Contact Officer: s47F
Telephone: s47F

Reference: CAS2691
Email: s47F

David Mitchell
Director
Jam Land Pty Limited
'Corrowong', Corrowong Road
DELEGATE NSW 2633

Dear Mr Mitchell

Environment Protection Biodiversity Conservation Act 1999
Alleged spraying of native grasslands at Corrowong, NSW

I am writing regarding the potential application of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to land owned or operated by Jam Land Pty Ltd at Settlers Road, Corrowong, NSW. In particular, the Department of the Environment and Energy has received information which alleges that herbicide has been applied to grasslands at some or all of Lots 6 and 7 of DP849346 and lots 21, 38, 39, 40, 41, 44 and 50 of DP756859. The Department is concerned that this action, will or is likely to, impact on an ecological community protected under the EPBC Act, namely the critically endangered Natural Temperate Grassland of the South Eastern Highlands (information enclosed).

The Department administers the EPBC Act which provides for the protection of defined matters of national environmental significance (NES). Matters of NES include World Heritage Properties and National Heritage Places, wetlands of international importance, nationally listed threatened species and ecological communities, listed migratory species, the Commonwealth marine environment and nuclear actions. The EPBC Act prohibits a person from taking an action that significantly impacts on matters of NES without approval.

The Natural Temperate Grassland of the South Eastern Highlands ecological community was listed on 6 April 2016 as Critically Endangered under the EPBC Act. This listing updates and replaces a previous listing, for the Natural Temperate Grassland of the Southern Tablelands of New South Wales and the Australian Capital Territory, which was listed as Endangered in 2000.

The Natural Temperate Grassland of the South Eastern Highlands ecological community is dominated by native tussock grasses with a rich diversity of wildflowers and other grassland plants and animals, with few trees or shrubs. It provides vital habitat for a number of threatened species, such as the Endangered grassland earless dragon (*Tympanocryptis pinguicolla*), Vulnerable striped legless lizard (*Delma impar*), Vulnerable pink-tailed worm-lizard (*Aprasia parapulchella*), Critically Endangered golden sun moth (*Synemon plana*), Endangered button wrinklewort (*Rutidosis leptorrhynchoides*), and is a refuge for many other locally-rare species.

The Department is sympathetic to the needs of the farming community. The EPBC Act is not about preventing people from making a living on their land, nor does it apply to ongoing farming practices. The Department is taking a proactive role in promoting awareness of matters of NES with a view to minimising risks of rural landholders inadvertently clearing protected ecological communities or species habitat in breach of the legislation.

With a view to understand the nature and extent of the impacts which may have occurred on the property to date, compliance officers would like to inspect the property at 12:30 PM on Wednesday 7 December 2016. It is the Department's preference to carry out this inspection with the consent of Jam Land Pty Ltd under s405 of the *Environment Protection and Biodiversity Conservation Act 1999*. I have enclosed a leaflet which includes the relevant sections of the EPBC Act, and details your rights, should you consent to a visit under the consent provisions of the EPBC Act.

You should be aware that during this inspection, authorised officers from the Department will be accompanied by species and ecological community experts from the Department. I understand that officers from the NSW Office of Environment and Heritage may seek to undertake an inspection of the property on the same day.

Please advise the undersigned that Jam Land Pty Ltd consent, or otherwise, to authorised officers together with departmental staff inspecting the property as detailed above. Following such advice I will forward additional details pertaining to the visit. Please submit your response by close of business on by midday on Tuesday 6 December 2016 by email: s47F or by post to:

Compliance Section
Environment Standards Division
Department of the Environment and Energy
GPO Box 787
Canberra ACT 2601

Further information

You can find further information on the Act on the Department's website: http://www.environment.gov.au/epbc.

If you wish to discuss this matter, please contact the Department's case officer, s47F s47F by phone on s47F or email: s47F.

Yours sincerely

s47F

A/g Director
Compliance Section
/ December 2016

CC: NSW Office of Environment and Heritage

Australian Government
Department of the Environment and Energy

Environment Protection and Biodiversity Conservation Act 1999

OCCUPIER'S INFORMATION SHEET

THIS DOCUMENT CONTAINS IMPORTANT INFORMATION FOR OCCUPIERS WHO ARE REQUESTED TO GIVE CONSENT FOR AN AUTHORISED OFFICER UNDER THE *ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999* TO ENTER THEIR PREMISES

VOLUNTARY CONSENT	Under section 405 of the *Environment Protection and Biodiversity Conservation Act 1999* (the Act), if you as the occupier of premises give consent, an authorised officer may enter those premises for the purpose of exercising certain powers under the Act.

YOUR RIGHTS	You have the right to refuse consent for an authorised officer to enter the premises. You have the right to ask an authorised officer to produce his or her identity card (or written evidence that the officer is a member of the police force or an officer of Customs). If you give consent for an authorised officer to enter the premises, you have, or a person representing you has, the right to be present while the authorised officer exercises his or her powers. If you give consent for an authorised officer to the premises you may, at any time, revoke that consent.

WHAT AN INSPECTOR MAY DO	If you give your consent for an authorised officer to enter the premises, the authorised officer may exercise a range of powers as set out in section 406 of the Act (extracted on page 3), which are to: • inspect and search the premises; • take photographs (including a video recording), and make sketches, of the premises or of any substance or thing on the premises; • inspect, take extracts from, and make copies of, any document that is, or that the authorised officer suspects on reasonable grounds is, evidential material in relation to an offence against an environmental law, in relation to a contravention of an environmental penalty provision or in relation to both; • inspect, and take samples of, any other evidential material in relation to an offence against an environmental law, in relation to a contravention of an environmental penalty provision or in relation to both; • take measurements of, and conduct tests on, the premises or any substance or thing on the premises; • exercise powers of seizure conferred on the authorised officer by section 444A or 445 of the Act;

	• exercise powers of possession conferred on the authorised officer by section 406AA of the Act; and • take onto the premises any equipment or material reasonably necessary for the purpose of exercising a power referred to in any of the other paragraphs of this subsection.

Environment Protection and Biodiversity Conservation Act 1999 **Section 406** **Powers of authorised officers**	(1) An authorised officer who boards a vehicle, vessel, aircraft or platform under section 403, or enters premises under section 405 may: (a) inspect and search the vehicle, vessel, aircraft, platform or premises, as the case may be; and (aa) take photographs (including a video recording), and make sketches, of the premises or of any substance or thing on the vehicle, vessel, aircraft, platform or premises; and (b) inspect, take extracts from, and make copies of, any document that is, or that the authorised officer suspects on reasonable grounds is, evidential material in relation to an offence against an environmental law, in relation to a contravention of an environmental penalty provision or in relation to both; and (ba) in the case of an authorised officer who boards a vessel under section 403—subject to section 406A, search without warrant: (i) a person on the vessel; and (ii) the person's clothing; to find out whether there is hidden on the person or in the clothing: (iii) an eligible seizable item; or (iv) a thing that may be evidential material in relation to an offence against an environmental law, in relation to a contravention of an environmental penalty provision or in relation to both; and (c) inspect, and take samples of, any other evidential material in relation to an offence against an environmental law, in relation to a contravention of an environmental penalty provision or in relation to both; and (ca) take measurements of, and conduct tests on, the vehicle, vessel, aircraft, platform or premises or any substance or thing on the vehicle, vessel, aircraft, platform or premises; and (d) exercise powers of seizure conferred on the authorised officer by section 444A or 445; and (e) take onto the vehicle, vessel, aircraft, platform or premises any equipment or material reasonably necessary for the purpose of exercising a power referred to in any of the other paragraphs of this subsection.
Environment Protection and Biodiversity Conservation Act 1999**Section 444A** **Seizure of specimens involved in a contravention of Part 13A**	(1) An authorised officer may seize a specimen if he or she has reasonable grounds to suspect that the specimen has been used or otherwise involved in the commission of an offence against Part 13A. Note: Part 13A deals with international movement of wildlife specimens. (2) If a warrant has been issued under Division 4: (a) if the warrant relates to premises—this section does not apply: (i) to the executing officer, or an officer assisting, while he or she is searching premises under the warrant; or (ii) to anything found during the course of such a search; and (b) if the warrant relates to a person—this section does not apply: (i) to the executing officer, or an officer assisting, while he or she is searching a person, or an aircraft, vehicle or vessel, under the warrant; or (ii) to anything found during the course of such a search. Note: Division 4 is about search warrants. The Division contains its own seizure powers (see paragraphs 417(1)(c), (d) and (e) and (2)(b), (c) and (d)).

Australian Government
Department of the Environment and Energy

Environment Protection and Biodiversity Conservation Act 1999 **Section 445** **Seizure of things (other than specimens involved in a contravention of Part 13A)**	(1) Subject to subsections (2) and (3), an authorised officer may seize a thing if he or she has reasonable grounds to suspect that it is evidential material in relation to an offence against an environmental law, in relation to a contravention of an environmental penalty provision or in relation to both. (2) This section does not apply to a specimen that an authorised officer has reasonable grounds to suspect has been used or otherwise involved in the commission of an offence against Part 13A. Note: Section 444A deals with the seizure of such specimens. (3) If a warrant has been issued under Division 4: (a) if the warrant relates to premises—this section does not apply: (i) to the executing officer, or an officer assisting, while he or she is searching premises under the warrant; or (ii) to anything found during the course of such a search; and (b) if the warrant relates to a person—this section does not apply: (i) to the executing officer, or an officer assisting, while he or she is searching a person, or an aircraft, vehicle or vessel, under the warrant; or (ii) to anything found during the course of such a search. Note: Division 4 is about search warrants. The Division contains its own seizure powers (see paragraphs 417(1)(c), (d) and (e) and (2)(b), (c) and (d)). (3A) A reference in this section to an offence against an environmental law does not include an offence against Part VIIA of the *Great Barrier Reef Marine Park Act 1975* (compulsory pilotage). (4) In this section: *thing* includes a vehicle, vessel, aircraft, platform, document, organism and specimen.

File No:	
Folio No:	

Australian Government

Department of the Environment and Energy

Compliance Section

NOTE FOR FILE

Subject	Phone call from Richard Taylor, Jam Land Pty Ltd

Phone call commended at 4:08pm on 2 December 2016.

Mr Taylor called in regards to a message s47F left on his voicemail to return his call.

I advised Mr Taylor that s47F and myself were trying to get in contact in regard to a property in Corrowong NSW. I asked if he had a chance to read the letter which was forwarded on to him by Mr David Mitchell. Mr Taylor advised he had a quick scan of it.

Mr Taylor advised that they had an agronomist do an assessment of the lots which were sprayed and the agronomiast report said it was ok as while they had some stipa most of the cover was exotics. Mr Taylor advised the assessment was done under NSW Native Vegetation Act but not under the requirements listed for Natural Temperate Grassland under the EPBC Act.

Mr Taylor advised they had sprayed two paddocks, one which had previously been sewn and this one which had not been.

I advised that we would be hoping to conduct a site visit under consent and we would go through all the consent provisions at the time, however s47F had sent through an occupiers information sheet which outlines their rights and out powers under the Act. I advised Mr Taylor that this would be to see if the Natural Temperate Grassland was present, and that considerations such as the size and quality of the grassland also have to be taken into account. I advised Mr Taylor that if we did think a breach had occurred we would then inform them of this and go through the consent provisions once more and they could remove consent at any time.

Mr Taylor advised that he probably can't do Wednesday next week but if we still want to go that day he will see if Mr John Jeffreys, another director of Jam Land, could attend. I asked Mr Taylor that if he could let us know via email if they were willing to give consent and if the site visit could go ahead on Wednesday.

Mr Taylor advised that they were unaware of the listing of Natural Temperate Grassland in the area and said most of the Local Land Services people were also unaware. I advised that is good information for us to know as it would indicate we would have to get the word out there about it.

File No:	
Folio No:	

Australian Government

Department of the Environment and Energy

Mr Taylor advised that they want to work with us on this matter and would get back to us about the availability for the site visit.

Call concluded at 4:15pm

Signature	s47F	Date	2/12/2016
Name			

From: s47F
To:
Subject: FW: Return Call [SEC=UNCLASSIFIED]
Date: Monday, 5 December 2016 9:46:54 AM

I just spoke to Richard, he is going to talk to John Jeffreys again to see if he can make Wednesday (he has other things on, but may be able to rearrange). I raised the possibility of not being accompanied if they were comfortable with that, and he didn't sound too keen on it. I said it was important for us that we get down there this week.
s47F

From: s47F
Sent: Monday, 5 December 2016 9:37 AM
To: s47F
Subject: FW: Return Call

s47F
Sorry I was on phone when you rang previously.
I should be pretty available most of today, except I have a phone hookup from 10.30-11.30 am.
I will not be available for an inspection this Wednesday, as I have a Board meeting in Sydney.
I can make myself available Mon-Wed the following week (12th-14th) or any day except Tuesday 20th in the week leading up to Xmas.

Regards

Richard

From: s47F
Sent: Friday, 2 December 2016 1:01 PM
To: s47F
Subject: Return Call

s47F
I have tried to return your call but no answer and no message bank ?
I am in and out of range abit today, but give me another try.

Thanks

Richard Taylor s47F

s47F

From: s47F
Sent: Monday, 5 December 2016 4:52 PM
To: s47F
Cc: s47F 'John Jeffreys'
Subject: FW: Alleged grassland spraying at Settlers Road, Corrowong - EPBC Act [SEC=UNCLASSIFIED]
Attachments: Corro_161201_to occupant_information about_consent_Att farming and EPBC Act info sheet_CAS2691.pdf; Corro_161201_to occupant_information about_consent_Att NTG info sheet_CAS2691.pdf; Corro_161201_to occupant_information about_consent_Att occupiers info sheet_CAS2691.pdf; Corro_161201_to occupant_information about_consent_CAS2691.pdf

We consent to the visit to Corrowong on Wednesday 7th 2016 in accordance with the attached letter.
John Jeffreys, a fellow director, will be available to meet on site at 12.30 pm.

Regards

Richard Taylor

Director JamLand Pty Ltd

From: David & Andrea Mitchell [mailto:s47F
Sent: Thursday, 1 December 2016 5:27 PM
To: Richard Taylor <s47F
Subject: Fw: Alleged grassland spraying at Settlers Road, Corrowong - EPBC Act [SEC=UNCLASSIFIED]

From: s47F
Sent: 1 December, 2016 04:24 PM
To: s47F
Cc: s47F
Subject: Alleged grassland spraying at Settlers Road, Corrowong - EPBC Act [SEC=UNCLASSIFIED]

Dear Mr Mitchell,

Please find attached correspondence from the Department in relation to alleged spraying of native grasslands at Settlers Road, Corrowong, NSW.

Please feel free to contact me tomorrow morning to discuss.

Kind Regards,

s47F
Senior Compliance Officer
Compliance Section
Environment Standards Division
Department of the Environment and Energy

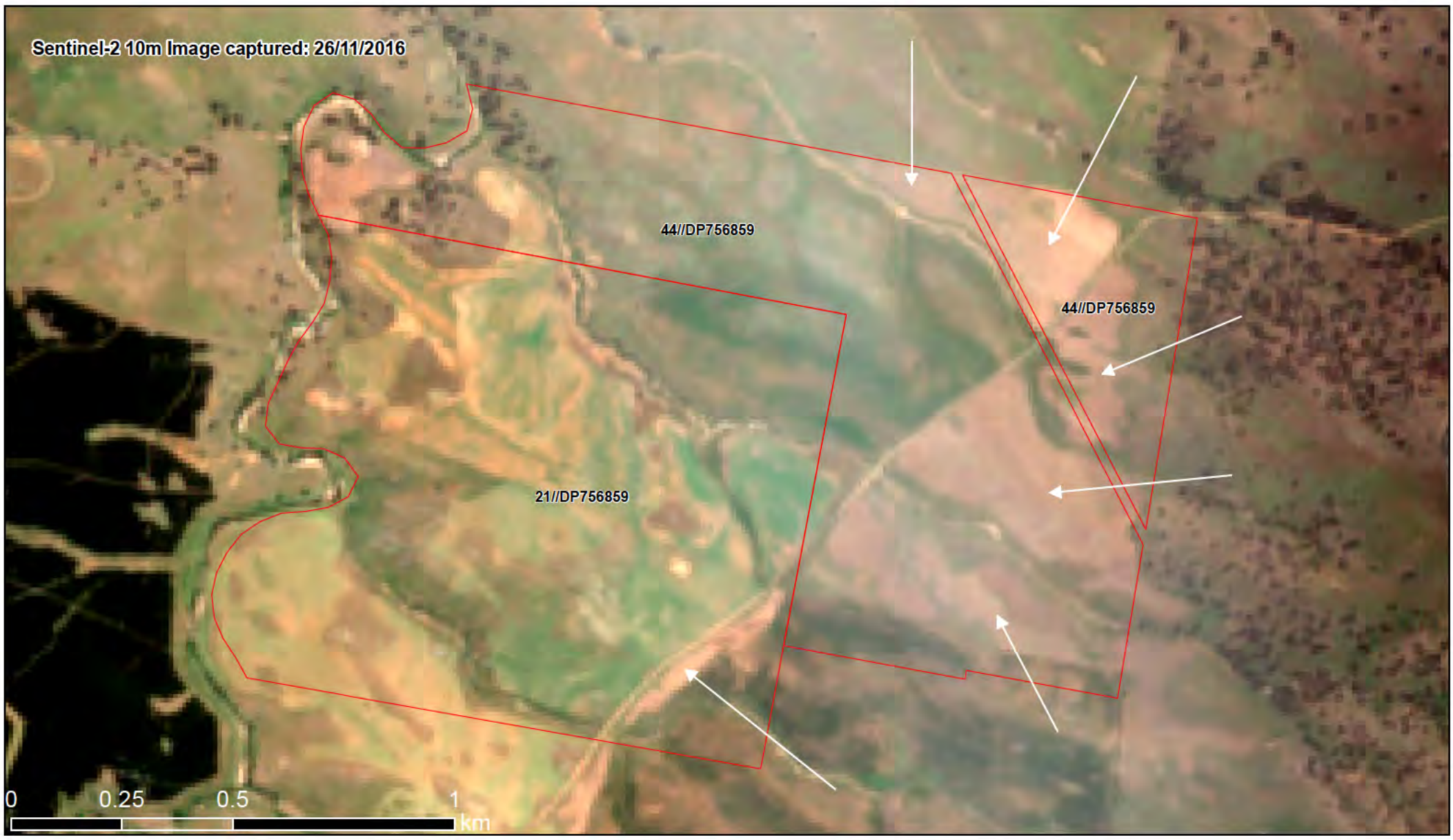
GPO Box 787 CANBERRA, ACT 2601
s47F

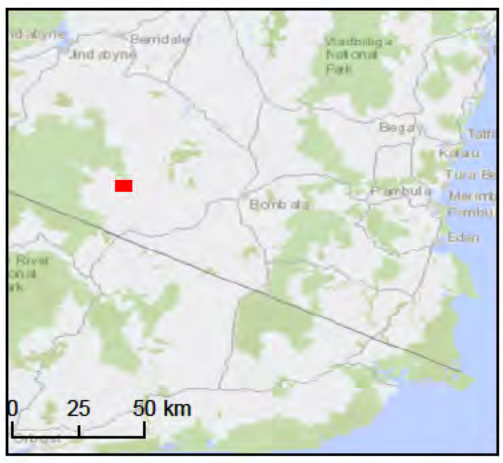
Lots 21 & 44 on DP756859 near Corrowong NSW - Imagery Comparison

Date: 8/12/2016

RT321808

User: a14897





Legend

Lots 21 & 44 on DP756859

Acknowledgements:

Inset national basemap produced by the Department of the Environment and Energy.

Produced by the Environmental Resources Information Network (ERIN).
Australian Government Department of the Environment and Energy. © Commonwealth of Australia, 2016.

Coordinate System: GDA 1994 MGA Zone 55
Projection: Transverse Mercator
Datum: GDA 1994

DRAFT

For Official Use Only

Australian Government
Department of the Environment and Energy

Australian Government
Department of the Environment and Energy

Contact Officer: s47F
Telephone: s47F
Reference: CAS2691
Email: s47F

Richard Taylor
Director, Jam Land Pty Limited
843 Old Bombala Road
NIMMITABEL NSW 2631

Dear Mr Taylor

Notice of intent to inspect property at Corrowong pursuant to a Monitoring Warrant
Environment Protection and Biodiversity Conservation Act 1999

As you are aware, the Department of the Environment and Energy is making enquiries into the potential application of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (**the Act**) to alleged application of herbicide to native grasslands on land owned or operated by Jam Land Pty Ltd at Settlers Road, Corrowong, NSW.

As advised in my letter dated 12 December 2016, the Department has formed the view that the nationally listed critically endangered Natural Temperate Grassland of the South Eastern Highlands ecological community occurs on the property and is likely to have been impacted by application of herbicide. To further inform the Department as to whether or not the Act applies to the works undertaken, s47F and s47F as authorised officers under the Act intend to present at Lots 16 and 44 of DP756859 and Lot 1 of DP740077 at or about **8:00 am** on **Friday, 16 December 2016.** At this time they shall exercise a Monitoring Warrant in accordance with Division 3 of Part 17 of the Act. A copy of the monitoring warrant is attached for your information.

The site inspection will assist the Department in forming a view as to whether all or any provisions of the Act have, are or will be complied with. During the course of the inspection, Departmental compliance officers will be accompanied by a suitably qualified expert engaged to provide advice on condition and extent of the listed ecological community at the site, and the impacts on this ecological community, (if any) from herbicide application on the property. The site assessment is anticipated to be completed within a day.

The provisions of the Act outlining your rights and responsibilities under s409 of the Act are attached for your information. I understand that you have advised s47F that you will be unable to attend. If you or a representative decide to attend, or if you require further information or clarification of the matters raised in this letter, please contact s47F whose details appear at the top of this letter.

s47F

A/g Director
Compliance Section
15 December 2016

CC. NSW Office of Environment and Heritage

Australian Government
Department of the Environment and Energy

FOI 200805
Document 10

Contact Officer: s47F
Telephone: s47F
Reference: CAS2691
Email: s47F

Richard Taylor
Director, Jam Land Pty Limited
843 Old Bombala Road
NIMMITABEL NSW 2631

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Yours sincerely

s47F

A/g Director
Compliance Section
15 December 2016

CC. NSW Office of Environment and Heritage

COMMONWEALTH OF AUSTRALIA

ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION

ACT 1999: SECTION 409

MONITORING WARRANT

To: s47F

an authorised officer within the meaning of section 528 of the *Environment Protection and Biodiversity Conservation Act 1999;*

WHEREAS you have laid information on oath before me this day:

AND WHEREAS I am satisfied that it is reasonably necessary that you should have access to the premises specified in this warrant for the purpose of finding out whether any or all of the provisions of the *Environment Protection and Biodiversity Conservation Act 1999* or the regulations under that Act have been, are being or will be complied with;

AND WHEREAS I have been given any further information I required about the grounds on which the issue of this warrant was sought;

I Michael Antrum Magistrate Local Court of NSW, a magistrate within the meaning of the *Environment Protection and Biodiversity Conservation Act 1999*, hereby issue this warrant which authorises you, with such assistance and by such force as is necessary and reasonable, from time to time while this warrant remains in force:

- to enter the following premises:

  Lots 16 and 44, DP756859
  Lot 1, DP740077
  Settlers Road, Corrowong NSW

Being areas subject to the alleged poisoning of native vegetation **and**

- to exercise the monitoring powers in relation to the premises.

Note that the monitoring powers set out in subsection 407(1) of the *Environment Protection and Biodiversity Conservation Act 1999* are as follows:

(a) the power to inspect and search the premises;

(b) the power to take photographs (including a video recording), or to make sketches, of the premises or of any substance or thing at the premises;

(c) the power to inspect, examine and take samples of, any substance or thing on or in the premises;

(ca) the power to take measurements of, and conduct tests on, the premises or any substance or thing on the premises;

(cb) power to mark a live specimen on the premises;

(d) the power to take extracts from, or make copies of, any document, book or record on the premises;

(da) the powers to operate electronic equipment, and do other things, at the premises as mentioned in section 407A of that Act;

(e) the power to take onto the premises any equipment or material reasonably necessary for the purpose of exercising a power referred to in any other paragraph of subsection 407(1).

And by virtue of section 409(5) of the *Environment Protection and Biodiversity Conservation Act 1999* you may also exercise the powers of seizure given under sections 444A or 445 of that Act while you are on the premises.

ENTRY UNDER THIS WARRANT MAY BE MADE BETWEEN THE HOURS OF 7:00AM AND 7:00PM ANY DAY OF THE WEEK

THIS WARRANT CEASES TO HAVE EFFECT AT THE START OF THE DAY THAT IS SIX MONTHS AFTER THE DATE OF ISSUE OF THE WARRANT, BEING THE Fifteenth **DAY OF JUNE 2017.**

The purpose of this warrant is to authorise the authorised officer named in this warrant, with such assistance and by such force as necessary and reasonable, from time to time while the warrant remains in force, to enter the premises specified in the warrant to find out whether any or all of the provisions of the *Environment Protection and Biodiversity Conservation Act 1999* or the regulations under that Act have been, are being or will be complied with.

A copy of sections 410, 411, 412 and 412a of the *Environment Protection and Biodiversity Conservation Act 1999* is attached to this warrant.

GIVEN under my hand at ..... Queanbeyan local .....Court

in New South Wales this 15th day of December 2016

.....

A Magistrate in and for New South Wales

Michael Antrum
Magistrate
Local Court of NSW

LOCAL COURT OF NEW SOUTH WALES

EXTRACT: ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999: SECTIONS 410, 411, 412 and 412A

410 Details of monitoring warrant to be given to occupier etc.

(1) If a monitoring warrant in relation to premises is being executed and the occupier of the premises, or another person who apparently represents the occupier, is present at the premises, the executing officer must make available to that person a copy of the monitoring warrant.

(2) The executing officer must identify himself or herself to that person at the premises.

(3) The copy of the monitoring warrant referred to in subsection (1) need not include the signature of the magistrate or the seal of the relevant court.

411 Occupier entitled to be present during search

(1) If a monitoring warrant in relation to premises is being executed and the occupier of the premises, or another person who apparently represents the occupier, is present at the premises, the person is, subject to Part IC of the *Crimes Act 1914*, entitled to observe the search being conducted.

(2) The right to observe the search being conducted ceases if the person impedes the search.

(3) This section does not prevent 2 or more areas of the premises being searched at the same time.

412 Announcement before entry

(1) Before any person enters premises under a monitoring warrant, the executing officer must:
  (a) announce that he or she is authorised to enter the premises; and
  (b) give any person at the premises an opportunity to allow entry to the premises.

(2) The executing officer is not required to comply with subsection (1) if he or she believes on reasonable grounds that immediate entry to the premises is required to ensure:
  (a) the safety of a person (including an authorised officer); or
  (b) that the effective execution of the monitoring warrant is not frustrated.

412A Other powers when on premises under monitoring warrant

(1) If the executing officer enters premises under a monitoring warrant, he or she may require a person on the premises to:
  (a) answer a question asked by the executing officer; or
  (b) give the executing officer information requested by the executing officer; or
  (c) produce to the executing officer records or documents kept on the premises.

(2) A person is guilty of an offence if:
  (a) the executing officer has entered premises under a monitoring warrant; and
  (b) the person is on the premises; and
  (c) the executing officer requires the person to:
    (i) answer a question asked by the executing officer; or
    (ii) give the executing officer information requested by the executing officer; or
    (iii) produce to the executing officer records or documents kept on the premises; and
  (d) the person contravenes the requirement.

(3) The offence is punishable on conviction by imprisonment for a term not more than 6 months, a fine of not more than 30 penalty units, or both.

Australian Government

Department of the Environment and Energy

Environment Protection and Biodiversity Conservation Act 1999

OCCUPIER'S INFORMATION SHEET

THIS DOCUMENT CONTAINS IMPORTANT INFORMATION FOR OCCUPIERS OF PREMISES FOR WHICH A MONITORING WARRANT HAS BEEN ISSUED UNDER THE *ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999*

A ***monitoring warrant*** is issued by a magistrate under section 409 of the *Environment Protection and Biodiversity Conservation Act 1999* (the Act). A monitoring warrant allows an authorised officer to enter a premises for the purpose of finding out whether any or all the provisions of an environmental law have been, are being, or will be complied with.

YOUR RIGHTS	If you, or another person who represents you, are present at the premises, the executing officer must make available to you a copy of the monitoring warrant. The executing officer must identify himself or herself to you. If you, or a person representing you, are present at the premises when the monitoring warrant is being executed, you are entitled to observe the search being conducted. This right ceases if you, or the person representing you, impede the search. The executing officer must announce that he or she is authorised to enter the premises, and give any person at the premises the opportunity to allow entry to the premises before any person enters the premises under the monitoring warrant. If no one is present, the executing officer has the power to enter your property to effectively execute the warrant.

WHAT AN EXECUTING OFFICER MAY DO	The executing officer may, if authorised by the warrant, exercise monitoring powers as set out in section 407 and 407A of the Act in relation to the premises. A copy of these sections is on pages 2 and 3. The executing officer may exercise powers of seizure conferred by section 444A and 445. A copy of these sections is on pages 5 and 6. Two or more areas of the premises may be searched at the one time. The executing officer may require you, or a person on the premises, to: a) answer a question; b) give information; or c) produce records or documents kept on the premises. If you do not comply, you are guilty of an offence which may be punishable by imprisonment or a fine.

Environment Protection and Biodiversity Conservation Act 1999 **Section 407** **Monitoring powers**	(1) For the purposes of this Division, each of the following powers is a ***monitoring power*** in relation to particular premises: (a) the power to inspect and search the premises; (b) the power to take photographs (including a video recording), or to make sketches, of the premises or of any substance or thing at the premises; (c) the power to inspect, examine and take samples of, any substance or thing on or in the premises; (ca) the power to take measurements of, and conduct tests on, the premises or any substance or thing on the premises; (cb) the power to mark a live specimen on the premises (see subsection (2)); (d) the power to take extracts from, or make copies of, any document, book or record on the premises; (da) the powers to operate electronic equipment, and do other things, at the premises as mentioned in section 407A; (e) the power to take onto the premises any equipment or material reasonably necessary for the purpose of exercising a power referred to in any other paragraph of this subsection.
	(2) For the purposes of paragraph (1)(cb), ***mark*** includes: (a) in the case of a live plant: (i) mark or label a cage or container in which the plant is kept or in which the plant is growing; and (ii) place a label or tag on the plant; and (b) in the case of a live animal: (i) implant a scannable device in the animal; and (ii) place a band on any part of the animal; and (iii) place (whether by piercing or otherwise) a tag or ring on any part of the animal; and (iv) mark or label a cage or container within which the animal is kept.

	(3) If: (a) damage is caused to a specimen, or a cage or container in which a specimen is kept, as a result of an authorised officer exercising the power to mark under paragraph (1)(cb); and (b) the damage was caused as a result of insufficient care being exercised by the authorised officer; compensation for the damage is payable to the owner of the specimen, or to the owner of the cage or container, as the case requires. (4) Compensation is payable out of money appropriated by the Parliament for the purpose. (5) In determining the amount of compensation payable, regard is to be had to whether the owner, if the owner was available at the time, had provided any warning or guidance relating to the marking of the specimen, cage or container.
Environment Protection and Biodiversity Conservation Act 1999 **Section 407A** **Operation of electronic equipment at premises**	Monitoring powers include the powers set out in this section (1) Monitoring powers in relation to premises include the powers set out in this section. This section does not authorise these powers to be exercised otherwise than in situations in which this Division allows monitoring powers to be exercised. Operation of equipment (2) An authorised officer may operate electronic equipment at premises to see whether relevant material is accessible by doing so, if he or she believes on reasonable grounds that the operation of the equipment can be carried out without damage to the equipment. Seizure etc. (3) If an authorised officer operates electronic equipment at premises under subsection (2), and the authorised officer finds that relevant material is accessible by doing so, he or she may: (a) seize the equipment and any disk, tape or other associated device; or (b) if the relevant material can, by using facilities at the premises, be put in documentary form--operate the facilities to put the material in that form and seize the documents so produced; or (c) if the relevant material can be transferred to a disk, tape or other storage device that: (i) is brought to the premises; or

(ii) is at the premises and the use of which for the purpose has been agreed to in writing by the occupier of the premises;

operate the equipment or other facilities to copy the material to the storage device and take the storage device from the premises.

Limitation on seizure

(4) An authorised officer may seize equipment under paragraph (3)(a) only if:

(a) it is not practicable to put the relevant material in documentary form as mentioned in paragraph (3)(b) or to copy the material as mentioned in paragraph (3)(c); or

(b) possession of the equipment by the occupier could constitute an offence.

How this Part applies to things seized

(5) The other provisions of this Part apply in relation to a thing seized under paragraph (3)(a) or (b) as if the thing had been seized under section 445.

Securing equipment

(6) If an authorised officer believes on reasonable grounds that:

(a) relevant material may be accessible by operating electronic equipment at the premises; and

(b) expert assistance is required to operate the equipment; and

(c) if he or she does not take action under this subsection, the material may be destroyed, altered or otherwise interfered with;

he or she may do whatever is necessary to secure the equipment, whether by locking it up, placing a guard or otherwise.

Notice about securing equipment

(7) An authorised officer who wishes to secure electronic equipment under subsection (6) must give notice to the occupier of the premises of:

(a) his or her intention to secure the equipment; and

(b) the fact that the equipment may be secured for up to 24 hours.

Period for which equipment may be secured

(8) Electronic equipment may be secured under subsection (6):

(a) for a period not exceeding 24 hours; or

(b) until the equipment has been operated by the expert;

whichever happens first.

Extension of period

(9) If an authorised officer believes on reasonable grounds that expert assistance will not be available within 24 hours, the authorised officer may apply to a magistrate for an extension of that period.

Notice to occupier

(10) An authorised officer must give notice to the occupier of the premises of his or her intention to apply for an extension under subsection (9), and the occupier is entitled to be heard in relation to the application.

Provisions relating to extensions

(11) The provisions of this Division relating to the issue of a monitoring warrant apply, with such modifications as are necessary, to the issuing of an extension.

Definition

(12) In this section:

"relevant material " means:

(a) evidential material; or

(b) any other material that is relevant for the purposes of finding out whether any or all of the provisions of an environmental law have been, are being or will be complied with.

Environment Protection and Biodiversity Conservation Act 1999 **Section 444A** **Seizure of specimens involved in a contravention of Part 13A**	(1) An authorised officer may seize a specimen if he or she has reasonable grounds to suspect that the specimen has been used or otherwise involved in the commission of an offence against Part 13A. Note: Part 13A deals with international movement of wildlife specimens. (2) If a warrant has been issued under Division 4: (a) if the warrant relates to premises—this section does not apply: (i) to the executing officer, or an officer assisting, while he or she is searching premises under the warrant; or (ii) to anything found during the course of such a search; and (b) if the warrant relates to a person—this section does not apply: (i) to the executing officer, or an officer assisting, while he or she is searching a person, or an aircraft, vehicle or vessel, under the warrant; or (ii) to anything found during the course of such a search. Note: Division 4 is about search warrants. The Division contains its own seizure powers (see paragraphs 417(1)(c), (d) and (e) and (2)(b), (c) and (d)).
Environment Protection and Biodiversity Conservation Act 1999 **Section 445** **Seizure of things (other than specimens involved in a contravention of Part 13A)**	(1) Subject to subsections (2) and (3), an authorised officer may seize a thing if he or she has reasonable grounds to suspect that it is evidential material in relation to an offence against an Environmental law, in relation to a contravention of an environmental penalty provision or in relation to both. (2) This section does not apply to a specimen that an authorised officer has reasonable grounds to suspect has been used or otherwise involved in the commission of an offence against Part 13A. Note: Section 444A deals with the seizure of such specimens. (3) If a warrant has been issued under Division 4: (a) if the warrant relates to premises—this section does not apply: (i) to the executing officer, or an officer assisting, while he or she is searching premises under the warrant; or (ii) to anything found during the course of such a search; and (b) if the warrant relates to a person—this section does not apply: (i) to the executing officer, or an officer assisting, while he or she is searching a person, or an aircraft, vehicle or vessel, under the warrant; or (ii) to anything found during the course of such a search. Note: Division 4 is about search warrants. The Division contains its own seizure powers (see paragraphs 417(1)(c), (d) and (e) and (2)(b), (c) and (d)). (3A) A reference in this section to an offence against an environmental law does not include an offence against Part VIIA of the *Great Barrier Reef Marine Park Act 1975* (compulsory pilotage). (4) In this section: *thing* includes a vehicle, vessel, aircraft, platform, document, organism and specimen.

Australian Government

Department of the Environment and Energy

Environment Protection and Biodiversity Conservation Act 1999

INFORMATION FOR LAND HOLDERS AND MANAGERS

A monitoring warrant has been issued concerning your property

The Department of the Environment and Energy applied to the Queanbeyan Local Court for a monitoring warrant to give us access to your property and the Court has issued that warrant.

You have been given a copy of the Department's *Occupier's Information Sheet*. This sets out your rights and the powers of authorised officers under that warrant. Please read that information sheet carefully.

Does this mean you have breached the EPBC Act?

This is an investigative step to help us decide whether you are complying with the EPBC Act. It does not necessarily mean you have broken the law.

What we want to do is work out whether there is any risk of a breach of the EPBC Act and to then work with you to deal with that issue.

Can you start, or continue, to clear vegetation?

If you start an activity, or continue to carry out an activity, that has, will, or is likely to have a significant impact on a matter protected by the *Environment Protection and Biodiversity Conservation Act 1999*, then there may be consequences under the Act. Matters protected include things like a listed threatened species or ecological community.

What will the Department do with the information it gathers under the warrant?

Under the warrant the Department's officers will monitor and investigate the carrying out of the activity. Depending on what our officers find, we may:

- decide that no further action is required and close this case; and /or
- seek to work with you to avoid a breach of the EPBC Act; and /or
- advise you that a breach of the EPBC Act has been established.

What can happen after that?

If we believe that there could be a breach of the EPBC Act, we may, depending on the circumstances:

- request that you refer further activity to the Federal Minister for the Environment and Energy for assessment and, if necessary, approval under the EPBC Act; and/or
- seek an injunction to restrain you from carrying out further activity.

Where we find evidence that there has been a breach of the EPBC Act we may, depending on the circumstances, do a number of things, such as:

- seek an *enforceable undertaking* from you, where you agree to pay a specified amount for the protection and conversation of the relevant protected matter;
- make a *remediation determination*, which requires you to repair or mitigate the damage that you have caused;
- ask you to enter into a *conservation agreement*, under which we make an agreement for the protection or conservation of protected matters; and/or
- start civil or criminal proceedings against you in a court, which may lead to financial penalties.

Where can you find more information?

The *EPBC Act Compliance and Enforcement Policy* sets out our approach to compliance and enforcement activities under the EPBC Act. It is available online: http://www.environment.gov.au/epbc/publications/epbc-compliance-and-enforcement-policy.

The Department's website contains more information in relation to the operation of the EPBC Act (http://www.environment.gov.au/epbc).

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Document 11

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From: s47F
To: s47F
Cc: s47F
Subject: RE: Jam Land Response Letter170214.pdf [SEC=UNCLASSIFIED]
Date: Thursday, 16 February 2017 3:22:53 PM

Dear Mr Taylor,

As discussed, thank you for the response you have provided. The Department will consider your response and will be in contact with you in due course regarding concerns you have raised. Please feel free to contact me if you have any queries.

Kind Regards,

s47F
A/g Compliance Manager
Compliance Section
Environment Standards Division
Department of the Environment and Energy
GPO Box 787 CANBERRA, ACT 2601
s47F

From: s47F
Sent: Wednesday, 15 February 2017 5:54 PM
To: 'compliance@environment.gov.au' <compliance@environment.gov.au>
Cc: s47F
Subject: Jam Land Response Letter170214.pdf

Letter re alleged breach of EPBC Act at Corrowong.
Could you please acknowledge receipt of this letter.

Regards

Richard Taylor

s47F

COOMA-MONARO
SHIRE COUNCIL

Offset site assessment

LAKE WALLACE STORAGE DAM AND ASSOCIATED INFRASTRUCTURE

FEBRUARY 2014

ngh environmental

Document Verification

Project Title: LAKE WALLACE STORAGE DAM AND ASSOCIATED INFRASTRUCTURE

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1 INTRODUCTION

1.1 BACKGROUND

The Lake Wallace development to be constructed by Cooma Monaro Shire Council is located on Pigring Creek, approximately 6 kilometres south of Nimmitabel. The project would result in the loss of vegetation belonging to the:

- NSW EEC Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland in the South Eastern Highlands, Sydney Basin, South East Corner and NSW South Western Slopes Bioregions ('Snow Gum - Candlebark Woodland EEC'), and the
- Commonwealth EEC Natural Temperate Grassland of the Southern Tablelands of NSW and the Australian Capital Territory (Wet Tussock Grassland association).

Cooma Monaro Shire Council is the determining authority for the project, subject to concurrence from the Director-General of the Office of Environment and Heritage (OEH). The proposal is also a 'controlled action' which requires approval from the Commonwealth Environment Minister.

Biodiversity offsets are measures that are used to compensate for the adverse impacts of development. Direct offsets are areas of land similar and generally close to the area impacted by a proposal which are set aside permanently and managed for conservation to compensate for specific biodiversity impacts.

A Biodiversity Offset Strategy was submitted with the Species Impact Statement (SIS) for the Lake Wallace project (**ngh**environmental 2013), which identifies direct offset requirements, proposed offset sites, site assessment methods, an offset management plan outline and long term tenure and security arrangements. It is expected that the strategy will form part of the approval and concurrence conditions for the project. Coupled with the mitigation measures for the project, the offsets are intended to ensure that biodiversity values are 'maintained or improved' at the locality scale.

The locations of the two offset sites are shown on Figure 1-1.

1.2 ASSESSMENT OF THE OFFSET SITES

The offset site assessment has the following objectives:

- to present field survey findings relating to the condition of Snow Gum - Candlebark Woodland and Wet Tussock Grassland at the offset sites
- to demonstrate that the area and quality requirements in relation to EEC offsets have been met
- to provide a working information base for the development of an Offset Management Plan for the offset sites.

The distribution and condition of EEC vegetation at the Lake Wallace block offset site was assessed by Eco Logical Australia (2011) as part of the flora and fauna assessment for the Lake Wallace project. Vegetation mapping for the site has been refined by Council and the vegetation classification has been revised for the REF and SIS prepared by **ngh**environmental (2013).

Eco Logical Australia (2012) prepared preliminary vegetation mapping and offset assessments over the entire Wallace property, including the southern blocks offset site. This work was used in the development of the Biodiversity Offset Strategy. In the current study, **ngh**environmental conducted surveys and

condition assessments in the southern blocks offset site, resulting in some amendment to the preliminary vegetation unit boundaries identified in Eco Logical Australia (2012).

Compatible flora survey and condition assessment methodologies were used by Eco Logical Australia (2011) in the Lake Wallace block and by **ngh**environmental in the southern blocks offset sites (refer below).

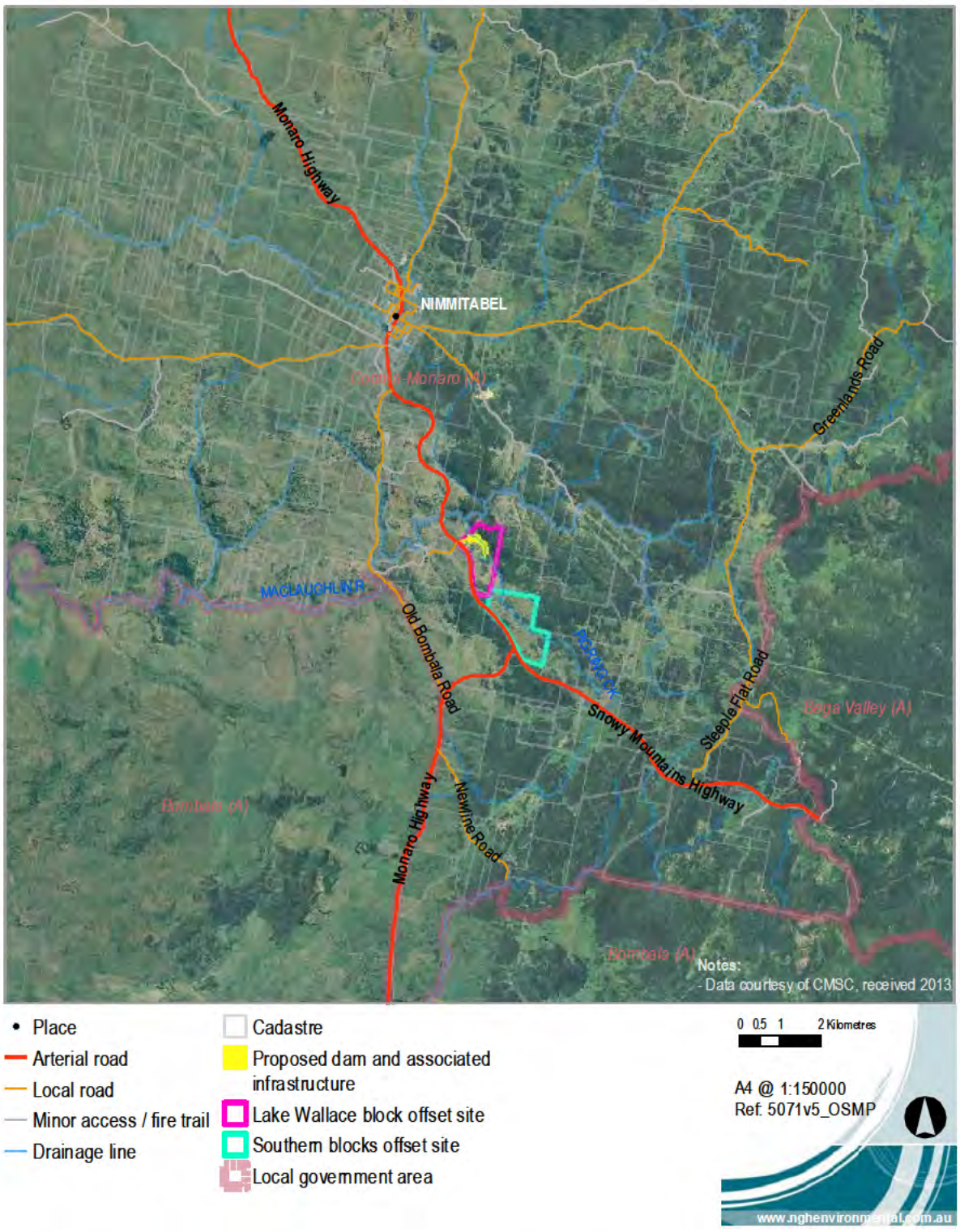


Figure 1-1 Location of the Lake Wallace block and southern blocks offset sites

2 OFFSET SITE DESCRIPTION

2.1 PHYSICAL CHARACTERISTICS

The Lake Wallace block (107.63 hectares) and southern blocks (150.74 hectares) offset sites are located in the Pigring Creek - Lake Wallace catchment. The fourth-order Pigring Creek forms part of the MacLaughlin River and Snowy River catchments. The creek is incised in places and runoff efficiency from the catchment is likely to have increased since European settlement.

The sites occur on granitic soils derived from granodiorite and adamellite (from the Glenbog Suite, part of the Devonian Bega Batholith). The soils are non-dispersive (SMEC 2010) and are characterised by medium to course grained clayey sands with a thin topsoil of clayey silt. The topography includes a narrow alluvial floodplain and undulating sideslopes, at around 1000 metres above sea level.

2.2 SOCIAL AND CULTURAL FACTORS

The offset sites are zoned 1(a) (Rural Zone) in the Cooma Monaro Shire Local Environmental Plan Cooma-Monaro Local Environment Plan 1999 – (Rural). Land use within the Pigring Creek catchment is predominantly forest and grazing. The catchment contains ten land lots and portions of sixteen additional land lots, involving 10 owners. The Monaro Highway and Snowy Mountain Highway run along the western boundary of the sites. Both offset sites are visible from the highways.

Small low density Aboriginal artefact scatters and isolated artefacts manufactured from quartz, silcrete, chert and quartzite were recorded at the Lake Wallace block (**ngh**environmental 2013). The waterhole on Pigring Creek in the south of the Lake Wallace block is a possible birthing site and has Aboriginal cultural values (OCHM 2013).

2.3 VEGETATION AND HABITATS

The study area supports native and exotic grasslands, grassy woodland, and both grassy and shrubby open forest communities. The offset sites have been grazed by both cattle and sheep using a set stocking regime, rather than rotational grazing (A. Wallace, land owner, pers. comm). Grazing affects natural ecosystems through herbivory, soil impacts and nutrient concentration. Long term grazing impacts are likely to include:

- a decline in the diversity of native forb species
- the replacement of tall warm-season grasses species with shorter cool-season grasses
- increasing dominance by introduced annual species with higher grazing intensity
- soil compaction and disturbance (Eddy 2002, Dorrough *et al.,* 2004, Lunt *et al*. 2007).

Grazing over a long period may have removed or reduced flora sensitive to these impacts such as shrubs, legumes and geophytes, particularly if accompanied by fertiliser use. Increased phosphorous through the use of fertiliser results in a progressive loss of native plant diversity (Dorrough *et al.* 2008, Dorrough 2012). No superphosphate fertiliser has been applied to the offset sites in the last 30 years (A. Wallace, land owner, pers. comm).

At the time of survey the southern blocks site showed signs of selective grazing of Kangaroo Grass (*Themeda triandra*), with this species grazed low over much of the site and reduced to a patchy sward between *Poa labillardierei* tussocks in the east of the site. However, *Themeda triandra* remains generally

widespread and dominant in grassland over most of the site and a number of grazing sensitive and quality indicator species are present at both offset sites.

Tree cover at the sites includes remnant forest, woodland patches comprising mature older trees and surrounding regrowth of varying ages, and mature paddock trees. Hollow-bearing trees are sparsely scattered at the sites. Woodland and forest patches generally have abundant fallen logs and litter. Embedded granitic boulders provide some reptile habitat, and refugia for grazing sensitive plants. Pigring Creek and farm dams provide water sources and aquatic habitat for fauna at the sites.

2.4 LANDSCAPE FACTORS

2.4.1 Landscape context

At the 1000 hectare scale centred on the Lake Wallace block, native vegetation makes up approximately 70% cover, and includes woodland, forest and natural grassland (dryland and Wet Tussock Grassland associations) (BioBanking score 13.6). At the 100 hectare scale, the landscape also comprises approximately 70% native vegetation cover (BioBanking score 8.5). The percentage of native vegetation cover at both scales will be slightly higher for the southern blocks site. The adjacent remnant area is scored as 'very large', based on the area of the patches and the Mitchell Landscape % clearing estimate. The site is contiguous with a large area of grassy and shrubby forest vegetation to the east, and natural grassland to the west of the study area.

2.4.2 Connectivity

The Snow Gum – Candlebark Woodland EEC is naturally fragmented by habitat, locally restricted to open valley floors, margins of frost hollows, footslopes and undulating hills. Extensive clearing for agriculture has increased the level of fragmentation. The Wet Tussock Grassland association of the EEC is also naturally fragmented by a discontinuous distribution on floodplain alluvium along Pigring Creek.

The offset sites are connected to a large patch of intact grassy forest to the east, with a linkage greater than 500 metres wide (likely to be BioMetric condition class 3). There is stepping stone and direct connectivity with a large forest patch to the south of the site. Patchy woodland connectivity is present to the west of the site. There is also riparian connectivity along Pigring Creek within the offset sites and between the sites and the MacLaughlin River corridor.

The offset sites are located at the western edge of the north-south escarpment ranges forest and woodland corridor. The area is also likely to form part of a discontinuous corridor of forest and woodland habitat patches for birds migrating seasonally between the Alps and the coast. At the regional and continental scales, there are two major corridor projects involving land within the local government area; the Alps to Atherton corridor and the Kosciuszko to Coast (K2C) corridor (Cooma Monaro Shire Council 2011). The projects aim to establish connections between habitat patches on public and private land.

2.5 ENDANGERED ECOLOGICAL COMMUNITIES

2.5.1 Snow Gum – Candlebark Woodland EEC

This EEC occupies an estimated total area of 14,100 hectares which is estimated to be a 72% decline in area since European settlement (Tozer *et al.* 2010). The corresponding BioMetric vegetation type Snow

Gum - Candlebark Woodland on Broad Valley Flats of the Tablelands and Slopes, South Eastern Highlands has a clearing estimate of 95% (DECCW 2008a). Clearing for agriculture has also fragmented the community. Less than 4,000 hectares is currently represented in conservation reserves in NSW (Crooks in litt. 2009 in NSW Scientific Committee 2011). The community is threatened by climate change, clearing, fragmentation, fertilizer application, tree dieback, trampling and grazing by domestic livestock, weed invasion and altered fire regimes (NSW Scientific Committee 2011).

Priday (2007) notes that Snow Gum Woodlands have been extensively modified, cleared and fragmented in Cooma Monaro Shire. Tozer *et al.* (2006) map more than 4,000 hectares of Southern Tablelands Flats Forest to the immediate north and south of the study area, some of which is likely to comprise the local occurrence of the EEC (Eco Logical Australia 2011). The 2008 Regional State of the Environment report (OCSE 2008) indicates that there are 860 hectares of the Southern CRA community 146 Tableland Dry Herb/Grass Woodland in the CMSC LGA, which is likely to be one of the communities which make up the EEC. This community is vulnerable and poorly reserved in the LGA (OACE 2008).

Preliminary vegetation mapping of the Wallace property undertaken by Eco Logical Australia (2012) indicates approximately 169 hectares of Snow Gum – Candlebark Woodland EEC as structural woodland, 27 hectares as high quality secondary grassland and 261 hectares as low quality secondary grassland. The EEC is likely to extend along the Pigring Creek and MacLaughlin River valleys, and adjacent valley areas.

2.5.2 Natural Temperate Grassland (Wet Tussock Grassland association)

The pre-European and current extent of the Wet Tussock Grassland association is not known (Rehwinkel pers comm. 2010 in Eco Logical Australia 2011) For the Southern CRA region, Gellie (2005) estimates a pre-1750 area of 11,700 hectares, an extant area of 2,500 ha, percentage cleared 79% and 85 ha (1%) in conservation reserves for his corresponding Vegetation Group 148 Tableland Tussock Grassland/Sedgeland.

The BioMetric vegetation type River Tussock - Tall Sedge - Kangaroo Grass Moist Grasslands of the South Eastern Highlands has a clearing estimate of 95% (DECCW 2008a). The association occurs at Reedy Creek TSR, Logans TSR and Rosewood TSR, Wet Lagoon and Mulligans Flat. It is reserved in Deua NP, Tinderry NR and Yaouk NR, with very minor occurrence at Turallo NR. It is also found on Nature Conservation Trust covenanted land in the upper Shoalhaven River, and at the Scottsdale Bush Heritage Reserve near Cooma (OEH 2011). The 2008 Regional State of the Environment report (OCSE 2008) indicates that there are 340 hectares of the analogous Southern CRA community 148 Tableland Tussock Grassland/Sedgeland/Woodland in the CMSC LGA. This community is vulnerable and poorly reserved in the LGA (OACE 2008).

The size and distribution of the local occurrence of the EEC is similarly not known, but appears likely to extend along the Pigring Creek and MacLaughlin River valleys, and other valley areas in the locality. Preliminary vegetation mapping shows that there is approximately 15 hectares of the Wet Tussock Grassland association on the Wallace property (Eco Logical Australia 2012).

3 OFFSET SITE SURVEY

3.1 METHODS

3.1.1 General

Flora survey

The study area at both offset sites was stratified into relatively homogeneous vegetation units based on BioMetric vegetation types (DECCW 2008a), variations in structure (grassland and woodland) and groundcover quality (low and high quality). A modified Braun-Blanquet cover scoring system was used to survey 20 metre x 20 metre quadrats. Map references are provided in GDA 94 datum.

Condition assessment

Grassy ecosystem quality has been measured using the grassy ecosystem site value assessment method developed by Rehwinkel (2007a). The assessment method applies a 'Floristic Value Score' to grassy sites based on the number, density and significance of species recorded in 400 m^2 quadrats. Site condition has also been assessed by comparison with condition benchmarks developed for each BioMetric vegetation class or type (DECCW 2008b). Benchmarks are quantitative measures that describe the range of variability in condition of vegetation with relatively little evidence of alteration, disturbance or modification by humans since 1750 (DECCW 2011).

3.1.2 Lake Wallace block offset site

The location and methods used by Eco Logical Australia on 15-17 November 2010 in the Lake Wallace block are detailed in the Species Impact Statement for the Lake Wallace project (**ngh**environmental 2013). The flora survey used a combination of random meanders (after Cropper 1993) and at least one 20 metre x 20 metre quadrat in each vegetation unit. Consistent with Rehwinkel (2007b), sites generating a Floristic Value Score of 4 or greater were considered to be high condition and anything below 4, low condition (Ryan Smithers ELA pers. comm.). Additional Floristic Value Scores for structural woodland vegetation were calculated by **ngh**environmental for this report using Eco Logical Australia quadrat data. An additional plot was surveyed in the far south of the Lake Wallace block by **ngh**environmental to improve survey coverage (site NG1).

3.1.3 Southern blocks offset site

Each unit was inspected on foot prior to the plot survey. The field measurement of condition attributes was based on the 50 metre x 20 metre and nested 20 metre x 20 metre plot and transect layout described in the BioMetric 3.1 Operational Manual (DECCW 2011). Native plant richness, native overstorey and understorey structure and floristics, exotic plant cover, tree hollows and coarse woody debris were recorded. Consistent with the Lake Wallace block offset site, the grassy ecosystem site value method developed by Rehwinkel (2007a) was used to assess vegetation condition. High and low quality secondary grassland were arbitrarily distinguished based on relative Floristic Value Scores and the dominance/co-dominance of *Themeda triandra*.

3.1.4 Significant flora species

Eco Logical Australia conducted targeted searches for threatened and other significant species in the Lake Wallace offset site. Significant species were recorded opportunistically in the southern blocks site.

3.2 EFFORT, ADEQUACY AND LIMITATIONS

3.2.1 Lake Wallace block offset site

The overall effort and adequacy of flora surveys undertaken by Eco Logical Australia on 15-17 November 2010 in the Lake Wallace block offset site are described and evaluated in the Species Impact Statement for the Lake Wallace project (**ngh**environmental 2013). Coupled with random meanders and targeted searches, the quadrat survey conducted in the Lake Wallace block is considered adequate for the purposes of the assessment. An additional plot was surveyed in the far south of the Lake Wallace block by **ngh**environmental during the southern blocks survey to improve the geographic coverage of the survey.

3.2.2 Southern blocks offset site

The survey of the southern blocks offset site (and one plot within the Lake Wallace block) was undertaken by **ngh**environmental on 13 November 2013. The plot survey meets the effort requirements set out in the DEC (2004) guidelines; refer Table 3-1.

Table 3-1 Assessment of survey effort against DEC (2004) minimum effort criteria

Vegetation unit	Area in offset site	Plot requirements	Plots surveyed
Snow Gum – Candlebark Woodland - secondary grassland high quality (GH)	42.40	2	3
Snow Gum – Candlebark Woodland - secondary grassland low quality (GL)	39.78	2	3
Snow Gum – Candlebark Woodland - structural woodland (SG)	28.06	2	2
Wet Tussock Grassland (NG) - Natural Temperate Grassland	9.71	2	2

3.2.3 Limitations

The timing of the survey was too early for the confident identification and abundance estimation of some grasses, sedges and later flowering geophytes. The cool spring may have delayed the growth and flowering of some grassland species. However, the survey timing was suitable for the assessment of condition, and determining comparative Floristic Site Values. The timing was consistent with earlier assessments conducted on the Lake Wallace block, and was suitable for the identification of threatened flora species with highest potential to be present (*Leucochrysum albicans* var *tricolor*, *Calotis glandulosa, Swainsona sericea* and *Diuris pedunculata*). The mapped vegetation unit boundaries are necessarily generalised, and imposed over what are sometimes highly diffuse transitions between units.

3.3 RESULTS

3.3.1 Lake Wallace block offset site

The locations of the representative survey plots and EEC vegetation units mapped by Eco Logical Australia and Council in the Lake Wallace block are shown on Figure 3-5. Map references for the survey sites are provided in Appendix A.

EEC vegetation

Snow Gum - Candlebark Woodland on Broad Valley Flats of the Tablelands and Slopes, South Eastern Highlands ('Snow Gum - Candlebark Woodland')

This vegetation community includes secondary grassland areas originally mapped in Eco Logical Australia (2011a and 2012b) as the Kangaroo Grass - Snowgrass Tussock Grassland on Slopes and Ridges of the Tablelands, South Eastern Highlands. The community is mapped in three units; high quality secondary grassland, low quality secondary grassland and structural woodland.

The high quality secondary grassland is dominated by the native grasses Wheatgrass (*Elymus scaber*), Corkscrew Grass (*Austrostipa scabra*) and Wallaby Grasses (*Rytidosperma* spp). A relatively diverse range of native forbs and other graminoids are present and in places abundant. The low quality secondary grassland has lower native forb diversity and abundance and is dominated by Corkscrew Grass (*Austrostipa scabra*). The structural woodland carries Snow Gum (*Eucalyptus pauciflora*) and Black Sallee (*E. stellulata*) with occasional larger Candlebarks (*Eucalyptus rubida*). The groundcover is generally a diverse mix of native graminoids and forbs, with low shrubs.

An additional survey plot conducted by **ngh**environmental in the far south of the offset site has high quality secondary grassland dominated by *Themeda triandra* and *Poa sieberiana*.

The structural woodland plot survey data shows high levels of diversity, with a number of significant flora species including the NSW threatened species *Diuris pedunculata* at site 246. The two high-scoring woodland lots are located outside of the impact area of the Lake Wallace project.

River Tussock – Tall Sedge – Kangaroo Grass Moist Grasslands of the South Eastern Highlands ('Wet Tussock Grassland')

This community occupies riparian flats, lower slopes and drainage lines, dominated by River Tussock (*Poa labillardierei*) with a range of native sedges, rushes and forbs.

Condition assessment

Based on the Floristic Site Value scores, the Snow Gum - Candlebark structural woodland vegetation is in very good condition. Secondary grassland (high quality) is in generally good condition. The low quality secondary grassland and the Wet Tussock Grassland generate lower Floristic Site Value scores, but remain dominated by native grasses with a high diversity of native forbs. BioMetric condition and Floristic Site Value scores for EEC vegetation at the Lake Wallace block offset site is summarised in Table 3-2.

Table 3-2 Floristic Site Value of EEC vegetation at the Lake Wallace block offset site

Survey site	Dominants	BioMetric condition	Floristic Site Value
Snow Gum – Candlebark Woodland - high quality secondary grassland (GH): NSW EEC			
240	*Elymus scaber - Austrostipa scabra - Rytidosperma* spp	Moderate-good	13
GH1[1]	*Themeda triandra – Poa sieberiana – Mirbelia oxylobioides*	Moderate-good	24
Snow Gum – Candlebark Woodland - low quality secondary grassland (GL): NSW EEC			
249	*Austrostipa scabra – Rytidosperma* spp	Moderate-good	3
Snow Gum – Candlebark Woodland - structural woodland (SG): NSW EEC			
241	*Eucalyptus pauciflora*	Moderate-good	58
243	*Eucalyptus rubida - E. stellulata*	Moderate-good	13
246	*Eucalyptus pauciflora - E. stellulata*	Moderate-good	68
Wet Tussock Grassland (NG) - Natural Temperate Grassland: Commonwealth EEC			
242	*Poa labillardierei*	Moderate-good	9

[1] surveyed by **ngh**environmental in November 2013

The Snow Gum - Candlebark woodland vegetation units meet native species richness, native groundcover and shrub cover BioMetric benchmarks. The structural woodland meets the overstorey cover. Fallen logs and tree hollows were not measured during the 2010 survey. The secondary grassland (high and low quality) does not meet overstorey, midstorey, tree hollows and fallen logs benchmarks. The Wet Tussock Grassland vegetation meets all of the BioMetric benchmarks. A comparison of EEC vegetation at the Lake Wallace block offset site with BioMetric condition benchmarks is summarised in Table 3-3.

Table 3-3 Comparison of EEC vegetation with BioMetric condition benchmarks for the Lake Wallace block offset site

EEC	Richness	Overstorey cover	Mid-storey cover	Grass cover	Shrub cover	Trees with hollows	Fallen logs
Snow Gum - Candle Bark Woodland benchmarks	**20**	**15-30**	**0-15**	**5-70**	**0-10**	**2**	**25**
Secondary grassland high quality	26, 22	No	No	Yes	Yes	No	No
Secondary grassland low quality	22	No	No	Yes	Yes	No	No
Structural woodland	40, 41, 30	Yes	Yes	Yes	Yes	Not known	
Wet Tussock Grassland - Natural Temperate Grassland benchmarks	**16**	**0-5**	**0-0**	**30-80**	**0-5**	**0**	**0**
	29	Yes	Yes	Yes	Yes	Yes	Yes

3.3.2 Southern blocks offset site

The locations of the representative survey plots in each of the EEC vegetation units are shown on Figure 3-6. Map references for the sites are provided in Appendix A. Photographs of the survey sites are provided in Appendix B.

EEC vegetation

Snow Gum - Candlebark Woodland on Broad Valley Flats of the Tablelands and Slopes, South Eastern Highlands ('Snow Gum - Candlebark Woodland')

Consistent with the Lake Wallace block assessment, the community is mapped in three units; high and low quality secondary grassland and structural woodland.

The vegetation is in generally good condition, with widespread dominance or sub-dominance of *Themeda triandra*. The high quality secondary grassland is dominated by *Themeda triandra*, with a diverse range of native forbs and several regionally and nationally significant species (refer section 3.3.3). Shrubs are generally uncommon in grassland areas. The low quality secondary grassland is present as:

- a wetter and more gently undulating area in the far south of the offset site dominated by *Microlaena stipoides, Rytidosperma pilosum*, *Poa labillardierei* and *Poa sieberiana*
- heavily grazed areas on the ridge crest beside the highway in the west of the site with *Microlaena stipoides* and *Rytidosperma laeve*
- a more extensive area dominated by *Microlaena stipoides, Rytidosperma* sp and *Poa labillardierei* to the east of Pigring Creek. *Themeda triandra* is still present as a sub-dominant in much of this area.

The structural woodland occurs as discrete patches comprising older mature trees (*Eucalyptus pauciflora, E. rubida, E. stellulata*) 10-12 metres tall and surrounding 4-6 metre tall regeneration. Groundcover quality is generally good, except in localised stock camp areas.

River Tussock – Tall Sedge – Kangaroo Grass Moist Grasslands of the South Eastern Highlands ('Wet Tussock Grassland')

The *Poa labillardierei* Wet Tussock Grassland occupies an alluvial strip along Pigring Creek, and an area along an impeded tributary in the east of the site. This community has naturally lower native species diversity than dry grassland associations and the recorded richness levels are consistent with vegetation in good condition. Considering the moist and fertile nature of this habitat, the vegetation has low cover and diversity of exotic species.

The distribution of the EEC vegetation units initially mapped by Eco Logical Australia and revised by **ngh**environmental for the southern blocks offset site are shown on Figure 3-5.

Condition assessment

Based on the Floristic Site Value scores, the Snow Gum - Candlebark structural woodland and secondary grassland (high quality) are in very good condition. The secondary grassland (low quality) generates lower Floristic Site Value scores, but remains dominated by native grasses with a high diversity of native forbs. The Wet Tussock Grassland is in good condition at the site. BioMetric condition and Floristic Site Value scores for EEC vegetation at the Lake Wallace block offset site are summarised in Table 3-4.

Note that the survey site GH3 has been retained within the high quality category for the purposes of vegetation mapping despite a low Floristic Site Value score because of the dominance of *Themeda triandra* and its lower slope position between higher quality dry grassland and Wet Tussock Grassland.

Table 3-4 Condition of EEC vegetation at the southern blocks offset site

Survey site	Dominants (in rank order)	BioMetric condition	Floristic Site Value
Snow Gum – Candlebark Woodland - high quality secondary grassland (GH): NSW EEC			
GH2	*Themeda triandra – Poa sieberiana – Rytidosperma laeve*	Moderate-good	37
GH3	*Themeda triandra – Poa labillardierei - Rytidosperma* sp	Moderate-good	13
GH4	*Themeda triandra – Poa sieberiana - Rytidosperma* sp	Moderate-good	35
Snow Gum – Candlebark Woodland - low quality secondary grassland (GL): NSW EEC			
GL1	*Microlaena stipoides – Poa labillardierei – Themeda triandra*	Moderate-good	17
GL2	*Microlaena stipoides – Rytidosperma laeve - Poa labillardierei*	Moderate-good	6
GL3	*Microlaena stipoides – Rytidosperma pilosum - Poa labillardierei – Poa sieberiana*	Moderate-good	10
Snow Gum – Candlebark Woodland - structural woodland (SG): NSW EEC			
SG1	*Eucalyptus pauciflora – E. rubida - Poa sieberiana*	Moderate-good	23
SG2	*Eucalyptus stellulata – Themeda triandra – Poa sieberiana*	Moderate-good	30
Wet Tussock Grassland (NG) - Natural Temperate Grassland: Commonwealth EEC			
NG1	*Microlaena stipoides – Poa labillardierei*	Moderate-good	21
NG2	*Poa labillardierei – Schoenus apogon – Hypericum japonicum*	Moderate-good	19

The Snow Gum - Candlebark woodland vegetation units meet native species richness, native groundcover and shrub cover BioMetric benchmarks. The structural woodland meets the overstorey cover and fallen logs benchmarks, but fails to meet the benchmark for tree hollows. The secondary grassland (high and low quality) does not meet overstorey, midstorey, tree hollows and fallen logs benchmarks. The Wet Tussock Grassland vegetation meets all of the BioMetric benchmarks. A comparison of EEC vegetation at the southern blocks offset site with BioMetric condition benchmarks is summarised in Table 3-5.

Table 3-5 Comparison of EEC vegetation with BioMetric condition benchmarks for the southern blocks offset site

EEC	Richness	Overstorey cover	Mid-storey cover	Grass cover	Shrub cover	Trees with hollows	Fallen logs
Snow Gum - Candle Bark Woodland benchmarks	**20**	**15-30**	**0-15**	**5-70**	**0-10**	**2**	**25**
Secondary grassland high quality	39, 21, 36	No	No	Yes	Yes	No	No
Secondary grassland low quality	27, 17, 25	No	No	Yes	Yes	No	No
Structural woodland	27, 34	Yes	Yes	Yes	Yes	No (1, 1)	Yes
Wet Tussock Grassland - Natural Temperate Grassland benchmarks	**16**	**0-5**	**0-0**	**30-80**	**0-5**	**0**	**0**
	25, 16	Yes	Yes	Yes	Yes	Yes	Yes

Figure 3-1 Riparian Wet Tussock Grassland (middle ground) and heavily grazed *Themeda triandra* on slopes (foreground) at the southern blocks site

Figure 3-2 Possible pig damage in drainage line, with survey site SG2 woodland in middle distance at the southern blocks site

Figure 3-3 ROTAP species *Discaria pubescens* growing among rocks at the southern blocks site

Figure 3-4 Flatter and moister terrain in the far south of the southern blocks site dominated by *Microlaena stipoides, Rytidosperma pilosum and Poa* spp.

3.3.3 Significant flora species

The offset sites have potential to support seven threatened species (nghenvironmental 2013):

- Creeping Hop- bush (*Dodonaea procumbens*) - NSW and Commonwealth (Vulnerable)
- Mauve Burr-daisy (*Calotis glandulosa*) – NSW and Commonwealth (Vulnerable)
- Hoary Sunray (*Leucochrysum albicans* var *tricolor)* – Commonwealth (Endangered)
- Monaro Golden Daisy (*Rutidosis leiolepis*) - NSW and Commonwealth (Vulnerable)
- Silky Swainson-pea (*Swainsona sericea*) - NSW (Vulnerable)
- Austral Toadflax (*Thesium australe*) - NSW and Commonwealth (Vulnerable)
- Small Snake Orchid (*Diuris pedunculata*) - NSW (Endangered).

With the exception of the Small Snake Orchid, these species were not recorded at the sites during the surveys. A population of the Small Snake Orchid has been recorded in high quality Snow Gum – Candlebark Woodland in the south of the Lake Wallace block. Several nationally and regionally significant flora species have been recorded at the sites; refer Figure 3-5 and Figure 3-6, and Table 3-6. Map references for these records are provided in Appendix A. In general, these species are rare or uncommon

because their grassy ecosystem habitat has been widely depleted by agriculture (cultivation, grazing and fertiliser use) throughout the region.

Table 3-6 Significant flora species recorded at the offset sites

Species	Significance	Lake Wallace block	Southern blocks
Diuris pedunculata	Threatened (vulnerable) - NSW	✓	
Discaria pubescens	ROTAP 3RCa	✓	✓
Diuris punctata	Depleted or regionally uncommon	✓	
Swainsona monticola	Depleted or regionally uncommon	✓	✓
Ophioglossum lusitanicum	Depleted or regionally uncommon	✓	✓
Polygala japonica	Depleted or regionally uncommon	✓	✓
Leptorhynchos squamatus	Depleted or regionally uncommon	✓	✓
Craspedia canens	Depleted or regionally uncommon		✓
Dianella longifolia	Depleted or regionally uncommon	✓	✓

3.3.4 Management issues

Active soil erosion is occurring on track sections on steeper slopes and in some drainage lines. Gully erosion nick points at the southern blocks site are indicated on Figure 3-6.

Rabbits are active at the sites. Possible pig damage was evident in a wet drainage line at the southern blocks offset site at 707632 5949028; refer Figure 3-2.

The invasive and noxious weeds Scotch Thistle (*Onopordum acanthium*) - map reference 706938 5949996, and Serrated Tussock (*Nassella trichotoma*) – map reference 707278 5949640 were recorded at the southern blocks site; refer Figure 3-6. The noxious St John's Wort and Viper's Bugloss are also present beside the highway adjacent to the sites.

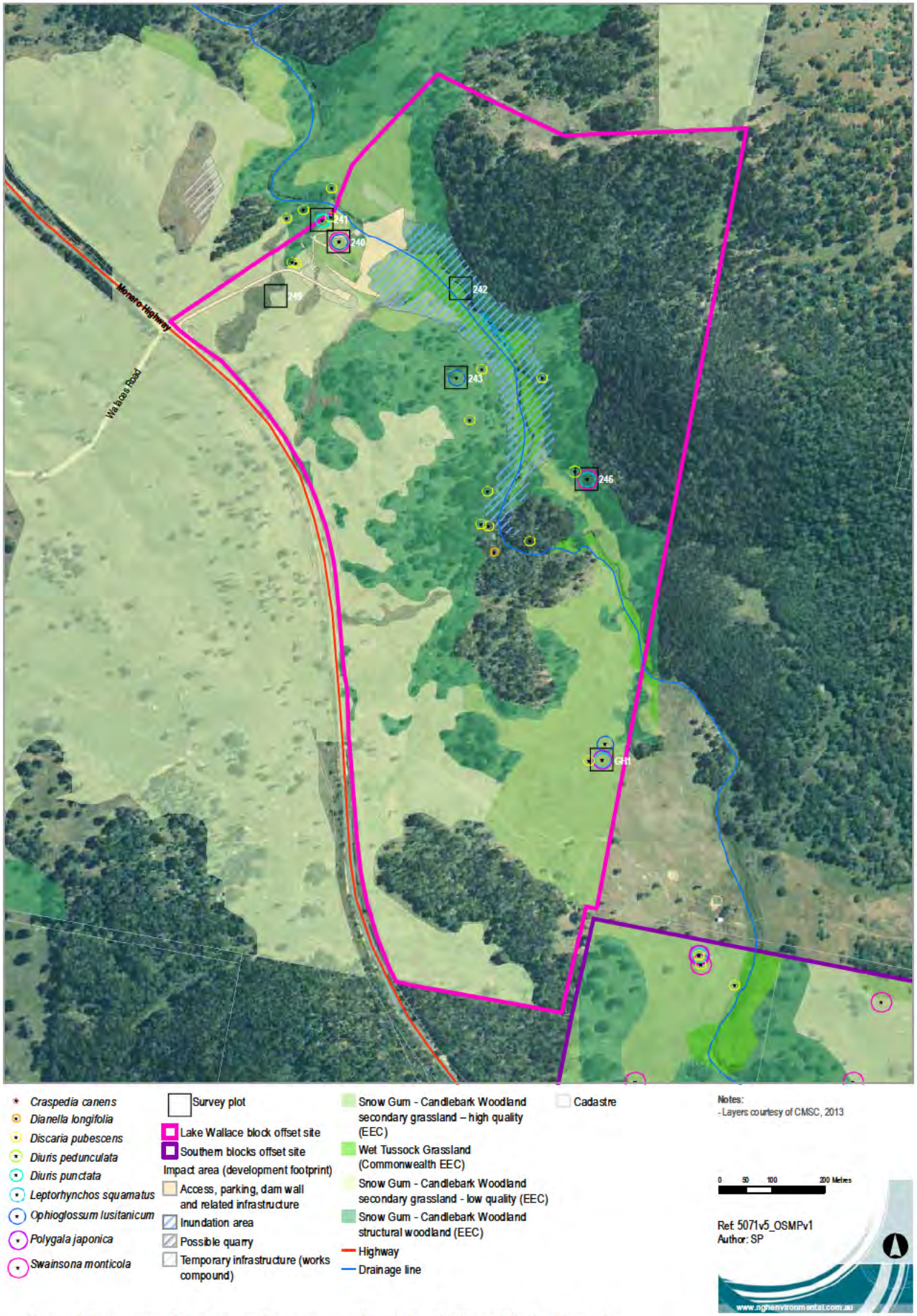


Figure 3-5 Survey plot sites and survey results - Lake Wallace block offset site

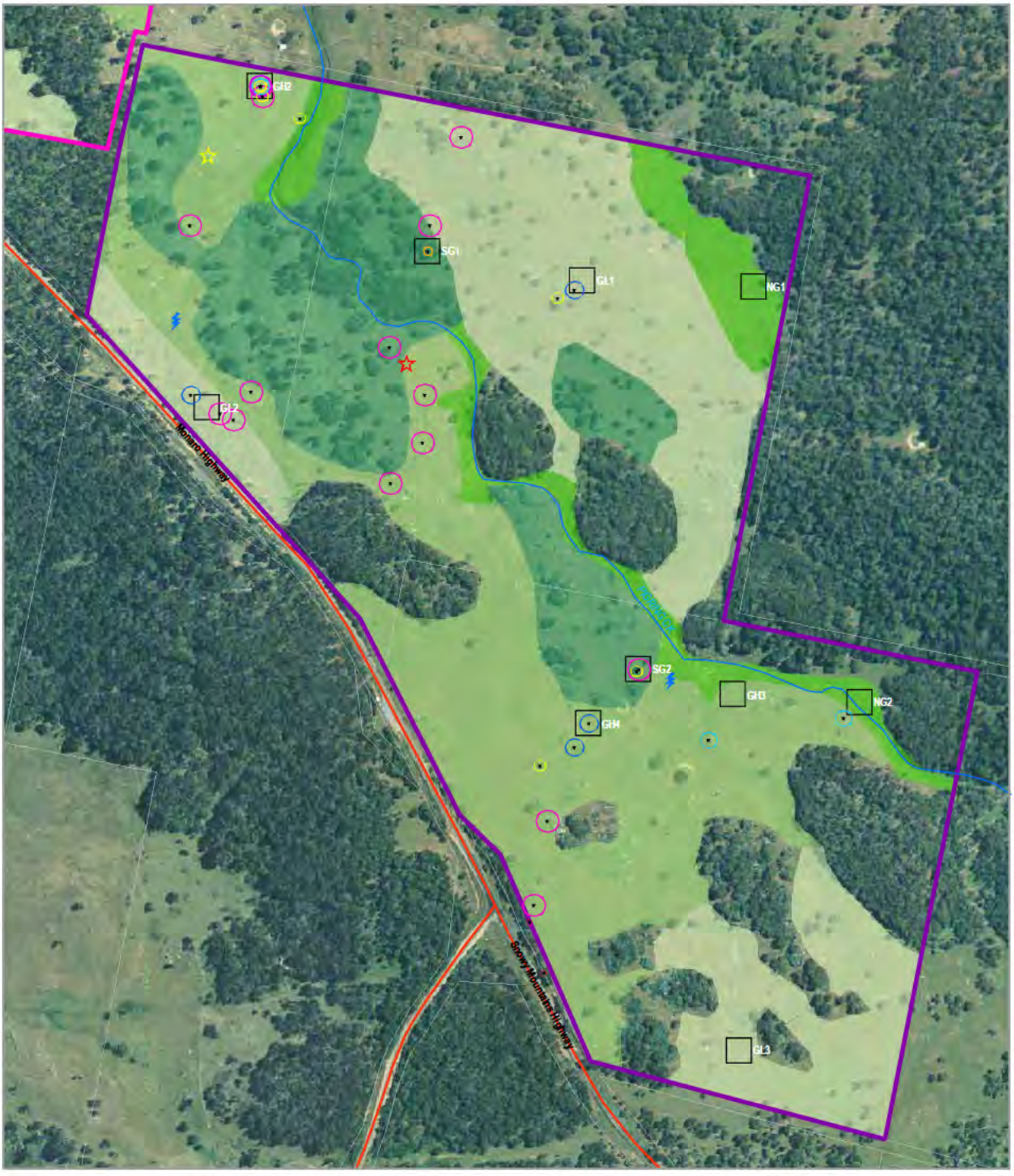


Figure 3-6 Survey plot sites and survey results – southern blocks offset site

4 CAPACITY TO MEET OFFSET REQUIREMENTS

The suitability of the Lake Wallace block and southern blocks offset sites and assessment methods in terms of the offsetting principles prescribed by the NSW (OEH 2013) and Commonwealth Governments is assessed in the Lake Wallace Biodiversity Offset Strategy, attached to the project Species Impact Statement (**ngh**environmental 2013). The capacity of the two offset sites to meet the specific area and quality requirements for the target EECs is assessed below.

4.1 EEC AREA REQUIREMENTS

The area requirements for offsetting the impacts of the Lake Wallace project are specified in the Biodiversity Offset Strategy **(ngh**environmental 2013a). The Strategy nominates offset ratios in the range 4:1 – 10:1 for the Snow Gum –Candlebark Woodland and Natural Temperate Grassland EECs. This range is considered to be proportionate to the significance of the impact, and consistent with previous **ngh**environmental experience using the BioBanking methodology and with expected results using the Commonwealth Offsets Assessment Guide. Applying the BioBanking methodology in case studies has produced offset ratios of 1.3:1 to 8.8:1 for medium-size developments (DECCW 2009b).

The capacity for the offset sites to meet these requirements is summarised in Table 4-1. The two offset sites meet the offset requirements for the project in terms of area.

Table 4-1 EEC offset requirements compared to areas within the offset sites

Affected EEC	Offset requirement (ha)	Lake Wallace block (ha)[1]	Southern blocks (ha)	Requirements met?
Snow Gum – Candlebark Woodland				
secondary grassland high quality	7.72-19.30	13.52	42.40	Yes
secondary grassland low quality	1.24-3.10	20.84	39.78	Yes
structural woodland	13.28-33.21	23.06	28.06	Yes
Natural Temperate Grassland - Wet Tussock Grassland association	7.52-18.80	0.57	9.71	Yes

[1] excluding proposal impact area

4.2 EEC QUALITY REQUIREMENTS

NSW offsetting principles include the need for offset sites to 'be targeted to the biodiversity values being lost or to higher conservation priorities' (OEH 2013c). Commonwealth principles state that offsetting must achieve an outcome that 'improves or maintains the viability of the aspect of the environment that is ... affected by the proposed action' (DSEWPAC 2012b).

In general, the Lake Wallace block and southern blocks offset sites conserve equivalent or better condition vegetation than that affected by the Lake Wallace development.

With the exception of the River Tussock Grassland plot, site quality was not directly measured for vegetation within the Lake Wallace impact area. However, it can be expected that the impacted vegetation would be of similar quality to the adjacent non-impacted vegetation, which was sampled during the Eco Logical Australia (2011) survey.

Impacted vegetation is likely to be similar to vegetation at the offset sites in terms of BioMetric community benchmarks (refer section 3.3). EEC vegetation at both offset sites compare similarly with the benchmarks. Based on the Floristic Site Value scores, structural woodland vegetation is of markedly higher quality within the Lake Wallace block compared to the southern blocks, although this vegetation is considered to be in good condition in both offset sites. In contrast, secondary grassland in the southern blocks offset site produce significantly better Floristic Site Value scores than the secondary grassland vegetation likely to be affected by the proposal. Similarly, the Natural Temperate Grassland (Wet Tussock association) vegetation in the southern blocks offset site is in better condition than the vegetation impacted by the proposed works, in terms of Floristic Site Value scores.

Based on the survey results, comparative Floristic Site Value scores and comparison with BioMetric community benchmarks, the EEC vegetation in the Lake Wallace block and southern blocks offset sites meets the quality requirements for offsetting the impacts of the Lake Wallace development.

4.3 COMMONWEALTH OFFSETS ASSESSMENT GUIDE

The Commonwealth Offsets Assessment Guide is a decision support spreadsheet used to estimate impacts and offsets for threatened species and ecological communities. The overarching test of the EPBC Act environmental offsets policy and the Offsets Assessment Guide is that offsets must deliver an overall conservation outcome that improves or maintains the viability of the relevant protected matter (DSEWPAC 2012b).

The Offsets Assessment Guide has been applied to the Lake Wallace project and two offset sites for the Natural Temperate Grassland EEC (Wet Tussock Grassland association). The guide indicates that the Lake Wallace block and southern blocks sites offset over 100% of the impacts of the Lake Wallace project, and therefore meet the 'maintain or improve' test. The inputs used for the guide spreadsheet, and justifications for their selection, are discussed below.

EEC impact area and offset quality

In the absence of quantitative criteria for the guide, a relative quality rating of '6' for the impact area was chosen because the:

- vegetation met all of the BioMetric benchmarks for the community
- structure and floristics match the EEC description for the sub-community
- ecological context of the EEC at the site is favourable (sited in a relatively undisturbed catchment within a complex of grassland, woodland and forest in good condition).

The slightly higher condition score of '7' was chosen for the southern blocks offset site because it also met BioMetric condition benchmarks, but has significantly higher floristic site value scores; refer section 3.3.2 above. Without management as an offset site, EEC quality can be expected to degrade due to the impacts of weeds, grazing and pest animals.

The future quality of the EEC at the offset site was entered as '8' because it is considered that appropriate management of the site will measurably improve the condition of the EEC, particularly assisting the recovery of grazing sensitive species through the exclusion of stock from the community.

Time horizon

The offset site would be established in perpetuity and the offset management arrangements are expected to affect management of the site indefinitely. A conservative 10 year risk-related time horizon has been selected in the spreadsheet.

Risk of loss without offset and with offset

Threatening processes are operating at the offset site, primarily grazing, weeds and pigs. Without protection as an offset site, there is a significant risk that weeds will steadily increase and displace native species over the 10 year timeframe, as has happened in the community elsewhere.

The persistence of the EEC in such good condition under a commercial grazing regime is unusual in the region. The Wet Tussock Grassland community has a clearing estimate of 95% (DECCW 2008). Remnants are subject to nutrient run-on from adjacent fertilised crops and pastures, small scale clearing, weed invasion and grazing pressures (OEH 2011).

Without protection, the risk of the loss of the community, or degradation that would result in the vegetation no longer forming part of the EEC over a 10 year timeframe is estimated to be 30%. This risk is heightened by current uncertainty regarding future ownership and management if the sites are not established as offsets.

The risk of loss or significant degradation if the site is managed as an offset site is considerably lower, estimated to be 10%. The reasons for this reduced risk include:

- the exclusion of grazing and the control of rabbits and feral pigs under offset management will be beneficial for the community, and directly address threatening processes
- damaging practices such as fertiliser application, cultivation, overgrazing and sowing of exotic grasses and legumes would not be permitted
- regular ecological monitoring provides for early detection of threats and responsive management
- Council expect to purchase the land required for the offsets, and lease this land for use in accordance with the approved Offset Management Plan and the legal protection instrument establishing the offset site.

Overall confidence in result

An overall confidence figure of ‘82%’ was selected because:

- the condition scores are based on quantitative field survey results
- field records and observations also document active threatening processes at the site
- the threatening processes operating at the site are readily manageable using standard equipment and methods
- as landlords, Council would be able to supervise land use and Offset Management Plan implementation by the lessee
- regular ecological monitoring and reporting would track the condition of the EEC, the status of threatening processes and any unexpected trends or impacts
- legal protection and security would be provided for the EEC via lease conditions and an in perpetuity legal protection mechanism attached to the land.

5 CONCLUSION

The Lake Wallace block and southern blocks offset sites contain areas of Snow Gum – Candlebark Woodland EEC and Natural Temperate Grassland (Wet Tussock Grassland) EEC in good condition.

The Lake Wallace block and southern blocks offset sites conserve generally equivalent or better condition vegetation than that affected by the Lake Wallace development, in terms of Floristic Site Value scores and community benchmarks. The Snow Gum - Candlebark woodland at both offset sites meets native species richness, native groundcover and shrub cover benchmarks. The Wet Tussock Grassland vegetation meets all of the BioMetric benchmarks at both sites.

For the NSW Snow Gum – Candlebark Woodland EEC, the sites would protect 42.40 hectares of high quality secondary grassland, 39.78 hectares of low quality secondary grassland and 28.06 hectares of structural woodland, representing an overall offset ratio of 18.5:1. 9.71 hectares of the Commonwealth Natural Temperate Grassland EEC (Wet Tussock Grassland association) would be protected, achieving a 5.2:1 offset ratio.

The offset sites meet both the area and quality requirements for offsetting the EEC impacts of the Lake Wallace development.

The survey results reflect the impacts of long term grazing at the offset sites. However, both sites retain native vegetation cover, major structural and functional flora species and a number of rare and depleted species. Woodland patches and rock outcrops clearly operate as refugia for grazing sensitive flora species at the sites.

The sites show good potential for recovery and improvement in condition over time. The location of the sites within the Lake Wallace catchment, contiguous with the Lake Wallace development site and with good connectivity to surrounding forest and woodland, further increases the value and viability of the blocks as offset sites for the project.

6 REFERENCES

Angiosperm Phylogeny Group III (2009) An update of the Angiosperm Phylogeny Group classification for the orders and families of flowering plants: APG III. Botanical Journal of the Linnean Society, 161: 105-121

Carnahan, J. A. (1976) 'Natural Vegetation' in Atlas of Australian Natural Resources. Second Series. Department of Natural Resources, Canberra

Cooma Monaro Shire Council (CMSC) (2011) State of the Environment Report 2010-11 Section 428(2) (c) LGA 1993 Supplementary (Annual) report on the State of the Environment within the Cooma-Monaro Shire Council

Cropper, S.C. 1993, Management of Endangered Plants, CSIRO Publishing, Melbourne

Department of Environment and Conservation NSW (DEC) (2004) Threatened Species Survey and Assessment: Guidelines for developments and activities (working draft), New South Wales Department of Environment and Conservation, Hurstville, NSW

Department of Environment and Climate Change (DECC) (2009) Biobanking Operation Manual. NSW Department of Environment and Climate Change, Sydney

Department of Environment Climate Change and Water NSW (DECCW) (2008a) BioMetric Vegetation Type Database http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm

Department of Environment Climate Change and Water NSW (DECCW) (2008b) Vegetation Benchmarks Database http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm

Department of Environment Climate Change and Water NSW (DECCW) (2009a) Principles for the use of biodiversity offsets in NSW

Department of Environment Climate Change and Water NSW (DECCW) (2009b) The science behind BioBanking http://www.environment.nsw.gov.au/resources/biobanking/09476biobankingscience.pdf

Department of Environment, Climate Change and Water NSW (DECCW) (2011) Operational Manual for BioMetric 3.1. Department of Environment, Climate Change and Water, NSW Sydney

Department of Sustainability, Environment, Water, Population and Communities (DSEWPAC) (2012a) Natural Temperate Grassland of the Southern Tablelands of NSW and the Australian Capital Territory SPRAT Profile, http://www.environment.gov.au/cgi-bin/sprat/public/publicshowcommunity.pl?id=14

Department of Sustainability, Environment, Water, Population and Communities (DSEWPAC) (2012b) Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy October 2012

Dorrough J., Stol J. and McIntyre S., (2008) Biodiversity in the Paddock: a Land Managers Guide. Future Farm Industries CRC.

Dorrough J (2012) How do different levels of grazing and fertilisation affect vegetation composition in temperate Australian grassy ecosystems? Systematic review and meta-analysis. Final unpublished report to Victorian Department of Sustainability and Environment. December 2012

Eco Logical Australia (2011) Terrestrial Flora and Fauna Assessment Lake Wallace Project Lot 180 DP756833 Monaro Highway, Nimmitabel – March 2011. Prepared for Cooma-Monaro Shire Council.

Eco Logical Australia (2012) Outcomes of Preliminary Offset Assessment Lake Wallace Project Nimmitabel – April 2012. Prepared for Cooma-Monaro Shire Council.

Eddy, DA (2002) Managing Native Grassland. A guide to management for conservation, production and landscape protection (WWF Australia, Sydney).

Harden G.J. (ed) (1990-2002) Flora of New South Wales, Vols. 1-4, UNSW Press.

Lunt I.D., Eldridge D.J., Morgan J.W. and Witt G.B, (2007) Turner Review No. 13. A framework to predict the effects of livestock grazing and grazing exclusion on conservation values and ecological values in natural ecosystems in Australia. Australian Journal of Botany 55(4) 401–415.

nghenvironmental (2013a) Species Impact Statement Lake Wallace Water Storage Dam and Associated Infrastructure. Prepared for Cooma-Monaro Shire Council

NSW Scientific Committee (2011) Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland in the South Eastern Highlands, Sydney Basin, South East Corner and NSW South Western Slopes Bioregions - endangered ecological community listing - final determination http://www.environment.nsw.gov.au/determinations/tablelandssnowgumFD.htm

Office of Environment and Heritage (OEH) (2011b) Principles for the use of biodiversity offsets in NSW http://www.environment.nsw.gov.au/biocertification/offsets.htm

Office of Environment and Heritage (OEH) (2013c) NSW offset principles for major projects (state significant development and state significant infrastructure) http://www.environment.nsw.gov.au/biocertification/offsets.htm

Office of the ACT Commissioner for the Environment (OACE) (2008) Regional State of the Environment Report 2008 http://www.envcomm.act.gov.au/soe/rsoe2008/cooma-monaro/index.shtml

Priday, S. (2007) The Native Vegetation of the Cooma-Monaro Shire, prepared for Cooma-Monaro Shire Council, July 2007.

Rehwinkel, R. (2007a) A Method to Assess Grassy Ecosystem Sites: Using floristic information to assess a site's quality, NSW Department of Environment and Climate Change

Rehwinkel, R (2007b) PATN analysis of grassland associations within the Natural Temperate Grassland endangered ecological community on the Southern Tablelands of NSW, NSW Department of Environment and Climate Change, unpublished report to the Natural Temperate Grassland National Recovery Team.

SMEC (2010) Final Report: Pigring Creek Dam Feasibility Study. Report for Nimmitabel Advancement Group Inc, Nimmitabel

Thomas, V, Gellie, N and Harrison, T (2000) Forest ecosystem classification and mapping for the southern CRA region. NSW National Parks and Wildlife Service, Southern Directorate, a report undertaken for the NSW CRA/RFA Steering Committee

Tongway D.J. and Hindley N.L. (2004) Landscape Function Analysis, Procedures for monitoring and assessing landscapes. CSIRO, Canberra

Tozer, M. G., Turner, K., Simpson, C. C., Keith, D. A., Beukers, P., Mackenzie, B., Tindall, D. & Pennay, C. (2006) Native Vegetation of Southeast NSW: A Revised Classification and Map for the Coast and Eastern Tablelands. Version 1.0. Department of Environment & Conservation and Department of Natural Resources, Sydney

Tozer MG, Turner K, Keith DA, Tindall D, Pennay C, Simpson C, MacKenzie B (2010) Native vegetation of southeast NSW: a revised classification and map for the coast and eastern tablelands. Cunninghamia 11, 359-406.

APPENDIX A SURVEY DATA

A.1 LAKE WALLACE BLOCK OFFSET SITE

A.1.1 Locations of EEC survey plots

Survey site no.	Easting	Northing
240	706345	5951466
241	706313	5951508
242	706577	5951377
243	706568	5951208
246	706815	5951017
249	706226	5951364
GH1[1]	Transect end north: 706844 5950484	Transect end south: 706856 5950530 (20m x 20m plot end)

[1] surveyed by **ngh**environmental in November 2013

A.1.2 Flora species list (Eco Logical Australia 2011)

SCIENTIFIC NAME	COMMON NAME
Acacia dealbata	Silver Wattle
Acaena novae-zelandiae	Bidgee Widgee
Acaena ovina	
**Acetosella vulgaris*	Sheep Sorrel
Acrotriche serrulata	Honeypots
Adiantum aethiopicum	Common Maidenhair Fern
**Aira* sp.	A hairgrass
Ajuga australis	Austral Bulge
**Anagallis arvensis*	Scarlet Pimpernel
*Anthoxanthum odoratum**	Sweet Vernal Grass
Arthropodium milleflorum	Pale Vanilla Lily
Aristida ramosa	Purple Wiregrass
Asperula gunnii	Mountain Woodruff
Asperula scoparia	Prickly Woodruff
Asplenium flabellifolium	Necklace Fern
Astroloma humifusum	Native Cranberry
Austrodanthonia sp.	
Austrodanthonia oreophila	
Austrostipa bigeniculata	Tall Speargrass
Austrostipa densiflora	
Austrostipa scabra	Speargrass
Bossiaea buxifolia	
Bossiaea foliosa	Leafy Bossiaea
Bossiaea prostrata	
Brachycome aculeata	
Brachycome decipiens	

Brachycome heterodonta	
Brachycome spathulata	A Daisy
Brachyloma daphnoides	Daphne Heath
**Briza maxima*	Quaking Grass
**Bromus diandrus*	Great Brome
**Bromus hordeaceus*	Soft Brome
Carex appressa	Tall Sedge
Carex chlorantha	
Carex fascicularis	Tassel Sedge
Carex gaudichaudiana	
Carex inversa	Knob Sedge
Carex sp.	A Sedge
Cassinia longifolia	
**Cerastium glomeratum*	Mouse-ear Chickweed
Chamaesyce drummondii	Caustic Weed
Cheilanthes seiberi	
Chrysocephalum apiculatum	Common Everlasting
Chrysocephalum semipapposum	Clustered Everlasting
**Cirsium vulgare*	Nodding Thistle
Convolvulus angustissimus	
Coprosma hirtella	Coffee-berry
Cotula alpina	Alpine Cotula
Craspedia variabilis	Billy Buttons
Crassula sieberiana	Austral Stonecrop
Cullen microcephalum	Dusky Scurf-pea
Cymbonotus lawsonianus	Bears-ear
Cymbonotus preissianus	Austral Bear's Ear
Cynoglossum sp.	
Daucus glochidiatus	Native Carrot
Daviesia mimosoides	
Desmodium varians	Slender Tick-trefoil
Dianella longifolia	A Lily
Dianella revoluta	Blueberry Lily, Blue Flax-lily
Dianella tasmanica	Tasman Flax-lily
Dichondra repens	Kidney Weed
Discaria pubescens	Australian Anchor Plant
Diuris pedunculata	Small Snake Orchid
Diuris maculata	Spotted Doubletail
Echinopogon cheelii	Longflower Hedgehog Grass
Einadia nutans	Climbing Saltbush
Eleocharis atricha	
Elymus scaber	
Enneapogon nigricans	Nineawn Grass
Epilobium billardierianum	
Erodium cicutarium	Common Storksbill
Eucalyptus dalrympleana	Mountain Gum
Eucalyptus dives	Broad-leaf Peppermint

Eucalyptus pauciflora	Snow Gum
Eucalyptus rubida	Candlebark
Eucalyptus stellulata	Black Sally
Eucalyptus viminalis	Ribbon Gum
Euchiton gymnocephalus	
Euchiton involucratus	A Cudweed
Exocarpus strictus	Pale Ballart
**Festuca pratensis*	Meadow Fescue
Geranium antrorsum	
Geranium neglectum.	
Geranium solanderi	Cutleaf Cranesbill
Glossostigma diandrum	Spoon-leaf Mud-mat
Glycine clandestina	Love Creeper
Glycine microphylla	A Small-leaf Glycine
Glycine tabacina	Love Creeper
Gonocarpus tetragynus	Poverty Raspwort
Grevillea lanigera	Woolly Grevillea
Helichrysum scorpioides	Button Everlasting
Hibbertia obtusifolia	Grey Guinea-flower
**Holcus lanatus*	Yorkshire Fog
Hovea linearis	Narrow-leaf Hovea
Hydrocotyle laxiflora	Stinking Pennywort
Hydrocotyle peduncularis	A Pennywort
Hypericum gramineum	A St John's Wort
Hypericum japonicum	
**Hypochaeris glabra*	Smooth Catsear
**Hypochaeris radicata*	Flatweed
Hypoxis hygrometrica	Golden Star
Juncus australis	
Juncus continuus	A Rush
Juncus flavidus	
Leptorhynchos squamatus	
Leptospermum morrisonii	Morrison's Tea-tree
Leptospermum myrtifolium	Myrtle Tea-tree
Leptorhynchos squamatus	
Lilaeopsis polyantha	Lilaeopsis
Lomandra longifolia	Spiny-headed Mat-rush
Lomatia myricoides	River Lomatia
Luzula densiflora	
Luzula flaccida	
Luzula meridionalis	
**Medicago minima*	Woolly Burr Medic
Monotoca scoparia	
Microlaena stipoides	Weeping Meadow Grass
Myriophyllum crispatum	
Olearia erubescens	Pink-tip Daisy-bush
Ophioglossum lusitanicum	Adders Tongue

Oreomyrrhis eriopoda	Australian Carraway
Oxalis perennans	A Wood-sorrel
**Oxalis* sp.	
Panicum effusum	Hairy Panic
**Petrorhagia nanteuilii*	Proliferous Pink
**Phalaris* sp.	A Phalaris
Pimelea linifolia subsp. *collina*	
Plantago varia	
**Poa annua*	Winter Grass
**Poa bulbosa*	Bulbous Poa
Poa labillardieri	Tussock Grass
Poa meionectes	
Poa sieberiana	Tussock
Polyscias sambucifolia	Elderberry Panax
Polystichum proliferum	Mother Shield-fern
Poranthera microphylla	Small Poranthera
Pultenaea procumbens	Heathy Bush-pea
Ranunculus inundatus	River Buttercup
Ranunculus lappaceus	Common Buttercup
Ranunculus pimpinellifolius	Bog Buttercup
**Rosa rubiginosa*	Briar Rose
Rubus parviflorus	Native Raspberry
Rumex brownii	Swamp Dock
**Rumex crispus*	Curled Dock
**Salvia verbenaca*	Vervain
Schoenus apogon	Common Bog-rush
Scleranthus biflorus	Two-flowered Knawel
Scleranthus diander	Tufted Knawel
**Senecio madagascariensis*	Fireweed
Senecio sp.	
Solenogyne gunnii	
Sorghum leiocladum	Wild Sorghum
Stackhousia monogyna	Creamy Candles
Stellaria pungens	Prickly Starwort
Stylidium graminifolium	Grass Trigger Plant
Swainsona monticola	
**Taraxacum officinale*	Dandelion
Themeda australis	Kangaroo Grass
**Tragapogon dubius*	Goatsbeard
**Trifolium arvense*	Haresfoot Clover
**Trifolium repens*	Clover
**Verbascum thapsus*	Great Mullein
Veronica calycina	Hairy Speedwell
Veronica gracilis	
Viola betonicifolia	Purple Violet
Vittadinia cuneata	Fuzzweed
Vittadinia muelleri	

**Vulpia muralis*	
Wahlenbergia communis	Tufted Bluebell
Wahlenbergia stricta	Australian Bluebell

A.1.3 EEC quadrat survey data sheets

Zone 1

VEGETATION COMMUNITY RAPID ASSESSMENT FORM

SITE DETAILS

Date: 16/11/10	Observer: s47F	Location: Wallace Lake	
Altitude:	Slope: <5	Aspect: NE	Topographic Position: Lower Slope
Vegetation Type: Grassland / Wetland mosaic		Geology: Granodiorite	Soil Type: Clay

POINT-BASED COMMUNITY ATTRIBUTES (GPS Location: Easting WP240 Northing ______)

Vegetation Structure

Strata	Av. Ht. (m)	PFC	Distribution (patchy, dense, scattered)	Dominant Species
Canopy	–			1x E. rubida nearby E. pauciflora – 20m away nearck.
Mid-canopy	–			
Understorey	–			
Groundcover	90	1–50cm	P	

Age Structure

Early Regeneration	Advanced Regeneration	Uneven Age	Mature Age	Old Growth

Non-Vascular Groundcover

% Rock	% Litter	% Fungi	% Lichen and other Bryophytes	% Bare Ground
<1	<1	–	–	10

OVERALL COMMUNITY DISTURBANCE (0-3)

Grazing: 2	Introduced sp: 2	Clearing: –	Fire: –	Road/trac: –
Weed: 2	Erosion: –	Logging: –	Underscrubbing: –	Rubbish: –
Other:				

JOB NUMBER: IDNARECO-0098 SITE NUMBER: VP3

VEGETATION COMMUNITY RAPID ASSESSMENT FORM

FLORISTICS (Abundance Scores: 1 = one individual, 2 = few individuals, 3 = uncommon, 4 = common, 5 = very common)

		Canopy						
		Mid-canopy						
		Understorey						
		Groundcover						
	2	Plantago varia		Vittadinia cuneata	+			
	2	Austrostipa scabra		Hypochaeris glabra	1			
	+	Acaena ovina		Linaria pelisseriana	1	E		
	1	Hypochaeris radicata		Scleranthus biflorus	2			
	2	Enneapogon nigricans		Verbascum thapsus	r	E		
E	2	Acetosella vulgaris		Themeda australis	1			
	3	Elymus scaber		Hypochaeris radicata	1	E		
E	2	Vulpia sp.		Carex inversa	1			
	2	Austrodanthonia sp. oreophila		Poa sieberiana	1			
	1	Crassula sieberiana		Solenogyne gunnii	1			
	3	Chrysocephalum apiculatum		Poa annua	1			
	2	Chrysocephalum semipapposum		Geranium solanderi		1		
	1	Wahlenbergia sp. communis?		Luzula sp.	+	densiflora ?		
	1	Oxalis sp. perennans		Ophioglossum lusitanicum		r		
	1	Austrostipa bigeniculata		Petrorhagia nanteuilii		+ E		
E	+	Trifolium arvense		Anagallis arvensis	r			
E	1	Aira sp.		Convolvulus angustissimus		r		
	1	Vittadinia muelleri		Swainsona monticola	r			
	1	Euchiton involucratus		Brachyscome aculeata		1		
	1	Medicago sp.		Anthoxanthum odoratum	1			

JOB NUMBER: ________ SITE NUMBER: VP3

VEGETATION COMMUNITY RAPID ASSESSMENT FORM

SITE DETAILS

Date: 17/11/10	Observer: s47F	Location: Wallace Lake	
Altitude:	Slope: 5	Aspect: E	Topographic Position: Mid-slope
Vegetation Type: Native Pasture w/ PTC		Geology: Granodiorite	Soil Type: clay

POINT-BASED COMMUNITY ATTRIBUTES (GPS Location: Easting_____ Northing_____)

Vegetation Structure

Strata	Av. Ht. (m)	PFC	Distribution (patchy, dense, scattered)	Dominant Species
Canopy				
Mid-canopy				
Understorey				
Groundcover	1-3cm	60		

Age Structure

Early Regeneration	Advanced Regeneration	Uneven Age	Mature Age	Old Growth

Non-Vascular Groundcover

% Rock	% Litter	% Fungi	% Lichen and other Bryophytes	% Bare Ground
4	~	~	~	40

OVERALL COMMUNITY DISTURBANCE (0-3)

Grazing: 2	Introduced sp: 1	Clearing: ~	Fire: ~	Road/trac: ~
Weed: 1	Erosion: ~	Logging: ~	Underscrubbing: ~	Rubbish: ~
Other:				

JOB NUMBER: 10NARCC0-0048 SITE NUMBER: VP10

Zone 3

VEGETATION COMMUNITY RAPID ASSESSMENT FORM

FLORISTICS (Abundance Scores: 1 = one individual, 2 = few individuals, 3 = uncommon, 4 = common, 5 = very common)

Canopy					
Mid-canopy					
Understorey					

Margin	Groundcover					
✓	Elymus scaber	1	A. avena	+	✓	
✓	Austrostipa scabra	4	E. nigricans	1	✓	
✓	C. apiculatum	1	P. [illegible]	1	✓	
✓	A. carphoides	3	Oxalis exotic	1	E	
E ✓	A. vulgaris	2	Salvia verbenaca	r		
✓	C. sieberiana	1	Wahlenbergia communis, r ✓			
E ✓	Aira sp.	1	P. varia	1	✓	
✓	E. involucratus	1	Medicago sp.	1		
✓	H. radicata	+	C. angustissimus	r	✓	
✓	P. sieberiana	1	V. thapsus	r	✓ E	
✓	P. labillardierei	+	Vulpia sp.	+	✓ E	
E ✓	Phalaris sp.	+	T. australis	+	✓	
✓	A. [illegible]	2	Cirsium vulgare	r	E	
✓	C. sinuosa	1	C. glomerata	+		
✓	O. perennans	+	S. [illegible]	r	✓	
✓	D. varians	r	Trifolium exotic	1	E	
✓	Wahlenbergia stricta	r	Austrodanthonia sp.	2	✓	
E	Linaria pelisseriana	1				
E ✓	T. arvense	1				
✓	G. solanderi	+				

JOB NUMBER: 10NARECO-0048 SITE NUMBER: VP10

VEGETATION COMMUNITY RAPID ASSESSMENT FORM

SITE DETAILS

Date: 16/11/10	Observer: s47F	Location: Wallace Lake	
Altitude:	Slope: 10	Aspect: N	Topographic Position: Slope above Ck
Vegetation Type: SG GW	Geology: Granodiorite	Soil Type: Clay loam	

POINT-BASED COMMUNITY ATTRIBUTES (GPS Location: Easting WP 291 Northing)

Vegetation Structure

Strata	Av. Ht. (m)	PFC	Distribution (patchy, dense, scattered)	Dominant Species
Canopy	22	<5	E. radiata	
Mid-canopy	12	10	E. pauciflora E. stellulata	E. pauciflora
Understorey	2-3	10	P	
Groundcover	1-5cm	70	P	

Age Structure

Early Regeneration	Advanced Regeneration	Uneven Age	Mature Age	Old Growth
	✓			✓

Non-Vascular Groundcover

% Rock	% Litter	% Fungi	% Lichen and other Bryophytes	% Bare Ground
10	15	-		5

OVERALL COMMUNITY DISTURBANCE (0-3)

Grazing: 1	Introduced sp: 1	Clearing: -	Fire: -	Road/trac: -
Weed: 1	Erosion: 1	Logging: -	Understorey: -	Rubbish: -
Other:				

LONGREACH-0046

JOB NUMBER: _____ SITE NUMBER: VP9

BES bushfire+environmental

VEGETATION COMMUNITY RAPID ASSESSMENT FORM

BES bushfire+environmental

FLORISTICS (Abundance Scores: 1 = one individual, 2 = few individuals, 3 = uncommon, 4 = common, 5 = very common)			
Canopy Eucalyptus rubida	1	Eucalyptus stellulata	1
Eucalyptus pauciflora	4		
Mid-canopy			
Understorey Exocarpos strictus	2		

Groundcover					
Themeda australis	2	Glycine clandestina	+	Wahlenbergia sp.	2
Plantago varia	2	Asperula conferta	+	Dianella revoluta	r
Dichondra pubescens	+	Hovea linearis	1	Stackhousia monogyna	+
Brachyscome aculeata	+	Crassula sieberiana	1	Leptorhynchos squamatus	+
Chrysocephalum semipapposum	2	Elymus scaber	1	Juncus ?ensiflorus	+
Daucus glochidiatus	+	Vittadinia sp.	1	Rubus parvifolius	r
Poa sieberiana	2	Oxalis perennans	1		
Dillwynia prostrata	2	Austrodanthonia sp.	r		
Gonocarpus tetragynus	1	Microlaena stipoides	+		
Craspedia variabilis		Verbascum thapsus	r		
Ajuga australis	+	Euchiton gymnocephalus	2		
Hypochaeris radicata	+	Wahlenbergia stricta	1		
Melichrus urceolatus	+	Bossiaea buxifolia	1		
Trifolium arvense	1	Aristida ramosa	2		
Tetrarrhena juncea	+	Vittadinia cuneata	1		
Viola betonicifolia	+	Scleranthus diander	1		
Geranium solanderi	1	Arthropodium milleflorum	+		
Acaena ovina	+	Glycine tabacina	1		
Brachyscome heterodonta	1	Chrysocephalum apiculatum	+		
Acetosella vulgaris	1	Scleranthus biflorus	+		

JOB NUMBER: 10NARCCO-0098 **SITE NUMBER:** VP4

VEGETATION COMMUNITY RAPID ASSESSMENT FORM

SITE DETAILS

Date: 17/11/10	Observer: s47F	Location: Wallace Lake	
Altitude:	Slope: 5	Aspect: W	Topographic Position: Lower Slope / Saddle
Vegetation Type: SGW on Broad Valley Flats	Geology: Cranwelborite	Soil Type: Clay loam	

POINT-BASED COMMUNITY ATTRIBUTES (GPS Location: Easting 296 Northing)

Vegetation Structure

Strata	Av. Ht. (m)	PFC	Distribution (patchy, dense, scattered)	Dominant Species
Canopy	10	22	P	
Mid-canopy	2-3	10	P	Saplings
Understorey	1 to 1m	8	P	
Groundcover	1-50cm	95	D	

Age Structure

Early Regeneration	Advanced Regeneration	Uneven Age	Mature Age	Old Growth
	✓			

Non-Vascular Groundcover

% Rock	% Litter	% Fungi	% Lichen and other Bryophytes	% Bare Ground
1	3	.	-	<1

OVERALL COMMUNITY DISTURBANCE (0-3)

Grazing: 2	Introduced sp: 1	Clearing: 1 (H)	Fire: -	Road/trac: -
Weed: 1	Erosion: -	Logging: -	Underscrubbing: -	Rubbish: -
Other:				

10NARCC0-0048 VP8

JOB NUMBER: _____ SITE NUMBER: _____

157

1129
1143
1145
1185
1168
1177✓
1178
1179✓

VEGETATION COMMUNITY RAPID ASSESSMENT FORM

FLORISTICS (Abundance Scores: 1 = one individual, 2 = few individuals, 3 = uncommon, 4 = common, 5 = very common)

Canopy					
Eucalyptus pauciflora	4	Eucalyptus rubida	2		
Eucalyptus stellulata	5				
Mid-canopy					
Understorey					
Leptospermum myrtifolium	3				
Rosa rubiginosa	1				
Groundcover					
Hypericum gramineum	1	Glycine clandestina	1	Diuris subalpina	1
Ajuga australis	r	Rumex brownii	+	Chrysocephalum semipapposum	1
Viola betonicifolia	1	Asperula scoparia	1	Swainsona monticola	+
Dichondra repens	1	Themeda australis	3	Mirbelia oxylobioides	r
Plantago varia	2	Trifolium repens	r	Stellaria pungens	r
Anthoxanthum odoratum	1	Ranunculus lappaceus	+	Elymus scaber	1
Aracno avena	1	Stylidium graminifolium	+	Hypoxis hygrometrica	r
Trifolium arvense	2	Poranthera microphylla	+	Oxalis perennans	+
Medicago sp.	1	Luzula flaccida	1	Luzula meridionalis	+
Oreomyrrhis eriopoda	1	Euchiton gymnocephalus			
Cymbonotus lawsonianus	+	Craspedia variabilis	1		
Gonocarpus tetragynus	1	Arthropodium milleflorum	1		
Solenogyne gunnii	1	Leptorhynchos squamatus	1		
Geranium antrorsum	2	Hydrocotyle laxiflora	2		
Brachyscome decipiens	1	Hypochaeris radicata	1		
Brachyloma daphnoides	1	Scleranthus biflorus	+		
Hovea linearis	1	Brachyscome aculeata	+		
Poa sieberiana	3	Galium gaudichaudii	r		
Helichrysum scorpioides	1	Aira sp.	1		
Microlaena stipoides	3	Acetosella vulgaris	1		

JOB NUMBER: 10NAREC0-0048 SITE NUMBER: VP8

VEGETATION COMMUNITY RAPID ASSESSMENT FORM

SITE DETAILS

Date: 16/11/10	Observer: s47F	Location: Wallace Lake	
Altitude:	Slope:	Aspect:	Topographic Position: lower - mid slope
Vegetation Type: woodland		Geology: Granodiorite	Soil Type: clay loam

POINT-BASED COMMUNITY ATTRIBUTES (GPS Location: Easting WP293 Northing)

Vegetation Structure

Strata	Av. Ht. (m)	PFC	Distribution (patchy, dense, scattered)	Dominant Species
Canopy	15	85		E. rub
Mid-canopy	5-10	5		E. stell
Understorey	2	5		
Groundcover	85			

Age Structure

Early Regeneration	Advanced Regeneration	Uneven Age	Mature Age	Old Growth
	✓	✓	✓	

Non-Vascular Groundcover

% Rock	% Litter	% Fungi	% Lichen and other Bryophytes	% Bare Ground
<1	5	-	-	5

OVERALL COMMUNITY DISTURBANCE (0-3)

Grazing: 2	Introduced sp: 2	Clearing: 1 (H)	Fire: -	Road/trac: -
Weed: 2	Erosion: -	Logging: -	Underscrubbing: -	Rubbish: -
Other:				

10NAREC0-0098

JOB NUMBER: _____ SITE NUMBER: VP6

Zone 6

VEGETATION COMMUNITY RAPID ASSESSMENT FORM

FLORISTICS (Abundance Scores: 1 = one individual, 2 = few individuals, 3 = uncommon, 4 = common, 5 = very common)					
Canopy					
Eucalyptus rubida	4				
Eucalyptus melliodora	4				
Mid-canopy					
Understorey					
Acacia dealbata	3				
Groundcover					
Themeda australis	3	Petrorhagia nanteuilii	1	Daucus glochidiatus	r
Trifolium arvense	1	Hydrocotyle laxiflora	1	Convolvulus erubescens	r
Vittadinia sp.	2	Gonocarpus tetragynus	1		
Crassula sieberiana	1	Bossiaea buxifolia	2		
Carex inversa	1	Plantago varia	2		
Geranium solanderi	1	Acaena ovina	1		
Acetosella vulgaris	1	Anagallis arvensis	1		
Chrysocephalum apiculatum	2	Scleranthus diander	1		
Chrysocephalum semipapposum	3				
Solenogyne gunnii	1	Arthropodium milleflorum	r		
Hypochaeris radicata	1	Linaria pelisseriana	r		
Scleranthus biflorus	1	Brachyscome aculeata	r		
Aira sp.	1	[illegible]	r		
Rumex brownii	r	Brachyloma daphnoides	r		
Medicago sp.	1	Austrodanthonia sp.	1		
Poa sieberiana	3	Austrostipa bigeniculata	1		
Elymus scaber	2	Oxalis perennans	1		
Cynoglossum sp.	1	Verbascum thapsus	r		
Luzula flaccida	1	Vittadinia muelleri	r		
Anthoxanthum odoratum	1	Epilobium billardierianum	r		

JOB NUMBER: 10NARLEC0-0098 SITE NUMBER: VP6

VEGETATION COMMUNITY RAPID ASSESSMENT FORM

SITE DETAILS

Date: 16/11/10	Observer: s47F	Location: Lake Wallace	
Altitude:	Slope: 0	Aspect: NNW	Topographic Position: Valley bottom bog
Vegetation Type: Moist Creekline	Geology: Granodiorite	Soil Type: Clay loam	

POINT-BASED COMMUNITY ATTRIBUTES (GPS Location: Easting WP242 Northing)

Vegetation Structure

Strata	Av. Ht. (m)	PFC	Distribution (patchy, dense, scattered)	Dominant Species
Canopy				
Mid-canopy				
Understorey				
Groundcover	0-1.2m	100	D	

Age Structure

Early Regeneration	Advanced Regeneration	Uneven Age	Mature Age	Old Growth

Non-Vascular Groundcover

% Rock	% Litter	% Fungi	% Lichen and other Bryophytes	% Bare Ground
—	~	—	—	<1

OVERALL COMMUNITY DISTURBANCE (0-3)

Grazing: 2	Introduced sp: 2	Clearing: —	Fire: —	Road/trac: —
Weed: 2	Erosion: —	Logging: —	Underscrubbing: —	Rubbish: —
Other:				

JOB NUMBER: 10NARC10-0098 SITE NUMBER: VP5

Zone 10

VEGETATION COMMUNITY RAPID ASSESSMENT FORM

FLORISTICS (Abundance Scores: 1 = one individual, 2 = few individuals, 3 = uncommon, 4 = common, 5 = very common)					
Canopy				inse ck channel	1
				Carex gaudichaudiana	+
Mid-canopy				Ranunculus inundatus	5
				Hypericum japonicum	3
Understorey				Hypoxis hygrometrica	2
				Anthoxanthum odoratum	2
				Holcus lanatus	3
				Trifolium repens	2
				Ranunculus amphitrichus / trelliifolius	
				Glossostigma diandrum	4
				Myriophyllum crispatum	4
		(longebrachiata		Carex inversa	4
Groundcover					
Poa labillardierei	4	Rumex sp. crispus		Rorippa/? laciniata parviflora	2
Hypochaeris radicata	2	Carex longebrachiata	2	Hydrocotyle tripartita	4
Trifolium repens	+	Hypoxis hygrometrica	1	Rumex sp.	2
Acetosella vulgaris	1	Cynoglossum sp.	+	Brachyscome rivularis	2
Cerastium glomeratum	1	Acaena novae-zelandiae	2	Carex appressa	3
Medicago sp.	2	Carex appressa	2	Cardamine sp.	2
Anthoxanthum odoratum	2	Viola betonicifolia	+	Juncus flavidus	4
Scleranthus biflorus	1	Bromus hordeaceus	+	Eleocharis atricha	4
Acaena ovina	1	Lobelia sp.	1	Briza minor	
Asperula scoparia	1	Epilobium billardierei	1	Dichelachne/? polyantha	
Geranium solanderi	1	Hydrocotyle pendunculans	1	Carex fascicularis	
Vulpia sp.	2	Crassula sieberiana	1	Carex chlorantha	
Aira sp.	1	Epilobium sp.	1		
Oxalis perennans	?	Euchiton sphaerocephalus	1		
Solenogyne gunnii	1	Juncus sp. australis	✓		
Poa annua	2	Veronica gracilis	1		
Cirsium vulgare	+	Schoenus apogon	1		
Taraxacum officinale	+				
Trifolium arvense	1				
Hibbertia/? lambertii	+				

JOB NUMBER: 10NAREC0-0098 SITE NUMBER: VP5

A.1.4 Significant flora species records (Eco Logical Australia 2011, nghenvironmental 2013)

Species	Easting	Northing
Diuris pedunculata	706791	5951031
Discaria pubescens	706707	5950900
Discaria pubescens	706729	5951208
Discaria pubescens	706263	5951426
Discaria pubescens	706616	5951224
Discaria pubescens	706614	5950932
Discaria pubescens	706331	5951568
Discaria pubescens	706330	5951513
Discaria pubescens	706256	5951428
Discaria pubescens	706246	5951512
Discaria pubescens	706592	5951129
Discaria pubescens	706627	5950994
Discaria pubescens	706628	5950928
Discaria pubescens	706278	5951528
Diuris punctata	706313	5951508
Dianella longifolia	706639	5950878
Leptorhynchos squamatus	706313	5951508
Leptorhynchos squamatus	706815	5951017
Swainsona monticola	706815	5951017
Swainsona monticola	706345	5951466
Ophioglossum lusitanicum	706345	5951466
Ophioglossum lusitanicum	706568	5951208

A.2 SOUTHERN BLOCKS OFFSET SITE

A.2.1 Locations of survey plots

Note that the 50 metre transects run centrally through the 50 metre x 20 metre and nested 20 metre x 20 metre plots.

Survey site no.	50 metre transect ends	
	North (20m x 20m plot end)	South
Snow Gum – Candlebark Woodland - secondary grassland high quality (GH)		
GH2	707027 5950114	707028 5050063
GH3	707838 5949072	707865 5949037
GH4	707589 5949022	707565 5948982
Snow Gum – Candlebark Woodland - secondary grassland low quality (GL)		
GL1	707580 5949781	707537 5949751

Survey site no.	50 metre transect ends	
	North (20m x 20m plot end)	South
GL2	706937 5949563	706978 5949538
GL3	707848 5948463	707861 5948415
Snow Gum – Candlebark Woodland - structural woodland (SG)		
SG1	707314 5949831	707275 5949820
SG2	707676 5949116	707674 5949067
River Tussock Grassland (NG) - Natural Temperate Grassland (Wet tussock association) EEC		
NG1	707872 5949770	707871 5949722
NG2	708054 5949059	708096 5949027

A.2.2 Flora species list (nghenvironmental 2013)

Floristic survey results (20 metre x 20 metre plots)

The data includes survey results from a plot surveyed in the far south of the Lake Wallace block offset site (survey site GH1).

Cover/abundance assessments are based on visual estimates of foliage cover (after Carnahan 1997), scored using a modified Braun-Blanquet 7-point scale:

- r Solitary (1-3 individuals), <5% cover
- \+ Few (4-15), <5% cover
- 1 Numerous/scattered, <5% cover
- 2 5 - <25% cover
- 3 25 - <50% cover
- 4 50 - <75% cover
- 5 75 - 100% cover.

Introduced species or non-local native species are denoted by an asterisk. Noxious weeds declared for the Cooma-Monaro control area under the *Noxious Weeds Act 1993* are indicated with a '†' symbol.

Where uncertainty exists due to the unavailability of reproductive material, the taxon is preceded by a question mark, or plants are identified to genus level only.

Botanical nomenclature follows Harden (1990-2002) and the Sydney Royal Botanic Gardens' PlantNet website. The family classification follows Angiosperm Phylogeny Group III (2009).

Snow Gum – Candlebark Woodland: secondary grassland high quality (GH)

Scientific name	Common name	Family	Cover/abundance			
			GH1	GH2	GH3	GH4
SHRUBS, SUB-SHRUBS						
Discaria pubescens	Australian Anchor Plant	Rhamnaceae		+		
Hovea heterophylla	Variable Hovea	Fabaceae		r		+
Leucopogon fraseri	Beard-heath	Ericaceae		r		
Mirbelia oxylobioides	Mountain Mirbelia	Fabaceae	2			

Scientific name	Common name	Family	Cover/abundance			
			GH1	GH2	GH3	GH4
Pimelea linifolia ssp *caesia*	Slender Rice Flower	Thymelaeaceae		r		
**Rosa rubiginosa*	Briar Rose, Sweet Briar	Rosaceae		r		
Rubus parvifolius	Native Raspberry	Rosaceae		r		r
FORBS						
Acaena novae-zelandiae	Bidgee Widgee	Rosaceae		+		+
Acaena sp		Rosaceae		r	1	1
**Acetosella vulgaris*	Sheep Sorrel	Polygonaceae		1	1	1
Ajuga australis	Austral Bugle	Lamiaceae		1		
Asperula conferta	Woodruff	Rubiaceae	+	1	1	1
Asperula scoparia	Prickly Woodruff	Rubiaceae	r			
Calotis scabiosifolia ssp *integrifolia*	Rough Burr-Daisy	Asteraceae		1		
Chrysocephalum apiculatum	Yellow Buttons	Asteraceae	+	1		1
Chrysocephalum semipapposum	Clustered Everlasting	Asteraceae	r			
Convolvulus angustissimus	Bindweed	Convolvulaceae		r		
Crassula sieberiana	Austral Stonecrop	Crassulaceae		+		+
Cymbonotus preissianus	Austral Bear's Ear	Asteraceae	r	+		
Cymbonotus sp	Bear's Ear	Asteraceae				r
Desmodium varians	Slender Tick-trefoil	Fabaceae		r		+
Dichondra repens	Kidney Weed	Convolvulaceae				1
Epilobium billardierianum ssp *cinereum*	Willow Herb	Onagraceae				1
Euchiton gymnocephalus	Creeping Cudweed	Asteraceae	1	r	1	1
Galium sp		Rubiaceae		r		
Geranium antrorsum	Rosetted Crane's-bill	Geraniaceae	r	1	1	1
Geranium solanderi	Native Geranium	Geraniaceae	r	r		r
Glycine clandestina	Twining Glycine	Fabaceae		r		
Glycine tabacina	Variable Glycine	Fabaceae		r		
Gonocarpus tetragynus	Raspwort	Haloragaceae	1	1		+
Haloragis heterophylla	Rough Raspwort	Haloragaceae			+	+
Hydrocotyle laxiflora	Stinking Pennywort	Araliaceae				+
Hydrocotyle peduncularis	Shining Pennywort	Araliaceae			+	1
**Hypochaeris glabra*	Smooth Catsear	Asteraceae	r			+
**Hypochaeris radicata*	Catsear, Flatweed	Asteraceae	+	r	1	1
Hypoxis hygrometrica	Weathergrass, Golden Star	Hypoxidaceae			+	+
Leptorhynchos squamatus ssp *squamatus*	Scaly Buttons	Asteraceae	1	1		
Oxalis perennans	Wood Sorrel	Oxalidaceae		r		
**Petrorhagia nanteuilii*	Proliferous Pink	Caryophyllaceae		r		r
Plantago antarctica	Mountain Plantain	Plantaginaceae			r	
Plantago varia	Variable Plantain	Plantaginaceae	1	2	2	1
Polygala japonica	Dwarf Milk-wort	Polygalaceae	r	+		
Ranunculus lappaceus	Common Buttercup	Ranunculaceae		r		
Rumex brownii	Native Dock	Polygonaceae			r	
Scleranthus biflorus	Two-flowered Knawel	Caryophyllaceae	+	1	1	1
Scleranthus diander	Tufted Knawel	Caryophyllaceae	r			
Solenogyne gunnii	Hairy Solenogyne	Asteraceae		1	1	1
Swainsona monticola	Notched Swainson-pea	Fabaceae		+		
Trachymene humilis	Alpine Trachymene	Apiaceae		r		
**Trifolium arvense*	Haresfoot Clover	Fabaceae	1	1	+	1
**Trifolium campestre*	Hop Clover	Fabaceae				r

Scientific name	Common name	Family	Cover/abundance			
			GH1	GH2	GH3	GH4
**Trifolium dubium*	Yellow Clover	Fabaceae	1	1	1	1
**Trifolium repens*	White Clover	Fabaceae			+	
**Trifolium repens*	White Clover	Fabaceae			+	1
**Trifolium subterraneum*	Subterranean Clover	Fabaceae			1	
Veronica gracilis	Slender Speedwell	Plantaginaceae	+	r	r	+
Viola betonicifolia	Purple Violet	Violaceae		1		
Vittadinia muelleri	New Holland Daisy	Asteraceae		r		+
Wahlenbergia ?planiflora (rosette)	Flat Bluebell	Campanulaceae		1		
Wahlenbergia sp	Bluebell	Campanulaceae		r		
GRASSES						
**Aira caryophyllea*	Hair Grass	Poaceae	+	1		
**Anthoxanthum odoratum*	Sweet Vernal Grass	Poaceae	1	2	2	2
Elymus scaber	Wheat Grass	Poaceae				+
Microlaena stipoides	Weeping Grass	Poaceae		1	2	
Panicum effusum	Hairy Panic	Poaceae		r		
Poa labillardierei	Silver or River Tussock	Poaceae			2	2
Poa sieberiana	Snowgrass	Poaceae	3	3	1	2
Rytidosperma laeve	Smooth Wallaby Grass	Poaceae	1	2		
Rytidosperma sp	Wallaby Grass	Poaceae				+
Themeda triandra	Kangaroo Grass	Poaceae	4	3	4	4
Unidentified grasses		Poaceae			2	
SEDGES AND RUSHES						
Carex appressa	Tall Sedge	Cyperaceae				1
Carex fascicularis	Tassel Sedge	Cyperaceae			r	
Carex inversa	Knob Sedge	Cyperaceae	+			1
Juncus filicaulis	Pinrush	Juncaceae			+	1
Lomandra longifolia	Spiny-headed Mat-rush	Asparagaceae				r
Luzula densiflora	Woodrush	Juncaceae	r			+
Schoenus apogon	Bog Sedge	Cyperaceae	1	1	1	1
FERNS AND FERN ALLIES						
Asplenium flabellifolium	Necklace Fern	Aspleniaceae				r
Ophioglossum lusitanicum	Adder's Tongue	Ophioglossaceae	+			1

Snow Gum – Candlebark Woodland: secondary grassland low quality (GL)

Scientific name	Common name	Family	Cover/abundance		
			GL1	GL2	GL3
FORBS					
Acaena novae-zelandiae	Bidgee Widgee	Rosaceae	+		
Acaena ovina	Sheep's Burr	Rosaceae	1		
Acaena x anserovina	Hybrid Burr	Rosaceae		r	
Acaena sp		Rosaceae		1	1
**Acetosella vulgaris*	Sheep Sorrel	Polygonaceae	1	1	1
Asperula conferta	Woodruff	Rubiaceae	1	+	1
Brachyscome scapigera	Tufted Daisy	Asteraceae			r
**Cerastium vulgare*	Mouse-ear Chickweed	Caryophyllaceae	r	r	
Chrysocephalum apiculatum	Yellow Buttons	Asteraceae			r
Cymbonotus preissianus	Austral Bear's Ear	Asteraceae	1		
Dichondra repens	Kidney Weed	Convolvulaceae	r		

Scientific name	Common name	Family	Cover/abundance		
			GL1	GL2	GL3
Epilobium billardierianum ssp *cinereum*	Willow Herb	Onagraceae			1
**Erodium cicutarium*	Common Stork's-bill	Geraniaceae	r		
Euchiton gymnocephalus	Creeping Cudweed	Asteraceae	1	1	1
Galium liratum		Rubiaceae		r	
Galium sp		Rubiaceae	r		
Geranium antrorsum	Rosetted Crane's-bill	Geraniaceae	+	r	1
Geranium solanderi	Native Geranium	Geraniaceae	r	r	
Haloragis heterophylla	Rough Raspwort	Haloragaceae	+		1
Hydrocotyle laxiflora	Stinking Pennywort	Araliaceae	r	r	1
Hydrocotyle peduncularis	Shining Pennywort	Araliaceae			1
Hypericum gramineum	Grassy St John's Wort	Hypericaceae			r
**Hypochaeris glabra*	Smooth Catsear	Asteraceae		1	
**Hypochaeris radicata*	Catsear, Flatweed	Asteraceae	1	1	1
Hypoxis hygrometrica	Weathergrass, Golden Star	Hypoxidaceae	r		1
**Myosotis discolor*	Forget-me-not	Boraginaceae			+
Oxalis perennans	Wood Sorrel	Oxalidaceae	r		
**Petrorhagia nanteuilii*	Proliferous Pink	Caryophyllaceae		r	
Plantago varia	Variable Plantain	Plantaginaceae	+	2	
Rumex brownii	Native Dock	Polygonaceae	+	r	+
Scleranthus biflorus	Two-flowered Knawel	Caryophyllaceae	+	1	+
Solenogyne gunnii	Hairy Solenogyne	Asteraceae	1	1	1
Swainsona monticola	Notched Swainson-pea	Fabaceae		+	
**Trifolium arvense*	Haresfoot Clover	Fabaceae	1	1	
**Trifolium campestre*	Hop Clover	Fabaceae		r	
**Trifolium dubium*	Yellow Clover	Fabaceae	1	1	
**Trifolium glomeratum*	Clustered Clover	Fabaceae		+	
**Trifolium repens*	White Clover	Fabaceae	+		1
**Trifolium subterraneum*	Subterranean Clover	Fabaceae	+	+	+
Veronica gracilis	Slender Speedwell	Plantaginaceae			r
Viola betonicifolia	Purple Violet	Violaceae	r		
Vittadinia muelleri	New Holland Daisy	Asteraceae		r	
GRASSES					
**Aira caryophyllea*	Hair Grass	Poaceae		1	
**Anthoxanthum odoratum*	Sweet Vernal Grass	Poaceae	2	2	2
Microlaena stipoides	Weeping Grass	Poaceae	4	4	4
Panicum effusum	Hairy Panic	Poaceae		r	
Poa labillardierei	Silver or River Tussock	Poaceae	3	2	2
Poa sieberiana	Snowgrass	Poaceae			1
Rytidosperma laeve	Smooth Wallaby Grass	Poaceae		2	
Rytidosperma pilosum	Smooth-flower Wallaby Grass	Poaceae			2
Rytidosperma sp	Wallaby Grass	Poaceae	+		
Themeda triandra	Kangaroo Grass	Poaceae	2	1	r
**Vulpia bromoides*	Squirrel Tail Fescue	Poaceae		2	
**Vulpia myuros*	Rat's Tail Fescue	Poaceae	1		
Unidentified grasses		Poaceae			2
SEDGES AND RUSHES					
Carex appressa	Tall Sedge	Cyperaceae			+
Juncus filicaulis	Pinrush	Juncaceae	+		+

Scientific name	Common name	Family	Cover/abundance		
			GL1	GL2	GL3
Juncus sp	Rush	Juncaceae			+
Luzula densiflora	Woodrush	Juncaceae			r
Luzula sp	Woodrush	Juncaceae	+		
Schoenus apogon	Bog Sedge	Cyperaceae	1		1
FERNS AND FERN ALLIES					
Ophioglossum lusitanicum	Adder's Tongue	Ophioglossaceae	1		

Snow Gum – Candlebark Woodland: structural woodland (SG)

Scientific name	Common name	Family	Cover/abundance	
			SG1	SG2
TREES				
Eucalyptus pauciflora	Snow Gum	Myrtaceae	3	
Eucalyptus rubida	Candlebark	Myrtaceae	2	
Eucalyptus stellulata	Black Sally	Myrtaceae		2
SHRUBS, SUB-SHRUBS				
Acrotriche serrulata	Honeypots	Ericaceae	+	
Bossiaea foliosa	Leafy Bossiaea	Fabaceae	r	
Discaria pubescens	Australian Anchor Plant	Rhamnaceae		r
Hovea heterophylla	Variable Hovea	Fabaceae	r	
Melicytus dentatus	Tree Violet	Violaceae	r	
Pimelea linifolia ssp *caesia*	Slender Rice Flower	Thymelaeaceae	+	
**Rosa rubiginosa*	Briar Rose, Sweet Briar	Rosaceae	r	r
Rubus parvifolius	Native Raspberry	Rosaceae		r
FORBS				
Acaena novae-zelandiae	Bidgee Widgee	Rosaceae		+
Acaena sp		Rosaceae	1	
**Acetosella vulgaris*	Sheep Sorrel	Polygonaceae	1	1
Ajuga australis	Austral Bugle	Lamiaceae	+	r
Arthropodium milleflorum	Vanilla Lily	Asparagaceae	r	
Asperula scoparia	Prickly Woodruff	Rubiaceae	1	+
Calotis scabiosifolia ssp *integrifolia*	Rough Burr-Daisy	Asteraceae		+
**Cirsium vulgare*	Black Thistle	Asteraceae	r	r
Cymbonotus preissianus	Austral Bear's Ear	Asteraceae	1	r
Cynoglossum suaveolens	Sweet Hound's Tongue	Boraginaceae		r
Daucus glochidiatus	Native Carrot	Apiaceae	r	
Desmodium varians	Slender Tick-trefoil	Fabaceae		r
Dianella longifolia	Blue Flax Lily	Hemerocallidaceae	r	
Dichondra repens	Kidney Weed	Convolvulaceae	1	1
Galium sp		Rubiaceae	1	r
Geranium antrorsum	Rosetted Crane's-bill	Geraniaceae		1
Geranium solanderi	Native Geranium	Geraniaceae	+	+
Glycine clandestina	Twining Glycine	Fabaceae		r
Glycine tabacina	Variable Glycine	Fabaceae		r
Gonocarpus tetragynus	Raspwort	Haloragaceae	1	
Hydrocotyle laxiflora	Stinking Pennywort	Araliaceae	r	1
Hypericum gramineum	Grassy St John's Wort	Hypericaceae		+
**Hypochaeris glabra*	Smooth Catsear	Asteraceae		+
**Hypochaeris radicata*	Catsear, Flatweed	Asteraceae	1	1

Scientific name	Common name	Family	Cover/abundance	
			SG1	SG2
Oxalis perennans	Wood Sorrel	Oxalidaceae	+	
Plantago varia	Variable Plantain	Plantaginaceae	1	2
Poranthera microphylla	Small Poranthera	Euphorbiaceae		+
Scleranthus biflorus	Two-flowered Knawel	Caryophyllaceae	r	1
Senecio prenanthoides		Asteraceae	r	
Solenogyne gunnii	Hairy Solenogyne	Asteraceae		+
Stackhousia monogyna	Creamy Candles	Celastraceae	r	
Swainsona monticola	Notched Swainson-pea	Fabaceae		+
**Taraxacum officinale*	Dandelion	Asteraceae	r	r
**Trifolium arvense*	Haresfoot Clover	Fabaceae		1
**Trifolium dubium*	Yellow Clover	Fabaceae	1	1
**Trifolium repens*	White Clover	Fabaceae		1
**Trifolium* sp	Clover	Fabaceae	1	
**Verbascum thapsus*	Great Mullein	Scrophulariaceae		r
Veronica gracilis	Slender Speedwell	Plantaginaceae		r
Viola betonicifolia	Purple Violet	Violaceae	r	
Wahlenbergia ?planiflora (rosette)	Flat Bluebell	Campanulaceae		r
GRASSES				
**Aira caryophyllea*	Hair Grass	Poaceae	+	
**Anthoxanthum odoratum*	Sweet Vernal Grass	Poaceae	3	3
Austrostipa ?bigeniculata	Tall Speargrass	Poaceae		+
Bothriochloa macra	Red Grass	Poaceae		r
Elymus scaber	Wheat Grass	Poaceae	r	
Microlaena stipoides	Weeping Grass	Poaceae	2	2
Poa labillardierei	Silver or River Tussock	Poaceae	r	2
**Poa pratensis*	Kentucky Bluegrass	Poaceae		1
Poa sieberiana	Snowgrass	Poaceae	3	2
Themeda triandra	Kangaroo Grass	Poaceae		3
**Vulpia* sp		Poaceae		1
SEDGES AND RUSHES				
Carex appressa	Tall Sedge	Cyperaceae		r
Carex inversa	Knob Sedge	Cyperaceae		+
Lomandra longifolia	Spiny-headed Mat-rush	Asparagaceae	+	+
Luzula sp	Woodrush	Juncaceae	r	
FERNS AND FERN ALLIES				
Asplenium flabellifolium	Necklace Fern	Aspleniaceae	r	

River Tussock Grassland (NG) - Natural Temperate Grassland (Wet tussock association) EEC

Scientific name	Common name	Family	Cover/abundance	
			NG1	NG2
FORBS				
Acaena sp		Rosaceae	+	+
**Acetosella vulgaris*	Sheep Sorrel	Polygonaceae	1	+
Asperula conferta	Woodruff	Rubiaceae		+
Asperula gunnii	Mountain Woodruff	Rubiaceae	1	
Cardamine ?lilacina	Lilac Bitter-cress	Brassicaceae		r
**Cirsium vulgare*	Black Thistle	Asteraceae		r
Cotula alpina	Alpine Cotula	Asteraceae	1	

Scientific name	Common name	Family	Cover/abundance	
			NG1	NG2
Dichondra repens	Kidney Weed	Convolvulaceae		+
Epilobium billardierianum	Willow Herb	Onagraceae	r	r
Euchiton gymnocephalus	Creeping Cudweed	Asteraceae	1	1
Galium sp		Rubiaceae	1	
Haloragis heterophylla	Rough Raspwort	Haloragaceae	+	
Hydrocotyle peduncularis	Shining Pennywort	Araliaceae	1	
Hydrocotyle tripartita	Pennywort	Araliaceae	2	
Hypericum japonicum	Small St John's Wort	Hypericaceae	1	3
**Hypochaeris radicata*	Catsear, Flatweed	Asteraceae	1	1
Hypoxis hygrometrica	Weathergrass, Golden Star	Hypoxidaceae	+	+
**Myosotis discolor*	Forget-me-not	Boraginaceae		r
Ranunculus diminutus		Ranunculaceae	r	
Ranunculus pimpinellifolius	Bog Buttercup	Ranunculaceae	1	1
Solenogyne gunnii	Hairy Solenogyne	Asteraceae	+	
Stellaria angustifolia	Swamp Starwort	Caryophyllaceae	+	
**Taraxacum officinale*	Dandelion	Asteraceae	+	1
**Trifolium dubium*	Yellow Clover	Fabaceae	1	1
**Trifolium repens*	White Clover	Fabaceae	1	1
Veronica subtilis		Plantaginaceae		r
Viola betonicifolia	Purple Violet	Violaceae		+
GRASSES				
**Anthoxanthum odoratum*	Sweet Vernal Grass	Poaceae	1	1
**Holcus lanatus*	Yorkshire Fog	Poaceae	r	+
Lachnagrostis aemula	Blown Grass	Poaceae	r	
Microlaena stipoides	Weeping Grass	Poaceae	1	
Poa labillardierei	Silver or River Tussock	Poaceae	4	3
**Poa pratensis*	Kentucky Bluegrass	Poaceae		1
Poa sieberiana	Snowgrass	Poaceae	1	
SEDGES AND RUSHES				
Carex appressa	Tall Sedge	Cyperaceae	r	r
Carex chlorantha	Green-top Sedge	Cyperaceae	+	2
Juncus usitatus	Common Rush	Juncaceae		2
Juncus sp		Juncaceae	+	
Schoenus apogon	Bog Sedge	Cyperaceae	2	2

A.1.1 Structural and habitat survey results

Site	% native groundcover[1]	% exotic groundcover[1]	% midstorey cover[1]	% overstorey cover[2]	Hollow-bearing trees[3]	Logs (m)[4]
Snow Gum – Candlebark Woodland: secondary grassland high quality (GH)						
GH1	90	<5	-	-	-	-
GH2	80	5	-	-	-	-
GH3	80	10	-	-	-	-
GH4	90	5	-	-	-	-
Snow Gum – Candlebark Woodland: secondary grassland low quality (GL)						
GL1	85	7	-	-	-	-
GL2	80	7	-	-	-	-
GL3	90	5	-	-	-	-

Site	% native groundcover[1]	% exotic groundcover[1]	% midstorey cover[1]	% overstorey cover[2]	Hollow-bearing trees[3]	Logs (m)[4]
Snow Gum – Candlebark Woodland: structural woodland (SG)						
SG1	55	25	<5	14	1	78.5
SG2	75	5	<5	21.5	1	45
River Tussock Grassland (NG) - Natural Temperate Grassland (Wet tussock association) EEC						
NG1	95	<5	-	-	-	-
NG2	95	<5	-	-	-	-

[1] foliage cover (20m x 20m plot)

[2] average of 10 records on 50 metre transect, native tree species

[3] no. trees in 50m x 20m plot with hollows ≥5cm diameter, ≥1 metre above the ground

[4] total length of all logs in 50m x 20m plot ≥10cm diameter, ≥0.5 metres long (branches ≥10cm diameter counted separately)

A.1.2 Significant species records

Species	Easting	Northing
Swainsona monticola	707519	5948856
Swainsona monticola	707306	5949503
Swainsona monticola	707309	5949584
Swainsona monticola	707248	5949667
Swainsona monticola	707250	5949433
Swainsona monticola	707676	5949116
Swainsona monticola	707318	5949874
Swainsona monticola	707371	5950026
Swainsona monticola	707031	5950096
Swainsona monticola	707027	5950114
Swainsona monticola	706981	5949543
Swainsona monticola	706959	5949552
Swainsona monticola	706906	5949875
Swainsona monticola	707011	5949590
Swainsona monticola	707495	5948712
Discaria pubescens	707506	5948949
Discaria pubescens	707671	5949111
Discaria pubescens	707537	5949751
Discaria pubescens	706818	5950482
Discaria pubescens	707031	5950096
Discaria pubescens	707027	5950114
Discaria pubescens	707095	5950058
Ophioglossum lusitanicum	707565	5949764
Ophioglossum lusitanicum	706848	5950515
Ophioglossum lusitanicum	707565	5948982
Ophioglossum lusitanicum	706908	5949584
Ophioglossum lusitanicum	707589	5949022
Polygala japonica	707027	5950114
Polygala japonica	706844	5950484
Leptorhynchos squamatus	707794	5948994
Leptorhynchos squamatus	708025	5949032

Leptorhynchos squamatus	706844	5950484
Leptorhynchos squamatus	707027	5950114
Craspedia canens	707514	5948595
Craspedia canens	707489	5948683
Dianella longifolia	707314	5949831

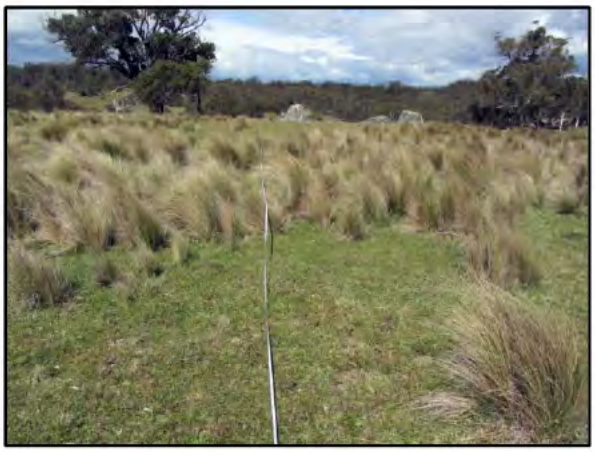
APPENDIX B SURVEY SITE PHOTOGRAPHS

GH1

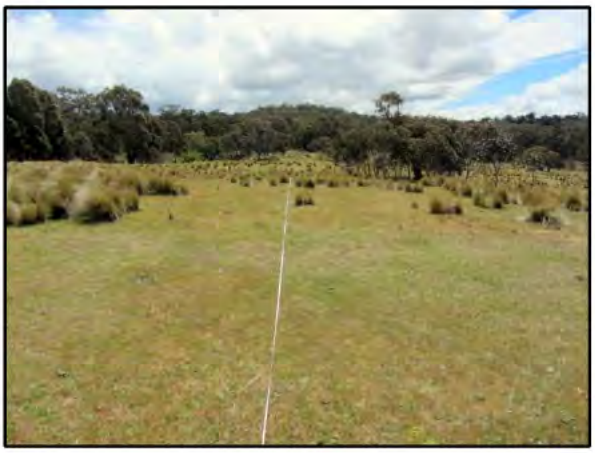
GH2

GH3

GH4



GL1



GL2

GL3

SG1

SG2

NG2

s47F

From: s47F
Sent: Friday, 30 June 2017 2:35 PM
To: s47F
Cc:
Subject: Alleged clearing of nationally listed grassland at Corrowong - compensatory actions [SEC=UNCLASSIFIED]
Attachments: Corro_170630_To Jam Land_site inspection with s47F CAS2691.pdf; Corro_170630_letter to Jam Land_site inspection with s47F Att1_CAS2691.docx

Dear Mr Taylor,
Please find attached correspondence from the Department in relation to proposed discussions with s47F at the property on 10 July.

Happy to discuss,

s47F
Senior Compliance Officer
Compliance Section
Environment Standards Division
Department of the Environment and Energy
GPO Box 787 CANBERRA, ACT 2601
s47F

s47F

From: s47F
Sent: Wednesday, 5 July 2017 8:32 PM
To: s47F
Cc:
Subject: RE: Alleged clearing of nationally listed grassland at Corrowong - compensatory actions [SEC=UNCLASSIFIED]

s47F

Meeting is OK for the 10th July.
I will also attend.
Could you please advise a time and place to meet.

Regards

Richard

From: s47F
Sent: Friday, 30 June 2017 2:35 PM
To: s47F
Cc: s47F
Subject: Alleged clearing of nationally listed grassland at Corrowong - compensatory actions [SEC=UNCLASSIFIED]

Dear Mr Taylor,
Please find attached correspondence from the Department in relation to proposed discussions with s47F at the property on 10 July.

Happy to discuss,

s47F
Senior Compliance Officer
Compliance Section
Environment Standards Division
Department of the Environment and Energy
GPO Box 787 CANBERRA, ACT 2601
s47F

s47F

From: s47F
Sent: Tuesday, 22 August 2017 4:54 PM
To: s47F
Cc:
Subject: RE: Alleged clearing of nationally listed grassland at Corrowong - compensatory actions [SEC=UNCLASSIFIED]
Attachments: Corro_170822_to Jam Land_Confirmation of mapped area_offset acceptability_Att_CAS2691.pdf; Corro_170822_to Jam Land_Confirmation of mapped area_offset acceptability_CAS2691.pdf

Dear Mr Taylor,

Please find attached correspondence from the Department following our meeting at the site on 10 July. Hard copies have been mailed to you. I'll give you a call tomorrow to discuss.

Kind Regards,

s47F
Senior Compliance Officer | Compliance Section

Office of Compliance
Department of the Environment and Energy
GPO Box 787 Canberra ACT 2601
s47F

From: s47F
To:
Cc: Geoff Richardson
Subject: RE: Urgent request for talking points - NTGSEH listing [SEC=UNCLASSIFIED]
Date: Thursday, 16 February 2017 2:51:43 PM
Attachments: Letter submission - NSW OEH - 150724.pdf
Public consultation material - consulation guide.docx

Hi s47F

See below for background and talking points. There's probably a bit more detail in here than required, but I've put it all together for a complete picture.

For context, I've included reference to the Corrowong compliance case, as we assume this query is related to that investigation.

Regards,
s47F

s47 | Project Officer | Ecological Communities Section | Protected Species and Communities Branch
Department of the Environment and Energy
GPO Box 787 Canberra ACT 2601 | s47F

(For more about threatened ecological communities and our latest newsletter, see: http://www.environment.gov.au/biodiversity/threatened/communities.html)

Previous listing and the revised listing

- The native grasslands in the Southern Tablelands region of NSW and the ACT have been listed as a threatened ecological community since the start of the EPBC Act (16 July 2000), and before that under the Commonwealth *Endangered Species Protection Act 1992*.
- The *Natural Temperate Grassland of the South Eastern Highlands* ecological community was listed on 6 April 2016 as a result of a review of the original listing, which was known as *Natural temperate grassland of the Southern Tablelands of NSW and the Australian Capital Territory*. This review was conducted to take account of new information, in line with the 2006 National Recovery Plan for this ecological community.
- The revised listing added a 'minimum condition threshold', which identifies which areas of grassland are protected by the EPBC Act. Low quality grasslands that do not meet this threshold are not protected, whereas some of these areas would have been included in the previous listing.
- The grasslands on the property in question (Corrowong locality) were included within the boundary of the previous listing, as well as the revised listing. The property includes areas of native grasslands that meet the revised listing (requiring high quality of native grasslands),

and areas of lower quality grasslands. The focus of the compliance investigation, using the new listing, focussed on the higher quality areas and not the low quality areas that may have been included under the previous listing.

Consultation

- The original listing, recovery plan and revised listing all went through statutory consultation processes.

Notification of public consultation on the review of the ecological community listing

- Notification emails were sent to a wide range of stakeholders, including all councils, Local Land Services, and state agencies where the ecological community occurs, and the National Farmers' Federation and NSW Farmers' Association s47F). These Farmers' groups were contacted by the Department's Environment Liaison Officer, out posted to the NFF, and the Department met with the NFF to discuss the listing on more than one occasion.
- Reminder emails were also sent to the same groups as the end of the public consultation period approached.
- A farmer specific consultation guide (attached) was available as part of the consultation package, explaining the listing review process and what this meant for farming activities.

Notification of the listing event (6 April 2016)

- Following listing, email notifications were also sent.

Information guide on the ecological community for landholders

- An information guide was finalised and released in 2016. This was developed with the assistance of the NFF.
- The information guide is designed to assist land managers, owners and occupiers as well as environmental assessment officers and consultants to identify, assess and manage the Natural Temperate Grassland of the South Eastern Highlands ecological community. This guide also explains why the listing was revised and relationships between the previous and updated listing.
- Hardcopies of the information guide (including a link to the electronic version on the website) were sent to all councils and South East Local Land Service offices where the ecological community occurs. For the Corrowong/Delegate region, this included the Snowy-Monaro Regional Council office in Cooma, and the South East LLS office in Bombala. The letter that accompanied these guides invited the offices to "Please pass this letter and the enclosed brochures on to relevant environment or biodiversity officers, and/or your organisation's reception/visitors area".
- The information guide explains that, "Only activities that are likely to have a significant impact on the ecological community need to be considered under national environment law —activities such as large new developments, works or infrastructure. For example, permanently clearing areas of high-quality native vegetation for mining and energy infrastructure, changed agricultural production (e.g. cropping), telecommunication cabling, roadworks or residential/industrial subdivision."

Awareness of Natural Temperate Grassland listing

- The national Recovery Plan included work to increase awareness of the ecological community, including the establishment of the Southern Tablelands Conservation Management Network and work in the early-mid 2000s by WWF.
- The attached letter from NSW OEH also summarises work they have done to increase community engagement with the listed ecological community (see pages 4-5) and working collaboratively with partners (page 7).
- South East Local Land Services acknowledge the National Landcare Programme and EPBC Act in their 2016-21 strategic plan.
- South East Local Land Services has received money through the National Landcare Programme to administer grants to restore the NTG EC, among other projects.

From: s47F
Sent: Thursday, 16 February 2017 9:35 AM
To: s47F
s47F
Cc: s47F
Subject: Urgent request for talking points - NTGSEH listing [SEC=UNCLASSIFIED]

Hi s47F
As discussed, it appears that a NTGSEH case was discussed in parliament yesterday, and we have been asked to urgently draft some dot points about the listing. Can you please provide a point about the amount of engagement, consultation and education (particularly with the farming community) that was undertaken in the listing process.

This is a handwritten note we got from a phone call with the Minister's office:

'Possible compliance action

South East Highland Grassland

- *Hunt made a change (listing status priority)*
- *What was change, when, why, implications*

ACT/NSW Border'

Draft dot points:

- The *Natural Temperate Grassland of the South Eastern Highlands* ecological community was listed in the Critically Endangered category on 6 April 2016.
- Between 16 July 2000 and 5 April 2016, the extent of this ecological community was included with the listed endangered *Natural Temperate Grassland of the Southern Tablelands of NSW and the Australian Capital Territory* ecological community.
- The Natural Temperate Grassland of the South Eastern Highlands ecological community came about as a result of a review of the Natural temperate grassland of the Southern

Tablelands of NSW and the Australian Capital Territory (listed as endangered in 2000). This review was conducted to take account of new information, and to recognise a broader distribution than was acknowledged in the original listing.

- Dot point about consultation, engagement and education

Happy to discuss,

s47F
Senior Compliance Officer
Compliance Section
Environment Standards Division
Department of the Environment and Energy
GPO Box 787 CANBERRA, ACT 2601
s47F

From: s47F
To:
Subject: FW: Monaro grasslands [SEC=UNCLASSIFIED]
Date: Monday, 6 March 2017 8:50:09 AM
Attachments: RE Urgent request for talking points - NTGSEH listing SECUNCLASSIFIED.msg

FYI – response sent last week to compliance re questions about the Monaro grasslands uplisting.
s47F

From: Richardson, Geoff
Sent: Thursday, 2 March 2017 4:22 PM
To: s47F
Cc: s47F
s47F
Oxley, Stephen <Stephen.Oxley@environment.gov.au>
Subject: RE: Monaro grasslands [SEC=UNCLASSIFIED]

Hi s47F

Please find below dot points prepared by s47F and cleared by me relating to the questions from the Minister's office on the SEH grassland uplisting. I note we previously provided some points about our consultation process – see attached email. I've drawn on these for some points below, but you might find other info in the email useful.

Who made the decision to uplist the EC – Hunt, Frydenberg or Delegate?

- The uplisting decision was made by Greg Hunt, as Minister for Environment at the time.

We have received comments that implementation of the revised listing has been problematic. In particular, it can lead to a mosaic of protected and non-protected areas inside existing paddocks and regarding the exclusion of clover from the 50% threshold. Can you provide any comments around practicality of implementation?

- Listed ecological communities occur wherever a patch of native vegetation in the landscape meets the diagnostic features, plus the condition thresholds for that community. This is similar to identifying habitat requirements for particular listed threatened species except that it applies to a described assemblage of species, usually a certain vegetation type.
- A mosaic distribution is typical for many ecological communities because of: 1) variability in landscape features – for instance grasslands often form in frost hollows and sites of cold air drainage; and 2) variability in past management history – for instance the degree of grazing, ploughing and fertiliser addition affects the composition and diversity of grassland species among and within sites.
- Both the original and revised listings constituted a 'mosaic' as the community was always naturally restricted in where it can occur. However, the revised listing introduced a 'minimum condition threshold', that clarifies which areas of grassland should be protected by the EPBC Act. Low quality grasslands that do not meet this threshold are not protected, whereas some of these areas would have been included in the original listing.
- Large areas that have more than 50% vegetation cover of clover (*Trifolium* spp.), which is not a native plant, are not part of the grassland ecological community.

- To be considered part of the listed ecological community, grassland patches must be at least 0.1 Hectare in size, must have a greater percentage cover of native plants (including annual and perennial species) than the percentage cover of perennial exotic species (i.e. >50% native cover), and must meet additional condition thresholds (e.g. relating to the diversity of non-grass native species, or the presence of particular 'indicator species').
- Detailed information about how to recognise a patch of the grassland and what condition it might be in are given in the approved conservation advice and the information guide for the uplisted community. The information guide provides a flowchart to help landholders determine the condition of the grassland.

Can you please provide overview of consultation and feedback from farmer groups regarding the uplisting?

- The original listing, recovery plan and revised listing all went through statutory consultation processes.
- Notification emails about the uplisting were sent to a wide range of stakeholders, including all councils, Local Land Services, and state agencies where the ecological community occurs, and the National Farmers' Federation and NSW Farmers' Association. These Farmers' groups also were contacted by the Department's Environment Liaison Officer, out posted to the NFF, and the Department met with the NFF to discuss the listing on more than one occasion. A farmer specific consultation guide was made available as part of the consultation package, explaining the listing review process and what this meant for farming activities.
- The NSW Farmers Association did not provide any comment on the proposed uplisting. The NFF provided a submission noting concerns that further information would be required to complete the assessment and that landholders may have difficulty identifying the grassland. The Department replied to the NFF about their issues.
- A public information guide aimed at helping famers and other landholders understand the uplisted grassland was prepared and released after the listing. This guide was developed with the assistance of the NFF.

Let me know if you need anything further

Regards Geoff

Geoff Richardson
Assistant Secretary | Protected Species and Communities Branch
Department of the Environment and Energy
s47F
The Department acknowledges the traditional owners of country throughout Australia and their continuing connection to land, sea and community. We pay our respects to them and their cultures and to their elders both past and present.

From: s47F
Sent: Thursday, 2 March 2017 10:26 AM
To: s47F
Cc: s47F
s47F
Subject: FW: Monaro grasslands [SEC=UNCLASSIFIED]

s47F

As discussed , the Ministers office is seeking some quick turnaround on the questions below regarding the *Natural Temperate Grassland of the South Eastern Highlands* ecological community.

Questions are:

Who made the decision to uplist the EC – Hunt, Frydenberg or Delegate?

We have received comments that implementation of the revised listing has been problematic. In particular, it can lead to a mosaic of protected and non-protected areas inside existing paddocks and regarding the exclusion of clover from the 50% threshold. Can you provide any comments around practicality of implementation?

Can you please provide overview of consultation and feedback from farmer groups regarding the uplisting?

Please send to me as soon as you are able.

All the best

s47F | **A/g Director** |
Compliance
Environment Standards Division |
Department of Environment and Energy
GPO Box 787 Canberra ACT 2601
s47F

From: Richards, Mark
Sent: Thursday, 2 March 2017 9:54 AM
To: Collins, Monica <Monica.Collins@environment.gov.au>; s47F
s47F
Cc: de Brouwer, Gordon <Gordon.deBrouwer@environment.gov.au>; Knudson, Dean <Dean.Knudson@environment.gov.au>; s47F
s47F
s47F CEBWorkflow <CEBWorkflow@environment.gov.au>;
s47F
Subject: RE: Monaro grasslands [SEC=UNCLASSIFIED]

Hi Monica

Can you please clarify the following:

Who made the decision to uplist the EC – Hunt, Frydenberg or Delegate?

We have received comments that implementation of the revised listing has been problematic. In particular, it can lead to a mosaic of protected and non-protected areas inside existing paddocks and regarding the exclusion of clover from the 50% threshold. Can you provide any comments around practicality of implementation?

Can you please provide overview of consultation and feedback from farmer groups regarding the uplisting?

Can you please let me know by end of Monday.

Thanks

s47F

From: Collins, Monica
Sent: Tuesday, 28 February 2017 5:14 PM
To: Richards, Mark <Mark.Richards@environment.gov.au>; s47F
s47F
Cc: de Brouwer, Gordon <Gordon.deBrouwer@environment.gov.au>; Knudson, Dean <Dean.Knudson@environment.gov.au>; s47F
s47F
s47F CEBWorkflow <CEBWorkflow@environment.gov.au>;
s47F
Subject: Monaro grasslands [SEC=UNCLASSIFIED]

Hi Mark,

Please see information below as requested.

Monica

General Information on Grasslands

- In the Monaro region of NSW, matters of national environmental significance protected by the *Environment Protection and Biodiversity Conservation Act 1999* include the critically endangered *Natural Temperate Grassland of the South Eastern Highlands* ecological community.

- This grassland ecological community has been protected in the Monaro region as endangered under the Act since the Act was introduced in 2000, and was up listed to critically endangered in 2016.

- The revision of the listing of the endangered *Natural Temperate Grassland of the Southern Tablelands of NSW and the Australian Capital Territory* to the critically endangered *Natural Temperate Grassland of the South Eastern Highlands* resulted in protection of grasslands in a broader geographic area, but limits the protection to areas of the highest quality grasslands.

- Within the extent of the previous listing (Southern Tablelands of NSW and the ACT), the area protected by the listing (and subsequently the number of landholders affected) is considered to be reduced. However, the geographic extent of the new listing is larger than it was for the previous listing (for example, it now includes parts of Victoria).

- The minimum condition thresholds (see below) contained in the Conservation Advice for the revised listing allow greater certainty for landholders in determining whether the Act applies to their proposed actions.

- To be considered the listed ecological community, grassland patches must be at least 0.1 Hectare in size, must have a greater percentage cover of native vascular plants (including annual and perennial species) than the percentage cover of perennial exotic species (i.e. >50% native cover), and must meet additional condition thresholds (eg relating to the diversity of non-grass native species, the presence of particular 'indicator species' or the floristic value score). *Note - this is a simplified overview of the minimum condition thresholds.*

- Natural Temperate Grassland of the South Eastern Highlands is listed as critically endangered under the EPBC Act. The threshold of significance for proposed activities is dependent on the quality and context of the impacted ecological community, but is likely to be in the region of 1-10 ha.

Compliance Investigation Background

- The Department is investigating clearing of the *Natural Temperate Grassland of the South Eastern Highlands* ecological community at Corrowong in Southern NSW.

- Corrowong lies within a bioregion that has known occurrences of protected Natural Temperate Grasslands. These grasslands have been protected since the EPBC Act came into force in July 2000. The 2016 up listing has not placed any additional compliance burden on landholders that was not present before the up listing came into effect.

- The grasslands on the property in question are included within the boundary of the previous listing, as well as the revised listing. The property includes areas of native grasslands that meet the revised listing (requiring high quality of native grasslands), and areas of lower quality grasslands. The focus of the compliance investigation, using the new listing, focussed on the higher quality areas and not the low quality areas that may have been included under the previous listing.

s37(2)(b)

Compliance inspection

- Compliance officers inspected the property with a suitably qualified grassland ecologist on 16 December 2016 to establish the likely impacts of the alleged actions.

- The final report from the expert (received 23 January 2017) identified that approximately 30 ha of the listed critically endangered grassland has been significantly impacted.

s37(2)(b)

- This matter has been referred to General Counsel Branch to inform the Department's response.

- The Department intends to contact the land owner, offering to meet on site to discuss how the Act applies, and what the next steps are from both the land owner's and the Department's perspectives.

Monica Collins
Assistant Secretary Compliance and Enforcement
Department of the Environment and Energy
s47F