

Compliance report

LAKE WALLACE BIODIVERSITY OFFSET SITES



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CONTENTS

1	INTRODUCTION	1
1.1	THIS REPORT	1
1.2	BACKGROUND	1
1.3	PROGRESS SUMMARY.....	1
2	COMPLIANCE REVIEW	4
2.1	PROJECT APPROVAL CONDITIONS	4
2.1.1	Commonwealth Government	4
2.1.2	Local and State Government	5
2.2	OFFSET MANAGEMENT PLAN AND PVP IMPLEMENTATION	7
2.2.1	Stock grazing	7
2.2.2	Weed control.....	9
2.2.3	Pest animal control.....	9
2.2.4	Ecological monitoring	9
2.3	SUMMARY OF COUNCIL INSPECTIONS.....	19
2.4	SUMMARY OF LEASEHOLDER RECORDS.....	20
3	CONCLUSION	20
4	REFERENCES.....	21
APPENDIX A	OFFSET SITE PHOTOGRAPHS	A-I
APPENDIX B	COUNCIL AND LEASEHOLDER PRO FORMA CHECKLISTS	B-I
APPENDIX C	Paddock MAP	C-I

TABLES

Table 2-1 Compliance against Commonwealth approval conditions	4
Table 2-2 Compliance against Local and State Government approval conditions.....	5
Table 2-3 Stocking records 2018 (OMP breaches shaded).....	8
Table 2-4 Noxious weeds at the offset sites 2017	9
Table 2-5 Compliance against Offset Management Plan and Property Vegetation Plan provisions.....	11
Table 2-6 Summary of 2018 monthly Council compliance inspections	19

FIGURES

Figure 1-1 Lake Wallace block offset site (from NGH Environmental 2015a).....	2
Figure 1-2 Southern Blocks offset site (from NGH Environmental 2015a)	3

1 INTRODUCTION

1.1 THIS REPORT

This report reviews Snowy Monaro Regional Council's compliance with:

- actions and provisions in the Lake Wallace Biodiversity Offset Management Plan and Property Vegetation Plan
- Commonwealth and State Government approval conditions for the Lake Wallace dam project related to the biodiversity offset sites.

The report also summarises the findings of monthly Council inspections and fortnightly stock grazing leaseholder management records (when grazing is required to control grass biomass). Annual compliance reports are produced each year, based on the preceding calendar year. Consistent with the Lake Wallace dam approval conditions, the report has been prepared for submission to the Commonwealth and State Governments, and for publication on Council's website.

1.2 BACKGROUND

Cooma Monaro Shire Council/Snowy Monaro Regional Council completed the 320 megalitre Lake Wallace storage dam on Pigring Creek in mid-2016. The dam provides a town water supply to the nearby village of Nimmitabel. The project required the clearing of native vegetation, including one State- and one Commonwealth-listed Endangered Ecological Community (EEC). Two offset sites totalling 250 hectares located adjacent to and immediately upstream of the dam were established to compensate for the clearing; refer Figure 1-1 and Figure 1-2.

Council is responsible for establishing, managing and monitoring the offset sites in accordance with the Lake Wallace Offset Management Plan (OMP) (NGH Environmental 2015a) and Property Vegetation Plan (PVP). Under the OMP and PVP, stock grazing can be used to control grass growth at the offset sites when monitoring indicates grass biomass levels have the potential to damage groundlayer biodiversity. The offset sites are leased for grazing to manage grassland areas, subject to a stock management plan contained in the OMP. The OMP provides for the preparation of a single annual compliance report addressing the requirements of local, State and Commonwealth governments.

1.3 PROGRESS SUMMARY

Council purchased the property containing the Lake Wallace Block and Southern Blocks offset sites on 15 December 2014. The offset sites were legally established under a PVP approved on 7 March 2016. Establishment works for the sites have been completed, including new paddock and riparian fencing, fencing of a threatened Small Snake Orchid colony, farm track surface and drainage works, stock crossing over Pigring Creek and erosion gully remediation. Weed spraying and wild pig control has been undertaken.

Stock grazing has been allowed at the offset sites under lease, subject to the OMP stock management plan. Grassland condition and compliance monitoring for grazing has been implemented. Grazing rotations were completed in 2016 and 2017. Grazing was suspended for the 2018 season due to below-target grass height and cover (refer section 2.2.1). Ecological condition monitoring surveys involving 12 permanent monitoring sites have been undertaken in 2014, 2015 and 2017. Annual monitoring of the Small Snake Orchid colony in the Lake Wallace block was completed in 2014 - 2018.

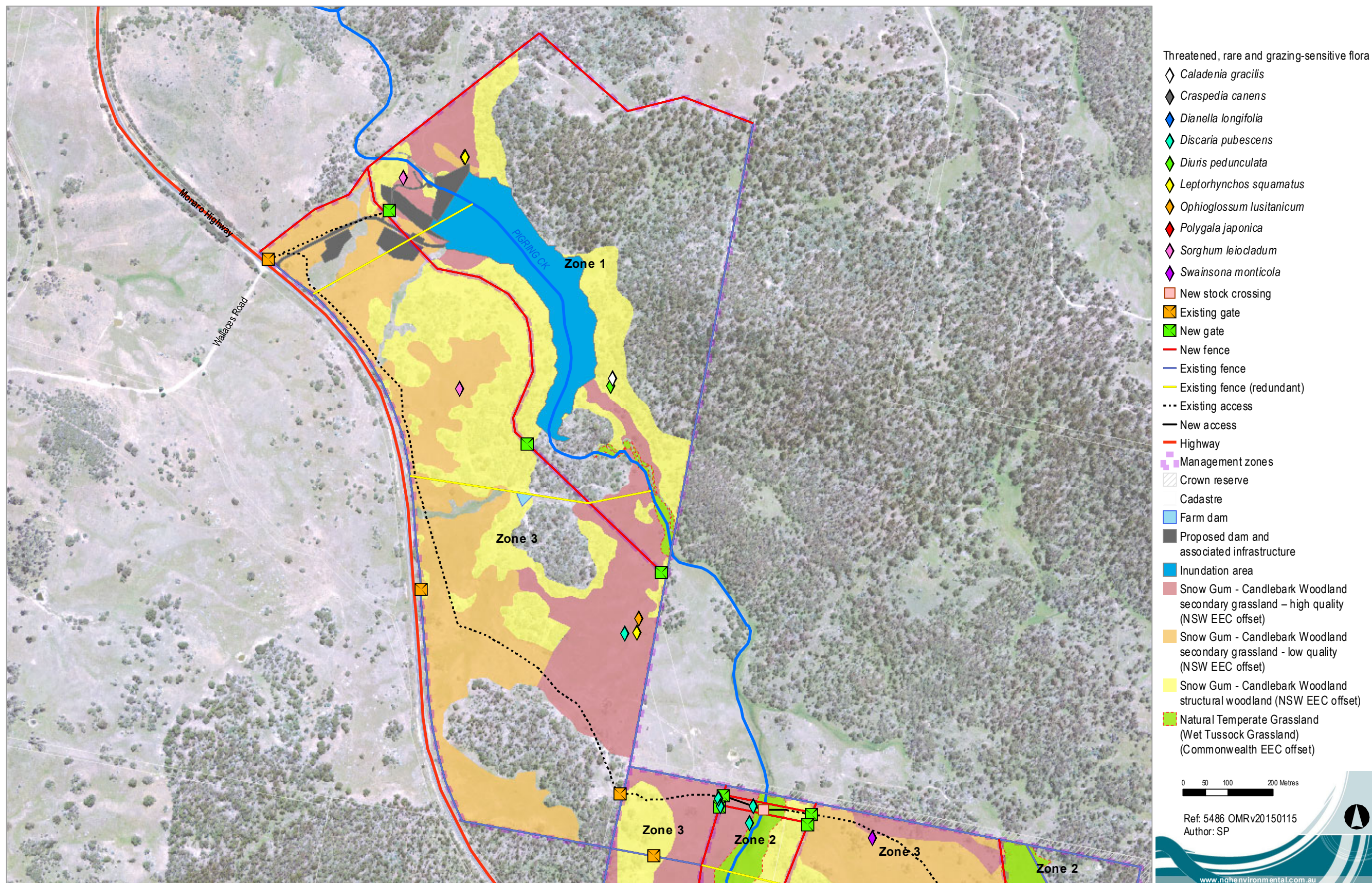


Figure 1-1 Lake Wallace block offset site (from NGH Environmental 2015a)

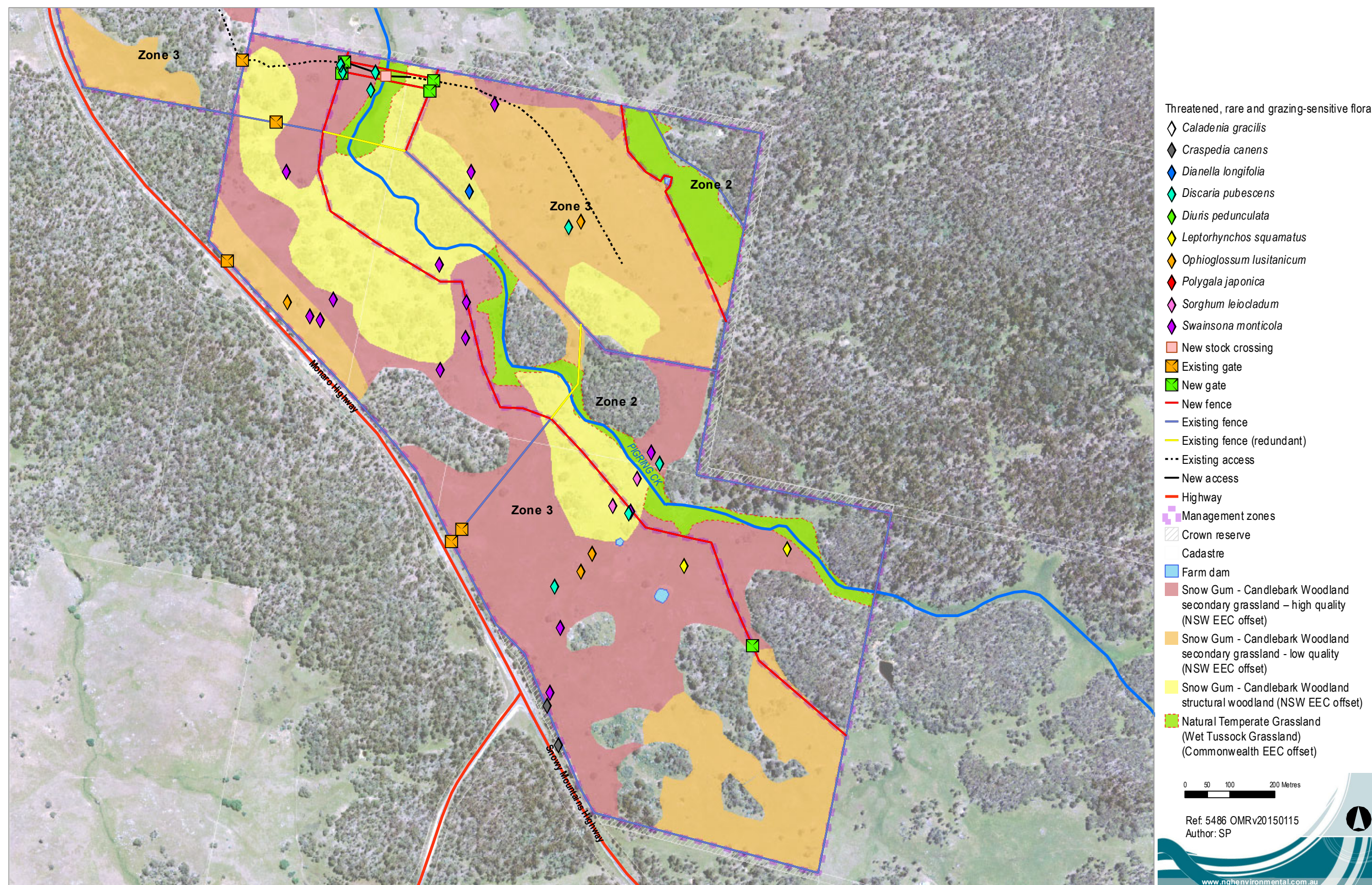


Figure 1-2 Southern Blocks offset site (from NGH Environmental 2015a)

2 COMPLIANCE REVIEW

2.1 PROJECT APPROVAL CONDITIONS

2.1.1 Commonwealth Government

The Commonwealth Government granted approval for the Lake Wallace project under Part 9 of the EPBC Act on 30 June 2014. The approval is subject to a number of conditions relevant to the establishment and management of the offset sites. Council's compliance with these conditions to date is summarised below.

Table 2-1 Compliance against Commonwealth approval conditions

Council must provide for the protection of the Southern Blocks offset site through a legally binding conservation covenant consistent with the EPBC Act Offsets Policy.

A legally binding Conservation Property Vegetation Plan (PVP) under the *Native Vegetation Act 2003* was approved for the offset sites on 7 March 2016 (PVP00029). The provisions of the PVP are registered on the property title in perpetuity.

Within two years of commencing the action, Council must provide evidence to the Commonwealth that the covenant has been implemented.

PVP documentation was appended to the 2017 compliance report, submitted to the Commonwealth on 27 July 2017.

Council must submit for the Minister's approval a Natural Temperate Grassland Management Plan. The plan must be approved in writing prior to commencement of the action. The plan must be implemented.

The Offset Management Plan (OMP) for the offset sites (NGH Environmental 2015a), which incorporates the requirements of a Natural Temperate Grassland Management Plan, was submitted to the Commonwealth Government on February 2015. Council received written notification of approval of the plan on 10 April 2015. This compliance report outlines the implementation of key actions and guidelines contained in the OMP.

The Natural Temperate Grassland Management Plan must include:

- A textual description of the site, including offset attributes, shapefiles and a map clearly defining the location and site boundaries
- A detailed description of the management actions designed to protect and improve the ecological quality of the Natural Temperate Grassland on the offset site
- Key milestones, performance indicators and timeframes for management actions
- A monitoring program to determine the success of the management actions
- Corrective actions and contingency measures to be implemented where monitoring shows that key milestones or performance indicators are not being met.

The OMP incorporates the above requirements. The OMP was approved by the Commonwealth Government on 10 April 2015.

Council must provide the approved plan to members of the public within 14 days on request.

The OMP has been published on Council's website and is available for download by the public from the website.

Council must maintain records substantiating activities related to the approval conditions, including implementation of the plan, available to the Commonwealth on request.

Council has collected and retained records relating to the approval conditions and implementation of the OMP, including monthly compliance inspection reports. Records relevant to the OMP are summarised in sections 2.3 and 2.4 of this report. Ecological monitoring data from the offset sites has been included in regular monitoring reports which have been submitted to the Commonwealth.

Within 3 months of each 12 month anniversary of commencement of the action, Council must publish on its website a compliance report addressing approval conditions, including implementation of the plan. Documentary evidence providing proof of the date of publication, and details of any non-compliance, must be provided to the Commonwealth at the same time as the compliance report is published.

This compliance report is intended to satisfy this condition. Annual compliance reports are intended for completion by the end of March each year, based on the preceding calendar year. Calendar years rather than the works anniversary cycle has been used so that whole grazing rotations are captured in each compliance report. The 2017 report covered the period from the commencement of works in April 2015 till the end of December 2016. The current report covers the 2018 calendar year; **the report has been delayed by staffing and administrative changes.** The compliance reports are submitted to the Commonwealth at the same time they are published on Council's website (<https://www.snowymonaro.nsw.gov.au/723/Lake-Wallace>).

Potential or actual contraventions of the conditions must be reported to the Commonwealth within 2 days of Council becoming aware of them, and included in the annual compliance report.

Aside from the variation to the compliance reporting cycle (explained above), Council is not aware of any contraventions relating to Natural Temperate Grassland or Commonwealth approval conditions.

Any activity not in accordance with the plan will require approval from the Commonwealth.

No activity has been undertaken which is not in accordance with the OMP in relation to the Natural Temperate Grassland or the Commonwealth approval elements of the plan.

Council must publish the plan on its website within 1 month of approval of the plan, and keep the plan on the website for the duration of the approval [until 31 December 2064].

The OMP has been published on Council's website and is available for download by the public from the website.

2.1.2 Local and State Government

Council approved the Lake Wallace project on 13 August 2014, subject to a series of conditions including concurrence conditions provided by the NSW Office of Environment and Heritage. Council's compliance with these conditions to date is summarised below.

Table 2-2 Compliance against Local and State Government approval conditions

Condition 31

Prior to construction, Council must secure the offset sites identified in the Biodiversity Offset Strategy under its management and control. The offset site must be managed in perpetuity in accordance with the Biodiversity Offset Strategy.

Council purchased the Wallace property, which includes the two offset sites identified in the Biodiversity Offset Strategy, on 15 December 2014. A legally binding Conservation Property Vegetation Plan (PVP) for the offset sites was approved under the *Native Vegetation Act 2003* on 7 March 2016 (PVP00029). The approved Offset Management Plan (OMP) (NGH Environmental 2015a) and the provisions of the PVP are consistent with the Biodiversity Offset Strategy (NGH Environmental 2013).

Condition 38

The water storage site must be managed in accordance with the OMP.

The water storage site forms part of the Lake Wallace block, which is one of the offset sites managed in accordance with the OMP. Aside from some delay caused by wet weather, works at the site have been consistent with the OMP. Grazing has been managed using the stock management plan in the OMP; some non-compliance with the stock management plan has occurred in relation to grazing outside the formal grazing period and grazing during a period of grazing suspension (refer section 2.2.1).

Condition 39

Stock are to be excluded from within 50 metres of the high water level of the dam.

The eastern side of the dam has been fenced to exclude stock over a distance of at least 50 metres from the high water level of the dam. Stock are permanently excluded from the western side of the dam and Pigring Creek in the Lake Wallace block.

Condition 40

An in perpetuity Biodiversity Offset Area must be created, as recommended in the Council Draft Determination, Offset Site Assessment report and Offset Management Plan report.

The offset areas are to be managed for the purpose of conservation of threatened species habitat and ecological community values. No development is to occur in the offset areas.

The management of the offset areas is to be funded by Council, in accordance with an OMP.

The OMP is to be developed in consultation with, and approved by, OEH.

The OMP must be completed within 12 months of the start of construction of the Lake Wallace facility.

Council-owned offset sites as described in the Draft Determination, Offset Site Assessment report and Offset Management Plan report have been established and protected in perpetuity using a Property Vegetation Plan made under the *Native Vegetation Act 2003*. The Offset Management Plan (OMP) for the offset sites was developed in consultation with OEH and was approved by OEH on 19 September 2015, within 12 months of the commencement of construction. As specified in the OMP, the offset sites are managed for the purpose of conservation of threatened species habitat and ecological community values. Management is funded by Council in accordance with the approved OMP.

Condition 41

An appropriate legal mechanism to guarantee the management of the offset sites in perpetuity must be applied, through registration of title, using a Bio-banking Agreement, a Conservation Property Vegetation Management Plan or a Trust Agreement.

A legally binding Conservation Property Vegetation Plan (PVP) for the offset sites was approved under the *Native Vegetation Act 2003* on 7 March 2016 (PVP00029).

Condition 42

The colony of Small Snake Orchids identified in the SIS must be protected through all stages of the project, including temporary fencing during construction.

The Site Environmental Officer must make personnel aware of the location and significance of the colony.

The colony must be monitored during the flowering period each year from project approval until the dam has been constructed and operating for 5 years.

Monitoring results must be provided to OEH within 2 months of the fieldwork. Monitoring must include the number of individuals present, photographs of the colony and an assessment of whether there have been any impacts to the colony.

Any new Small Snake Orchid records at the site must be submitted to OEH and Bionet.

A permanent fence protecting the recorded orchid colony was constructed on 13 May 2015, prior to dam construction works, consistent with the OMP. The orchid colony has been subjected to specific annual monitoring since 2014. Monitoring reports have been submitted to OEH for the period 2014 - 2018 (NGH Environmental 2015b, 2015c, 2016, 2017, 2018).

Condition 43

The proponent must not clear more than 5.56 hectares of the Snow Gum Woodland EEC.

This condition has been met, taking both dam works and offset site establishment works into account.

2.2 OFFSET MANAGEMENT PLAN AND PVP IMPLEMENTATION

This section provides a summary of compliance against the key management actions and guidelines in the Offset Management Plan (OMP), and the management actions required under the Property Vegetation Plan (PVP). The PVP requires that the offset sites are managed according to the OMP and PVP. OMP and PVP reference numbering for each action is provided in Table 2-5 below.

2.2.1 Stock grazing

Stock Management Plan

Under the OMP and PVP, the offset sites can be leased for grazing to manage grassland areas, subject to a Stock Management Plan in the OMP. The plan includes the following grazing rules (summarised):

- stock grazing is permitted between 1 February and 30 September
- stocking rates will not exceed 4 DSE per hectare of pasture
- grazing will not commence, and stock will be removed from the paddocks, when:
 - the live pasture cover falls below 80%, or
 - the average grass sward height is ≤ 50 mm.

When the offset sites are subject to grazing, the leaseholder is to monitor live pasture cover and sward height on a fortnightly basis using a methodology and reporting checklist provided by Council. Council monitors compliance with the plan using monthly inspections.

Maximum stocking rate

The maximum stocking rate in the offset site paddocks is expressed in the OMP in terms of Dry Sheep Equivalent (DSE), which is the standard unit for carrying capacity. One DSE is the amount of feed required by a 2 year old 45 kg Merino sheep (wether or nonlactating, non-pregnant ewe) to maintain its weight. The OMP specifies that stocking rates during the February-September grazing period will not exceed 4 DSE per hectare of pasture (excluding mapped forest and woodland areas).

Maximum stocking numbers were calculated in 2016 for 250kg heifers, each of which represent 6.5 DSE. The stock grazed during 2017 were 300kg heifers and 350kg cows, with a higher DSE range of 7-10 DSE and 8-11 DSE (Agriculture Victoria 2018). An overall DSE rating of 8.5 has been adopted for these larger animals.

The grazing areas and maximum stocking rates (in DSE) for each paddock are shown on the map in Appendix C. The 'South' and 'West' paddocks in the Southern Blocks offset site are considered together because there is no water in the West paddock and gates between the paddocks are left open. Where gates between other paddocks are left open during the grazing period, the maximum stocking rates for both paddocks are combined.

It is noted that the accessible forest and woodland at the offset sites also supports a grassy groundlayer and makes some contribution to carrying capacity. The inclusion of these areas in the calculation of grazing area and maximum DSE is being considered, but at a discounted rate of 50% to account for reduced grass biomass, tree stems, logs and litter. Presently though, the maximum DSE figures apply to pasture-only areas. Grazing areas including discounted woodland areas are also shown on the map in Appendix C.

Stock grazing in 2018

Stocking during the 2018 season is summarised in Table 2-3. The data is based on Council monthly inspection reports and where available fortnightly leaseholder records (refer sections 2.3 and 2.4).

Consistent with the prescribed grazing season in the OMP, stock grazing ceased at the offset sites in October 2017. The ecological monitoring conducted in November 2017 revealed below-target grass sward heights, attributed to a combination of total grazing pressure and prolonged drought conditions (NGH Environmental 2018a). In view of these results, the 2017 monitoring report recommended that stock grazing be suspended for 2018 and not recommence until the average sward height at all sites is at least 10 centimetres.

Grass height and cover is not expected to recover at the offset sites until current drought conditions ease. Bureau of Meteorology (2019) statistics show that rainfall in Nimmitabel for 2018 amounted to 453.8 mm, well below the long term average of 692.2 mm. The 179.5 mm of rainfall recorded for January-April 2019 also remained below the average figure of 235.5 mm for that period. The DPI Combined Drought Indicator continues to show the local area (Parish of Glenbog) to be in drought, with a Plant Growth Index of 10.2 (scale 0-100), Rainfall Index of 11 (scale 0-100), Soil Water Index of 4.8 (scale 0-100) and a Drought Direction Index of -0.9 (scale -60-60) (DPI 2019).

It is noted that the primary and over-riding management objective of the offset sites is to maintain and enhance biodiversity in the Snow Gum Grassy Woodland and Natural Temperate Grassland EECs. Stock grazing is a tool to control excessive grass biomass accumulation which may damage biodiversity in the groundlayer at the sites.

Council advised the leaseholder of the suspension of grazing for 2018 (when, how?). No stock were recorded by Council at the offset sites during inspections in January 2018, and between May and September 2018. [Feb - April 2018?] However, stock were found to be present at the sites in October, November and December 2018, outside the approved grazing period and in contravention of the grazing suspension (refer Table 2-3).

Council action to terminate the lease and have stock removed?

Were stock removed in 2019? when? Feb-May? (cattle seen in west paddock 020619 by author)

Table 2-3 Stocking records 2018 (OMP breaches shaded)

Date	Paddock (max stocking rate - DSE, 300-350 kg cows/heifers)				Reported by
	North (164, 19)	East (94, 11)	West (99, 12)	South (159, 19)	
2018					
10/01	0	0	0	0	SMRC
/02	0	0	0	0	SMRC
/03	0	0	0	0	SMRC
/04	0	0	0	0	SMRC
03/05	0	0	0	0	SMRC
06/06	0	0	0	0	SMRC
26/07	0	0	0	0	SMRC
16/08	0	0	0	0	SMRC
11/09	0	0	0	0	SMRC
19/10	0	0	20	0	SMRC
27/11	0	14	0	0	SMRC

19/12	0	15	0	0	SMRC
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2.2.2 Weed control

Council's Noxious Weeds Officer inspected the offset sites for weeds listed under the *Noxious Weeds Act 1993* and other weeds on 27 March 2017 (SMRC 2017). Weeds recorded during the inspection are listed in Table 2-4.

Table 2-4 Noxious weeds at the offset sites 2017

Common name	Scientific name	Category	Degree of infestation	Approx. area (ha)
Serrated Tussock	<i>Nassella trichotoma</i>	4	Isolated plants	0.1
African Lovegrass	<i>Eragrostis curvula</i>	4	Isolated patches	0.5
Sweet Briar	<i>Rosa rubiginosa</i>	4	Scattered plants	2.0
Black Thistle	<i>Cirsium vulgare</i>	4	Patches with individual plants	4.0

The *Biosecurity Act 2015* provides specific legal requirements for State level priority weeds. The South East Regional Strategic Weed Management Plan 2017-2022 (SELLS 2017) prioritises weeds based on risk, impact and feasibility of control. Serrated Tussock is a State priority weed and African Lovegrass is a Regional priority weed. These species must be managed in accordance with published weed management plans.

The 2017 Council weed inspection found the property to be relatively clean and well managed. The inspection report recommended a number of small-scale control actions for Serrated Tussock, African Lovegrass and Sweet Briar occurrences (refer NGH Environmental 2018c and SMRC 2017).

Any weed inspections or control at the offset sites in 2018?

2.2.3 Pest animal control

The Council compliance inspections indicated widespread and increasing wild pig activity across the extent of the offset sites. The Council pig baiting program undertaken in August 2017 resulted in no take-up of baited feed (NGH Environmental 2018c) and appears to have had little impact on pig numbers or distribution. The 2017 ecological monitoring report also detected increased pest animal activity (rabbits and pigs) and suggested trapping rather than baiting for pig control.

Council monitoring in 2018 also noted a general expansion in wild pig impact across the offset sites. Wild goats were sighted in the East and North paddocks.

any pest animal control actions in 2018?

2.2.4 Ecological monitoring

The OMP provides for monitoring and evaluation against ecological condition indicators and targets. The 2017 monitoring results showed a general decline in condition in relation to native vegetation cover, grass sward height, species richness, Floristic Site Value scores and abundance of grazing-sensitive species (NGH Environmental 2018a). Scat counts showed an increase in macropod activity in both grazed and ungrazed plots.

The 2017 ecological monitoring results appear to have been affected by the combination of an extended drought period preceding the survey and intense total grazing pressure. It was noted that sward heights were also very low in fenced riparian areas, which were inaccessible to stock. In view of the 2017

monitoring results, it was recommended that stock grazing be suspended for 2018 and not recommence until the average grass height at all sites is at least 10 centimetres (refer section 2.2.1).

The Small Snake Orchid monitoring conducted in November 2017 showed greatly reduced visible colony size and area of occupancy. No plants were recorded during the 2018 orchid monitoring survey. The 2018 monitoring report recommended that grass biomass within the Small Snake Orchid enclosure be managed using careful ecological burning, or slashing and removing grass cuttings, during the March to mid-August orchid dormancy period. When pigs have been controlled at the site, the orchid enclosure can be opened to allow grazing by wild herbivores during the orchid dormancy period. The 2018 orchid monitoring report also recommended that eucalypt seedlings and saplings within the enclosure be removed using cut stump herbicide application.

Table 2-5 Compliance against Offset Management Plan and Property Vegetation Plan provisions

OMP PVP	Actions and guidelines	Target June 2016	Achieved or on track?
1. Perimeter fencing, access and signage			
1.1 PVP 40	Existing perimeter fencing will be inspected and upgraded as required at the establishment of the offset sites.	X	Yes - completed June 2016
1.2 PVP 39	A new perimeter fence will be constructed across the northern boundary of the Lake Wallace block.	X	Yes - completed June 2016
1.3 PVP 45	Signage on gates and fences will be installed advising that the site is private land managed for conservation and public access is prohibited.	X	Yes - completed June 2016
1.4 PVP 42	The condition of fencing would be monitored during Council compliance inspections, and timely maintenance undertaken as required.		Yes
1.5 PVP 49	Where practicable, vehicles will not enter Wet Tussock Grassland areas, or be used at the offset sites when soils are very wet or saturated.		Yes
PVP 44	Council must ensure that perimeter gates are lockable and that gates are locked when Council and the leaseholder are absent from the property.		Yes
2. Riparian zone, woodland and Small Snake Orchid protection			
2.1 PVP 39	A fence will be constructed protecting a minimum 50 metre buffer from the top water level of Lake Wallace and either side of Pigring Creek, as shown on Figure 1-1 and Figure 1-2. The fence will be sited to avoid the need for tree clearing wherever practicable. Gates will be included to allow management access.	X	Yes - completed June 2016
2.2	Redundant fence sections will be considered for removal following construction of the riparian zone fence (Figure 1-1 and Figure 1-2).	X	Yes - completed June 2016
2.3 PVP 39	A fence will be constructed protecting the additional area of Wet Tussock Grassland on a tributary in the east of the Southern Blocks site (Figure 1-1 and Figure 1-2).	X	Yes - completed June 2016
PVP 40	Existing fencing will be upgraded as required to ensure livestock management and vehicle access management in accordance with the OMP.	X	Yes
PVP 41	Fencing will be completed prior to the first rotation of livestock grazing from the commencement of the PVP and establishment of the offset area.		Yes
2.4 PVP 53	Subject to consultation and agreement with Fisheries NSW and OEH, a rock bed-level creek crossing will be constructed at the Southern Blocks site to allow stock movement between paddocks on either side of the creek. The approaches will be drained and hardened with gravel.	X	Yes
PVP 53	The creek crossing will be double-gated and only used for moving livestock and vehicles between paddocks.		Yes

OMP PVP	Actions and guidelines	Target June 2016	Achieved or on track?
PVP 51	No formed tracks or drainage structures will be constructed in watercourses or the Natural Temperate Grassland community with the exception of the stock crossing at PVP 53.		Yes
2.5 PVP 55	The four existing farm dams at the offset sites will be renovated to improve capacity and groundwater interception and repair a spillway. The works would not affect the Natural Temperate Grassland EEC and would not significantly add to the existing dam disturbance footprint.	X	Yes - completed June 2016
2.6	The need for off-stream watering points will be assessed and an off-stream watering system installed if required, using a tank and trough system pumped from Pigring Creek. These works would not affect the Commonwealth Natural Temperate Grassland EEC in zone 2.	X	Yes (not required)
2.7	A suitable gate will be provided in the riparian zone fencing at the Lake Wallace block offset site to allow access to the women's waterhole at the upstream end of the reservoir, in consultation with Registered Aboriginal Parties.	X	Yes - completed June 2016
PVP 42	Council will monitor the condition of fencing and ensure fences are maintained to standard for stock management and vehicle access.		Yes
2.8 PVP 43	A permanent, pig-proof fence would be constructed around the Small Snake Orchid colony in the Lake Wallace Offset site to protect the colony from damage during dam construction and from pig predation.	X	Yes - completed June 2016
3. Stock Management Plan			
PVP 21 PVP 22 PVP 23	Grazing which assists the conservation objectives of the OMP is permitted. Grazing must be in accordance with the OMP. Strategic grazing is permitted in management zones 2 and 3, no grazing is permitted in zone 1.		Stock grazing in Oct-Dec outside the prescribed grazing season and during the suspension period (refer section 2.2.1).
3.1 PVP 32 PVP 34	<p>The paddocks in the offset sites will be available for stock grazing between 1 February and 30 September to:</p> <ul style="list-style-type: none"> utilise summer growth of Kangaroo Grass remove rank growth in autumn control exotic annuals in early spring if required. <p>Stocking rates during the February-September grazing period will not exceed 4 DSE per hectare of pasture (excluding mapped forest and woodland areas).</p>		
3.2 PVP 35	Paddocks in the offset sites will be rested (no grazing) from 1 October to 31 January.		
3.3 PVP 36	If monitoring shows high abundance of exotic annual grasses such as <i>Anthoxanthum odoratum</i> , <i>Vulpia</i> spp and <i>Bromus</i> spp (exotic cover more than 50% in spring), and when seasonal conditions favour high germination and growth of annual exotics, short periods of grazing at no more than 4 DSE per hectare can be undertaken in October and early November to control these species. The timing and intensity of this grazing will be recorded and considered during the analysis of subsequent monitoring results.		Yes (not needed)
3.4 PVP 32	Grazing will not commence, and stock will be removed from the paddocks, during the February-September grazing period when: <ul style="list-style-type: none"> the live pasture cover falls below 80% (excluding surface rock), <u>or</u> 		Grazing during below-target pasture conditions in October

OMP PVP	Actions and guidelines	Target June 2016	Achieved or on track?
PVP 33 PVP 38	<ul style="list-style-type: none"> the average grass sward height (disregarding the taller <i>Poa labillardierei</i> tussocks) is ≤ 50mm. <p>The lessee/manager will monitor live pasture cover and sward height on a regular basis (fortnightly or more frequently) using an accepted methodology involving at least six representative sample sites distributed throughout each paddock.</p>		and December (outside the prescribed grazing season); refer section 2.2.1.
3.5 PVP 29	The lessee/manager will aim to maintain 100% ground cover in drainage depressions at all times.		Yes
3.6 PVP 37	Following the implementation of the above rotation for at least 5 years, the management zone 3 paddocks will be available for low intensity set stocking (1-2.5 DSE/ha) for a 20 month period (February to September the following year), at intervals of at least 5 years, subject to the removal of stock if any of the above condition thresholds are met.		Yes
3.7 PVP 27	Protein supplements, such as urea, may be utilised in the stock holding areas on the property that are not within the mapped Conservation area.		Yes
3.8 PVP 25	Cultivation, application of fertilisers and soil ameliorants (such as gypsum and lime), sowing of exotic pasture species or planting of exotic trees will not be undertaken at the offset sites.		Yes
3.9 PVP 31	Stock grazing will be excluded by fencing from within the Lake Wallace - Pigging Creek riparian corridor and from a tributary Wet Tussock Grassland area (zones 1 and 2) (Figure 1-1 and Figure 1-2).		Yes
3.10 PVP 30	Limited, short-duration grazing may be permitted in the fenced riparian area and the tributary Wet Tussock Grassland area in zone 2 in the Southern Blocks offset site during dry weather in Autumn to control grass biomass if necessary subject to monitoring results showing declining condition which is likely to be caused by excessive grass biomass, and subject to recommendations from an ecologist. If practicable, and if necessary, patch burning may be a better method of biomass control in these areas.		Yes
3.11 PVP 26	The grazing leaseholder must keep a record of the number and type of animals stocked at the offset sites, the dates they were stocked and de-stocked and the paddocks where they were stocked and de-stocked. If paddocks were destocked because of biomass, grass height or pasture cover criteria, this will also be noted.		No records available for grazing which occurred in Oct-Dec 2018.
3.12 PVP 28 PVP 49	Stock will be removed from the offset sites when soils are very wet or saturated if this can be done safely with minimal damage to paddock soils and vegetation. Stock will not be brought into the sites and vehicles will not be used off formed access tracks when soils are very wet.		Yes
4. Fire management			
4.1 PVP 20	If monitoring indicates a decline in the condition of zone 3 Snow Gum Woodland secondary grassland at the sites due to excessive grass growth, and subject to the recommendations by an ecologist, a trial burning program may be designed and implemented in this vegetation. In this case, Council will arrange for up to three 0.04 hectare burns with appropriate monitoring and review prior to any broader scale application of fire to control biomass. The location and design of the burning monitoring program would be developed by an ecologist in consultation with OEH.		NA
4.2	The seasonal timing for ecological burning will generally be autumn-winter. Early spring burns can be used to control exotic annual weeds.		NA

OMP PVP	Actions and guidelines	Target June 2016	Achieved or on track?
4.3	Any ecologically burning activities undertaken at the offset sites will apply the guidelines contained in this plan.		NA
5. Slashing			
5.1 PVP 19	Slashing may be used to control grassland groundlayer biomass in accessible areas if: <ul style="list-style-type: none"> monitoring indicates a decline in the condition due to excessive grass growth other methods of biomass control are not available or appropriate slashing is recommended by an ecologist. 		NA
5.2 PVP 19	Slashing may be undertaken: <ul style="list-style-type: none"> in autumn-winter to control grass biomass in early spring to control annual weeds in mid-late summer to harvest seed-bearing Kangaroo Grass hay for restoration elsewhere at the offset sites. 		NA
5.3	Grassland will not be slashed below 10 centimetres in height.		NA
5.4	As far as possible, slashing will be minimised in spring, when birds are nesting or where ground birds are dependent on tall grass habitat.		NA
5.5	No slashing will be undertaken in woodland areas or under tree canopies.		NA
5.6	Where possible, slashing should proceed from areas of higher conservation value to areas of lower conservation value, and from less weedy to weedier areas.		NA
5.7	All machines and vehicles will be washed down prior to entering the offset sites, and after leaving weedy sites. As far as possible, slashing will be avoided when weed seeds are viable.		NA
5.8	Slashing activities will not allow debris to enter waterways or be left beside stream banks.		NA
5.9	Slashing will not be undertaken in wet conditions when the vegetation and soil could be damaged.		NA
5.10	Clippings may need to be removed after slashing if they are likely to smother established native plants.		NA
5.11	Slashing will not be undertaken in areas where significant native shrubs (such as <i>Discaria pubescens</i>) are likely to be damaged.		NA
6. Weed control			
6.1 PVP 10	African Lovegrass, Briar Rose, Blackberry and Scotch Thistle will be controlled during the establishment phase of the offset sites, and as required thereafter. Briar Rose will be physically removed or treated using the cut stump method with a systemic herbicide in sensitive areas (near water, near <i>Discaria pubescens</i> , in high quality grassland). Blackberry will be controlled in accordance with the CMSC Blackberry Local Management Plan. African Lovegrass and Scotch Thistle will be controlled with herbicide and careful chipping in accordance with the CMSC Annual Noxious Weeds Control Calendar.	X	Yes – any control actions undertaken/required in 2018?
6.2 PVP 10	Serrated Tussock will be controlled as soon as possible using careful chipping or spot-spraying plants with a suitable herbicide in spring when tussocks are actively growing but before seed set. Any ripe seed on the plant will be first removed and destroyed. This wind-dispersed species will also be controlled in coordination with neighbouring landowners.	X	Not relocated

OMP PVP	Actions and guidelines	Target June 2016	Achieved or on track?
6.3 PVP 10	The noxious and invasive Viper's Bugloss and St John's Wort beside the adjacent highway will be controlled in accordance with the CMSC Annual Noxious Weeds Control Calendar.	X	Yes
PVP 11	Council will prepare a weed control plan to ensure efficient and effective control of noxious and environmental weeds. A copy of the plan will be provided to OEH.		Weed Control Plan in progress with Council's Noxious Weeds Manager
6.4 PVP 14	Stock moving from pastures outside the offset sites will be yarded or spelled in a clean area for 5 days prior to entering the offset sites to prevent the introduction and spread of weeds.		Yes
6.5 PVP 14	Vehicles and machinery moving from weedy areas will be thoroughly washed down before entering the offset sites.		Yes
6.6 PVP 13	If spraying is used, selective herbicides will be used on woody weeds where applicable. Care will be taken to avoid overspray and spraydrift, particularly near: <ul style="list-style-type: none"> • aquatic habitat area • threatened, rare and uncommon plants (such as <i>Discaria pubescens</i>) • native shrub habitats for woodland birds. 		Yes
6.7 PVP 13	Spraying will not be undertaken in windy conditions. High volume handgun and boom spray application will cease when wind speed exceeds 8-10kph. Handgun herbicide application for the control of grass weeds can be undertaken up to wind speeds of 13 kph if a 500mm lance is fitted to spray guns.		Yes
6.8 PVP 13	No herbicide other than Roundup Bioactive will be used within 20 metres of Pigring Creek or Lake Wallace.		Yes
6.9	Chemical will be mixed and poured off site, or in a hardstand area or over a spill mat, where this is not possible.		Yes
6.10 PVP 12	Weed control locations, chemicals and rates, target weeds and timing will be recorded to assist management review.		Yes
7. Pest animal control			
PVP 15	Council will implement a pest animal control program as specified in the OMP. Pest animals present on the property include rabbits, pigs, deer and foxes.	X	Baiting undertaken for wild pigs in 2017, with limited effect. Pig problem continues.
7.1 PVP 16	An integrated approach to rabbit and pig control will be adopted. Control activities will also be coordinated with neighbours and other landholders in the locality. Property owners and public land managers should coordinate pig control actions to ensure that trapping efforts are not targeting the same pigs at the same time, and shooting (with or without dogs) does not occur within 2 kilometres of trapping.	X	Removal of feral animals is ongoing; Council is liaising with Local Land Services. Any more to report?

OMP PVP	Actions and guidelines	Target June 2016	Achieved or on track?
PVP 17	Shooting of pest animals is not permitted unless it is undertaken in consultation with Local Land Services.		Illegal shooting of kangaroos recorded in north paddock
7.2	Rabbit populations will be controlled at the sites, using baiting, biological control and low-impact harbour and warren destruction (localised ripping, blasting or fumigation).	X	Further rabbit control required.
7.3	Where warrens extend under mature trees or rock outcrops, fumigation rather than ripping or blasting will be used to minimise environmental impact.		Yes
7.4	Rabbit control will be initiated as required following natural or induced outbreaks of biological control (myxomatosis, rabbit calicivirus disease). Poisoning will be undertaken during periods of relative food stress (Read <i>et al.</i> 2011).		Yes
7.5	Ideally, trapping and poisoning in areas regularly visited by pigs should be undertaken when feed is scarce.	X	Yes
7.6	The use of 1080 and other poisons would comply with all regulatory requirements including certification, training, neighbour notification and warning signage, storage and transportation, setbacks from waterways, roads and boundaries and notification of accidents and incidents.		Yes
7.7	Dead animals found during and after the poisoning program, and all unused baits must be collected and destroyed by burning or deep burial outside the offset sites to prevent the secondary poisoning of wildlife.		Yes
7.8	Portable or permanent pig traps and pre-baiting may be used in areas attractive to pigs, such as wet grassland or waterholes, or along trails.		Yes
7.9	Soil and vegetation disturbance will not be used to attract rabbits and other pest animals for baiting.		Yes
7.10 PVP 18	Pest animal control locations, methods and timing will be recorded to assist monitoring and management review.		Yes
8. Track upgrading, and erosion and sedimentation control			
8.1 PVP 46	Access tracks will be upgraded and rollover and mitre drains will be installed on permanent farm tracks, including either side of Pigring Creek crossing (outside the Natural Temperate Grassland EEC). Track design, drainage methods and drain spacing and location would comply with Council's best practice guidelines and OEH (2012) Erosion and Sediment Control on Unsealed Roads. Tracks would generally not exceed 4 metres in width (including table drains).		Yes
PVP 46	Council must remediate the existing access tracks and construct new tracks shown in the OMP within 1 year of the commencement of the PVP.		Yes
PVP 47	Wet drainage line crossings must have appropriate drainage structures in place in order to protect water quality and soil.		Yes
8.2 PVP 48	Any material imported to the sites for track resurfacing or stabilising boggy sections would be non-dispersive and would come from a weed-free source.		Yes
8.3	Native grass cover would be retained on existing track sections where ever possible. The track would be slashed intermittently as required to maintain route visibility.		Yes
PVP 49	Vehicles must remain on constructed tracks when soils are wet or waterlogged.		Yes

OMP PVP	Actions and guidelines	Target June 2016	Achieved or on track?
PVP 50	Council must ensure that no new tracks are formed through vehicle movements.		Yes
8.4 PVP 52	The established or developing erosion gullies at the offset sites would be remediated using 100 millimetre nominal size rip rap, underlain by geotextile, in the actively eroding sections, with jute mesh and coir logs used as necessary to protect exposed soils and slow and divert runoff up to 10 metres upslope of the actively eroding section.		Yes
9. Fauna habitat and vegetation management			
9.1 PVP 56	Eucalypt regeneration within the fenced Pigring Creek riparian corridor (zones 1 and 2) may be progressively thinned as required based on ecologist advice, to achieve an ultimate tree spacing of 10-20 metres to protect groundlayer vegetation. Cut stump herbicide application would be used to minimise non-target impacts.		NA
PVP 56	Thinning of dense eucalypt regeneration to 5-10 metre spacing may be undertaken if required, based on ecologist advice in accordance with the OMP. Thinning is only to be undertaken for ecological purposes. Prior to commencing thinning, Council must consult OEH and LLS.		NA
9.2 PVP 4 PVP 8	Native trees, stags, logs or shrubs will not be damaged or removed, other than for clearing required for fencing and other works specified in this plan, or thinning of regeneration to maintain vegetation cover or diversity.		Yes
PVP 4	No live vegetation (remnant or regrowth) is to be cleared except for thinning in accordance with the OMP, routine agricultural management activities (RAMAs) only specified in the PVP, approved clearing for the Lake Wallace dam.		Yes
9.3 PVP 9	Surface rock will not be removed or damaged, except to undertake the works specified in this plan.		Yes
10. Cultural heritage protection			
10.1	Works at the offset sites would avoid impacts to identified Aboriginal sites, including: <ul style="list-style-type: none"> the Women's Waterhole LW10 stone procurement site Aboriginal artefact sites LW5, LW6 and LW7 LW11 reburial site for salvaged Aboriginal objects (stone artefacts). 		Yes
10.2	Access to the Women's Waterhole will be provided utilising an existing access track along the western fenceline and descending along the crest of a spur to the waterhole. A suitable gate will be provided in the fenceline around the water storage.		Yes
10.3	Any works involving earthworks at the offset sites would be subject to Due Diligence assessment and approval in the form of an AHIP as required.		Yes
10.4	If an Aboriginal object is found while undertaking works at the offset sites, works must cease and OEH must be notified; an AHIP may be required. If human skeletal remains are found the proponent must stop work immediately, secure the area to prevent unauthorized access, and contact the NSW Police and OEH.		Yes
11. Inspection and compliance			

OMP PVP	Actions and guidelines	Target June 2016	Achieved or on track?
11.1	Council will conduct routine inspections of the offset sites at least monthly to ensure the provisions of this plan are being implemented.		Monthly inspection reports completed Jan and May-December 2018. No records for Feb-April.
11.2	A comprehensive inspection and compliance report will be prepared by Council annually. The report will address approval conditions, including implementation of the plan and any breaches in compliance. The report will be published on the Council website within 3 months of each 12 month anniversary of the commencement of the project. Documentary evidence of the date of publication of the inspection and compliance report, and details of any non-compliance, will be provided to the Commonwealth at the same time as the compliance report is published. Potential or actual contraventions of the conditions must be reported to the Commonwealth within 2 days of Council becoming aware of them, and included in the annual compliance report.		Yes - a calendar year cycle rather than works anniversary has been used to capture whole grazing rotations in each report. 2018 report delayed by staffing and administrative changes.
12. Monitoring and review			
12.1 PVP 5	Permanent monitoring sites will be established in each EEC vegetation unit targeting groundlayer vegetation composition and cover, and tree and shrub regeneration. Condition monitoring will be conducted in mid November 2014 by an ecologist at the establishment of the offset sites. Repeat monitoring would be undertaken in mid-November 2015, 2017, 2019, 2021, 2023 and 2025. Monitoring results will be used to evaluate management. Monitoring reports, including Small Snake Orchid monitoring results, will be prepared for Council and sent to OEH, LLS and the Commonwealth Environment Department.		Yes
PVP 6	Monitoring results will be reviewed and adaptive and corrective management measures applied in accordance with the OMP.		Yes
12.2	The colony of Small Snake Orchids will be monitored during the flowering period (mid – November) each year from project approval until the dam has been constructed and operating for 5 years.		Yes
12.3 PVP 7	The Offset Management Plan will be independently reviewed after 10 years of operation, taking into account monitoring results.		Yes

2.3 SUMMARY OF COUNCIL INSPECTIONS

The OMP provides for regular Council inspections of the offset sites to ensure the provisions of the plan are being implemented. Matters to be inspected are listed in the OMP. A copy of the inspection checklist used by Council officers is provided in Appendix B.

Council monitoring data sheets are available for January and May – December 2018; the results of the inspections are summarised in Table 2-6 below. The monitoring shows grass height and/or grass cover to be below target for at least 3 of the paddocks each month between May and December 2018. Despite this, and despite the general suspension of grazing recommended in the 2017 monitoring report, Council recorded stock at the offset sites during October, November and December 2018, outside the prescribed grazing season.

Council noted a general expansion in wild pig impact across the offset sites, and several maintenance issues requiring management response from Council. Evidence of illegal shooting was recorded in May 2018, with at least 15 kangaroo carcasses found in the north paddock.

Table 2-6 Summary of 2018 monthly Council compliance inspections

(✓ - meets target, x – below target)

	Grass height	Grass cover	Stock observed	Comments (summarised from inspection checklists)
2018				
10/01	North - ✓ West - ✓ East - ✓ South - ✓	North - ✓ West - ✓ East - ✓ South - ✓	North - 0 West - 0 East - 0 South - 0	All paddocks: fences, gates and Pigging Creek stock crossing all in good condition
/02				
/03				
/04				
03/05	North - ✓ West - ✓ East - x South - ✓	North - ✓ West - x East - ✓ South - x	North - 0 West - 0 East - 0 South - 0	South: pig diggings prominent, 1-2 weeks old North: at least 15 shot kangaroos found East: fence to east of entrance gate has tree lying on it
06/06	North - ✓ West - x East - ✓ South - x	North - x West - ✓ East - x South - ✓	North - 0 West - 0 East - 0 South - 0	North: sediment fence needs repair East: pig diggings South: increased pig diggings
26/07	North - x West - x East - x South - ✓	North - x West - ✓ East - ✓ South - ✓	North - 0 West - 0 East - 0 South - 0	North: sediment fence needs repair West: pig diggings increased South: pig diggings increased
16/08	North - x West - x East - x South - x	North - ✓ West - x East - ✓ South - x	North - 0 West - 0 East - 0 South - 0	North: sediment fence needs repair East: 3 wild goats sighted South: sediment controls need repair, pig evidence West: pig evidence
11/09	North - x West - x East - x South - ✓	North - x West - ✓ East - ✓ South - ✓	North - 0 West - 0 East - 0 South - 0	North: sediment fence needs repair, pig activity East: pig activity West: pig activity South: pig activity, 2 goats sighted (adult and juvenile)
19/10	North - x West - x East - x South - ✓	North - x West - x East - x South - ✓	North - 0 West - 20 East - 0 South - 0	All paddocks: pig activity widespread over entire property North: sediment fencing on track adjoining highway needs repair, pig activity widespread over entire property

27/11	North - x West - x East - ✓ South - ✓	North - x West - x East - ✓ South - x	North - 0 West - 0 East - 14 South - 0	All paddocks: pig damage throughout property North: sediment fence needs repair, several wild goats sighted
19/12	North - x West - x East - x South - x	North - x West - ✓ East - x South - x	North - 0 West - 0 East - 15 South - 0	North: access track needs maintenance, pigs evident South: pig activity

2.4 SUMMARY OF LEASEHOLDER RECORDS

Stock grazing was suspended for the 2018 season in line with results and recommendations in the 2017 ecological monitoring report. Consequently, it is understood that no grazing occurred during, and no leaseholder records are available for, the 2018 February-September grazing season [confirm]. Unapproved stock grazing occurred at the offset sites in October-December 2018 despite the grazing suspension; no leaseholder monitoring data is available for this period.

3 CONCLUSION

Council is required to comply with Commonwealth and State approval conditions for Lake Wallace dam, and the provisions of the Lake Wallace Offset Management Plan (OMP) and Property Vegetation Plan (PVP). Council has largely complied with these requirements since the creation of the Lake Wallace offset sites. However, Council inspections indicate a number of incidences of non-compliance in 2018.

Stock grazing

The 2017 ecological monitoring report recommended suspension of stock grazing until drought conditions eased and grass height and cover had returned to target levels under the Stock Management Plan. The grazing leaseholder was notified of this decision and it is understood that no stock were grazed at the sites during the 2018 February-September grazing season [confirm]. There appears to have been a gap in Council inspections between February and April 2018.

Council monitoring from May to December 2018 shows insufficient grass biomass to warrant stock grazing. Stock were recorded at the sites in October, November and December 2018, representing a breach of the grazing suspension, and of the February-September prescribed grazing season. This breach involves grassland belonging to the NSW Snow Gum Grassy Woodland EEC, but does not affect the Commonwealth Natural Temperate Grassland EEC.

Wild pig impacts

Under the OMP, Council is required to implement a pest animal control program. To date, control efforts have not been effective for wild pigs, which continue to damage grassy ecosystems at the offset sites. It is recommended that Council commence an effective and ongoing pig control program as a matter of urgency, giving serious consideration to trapping.

Offset site security

The security of the offset sites has been breached by illegal grazing and kangaroo shooting. Camera surveillance, additional inspections and upgraded gate locking should be considered.

4 REFERENCES

- Agriculture Victoria (2018) Sustainable carrying capacity <<http://agriculture.vic.gov.au/agriculture/farm-management/business-management/ems-in-victorian-agriculture/environmental-monitoring-tools/sustainable-carrying-capacity>>
- Bureau of Meteorology (BOM) (2019) Monthly rainfall Nimmitabel Wastewater Treatment Facility <http://www.bom.gov.au/jsp/ncc/cdio/weatherData/av?p_nccObsCode=139&p_display_type=dataFile&p_startYear=&p_c=&p_stn_num=070067>
- Department of Primary Industries (DPI) (2006) Beef stocking rates and farm size - Hunter Region <http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0014/70610/Beef-stocking-rates-and-farm-size--Hunter-region.pdf>
- Department of Primary Industries (DPI) (2019) Combined Drought Indicator <<https://edis.dpi.nsw.gov.au/>>
- Department of Sustainability, Environment, Water, Population and Communities (DSEWPAC) (2012) *Diuris pedunculata* — Small Snake Orchid, Two-leaved Golden Moths, Golden Moths, Cowslip Orchid, Snake Orchid SPRAT Profile
http://www.environment.gov.au/cgibin/sprat/public/publicspecies.pl?taxon_id=18325
- NGH Environmental (2013) Species Impact Statement Lake Wallace Water Storage Dam and Associated Infrastructure. Prepared for Cooma-Monaro Shire Council
- NGH Environmental (2015a) Offset Management Plan Lake Wallace Storage Dam and Associated Infrastructure. Prepared for Cooma-Monaro Shire Council
- NGH Environmental (2015b) Offset Monitoring Report 2014. Lake Wallace Storage Dam and Associated Infrastructure. Prepared for Cooma-Monaro Shire Council.
- NGH Environmental (2015c) Offset Monitoring Report 2015. Lake Wallace Storage Dam and Associated Infrastructure. Prepared for Cooma-Monaro Shire Council.
- NGH Environmental (2016) Offset Monitoring Report 2016. Lake Wallace Storage Dam and Associated Infrastructure. Prepared for Snowy Monaro Regional Council.
- NGH Environmental (2018a) Offset Monitoring Report 2017. Lake Wallace Storage Dam and Associated Infrastructure. Prepared for Snowy Monaro Regional Council.
- NGH Environmental (2018b) Small Snake Orchid monitoring report 2018 Lake Wallace 5 Year Monitoring Plan 2018. Prepared for Snowy Monaro Regional Council. December 2018.
- NGH Environmental (2018c) Compliance report Lake Wallace Biodiversity Offset Sites. Prepared for Snowy Monaro Regional Council. December 2018.
- Snowy Monaro Regional Council (2017) Property Inspection Report – Noxious Weeds.
- South East Local Land Services (SELLS) (2017) South East Regional Strategic Weed Management Plan 2017-2022. <http://southeast.lls.nsw.gov.au/__data/assets/pdf_file/0006/722706/South-East-Regional-Weed-Mgmt-Plan.pdf>

APPENDIX A OFFSET SITE PHOTOGRAPHS



Small Snake Orchid protection fence



Ecological monitoring plot at the Southern Blocks offset site



Lake Wallace dam wall and surrounds stabilised and seeded at the end of winter 2016



Erosion gully (E1) fenced and stabilised at the Lake Wallace offset site. 40 indigenous trees were planted.



Drainage line track crossing and culvert at the Lake Wallace offset site. Edge drains and jute logs upstream of the culvert, and jute mesh and energy dissipation rocks below the culvert have been installed.



Rock on access track to flow monitoring station to protect environmental and cultural values at the Lake Wallace offset site.

APPENDIX B COUNCIL AND LEASEHOLDER PRO FORMA CHECKLISTS

APPENDIX C Paddock Map

