



# City to Commonwealth Park Light Rail (EPBC2019/8582)

Annual Compliance Report  
30 July 2022 - 30 July 2023



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FOR  
CBR**

October 2023

## Document control

<b>Document status</b>	<b>Final</b>
EPBC Number	2019/8582
Project Name	City to Commonwealth Park Light Rail
Approved Action	To extend Canberra's existing light rail network from the City to Commonwealth Park, via London Circuit (West) and Commonwealth Avenue [See EPBC Act referral 2019/8582]the City to Commonwealth Park, via London Circuit (West) and Commonwealth Avenue [See EPBC Act referral 2019/8582]
Location of Action	Canberra CBD
Proponent Name	Major Projects Canberra
Proponent Address	Callam Offices Level 3, 50 Easty Street, Phillip ACT 2606
Proponent ABN	66 676 633 401
The GSM Plan is prepared by	Marley Jackson and Gemma Stehlik
Title	Director Environmental Management
The GSM Plan is reviewed by	Matt Gencur
Title	Director Environment and Planning

## 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	<i>Ashley Cahif</i>
Full name	Ashley Cahif
Position	Project Director
Organisation	Major Projects Canberra (ABN 66 676 633 401)
Date	17 / 10 / 2023

## Glossary/Abbreviations

<b>Abbreviation</b>	<b>Expanded text</b>
CEMP	Construction Environmental Management Plan
Compliance audit	Verification of how implementation is proceeding with respect to the Golden Sun Moth Construction Environmental Management and Rehabilitation Plan (GSM Plan)
Conditions of Approval (CoA)	Details of the approval requirements of the decision made under sections 130(1) and 133(1) of the Environment Protection and Biodiversity Conservation Act 1999 (Cth).
DCCEEW	Department of Climate Change, Energy, the Environment and Water
Direct Impact	Golden Sun Moth habitat that would be permanently cleared and no longer provide GSM habitat
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EPA	ACT Environment Protection Authority
Environmental impact	Defined by AS/NZS ISO 14001:2015 as any change to the environment, whether adverse or beneficial, wholly, or partially resulting from an organisation's environmental aspects.
Exclusion Zone	GSM habitat area of land within the Project footprint excluded from access
GSM	Golden Sun Moth
The GSM Plan	Comprehensive document comprising of the GSM Construction Environment Management Plan and GSM Rehabilitation Plan, approved by DCCEEW, detailing management measures
Hold point	Is a verification point that prevents work from commencing prior to approval from the principle
Indirect Impact	An activity which results in a disturbance associated with construction activities, such as habitat fragmentation, isolation, degradation.
Incident	An unexpected event that has, or has the potential to, cause harm to the environment and requires some action to minimise the impact or restore the environment.
MPC	Major Projects Canberra
NCA	National Capital Authority
Non-compliance	Failure to comply with the requirements of the Project approval or any applicable licence, permit or legal requirements.
Non-conformance	Failure to conform to the requirements of Project system documentation including this GSM Plan or supporting documentation.
Project, the	City to Commonwealth Park Light Rail
Referral Documents	Documents submitted to DCCEEW for approval of the proposed action
Temporary Direct Impact	Golden Sun Moth habitat that would be cleared and then rehabilitated
Temporary Indirect Impact	Golden Sun Moth habitat and Golden Sun Moth individuals that would be temporarily fragmented and isolated by the proposed action
Translocation	Using previously trialled and proven methods to extract and deposit larvae of Golden Sun Moth from one part of the action area to the rehabilitation area

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# 1.0 Introduction



Major Projects Canberra have received approval (2019/8582) from the Department of Climate Change, Energy, the Environment and Water (DCCEEW) to extend the light rail network from the City to Commonwealth Park (The Project). The approval is subject to several conditions, to ensure the Project manages the impacts to the Golden Sun Moth (GSM).

The Project consists of five phases of work: early enabling works, main civil works for raising London Circuit, main civil works for rail infrastructure, commissioning and testing, and handback.

Major Projects Canberra developed a Golden Sun Moth Construction Environmental Management and Rehabilitation Plan (GSM Plan) to address Condition 5 of the approval. The GSM Plan sets out the environmental mitigation, management, and rehabilitation measures relating to the protection of GSM and GSM habitat in relation to those approved Project impacts on GSM and GSM habitat.

To reflect the phased approach of the Project, several iterations of the GSM Plan were developed for different stages of works. The first GSM Plan was revised and submitted for approval in March 2022. The original version of the GSM Plan only covered early enabling works with the remainder of the project considered in GSM Plan 2.0. MPC received approval in writing for GSM Plan 2.0 in April 2022. MPC then revised GSM Plan 2.1, 2.2 and

2.3 without submitting it for approval to the Minister as changes would not have been likely to have a new or increased impact. These revisions involved changes in timing of impacts to specific areas in the construction footprint and plans to allow utility works to be completed in the southeast cloverleaf during Phase 2 of the project. All iterations of the GSM Plan have been approved by or agreed to by the DCCEE prior to implementation.

Notification of the commencement of the first phase of works was provided to DAWE on the 3rd of August 2021 in accordance with condition 15 of the approval. The date of commencement was the 30th of July 2021.

Notification of the commencement of the second phase of work (main civil works for raising London Circuit) was provided to DAWE on the 20th of June 2022 in accordance with condition 15 of the approval. The date of commencement was the 15th of June 2022.

This report constitutes an annual compliance report to address condition 21 of the approval for year 2 of the Project which was the period between the 30th of July 2022 and 30th of July 2023.



## 2.0 Site Context



Contextually the proposed action will involve extending the Canberra Light Rail 1.7-kilometres from the current terminus at Alinga Street to a new terminus on Commonwealth Avenue opposite Commonwealth Park. The light rail would run down the middle of Northbourne Avenue, the west side of London Circuit and Commonwealth Avenue. Additional work needed to support the light rail would include construction of a new intersection between London Circuit and Commonwealth Avenue and the creation of a new rail bridge over Parkes Way.

# 3.0 Golden Sun Moth and the Project

**The Golden Sun Moth was listed as a vulnerable species under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and as vulnerable under the ACT Nature Conservation Act 1980.**

The GSM has been recorded across 78 sites in the ACT, preferring low-land, areas with less than 5% canopy cover. Golden Sun Moth larvae are known to utilise the Weed of National Significance Chilean Needle Grass (*Nassella neesiana*) as a food plant. The use of Chilean Needle Grass as a food plant, has allowed GSM to distribute and survive in degraded disturbed habitat such as road reserves and urban grassed areas, just like those found within the Project construction footprint.

Approximately 8.09ha of GSM habitat is confirmed in the Project construction footprint. Previous investigations including field-based surveys and desktop reviews determined the extent of the habitat and were summarised in the Preliminary Documentation prepared as part of the Project's approval process under the EPBC Act.

Prior to the Project commencing, flying period surveys were completed over a four-year period from 2015 to 2019. The surveys maximised the understanding of detected GSM within the Project construction footprint, aided in limiting uncertainty and error in defining impacts to GSM, and established the broader context of the GSM population across the Canberra City area, within which the Project construction footprint is located.

Survey results varied considerably, due mostly to the ecology of the GSM, climatic conditions, and seasonal variation. Survey results recorded in 2017 and 2019 were generally low, compared with previous year's sampling. Consistently low rainfall limiting plant growth for larvae and habitat disturbance, such as from the European Rabbit, are among the key stressors impacting GSM population numbers.

GSM habitat is confirmed within the median of Parkes Way, the northwest, southwest, and southeast cloverleaves, median of Commonwealth Avenue, and across City Hill (Figure 1). The habitat is grassland dominated by Chilean Needle Grass, with isolated patches of Wallaby Grasses. Habitat areas within the Project area are largely confined to small patches within road medians and verges. The existing land use of roads, built structures,

and dense landscape plantings renders the patches fragmented. Habitat that is separated by more than 200m or divided by solid barriers higher than 1m, are effectively isolated and therefore considered to be separate populations. Distances between populations in the Project area vary from approximately four metres to 150m. From these factors, overall, the habitat of the area is characterised as being of low quality.



Figure 1 City to Commonwealth Park Light Rail Project Alignment



# 4.0 Key Activities

## Raising London Circuit Construction Activities

The RLC project is located in the centre of the city from Edinburgh Avenue to Constitution Avenue (Figure 2). The project raises London Circuit between Edinburgh Avenue and Constitution Avenue to provide a new at-grade, signalised intersection with Commonwealth Avenue. The RLC project involves the closing of roads, demolition of roads and infilling of London Circuit Road between Edinburgh Avenue and Constitution Avenue (Figure 3).



Figure 2. Raising London Circuit Construction Footprint.



Figure 3. Render of final Raising London Circuit

Construction activities during the reporting period have been contained to the RLC project footprint, with one direct impact occurring to GSM habitat. A small area (0.04 ha) of direct impact occurred on the southern verge of City Hill, to enable a connecting footpath to be built. The City Hill footpath works did not trigger the requirement to translocate GSM, as defined in Attachment A of the Translocation Plan.

The remaining key GSM impacting activities will occur in the next phase of the Project, including the rehabilitation works.

# 5.0 EPBC Conditions of Approval and Compliance

Ref	Cond.	Condition Requirement	Is the project compliant with this condition	Evidence/Comments
1	1	<p>The approval holder must not directly impact more than 4.76 hectares (ha) of Golden Sun Moth habitat comprised of:</p> <p>a. 3.33 ha of permanent direct impacts; and</p> <p>b. 1.43 ha of temporary direct impacts.</p>	Compliant	<p>Direct impacts during the second year of works included the north-west cloverleaf (s63) 1.19ha, south-west cloverleaf 1.07ha, City Hill Footpath 0.04ha and the northern verge of Parkes Way 0.06ha. This totals 2.36ha. Including the 0.28ha which was impacted in Commonwealth Ave median in the first year of the project, the total permanent direct impacts are 2.64ha.</p> <p>No temporary direct impacts have occurred on the project to date.</p>
2	2	<p>The approval holder must not indirectly impact more than 3.33 ha of Golden Sun Moth habitat comprised of:</p> <p>a. 2.07 ha of permanent indirect impacts; and</p> <p>b. 1.26 ha of temporary indirect impacts.</p>	Compliant	<p>As per the response to 1 above works have occurred within 200m of each area of permanent direct impact which includes City Hill and the Western Median of Parkes Way which totals 2.07ha.</p> <p>No temporary indirect impacts have occurred on the project to date.</p>
3	3	<p>To mitigate direct impacts and indirect impacts on the Golden Sun Moth, the approval holder must submit a Golden Sun Moth Construction Environmental Management and Rehabilitation Plan (the GSM Plan) for the Minister's approval.</p>	Compliant	<p>GSM Plan 1.0 was originally submitted on the 12th of April 2021 with the final version submitted for approval on the 10th of June 2021.</p> <p>The final version of GSM Plan 2.0 was submitted for approval on the 29th of March 2022.</p> <p>Revised GSM Plans were submitted for agreement on:</p> <ul style="list-style-type: none"> <li>- GSM Plan 2.1 – 10th of October 2022</li> <li>- GSM Plan 2.2 – 31st of March 2023</li> <li>- GSM Plan 2.3 – 27th of July 2023.</li> </ul> <p>GSM Plan 2.3 is the newest iteration and currently active plan.</p>

Ref	Cond.	Condition Requirement	Is the project compliant with this condition	Evidence/Comments
4	4	The approval holder must not commence the action unless the Minister has approved the GSM Plan in writing. The approval holder must implement the approved GSM Plan.	Compliant	<p>MPC received approval in writing from a Minister's delegate for the GSM Plan 1.0 on the 21st of June 2021.</p> <p>MPC received approval in writing from a Minister's delegate for the GSM Plan 2.0 on the 13th of April 2022.</p> <p>Refer to Appendix D for approval from Minister's delegate for GSM Plans 1.0 and 2.0.</p> <p>All works associated with the action have been undertaken in accordance with the Conditions of Approval relevant to the stage of the works and the approved GSM Plan.</p>
5	5(a)	<p>The GSM Plan must be consistent with the Department's Environmental Management Plan Guidelines 2014, and must include details of management measures to ensure:</p> <p>pre-clearance surveys and translocation are undertaken prior to clearing by suitably qualified ecologists;</p>	Compliant	<p><b>Phase 1 Early Enabling Works</b></p> <p>The pre-clearance survey was completed by qualified ecologists from Umwelt on the 14th of July 2021.</p> <p>The GSM larvae translocation was undertaken within the Commonwealth Ave median by three ecologists on 30 July 2021.</p> <p><b>Phase 2 Raising London Circuit</b></p> <p>The pre-clearance survey was completed by qualified ecologists from Umwelt on the 18th of May 2022.</p> <p>The GSM larvae translocation was undertaken in within the western cloverleaves in June 2022.</p>
6	5(b)	clearing of areas containing Golden Sun Moth habitat is undertaken outside of the flying period for the species;	Compliant	<p>Clearing of areas containing GSM habitat occurred at two separate times in year 1 of The Project. The first clearing was on the 30th of July 2021 and the second was during the week of the 20th of June 2022, both of which are outside the flying period of the Golden Sun Moth.</p> <p>No clearing of areas containing GSM habitat occurred during the period covered by this compliance report.</p>

Ref	Cond.	Condition Requirement	Is the project compliant with this condition	Evidence/Comments
7	5(c)	<p>in relation to weed management:</p> <p>i. that equipment and/or machinery does not introduce weed or pathogen propagules into the action area;</p> <p>ii. weeds that are cleared are not stockpiled and are removed from the action area as soon as practical; and</p> <p>iii. weeds are reduced within the rehabilitation areas for the duration of rehabilitation in each of the rehabilitation areas; and</p> <p>iv. corrective actions are implemented in the event that an increase in weeds and exotic species is observed within any of the rehabilitation areas.</p>	Compliant	<p>GSM Plans detail biosecurity protocols to ensure vehicle, equipment and personnel are free of weeds. The plans require that all vehicles, equipment, and footwear are cleaned prior to entering site.</p> <p>Excavated materials were not stockpiled in GSM Habitat.</p> <p>Rehabilitation measures have not been implemented.</p> <p>No infringements related to weed management were recorded during the weekly environmental inspections conducted by the MPC Environmental Manager and the engaged technical advisor. These records demonstrate consistent monitoring and management of construction activities as required by the current GSM plan. Specific examples include appropriate stockpile management and rejection of any dirty plant and equipment entering the site.</p>
8	5(d)	<p>in relation to erosion and sediment control:</p> <p>i. soil stockpiles are minimised, and are managed to prevent the stockpiles acting as a vector to introduce weed or pathogen propagules into the action area; and</p> <p>ii. effective erosion and sediment controls are implemented throughout Phases 1-4 to mitigate erosion impacts in the rehabilitation areas.</p>	Compliant	<p>Erosion and Sediment Control Plans were developed by the construction contractor, Abergeldie Complex Infrastructure (ACI). These plans were approved by the Environment Protection Authority prior to the commencement of works.</p> <p>Weekly inspections were completed by the MPC Environmental Manager to ensure erosion sediment controls were in good condition and functioning as required.</p> <p>Appendix C demonstrates suitable erosion sediment controls in place for the duration of the project, ensuring protection of GSM habitat.</p>
9	5(e)	<p>surface water flows are managed to prevent the spread of harmful pollutants and ponding of water in the rehabilitation areas or areas of temporary indirect impacts;</p>	Compliant	<p>No works were completed in rehabilitation areas or areas of temporary indirect impacts during the period covered by this compliance report.</p>

<b>Ref</b>	<b>Cond.</b>	<b>Condition Requirement</b>	<b>Is the project compliant with this condition</b>	<b>Evidence/Comments</b>
10	5(f)	no permanent shading associated with any structures and tree plantings will impact on the rehabilitation areas;	Compliant	No structures or tree plantings have been placed in a location such that there could be shading impacts on the SE Cloverleaf or Parkes Way.
11	5(g)	exclusion zones are established to protect all areas of Golden Sun Moth habitat that are to be retained (i.e. areas labelled as 'temporary direct' and 'temporary indirect' at Attachment A), including marking-out and signage of clearing limits within the action area, clear identification of Golden Sun Moth habitat to be retained (i.e. areas labelled as 'temporary direct' and 'temporary indirect' at Attachment A) and protection by suitable fencing, signage and/or markings;	Compliant	Fencing and signage has been installed marking the translocation area within the southeast cloverleaf during the enabling works.  Exclusion zones outside the footprint of the early enabling works were provided on project GIS mapping and to contractors for inclusion in induction and CEMP's.
12	5(h)	the establishment and maintenance of:  i. a clearly marked 'no-go' zone within the South-eastern cloverleaf rehabilitation site prior to commencement of the action, and until any disturbance within the South-eastern cloverleaf rehabilitation site concludes; and  ii. a 'no-go' zone comprising the whole South-eastern cloverleaf rehabilitation site prior to commencing Phase 2, and until such time as Phase 2 is completed;	Compliant	Fencing and signage has been installed around the translocation area within the south-eastern cloverleaf. The fencing will be extended around the SE cloverleaf prior to the commencement of rehabilitation works. This will be an extension of the fencing which currently surrounds the translocation area.  No rehabilitation or construction works have been completed within the SE cloverleaf during the period covered by this compliance report.
13	5(i)	prior to undertaking rehabilitation in the rehabilitation areas, photo recording points are set up and photo recording commenced;	Not applicable at this time	Rehabilitation has not commenced.
14	5(j)	planting of native grasses is undertaken in the rehabilitation areas as soon as practicable after disturbance;	Not applicable at this time	Rehabilitation has not commenced.

<b>Ref</b>	<b>Cond.</b>	<b>Condition Requirement</b>	<b>Is the project compliant with this condition</b>	<b>Evidence/Comments</b>
15	5(k)	details of a site induction program so workers are aware of the need to avoid environmentally sensitive areas before starting work at the action area;	Compliant	<p>A GSM specific induction has been provided to all workers focusing on the need to avoid environmentally sensitive areas before starting work.</p> <p>Full ACI site induction program records are retained including of individuals recorded and induction information.</p>
16	5(l)	performance criteria are developed in consultation with a suitably qualified ecologist which are suitable for determining the success of rehabilitation, and monitoring against these performance criteria is undertaken at appropriate intervals;	Compliant	<p>A rehabilitation plan utilising innovative techniques has been developed by Parks and Conservation, ACT Government, in co-operation with the CSIRO. Completion of the rehabilitation plan, whilst the responsibility of Major Projects Canberra, will be completed in partnership with both the Parks and Conservation Service, ACT Government and the CSIRO.</p> <p>Performance criteria have been developed in consultation with specialist rehabilitation ecologists at Parks and Conservation, ACT to demonstrate success of rehabilitation. A monitoring program has been developed to inform progress towards management measures and provide information on outcomes of management actions intended to achieve objectives.</p> <p>The GSM Plan 2.0, which includes the rehabilitation plan, was approved by DAWE on the 13th of April 2022.</p>
17	5(m)	reporting and review mechanisms, and documentation standards to demonstrate compliance with the GSM Plan;	Compliant	<p>Reporting mechanisms are set out in Section 5.0 of the GSM Plan.</p> <p>Section 6.0 of the GSM Plan specifies the review process.</p>
18	5(n)	any Aboriginal heritage objects or artefacts that may be uncovered are managed appropriately by preparing and implementing an unexpected finds procedure.	Compliant	APPENDIX E of the GSM Plan contains an unexpected finds protocol.

Ref	Cond.	Condition Requirement	Is the project compliant with this condition	Evidence/Comments
19	6	<p>To compensate for the permanent direct and permanent indirect impacts to 5.4 ha of Golden Sun Moth habitat, the approval holder must:</p> <p>a. retire 82 like-for-like species credits in accordance with clauses 6.2 and 6.6A of the Biodiversity Conservation Regulation 2017 (NSW); or</p> <p>b. prepare a Golden Sun Moth Offset Management Plan (GSMOMP).</p>	Compliant	<p>82 like-for-like species credits were retired in accordance with clauses 6.2 and 6.6A of the Biodiversity Conservation Regulation 2017 (NSW).</p> <p>Appendix D shows the record of the like-for-like species credits retired by MPC.</p>
20	7	<p>If the approval holder retires like-for-like species credits in accordance with Condition 6a the approval holder must, prior to the commencement the action, provide the Department with evidence of when and how the like-for-like species credits have been retired.</p>	Compliant	<p>Evidence of the retirement of like-for-like species credits was provided to the Department on the 29th of June 2021.</p>
21	8	<p>If the approval holder does not retire like-for-like species credits as provided for in Condition 6a, the approval holder must submit a GSMOMP for approval by the Minister. The GSMOMP must be prepared by a suitably qualified ecologist and be in accordance with the Environmental Offsets Policy. The approval holder must commence implementing the approved GSMOMP prior to the commencement of the action</p>	Not applicable at this time	<p>82 like-for-like species credits were retired in accordance with clauses 6.2 and 6.6A of the Biodiversity Conservation Regulation 2017 (NSW). See Appendix D.</p>



Ref	Cond.	Condition Requirement	Is the project compliant with this condition	Evidence/Comments
22	9	<p>If the approval holder submits a GSMOMP in accordance with Condition 8, the GSMOMP must include:</p> <ul style="list-style-type: none"> <li>a. a description and map (including shapefiles) to clearly define the location, size, and boundaries of the proposed offset area(s), accompanied by offset attributes;</li> <li>b. details of how the proposed offset and the GSMOMP address the principles of the Environmental Offsets Policy;</li> <li>c. details and a quantitative analysis of the baseline vegetation condition and habitat quality in the proposed offset area;</li> <li>d. comprehensive baseline data on weeds, feral animals and other threats to Golden Sun Moth and Golden Sun Moth habitat present in the proposed offset area;</li> <li>e. a description of the management measures (including timing, frequency and duration) that will be implemented to improve and maintain the quality of Golden Sun Moth habitat in the proposed offset area for at least the duration of this approval;</li> <li>f. a discussion of how proposed management measures take into account any relevant Conservation Advice and are not inconsistent with a Threat Abatement Plan and/or Recovery Plan;</li> <li>g. a description and analysis of the potential risks to the successful implementation of management</li> </ul>	Not applicable at this time	GSMOMP is not required as 82 like-for-like species credits were retired in accordance with clauses 6.2 and 6.6A of the Biodiversity Conservation Regulation 2017 (NSW).

<b>Ref</b>	<b>Cond.</b>	<b>Condition Requirement</b>	<b>Is the project compliant with this condition</b>	<b>Evidence/Comments</b>
		<p>measures within the proposed offset area, and contingency measures that will be implemented to mitigate against these risks;</p> <p>h. time-bound completion criteria and performance targets for evaluating the effectiveness of the implementation of the GSMOMP;</p> <p>i. triggers for when corrective actions are required and timeframes for implementing corrective actions; and</p> <p>j. a program to monitor and report on and review the effectiveness of the GSMOMP, including timely and adequate monitoring to promptly detect triggers, performance milestones, targets and completion criteria.</p>		
23	10(a)	<p>To monitor the progress of rehabilitation, the GSM Plan must require that:</p> <p>photos are collected from photo recording points at six-month intervals after native planting as outlined in Condition 5i, for three years after rehabilitation commences in each of the rehabilitation areas;</p>	Not applicable at this time	Rehabilitation has not commenced.
24	10(b)	<p>weeds and exotic species are monitored within the rehabilitation areas every three months for three years after rehabilitation commences in each of the rehabilitation areas, with a focus on rabbits, African Love Grass, Witch Grass and Madagascan Fireweed;</p>	Not applicable at this time	Rehabilitation has not commenced.

Ref	Cond.	Condition Requirement	Is the project compliant with this condition	Evidence/Comments
25	10(c)	the Golden Sun Moth population is surveyed in each of the rehabilitation areas annually during the flying period for three years after rehabilitation commences in each respective rehabilitation area.	Not applicable at this time	GSM populations must be monitored annually during the flying period between November and January within the rehabilitation areas. Biannual monitoring of planted GSM habitat will occur for the first year then annually if native planting establishes.  Rehabilitation has not commenced.
26	11	Three years after commencement of rehabilitation in the South-eastern cloverleaf rehabilitation site, or at any other longer period agreed to in writing by the Minister, the approval holder must provide the Department within 3 months of that date, a report that details the outcomes of the rehabilitation in accordance with the criteria set out in the GSM Plan.	Not applicable at this time	GSM populations must be monitored annually during the flying period between November and January within the rehabilitation areas. Biannual monitoring of planted GSM habitat will occur for the first year then annually if native planting establishes.  Rehabilitation has not commenced.
27	12	If the Minister determines, based on reporting required under Condition 11, that the rehabilitation has been unsuccessful three years after commencing the rehabilitation (or at any other longer period agreed to in writing by the Minister), then the approval holder must, in a timeframe specified by the Minister in writing, compensate for the loss of Golden Sun Moth habitat in the unsuccessful rehabilitation area(s) and the 1.26 ha of temporary indirect area (shown in Attachment A), in one of the following ways:  a. retire the number of like-for-like species credits specified by the Minister in accordance with clauses 6.2 and 6.6A of the Biodiversity Conservation Regulation 2017 (NSW); or  b. implement an additional GSMOMP approved by the Minister.	Not applicable at this time	Rehabilitation has not commenced.

<b>Ref</b>	<b>Cond.</b>	<b>Condition Requirement</b>	<b>Is the project compliant with this condition</b>	<b>Evidence/Comments</b>
28	13	If the approval holder retires like-for-like species credits in accordance with Condition 12a, the approval holder must provide the Department with evidence of when and how the like-for-like species credits have been retired within 10 business days of retiring.	Not applicable at this time	82 like-for-like species credits were retired in accordance with clauses 6.2 and 6.6A of the Biodiversity Conservation Regulation 2017 (NSW). See Appendix D.
29	14	If the approval holder does not retire like-for-like species credits as provided for in Condition 12a, the approval holder must submit an additional GSMOMP for approval by the Minister. The GSMOMP must fulfil the requirements of Conditions 8 and 9.	Not applicable at this time	82 like-for-like species credits were retired in accordance with clauses 6.2 and 6.6A of the Biodiversity Conservation Regulation 2017 (NSW). See Appendix D.
30	15	The approval holder must notify the Department in writing of the date of commencement of the action and the date of commencement of each phase of the action within 10 business days after the date of commencement of the action or the commencement of the relevant phase of the action.	Compliant	The notice of commencement of the action for phase 1 was provided on the 3rd of August 2021, while the notification for the commencement of phase 2 was provided on the 18th of June 2022.  Refer to APPENDIX A for the commencement of action notifications provided to the Department.
31	16	If the commencement of the action does not occur within 5 years from the date of this approval, then the approval holder must not commence the action without the prior written agreement of the Minister.	Not applicable at this time	The action commenced within 5 years of the date of Approval.
32	17	The approval holder must maintain accurate and complete compliance records.	Compliant	MPC and their contractors maintain accurate and complete compliance records.  Weekly environmental inspections were completed by both MPC and the contractor.  Records of any environmental issues raised, and how these were tracked and resolved were kept for the duration of the project.

Ref	Cond.	Condition Requirement	Is the project compliant with this condition	Evidence/Comments
33	18	If the Department makes a request in writing, the approval holder must provide electronic copies of compliance records to the Department within the timeframe specified in the request.	Not applicable at this time	The Department has not requested compliance records.
34	19	The approval holder must: <ul style="list-style-type: none"> <li>a. submit plans electronically to the Department;</li> <li>b. unless otherwise agreed to in writing by the Minister, publish each plan on the website within 20 business days of the date: <ul style="list-style-type: none"> <li>i. the plan is approved by the Minister; or</li> <li>ii. that the plan is submitted to the Minister or the Department if the plan does not require approval from the Minister;</li> </ul> </li> <li>c. exclude or redact sensitive ecological data from plans published on the website or provided to a member of the public; and</li> <li>d. keep plans published on the website until the end date of this approval, or as otherwise agreed to in writing by the Minister.</li> </ul>	Compliant	<p>GSM Plans 1.0 and 2.0 were both submitted to the Department for approval. Each plan was published on the website within 20 days of the date of approval by the Minister.</p> <p>Revised GSM Plans, including GSM Plan 2.1, 2.2 and 2.3 were submitted to the Department for agreement. Each plan was published on the website within 20 days of the date of agreement by the Minister's delegate.</p> <p>Both plans (1.0 and 2.3) are available on the Major Projects Canberra website at the following location <a href="https://www.act.gov.au/lightrailtowoden/media-centre/fact-sheets">https://www.act.gov.au/lightrailtowoden/media-centre/fact-sheets</a>.</p>
35	20	The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval, is prepared in accordance with the Department's Guidelines for biological survey and mapped data (2018) and submitted electronically to the Department in accordance with the requirements of the plan.	Not applicable at this time	Meandering traverse surveys were conducted on the 12th and 23rd of January 2023 by an Umwelt ecologist. These surveys help to monitor the success of translocation activities. See Appendix B. No GSM were identified thus no monitoring data has been provided.

Ref	Cond.	Condition Requirement	Is the project compliant with this condition	Evidence/Comments
36	21	<p>The approval holder must prepare a compliance report for each 12-month period following the date of commencement of the action, or otherwise in accordance with an annual date that has been agreed to in writing by the Minister. The approval holder must:</p> <ul style="list-style-type: none"> <li>a. publish each compliance report on the website within 60 business days following the relevant 12-month period;</li> <li>b. notify the Department by email that a compliance report has been published on the website and provide the weblink for the compliance report within five business days of the date of publication, this notification must include documentary evidence providing proof of the date of publication;</li> <li>c. keep all compliance reports publicly available on the website until this approval expires, or at an earlier date agreed to by the Department in writing;</li> <li>d. exclude or redact sensitive ecological data from compliance reports published on the website; and</li> <li>e. where any sensitive ecological data has been excluded from the version published, submit the full compliance report to the Department within 5 business days of publication.</li> </ul>	Compliant	<p>This report is the second compliance report prepared 24 months after the date of commencement of the action.</p> <p>The first compliance report was submitted on the 29th of September 2022.</p>

<b>Ref</b>	<b>Cond.</b>	<b>Condition Requirement</b>	<b>Is the project compliant with this condition</b>	<b>Evidence/Comments</b>
37	22	<p>The approval holder must notify the Department in writing of any: incident; non-compliance with the conditions; or non-compliance with the commitments made in plans. The notification must be given as soon as practicable, and no later than two business days after becoming aware of the incident or non-compliance. The notification must specify:</p> <ul style="list-style-type: none"> <li>a. any condition which is or may be in breach;</li> <li>b. a short description of the incident and/or non-compliance; and</li> <li>c. the location (including co-ordinates), date, and time of the incident and/or non-compliance. In the event the exact information cannot be provided, provide the best information available.</li> </ul>	Not applicable at this time	<p>There has not been an incident, non-compliance with the conditions, or non-compliance with the commitments made in plans.</p> <p>Section 4.0 of Appendix B of the GSM Plan 2.3 details the incident reporting procedure.</p>
38	23	<p>The approval holder must provide to the Department the details of any incident or noncompliance with the conditions or commitments made in plans as soon as practicable and no later than 10 business days after becoming aware of the incident or non-compliance, specifying:</p> <ul style="list-style-type: none"> <li>a. any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future;</li> <li>b. the potential impacts of the incident or non-compliance; and</li> <li>c. the method and timing of any remedial action that will be undertaken by the approval holder.</li> </ul>	Not applicable at this time	<p>There has not been an incident, non-compliance with the conditions, or non-compliance with the commitments made in plans.</p> <p>Section 4.0 of Appendix B of the GSM Plan details the incident reporting procedure.</p>

<b>Ref</b>	<b>Cond.</b>	<b>Condition Requirement</b>	<b>Is the project compliant with this condition</b>	<b>Evidence/Comments</b>
39	24	The approval holder must ensure that independent audits of compliance with the conditions are conducted as requested in writing by the Minister.	Not applicable at this time	An independent audit of compliance has not been requested by the Minister.
40	25	For each independent audit, the approval holder must: <ul style="list-style-type: none"> <li>a. provide the name and qualifications of the independent auditor and the draft audit criteria to the Department;</li> <li>b. only commence the independent audit once the audit criteria have been approved in writing by the Department; and</li> <li>c. submit an audit report to the Department within the timeframe specified in the approved audit criteria.</li> </ul>	Not applicable at this time	An independent audit of compliance has not been requested by the Minister.
41	26	The approval holder must publish the audit report on the website within 10 business days of receiving the Department's approval of the audit report and keep the audit report published on the website until the end date of this approval, or an earlier date agreed to by the Department in writing.	Not applicable at this time	An independent audit of compliance has not been requested by the Minister.



<b>Ref</b>	<b>Cond.</b>	<b>Condition Requirement</b>	<b>Is the project compliant with this condition</b>	<b>Evidence/Comments</b>
42	27	The approval holder may, at any time, apply to the Minister for a variation to an action management plan approved by the Minister under Condition 3, Condition 8, or Condition 14, or as subsequently revised in accordance with these conditions, by submitting an application in accordance with the requirements of section 143A of the EPBC Act. If the Minister approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of the previous action management plan.	Compliant	<p>A revision to the GSM Plan 1.0 was submitted for approval by the minister on the 29th of March 2022.</p> <p>MPC received approval in writing from a Minister's delegate for the GSM Plan 2.0 on the 13th of April 2022.</p> <p>All works associated with the action have been undertaken in accordance with the Conditions of Approval relevant to the stage of the works and the approved GSM Plan.</p>
43	28	The approval holder may choose to revise an action management plan approved by the Minister under Condition 3, or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the EPBC Act, if the taking of the action in accordance with the RAMP would not be likely to have a new or increased impact.	Compliant	<p>MPC revised the GSM Plan 2.0 without submitting it for approval to the Minister as the changes would not be likely to have a new or increased impact.</p> <p>MPC revised the GSM Plan 2.1 without submitting it for approval to the Minister as the changes would not be likely to have a new or increased impact.</p> <p>MPC revised the GSM Plan 2.2 without submitting it for approval to the Minister as the changes would not be likely to have a new or increased impact.</p>

Ref	Cond.	Condition Requirement	Is the project compliant with this condition	Evidence/Comments
44	29	<p>If the approval holder makes the choice under Condition 28 to revise an action management plan without submitting it for approval, the approval holder must:</p> <p>a. notify the Department in writing that the approved action management plan has been revised and provide the Department with:</p> <p>i. an electronic copy of the RAMP;</p> <p>ii. an electronic copy of the RAMP marked up with track changes to show the differences between the approved action management plan and the RAMP;</p> <p>iii. an explanation of the differences between the approved action management plan and the RAMP;</p> <p>iv. the reasons the approval holder considers that taking the action in accordance with the RAMP would not be likely to have a new or increased impact; and</p> <p>v. written notice of the date on which the approval holder will implement the RAMP (RAMP implementation date), being at least 20 business days after the date of providing notice of the revision of the action management plan, or a date agreed to in writing with the Department.</p> <p>b. subject to Condition 31, implement the RAMP from the RAMP implementation date.</p>	Compliant	<p>MPC notified the Department on the 10th of October 2022 that the GSM Plan 2.0 was revised and provided the relevant documentation demonstrating compliance. MPC received agreement in writing from a Minister's delegate for GSM Plan 2.1 on the 7th of November 2022.</p> <p>MPC notified the Department on the 31st of March 2023 that the GSM Plan 2.1 was revised and provided the relevant documentation demonstrating compliance. MPC received agreement in writing from a Minister's delegate for the GSM Plan 2.2 on the 28th of April 2023.</p> <p>MPC notified the Department on the 23rd of June 2023 that the GSM Plan 2.2 was revised and provided the relevant documentation demonstrating compliance. MPC received agreement in writing from a Minister's delegate for the GSM Plan 2.3 on the 8th of August 2023.</p>

<b>Ref</b>	<b>Cond.</b>	<b>Condition Requirement</b>	<b>Is the project compliant with this condition</b>	<b>Evidence/Comments</b>
45	30	The approval holder may revoke their choice to implement a RAMP under Condition 28 at any time by giving written notice to the Department. If the approval holder revokes the choice under Condition 28, the approval holder must implement the action management plan in force immediately prior to the revision undertaken under Condition 28.	Not applicable at this time	MPC did not revoke GSM Plans during the period covered by this compliance report.
46	31	If the Minister gives a notice to the approval holder that the Minister is satisfied that the taking of the action in accordance with the RAMP would be likely to have a new or increased impact, then: <ul style="list-style-type: none"> <li>a. Condition 28 does not apply, or ceases to apply, in relation to the RAMP; and</li> <li>b. the approval holder must implement the action management plan specified by the Minister in the notice.</li> </ul>	Not applicable at this time	The Minister did not notify MPC as the taking of the action in accordance with the RAMP would not be likely to have a new or increased impact.
47	32	At the time of giving the notice under Condition 31, the Minister may also notify that for a specified period of time, Condition 28 does not apply for one or more specified action management plans.	Not applicable at this time	The Minister did not notify MPC as the taking of the action in accordance with the RAMP would not be likely to have a new or increased impact.
48	33	Within 20 business days after the completion of the action, the approval holder must notify the Department in writing and provide completion data.	Not applicable at this time	Works are not yet complete.

# 6.0 References

ACT Government (2020), *City to Commonwealth Park Light Rail November 2020 – EPBC Preliminary Documentation Submissions Report 3*, Canberra, Australia.

ACT Government 2017a. *Action Plan Golden Sun Moth Synemon plana*. Environment Planning and Sustainable Development Directorate, Canberra.

ACT Government (2013), *Environmental Guidelines for Preparation of an Environment Management Plan*, Canberra, Australia.

ACT Government 1998. *Golden Sun Moth (Synemon plana): An endangered species. Action Plan No. 7* Environment ACT. Canberra.

ARUP (2020), *City to Commonwealth Park Light Rail EPBC ACT Preliminary Documentation*, Canberra, Australia.

Braby MF and Dunford M 2006. Field observations on the ecology of the Golden Sun Moth, ‘*Synemon plana*’ Walker. *The Australian Entomologist* 33(2): 103–110.

Commonwealth of Australia (2014), *Environmental Management Plan Guidelines*.

Department of Agriculture, Water and the Environment (2020), *City to Commonwealth Park Light Rail Project, ACT (EPBC 2019/8582)*, Canberra, Australia.

A. Georges (2020), *Nature Conservation (Golden Sun Moth) Conservation Advice 2020*, Canberra, ACT.

ISO 14001:2004, *Environmental management systems—Requirements with guidance for use*.

AS/NZS/ISO31000:2018 *Risk Management – Principles and Guidelines*.

## Acknowledgement of Country



The ACT Government acknowledges the Traditional Custodians of the land, the Ngunnawal people. We acknowledge and respect their continuing culture and contribution to the life of this city and region.



**Accessibility**  
Ph 13 22 81



**Interpreter**  
Ph 131 450



# APPENDIX A

## Commencement of Action - Phase 1 and 2

**BUILT  
FOR  
CBR**



**ACT**  
Government

Major Projects Canberra

The Director  
Compliance Monitoring Section  
Department of Agriculture, Water and the Environment (DAWE)  
GPO Box 787  
CANBERRA ACT 2601

**NOTICE OF COMMENCEMENT OF THE ACTION  
CITY TO COMMONWEALTH PARK LIGHT RAIL PROJECT, ACT – EPBC APPROVAL  
2019/8582**

To Whom it May Concern

In accordance with condition 15 of the *Environmental Protection and Biodiversity Conservation Act 1999* approval (**2019/8582**), Major Projects Canberra hereby notifies the Department of Agriculture, Water, and the Environment of the commencement of the action for the City to Commonwealth Park Light Rail Project: Early Enabling Works on 2 August 2021.

All works associated with the action will be undertaken in accordance with the Conditions of Approvals relevant to this stage of the works and the approved GSM Plan (approval **21/06/2021**).

Please contact the Environment and Approvals team of the Canberra light rail for further information at [matthew.gencur@act.gov.au](mailto:matthew.gencur@act.gov.au) or 0417 673 630, if required.

Yours Sincerely

**Ashley Cahif**  
Project Director Light Rail  
Major Projects Canberra

3 August 2021



**ACT**  
Government

Major Projects Canberra

The Director  
Compliance Monitoring Section  
Department of Agriculture, Water and the Environment (DAWE)  
GPO Box 787  
CANBERRA ACT 2601

**NOTICE OF COMMENCEMENT OF PHASE 2 MAIN CIVIL WORKS  
CITY TO COMMONWEALTH PARK LIGHT RAIL PROJECT, ACT – EPBC APPROVAL  
2019/8582**

To Whom it May Concern

In accordance with condition 15 of the *Environmental Protection and Biodiversity Conservation Act 1999* approval (**2019/8582**), Major Projects Canberra hereby notifies the Department of Agriculture, Water, and the Environment of the commencement of Phase 2 Main Civil Works: Raising of London Circuit for the City to Commonwealth Park Light Rail Project on the 15<sup>th</sup> of June 2022.

All works associated with the action will be undertaken in accordance with the Conditions of Approvals relevant to this stage of the works and the approved GSM Plan dated 29<sup>th</sup> of March 2022 (approval received **13/04/2022**).

Please contact the Environment and Approvals team of the Canberra light rail for further information at [matthew.gencur@act.gov.au](mailto:matthew.gencur@act.gov.au) or 0417 673 630, if required.

Yours Sincerely

**Ashley Cahif**  
Project Director Light Rail  
Major Projects Canberra

18 June 2022



# APPENDIX B

## Annual Survey

**BUILT  
FOR  
CBR**





Inspired People.  
Dedicated Team.  
Quality Outcomes.

Our Ref: 21455\_R05\_Stehlik\_TranslocationMothSurvey\_20230503\_bn

3 May 2023

Gemma Stehlik  
Project Manager | Environment Planning and Approvals  
Major Projects Canberra – Light Rail

E| [gemma.stehlik@act.gov.au](mailto:gemma.stehlik@act.gov.au)

Dear Gemma

## RE: Golden Sun Moth Surveys – Cloverleafs

### 1.0 Introduction

Major Projects Canberra engaged Umwelt Environmental and Social Consultants (Umwelt) to monitor golden sun moth (*Synemon plana*) activity at the Canberra Light Rail Stage 2A translocation area, located in the south-eastern cloverleaf of the Parkes Way / Commonwealth Avenue intersection, Canberra (**Figure 1.1**).

The area was established in winter 2021 into which golden sun moth larvae were translocated. The larvae were salvaged from the nearby cloverleafs and median strips prior to the commencement of construction activities for the Canberra Light Rail Stage 2A. Salvage activities were completed on 30 July 2021 and 16–24 June 2022 from which 29 and 186 golden sun moth larvae were salvaged and translocated into the translocation area, respectively.

The translocation area was established in accordance with DAWE approval conditions (2019/8582) and the *Golden Sun Moth Construction Environmental Management and Rehabilitation Plan* (the GSM Plan).

As part of the golden sun moth survey requirements, surveys were completed both within and outside the established translocation area.

Umwelt (Australia)  
Pty Limited

ABN 18 059 519 041

T| 1300 793 267  
E| [info@umwelt.com.au](mailto:info@umwelt.com.au)

[www.umwelt.com.au](http://www.umwelt.com.au)



Scale 1:10000 of A4

0 100 200 300 Meters

**Legend**

- Project Area
- Translocation Area
- Roads

FIGURE 1.1  
Project Locality

Image Source: Nearmap (2022) Data source: ACTMapi (2021)

## 2.0 Methods

Meandering traverse surveys for flying golden sun moths were conducted on 12th and 23 January 2023 throughout the south-eastern cloverleaf both within and outside of the fenced translocation area. Each survey consisted of an Umwelt ecologist walking through identified habitat counting flying male moths. Surveys were undertaken after confirmation of the commencement of the local flying moth season at reference sites in Canberra. All surveys were undertaken in accordance with the following conditions outlined in the survey guidelines (DEWHA, 2009), where possible:

- locally expected flying season between early November and late December
- warm days above 20 degrees Celsius
- warmest part of the day between 10 am and 2 pm
- clear or mostly cloudless sky
- still or relatively still wind conditions.
- at least two days since rain.

Data was recorded using Arc QuickCapture, with the number of flying golden sun moth seen at each point recorded.

## 3.0 Results and Discussion

No golden sun moths were observed during the surveys. Survey details and weather conditions for each survey are provided in **Table 3.1**. Golden sun moth survey effort is displayed in **Figure 3.1**.

All flying moth surveys conducted were undertaken in suitable weather conditions in accordance with the survey guidelines (DEWHA, 2009) during a flying season that was characterised by extremely low numbers of flying moths across Canberra. Due to the prevailing cool and wet conditions during October–December 2022 and January 2023 the number of suitable survey days was far lower than average, and surveys could not be completed until late in the season.

Regional observations of golden sun moth at other known populations were reported as low throughout the ACT region, including at known reference sites where moths typically fly at moderate or high activity levels. This is likely to be the consequence of the high frequency of rainfall and absence of hot days in November and December, which resulted in cool ground temperature and very few days meeting the survey criteria. Based on observations by other consultants, the peak flying period occurred in the from 26 to 31 December 2022, which coincided with the Christmas/new year shutdown period.

The lack of detection of any moths in the translocation area in January 2023 is consistent with the low level of moth activity observed regionally during the 2022/23 flight season. As such, the results of this survey cannot rule out the presence or absence of golden sun moth in and around the translocation area.

**Table 3.1 Golden Sun Moth Survey Results within the Project Area\***

Survey No.	Date and Time	No. Golden Sun Moth Detected	Temperature (°C)	Last Rainfall	Wind Speed (km/hr)	Cloud Cover (%)
1	13:25–13:30 12 January 2023	0	29	27.4 mm on 5 January 2023	<11	Fine
2	12:00–12:05 23 January 2023	0	24	2.8 mm on 19 January 2023	<11	Fine

#### 4.0 Recommendations on the Management of Golden Sun Moth Habitat

During the survey on 12 January, it was noted that the translocation area had recently been mown (likely in the past month). High biomass in the form of long grass had, however, already built up as a result of optimal weather conditions for grass growth. Notably, a substantial amount of grass cuttings remained within the translocation area (i.e., trapped within the enclosed area by the fence) creating, in conjunction with the long grass, unsuitable conditions for golden sun moths. In comparison, the grass height outside of the translocation area was considerably shorter than within the translocation area, with the amount of grass cuttings also much lower.

To improve the condition of the golden sun moth habitat within the translocation area, continued management of grass biomass at levels required for the golden sun moth, particularly during the flight season, is required. Examples of suitable management options are described in the *Environmental Management Plan for Golden Sun Moth on Reservoir Hill, Lawson South* (Rowell 2013), however these would need to be adopted to suit the fenced translocation area. Management actions relevant to, and applicable to the translocation area, include:

- Mowing undertaken from late January to late September.
- Mowing grass to maintain a height of 5–15 cm ensuring that all grass cuttings are raked, baled, and removed from the translocation area.

While mowing is to be completed from late January to late September, occasional mowing, and removal of cut material is also recommended during the flying period of October to January during years of high rainfall and resulting biomass levels. This will ensure that male moths are not hampered by the poor grassland structure and can locate female moths more readily to mate.

Continual high level of biomass increases the risk of seasons with low or nil breeding, which will in turn have a greater impact on the long-term survival of the species within the translocation area.



D:\UMWELT (AUSTRALIA) PTY LTD\21455 - 03 58 WF - R02\21455\_R02\_0301\_SURVEYEFFORT\_V2.MXD - 2/02/2023 1:36:35 PM

Scale 1:1000 at A4



GDA 1994 MGA Zone 55

Legend

-  Project Area
-  Translocation Area
-  Roads
- GSM Survey Effort Dates**
-  12/01/2023
-  23/01/2023

Image Source: Nearmap (2021) Data source: ACTMapi (2021)

FIGURE 3.1  
Survey Effort

## 5.0 Conclusion

Two golden sun moth surveys were completed in the south-eastern cloverleaf during January 2023. Surveys were completed both in the fenced translocation area and adjacent habitat outside the translocation area. No golden sun moths were detected during such surveys. The 2022/23 flying moth season was characterised by wet and very cool conditions and low golden sun moth detection levels at reference sites in Canberra. The lack of detection in the south-eastern cloverleaf during January 2023 may have been a function of seasonal conditions.

The high biomass levels within the fenced translocation area at the time of survey indicate that improved management is required. It is recommended that a regular mowing regime that prevents high biomass build-up and removal of grass cuttings off site is implemented to maintain golden sun moth habitat in the translocation area.

We trust this information meets with your current requirements. Please do not hesitate to contact the undersigned on 1300 793 267 should you require clarification or further information.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Clare McInnes'.

**Clare McInnes**  
Principal Ecologist

E | [cmcinn@umwelt.com.au](mailto:cmcinn@umwelt.com.au)  
M | 0438 392 135



## **APPENDIX C**

# **Raising London Circuit Erosion and Sediment Control Plan**

**BUILT  
FOR  
CBR**

# GENERAL REQUIREMENTS

## BACKGROUND

This is a Pollution Control Plan (PCP). It is for the stormwater drainage stage of works and the parcel of works as shown and shows the locations for erosion and sediment control measures to be implemented for those works. This PCP has been prepared following the guidelines and standards in the Environment Protection Guidelines for Construction and Land Development in the ACT (EPA, 2022) and project approval conditions.

## SOUTHWEST CLOVER LEAF SITE - SEDIMENT CONTROL POND

Under the Environment Protection Guidelines for Construction and Land Development in the ACT (EPA, 2022) all sites over 1 ha require a sediment basin of adequate size to be constructed. The proposed stormwater drainage works along the Existing London Circuit are to be staged as shown with the maximum exposed area expected to be less than 1,000 m<sup>2</sup> at any one time, therefore a sediment basin(s) is not required.

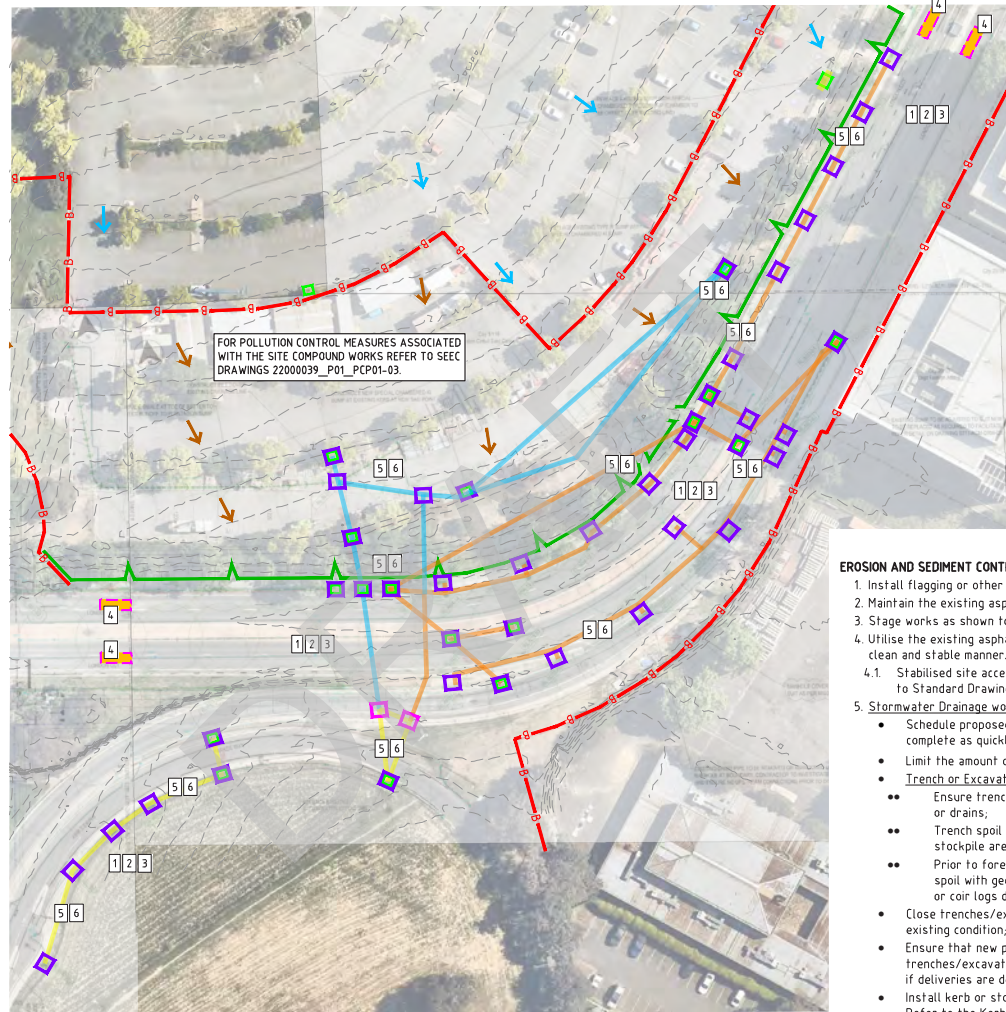
## GENERAL INSTRUCTIONS

- A. This plan is to be read in conjunction with other relevant environmental documentation for the project (e.g. SWMP)
- B. Weather forecasts are to be monitored daily and the site prepared to minimise erosion, control drainage, and maximise sediment capture during rain events. Erosion and sediment controls removed or damaged during construction are to be repaired or reinstated prior to forecast rainfall.
- C. Numbering on the plan indicates the order that works are to be undertaken (i.e. 1 then 2, then 3 etc).
- D. Erosion and sediment controls are to be implemented as part of initial site works, except as noted in this plan.
- E. Minimise disturbance at any one time to only what is necessary for safe and efficient construction. Do not disturb new areas when rain is imminent unless appropriate controls can be implemented prior to rain occurring.
- F. Undertake dust suppression as required to minimise dust rise.
- G. Regular site inspections are to be conducted by the site environment manager for their representative of temporary controls and general site conditions and records of all such inspections are to be retained onsite. Inspections are to be undertaken:
  - G.A. At least weekly during normal construction hours; and
  - G.B. Prior to forecast rainfall (>50% chance of 10mm or more in 24 hours); and
  - G.C. Daily during rain events (if safe to do so); and
  - G.D. Within 24 hours of the cessation of a rain event that causes runoff (if safe to do so).
- H. Stabilisation measures of exposed areas may be temporary or permanent and should be applied within six (6) days of disturbance and/or final earthworks shaping during November to February inclusive and up to fourteen (14) days during the rest of the year.
- I. Sediment controls are to be cleaned out/repared/reinstated as required.
- J. Ensure all controls are located within the Project limits.
- K. This plan is to be updated as required to ensure it is relevant to the on-ground works being undertaken.

## DOCUMENT CERTIFICATION

This plan has been developed based on agreed requirements as understood by SEEC at the time of engagement. It applies only to a specific task on the nominated lands. Other interpretations should not be made, including changes in scale or application to other projects. Changes to the project scope or extent might impact on the validity of this plan.

Any recommendations contained in this plan are based on an honest appraisal of the opportunities and constraints that existed at the site at the time of investigation, or as advised to us. Such recommendations are potentially subject to the limited scope and resources available. Within the confines of the above statements and to the best of my knowledge, this plan does not contain any incomplete or misleading information.



**LEGEND:**

- CLEAN WATER FLOW DIRECTION
- DIRTY WATER FLOW DIRECTION
- STABILISED SITE ACCESS (SD 6-14 ON PCP02)
- EXISTING STORMWATER PIT
- PIT PROTECTION (KERB OR STORMWATER INLET CONTROL DETAILS ON PCP03)
- SITE BOUNDARY
- EXISTING CONTOURS (0.5m INTERVALS)
- SEDIMENT CONTROL BARRIER (SEDIMENT FENCE (SD 6-8 ON PCP02) OR STAKED COIR LOGS (SD Log-01 ON PCP03))
- SPILLWAY (GEOTEXTILE (BIDIM A34 MIN.) + ROCK #200min. OR CONCRETE)
- STAGE 1 STORMWATER DRAINAGE WORKS (PROVIDED BY CLIENT)
- STAGE 2 STORMWATER DRAINAGE WORKS (PROVIDED BY CLIENT)
- STAGE 3 STORMWATER DRAINAGE WORKS (PROVIDED BY CLIENT)
- PRECAST PIT (SIZED BY OTHERS)

UNDERLYING AERIAL SOURCED FROM NEARMAP, DEC 2022. UNDERLYING CONTOURS SOURCED FROM ELVIS ELEVATIONS, SEPT 2022.

## EROSION AND SEDIMENT CONTROL INSTRUCTIONS

1. Install flagging or other barriers to delineate site limits.
2. Maintain the existing asphalt surfaces and vegetation wherever possible.
3. Stage works as shown to minimise the amount of disturbance at any one time.
4. Utilise the existing asphalt surfaces for site access/exit points. Maintain asphalt surfaces in a clean and stable manner.
  - 4.1. Stabilised site access/exit points are only required if the existing asphalt is removed. Refer to Standard Drawing SD 6-14 on PCP02.
5. Stormwater Drainage works - As much as possible:
  - Schedule proposed stormwater drainage works for a period of little to no rainfall and complete as quickly as possible;
  - Limit the amount of open trenches/excavations to less than 1,000 m<sup>2</sup> at any one time;
  - **Trench or Excavation Spoil:**
    - Ensure trench spoil is not placed where it is likely to fall or wash into roads, gutters or drains;
    - Trench spoil is to be removed at the end of each day and placed in designated spoil stockpile area within a site compound; and
    - Prior to forecast rainfall (>50% chance of 2mm or more in 24 hours) cover trench spoil with geofabric or black plastic and install sandbags upslope and sediment fence or coir logs downslope of trench spoil. Refer to Standard Drawing SD 4-1 on PCP02.
  - Close trenches/excavations ASAP following pit/pipe laying and stabilise surfaces to existing condition;
  - Ensure that new pits/pipes are onsite and ready to be installed prior to opening trenches/excavations (to minimise the amount of time the trenches/excavations are open if deliveries are delayed; and
  - Install kerb or stormwater inlet protection around all new and existing stormwater pits. Refer to the Kerb or Stormwater Inlet Control details on PCP03.
6. De-watering of the trenches/excavations/low points is to be carried out in accordance with the project SWMP.

NOTE THIS PCP ONLY RELATES TO EROSION AND SEDIMENT CONTROL MEASURES ASSOCIATED WITH THE PROPOSED DRAINAGE WORKS (STAGES 1, 2 & 3) AS SHOWN ON THIS PLAN. FUTURE PCPS ARE TO BE DEVELOPED FOR FUTURE WORKS (i.e. BULK EARTHWORKS AND PAVEMENT WORKS) PRIOR TO THOSE WORKS COMMENCING.

REV	DATE	DES.	DRN.	APP.	REVISION DETAILS	DRAWING STATUS
B	02/02/23	L.O.	L.O.	A.M.	DRAFT ISSUE - AMENDED TO REFLECT CLIENT COMMENTS	DRAFT
A	15/12/22	L.O.	L.O.	A.M.	DRAFT - ISSUED FOR REVIEW	

North

CLIENT

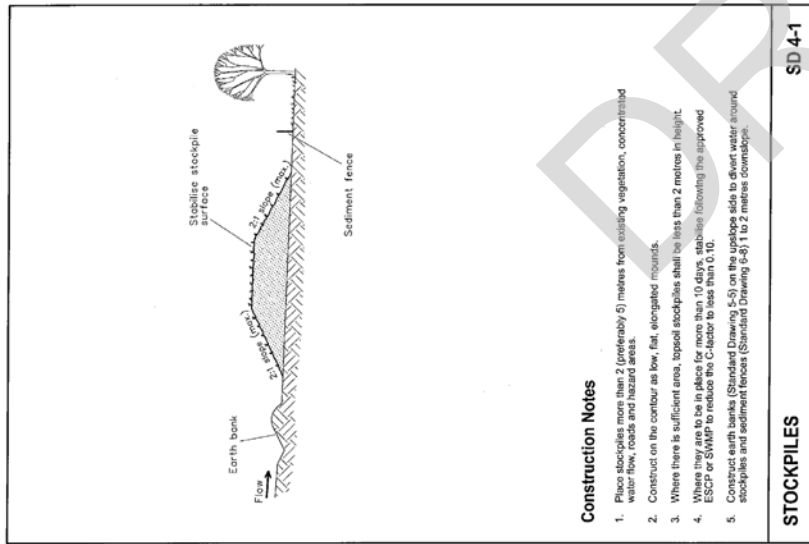
SEEC  
SULLIVAN  
7 8 8, 68-70 Station Street  
PO Box 1099, Belconnen NSW 2576  
(0) 2 4862 1633  
(0) 2 4862 3088  
email: reception@seec.com.au  
WWW.SEEC.COM.AU

PROJECT TITLE			
RAISING LONDON CIRCUIT PROJECT CANNBERRA CITY, ACT STORMWATER DRAINAGE WORKS			
DRAWING TITLE			
BACKGROUND, GERNAL NOTES & PCP- SHEET 1 OF 3			
PROJECT NO.	SUB-PR. NO.	DRAWING NO.	REV
22000039	POB	PCP01	B
DOCUMENT NO.			

Plot Date: Thursday, 2 February 2023 10:54:23 AM CAD File Name: M:\22000039\_London Circuit ACT\Drawings\22000039\_P08\_PCP\_REV B.dwg

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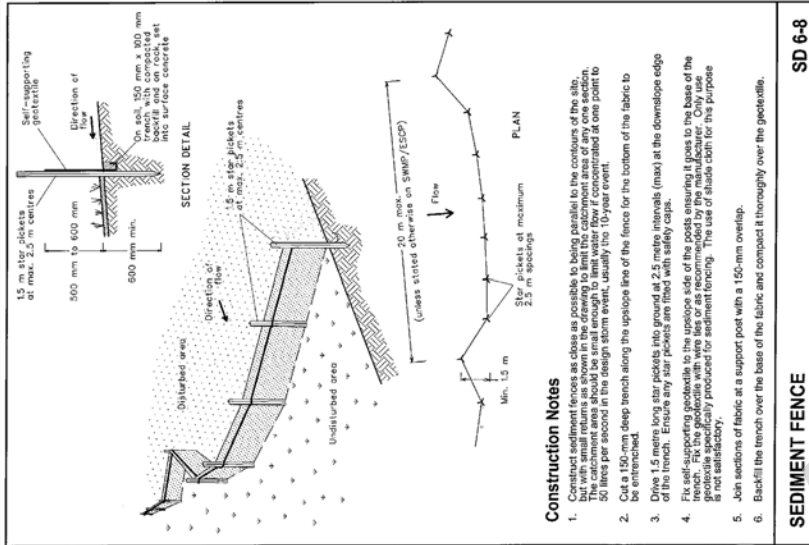




- Construction Notes**
1. Place stockpiles more than 2 (preferably 5) metres from existing vegetation, concentrated water flow, roads and hazard areas.
  2. Construct on the contour as low, flat, elongated mounds.
  3. Where there is sufficient area, topsoil stockpiles shall be least than 2 metres in height.
  4. Where there are to be in place for more than 10 days, stockpiles following the approved ESCP or SWMP to reduce the C-factor to less than 0.10.
  5. Construct earth banks (Standard Drawing 5-5) on the upslope side to divert water around stockpiles and sediment fences (Standard Drawing 6-5) 1 to 2 metres wide.

**STOCKPILES**

**SD 4-1**

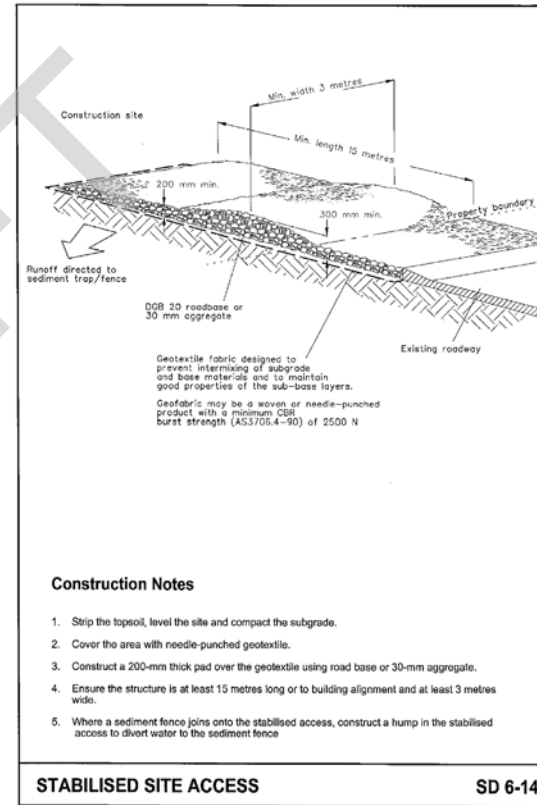


**Construction Notes**

1. Construct sediment fences as close as possible to being parallel to the contours of the site. The catchment area should be small enough to limit water flow if concentrated at one point to 50 litres per second in the design storm event, usually the 10-year event.
2. Cut a 150-mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.
3. Drive 1.5 metre long star pickets into ground at 2.5 metre intervals (max) at the downslope edge of the trench. Ensure any star pickets are fitted with safety caps.
4. Fit self-supporting geotextile to the upslope side of the pickets ensuring it goes to the base of the trench. The geotextile should be secured to the ground by a trench or other means if the geotextile specifically produced for sediment fencing. The use of shroud cloth for the purpose is not satisfactory.
5. Join sections of fabric at a support post with a 150-mm overlap.
6. Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.

**SEDIMENT FENCE**

**SD 6-8**



**Construction Notes**

1. Strip the topsoil, level the site and compact the subgrade.
2. Cover the area with needle-punched geotextile.
3. Construct a 200-mm thick pad over the geotextile using road base or 30-mm aggregate.
4. Ensure the structure is at least 15 metres long or to building alignment and at least 3 metres wide.
5. Where a sediment fence joins onto the stabilised access, construct a hump in the stabilised access to divert water to the sediment fence

**STABILISED SITE ACCESS**

**SD 6-14**

STANDARD DRAWINGS SD 4-1, 6-8 & 6-14 ARE COPYRIGHT LANDCOM, 2004.

REV	DATE	DES.	DRN.	APP.	REVISION DETAILS	DRAWING STATUS		North	CLIENT	PROJECT TITLE	DRAWING TITLE			
							PCP – STANDARD DRAWINGS SHEET 2 OF 3							
						DESIGN BY	L.O.			Suite 7 & 8, 68-70 Station Street PO Box 1098, Belconnen NSW 2576. (t) 02 4862 1633 (f) 02 4862 3088 email: reception@seec.com.au www.seec.com.au	PROJECT NO.	SUB-PR NO.	DRAWING NO.	REV
B	02/02/23	L.O.	L.O.	A.M.	DRAFT ISSUE – AMENDED TO REFLECT CLIENT COMMENTS	SCALE:	N.T.S.	22000039			P08	PCP02	B	
A	15/12/22	L.O.	L.O.	A.M.	DRAFT – ISSUED FOR REVIEW	<b>DRAFT</b>								

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**MATERIALS**  
GEO LOGS MANUFACTURED FROM 100% JUTE, COIR (COCONUT FIBRE) OR A COMBINATION OF BOTH.

STAKES: MINIMUM 50 X 50mm X 0.9m HARDWOOD. STAKE LENGTH AND WIDTH MAY NEED TO VARY SLIGHTLY DEPENDING ON THE GROUND CONDITIONS.

**INSTALLATION**

- REFER TO APPROVED PLANS FOR LOCATION AND INSTALLATION DETAILS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, DIMENSIONS OR METHOD OF INSTALLATION CONTACT THE ENGINEER OR RESPONSIBLE ON-SITE OFFICER FOR ASSISTANCE.
- PRIOR TO INSTALLATION ON CHANNEL/RIVER BANKS, PLACE A SUITABLE EROSION CONTROL MAT OVER ANY AREA WHERE THE LOGS ARE TO BE PLACED ABOVE AN EXPOSED SOIL.
- WHEN PLACED ACROSS THE INVERT OF DRAINAGE CHANNELS, ENSURE THE LOGS ARE PLACED SUCH THAT:
  - THE CREST OF THE DOWNSTREAM LOG IS LEVEL WITH THE CHANNEL INVERT AT THE IMMEDIATE UPSTREAM SOCK (IF ANY).
  - EACH LOG CHECK DAM EXTENDS UP THE CHANNEL BANKS SUCH THAT THE CREST OF THE CHECK DAM AT ITS LOWEST POINT IS LOWER THAN GROUND LEVEL AT EITHER END OF THE CHECK DAM.
- WHEN PLACED ALONG A CHANNEL/RIVER BANK, DO NOT RECESS THE LOG MORE THAN 1/3 THE LOG DIAMETER INTO THE BANK.
- ENSURE THE LOGS ARE PLACED TIGHTLY, END TO END.
- WHERE PRACTICAL, THE EXTREME ENDS OF A ROW OF LOGS SHOULD BE RIGIDLY TIED TO THE BANK AND SECURED WELL WITH STAKES.
- SECURE THE LOGS BY DRIVING THE STAKES BETWEEN THE OUTER NETTING AND THE CORE MATERIAL EACH SIDE OF THE LOGS AND SECURED INTO THE GROUND, NOT THROUGH THE CENTRE OF THE LOGS.
- ENSURE THE SPACING OF STAKES (ONE ON EITHER SIDE) DOES NOT EXCEED AN INTERVAL OF 1m.
- ONCE DRIVEN INTO THE GROUND, THE STAKES SHOULD IDEALLY SIT AT LEAST TWO-THIRDS BELOW THE GROUND AND ONE-THIRD ABOVE, AND IDEALLY SIT FLUSH WITH THE TOP OF THE LOG.
- WHERE DIRECTED, INTERLACE COIR ROPE, GALVANISED WIRE, OR PLASTIC TREE TIES BETWEEN THE STAKES TO PROVIDE ADDITIONAL ANCHORAGE.
- FILL AND SHAP/E DED IND THE LOGS IF REQUIRED.
- IF STREAM FLOWS ARE LIKELY TO OVERTOP THE LOGS, THEN TAKE APPROPRIATE STEPS TO PREVENT HIGH VELOCITY FLOW ALONG THE LANDWARD SIDE OF THE LOGS. THIS CAN BE ACHIEVED WITH THE PLACEMENT OF ROCK CHECKS AT A SPACING NOT EXCEEDING 3m, OR THE PLACEMENT OF LOGS LATERALLY UP THE CHANNEL BANK.

**MAINTENANCE**

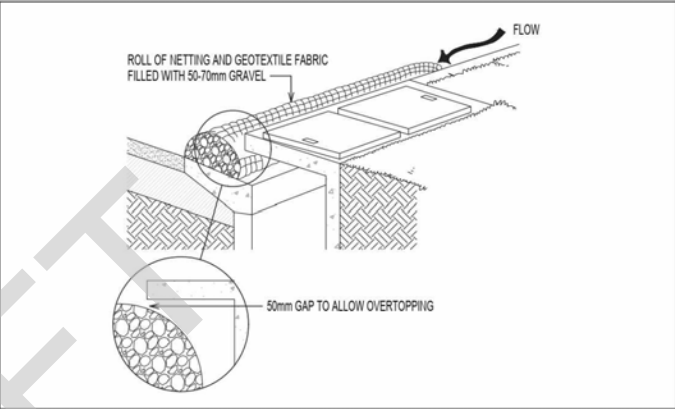
- WHILE ON-SITE WORKS CONTINUE, INSPECT ALL GEO LOGS PRIOR TO FORECAST RAIN, DAILY DURING EXTENDED PERIODS OF RAINFALL, AFTER SIGNIFICANT RUNOFF PRODUCING STORMS OR OTHERWISE AT WEEKLY INTERVALS.
- REPAIR OR REPLACE DISPLACED LOGS THAT ARE LIKELY TO CAUSE EROSION PROBLEMS.

**POST INSTALLATION MONITORING**

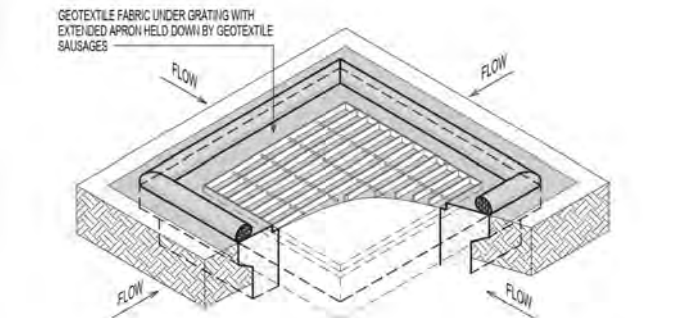
- MONITORING OF WORKS CAN INVOLVE SEVERAL DIFFERENT TECHNIQUES, SUCH AS PHOTO POINT MONITORING, AERIAL PHOTOGRAMMETRIC MONITORING, MEASURING PLANT SURVIVAL AND GROWTH, AND FLORA AND FAUNA SURVEYING.
- INSPECT AND MAINTAIN GEO LOGS AFTER EACH HIGH FLOW EVENT FOR THE FIRST YEAR. MAINTENANCE MAY INVOLVE RESECURING LOGS, REPLACING LOGS AND REPAIRING BREAKS IN THE NETTING.

Drawn	GMW	Date	May-10	Geo Logs (coir logs)	Log-01
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STANDARD DRAWING SD Log-01 IS COPYRIGHT CATCHMENTS AND CREEKS, REPRODUCED FROM IECA, 2008.



KERB INLET CONTROL DETAIL SOURCED FROM ENVIRONMENT PROTECTION GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT, EPA, 2022.



STORMWATER INLET CONTROL DETAIL SOURCED FROM ENVIRONMENT PROTECTION GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT, EPA, 2022.

REV	DATE	DES.	DRN.	APP.	REVISION DETAILS	DRAWING STATUS	North	CLIENT	PROJECT TITLE	DRAWING TITLE
B	02/02/23	L.O.	L.O.	A.M.	DRAFT ISSUE - AMENDED TO REFLECT CLIENT COMMENTS	DESIGN BY: L.O. DRAWN BY: L.O. FINAL APPROVAL: A.M. SCALE: N.T.S. (on A3 Original)	North		Suite 7 & 8, 68-70 Station Street PO Box 1098, Beard NSW 2576. (t) 02 4862 1633 (f) 02 4862 3088 email: reception@seec.com.au www.seec.com.au	PCP - IECA STANDARD DRAWINGS & DETAILS - SHEET 3 OF 3
A	15/12/22	L.O.	L.O.	A.M.	DRAFT - ISSUED FOR REVIEW					<b>DRAFT</b>

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## APPENDIX D

# GSM Plan Approvals and Offset Retirement

**BUILT  
FOR  
CBR**



Australian Government

Department of Agriculture, Water and the Environment

██████████  
Director – Environment and Approvals  
Light Rail  
Major Projects Canberra  
GPO Box 158  
CANBERRA ACT 2601

**City to Commonwealth Park Light Rail Project, ACT (EPBC 2019/8582) – revised Golden Sun Moth Construction and Rehabilitation Plan and variation to conditions of approval**

Dear ██████████

Thank you for your submission of the above revised document in accordance with the conditions attached to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) approval for EPBC 2019/8582.

Officers of the department have advised me on the revised plan, and the requirements of the condition of approval for the above project. The department has also advised me on a proposed variation to the condition of approval and I understand Major Projects Canberra has agreed to this variation. On this basis, and as a delegate of the Minister for the Environment, I have decided to:

- in accordance with section 143(1)(c) of the EPBC Act, agree to the variation of conditions attached to EPBC 2019/8582; and
- approve the *Golden Sun Moth Construction Environmental Management and Rehabilitation Plan (GSM Plan)*, 29 March 2022.

The conditions as varied are attached for your information and will be published on the department's website.

Should you require any further information please contact ██████████ directly or email the department's Post Approval Section at [postapproval@awe.gov.au](mailto:postapproval@awe.gov.au).

Yours sincerely

██████████  
Assistant Secretary  
Environment Assessments (Vic, Tas) and Post Approvals Branch  
Environment Approvals Division

13 April 2022

cc.



Australian Government

Department of Agriculture, Water and the Environment

[REDACTED]  
Director – Environment and Approvals  
Major Projects Canberra  
GPO Box 158  
CANBERRA ACT 2601

**City to Commonwealth Park Light Rail Project, ACT (EPBC 2019/8582) – Early Enabling Works GSM Plan**

[REDACTED]

Thank you for submitting the GSM Plan for the early enabling works (Phase 1) of the project, for approval in accordance with condition 3 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) approval for EPBC 2019/8582.

Officers of the department have advised me on the plan and on the requirements of the EPBC Act conditions of approval for the above project. On this basis, and as a delegate of the Minister for the Environment, I have decided to approve the *City to Commonwealth Park Light Rail Golden Sun Moth Plan*, June 2021 – Early Enabling Works, as meeting the requirements of conditions 5 and 10 of the approval. The approved plan must now be implemented.

Project phases 2-5 must not commence until a revised GSM Plan is approved by the Minister.

The department has an active compliance monitoring program which includes monitoring inspections, desk top document reviews and audits. Please ensure that you maintain accurate records of all activities associated with, or relevant to, the conditions of approval including the implementation and revision of the approved plan, so that they may be made available to the Department on request.

Should you require any further information please contact [REDACTED], at [REDACTED].au or [postapproval@awe.gov.au](mailto:postapproval@awe.gov.au).

Yours sincerely

[REDACTED]

[REDACTED]  
Assistant Secretary  
Environment Assessments (Vic, Tas) and Post Approvals Branch  
Environment Approvals Division

21 June 2021

## Credit retirement report

**Effective date:** 24-June-2021

**Transaction number:** 202106-RT-656

**Credit owners' details**

**Credit owner ID:** 725

**Name of credit holder:** Major Projects Canberra

**Other owner(s):**  
No other owners

**Reason for retirement:** Retirement of 128 BBAM (82 BAM equivalent credits) for condition 6 of EPBC Approval 2019/8582

Species credit(s) retired					
Number of credits	Credit profile ID	Agreement ID	Species type	Scientific name	Common name
119	562	310	Fauna	Synemon plana	Golden Sun Moth
9	549	294	Fauna	Synemon plana	Golden Sun Moth

**Key to vegetation formations**

<b>Code</b>	<b>Vegetation formation</b>
ALP	Alpine complex
ASA	Arid shrublands (Acacia)
ASC	Arid shrublands (Chenopod)
DSG	Dry sclerophyll forests (shrub/grass)
DSS	Dry sclerophyll forests (shrubby)
FRW	Forested wetlands
FWW	Freshwater wetlands
GLD	Grasslands
GRW	Grassy woodlands
HLD	Heathlands
MES	Miscellaneous ecosystems
RFT	Rainforests
SAW	Saline wetlands
SWG	Semi-arid woodlands (grassy)
SWS	Semi-arid woodlands (shrubby)
WSG	Wet sclerophyll forests (grassy)
WSS	Wet sclerophyll forests (shrubby)

The credit register provides further information about credit holdings and reports about credit trading activity. To view this information, please visit the public register website at [www.environment.nsw.gov.au/bimspr/index.htm](http://www.environment.nsw.gov.au/bimspr/index.htm)

For more information, please contact the BioBanking Scheme Manager - phone (02) 9995 6753; email [biobanking@environment.nsw.gov.au](mailto:biobanking@environment.nsw.gov.au)





**ACT**  
Government

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