



Annual Compliance Report

Lawson South Residential Development (EPBC 2010/5549)

12 December 2017 – 11 December 2018

January 2019

Prepared by the ACT Government

This report demonstrates how the Suburban Land Agency (previously known as the Land Development Agency), Transport Canberra and City Services, and ACT Parks and Conservation Service have complied with the conditions in the approval decision for the Lawson South Residential Development (EPBC 2010/5549).


Specifically:


- Suburban Land Agency (SLA; the proponent) had responsibility for complying with conditions 1-12, 14, 15 and 21. Conditions 2-4, 12, 15 and 21 have been met. Responsibility for the remaining conditions has been transferred to TCCS, as part of the transfer of management responsibility from SLA to TCCS for Reservoir Hill and the OAPZ on Commonwealth land, which commenced on 15 December 2017.
- Transport Canberra and City Services (TCCS) is responsible for complying with conditions 7 and 10. In addition, TCCS has assumed responsibility for conditions 1, 5-11 and 14.
- ACT Parks and Conservation Service (PCS) is responsible for complying with conditions 12 and 13.
- The SLA, TCCS, and PCS are jointly responsible for complying with conditions 16-20 and 22 in the approval decision.


In addition, this report also demonstrates how PCS has implemented the management plan for the Jarramlee environmental offset site on behalf of SLA.

Declaration of Accuracy

In making this declaration, I am aware that sections 490 and 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) make it an offence in certain circumstances to knowingly provide false or misleading information or documents. The offence is punishable on conviction by imprisonment or a fine, or both. I declare that all the information and documentation supporting this compliance report is true and correct in every particular. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed: 
Full name: Chris Webb
Position: Program Manager, Urban/Commercial
Organisation: Suburban Land Agency
Date: 15/1/2019

Signed: 
Full name: Daniel Iglesias
Position: Director
Organisation: ACT Parks and Conservation Service
Date: 17/1/2019

Signed: 
Full name: Stephen Alegria
Position: Director, City Presentation
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Date: 16/1/2019

Contents

1. Compliance with conditions in EPBC Approval Decision	4
2. Implementation of the Offset Management Plan	19
3. Other Actions	26

1. Compliance with conditions in EPBC Approval Decision

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
1	All ground disturbed as a result of construction within the Inner Asset Protection Zone (IAPZ) and Golden Sun Moth (GSM) habitat within Reservoir Hill must be rehabilitated, by re-establishment of native grass species, no later than 30 days after completion of construction within the IAPZ and GSM habitat within Reservoir Hill.	SLA then TCCS from 15 December 2017	Compliant/not applicable	All ground within the IAPZ has been rehabilitated with native grass species nominated in the EPBC approval as part of the Stage 1 civil construction works. Stage 2 has not commenced construction as yet so this is not applicable. The landscape construction works in Reservoir Hill are complete and the native grasses have been planted where disturbance has occurred.
2	The person taking the action must not plant trees where they could shade GSM habitat within Reservoir Hill and GSM and Natural Temperate Grassland (NTG).	SLA	Compliant	No trees are proposed in the habitat area.
3	The person taking the action must ensure that the GSM habitat within Reservoir Hill and Belconnen Naval Transmitting Station are separated from residential development by vehicular roads.	SLA	Compliant	The open space that the GSM habitat and NTG are located in are separated by either edge roads (Wanderlight Avenue and Dawn Crescent) or fire roads.
4	The person taking the action must prevent sediment, eroded material, untreated and uncontrolled stormwater from entering the Belconnen Naval Transmitting Station and the GSM habitat within Reservoir Hill.	SLA	Compliant	Appropriate sediment and erosion control measures were in place during the civil construction of Stage 1 to ensure sediment, eroded material, untreated and uncontrolled stormwater did not enter the former Belconnen Naval Transmitting Station. No measures were required during Stage 1 civil works to protect GSM habitat within Reservoir Hill as these works were downslope of the hill. The landscape construction works in Reservoir Hill were completed in December 2017.

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
5	<p>The person taking the action must engage a suitably qualified expert to prepare an Environmental Management Plan (EMP) to maintain or improve the GSM habitat within Reservoir Hill.</p> <p>The EMP must be submitted to the Minister for approval by 1 July 2013. The approved EMP must be implemented within 12 months of the date of this approval.</p> <p>The EMP must address, but not necessarily be limited to:</p>	SLA then TCCS from 15 December 2017	Compliant	Submitted 14 June 2013 and approved 11 December 2013. A report on the implementation of the EMP over the last reporting period is being prepared and will be published on the Offsets Register .
5a	Measures to maintain or improve the quality and condition of the GSM habitat within Reservoir Hill through appropriate management actions, including, and not limited to, weed control and biomass management as informed by a suitably qualified expert;	SLA then TCCS from 15 December 2017	Compliant	Details were included in the EMP
5b	<p>Measures to prevent the access of unauthorised vehicles into the GSM habitat on Reservoir Hill, prior to, during and post construction.</p> <p>Measures must include, but not necessarily be limited to:</p>	SLA then TCCS from 15 December 2017	Compliant	Details were included in the EMP
5b)i	Temporary fences to prevent access by unauthorised vehicles;	SLA then TCCS from 15 December 2017	Compliant	Details were included in the EMP

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
5b)ii	Replacement of the temporary fences required in Condition 5) b) i) with permanent structures, such as bollards, that will prevent access by unauthorised vehicles; and	SLA then TCCS from 15 December 2017	Compliant	Details were included in the EMP
5b)iii	Maintenance of the permanent structures required in Condition 5) b) ii) so that the area remains inaccessible by unauthorised vehicles, with structures to be repaired or replaced as required.	SLA then TCCS from 15 December 2017	Compliant	Details were included in the EMP
5c	Details of a baseline survey of the quality and condition of the GSM habitat within Reservoir Hill to be conducted by a suitably qualified expert during an optimal ecological time prior to the commencement of construction within GSM habitat within Reservoir Hill. The survey information, specifically the baseline data, must:	SLA	Compliant	Details in the EMP
5c)i	Be published and maintained on the person taking the action's website within 30 days of the surveys being completed. The baseline data must be sufficient to enable the active monitoring and maintenance of the GSM values; and	SLA	Non-compliant	The baseline survey data were included in the Environmental Management Plan, and have been used to inform monitoring and maintenance, but these data were not published within 30 days of completion. The EMP, including the baseline survey data, is being edited to meet accessibility standards and will be published on the Offsets Register . Note: the 2016-17 annual report, which stated that these data were published on 17 August 2017, referred to the first year of annual monitoring data.

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
5c)ii	Be used to ensure that the GSM habitat quality and condition are maintained or improved as required by Condition 5) a)	SLA then TCCS from 15 December 2017	Compliant	Details were included in the EMP.
5d	Details of an annual monitoring survey to determine the quality and condition of the GSM habitat within Reservoir Hill to be conducted by a suitably qualified expert during an optimal ecological time. The first annual survey must be undertaken within one year of commencement of construction within GSM habitat within Reservoir Hill. Annual monitoring surveys must continue to be undertaken unless cessation is agreed to in writing by the Minister;	SLA then TCCS from 15 December 2017	Compliant	Details were included in the EMP. Annual monitoring of GSM habitat was undertaken in February 2018.
5e	Details of corrective actions to be undertaken should the monitoring required in Condition 5) d) indicate a decline, as determined by a suitably qualified expert, in the quality or condition of the GSM habitat within Reservoir Hill; and	SLA then TCCS from 15 December 2017	Compliant	Details were included in the EMP.
5f	Details of the administration arrangements for the measures referred to in Conditions 5) a) to 5) e).	SLA then TCCS from 15 December 2017	Compliant	Details were included in the EMP
6	The person taking the action must install interpretive educational signage at no less than five locations along the boundary of GSM habitat within Reservoir Hill. The signage must:	SLA then TCCS from 15 December 2017	Compliant	The interpretive signage, in accordance with the Development Approval and Detail Design Acceptance, has been installed.

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
6a	contain information on the ecological values being retained and the threats to these values; and	SLA then TCCS from 15 December 2017	Non-compliant	Signs are installed in Reservoir Hill but need to be updated so they reflect the threats to the values.
6b	be maintained so that the information remains accessible, with signs to be replaced or updated as required.	SLA then TCCS from 15 December 2017	Compliant	The signs remain in good condition
7	The person taking the action must ensure that, during the management of the Outer Asset Protection Zone (OAPZ):	SLA then TCCS from 15 December 2017	Not applicable	No OAPZ management occurred in the last year.
7a	Grass and other flora is not slashed to a height less than 300mm above the ground	SLA then TCCS from 15 December 2017	Not applicable	
7b	The removal or movement of rocks to facilitate the slashing of grass and other flora is prevented	SLA then TCCS from 15 December 2017	Not applicable	
7c	The slashing of grass and other flora be restricted to occurring within the OAPZ	SLA then TCCS from 15 December 2017	Not applicable	
7d	All grass clippings and biomass removed must be mulched and spread or caught and removed to prevent windrows or clumps of slashed biomass forming on top of grassland flora	SLA then TCCS from 15 December 2017	Not applicable	
7e	All machinery and equipment involved in the slashing of grass and flora are free from flora reproductive matter (for example seeds) prior to entering the OAPZ	SLA then TCCS from 15 December 2017	Not applicable	

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
7f	A log book is maintained that records all management actions including date, time and details of machinery, equipment and personnel as well as details of hygiene measures undertaken to demonstrate compliance with this condition	SLA then TCCS from 15 December 2017	Not applicable	
7g)i	Slashing or any other biomass management must not be undertaken: When the use of vehicles or machinery could result in the churn or compaction of soil due to high levels of soil moisture	SLA then TCCS from 15 December 2017	Not applicable	
7g)ii	Slashing or any other biomass management must not be undertaken: During peak times of significant weed seeding as determined by a suitably qualified expert	SLA then TCCS from 15 December 2017	Not applicable	
7g)iii	Slashing or any other biomass management must not be undertaken: When GSM are flying or within two days of when GSM have been flying, as determined by as suitably qualified expert.	SLA then TCCS from 15 December 2017	Not applicable	
8	Prior to the commencement of actions to manage or reduce biomass within the OAPZ, a detailed baseline ecological survey must be undertaken by a suitably qualified expert at an optimal ecological time within the OAPZ to gain sufficient baseline ecological information to identify and map the extent and condition of all listed threatened species and ecological	SLA then TCCS from 15 December 2017	Not applicable	No OAPZ management occurred in the last year.

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
	communities or their habitat and any weed species. This information must be published and maintained on the person taking the action's website within 30 days after the completion of surveys.			
9	The person taking the action must control weed species detected in the baseline ecological survey required by Conditions 5) c) and 8) to ensure that the abundance and cover of weed species does not increase. Weed control must be informed by a suitably qualified expert and be undertaken in a manner that does not impact non-target flora or listed threatened species and ecological communities.	SLA then TCCS from 15 December 2017	Compliant	Weed control activities will be reported on in the EMP Implementation Report and published on the Offsets Register .
10	Should biomass management within the OAPZ be undertaken three or more times in any two year period, the person taking the action must conduct an ecological assessment using a suitably qualified expert. The ecological assessment must be undertaken at an optimal ecological time no earlier than six months following the last biomass management activity, and be sufficient to detect any changes in ecological condition from the baseline survey required by Condition 8.	SLA then TCCS from 15 December 2017	Not applicable	No OAPZ management occurred in the last year.

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
11	Within 30 days of the surveys required by Condition 5d) and 10, a suitably qualified expert must assess whether there has been a decline in the ecological condition of habitat for the GSM and NTG within the OAPZ and or GSM habitat within Reservoir Hill, if a decline is detected, the person taking the action must prepare, within 30 days for the approval of the Minster, a Restoration Plan for the restoration of the ecological condition of the OAPZ and of the GSM habitat within Reservoir Hill. The Restoration Plan must include, but not necessarily be limited to:	SLA then TCCS from 15 December 2017	On-going	The 2017-18 monitoring report for condition 5d) indicated a slight decline in GSM population density and distribution and GSM habitat quality. GSM habitat will be re-surveyed in the 2018-19 summer to assess the ecological condition of GSM habitat in Reservoir Hill and, if necessary, inform the preparation of a Restoration Plan.
11a	Required or adaptive changes to existing management activities;	SLA then TCCS from 15 December 2017	Not applicable	
11b	Active management actions to restore the ecological condition to the baseline and the extent identified within the baselines surveys, including, objectives, performance criteria and management responsibilities; and	SLA then TCCS from 15 December 2017	Not applicable	
11c	Protocols for ongoing monitoring and reporting.	SLA then TCCS from 15 December 2017	Not applicable	
12	To compensate for the impacts from the action to the GSM and NTG, the person taking the action must develop an Offset Strategy. The Offset Strategy must be submitted to the	SLA	Compliant	The Lawson Offset Strategy was submitted on 14 June 2013 and approved on 11 December 2013.

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	Minister for approval within six months of the commencement of construction. The Offset Strategy must include, but not necessarily be limited to: (The approved offset strategy must be implemented and be published and maintained on the person taking the action's website.)			
12a	Administration arrangements to conserve, in perpetuity, the Macgregor West offset area;	SLA	Compliant	Details included in the Offset Strategy
12b	Provision of not less than \$972, 000 (GST exclusive) to facilitate management of the Macgregor West offset area including estimated timeframes, budgets and ongoing operational costs;	SLA	Compliant	Details included in the Offset Strategy. Funding has been secured to manage the offset site in perpetuity. Over the life of the approval decision this amount is \$1.9M. Ongoing funding to manage the site in perpetuity is \$69,000.
12c	The process and timing for incorporating the Macgregor West offset area within the ACT Nature Reserve System;	SLA	Compliant	Details included in the Offset Strategy
12d	Results of surveys undertaken by a suitably qualified expert at an optimal ecological time to demonstrate the extent of GSM habitat in the Macgregor West offset area; and	SLA	Compliant	Details included in the Offset Strategy
12e	A map that defines the extent of NTG and habitat for the GSM habitat in the Macgregor West offset area as a result of Condition 12d).	SLA	Compliant	Details included in the Offset Strategy
13	To manage the Macgregor West Offset area, the person taking the action must develop an	PCS	Compliant	The Jarramlee Offset Management Plan was submitted on 14 June 2013 and approved on 11 December 2013.

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
	Offset Management Plan (OMP), for approval by the Minister. The OMP must include but not necessarily be limited to: (The OMP must be submitted to the Minister for approval by 1 July 2013. The approved OMP must be implemented.)			
13a	A map that clearly defined the locating and boundaries of the offset area including offset attributes and shapefiles;	PCS	Compliant	Details included in the Offset Management Plan
13b	Measures to conserve, in perpetuity, the Macgregor West offset area as habitat for the GSM and NTG;	PCS	Compliant	Details included in the Offset Management Plan
13c	Details of administrative arrangements;	PCS	Compliant	Details included in the Offset Management Plan
13d	Details of an appropriate monitoring program to be undertaken by a suitably qualified expert, including aims, methodology and reporting, to determine whether the GSM and NTG values have degraded at the Macgregor West offset area.	PCS	Compliant	Details included in the Offset Management Plan
13e	Details of contingency measures should the monitoring required by Condition 13d) determine that the GSM and NTG values have degraded at the Macgregor West offset area.	PCS	Compliant	Details included in the Offset Management Plan
14	If, after two years, the monitoring required by Condition 11c) identifies that the actions outlined in the Restoration Plan for restoration of the ecological condition of the	SLA then TCCS from 15 December 2017	Not applicable	

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
	OAPZ and/or the GSM habitat within Reservoir Hill have been unsuccessful as determined by a suitably qualified expert, then the person taking the action must develop an Additional Offset Strategy (AOS). The AOS must be submitted to the Minister for approval within six months of determining that actions were unsuccessful. The AOS must include, but not necessarily be limited to: (The AOS must be implemented within 12 months of the date of the approval of the AOS).			
14a)i	Details of the proposed additional offset including acquisition and management of land containing an unsecured population of GSM; and/or	SLA then TCCS from 15 December 2017	Not applicable	
14a)ii	Details of the proposed additional offset including funding arrangements and proposed measures that demonstrably improve GSM habitat at another site; and	SLA then TCCS from 15 December 2017	Not applicable	
14a)iii	Details of the proposed additional offset including details of an administrative arrangements including timeframes, responsibilities, and accountabilities.	SLA then TCCS from 15 December 2017	Not applicable	
14b	Details of an appropriate monitoring program to be undertaken by a suitably qualified expert including aims, methodology, reporting, to	SLA then TCCS from 15 December 2017	Not applicable	

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
	determine whether the values at the proposed sit(s) in Condition 14a) are improved;			
14c	Contingency measures should the monitoring determine that the values are not improved by the management measures; and	SLA then TCCS from 15 December 2017	Not applicable	
14d	Details how the proposed funding and management aligns with (and does not duplicate) the existing Offset Strategy as required by Condition 12).	SLA then TCCS from 15 December 2017	Not applicable	
15	Within 30 days after the commencement of the action, the person taking the action must advise the department in writing of the actual date of commencement.	SLA	Compliant	The Commonwealth Government were advised on 24 September 2013 that construction commenced on 12 September 2013.
16	The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the offset, OMP and, if required the Restoration Plan and any other report, strategies, agreements however described required by this approval, and make them available upon request to the department. Such records may be subject to audit by the department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits	SLA, PCS and TCCS	Compliant	All relevant documentation is maintained on ACT Government files.

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
	will be posted on the department's website. The results of audits may also be publicised through the general media.			
17	Within three months of every 12 month anniversary of the commencement of the action, the person taking the action must publish and maintain a report on their website addressing compliance with each of the conditions of this approval, including implementation of any management plans as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the department at the same time as the compliance report is published.	SLA, PCS and TCCS	2017-18 report non-compliant.	<p>The 2017-18 Report was published in January 2019.</p> <p>In September 2018, the Commonwealth approved a variation to this condition to change the 2019 reporting date to 30 August 2019, with subsequent annual reports due by 30 August each year.</p> <p>A report on the implementation of the EMP is being prepared and will be published on the Offsets Register. Implementation of the OMP is reported on in Section 2 of this annual report.</p>
18	Upon the direction of the Minister, the person taking the action must ensure that an independent audit of the compliance with the conditions of approval is conducted and report submitted to the Minister. The independent auditor must be approved by the Minister and the audit report must address the criteria to the satisfaction of the Minister.	SLA, PCS and TCCS	Not Applicable	No direction given.
19	If the person taking the action wishes to carry out an activity otherwise than in accordance with the Offset Strategy, OMP and, if required, the Restoration Plan or AOS, and any other	SLA, PCS and TCCS	Compliant	The Jarramlee Offset Management Plan has been revised to fulfil commitments within the West Belconnen Strategic Assessment (WBSA). Commitments for both the WBSA and Lawson approval

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
	report, strategies, agreements however described as specified in the conditions, the person taking the action must submit to the department for the Minister's written approval a revised version of the Offset Strategy, OMP and, if required, the Restoration Plan or AOS, and any other report, strategies, agreements however described.			decisions are within this single OMP, which is currently being considered as part of the WBSA approvals process.
20	If the Minister believes that it is necessary or convenient for the better protection of the listed threatened species and communities and Commonwealth land to do so, the Minister may request that the person taking the action make specified revisions to the Offset Strategy, OMP and, if required, the Restoration Plan or AOS, and any other report, strategies, agreements however described as specified in the conditions and submit the revised Offset Strategy, OMP and, if required, the Restoration Plan or AOS, and any other report, strategies, agreements however described for the Minister's written approval.	SLA, PCS and TCCS	Not Applicable	No request made.
21	If, at any time after five years from the date of this approval, the person taking the action has not substantially commenced the action, then the person taking the action must not substantially commence the action without the written agreement of the Minister.	SLA	Not applicable – action commenced	Action commenced on 12 September 2013 and substantially commenced by January 2014.

Condition Number	Condition	Responsibility	Compliant / Non-compliant / Not applicable	Description
22	Unless otherwise agreed to in writing by the Minister, the person taking the action must publish all management plans, ecological surveys, reports, strategy and agreement however described referred to in these conditions of approval on their website. Each management plan, ecological surveys, reports, strategy and agreement must be published on the website within 30 days of being approved.	SLA, PCS and TCCS	Non-compliant	Not all relevant documents have been published within 30 days of completion. These are currently being edited to meet accessibility standards and will be published on the Offsets Register and the Jarramlee Offset Area website .

2. Implementation of the Offset Management Plan

The following table describes how the ACT Parks and Conservation Service (Environment, Planning and Sustainable Development Directorate) has undertaken the management actions described within the Offset Management Plan for the 2017-18 reporting season on behalf of the Suburban Land Agency (the proponent). There was a total expenditure during the reporting period of \$192,361. Total expenditure over the life of the offset to date: \$764,822.

Activity	Description (from OMP)	Estimated Timeframe for Completion (as described in OMP)	Actions / Comments (from 29 November 2017 - 28 November 2018)	Expenditure (ex. GST) Total expenditure to date (from 29 November 2017 - 28 November 2018)
Biomass management plan	<p>The plan will guide:</p> <ul style="list-style-type: none"> The grazing and/or burning regime to maintain understory biomass at levels that benefit the Golden Sun Moth (GSM) and Natural Temperate Grassland (NTG) as well as comply with the requirements of a strategic firefighting advantage zone. The location of internal fences along Ginninderra Creek and/or Gooromon Ponds Creek to ensure the biomass within the GSM habitat along the riparian corridor can be appropriately managed. The installation of stock grazing infrastructure. 	2013-14	<ul style="list-style-type: none"> The Jarramlee restoration plan will take the place of a site specific biomass management plan. The restoration plan will outline methods to meet the requirements to enhance and increase NTG and GSM habitat. Soil sampling, site history, and floristic mapping have guided the recommended actions. Monitoring sites and methods are being finalised. A grazing management plan and feed budget was developed in December 2017. This grazing management plan will now guide the movement of the cattle and the implementation of other disturbance regimes across the site. 	\$5,611

Activity	Description (from OMP)	Estimated Timeframe for Completion (as described in OMP)	Actions / Comments (from 29 November 2017 - 28 November 2018)	Expenditure (ex. GST) Total expenditure to date (from 29 November 2017 - 28 November 2018)
Consult with ACT Heritage Unit	<ul style="list-style-type: none"> • Inform the ACT Heritage Unit of operational or habitat restoration works which could impact Aboriginal scatters recorded in Jarramlee. • Seek advice from the ACT Heritage Unit prior to upgrading the fence on the ACT/NSW border along the Bicentennial National Trail (BNT). 	As is required	<ul style="list-style-type: none"> • The ACT Heritage unit was consulted on the replacement of all fences. Advice will be sought for the future NTG restoration work, fencing and trough installation. 	Nil
Fencing	<ul style="list-style-type: none"> • Upgrade to 'vandal resistant' gates along the BNT. • Repair or replace other boundary fences as needed. • Fence off Ginninderra and/or Gooromon Ponds Creek as guided by the biomass management plan to protect stream banks from stock trampling. • The ACT Heritage Unit needs to be advised of any planned upgrade or replacement to the heritage fence on the ACT/NSW border fence along the BNT. 	2014-15	<ul style="list-style-type: none"> • Fencing has been upgraded along the boundary with Parkwood in January 2018. • Additional fencing was installed for stock grazing preparation (see below). 	\$16,587
Stock grazing preparation	<ul style="list-style-type: none"> • Install mains fed troughs to supply stock water from Ginninderra Creek and Gooromon Ponds Creek. 	2014-15	<ul style="list-style-type: none"> • Fencing and water troughs were installed into the BNT on the south eastern side of Jarramlee. Two additional paddocks (on Unleased Territory Land) have been acquired to use as for stock holding and quarantine purposes. 	\$30,343

Activity	Description (from OMP)	Estimated Timeframe for Completion (as described in OMP)	Actions / Comments (from 29 November 2017 - 28 November 2018)	Expenditure (ex. GST) Total expenditure to date (from 29 November 2017 - 28 November 2018)
Signage	<ul style="list-style-type: none"> Design, construct and install reserve signage to identify the reserve to the public including use related information. 	2014-15	<ul style="list-style-type: none"> Signage installation had been postponed until the final nature reserve boundary was confirmed (i.e. as part of the West Belconnen Strategic Assessment process). This took effect in July 2016. The guiding document for PCS sign standards is also still in preparation. The signage for Jarramlee will be postponed further until this is finalised. 	Nil
Riparian restoration	<ul style="list-style-type: none"> Undertake stream bank protection works at the confluence of Ginninderra Creek and Gooromon Ponds Creek to protect GSM habitat from erosion. Revegetate with indigenous shrubs within other sections of the riparian zone to provide habitat for woodland and migratory birds. Planting should be done in small patches along the riparian corridor avoiding GSM habitat. Seed advice from ACT Government ecologists on plant species selection and on the location of the revegetation works. 	2015-16	<ul style="list-style-type: none"> To maintain the biomass for the GSM, cattle were removed and a combination of mowing and intermittent grazing was undertaken on the riparian area over 16/17 and 17/18 period. Local Land Services has been engaged to provide advice on alternative means of protecting and restoring the riparian corridor. This will involve both engineering solutions and revegetation. Riparian restoration works will continue once this advice is received. 	Nil
Connectivity and GSM habitat restoration	Engage an external contractor to rehabilitate the area between Jarramlee and Dunlop Grasslands Nature Reserve to improve GSM habitat connectivity.	2016-17	<ul style="list-style-type: none"> The Jarramlee restoration plan will replace the original GSM Habitat Connectivity Project. The restoration plan will outline methods to meet the requirements to enhance and increase NTG and GSM 	Nil

Activity	Description (from OMP)	Estimated Timeframe for Completion (as described in OMP)	Actions / Comments (from 29 November 2017 - 28 November 2018)	Expenditure (ex. GST) Total expenditure to date (from 29 November 2017 - 28 November 2018)
			habitat. Soil sampling, site history, and floristic mapping have guided the recommended actions. Monitoring sites and methods are being finalised.	
Weed control	<ul style="list-style-type: none"> • Reduce the impact of weeds of concern, namely: serrated tussock, St John's wort, African love grass, Patterson's curse, sweet briar, blackberry and saffron and scotch thistles. • Until results on the current research on Chilean needle grass control within GSM habitat are available, Chilean needle grass control should be limited to areas outside of GSM habitat. • To minimise impact on woodland bird habitat, control large woody weeds in a phased approach including control methods such as stem injection or frill poison to leave temporary standing structure. Protect native plant species from off-target damage. • To maintain an open grassland structure regenerating trees and shrubs should be removed from outside woodlots. 	Ongoing	<ul style="list-style-type: none"> • Weed control was undertaken for: <ul style="list-style-type: none"> – St John's wort – Jan 2018 – Chilean needle grass – Sept 2018/Oct 2017 – Serrated tussock – Sep/Oct 2018 – African love grass – Oct/Nov 2018 – Blackberry and other woody weeds – Dec 2017/Jan 2018. • Chilean needle grass control was limited to areas outside of the riparian corridor where it is the primary habitat for the GSM. • The addition of the quarantine paddock has assisted in limiting the transport of Chilean Needle Grass seed through the high quality areas of NTG and across the site. • A phased program for removing/treating Blackberry and other woody weeds was started in 2014 to minimise impacts on woodland bird habitat. This program was continued over 2017/18. Plants were initially sprayed but not removed to leave structure for nesting birds. In 2018, dead plants continued to be slashed to reduce harbor for rabbits and to enhance grassland areas. • A contractor was engaged to mow and remove leaf litter from the fenced mid story plots as part of an 	\$17,763

Activity	Description (from OMP)	Estimated Timeframe for Completion (as described in OMP)	Actions / Comments (from 29 November 2017 - 28 November 2018)	Expenditure (ex. GST) Total expenditure to date (from 29 November 2017 - 28 November 2018)
			<p>integrated weed management program.</p> <ul style="list-style-type: none"> • Trials were also undertaken to treat annuals and Phalaris with weed burner. 	
GSM research	<ul style="list-style-type: none"> • Research into GSM life cycle, habitat requirements or translocation 	2015-16	<ul style="list-style-type: none"> • The ACT Government is currently investing funding as part of the Gungahlin Strategic Assessment to test GSM translocation methods. • The West Belconnen Strategic Assessment (which includes Jarramlee) also commits to undertake similar research from 2023 if sufficient evidence exists to provide confidence in a successful outcome. 	Nil
Vertebrate pest control (rabbits)	<ul style="list-style-type: none"> • Undertake a low risk control program • Spotlight counts in spring and autumn • Map active warrens in winter and control rabbits in spring • Follow up control may be necessary 	On-going	<ul style="list-style-type: none"> • Few active warrens are present. These are primarily in blackberry bushes. The blackberries are currently being controlled to reduced blackberry harbour. • In July 2016 all active rabbit warrens were mapped. Fumigation of active rabbit warrens took place in January 2018 in-house. Follow up control will be conducted as necessary. Two warrens were treated. • Seasonal rabbit monitoring is ongoing. Spotlighting is conducted in spring and autumn to monitor rabbit and other pest species numbers. 	Nil
Monitoring GSM population	<ul style="list-style-type: none"> • The GSM population will also be surveyed once in every five year period. Priority will be given to undertaking these surveys in years where emergence of GSM in other sites in the ACT is high. 	Following a review of GSM monitoring methods, Jarramlee GSM will be monitored	<ul style="list-style-type: none"> • GSM population monitoring was undertaken in the Nov/Dec 2017 flight season. GSM abundances were low but within the range of abundances recorded in previous years (average 21 GSM/hour or 1.3 per 100m transect, 118 total). However, GSM were not recorded in many areas identified as potential GSM habitat nor in an area where they were recorded in 	\$17,387 Note: this expenditure was for (1) GSM population monitoring and (2) GSM habitat and

Activity	Description (from OMP)	Estimated Timeframe for Completion (as described in OMP)	Actions / Comments (from 29 November 2017 - 28 November 2018)	Expenditure (ex. GST) Total expenditure to date (from 29 November 2017 - 28 November 2018)
		every 3 years. This means that GSM monitoring will be consistent across all PCS managed offset reserves, allowing direct comparison between sites to determine if changes in numbers are due to seasonal differences or are site related.	previous years due to dense biomass.	NTG monitoring (see next item)
Monitor extent and quality of GSM habitat and NTG	<ul style="list-style-type: none"> The extent and quality of GSM habitat and NTG will be re-mapped in 2015 and then every four years thereafter 	Following a review of GSM monitoring methods, GSM habitat monitoring will be incorporated into the vegetation monitoring. This	<ul style="list-style-type: none"> GSM habitat monitoring and mapping was undertaken in Nov/Dec 2017. The offset site (excluding a 6 ha area, see below) supports 49.4 ha of GSM habitat, including 23.9 ha low, 6.2 ha medium, and 0.5 ha high quality GSM habitat and 18.8 Chilean Needle Grass (CNG) dominated GSM habitat. The extent of high quality habitat has decreased since 2013, whilst the majority of 2013-mapped medium quality habitat has been reclassified as CNG dominated habitat. 	See above note on expenditure for GSM population monitoring.

Activity	Description (from OMP)	Estimated Timeframe for Completion (as described in OMP)	Actions / Comments (from 29 November 2017 - 28 November 2018)	Expenditure (ex. GST) Total expenditure to date (from 29 November 2017 - 28 November 2018)
		will take place every 3 years, along with the GSM monitoring. The timing and methods will be consistent across the offset reserves. Re-mapping of vegetation and GSM habitat will take place in 10 years, or when considered necessary.	<ul style="list-style-type: none"> The 6 ha area known as the Jarramlee subsidence paddock was not mapped in Nov/Dec 2017 due to health and safety risks. GSM habitat within this area was mapped in June/July 2018 and a report is being prepared. 	
Staff resources	<ul style="list-style-type: none"> PCS is currently supporting a 0.7 FTE Senior Ranger position and a 0.2 FTE GSO7 position to implement the management plan for the Jarramlee offset. 	On-going	A Senior Ranger and Field Officer have been engaged to deliver on the actions outlined in the Offset Management Plan.	\$104,670

3. Other Actions

Below are actions that have been undertaken within the offset area and are additional to those described within the offset management plan.

Activity	Description	Actions / Comments	Expenditure (ex. GST) Total expenditure to date (from 29 November 2017 – 28 November 2018)
Subsidence	<ul style="list-style-type: none"> There is subsidence in an area that is above the de-commissioned sewage infrastructure 	<ul style="list-style-type: none"> SMEC was engaged to undertake Detailed Site Investigations (DSI) including monitoring groundwater, Ginninderra Creek and Soil for contamination. Mapping of the site underground infrastructure is complete. Ongoing investigations are currently underway to investigate water quality and flow from the bioretention pond Key deliverables from this phase of works will include a Remedial Action Plan, which will incorporate a concept restoration design plan for the area of concern and a clearance certificate enabling the return of status quo land management activities for the western three hectares of the site. 	\$117,510
Bird monitoring	<ul style="list-style-type: none"> Several rare and threatened bird species have been reported anecdotally in the area 	<ul style="list-style-type: none"> Bird surveys were undertaken by a consultant and in-house. The survey results indicate that Jarramlee provides habitat for a wide range of woodland and grassland bird species. 	\$1,000
Fox control	<ul style="list-style-type: none"> Fox shooting and trapping was undertaken as part of a broader fox management program 	<ul style="list-style-type: none"> This program has been developed to assist land management decisions by assessing the threat of the European Red Fox (<i>Vulpes vulpes</i>) on MNES and other threatened species in Environmental Offsets and Nature Reserves in the ACT. The project was conducted from Late October through to December. 	In-house

***Note:** to ensure that the annual reports most accurately reflect expenditure from year to year, the annual financial reporting cycle will start and complete two weeks prior to the date the reports are due, i.e. for this report (due 12th December) the figures include expenditure (based on invoices received) up to 28th November 2018.