date:** 01 September 2022

CFL or BB reference: CW_CFL-3055_01 **Site:** West Sale Airport

ATTACHED BELOW

Appendix 1: Indigenous Design West Sale Aerodrome EPBC 2017/8106 - Y3 monitoring results

Appendix 2: Daily Works and Spray Records

INDIGENOUS DESIGN
ENVIRONMENTAL MANAGEMENT

Report for Wellington Shire Council

West Sale Aerodrome EPBC 2017/8106 - Year 3 Monitoring Results

December 2021

Tania Brooker

Citation

Brooker, T (2021), West Sale Aerodrome EPBC 2017/8106 - Year 3 Monitoring Results. *Indigenous Design Environmental Management*, Research, Victoria.

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Disclaimer

Acknowledgements

Theo Christopher – Aerodrome Co-ordinator, Wellington Shire Council

Ben Imbery –Senior Consultant, Indigenous Design Environmental Management

William Doherty - Consultant, Indigenous Design Environmental Management

Version Control

Status	Date	Revision type	Reviewed by	Amended by
Draft 1.1	16/02/2022	First draft, first review	B. Imbery	T. Brooker
Draft 1.2	18/02/2022	First draft, second review	H. Schinagl	T. Brooker
Final	21/02/2022	Final released to client		

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1 Introduction

1.1 Project Background

Indigenous Design has been engaged by Wellington Shire Council to undertake ecological monitoring within Grassland Zone 4A, an offset for *Environment Protection & Biodiversity Conservation* (EPBC) Act 1999 Approval 2017/8106 for a runway extension. The site is protected on title through CW_CFL-3055_01, an agreement under a Section 69 of the Victorian *Conservation, Forest and Lands Act 1987* (the Landowner Agreement). The site protected by the Section 69 agreement is 13 hectares in size, though only a subset of this area totalling 3 hectares is relevant to the EPBC Act Approval.

1.2 Scope

Monitoring was completed for Year 3 as detailed in the EPBC Offset Management Plan for the site (EthosNRM, 2018a), and included:

- Native species cover and diversity - establish 9 transects with 10 cover quadrats and 1 diversity quadrat along each transect;
- Weed species cover and diversity - to be recorded as per the above transect and quadrat establishment;
- Establish 9 photo points at the 25m point of each transect, with 5 photos taken, 1 in each direction & 1 at the ground;
- Pest animal monitoring - to be recorded as per the above transect and quadrat establishment; and
- Record Biomass accumulation.

Further detail on the monitoring methods can be found in the EPBC Offset Management Plan (OMP) (EthosNRM, 2018a).

The assessment was completed at the end of a warm, wet spring and therefore it is considered likely to have been a good representation of the species present and their coverage. However, it is possible that some annual, deciduous or dormant taxa may not have been visible, or have been overlooked during assessments. Additionally, some taxa have not been identified to specific or intraspecific rank due to the absence of flowering or other material typically used for identification.

2 Methods

2.1 Species Cover & Diversity

Across the 13ha Protected Area, 9 (50m) transects were established including 3 within the EPBC Offset Site to monitor species cover. (*Map 1*)

A 50cm² quadrat was placed at 5m intervals and the following recorded:

- % native graminoid cover;
- % high threat weed (exotic) vegetation cover (and portion % that is a high threat);
- % bare ground;
- % herbaceous cover;
- % cover lichen or moss; and
- % other.

In addition to the 9 x 50cm^2 quadrats assessed per transect, one species diversity quadrat (10x10m in size) was located between the 25m and 35m points along each of the transects established. A modified Braun-Blanquet cover-abundance was then used to assess coverage of native and weed species (*Table 1*).

Table 1 - Modified Braun-Blanquet Cover - Abundance Class (taken from (EthosNRM, 2018a))

Score	Cover	Abundance
0	0%	Species absent
+	<5%	Few Individuals
1	<5%	More than a few individuals
2	5-20%	Any number of individuals
3	20-50%	Any number of individuals
4	50-75%	Any number of individuals
5	75-100%	Any number of individuals

2.2 Biomass Accumulation

Biomass monitoring for inter-tussock space was monitored at 18 random quadrats across the site, utilising the rapid assessment of biomass - the 'golf Ball Method' as described in Appendix 4 of the OMP (EthosNRM, 2018a). The total quadrat score was then compared to the recommended action (*Table 2*).

Table 2 - Biomass accumulation score and recommended action (taken from EthosNRM 2018)

Biomass	Golf Ball Total Score	Action
High	0-5	Requires disturbance
Medium	6-14	Monitor for thickening
Low	15-18	No action required

Golf balls within the photographs are scored: 1 if more than 90% of the ball is visible; 0 if a ball is less than 33% is visible and all other balls 0.5.

2.3 Photopoints

Nine photo points across the Protected Area were established and permanently marked with star pickets. The photo points were located at the midway point of each of the 9 transects established for species cover and diversity. 5 photos were taken at each location:

- North;
- South
- East;
- West; and
- taken directly down from at the 25m point.

3 Results

Monitoring was undertaken on the 7th of December 2021.

3.1 Species Cover & Diversity

Appendix 1 provides the field data and *Table 3* provides a summary of results for the species cover monitoring. Total exotic cover averaged 16% across the 90 quadrats monitored and total high threat exotic cover averaged 10%. Graminoid cover was recorded as averaging 52% and herbaceous species 7% (*Table 3*).

Table 3 - Native & exotic species cover results from 50cm² cover quadrats

Attribute	Average (%)
Native Graminoid Cover	52
Total Exotic Cover	16
High Threat Exotic Cover	10
Bare Ground	13
Herbaceous Cover	7
Lichen/Moss Cover	10
Other Cover	2

Results of the all species monitoring quadrat is provided in *Table 4.*

In total, 26 native species were recorded across all transects, along with 13 exotic species, 6 of which were High Threat weed species.

Table 4 - Year 3 results for all species quadrats

Scientific Name	Common Name	Exotic	T1	T2	T3	T4	T5	T6	T7	T8	T9
Acaena x ovina	Australian Sheep's Burr		+			2	1	1			
Agrostis capillaris	Brown top Bent	HT							1		
Aira sp.	Hair Grass	HT	2	3		2	3	3	2	3	3
Anthosachne scabra	Common Wheat Grass				+						2
Anthoxanthum odoratum	Sweet Vernal-grass	HT	+		2	2	1		2	2	2
Asperula conferta	Common Woodruff					1	2	2			
Austrostipa mollis	Supple Spear-grass		1		+						
Austrostipa rudis	Veined Spear Grass			2	2				3	3	
Bossiaea prostrata	Creeping Bossiaea					1					
Briza maxima	Large Quaking Grass	*	+		3			1			
Caesia calliantha	Blue Grass-lily			+			1				
Centaurium erythraea	Common Centaury	*			+				+	1	1
Convolvulus erubescens	Australian Bindweed					+		1			
Dichelachne rara	Common Plume-grass		1	1	2	2	3			2	2
Eragrostis brownii	Common Love-grass		+			1					

Scientific Name	Common Name	Exotic	T1	T2	T3	T4	T5	T6	T7	T8	T9
Erigeron sp.	Fleabane	*					+				1
Euchiton sp.	Cud-weed		+		1	1				2	
Euchiton sphaericus	Common Cud-weed			2							
Holcus lanatus	Yorkshire Fog	HT	+	2			2	2	3	2	2
Hypericum gramineum	Small St John's Wort		1	1	2			+	1	1	
Hypochaeris radicata	Cat's Ear	*	2	2	2		1	2	2	2	2
Lomandra filiformis	Wattle Mat-rush										2
Lomandra filiformis ssp. coriacea	Wattle Mat-rush		+								
Lotus corniculatus	Birds-foot trefoil	*		1					1		
Lysimachia arvensis	Scarlet Pimpernel	*	1					1			
Lythrum hyssopifolia	Lesser Loosestrife				+			1			
Microlaena stipoides var stipoides	Weeping Grass									2	2
Oxalis perennans	Grassland Wood-sorrel			+	1	1	1	2	1	2	2
Paspalum dilatatum	Paspalum	HT	+						2		
Poa labillardierei	Common Tussock-grass		2	2	2		1	2	2	2	
Plantago gaudichaudii	Narrow Plantain					2					
Romulea rosea	Onion Grass	*	+		1						
Rumex dumosus	Wiry Dock		+	+							
Rytidosperma sp.	Wallaby Grass		1	2	2		1	3	1	2	
Rytidosperma racemosum	Wallaby Grass							1			
Schoenus apogon	Common Bog-sedge		2	1	2	3	2	2	2	2	2
Sonchus oleraceus	Sow Thistle	HT	+			+		+			
Themeda triandra	Kangaroo Grass		2	2	3	4	4	2	3	2	3
Wahlenbergia multicaulis	Blue Bells						1	1			1

3.2 Exotic Fauna

Any occurrences of exotic fauna was recorded whilst completing the transect/quadrat monitoring, with none noted / observed.

3.3 Biomass Accumulation

The site currently has a medium biomass and monitoring for thickening will continue.

Table 5 - Biomass accumulation result score and action

Quadrat #	Biomass	Score	Action
1	Medium	13	Monitor for thickening
2	Low	15	No action required
3	Low	17	No action required
4	Medium	10.5	Monitor for thickening
5	Low	15.5	No action required
6	Medium	14	Monitor for thickening
7	Medium	13	Monitor for thickening
8	Medium	11.5	Monitor for thickening
9	Medium	12	Monitor for thickening
10	Medium	10	Monitor for thickening
11	Low	17.5	No action required
12	Medium	8.5	Monitor for thickening
13	Medium	14	Monitor for thickening
14	Medium	12.5	Monitor for thickening
15	Medium	10	Monitor for thickening
16	Medium	8.5	Monitor for thickening
17	Medium	12.5	Monitor for thickening
18	Medium	6	Monitor for thickening
Average	**Medium**	**12**	**Monitor for thickening**

Quadrat scores are provided in *Table 5* and photos of biomass accumulation transects are provided in *Appendix 2*.

3.4 Photopoints

Forty-five photos were taken during monitoring (five per transect) and are provided in *Appendix 3*.

4 Discussion

The methods employed in the year 3 monitoring event match the requirements of the OMP, but do not match data available for year 1. Although many of the same attributes can be derived from a number of other sources, differences in collection methods make them incompatible for comparison. Nonetheless, some conclusions can be drawn in order to provide direction for future activities across the site.

Information is available from a number of sources including:

- The EthosNRM field work in relation to losses and offsets for the runway proposal (EthosNRM, 2018; EthosNRM, 2018a), which was completed using the Victorian Vegetation Quality Assessment or habitat hectare method. These assessments are completed through subjective assessment of total cover of weeds / species and are dependent on seasonality, timing of completion and experience / proficiency of assessors in providing accurate % cover.
- The DELWP Landowner Agreement (LOA) site audit completed in February 2021 (DELWP, 2021).
- Listing advice for the Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *mediana*) Grassy Woodland and Associated Native Grassland community.

4.1 Diversity

The OMP (EthosNRM, 2018a) noted 49 native species and 35 weed species had been recorded within the 13 hectare Protected Area. A site visit and walk over in early November 2021 by Indigenous Design recorded 40 native species within the 13 hectare Protected Area. Both of these previous diversity assessments used a meandering method of recording species. The Year 3 monitoring recorded 26 native species and 13 exotic species within the 900 m^2 assessed during diversity quadrat assessments.

It is not believed that there has been a decrease in the number of species present on site either native or exotic, rather the differences in methodology and area sampled resulted in fewer species records.

Following the next round of monitoring using a consistent format, additional analysis can be made in regard to the site's diversity.

4.2 Native Cover

Native Graminoid cover was recorded as averaging 52% in Year 3's monitoring and native herbaceous cover 7%, as compared to 70% and 16% cover respectively by Ethos NRM following the 2017 field work (EthosNRM, 2018a). This difference in cover is likely as a result of the recent fire event (which occurred 10 months previously in February) decreasing cover in the short term and the time of year of the monitoring. Monitoring completed earlier in spring may have resulted in a higher cover of herbaceous species which are largely annual in their growth cycle and the primary pioneering species after disturbance. In addition, the data has been derived through 2 different methods and caution should be exercised when making any specific comparisons.

The listing advice for the community also identifies that 50% or more of the vegetation cover of the ground layer (i.e. excluding bare ground) is made up of native grasses and grass-like plants (such as sedges, rushes, lilies, Lomandra and similar plants) (DAWE, 2022). The site currently meets this definition.

4.3 Exotic Cover

Comparison of data from each monitoring period is to be used to determine if weed cover triggers have been realised. The requirement of the OMP (as listed in Appendix 2) is to reduce cover of all high threat weeds by the end of Year 3 to less than <5% cover and to prompt a management action in response (*Table 6*) (EthosNRM, 2018a).

Table 6 - Weed Cover triggers (Table 7 of the OMP)

Trigger	Action
Increase in weed cover across the entire site beyond the % specified in Appendix 2	Increase frequency of weed control. Review methods and chemical used.
20% increase in weed cover within quadrats from baseline data	Increase frequency of weed control. Review methods and chemical used.

Total exotic cover averaged 16% across the 90 quadrats monitored in Year 3 and total high threat exotic cover averaged 10%. The 2017 field work completed by Ethos recorded total weed cover in the offset site as 10% (EthosNRM, 2018a), however the LOA commenced in 2018 with an assessed 20% total weed cover and high threat weed cover of 15%. The DELWP audit completed in February 2021 estimated at least 10% cover but concluded that cover estimates for 13 ha where the grass cover is dense are difficult to make accurately and it was quite possible that cover had reduced since the LOA was executed (DELWP, 2021).

A number of factors contribute to this varying result in obtaining a foliage cover estimate:

- The recent ecological burn providing favourable conditions for exotic species germination and growth;
- Subjective verses objective assessments to determine foliage cover totals; and
- Seasonality and climate, given West Gippsland has experienced a wet warm spring/summer.

Without equivalent data from a baseline survey in Year 1, a 20% increase in weed cover within quadrats is not able to be determined (see *Table 6*), however the <5% cover by Year 3 is unlikely to be currently met on site for all high threat species, even though all weed control actions have been implemented.

Whilst higher weed cover may be a triggered response from the ecological burn, additional weed control is recommended to be undertaken in Spring 2022. The 2021-2022 OMP Implementation report details which species require this additional treatment based on broad site inspections completed pre and post burning and since works commenced on site by Indigenous Design in November 2019.

Following the next round of monitoring, additional analysis can be made in regard to the site's exotic and native diversity and change in coverage that may also trigger a management action (see *Table 6*).

4.4 Biomass accumulation

Overall, the site currently has a medium biomass and monitoring for thickening will continue. Even though the whole site was burnt within the previous 10 months, only four of the 18 quadrats required no action with all the remaining quadrats to be monitored for thickening.

In order to more accurately determine the sites progression towards requiring an action, it is recommended that Biomass Accumulation monitoring occur yearly rather than as per the schedule identified in the OMP Table 5 of Year 1, 3, 6, 8 & 10 to ensure changes are identified early for ecological burn planning to be undertaken in a timely manner.

5 Recommendations

A number of recommendations have been made throughout this report and are detailed below.

1. Use Year 3 data as the baseline for future monitoring results to be compared against as no other data set / or coverage information derived using subjective methods is directly comparable.
2. Repeat monitoring at Year 4 as an additional monitoring event, then at the specified Year 8 & 10 as per the OMP. If Year 4 monitoring suggests targets are not being met and new management actions are recommended, additional interim monitoring may be required to track progress.
3. Provide additional analysis in regard to the site's diversity and cover following the next round of monitoring (Year 4).
4. Undertake additional weed control for high threat weed species in response to the recent controlled burn.
5. Complete biomass accumulation monitoring annually.

References

DAWE. (2022, January). *Advice to the Minister for the Environment, Heritage and the Arts from the Threatened Species Scientific Committee on an Amendment to the List of Threatened Ecological Communities under the EPBC Act 1999*. Retrieved from Department of Agriculture, Water and the Environment: https://www.environment.gov.au/biodiversity/threatened/communities/pubs/73-listing-advice.pdf

DELWP. (2021). *CW-CFL-3055 LA01 Monitoring Report.* Melbourne: Victorian Government.

Department of Sustainability & Environment. (2003, June). Public Authority Management Agreement. Melbounre: State Government of Victoria.

EthosNRM. (2018). *West Sale Airport Runway Extension - EPBC Offset Proposal.* Bairnsdale: EthosNRM.

EthosNRM. (2018a). *West Sale Airport Runway Extension - EPBC Offset Management Plan.* Bairnsdale: EthosNRM.

Appendices

Appendix 1 - Cover Data

Transect 1

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Native Graminoid Cover	50	60	70	70	55	60	75	65	65	55
Total Exotic Cover	30	20	5	10	15	12	5	15	15	12
High Threat Exotic Cover	25	5	5	10	5	12	3	4	5	8
Bare Ground	20	10	10	20	25	5	6	5	4	17
Herbaceous Cover	20	10	1	1	8	6	6	2	2	6
Lichen/Moss Cover	1	2	2	5	10	10	10	8	12	5
Other Cover	5	5	1	1	2	1	2	11	6	4

Transect 2

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Native Graminoid Cover	50	40	60	60	70	70	60	40	50	70
Total Exotic Cover	10	25	10	10	10	15	15	25	12	15
High Threat Exotic Cover	5	20	5	8	8	10	10	5	10	5
Bare Ground	15	20	10	12	15	3	8	15	20	10
Herbaceous Cover	5	5	5	1	3	1	1	10	1	3
Lichen/Moss Cover	2	8	15	5	5	15	15	20	20	15
Other Cover	2	1	2	1	2	5	5	10	2	10

Transect 3

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Native Graminoid Cover	50	45	50	50	70	60	40	55	45	50
Total Exotic Cover	25	30	15	20	10	15	20	20	15	20
High Threat Exotic Cover	5	5	5	5	8	10	15	12	10	15
Bare Ground	8	15	5	25	8	5	10	10	12	20
Herbaceous Cover	15	25	8	4	10	2	5	6	5	6
Lichen/Moss Cover	5	10	5	15	10	3	8	5	15	20
Other Cover	3	2	2	12	2	1	3	1	2	2

Transect 4

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Native Graminoid Cover	70	45	65	45	55	50	55	55	60	70
Total Exotic Cover	15	10	10	15	15	15	15	10	8	8
High Threat Exotic Cover	12	8	8	10	10	9	12	5	5	5
Bare Ground	10	25	5	25	8	12	8	12	8	6
Herbaceous Cover	3	1	1	2	2	6	5	3	1	1
Lichen/Moss Cover	15	25	20	5	5	5	10	10	5	5
Other Cover	4	2	5	2	2	2	1	3	1	1

Transect 5

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Native Graminoid Cover	70	60	45	55	70	60	50	55	55	60
Total Exotic Cover	15	15	25	6	8	12	10	12	15	12
High Threat Exotic Cover	12	12	15	5	3	9	8	10	12	8

Bare Ground	10	8	3	20	20	15	15	20	8	20
Herbaceous Cover	3	3	15	8	8	2	1	1	7	2
Lichen/Moss Cover	15	20	20	15	15	20	25	15	20	15
Other Cover	4	1	1	1	1	1	3	1	2	2

Transect 6

	Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**
Native Graminoid Cover	60	40	65	60	40	45	60	40	40	10
Total Exotic Cover	5	10	20	15	20	20	15	15	12	40
High Threat Exotic Cover	5	10	20	12	10	8	12	6	6	15
Bare Ground	12	15	5	10	15	20	8	25	20	30
Herbaceous Cover	8	12	1	4	10	12	5	8	8	20
Lichen/Moss Cover	10	12	2	12	10	15	20	5	12	5
Other Cover	1	1	1	2	1	1	4	2	3	2

Transect 7

	Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**
Native Graminoid Cover	60	40	35	30	30	50	45	50	70	50
Total Exotic Cover	15	25	25	25	25	20	25	15	15	10
High Threat Exotic Cover	5	15	10	15	20	15	15	5	8	5
Bare Ground	8	10	25	30	15	15	20	8	5	8
Herbaceous Cover	10	15	15	8	6	3	20	8	4	5
Lichen/Moss Cover	5	5	5	5	5	5	5	10	5	5
Other Cover	1	1	2	2	1	4	2	1	1	1

Transect 8

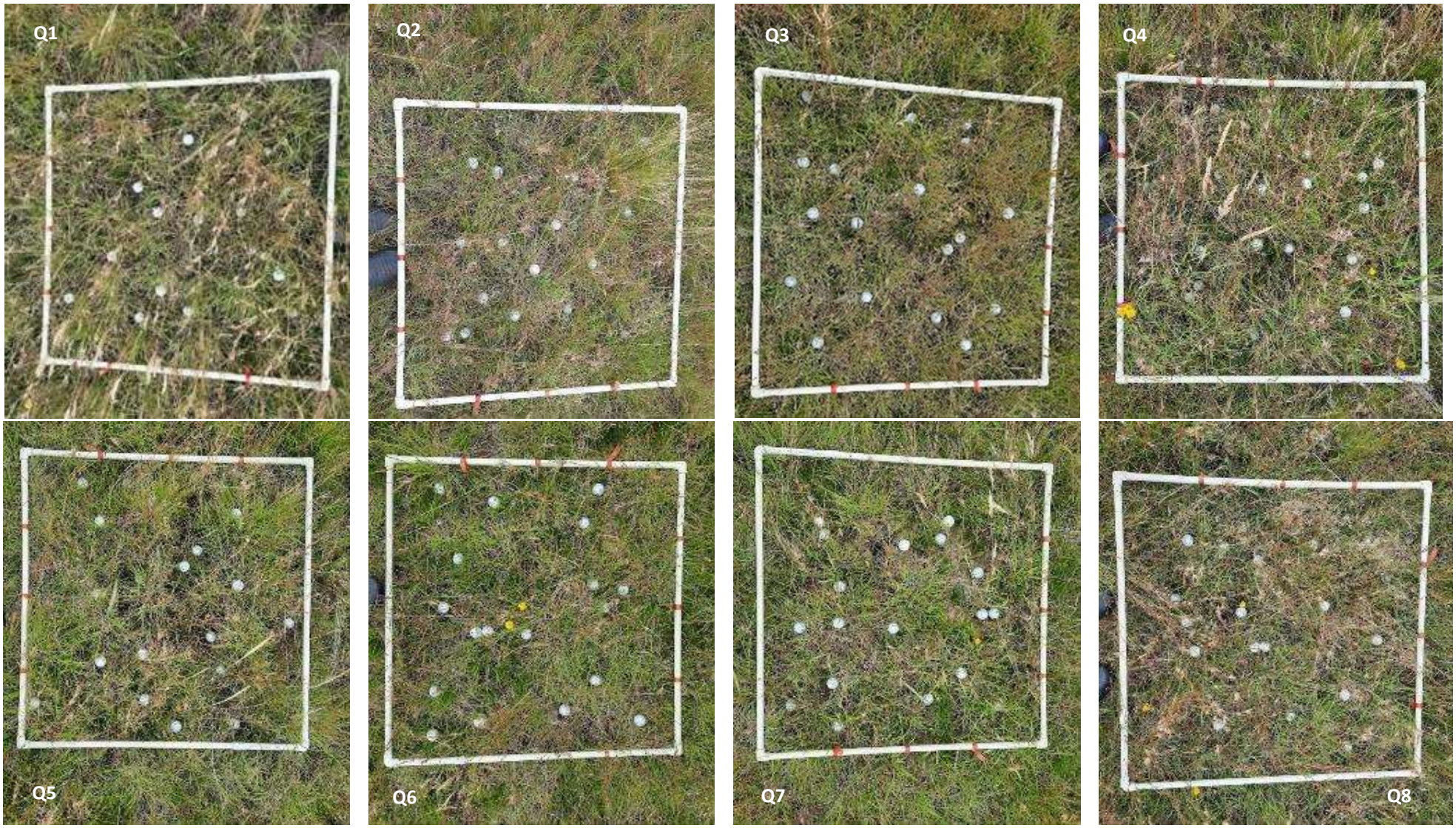
	Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**
Native Graminoid Cover	40	70	45	30	55	50	45	45	40	55
Total Exotic Cover	8	10	20	20	10	20	25	20	25	25
High Threat Exotic Cover	2	2	12	5	8	5	12	15	15	15
Bare Ground	18	5	30	5	10	15	3	10	3	6
Herbaceous Cover	6	8	8	12	1	20	20	6	2	10
Lichen/Moss Cover	5	5	5	5	10	5	5	10	10	5
Other Cover	1	2	1	1	1	3	3	3	4	3

Transect 9

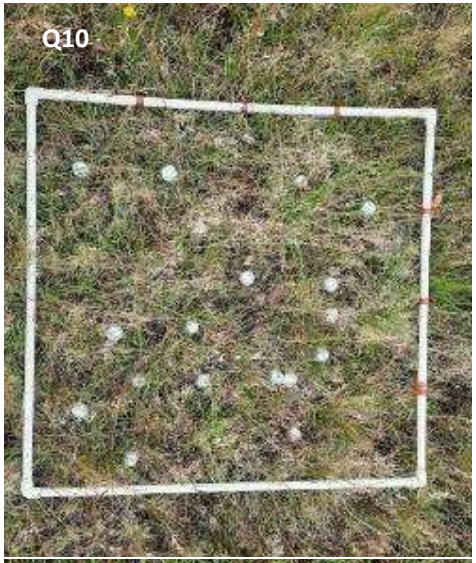
	Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**
Native Graminoid Cover	40	50	40	45	22	70	50	45	40	30
Total Exotic Cover	15	20	12	8	40	8	20	20	15	25
High Threat Exotic Cover	12	12	8	2	30	5	15	15	10	20
Bare Ground	12	8	25	30	15	10	8	8	18	15
Herbaceous Cover	10	8	15	6	2	3	8	1	10	12
Lichen/Moss Cover	15	5	15	5	5	10	5	5	10	5
Other Cover	2	2	2	2	2	1	2	2	1	2

Appendix 2 - Biomass Accumulation Photos

Photos of each of the monitored quadrats have been provided below.


Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8


Q9


Q10

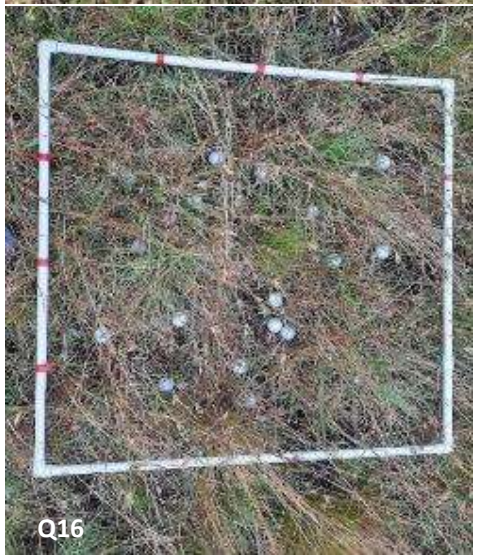

Q11


Q12


Q13


Q14


Q15


Q16


Q17


Q18

Appendix 3 - Photopoints

Transect 1

a) West of T1

b) East of T1

c) North of T1

d) South of T1

e) Quadrat at 25m

Transect 2

a) North of T2

b) East of T2

c) South of T2

d) West of T2

e) Quadrat at 25m

Transect 3

a) South of T3

b) East of T3

c) North of T3

d) West of T3

e) Quadrat at 25m

Transect 4

a) South of T4

b) West of T4

c) North of T4

d) East of T4

e) Quadrat at 25m

Transect 5

a) North of T5

b) East of T5

c) West of T5

d) South of T5

e) Quadrat at 25m

Transect 6

a) East of T6

b) South of T6

c) West of T6

d) North of T6

e) Quadrat at 25m

Transect 7

a) South of T7

b) East of T7

c) North of T7

d) West of T7

Quadrat at 25m

Transect 8

a) South of T8

b) East of T8

c) North of T8

d) West of T8

e) Quadrat at 25m

Transect 9

a) East of T9

b) North of T9

c) West of T9

d) South of T9

Quadrat at 25m

MAPS

Map 1 - Protected Area Transect Locations

INDIGENOUS DESIGN
1635 Main Rd, Research, VIC, 3095
Melbourne | Morwell | Wonthaggi

ABN: 64 081 044 144

P (03) 9437 0555
E nicole@iddesign.com.au

www.iddesign.com.au

Daily Works & Spray Record

IMS-FM-01 V.1. R.3 Reference: 10/09/2021 14:14:39 7.01

Client:	**Wellington Shire Council**				
Work/Purchase Order No:	WSC WEST SAL	**Permit No:**		**SWMS Complete?**	Yes
Temperature: (AM)	12.4	**Temperature: (PM)**	15.4	**Vehicle/s:**	1AQ7QK
Delta T: (AM)	2	**Delta T: (PM)**	4		
Wind Speed & Direction: (AM)	WSW 19km/hr	**Wind Speed & Direction: (PM)**	WSW 13 km/hr		

Worksite:	**West Sale Aerodrome LOA**		
Location of works on site:	Main Grassland	**Date:**	10/09/2021
		Area of Land Treated (m2):	54,321
Supervisor:	Ian Code	**Start Time:**	7:30 am
Team Members:	Andrew Healy , Rory Sweeney , Mikaela Pharoah	**Finish Time:**	4:00 pm
		Works Completed?	No

WORKS UNDERTAKEN

Target Species:	Method	Herbicide
Paspalum dilatatum (Paspalum) , Briza maxima (Large Quaking-grass) , Holcus lanatus (Yorkshire Fog) , Agrostis capillaris (Brown-top Bent) , Dactylis glomerata (Cocksfoot)	Knapsack	Weedmaster Duo
Arctotheca calendula (Cape Weed) , Hypochoeris radicata (Flatweed) , Cirsium vulgare (Spear Thistle) , Sonchus oleraceus (Common Sow-thistle) , Rubus fruticosus spp. agg. (Blackberry)	Knapsack	Garlon 600

NOTES

We continued spraying high threat woody and broadleaf weeds along the western side of the main grassland. We also treated grasses along the same boundary and side of the grassland. In addition to milkmaids and the native gallium flowering, there were early Nancy's, chocolate and bulkiness lily's flowering.

FUTURE WORKS

Continue spraying weeds over the rest of the grassland.

TOOLS EQUIPMENT NEEDED

Herbicide , Knapsacks , PPE

KNAPSACK

Herbicide	Unit	$/Unit	Rate (ml or g/per 10L)	Volume (L)	Amount used (ml or g)	Cost
Garlon 600	ml	$0.03	17	60	102	$3.06
Weedmaster Duo	ml	$0.01	100	60	600	$6.00
BS 1000	ml	$0.01	10	120	120	$1.20
Envirodye Blue	ml	$0.03	50	120	600	$18.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$28.26**

RIG

Herbicide	Unit	$/Unit	Rate (L or g/per 100L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

QUAD BIKE

Herbicide	Unit	$/Unit	Rate (L or g/per 60L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

VELPAR / DABBER

Herbicide	Unit	$/Unit	Amount used (ml)	Cost
	0	$0.00		$0.00
	0	$0.00		$0.00
	0	$0.00		$0.00
TOTAL				**$0.00**

Total Herbicide Cost
$28.26

Other Materials or Costs (Tipping Fees, Plants, Stakes & Guards etc.)

Item	Quantity	Cost
Tipping		
Stakes		
Guards		
Plants		
Other		
Total Materials & Costs		**$0.00**

Green Waste Removed	
Rubbish Removed m³	

Daily Works & Spray Record

IMS-FM-01 V.1. R.3 Reference: 11/11/2021 14:40:33 7.01

Client:	**Wellington Shire Council**				
Work/Purchase Order No:	West Sale Airpor	**Permit No:**		**SWMS Complete?**	Yes
Temperature: (AM)	12	**Temperature: (PM)**	18.5	**Vehicle/s:**	1AQ7QK , 1AQ7QJ
Delta T: (AM)	1.6	**Delta T: (PM)**	5		
Wind Speed & Direction: (AM)	WNE 24 km/hr	**Wind Speed & Direction: (PM)**	SW 9 km/hr		

Worksite:	**West Sale Aerodrome LOA**		
Location of works on site:	Western end of Southern side and north-east corner.	**Date:**	11/11/2021
		Area of Land Treated (m2):	54,321
Supervisor:	Andrew Healy	**Start Time:**	7:30 pm
Team Members:	Ian Code , Alana Speir , Wayne Rothmeier	**Finish Time:**	4:00 pm
		Works Completed?	No

WORKS UNDERTAKEN

Target Species:	Method	Herbicide
Conyza bonariensis (Flaxleaf Fleabane) , Rubus fruticosus spp. agg. (Blackberry) , Plantago lanceolata (Ribwort) , Hypochoeris radicata (Flatweed) , Arctotheca calendula (Cape Weed)	Knapsack	Garlon 600
Briza maxima (Large Quaking-grass) , Anthoxanthum odoratum (Sweet Vernal-grass) , Holcus lanatus (Yorkshire Fog) , Dactylis glomerata (Cocksfoot) , Pennisetum clandestinum (Kikuyu)	Knapsack	Weedmaster Duo

NOTES

We sprayed high priority weedy and broadleaf weeds along the southern side of the main grassland and around the north eastern corner of the site. The STA trackers on the packs targeting broadleaf weeds was recorded as following: 0: blackberry, 1: Cape weed, 2: everything else. The trackers using weedmaster: 0: Kikuyu, 1: everything else, 2: cocksfoot. There are convolvulus and Microtus flowering throughout the site. The other orchids have finished flowering.

FUTURE WORKS

Keep spraying priority weeds throughout the main grassland and along the western edge

TOOLS EQUIPMENT NEEDED

Handweeding Tools , Herbicide , Knapsacks , PPE

KNAPSACK

Herbicide	Unit	$/Unit	Rate (ml or g/per 10L)	Volume (L)	Amount used (ml or g)	Cost
Garlon 600	ml	$0.03	17	40	68	$2.04
Weedmaster Duo	ml	$0.01	10	40	40	$0.56
Envirodye Blue	ml	$0.03	50	80	400	$12.00
BS 1000	ml	$0.01	10	80	80	$0.80
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$15.40**

RIG

Herbicide	Unit	$/Unit	Rate (L or g/per 100L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

QUAD BIKE

Herbicide	Unit	$/Unit	Rate (L or g/per 60L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

VELPAR / DABBER

Herbicide	Unit	$/Unit	Amount used (ml)	Cost
	0	$0.00		$0.00
	0	$0.00		$0.00
	0	$0.00		$0.00
TOTAL				**$0.00**

Total Herbicide Cost
$15.40

Other Materials or Costs (Tipping Fees, Plants, Stakes & Guards etc.)

Item	Quantity	Cost
Tipping		
Stakes		
Guards		
Plants		
Other		
Total Materials & Costs		**$0.00**

Green Waste Removed	
Rubbish Removed m³	

Daily Works & Spray Record

IMS-FM-01 V.1. R.3 Reference: 7/12/2021 14:08:37 7.01

Client:	**Wellington Shire Council**				
Work/Purchase Order No:	WSA GRASSLAI	**Permit No:**		**SWMS Complete?**	Yes
Temperature: (AM)	18.4	**Temperature: (PM)**	14.9	**Vehicle/s:**	1AQ7QK
Delta T: (AM)	1.7	**Delta T: (PM)**	0.8		
Wind Speed & Direction: (AM)	ESE 6 km/hr	**Wind Speed & Direction: (PM)**	SSW 19 km/hr		

Worksite:	**West Sale Aerodrome LOA**		
Location of works on site:	North Western corner	**Date:**	07/12/2021
		Area of Land Treated (m2):	54,321
Supervisor:	Andrew Healy	**Start Time:**	7:30 am
Team Members:	Ian Code, Kylle Fideler	**Finish Time:**	4:00 pm
		Works Completed?	No

WORKS UNDERTAKEN

Target Species:	Method	Herbicide
Dactylis glomerata (Cocksfoot) , Anthoxanthum odoratum (Sweet Vernal-grass) , Kikuyu , Paspalum dilatatum (Paspalum) , Phalaris aquatica (Toowoomba Canary-grass)	Knapsack	Weedmaster Duo

NOTES

We sprayed weedy grasses in the north western corner of the main grassland along the perimeter and just inside main grassland. We also surveyed eighteen golf ball plots throughout the entire grassland. The photos and data from these ploys has been emailed to Tanya.

FUTURE WORKS

Continue treating high priority weeds throughout the grasslands.

TOOLS EQUIPMENT NEEDED

Handweeding Tools , Herbicide , Knapsacks , PPE

KNAPSACK

Herbicide	Unit	$/Unit	Rate (ml or g/per 10L)	Volume (L)	Amount used (ml or g)	Cost
Weedmaster Duo	ml	$0.01	10	40	40	$0.56
Envirodye Blue	ml	$0.03	50	40	200	$6.00
BS 1000	ml	$0.01	10	40	40	$0.40
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$6.96**

RIG

Herbicide	Unit	$/Unit	Rate (L or g/per 100L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

QUAD BIKE

Herbicide	Unit	$/Unit	Rate (L or g/per 60L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

VELPAR / DABBER

Herbicide	Unit	$/Unit	Amount used (ml)	Cost
	0	$0.00		$0.00
	0	$0.00		$0.00
	0	$0.00		$0.00
TOTAL				**$0.00**

Total Herbicide Cost
$6.96

Other Materials or Costs (Tipping Fees, Plants, Stakes & Guards etc.)

Item	Quantity	Cost
Tipping		
Stakes		
Guards		
Plants		
Other		
Total Materials & Costs		**$0.00**

Green Waste Removed	
Rubbish Removed m³	

Daily Works & Spray Record

IMS-FM-01 V.1. R.3 Reference: 20/01/2022 14:28:02 7.01

Client:	**Wellington Shire Council**				
Work/Purchase Order No:	WS AERODROM	**Permit No:**		**SWMS Complete?**	Yes
Temperature: (AM)	19	**Temperature: (PM)**	22.5	**Vehicle/s:**	1AQ7QK , 1CR1DA
Delta T: (AM)	4.3	**Delta T: (PM)**	5.8		
Wind Speed & Direction: (AM)	ENE 24 km/hr	**Wind Speed & Direction: (PM)**	E 35 km/hr		

Worksite:	**West Sale Aerodrome LOA**		
Location of works on site:	Western side of grassland	**Date:**	20/01/2022
		Area of Land Treated (m2):	54,321
Supervisor:	Andrew Healy	**Start Time:**	7:30 am
Team Members:	Jamie Spicer , Kylle Fideler , Ben Gibson	**Finish Time:**	4:30 pm
		Works Completed?	No

WORKS UNDERTAKEN

Target Species:	Method	Herbicide
Anthoxanthum odoratum (Sweet Vernal-grass) , Dactylis glomerata (Cocksfoot) , Paspalum dilatatum (Paspalum) , Pennisetum clandestinum (Kikuyu) ,	Knapsack	Weedmaster Duo
Hypericum perforatum subsp. veronense (St John's Wort) , Conyza sumatrensis (Tall Fleabane) , Rubus fruticosus spp. agg. (Blackberry) , Sonchus oleraceus (Common Sow-thistle)	Knapsack	Garlon 600

NOTES

We targeted the st John's wort in the north western corner of the main grassland. we also treated the weedy grasses along the western edge, as well as larger patches of weedy grasses in the main grassland, along with the drain that runs through the site.

FUTURE WORKS

undertake weed control along the northern and Eastern edges of the main grassland.

TOOLS EQUIPMENT NEEDED

Herbicide , Knapsacks , PPE

KNAPSACK

Herbicide	Unit	$/Unit	Rate (ml or g/per 10L)	Volume (L)	Amount used (ml or g)	Cost
Weedmaster Duo	ml	$0.01	10	120	120	$1.68
Garlon 600	ml	$0.03	17	30	51	$1.53
Envirodye Blue	ml	$0.03	50	150	750	$22.50
BS 1000	ml	$0.01	10	150	150	$1.50
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$27.21**

RIG

Herbicide	Unit	$/Unit	Rate (L or g/per 100L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

QUAD BIKE

Herbicide	Unit	$/Unit	Rate (L or g/per 60L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

VELPAR / DABBER

Herbicide	Unit	$/Unit	Amount used (ml)	Cost
	0	$0.00		$0.00
	0	$0.00		$0.00
	0	$0.00		$0.00
TOTAL				**$0.00**

Total Herbicide Cost
$27.21

Other Materials or Costs (Tipping Fees, Plants, Stakes & Guards etc.)

Item	Quantity	Cost
Tipping		
Stakes		
Guards		
Plants		
Other		
Total Materials & Costs		**$0.00**

Green Waste Removed	
Rubbish Removed m³	

Daily Works & Spray Record

IMS-FM-01 V.1. R.3 Reference: 21/01/2022 14:38:50 7.01

Client:	**Wellington Shire Council**				
Work/Purchase Order No:	WS AERODROM	**Permit No:**		**SWMS Complete?**	Yes
Temperature: (AM)	18.6	**Temperature: (PM)**	23.9	**Vehicle/s:**	1AQ7QK , 1CR1DA
Delta T: (AM)	0.3	**Delta T: (PM)**	6.4		
Wind Speed & Direction: (AM)	CALM	**Wind Speed & Direction: (PM)**	ESE 26 km/hr		

Worksite:	**West Sale Aerodrome LOA**		
Location of works on site:	Eastern and northern sides of main grassland	**Date:**	21/01/2022
		Area of Land Treated (m2):	54,321
Supervisor:	Andrew Healy	**Start Time:**	7:30 am
Team Members:	Jamie Spicer , Michael Nieuwenhuizen , Ben Gibson	**Finish Time:**	4:00 pm
		Works Completed?	No

WORKS UNDERTAKEN

Target Species:	Method	Herbicide
Pennisetum clandestinum (Kikuyu) , Paspalum dilatatum (Paspalum) , Dactylis glomerata (Cocksfoot)	Knapsack	Weedmaster Duo
Plantago lanceolata (Ribwort) , Conyza sumatrensis (Tall Fleabane) , Rubus fruticosus spp. agg. (Blackberry)	Knapsack	Garlon 600

NOTES

We sprayed high threat woody weeds and grasses along the northern and Eastern sides of the main grassland. we finished treating the drain for both woody and grassy weeds. We also walked throughout the rest of the site targeting blackberry and fleabane.
there is Calocephalus citreus and Eryngium ovinum in currently in flower.

FUTURE WORKS

undertake follow up weed control

TOOLS EQUIPMENT NEEDED

Herbicide , Knapsacks , PPE

KNAPSACK

Herbicide	Unit	$/Unit	Rate (ml or g/per 10L)	Volume (L)	Amount used (ml or g)	Cost
Weedmaster Duo	ml	$0.01	100	90	900	$12.60
Garlon 600	ml	$0.03	17	30	51	$1.53
Envirodye Blue	ml	$0.03	50	120	600	$18.00
BS 1000	ml	$0.01	10	120	120	$1.20
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$33.33**

RIG

Herbicide	Unit	$/Unit	Rate (L or g/per 100L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

QUAD BIKE

Herbicide	Unit	$/Unit	Rate (L or g/per 60L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

VELPAR / DABBER

Herbicide	Unit	$/Unit	Amount used (ml)	Cost
	0	$0.00		$0.00
	0	$0.00		$0.00
	0	$0.00		$0.00
TOTAL				**$0.00**

Total Herbicide Cost
$33.33

Other Materials or Costs (Tipping Fees, Plants, Stakes & Guards etc.)

Item	Quantity	Cost
Tipping		
Stakes		
Guards		
Plants		
Other		
Total Materials & Costs		**$0.00**

Green Waste Removed	
Rubbish Removed m³	

Daily Works & Spray Record

IMS-FM-01 V.1. R.3 Reference: 4/02/2022 08:37:43 7.01

Client:	**Wellington Shire Council**				
Work/Purchase Order No:	West Sale Aerod	**Permit No:**		**SWMS Complete?**	Yes
Temperature: (AM)	14.8	**Temperature: (PM)**	20.2	**Vehicle/s:**	1AQ7QK
Delta T: (AM)	1.8	**Delta T: (PM)**	6.1		
Wind Speed & Direction: (AM)	W 20 km/hr	**Wind Speed & Direction: (PM)**	SW 26 km/hr		

Worksite:	**West Sale Aerodrome LOA**		
Location of works on site:	western side and north western corner	**Date:**	03/02/2022
		Area of Land Treated (m2):	54,321
Supervisor:	Andrew Healy	**Start Time:**	7:30 am
Team Members:	Bill Doherty	**Finish Time:**	4:00 pm
		Works Completed?	No

WORKS UNDERTAKEN

Target Species:	Method	Herbicide
Sonchus oleraceus (Common Sow-thistle) , Hypochoeris radicata (Flatweed) , Rubus fruticosus spp. agg. (Blackberry) , Hypericum perforatum subsp. veronense (St John's Wort) , Conyza bonariensis (Flaxleaf Fleabane) , Conyza sumatrensis (Tall Fleabane)	Knapsack	Garlon 600
Pennisetum clandestinum (Kikuyu) , Anthoxanthum odoratum (Sweet Vernal-grass) , Dactylis glomerata (Cocksfoot) , Paspalum dilatatum (Paspalum) , Phalaris aquatica (Toowoomba Canary-grass) , Holcus lanatus (Yorkshire Fog)	Knapsack	Weedmaster Duo

NOTES

We targeted st John's wort in the northwest corner as well as broadleaf and woody weeds in the western side of the block. We also treated grasses along the western side of the grassland starting at the northwest corner working in a southerly direction. We also worked on pushing back the kikuyu and paspalum in the buffer along the western edge of the grassland. The Calocephalus citrus is still in flower throughout the northern part of the grassland.

FUTURE WORKS

re-treat the st John's wort in the northwest corner as well as other patches within the grassland; maintain the buffer along the whole perimeter; undertake follow up weed control targeting invasive grass, blackberries, fleabane and targeting broadleaf weeds throughout the site.

TOOLS EQUIPMENT NEEDED

Herbicide , Knapsacks , PPE

KNAPSACK

Herbicide	Unit	$/Unit	Rate (ml or g/per 10L)	Volume (L)	Amount used (ml or g)	Cost
Garlon 600	ml	$0.03	17	20	34	$1.02
Weedmaster Duo	ml	$0.01	100	50	500	$7.00
Envirodye Blue	ml	$0.03	50	70	350	$10.50
BS 1000	ml	$0.01	10	70	70	$0.70
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$19.22**

RIG

Herbicide	Unit	$/Unit	Rate (L or g/per 100L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

QUAD BIKE

Herbicide	Unit	$/Unit	Rate (L or g/per 60L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

VELPAR / DABBER

Herbicide	Unit	$/Unit	Amount used (ml)	Cost
	0	$0.00		$0.00
	0	$0.00		$0.00
	0	$0.00		$0.00
TOTAL				**$0.00**

Total Herbicide Cost
$19.22

Other Materials or Costs (Tipping Fees, Plants, Stakes & Guards etc.)

Item	Quantity	Cost
Tipping		
Stakes		
Guards		
Plants		
Other		
Total Materials & Costs		**$0.00**

Green Waste Removed	
Rubbish Removed m³	

Daily Works & Spray Record

IMS-FM-01 V.1. R.3 Reference: 11/03/2022 14:30:23 7.01

Client:	**Wellington Shire Council**				
Work/Purchase Order No:	West Sale Aerod	**Permit No:**		**SWMS Complete?**	Yes
Temperature: (AM)	12.9	**Temperature: (PM)**	19.6	**Vehicle/s:**	1AQ7QK
Delta T: (AM)	0.4	**Delta T: (PM)**	5.3		
Wind Speed & Direction: (AM)	NE 15 km/hr	**Wind Speed & Direction: (PM)**	SE 9 km/hr		

Worksite:	**West Sale Aerodrome LOA**		
Location of works on site:	Western side of main grassland	**Date:**	11/03/2022
		Area of Land Treated (m2):	54,321
Supervisor:	Andrew Healy	**Start Time:**	7:30 am
Team Members:	Tristan Hudson , Josh Palmer	**Finish Time:**	4:00 pm
		Works Completed?	No

WORKS UNDERTAKEN

Target Species:	Method	Herbicide
Acacia implexa	Cut & Paint	Weedmaster Duo
Agrostis capillaris (Brown-top Bent) , Phalaris aquatica (Toowoomba Canary-grass) , Holcus lanatus (Yorkshire Fog) , Dactylis glomerata (Cocksfoot) , Paspalum dilatatum (Paspalum)	Knapsack	Weedmaster Duo
Conyza bonariensis (Flaxleaf Fleabane) , Conyza sumatrensis (Tall Fleabane)	Handweed	

NOTES

We checked the northern edge and drain for acacia cutting out the ones we found. We walked through the main grassland looking for fleabane, hand weeding the ones we found. Grasses were treated along the southern end of the western edge of the grassland around focusing on the weeds around the native grasses.

FUTURE WORKS

continue eradicating fleabane throughout the grassland as well as the weedy grasses around the perimeter

TOOLS EQUIPMENT NEEDED

Herbicide , Knapsacks , PPE

KNAPSACK

Herbicide	Unit	$/Unit	Rate (ml or g/per 10L)	Volume (L)	Amount used (ml or g)	Cost
Weedmaster Duo	ml	$0.01	100	20	200	$2.80
BS 1000	ml	$0.01	10	20	20	$0.20
Envirodye Blue	ml	$0.03	50	20	100	$3.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$6.00**

RIG

Herbicide	Unit	$/Unit	Rate (L or g/per 100L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

QUAD BIKE

Herbicide	Unit	$/Unit	Rate (L or g/per 60L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

VELPAR / DABBER

Herbicide	Unit	$/Unit	Amount used (ml)	Cost
Weedmaster Duo	ml	$0.01	100	$1.40
	0	$0.00		$0.00
	0	$0.00		$0.00
TOTAL				**$1.40**

Total Herbicide Cost
$7.40

Other Materials or Costs (Tipping Fees, Plants, Stakes & Guards etc.)

Item	Quantity	Cost
Tipping		
Stakes		
Guards		
Plants		
Other		
Total Materials & Costs		**$0.00**

Green Waste Removed	
Rubbish Removed m³	

Daily Works & Spray Record

IMS-FM-01 V.1. R.3 Reference: 5/04/2022 14:20:39 7.01

Client:	**Wellington Shire Council**				
Work/Purchase Order No:	WSA - grasses a	**Permit No:**		**SWMS Complete?**	Yes
Temperature: (AM)	14.2	**Temperature: (PM)**	20.3	**Vehicle/s:**	1AQ7QJ
Delta T: (AM)	0.8	**Delta T: (PM)**	5.1		
Wind Speed & Direction: (AM)	NW 17 km/hr	**Wind Speed & Direction: (PM)**	SSW 17 km/hr		

Worksite:	**West Sale Aerodrome LOA**		
Location of works on site:	main grassland	**Date:**	05/04/2022
		Area of Land Treated (m2):	54,321
Supervisor:	Andrew Healy	**Start Time:**	7:30 am
Team Members:	William Brooker	**Finish Time:**	4:00 pm
		Works Completed?	No

WORKS UNDERTAKEN

Target Species:	Method	Herbicide
Acacia implexa	Cut & Paint	Weedmaster Duo
Conyza bonariensis (Flaxleaf Fleabane) , Conyza sumatrensis (Tall Fleabane)	Handweed	
Pennisetum clandestinum (Kikuyu) , Holcus lanatus (Yorkshire Fog) , Dactylis glomerata (Cocksfoot) , Paspalum dilatatum (Paspalum)	Knapsack	Weedmaster Duo

NOTES

We checked the main grassland not checked last visit for wattles and fleabane and cut out wattles found as well as handweeded fleabane. We then treated the weedy grasses in the north western corner along the bank. The buffer along western edge at the northern end was also re inforced.

FUTURE WORKS

keep handweeding fleabane throughout the main grassland as well as spraying the weedy grasses around the perimeter an throughout the grassland.

TOOLS EQUIPMENT NEEDED

Cut & Paint Gear , Dabbers , Herbicide , Knapsacks , Loppers , PPE

KNAPSACK

Herbicide	Unit	$/Unit	Rate (ml or g/per 10L)	Volume (L)	Amount used (ml or g)	Cost
Weedmaster Duo	ml	$0.01	100	40	400	$5.60
Envirodye Blue	ml	$0.03	50	40	200	$6.00
BS 1000	ml	$0.01	10	40	40	$0.40
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$12.00**

RIG

Herbicide	Unit	$/Unit	Rate (L or g/per 100L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

QUAD BIKE

Herbicide	Unit	$/Unit	Rate (L or g/per 60L)	Volume (L)	Amount used (L or g)	Cost
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
	0	$0.00			0	$0.00
TOTAL						**$0.00**

VELPAR / DABBER

Herbicide	Unit	$/Unit	Amount used (ml)	Cost
Weedmaster Duo	ml	$0.01	50	$0.70
	0	$0.00		$0.00
	0	$0.00		$0.00
TOTAL				**$0.70**

Total Herbicide Cost
$12.70

Other Materials or Costs (Tipping Fees, Plants, Stakes & Guards etc.)

Item	Quantity	Cost
Tipping		
Stakes		
Guards		
Plants		
Other		
Total Materials & Costs		**$0.00**

Green Waste Removed	
Rubbish Removed m³	