ACT Government

City to Commonwealth Park Light Rail

(EPBC2019/8582)

Annual Compliance Report

30 July 2021 - 30 July 2022

Prepared September 2022

Document control

Document status	Final - Section 5 updated 2/03/23 following advice from DCCEEW
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]
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	Matt Gencur
Title	Environmental Director
The GSM Plan is reviewed by	Marcus Sainsbury
Title	Senior Director Design, 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 Ashley Cahif

Full name Ashley Cahif

Position Project Director

Organisation **Major Projects Canberra (ABN 66 676 633 401)**

Date 23 / 09 / 2022

Glossary/Abbreviations

ABBREVIATION	EXPANDED TEXT
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 actives, 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. 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.

Two iterations of the Golden Sun Moth Construction Environmental Management and Rehabilitation Plan (GSM Plan) have been prepared by Major Projects Canberra to address Condition 5 of the approval. Both versions of the GSM Plan have been approved by DCCEEW prior to implementation. 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.

Notification of the commencement of the first phase of works was provided to DCCEEW 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 DCCEEW on the 18th 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 1 of the Project which was the period between the 30th of July 2021 and 30th of July 2022.

Key activities completed in year 1 of The Project include:

- Erection of a temporary fence around the translocation area in the southeast cloverleaf to deter rabbits, humans, and machinery from disturbing the area.
- Translocation of GSM larvae salvaged from areas to be impacted
- Annual monitoring of GSM in the south east cloverleaf following translocation
- Early enabling works including the relocation of utilities, from the existing location on London Circuit, between Edinburgh Avenue and Constitution Avenue, to a proposed route via Vernon Circle that will also traverse part of Constitution Avenue. The impacted utilities that require relocation include bulk water and communications infrastructure.

Further details of these activities can be seen in Chapter 3.

2. 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. Golden Sun Moth and the Project

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

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. Key Activities and Achievements

4.1 Installation of exclusion fencing

Exclusion fencing around the north-western section of the southeast cloverleaf was installed in July 2021. Two types of fencing were installed. The southern portion of the fencing is a star picket fence as this would be removed when the whole of the southeast cloverleaf is fenced during rehabilitation.

The **northern fenceline** is a semi-permanent chain link fence which:

- Is 900mm high to deter people from entering the area
- Has a fine mesh size of 30mm to ensure that juvenile rabbits cannot access the area or get stuck in the fence
- Has an apron of 180mm to prevent animals passing beneath the fence

The southern fence line is a temporary star picket fence with 30mm mesh wound between the pickets. A 180mm apron was also installed to prevent rabbits from passing beneath the fence.

Figure 2 Fencing installed in the southeast cloverleaf translocation area

4.2 Translocation activities

In accordance with the EPBC approval conditions (2019/8582) and the Golden Sun Moth Construction Environmental Management and Rehabilitation Plan (the GSM Plan) GSM larvae were required to be salvaged from areas of permanent direct impact and translocated to the established translocation site, within the south-east cloverleaf. The objectives of the translocation process is to salvage a sample of larvae in the permanent direct impact areas and use these individuals to supplement populations in adjacent areas not impacted by the Project. This may facilitate the preservation of genetic diversity within the retained population and may supplement total population numbers to ensure a positive response to management of habitat in the future.

Identification and mapping of GSM habitat that meets the Priority Salvage Area criteria outlined in the GSM Plan (ACT Government 2021) was conducted prior to conducting translocation activities.

Priority salvage areas are those that support 30% cover or greater of the following grass species:

- Chilean needlegrass *(Nassella neesiana)*
- Wallaby grasses *(Rytidosperma spp.)*
- Spear grasses *(Austrostipa spp.)*
- Redleg grass *(Bothriochloa macra)*
- Serrated tussock *(Nassella trichotoma)*

Areas of drainage or water logging were avoided and were mapped as not forming part of the priority salvage area.

A series of 50 m vegetation transects were completed during which the cover of the grass species noted above within 20 x 20 cm plots at one metre intervals was recorded to inform the Priority Salvage Area mapping.

4.2.1 Translocation activities prior to commencing Early Enabling Works (Phase 1)

Preclearance survey and habitat mapping – 14th of July 2021

Prior to commencing Early Enabling works a total of eight transects were undertaken in Clearance Area C while single transects were completed in Clearance Area A, Clearance Area B, Translocation Area A and the proposed services easement corridor immediately south-east of Translocation Area A. Boundaries of areas that meet the Priority Salvage Area criteria were then delineated using a hand-held GPS device.

Within Clearance Area A, mattocks were also used to turn over tussocks of feed species and search for GSM larvae within the root balls, to identify any areas of particularly high larvae density.

Figure 3 Priority Salvage and Translocation Area within the Study Area: Early Enabling

Priority Salvage Area mapping - 14th of July 2021

No areas meeting Priority Salvage Area criteria were identified in Clearance Area A or Clearance Area B. In such areas the groundcover consisted of no more than 10% feed species and was composed of 90% goosegrass (*Eleusine tristachya*) and 10% Chilean needlegrass. Occasional small patches of Chilean needlegrass were present, which provide marginal habitat for GSM, and breeding is likely to occur at low density in these areas.

A total of 9670 m^2 of suitable habitat that meets the Priority Salvage Area criteria was mapped in Clearance Area C.

A total of 2263 m^2 of GSM habitat that meets the Priority Salvage Area criteria was mapped around the proposed easement immediately south-east of Translocation Area A. It is understood that part of this area is likely to be disturbed for the installation of a service easement. Translocation from the proposed easement footprint would be required prior to clearance.

The entirety of Translocation Area A (i.e. 2314 m^2) was confirmed to support suitable GSM habitat, that is, grassland that supports at least 30% cover of suitable food species.

On the basis that the distribution and cover of suitable food species is largely homogenous throughout Translocation Area A this entire area is considered equally suitable for the purpose of translocating GSM larvae recovered from the clearance areas.

During manual searches using a mattock within Clearance Area A, a single GSM larvae was detected. No areas of particularly high GSM density were detected, and this information did not contribute to priority salvage area mapping.

The location of Priority Salvage Areas is displayed in **Figure 3**.

GSM larvae salvage and translocation

GSM larvae translocation was conducted in accordance with the salvage methodology and the translocation methodology detailed in the GSM Plan (ACT Government 2021). Prior to commencement of translocation activities it was determined that the immediate project works would only impact Area A and as such clearance areas B and C would be left unimpacted to allow another flying season to occur in these areas.

The GSM larvae translocation was undertaken in Clearance Area A by three ecologists on 30 July 2021. To determine sampling areas within Clearance Area A, an ecologist assessed and identified suitable sampling areas containing Chilean needlegrass and marked them with spray paint. Each sampling area was approximately 2 m x 2 m. A digger equipped with a bladed bucket was used to scrape the top layer of soil to a depth of approximately 15 cm at each of these marked sampling areas. The location of sampled areas in Clearance Area A is shown in **Figure** 3.

GSM larvae translocation was conducted in accordance with the translocation methodology described in the GSM Plan (ACT Government 2021). Any GSM larvae salvaged were placed in a bucket and covered in a layer of soil. GSM were transported to Translocation Area A within 30 minutes of salvage. A small hole approximately 5 cm deep and 1 cm wide was dug into the ground adjacent to the root mass of a Chilean needlegrass tussock and the GSM larvae placed head up in the hole and gently covered with loose soil. Each hole was spaced 50 cm apart. The corners of the translocation area were marked with spray paint and recorded with a handheld GPS. The location of Translocation Area A is displayed in **Figure 3**.

One individual GSM larvae was opportunistically salvaged from Clearance Area A on 14 July 2021 during tussock sampling to map priority salvage areas prior to commencement of the translocation works. The individual was translocated into the defined translocation area.

Systematic GSM salvage and translocation was completed by three ecologists on 30 July 2021. Due to the scattered and patchy distribution of Chilean needlegrass within Clearance Area A, and the absence of other feed species, sampling involved identifying Chilean needlegrass patches and excavating these patches. Topsoil at eleven (11) individual patches of Chilean needlegrass was excavated and searched in accordance with the protocol. Each sampling area supported 5 - 10% cover of Chilean needlegrass. Approximately 80% of Chilean needlegrass patches with >5% cover in Clearance Area A were sampled.

A total of 29 GSM larvae were detected in Clearance Area A on 30 July 2021 and translocated to Translocation Area A. The location and number of GSM larvae salvaged from each sampling area is displayed in **Figure 4**. All GSM larvae were translocated to Translocation Area A (**Figure 5**) in accordance with the GSM Plan (ACT Government 2021).

Figure 4 Location and Abundance of GSM larvae salvaged in Clearance Area A

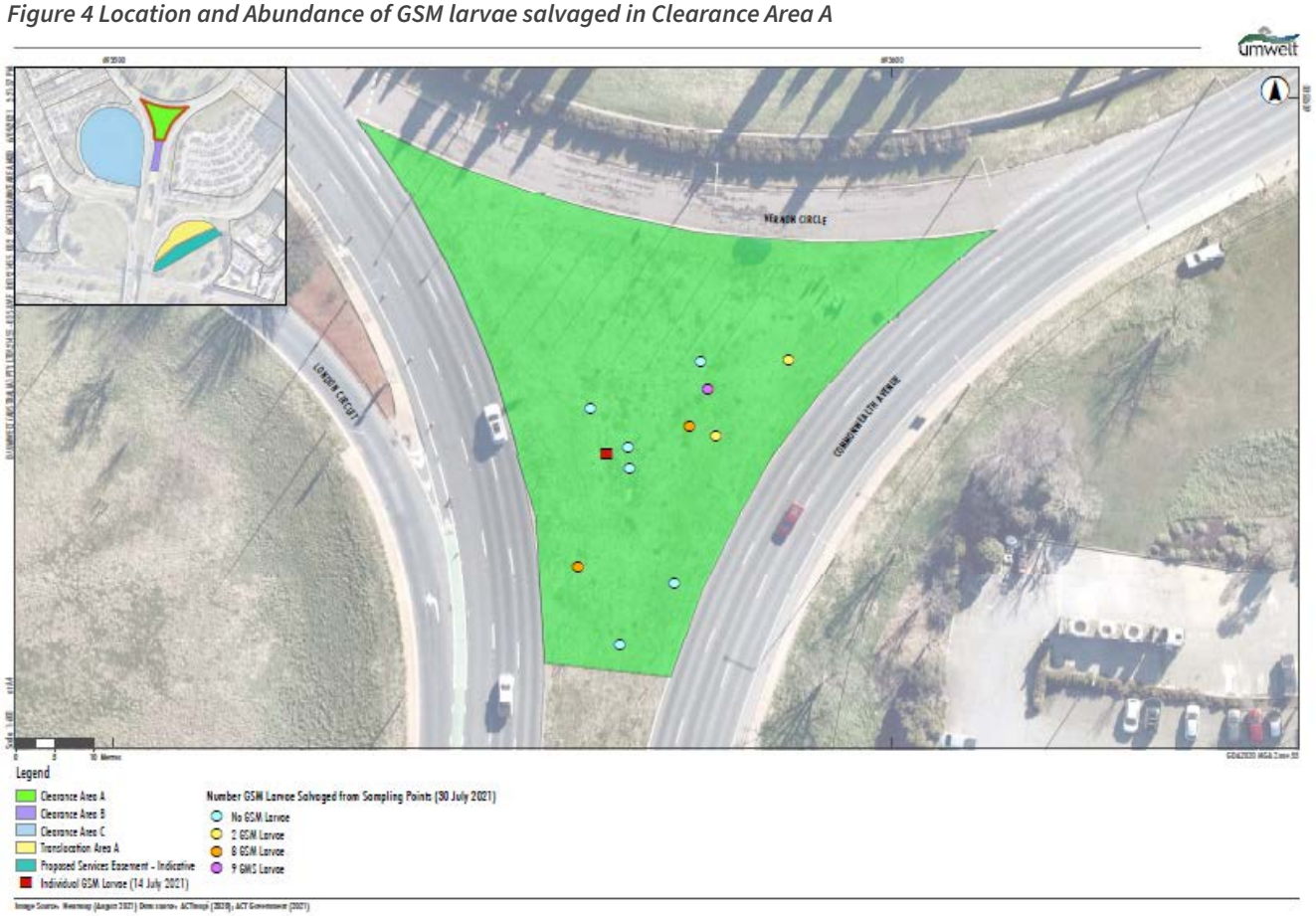
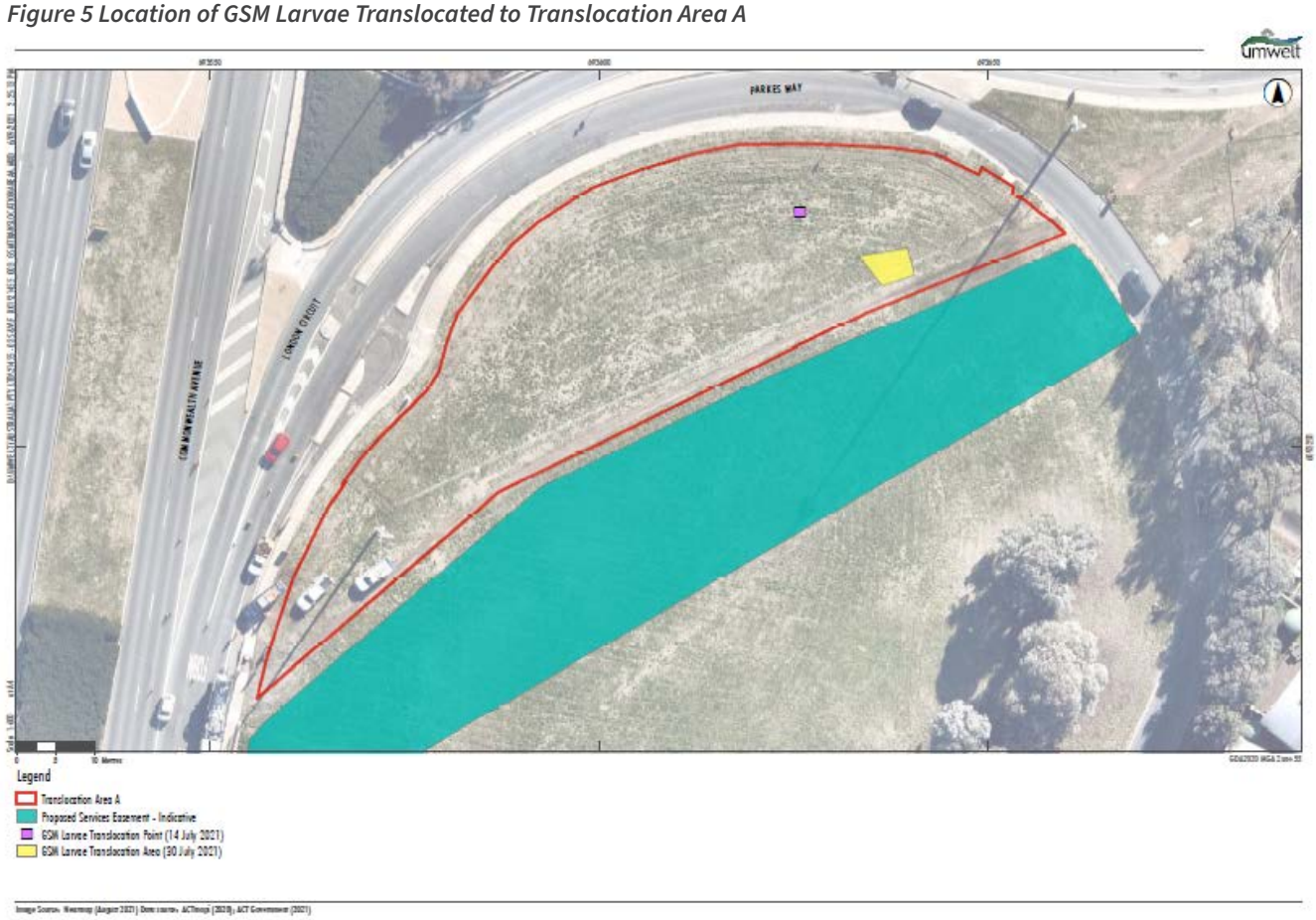


Figure 5 Location of GSM Larvae Translocated to Translocation Area A



4.2.2 Translocation activities prior to commencing Early Enabling Works (Phase 2)

Pre clearance survey and habitat mapping – 18th May 2022
An additional two transects were completed in Clearance Area E on 18 May 2022. Boundaries of areas that meet the Priority Salvage Area criteria were then delineated using a hand-held GPS device. The 2021 Priority Salvage Area mapping for Clearance Areas A, B and C was reconfirmed during the site visit on 18 May 2022. The location of Priority Salvage Areas is displayed in **Figure 6**.

Priority Salvage Area mapping
No areas meeting Priority Salvage Area criteria were identified in Clearance Area B. In such areas the groundcover consisted of no more than 10% feed species and was composed of 90% goosegrass (*Eleusine tristachya*) and 10% Chilean needlegrass. Occasional small patches of Chilean needlegrass were present, which provide marginal habitat for GSM, and breeding is likely to occur at low density in these areas.

A total of 20,606 m^2 meeting priority salvage areas was mapped: 9670 m^2 of suitable habitat that meets the Priority Salvage Area criteria was mapped in Clearance Area C, 9833 m^2 in Clearance Area D, and 1103 m^2 in Clearance Area E. Translocation of GSM larvae from the majority of Clearance Area C, D and sections of Clearance Area E would be required prior to clearance. GSM larvae translocation is scheduled to occur in Clearance Area E in 2023.

Due to the erection of a temporary exclusion fence, some sections of the priority salvage area could not be sampled (**Figure 7**).

GSM larvae salvage and translocation
100 'scrapes' were completed and sampled for golden sun moth larvae and displayed in **Figure 7**. Of those, 60 'scrapes' were sampled in Clearance Area C and 40 'scrapes' sampled in Clearance Area D. The Total survey effort for each scrape amounts to 1600m2 (0.16 ha), or 15.6% of the total priority salvage area within the exclusion fence, or 10.7% of the total priority salvage area.

During manual searches, thoroughness of searching through ripped areas was prioritised over site coverage. Due to the difficulty of detecting GSM larvae and the need to search through the root masses of feed species, this approach is most appropriate for salvage activities to ensure individuals are detected in searched areas.

A total of 186 GSM larvae were salvaged during translocation activities during 16, 17 and 20 – 24 June 2022. Of those, a total of 60 GSM larvae were salvaged from Clearance Area C, and one additional individual was killed by the ripper. Another 126 GSM larvae were salvaged from Clearance Area D, with an additional eight dead individuals detected having been killed by the ripper.

All living GSM larvae were translocated to the Translocation Area. Each individual larvae were placed in the area displayed in Figure 7.

Figure 6 Priority Salvage and Translocation Area within the Study Area

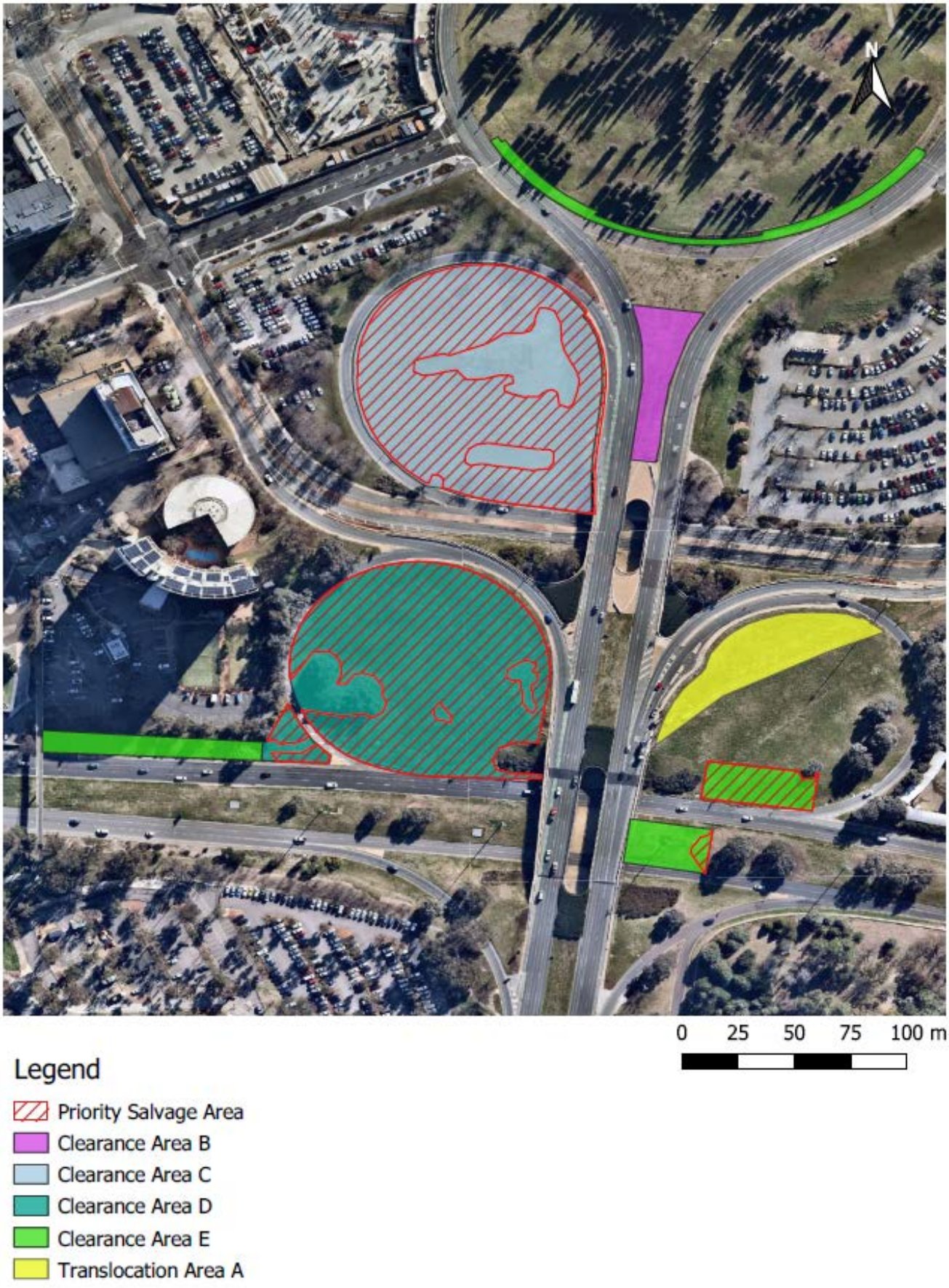


Figure 7 Location of GSM salvaged and location of GSM translocated

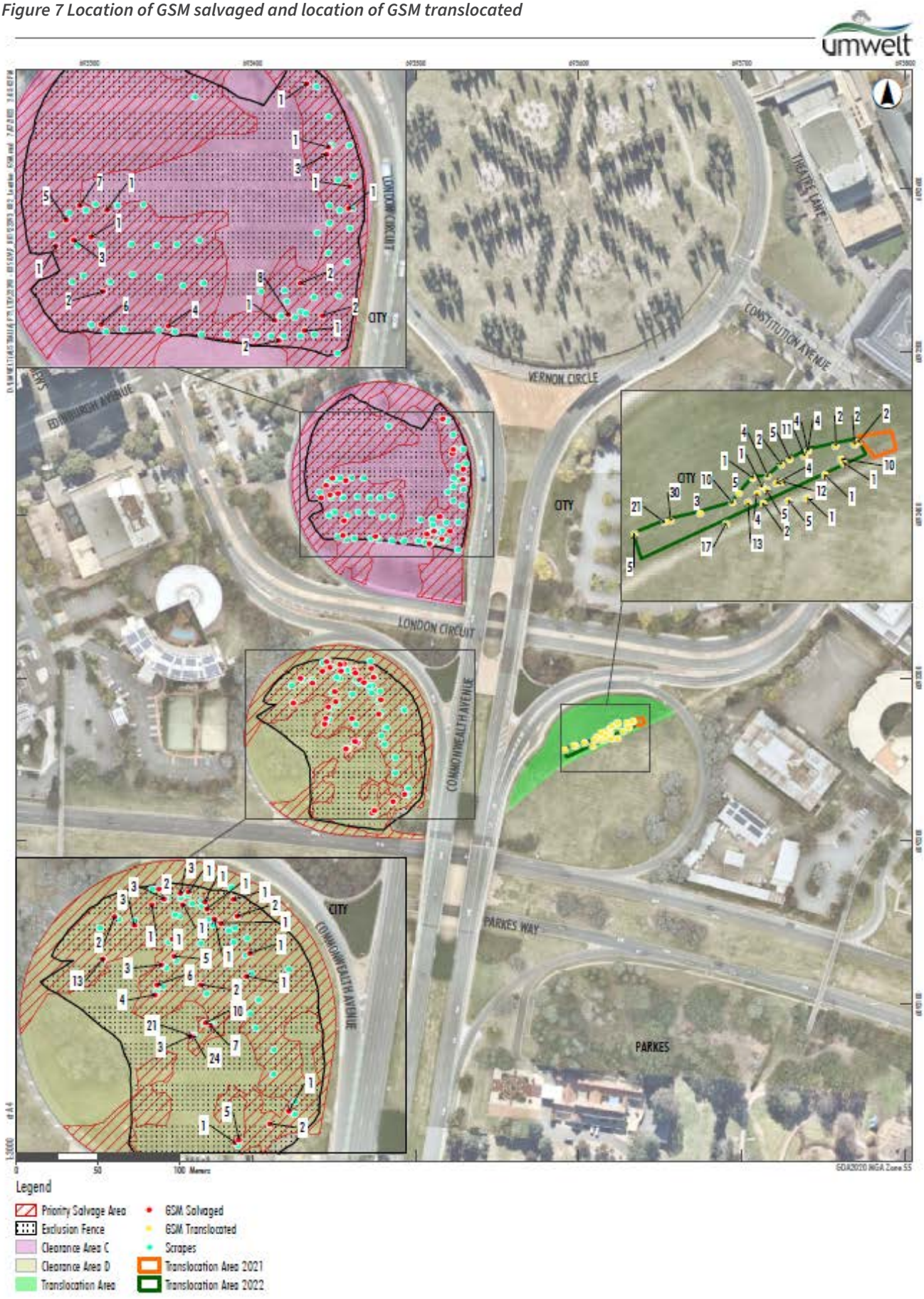


Image Source: Nearmap (May 2022) Data source: ACT Government (2021)

4.3 Golden Sun Moth seasonal survey

Three golden sun moth surveys were completed in the south-east cloverleaf and one in the verge immediately north-east of the cloverleaf. Surveys were completed both in the fenced translocation area and adjacent habitat outside the translocation area.

No golden sun moth was detected during surveys. However, due to the wet and cool seasonal conditions, and corresponding low detection of golden sun moth at regional reference sites, the lack of detection is likely the result of a poor flying season.

Targeted surveys completed on 17 and 21 December 2022 did not meet the Commonwealth survey guidelines as they were completed within one day of rain. However due to the limited number of suitable survey days, these days represented some of the most suitable survey days within the flying season.

Figure 8 Location where GSM were surveyed

5. EPBC Conditions of Approval and Compliance

Table 1 Conditions of Approval Compliance Table

Ref	Cond	Condition Requirement	Is the Project compliant with this condition	Evidence/Comments
1	1	The approval holder must not directly impact more than 4.76 hectares (ha) of Golden Sun Moth habitat comprised of: a. 3.33 ha of permanent direct impacts; and b. 1.43 ha of temporary direct impacts.	☑ Compliant	Direct impacts during the first year of works only consisted within the Commonwealth Ave median which is approximately 0.28 ha.
2	2	The approval holder must not indirectly impact more than 3.33 ha of Golden Sun Moth habitat comprised of: a. 2.07 ha of permanent indirect impacts; and c. 1.26 ha of temporary indirect impacts.	☑ Compliant	As per the response to 1 above the only direct impacts occurred in the Commonwealth Ave median. These works are within 200m of City Hill where there is 1.71 ha of GSM habitat which will have permanent indirect impacts.
3	3	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.	☑ Compliant	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. The final version of GSM Plan 2.0 was submitted for approval on the 29th of March 2022.
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	MPC received approval in writing from a delegate for the Minister the for the GSM Plan 1.0 on the 21st of June 2021. MPC received approval in writing from a delegate for the Minister the for the GSM Plan 2.0 on the 14th of April 2022. Refer to APPENDIX E for approval from delegate of minister for GSM Plans 1.0 and 2.0. All works associated with the action have been undertaken in accordance with the Conditions of Approvals relevant to the stage of the works and the approved GSM Plan.
5	5(a)	pre-clearance surveys and translocation are undertaken prior to clearing by suitably qualified ecologists;	☑ Compliant	**Phase 1 Early Enabling Works** The pre-clearance survey was completed by qualified ecologists from Umwelt on the 14th of July 2022. The GSM larvae translocation was undertaken in within the Commonwealth Ave median by three ecologists on 30 July 2021. **Phase 2 Raising London Circuit** The pre-clearance survey was completed by qualified ecologists from Umwelt on the 18th of May 2022. The GSM larvae translocation was undertaken in within the western cloverleaves in June 2022.

Ref	Cond	Condition Requirement	Is the Project compliant with this condition	Evidence/Comments
6	5(b)	clearing of areas containing Golden Sun Moth habitat is undertaken outside of the flying period for the species;	☑ Compliant	Clearing of areas containing GSM habitat occurred on the 30th of July 2021 and during the week of the 20th of June 2022 which are outside the flying period of the Golden Sun Moth.
7	5(c)	in relation to weed management: • that equipment and/or machinery does not introduce weed or pathogen propagules into the action area; • weeds that are cleared are not stockpiled and are removed from the action area as soon as practical; and • weeds are reduced within the rehabilitation areas for the duration of rehabilitation in each of the rehabilitation areas; and corrective actions are implemented in the event that an increase in weeds and exotic species is observed within any of the rehabilitation areas.	☑ Compliant	**GSM Plans** details biosecurity protocol to ensure vehicle, equipment and personnel are free of weeds. The plan requires that all vehicle, equipment, and footwear are cleaned prior to entering site. Excavated materials were not stockpiled in GSM Habitat with the compound at Marcus Clarke used for storage whilst approval was obtained from ACT No Waste prior to removal offsite. Rehabilitation measures have not been implemented
8	5(d)	in relation to erosion and sediment control: 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 ii. effective erosion and sediment controls are implemented throughout Phases 1-4 to mitigate erosion impacts in the rehabilitation areas	☑ Compliant	**An Erosion and Sediment Control Plan** was developed as part of the **Construction Environmental Management Plan** for the Early Enabling Utility works which included measures for both worksite and the compound areas. Weekly inspections were completed by the MPC Compliance officer to ensure compliance with the CEMP
9	5(e)	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;	☑ Compliant	No works were completed in rehabilitation areas or areas of temporary indirect impacts during this period.
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 SE Cloverleaf during the enabling works. Exclusion zones outside the footprint of the early enabling works were provided on project GIS mapping and also provided to contractors for inclusion in induction and CEMP's.

Ref	Cond	Condition Requirement	Is the Project compliant with this condition	Evidence/Comments
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 will be installed marking the translocation area within the SE Cloverleaf during the enabling works leading up to Phase 2. Through the period covered by this compliance report no rehabilitation or construction works have been completed within the south-east cloverleaf.
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.
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	A GSM specific induction has been provided to all workers focusing on the need to avoid environmentally sensitive areas before starting work.
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	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. 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. The GSM Plan, which includes the rehabilitation plan, was approved by DAWE on the 13th of April 2022.
17	5(m)	reporting and review mechanisms, and documentation standards to demonstrate compliance with the GSM Plan;	☑ Compliant	Reporting mechanisms are set out in 10 and further in Section 5.0 of the GSM Plan v1.0 and v2.0. Section 6.0 specifies the GSM Plan review process.
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	To compensate for the permanent direct and permanent indirect impacts to 5.4 ha of Golden Sun Moth habitat, the approval holder must; a. retire 82 like-for-like species credits in accordance with clauses 6.2 and 6.6A of the Biodiversity Conservation Regulation 2017 (NSW); prepare a Golden Sun Moth Offset Management Plan (GSMOMP).	☑ Compliant	82 like-for-like species credits were retired in accordance with clauses 6.2 and 6.6A of the Biodiversity Conservation Regulation 2017 (NSW). APPENDIX E shows record of the like-for-like credits species being retired by MPC.
20	7	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.	☑ Compliant	Evidence of the retirement of like-for-like species credits was provided to the Department on the 29th of June 2021.
21	8	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	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).

22	9	If the approval holder submits a GSMOMP in accordance with Condition 8, the GSMOMP must include: 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; b. details of how the proposed offset and the GSMOMP address the principles of the Environmental Offsets Policy; c. details and a quantitative analysis of the baseline vegetation condition and habitat quality in the proposed offset area; 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; 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; 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; g. a description and analysis of the potential risks to the successful implementation of management measures within the proposed offset area, and contingency measures that will be implemented to mitigate against these risks; h. time-bound completion criteria and performance targets for evaluating the effectiveness of the implementation of the GSMOMP; i. triggers for when corrective actions are required and timeframes for implementing corrective actions; and a program to monitor and report on and review the effectiveness of the	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).

Ref	Cond	Condition Requirement	Is the Project compliant with this condition	Evidence/Comments
		GSMOMP, including timely and adequate monitoring to promptly detect triggers, performance milestones, targets and completion criteria.		
23	10(a)	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;	Not applicable at this time	Once photo monitoring points are established, photos must be collected at 6 monthly intervals following native planting for a period of 3 years after commencement of rehabilitation in rehabilitation areas. Rehabilitation has not commenced.
24	10(b)	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;	Not applicable at this time	Following rehabilitation, rabbit populations and weed extent, with a focus on African Love Grass, Witch Grass and Madagascan Fireweed, must be monitored every 3 months for a period of 3 years. Rehabilitation has not commenced.
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 for 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	Compliance auditing will be undertaken to verify that the work is in compliance within the GSM Plan and the CoAs. Audits will be conducted annually. This data will be used to compile a report at the end of the 3 year period to indicate success of rehabilitation. Not Applicable
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 implement an additional GSMOMP approved by the Minister.	Not applicable at this time	Rehabilitation has not commenced.

Ref	Cond	Condition Requirement	Is the Project compliant with this condition	Evidence/Comments
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	Rehabilitation has not commenced.
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	Rehabilitation has not commenced.
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	Notice of commencement of the action was provided on the 3rd of August 2021. This notification cover phase 1 of the action. Notification for the commencement of phase 2 of the action was provided on the 18th of June 2022. Refer to APPENDIX A for the commencement of action notifications which were 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.
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.

Ref	Cond	Condition Requirement	Is the Project compliant with this condition	Evidence/Comments
34	19	The approval holder must: a. submit plans electronically to the Department; b. unless otherwise agreed to in writing by the Minister, publish each plan on the website within 20 business days of the date: i. the plan is approved by the Minister; or ii. that the plan is submitted to the Minister or the Department if the plan does not require approval from the Minister; c. exclude or redact sensitive ecological data from plans published on the website or provided to a member of the public; and keep plans published on the website until the end date of this approval, or as otherwise agreed to in writing by the Minister.	☑ Compliant	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. Both plans are available on the Major Projects Canberra website at the following location https://www.act.gov.au/lightrailtowoden/media-centre/fact-sheets.
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	

Ref	Cond	Condition Requirement	Is the Project compliant with this condition	Evidence/Comments
36	21	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 a. publish each compliance report on the website within 60 business days following the relevant 12-month period; 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; 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; d. exclude or redact sensitive ecological data from compliance reports published on the website; and 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.	☑ Compliant	This report forms the first compliance report prepared 12 months after the date of commencement of the action.
37	22	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.	Not applicable at this time	There has not been an incident; non-compliance with the conditions; or non-compliance with the commitments made in plans Section 4.0 of Appendix E of the GSM Plan details the incident reporting procedure
38	23	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	Not applicable at this time	There has not been an incident; non-compliance with the conditions; or non-compliance with the commitments made in plans Section 4.0 of Appendix E of the GSM Plan details the incident reporting procedure
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

Ref	Cond	Condition Requirement	Is the Project compliant with this condition	Evidence/Comments
40	25	For each independent audit, the approval holder must: a. provide the name and qualifications of the independent auditor and the draft audit criteria to the Department; b. only commence the independent audit once the audit criteria have been approved in writing by the Department; and submit an audit report to the Department within the timeframe specified in the approved audit criteria	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
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	A revision to the GSM Plan was submitted for approval by the minister on the 29th of March 2022. MPC received approval in writing from a delegate for the Minister the for the GSM Plan 2.0 on the 14th of April 2022. All works associated with the action have been undertaken in accordance with the Conditions of Approvals relevant to the stage of the works and the approved GSM Plan.
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.	Not applicable at this time	MPC did not update a management plan without submitting it for approval during this period of compliance reporting.

Ref	Cond	Condition Requirement	Is the Project compliant with this condition	Evidence/Comments
44	29	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: a. notify the Department in writing that the approved action management plan has been revised and provide the Department with: i. an electronic copy of the RAMP; 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; iii. an explanation of the differences between the approved action management plan and the RAMP; 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 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. subject to Condition 31, implement the RAMP from the RAMP implementation date.	Not applicable at this time	MPC did not update a management plan without submitting it for approval during this period of compliance reporting.

Ref	Cond	Condition Requirement	Is the Project compliant with this condition	Evidence/Comments
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 Plan 2.0 during this period of compliance reporting.
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: a. Condition 28 does not apply, or ceases to apply, in relation to the RAMP; and the approval holder must implement the action management plan specified by the Minister in the notice	Not applicable at this time	MPC did not update a management plan without submitting it for approval during this period of compliance reporting.
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	MPC did not update a management plan without submitting it for approval during this period of compliance reporting.
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. 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.*

APPENDIX A

COMMENCEMENT OF ACTION - PHASE 1 AND 2

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 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 15th 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 29th 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 or 0417 673 630, if required.

Yours Sincerely

Ashley Cahif
Project Director Light Rail
Major Projects Canberra

18 June 2022

APPENDIX B

TRANSLOCATION REPORTS

Inspired People.
Dedicated Team.
Quality Outcomes.

Briefing Note

To: Gemma Stehlik

Cc: David Moore

From: Matthew Mullaney, Mark Allen

Date: 6 September 2021

Subject: Golden Sun Moth Translocation
Early Enabling Works for the City to Commonwealth Park Light Rail

Outcomes/Key messages

This briefing note describes golden sun moth (*Synemon plana*) (GSM) habitat mapping and larvae translocation conducted during July 2021 in the vicinity of Commonwealth Avenue and London Circuit, Canberra to meet approval conditions for the development of the Canberra Light Rail (City to Commonwealth Park section).

Priority Salvage Area mapping was conducted in Clearance Areas A and B, and in the proposed services easement in the south-east cloverleaf adjacent Translocation Area A on 14 July 2021 (**Figure 1**). During a preliminary assessment, grassland meeting the priority salvage criteria was identified in Clearance Area C and in the proposed services easement. No areas meeting the priority salvage criteria was identified in Clearance Area A or Clearance Area B. Despite the grassland in Clearance Area A not meeting the priority salvage critieria, GSM larvae salvage searches were completed at this location as a trial of the process for future translocation works for the project.During the mapping of priority salvage areas, one GSM larvae was detected in Clearance Area A during manual searches and relocated to Translocation Area A (**Figure 2** and **Figure 3**).

A GSM larvae search conducted by three ecologists and machinery on 30 July 2021 in Clearance Area A resulted in the salvage and translocation of 29 larvae to Translocation Area A (**Figure 2** and **Figure 3**).

All works were conducted in accordance with the Golden Sun Moth Construction Environmental Management and Rehabilitation Plan (hereafter the GSM Plan) (ACT Government 2021).

Umwelt (Australia) Pty Limited

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In this document

1 Introduction

Major Projects Canberra have received approval to extend the Canberra Light Rail from the City to Commonwealth Park. Conditions of approval included the requirement for the preparation of a GSM management plan to mitigate direct impacts on this species listed as critically endangered under the *Environment Protection and Biodiversity Conservation Act 1999* and the *Nature Conservation Act 2014*) (GSM Plan, ACT Government 2021). Major Projects Canberra engaged Umwelt Pty Ltd (Umwelt) to conduct pre-clearance surveys to map Priority Salvage Areas and translocate GSM larvae in accordance with requirements outlined in the GSM Plan (ACT Government 2021). This briefing report outlines Umwelt's methodology and results for works completed up to 30 July 2021.

2 Method

2.1 Priority Salvage Area mapping

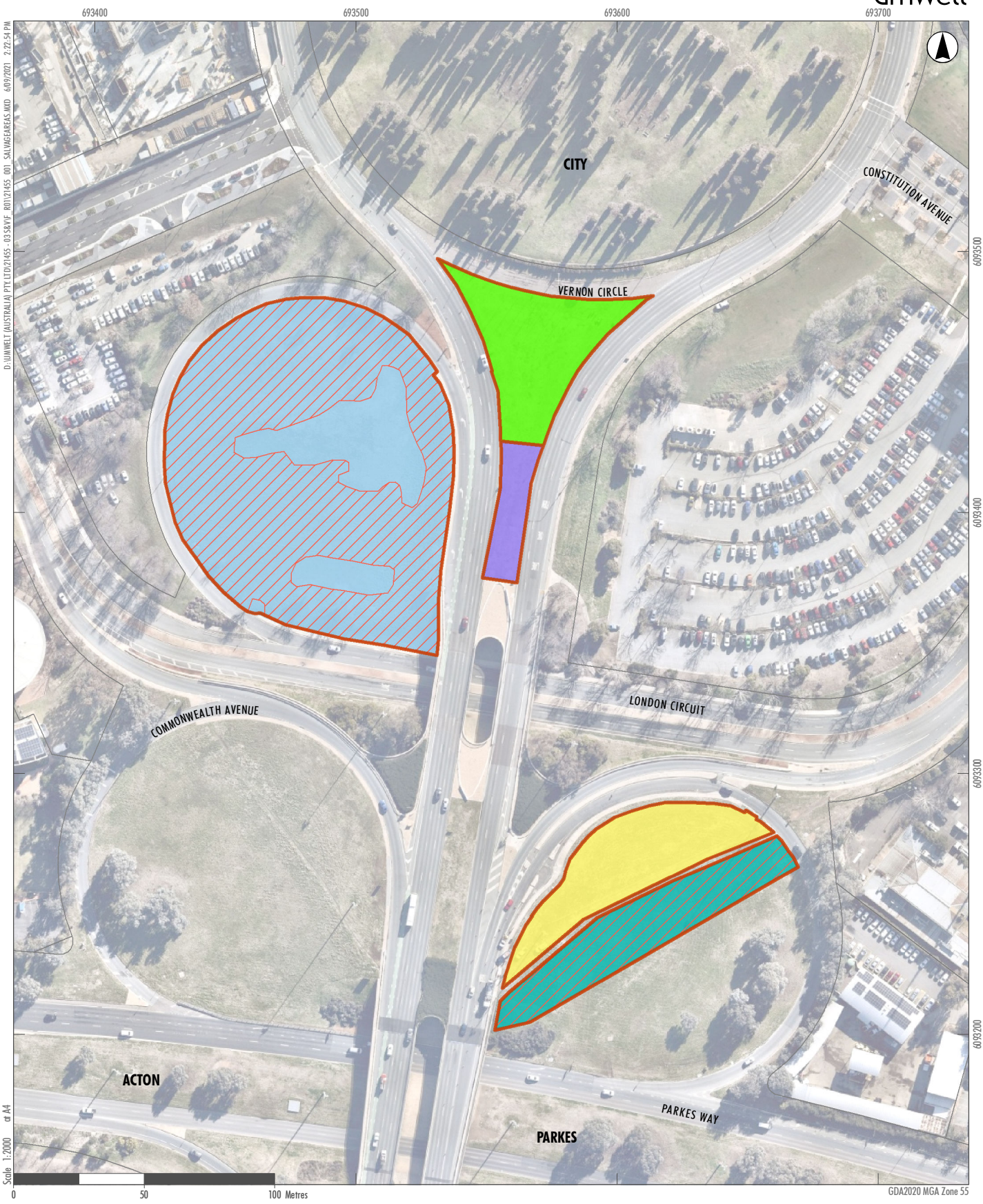
Identification and mapping of GSM habitat that meets the Priority Salvage Area criteria outlined in the GSM Plan (ACT Government 2021) was conducted on 14 July 2021 (**Figure 1**).

Priority salvage areas are those that support 30% cover or greater of the following grass species:

- Chilean needlegrass (*Nassella neesiana*)
- Wallaby grasses (*Rytidosperma* spp.)
- Spear grasses (*Austrostipa* spp.)
- Redleg grass (*Bothriochloa macra*)
- Serrated tussock (*Nassella trichotoma*)

A series of 50 m vegetation transects were completed during which the cover of the grass species noted above within 20 x 20 cm plots at one metre intervals was recorded to inform the Priority Salvage Area mapping. A total of eight transects were undertaken in Clearance Area C while single transects were completed in Clearance Area A, Clearance Area B, Translocation Area A and the proposed services easement corridor immediately south-east of Translocation Area A. Boundaries of areas that meet the Priority Salvage Area criteria were then delineated using a hand-held GPS device. The location of Priority Salvage Areas is displayed in **Figure 1**.

Within Clearance Area A, mattocks were also used to turn over tussocks of feed species and search for GSM larvae within the root balls, to identify any areas of particularly high larvae density.



Legend

- Study Area
- Clearance Area A
- Clearance Area B
- Clearance Area C
- Translocation Area A
- Proposed Services Easement - Indicative
- Priority Salvage Area
- Property Boundaries

FIGURE 1

Priority Salvage Areas and Translocation Area within the Study Area

Image Source: Nearmap (August 2021) Data source: ACTMapi (2021); ACT Government (2021)

2.2 GSM larvae salvage and translocation

GSM larvae translocation was conducted in accordance with the salvage methodology and the translocation methodology detailed in the GSM Plan (ACT Government 2021).

The GSM larvae translocation was undertaken in Clearance Area A by three ecologists on 30 July 2021. To determine sampling areas within Clearance Area A, Principal Ecologist David Moore assessed and identified suitable sampling areas containing Chilean needlegrass and marked them with spray paint. Each sampling area was approximately 2 m x 2 m. A digger equipped with a bladed bucket was used to scrape the top layer of soil to a depth of approximately 15 cm at each of these marked sampling areas. The location of sampled areas in Clearance Area A is shown in **Figure 2**.

GSM larvae translocation was conducted in accordance with the translocation methodology described in the GSM Plan (ACT Government 2021). Any GSM larvae salvaged were placed in a bucket and covered in a layer of soil. GSM were transported to Translocation Area A within 30 minutes of salvage. A small hole approximately 5 cm deep and 1 cm wide was dug into the ground adjacent to the root mass of a Chilean needlegrass tussock and the GSM larvae placed head up in the hole and gently covered with loose soil. Each hole was spaced 50 cm apart. The corners of the translocation area were marked with spray paint and recorded with a handheld GPS. The location of Translocation Area A is displayed in **Figure 3**.

3 Results

3.1 Priority Salvage Area mapping

No areas meeting Priority Salvage Area criteria were identified in Clearance Area A or Clearance Area B. In such areas the groundcover consisted of no more than 10% feed species and was composed of 90% goosegrass (*Eleusine tristachya*) and 10% Chilean needlegrass. Occasional small patches of Chilean needlegrass were present, which provide marginal habitat for GSM, and breeding is likely to occur at low density in these areas.

A total of 9670 m^2 of suitable habitat that meets the Priority Salvage Area criteria was mapped in Clearance Area C. Translocation of GSM larvae from the majority of Clearance Area C would be required prior to clearance. GSM larvae translocation is scheduled to occur in Clearance Area C during 2022.

A total of 2263 m^2 of GSM habitat that meets the Priority Salvage Area criteria was mapped around the proposed easement immediately south-east of Translocation Area A. It is understood that part of this area is likely to be disturbed for the installation of a service easement. Translocation from the proposed easement footprint would be required prior to clearance.

The entirety of Translocation Area A (i.e. 2314 m^2) was confirmed to support suitable GSM habitat, that is, grassland that supports at least 30% cover of suitable food species. On the basis that the distribution and cover of suitable food species is largely homogenous throughout Translocation Area A this entire area is considered equally suitable for the purpose of translocating GSM larvae recovered from the clearance areas.

During manual searches using a mattock within Clearance Area A, a single GSM larvae was detected. No areas of particularly high GSM density were detected, and this information did not contribute to priority salvage area mapping.

3.2 GSM larvae salvage and translocation

One individual GSM larvae was opportunistically salvaged from Clearance Area A on 14 July 2021 during tussock sampling to map priority salvage areas prior to commencement of the translocation works. The individual was translocated into the defined translocation area.

Systematic GSM salvage and translocation was completed by three ecologists on 30 July 2021. Due to the scattered and patchy distribution of Chilean needlegrass within Clearance Area A, and the absence of other feed species, sampling involved identifying Chilean needlegrass patches and excavating these patches. Topsoil at eleven (11) individual patches of Chilean needlegrass was excavated and searched in accordance with the protocol. Each sampling area supported 5 - 10% cover of Chilean needlegrass. Approximately 80% of Chilean needlegrass patches with >5% cover in Clearance Area A were sampled.

A total of 29 GSM larvae were detected in Clearance Area A on 30 July 2021 and translocated to Translocation Area A. The location and number of GSM larvae salvaged from each sampling area is displayed in **Figure 2**. All GSM larvae were translocated to Translocation Area A (**Figure 3**) in accordance with the GSM Plan (ACT Government 2021).

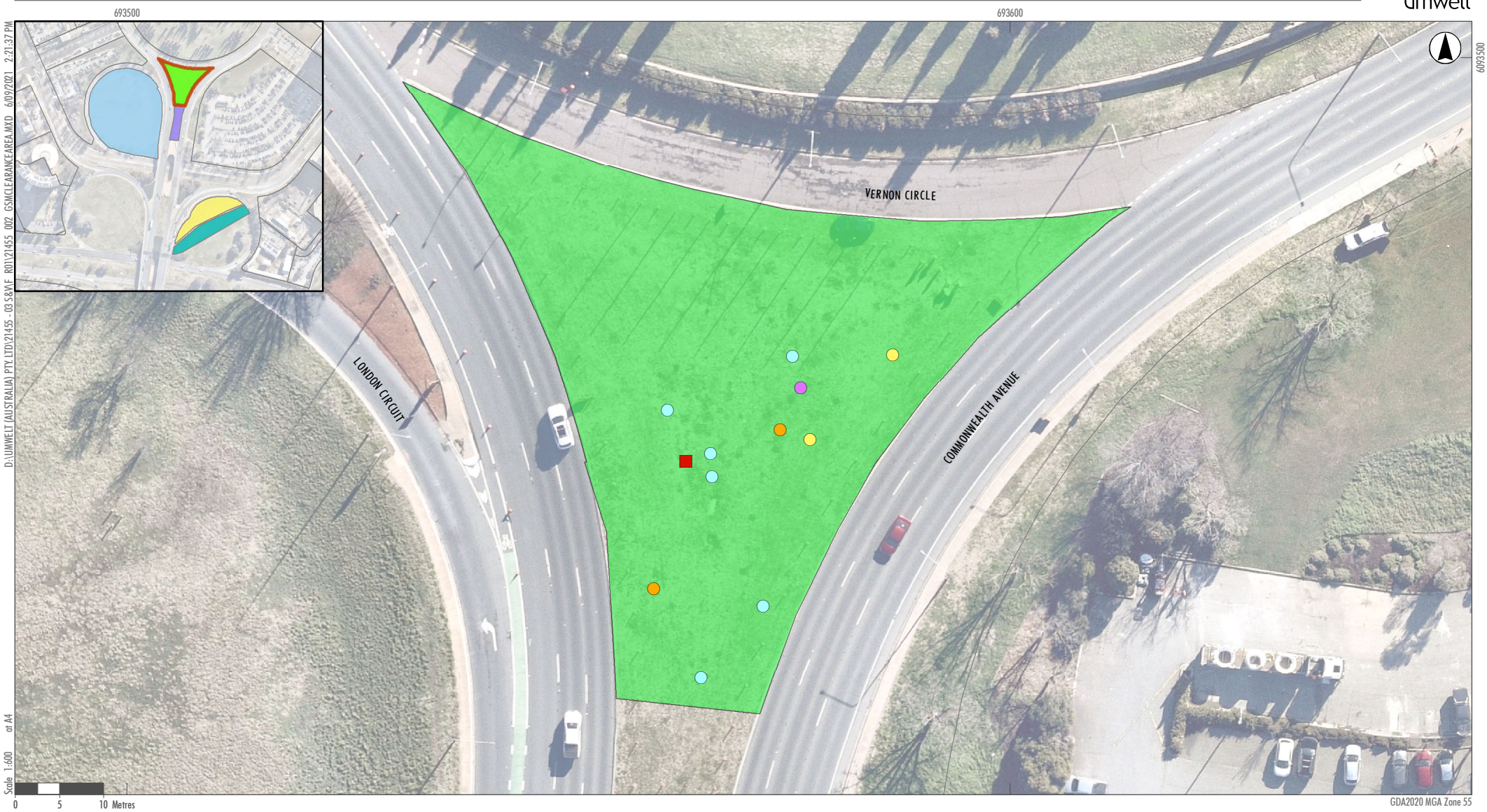


FIGURE 2

Location and Abundance of Golden Sun Moth Larvae Salvaged in Clearance Area A

Image Source: Nearmap (August 2021) Data source: ACTmapi (2020); ACT Government (2021)

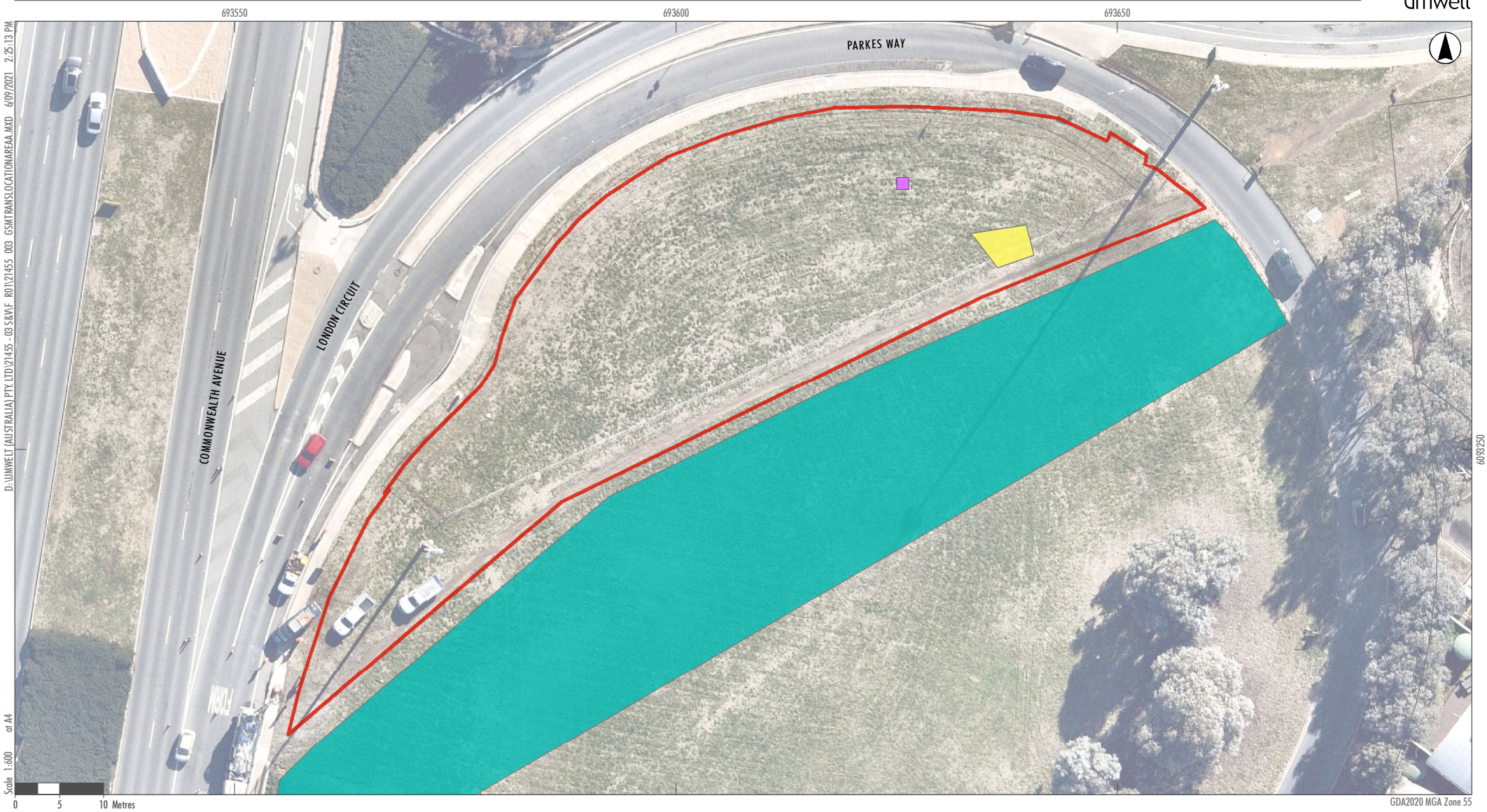


FIGURE 3

Location of Golden Sun Moth Larvae Translocated to Translocation Area A

Image Source: Nearmap (August 2021) Data source: ACTmapi (2020); ACT Government (2021)

4 Conclusion

Priority Salvage Area mapping was conducted in Clearance Areas A, B and C, and in the proposed services easement in the south-east cloverleaf adjacent to Translocation Area A on 14 July 2021.

Grassland meeting the priority salvage criteria was identified in Clearance Area C and in the proposed services easement in the south-eastern cloverleaf. GSM salvage will be required from areas of Clearance Area C mapped as priority salvage areas, and from the footprint of the proposed services easement prior to clearing.

No areas meeting the Priority Salvage Area criteria were identified in Clearance Area A or B due to the low proportion of Chilean needlegrass or other feed species. No GSM salvage is required for Clearance Area A or Clearance Area B, however the GSM salvage process was trialled within GSM Area A.

Translocation Area A was confirmed to support suitable habitat, supporting greater than 50% cover of Chilean needlegrass, a GSM feed species.

While Clearance Area A was assessed as not meeting the Priority Salvage Area criteria; salvaging effort was completed as a trial of process. A total of 30 GSM larvae were found in Clearance Area A and translocated to Translocation Area A in accordance with protocols outlined in the GSM Plan (ACT Government 2021).

All works were conducted in accordance with the Golden Sun Moth Construction Environmental Management and Rehabilitation Plan (hereafter the GSM Plan) (ACT Government 2021).

5 References

ACT Government 2021. Golden Sun Moth Construction Environmental Management and Rehabilitation Plan (GSM Plan).

Inspired People.
Dedicated Team.
Quality Outcomes.

Our Ref: 22393_Stehlick_Translocation_12072022bn

12 July 2022

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

E| gemma.stehlik@act.gov.au

Dear Gemma

RE: Golden Sun Moth Translocations

1.0 Introduction

Major Projects Canberra engaged Umwelt Environmental and Social Consultants (Umwelt) to complete pre-clearance golden sun moth (*Synemon plana*) salvage and translocation works for Canberra Light Rail Stage 2A at the cloverleaves between City Hill and Parkes Way, Canberra (**Figure 1.1**). In accordance with DAWE approval conditions (2019/8582) and the Golden Sun Moth Construction Environmental Management and Rehabilitation Plan (the GSM Plan) GSM larvae were required to be salvaged from areas of permanent direct impact and translocated within the established translocation site, within the south-east cloverleaf.

The Translocation Plan outlines the objectives of the golden sun moth translocation and required methodology. The objectives of the translocation process is to salvage a sample of larvae in the permanent direct impact areas and use these individuals to supplement populations in adjacent areas not impacted by the Project. This may facilitate the preservation of genetic diversity within the retained population and may supplement total population numbers to ensure a positive response to management of habitat in the future.

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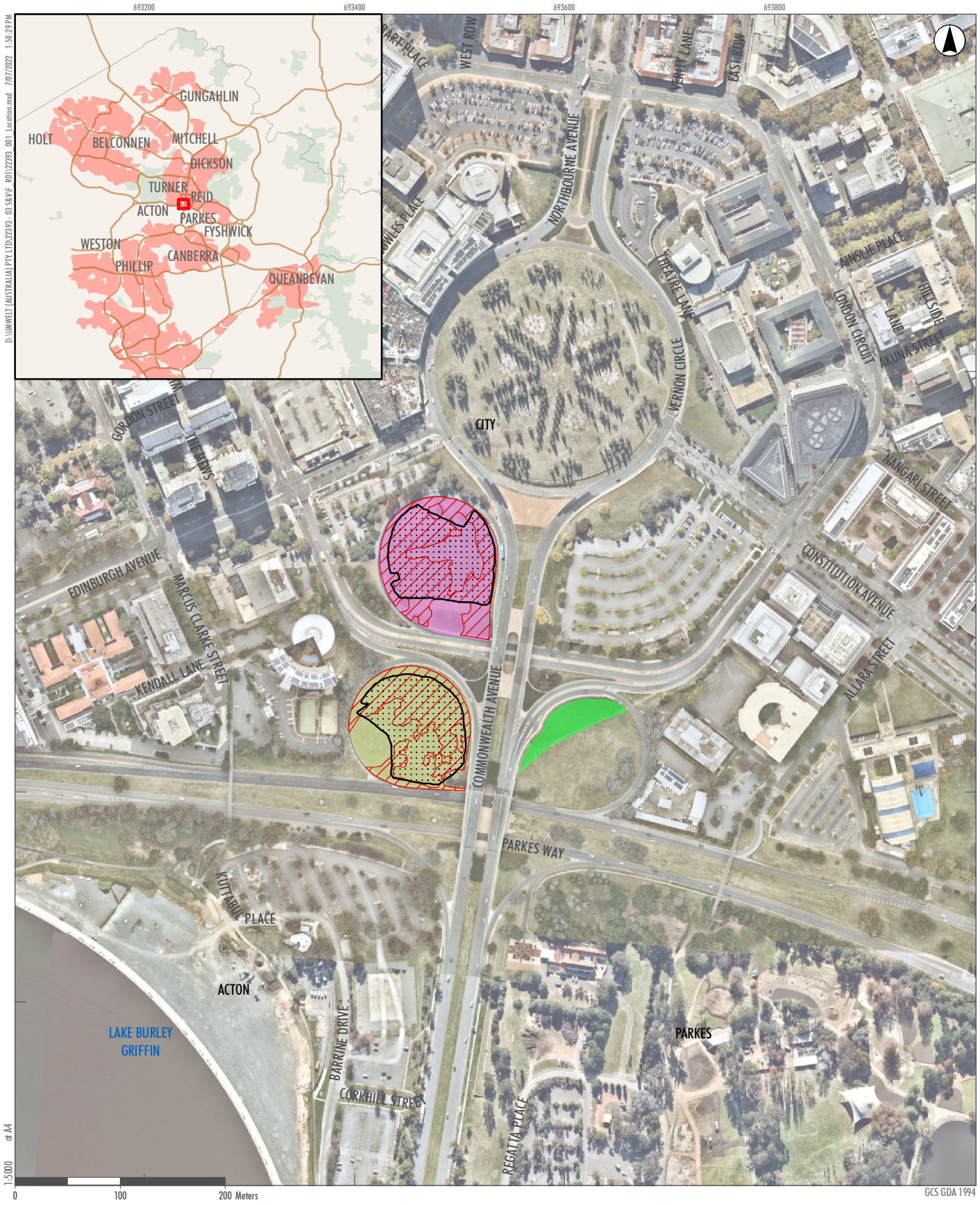


Legend

- Priority Salvage Area
- Exclusion Fence
- Clearance Area C
- Clearance Area D
- Translocation Area

FIGURE 1.1

Location of Priority Salvage Areas and the Translocation Area

Image Source: Nearmap (May 2022) Data source: ACT Government (2021)

2.0 Methods

2.1 Habitat Mapping

Identification of priority salvage areas was completed by Umwelt on 14 July 2021 and 18 May 2022. Further updates and refinements to the mapping of priority salvage areas were made during salvage activities from 16 – 24 June 2022. Final priority salvage areas are shown in **Figure 1.1.** As per the GSM Translocation Plan, priority salvage areas are defined as those that support 30% or greater cover of the following grass species:

- Chilean needlegrass (*Nassella neesiana*), noting that this is an exotic species and weed of national significance
- Wallaby grasses (*Rytidosperma spp.*)
- Spear grasses (*Austrostipa spp.*)
- Redleg grass (*Bothriochloa macra*)
- Serrated tussock (*Nassella trichotoma*)

Areas of drainage or water logging were avoided and were mapped as not forming part of the priority salvage area.

Cover of feed species was not continuous within mapped priority salvage areas, as they often formed a mosaic with areas of unsuitable exotic grasslands. However, this fine scale mosaic was not mapped as it was typically more complex and at a scale that could not be accurately defined with GPS devices.

2.2 Golden Sun Moth Larvae Salvage

Larvae searches were completed in identified priority salvage areas by Umwelt ecologists and labourers provided by Cord Civil in Clearance Area C on 16, 17 and 20 June 2022 (6 person days), and in Clearance Area D from 21 – 24 June 2022 (~9 person days). Prior to the commencement of salvage activities, a safety exclusion fence was erected by Cord Civil safety officers (**Figure 1.1**) to ensure appropriate separation of salvage operations from live traffic. This restricted access to parts of the priority salvage areas which were too close to the road edge for sampling. No sampling was completed in areas outside the exclusion fence due to safety considerations.

Larvae salvage was completed as follows:

- Areas to be salvaged within the priority salvage area were selected by an ecologist based upon the density of feed species.
- The Umwelt ecologist supervised earthmoving contractors to ensure that ‘scraping’ of soil was completed in a manner optimal to detection of GSM larvae.
- Surface disturbance was conducted by earthmoving contractors and constituted ‘scraping’ of soil to a depth of 15 – 30cm across the priority salvage area. A light excavator with a ‘ripper’ arm was utilised for scraping. The ripper arm was used on an angle to horizontally scrape under the top of the soil at a depth of 1 -15 cm for three parallel scrapes then turn the ripper vertically and cut down the opposite side of each of these parallel scrapes. This ensured the soil sods could be easily overturned and

thoroughly searched. Using this method, an area of approximately 4x4m, or ~16m^2, was searched with each 'scrape'.

- Disturbed soil in each scrape was then hand searched by ecologists and labourers. All GSM larvae collected during salvage were then stored in a bucket filled with soil and were translocated within 30 minutes.

- Soil disturbance was staggered to ensure that all disturbed areas were surveyed within 30 minutes of disturbance, with additional 'scraping' completed only once a 'scrape' had been thoroughly searched. 'Scrapes' were arranged in rows approximately 10m apart, or closer if a high density of GSM larvae was detected (**Figure 2.1**).

Salvage works were continued in each of the clearance areas until an appropriate intensity of sampling was completed. An appropriate intensity of sampling was determined to be at least 10% of the identified priority salvage areas; noting that this represented a substantially greater proportion of the actual areas of grassland with >30% cover of feed species due to the observed mosaic with areas of unsuitable exotic grasses noted above.

'Scrapes' were generally arranged in parallel lines across the Project Area; however, scrapes were prioritised in areas deemed to be more suitable for GSM, particularly those areas with higher proportions of Chilean needle grass. Notably, the northern section of Clearance Area C supported scattered patches of Chilean needlegrass so only one scrape was completed with areas supporting more extensive cover of feed species prioritised.

Due to the highly variable nature of larval distribution and the low levels of detection, sampling continued even when <5 individuals were detected over a 4 hour period, despite this being an identified completion criteria, as this completion criteria was met on numerous occasions and did not reflect actual likelihood of detecting larvae in other parts of the site.

2.3 Translocation

All golden sun moth larvae were translocated to the fenced translocation area established prior in 2021 (**Figure 2.1**). The GSM larvae were transported in a bucket with a light cover of soil to the translocation site in the south-eastern cloverleaf (**Figure 2.1**). To minimise harm to the GSM larvae, larvae were stored for no longer than 30 minutes prior to translocation. Larvae placement was undertaken in the identified translocation site to a maximum density of one larvae per 2,500 cm2 (50 cm x 50 cm) applying the following process:

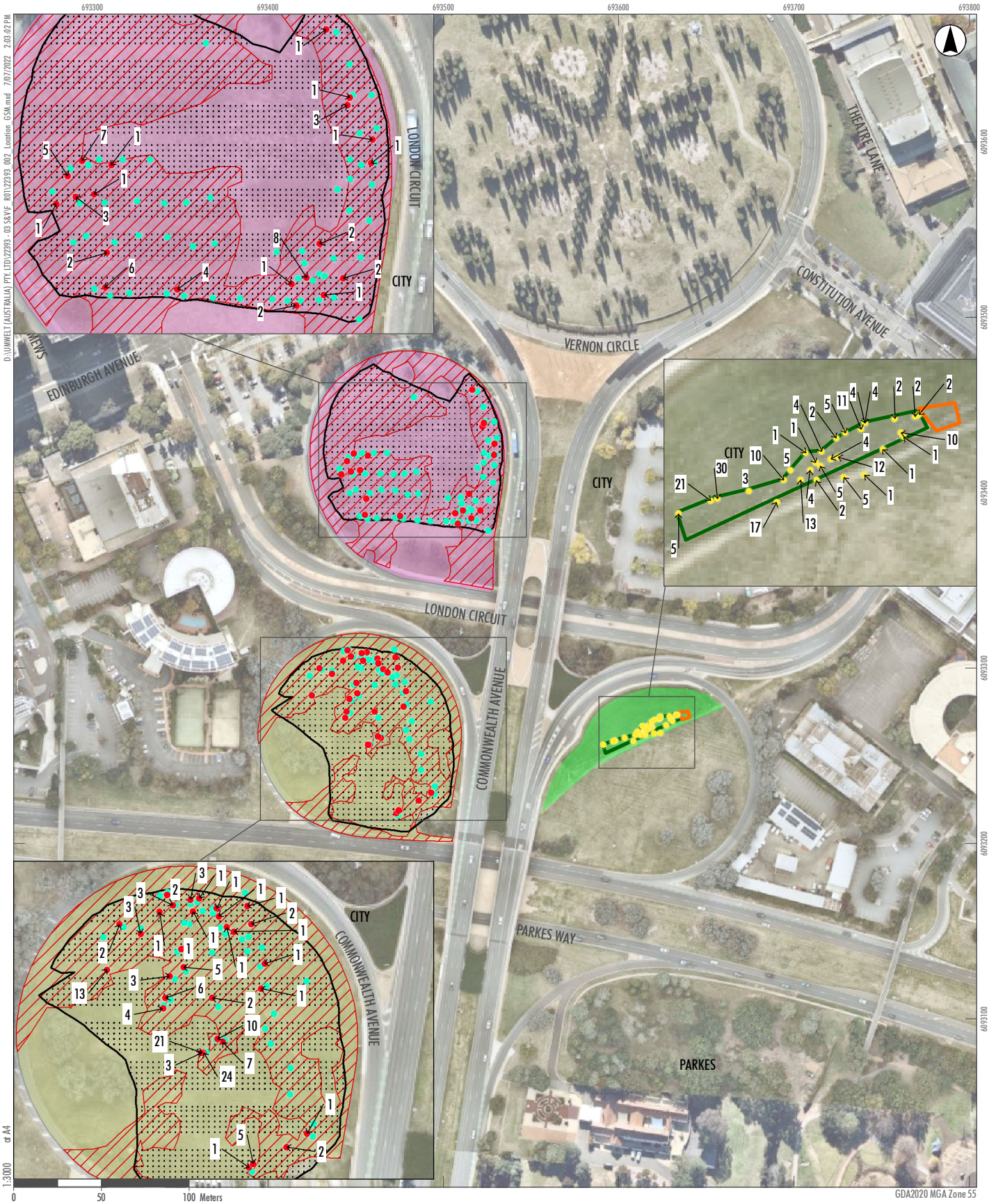
- Identifying individual plants of wallaby grass, spear grass or Chilean needle grass.

- A hole was created 3 cm - 5 cm deep and 0.5 - 1 cm in diameter by inserting spike (e.g. screwdriver) into the ground adjacent to the root mass.

- Individual GSM larvae were carefully placed within each hole and lightly covered with loose soil sourced from the source site.

- The number of individuals translocated was recorded for each translocation area.

- Translocation areas were marked with spray paint for the duration of translocation activities to track placement locations. Areas into which GSM were translocated were recorded with a handheld GPS.



Legend

- Priority Salvage Area
- Exclusion Fence
- Clearance Area C
- Clearance Area D
- Translocation Area
- GSM Salvaged
- GSM Translocated
- Scrapes
- Translocation Area 2021
- Translocation Area 2022

FIGURE 2.1

Location of Scrapes, Location of GSM Salvaged and Location of GSM Translocated

Image Source: Nearmap (May 2022) Data source: ACT Government (2021)

3.0 Results

3.1 Habitat Mapping

Refinements were made to the boundaries of the priority salvage area previously mapped on 14 July 2021 and 18 May 2022. These refinements excluded areas with <30% cover or Chilean needle grass that were found to be dominated by a mix of paspalum (*Paspalum dilatatum*) and annual poa grasses (*Poa spp.*). These areas were included in previous mapping as they contained isolated occurrences of Chilean needle grass but have now been excluded following consideration of suitable habitat on a smaller scale.

Golden sun moth habitat present was a mosaic of Chilean needle grass and other, non-feed species. Some areas supported patchy Chilean needle grass than other areas, but still >30% cover, and these areas received less sampling intensity during salvage activities due to the absence of continuous habitat areas. Within areas mapped as priority salvage areas, fine scale patches of habitat were found not to meet the criteria for priority salvage. Because of the fine scale resolution, the priority salvage area could not be mapped to an appropriate resolution and as such the true extent of habitat is less than what has been mapped as priority salvage area. In these circumstances, sampling was microsited to ensure sampling of areas with the greatest proportion of feed species and avoid areas from which feed species were absent.

During salvage efforts, extensive areas of Clearance Area C were found to be waterlogged and unlikely to support golden sun moth larvae. The total priority salvage area identified before and after revisions to the mapping have been included in **Table 1**.

Table 1 Priority Salvage Area

Total Priority Salvage Area (ha)	Clearance Area C	Clearance Area D	Total (ha)
Initial priority salvage area	0.966	0.948	**1.914**
Updated priority salvage area	0.831	0.662	**1.493**
Updated priority salvage area inside safety exclusion fence	0.551	0.473	**1.024**
Approximate area sampled	0.096	0.064	**0.160**
Approximate proportion of the priority salvage area sampled	11.5%	9.7%	**10.7%**
Approximate proportion of the priority salvage area within the safety exclusion fence sampled	17.4%	13.5%	**15.6%**

3.2 Golden Sun Moth Larvae Salvage

Due to the erection of a temporary exclusion fence, some sections of the priority salvage area could not be sampled (**Figure 2.1**). The area of priority salvage area included within the exclusion fence is displayed in **Table 1**.

100 ‘scrapes’ were completed and sampled for golden sun moth larvae and displayed in **Figure 2.1**. Of those, 60 ‘scrapes’ were sampled in Clearance Area C and 40 ‘scrapes’ sampled in Clearance Area D. The Total survey effort for each scrape amounts to 1600m^2 (0.16 ha), or 15.6% of the total priority salvage area within the exclusion fence, or 10.7% of the total priority salvage area (**Table 1)**.

During manual searches, thoroughness of searching through ripped areas was prioritised over site coverage. Due to the difficulty of detecting GSM larvae and the need to search through the root masses of feed species, this approach is most appropriate for salvage activities to ensure individuals are detected in searched areas.

A total of 186 GSM larvae were salvaged during translocation activities during 16, 17 and 20 – 24 June 2022. Of those, a total of 60 GSM larvae were salvaged from Clearance Area C, and one additional individual was killed by the ripper. Another 126 GSM larvae were salvaged from Clearance Area D, with an additional eight dead individuals detected having been killed by the ripper.

3.3 Translocation Activities

All living GSM larvae were translocated to the Translocation Area. Each individual larvae were placed in the area displayed in **Figure 2.1**.

4.0 Conclusion

1600 square metres, comprising a total of 100 ‘scrapes’, of habitat was scaped and searched for GSM larvae. This represents sampling of 10.7% of the total priority salvage area for the purposes of GSM larvae salvage and translocation. However, it is noted that this represents a substantially greater proportion of actual habitat for the species, as the mosaic of suitable habitat was not distinguished at a fine scale within the priority salvage areas. Due to the erection of a temporary safety exclusion fence, a total of 15.6% of the accessible priority salvage area within the exclusion fence was sampled for GSM larvae.

A total of 60 GSM larvae were salvaged from Clearance Area C and 126 GSM larvae were salvaged from Clearance Area D. All GSM larvae salvaged were safely translocated to the Translocation Area on the south-east cloverleaf. An additional nine dead GSM larvae were detected, with eight killed during excavation activities, and one believed to have died of natural causes.

The intensity of sampling completed (i.e. >10% of all identified priority salvage areas) is appropriate to achieving the purposes of GSM translocation activities for Canberra Light Rail in accordance with the Translocation Plan. Specifically, the requirements of the translocation plan for translocation completion are met on the basis that:

“A*ll viable areas of potential source habitat have been sampled to an appropriate intensity, as determined by the project ecologist.*”

It is noted that the other completion criteria “*Sampling of the best remaining areas of habitat result in yields of less than <5 individuals per 100 m of rip line or per hour over a 4 hour period, and as determined by the project ecologist*” was met on numerous occasions during the survey, however due to the highly variable distribution of the species and high level of variability in abundance, this was not applied as a completion criteria.

APPENDIX C

ANNUAL SURVEY

Inspired People.
Dedicated Team.
Quality Outcomes.

Our Ref: 21455_Stehlik_TranslocationMothSurvey_04072022bn.docx

12 July 2022

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

E| 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**).

In accordance with DAWE approval conditions (2019/8582) and the Golden Sun Moth Construction Environmental Management and Rehabilitation Plan (the GSM Plan) a permanent translocation area was established in July 2021. As part of the golden sun moth survey requirements, golden sun moth surveys were completed both within and outside the established translocation area.

2.0 Methods

Meandering traverse surveys for flying moths were conducted during December 2021 in the south-east cloverleaf, including the translocation area, which was previously identified as suitable habitat. Surveys began following confirmation of the commencement of the local flying moth season at reference sites in Canberra. Each survey consisted of an Umwelt ecologist walking through identified habitat counting flying male moths. 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 (*see comment in results section*).

Umwelt (Australia) Pty Limited

ABN 18 059 519 041

T| 1300 793 267
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www.umwelt.com.au

FIGURE 1.1

Project Locality

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

Meandering traverses were conducted on at three separate survey days. Three meandering traverses were completed both within and outside the fenced translocation area.

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

3.0 Results

Surveys for golden sun moth were all after confirmation of golden sun moth emergence at reference sites elsewhere in the ACT. A total of three golden sun moth survey days were completed in December 2021 during which no moths were observed. Survey details and weather conditions for each survey are provided in **Table 1**. For each survey day, one survey was completed in the fenced translocation area and one survey was completed outside of the translocation area. An incidental survey was also completed in Chilean needle grass located in the verge to the immediate north-east of the cloverleaf. Golden sun moth survey effort is displayed in **Figure 3.1**.

All flying moth surveys conducted within the Project Area 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 2021 the number of suitable survey days was far lower than average, and surveys on 17 and 21 December 2021 were completed within one day of light rain. The completion of surveys on these days following rain was the consequence of the high frequency of rain during the survey period and the absence of prolonged (i.e., >2-3 days) periods without rain. Despite not meeting all conditions, these days represent some of the most suitable survey days during the season.

Regional observations of golden sun moth at other known populations were reported as exceptionally 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 above. However, even where the weather conditions were conducive for golden sun moth emergence (i.e., temperatures above 20 degrees at 10 am and sunny conditions), flying numbers were very low. Consequently, the absence of detected moths in the translocation area, is consistent with these exceptionally low levels of moth activity observed regionally.

Table 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 (%)
Fenced Translocation Area						
1	14/12/2021 11:28 – 11:34	0	24	11/12/2021	Light (<11km/h)	Partly Cloudy (30% - 90%)
2	17/12/2021 14:07 – 14:10	0	25	16/12/2021	Light (<11km/h)	Fine
3	21/12/2021 10:39 – 10:48	0	24	20/12/2021	Still	Fine

Due to the poor season for detection of golden sun moth throughout the ACT, the results of this survey alone cannot provide a substantive basis for determining golden sun moth presence or absence in and around the translocation area.

During surveys it was noted that the translocation area had not been mown recently and there was high biomass resulting from the tall grass. These conditions are unsuitable for golden sun moth and may be detrimental to golden sun moth numbers in the long term. Biomass control is required to maintain conditions suitable for golden sun moth in the translocation area.

4.0 Conclusion

Three golden sun moth surveys were completed in the south-east cloverleaf and one in the verge immediately north-east of the cloverleaf. Surveys were completed both in the fenced translocation area and adjacent habitat outside the translocation area.

No golden sun moth was detected during surveys. However, due to the wet and cool seasonal conditions, and corresponding low detection of golden sun moth at regional reference sites, the lack of detection is likely the result of a poor flying season.

Targeted surveys completed on 17 and 21 December 2022 did not meet the Commonwealth survey guidelines as they were completed within one day of rain. However due to the limited number of suitable survey days, these days represented some of the most suitable survey days within the flying season.

Biomass within the fenced translocation area was very high at the time of survey, and likely unsuitable for the golden sun moth lifecycle. It is recommended that a regular mowing regime, including late winter mowing, be established to prevent high biomass build-up in the translocation area.

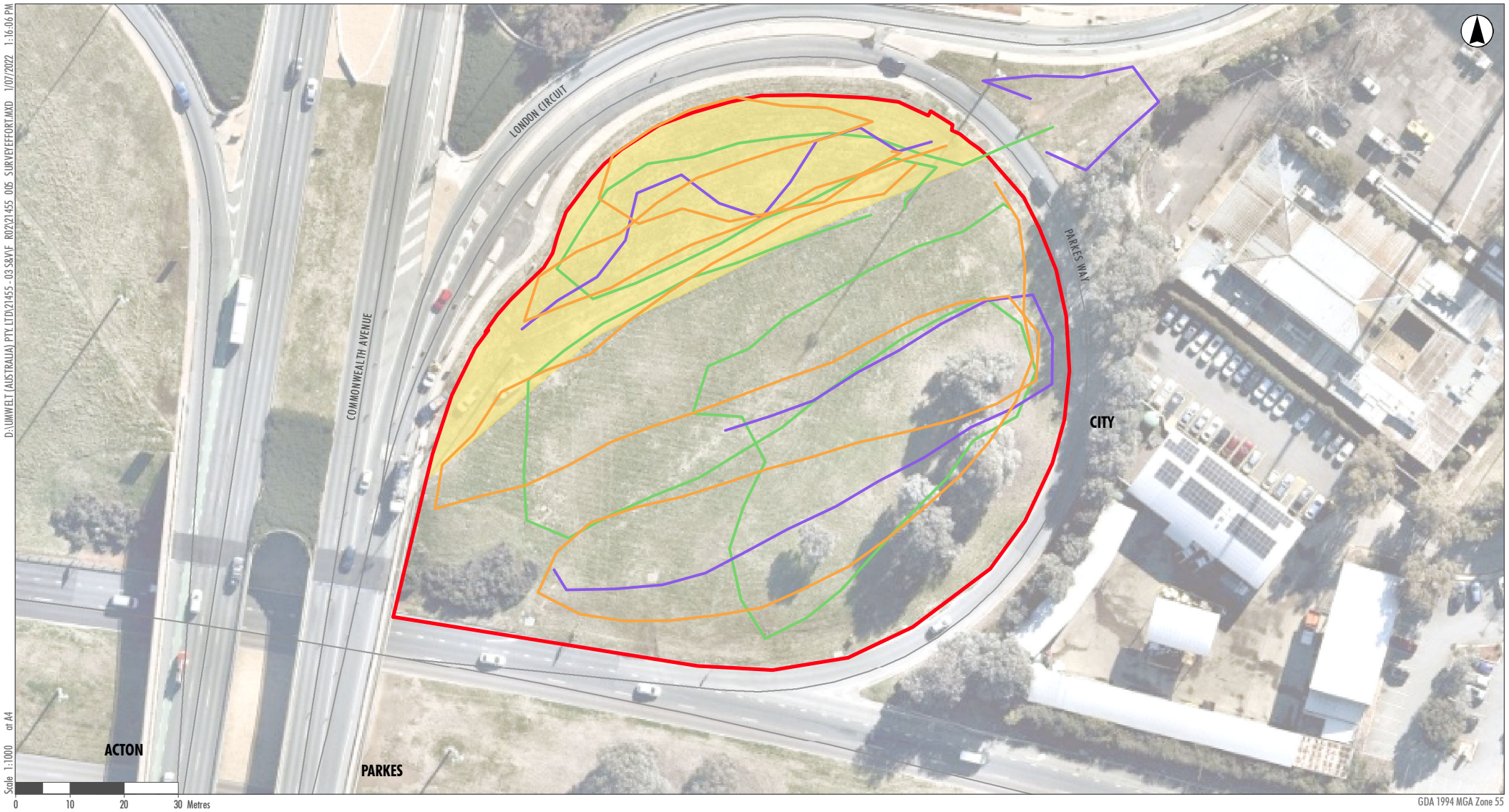

FIGURE 3.1
Survey Effort

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

APPENDIX D

EARLY ENABLING WORKS EROSION AND SEDIMENT CONTROL PLANS

ENVIRONMENTAL MANAGEMENT GENERAL NOTES

1. THE CONTRACTOR SHALL LIMIT MOVEMENT OF VEHICLES AND PLANT TO APPROVED PARKING AREAS AND ACCESS ROUTES OR TO AREAS WHERE EXCAVATION OR FILL IS REQUIRED BY THE DRAWINGS. PROTECT ALL GRASSLANDS, TREES AND SHRUBS OUTSIDE THE AREA OF THE WORKS FROM DAMAGE.
2. PLACE STRAW BALES OR SANDBAGS AROUND CULVERT INLETS AND OUTLETS AND WITHIN TABLE DRAIN TERMINATION AND OTHER KEY AREAS AS REQUIRED.
3. THESE DRAWINGS ONLY TYPIFY THE EROSION CONTROL PRINCIPLES REQUIRED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN AND SUBMIT DETAILS OF PROPOSED EROSION CONTROL MEASURES IN ACCORDANCE WITH ENVIRONMENT ACT'S "EROSION AND SEDIMENT CONTROL DURING LAND DEVELOPMENT" GUIDELINES AND ANY OTHER RELEVANT ACTS TO SUIT CONSTRUCTION STAGING.
4. STORMWATER INLETS SHALL BE PREVENTED FROM ACCEPTING SEDIMENT THROUGH THE APPLICATION OF APPROPRIATE TEMPORARY INLET SEDIMENT TRAPS.
5. INSTALL FILTER ROLLS AROUND ALL INLET SUMPS AND MANHOLES.
6. ALL AREAS OF SITE BEYOND EARTHWORK AND DRAINAGE LIMITS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE REINSTATED IMMEDIATELY AT CONTRACTOR'S EXPENSE.
7. DISTURBED AREAS SHALL BE TOP SOILED AND GRASSED AS SOON AS PRACTICAL AFTER THE COMPLETION OF THE EARTHWORKS.
8. TO ENSURE SUBSTANTIAL AND EFFECTIVE EROSION AND SEDIMENT CONTROL MEASURES ARE MAINTAINED, PROJECT CONSTRUCTION SHALL PROCEED AS PER CONTRACTOR'S STAGING PLAN.
9. FOR WORKS NEAR TREES FOLLOW THE REQUIREMENTS OF THE TREE MANAGEMENT PLANS.

STABILISED CONSTRUCTION ENTRANCE NOTES

1. DIMENSIONS SHOWN ARE MINIMUMS ONLY. THE CONTRACTOR SHALL CONSTRUCT THE FACILITY TO A SIZE THAT WILL PERFORM IN A MANNER WHICH SATISFIES THE REQUIREMENTS OF THE CONTRACT.
2. STONE - CRUSHED STONE 50-75mm NOMINAL SIZE ON HIGH STRENGTH GEOTEXTILE FABRIC.
3. WASHING DOWN OF WHEELS AND BODY SURFACES OF ALL VEHICLES AND PLANT LEAVING THE SITE TO PREVENT THE CARRIAGE OF SEDIMENT ONTO ROADS AND STREETS IS REQUIRED.
4. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO ADJACENT ROADS AND STREETS. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE ENTRANCE WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEARANCE OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO ROADS AND STREETS MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
5. DIVERT RUNOFF AWAY FROM ACCESS POINT.

NOISE POLLUTION

1. ANY NOISE ACTIVITES, INCLUDING MATERIAL DEILIVERY AND WORK SITE PREPARATION, IS ONLY PERMITTED BETWEEN THE HOURS SPECIFIED IN THE CONTRACT. AT ALL OTHER TIMES NOISE EMISSION MUST NOT EXCEED THE ZONE NOISE STANDARD.

GOLDEN SUN MOTH PLAN

1. ENSURE COMPLIANCE WITH GOLDEN SUN MOTH PLAN UNDER THE EPBC ACT APPROVAL.
2. ALL RESTORATIONS TO BE IN ACCORDANCE WITH THE OLDEN SUN MOTH PLAN UNDER THE EPBC ACT APPROVAL.

SEDIMENT CONTROL NOTES

1. SEDIMENT AND EROSION CONTROL DEVICES TO BE INSTALLED AND FULLY OPERATIONAL PRIOR TO STRIPPING OF SITE TOPSOIL.
2. STOCKPILES TO BE LOCATED AWAY FROM DRAINAGE LINES AND SURFACE FLOW PATHS. CONTOURED STRIATIONS OR FURROWS TO BE PROVIDED TO STOCKPILES TO MINIMISE EROSION.
3. STABILISED CONSTRUCTION ENTRANCE TO BE CONSTRUCTED PRIOR TO ACCESS TO SITE BY CONSTRUCTION VEHICLES. AGGREGATE TO BE REPLACED WHEN SEDIMENT BUILDS UP.
4. PROVIDE KERBSIDE FILTER ROLL TO EXISTING SUMPS.
5. KERBSIDE FILTER ROLLS AND TRAPPED SEDIMENT TO BE REMOVED, CLEANED AND REINSTATED ON A WEEKLY BASIS AT A MINIMUM. CLEANING ALSO TO BE UNDERTAKEN IMMEDIATELY AFTER PERIODS OF RAINFALL DURING CONSTRUCTION.
6. CONTRACTOR IS TO ESTABLISH A MAINTENANCE PROGRAME FOR SEDIMENT AND EROSION CONTROL DEVICES TO ENSURE INSPECTION AFTER SIGNIFICANT RAINFALL AND THAT ANY REPAIRS ARE CARRIED OUT AS NECESSARY.
7. ALL NEW CONSTRUCTION WORK MUST BE CONTAINED WITHIN THE SITE EXCEPT FOR APPROVED SERVICE CONNECTIONS AND ROAD WORKS.
8. LIMIT ACCESS TO SITE DURING AND IMMEDIATELY AFTER WET WEATHER.
9. REGULARLY REMOVE ANY SOIL FROM ROADS ADJACENT THE SITE.
10. NO STORAGE OF CONSTRUCTION MATERIALS, PARKING OF VEHICLES NOR EQUIPMENT PERMITTED OUTSIDE OF SITE WITHOUT TCCS APPROVAL.
11. ALL SERVICE TRENCHES TO BE BACKFILLED WITHIN 24 HOURS OF INSPECTION.
12. EXCESS SOIL TO BE DISPOSED AT AN APPROVED LOCATION.
13. ALL BUILDING MATERIAL AND STOCKPILES SHALL BE LOCATED WITHIN A WASTE ENCLOSURE OR WASTE CONTAINMENT AREA ON THE SITE.

MAINTENANCE SCHEDULE

1. MONTHLY: TURN OVER STABILISED CONSTRUCTION ENTRY MATERIAL AND TOP UP AS REQUIRED.
2. WEEKLY: CHECK, CLEAN AND REINSTATE SILT CONTROL DEVICES.
3. DAILY: SWEEP AND REMOVE ANY DIRT TRACKED ONTO PUBLIC ROADS BY VEHICLES. ALL NECESSARY STEPS SHALL BE TAKEN TO MINIMISE DUST POLLUTION ON LAND DEVELOPMENT AND CONSTRUCTION SITE.

DUST MANAGEMENT

1. A WATER CART OR SUFFICIENT WATER SPRAYS SHALL BE MADE AVAILABLE IN DRY AND WINDY CONDITIONS TO MAINTAIN DUST SUPPRESSION.
2. WATER SHALL BE APPLIED TO SUPPRESS DUST FORM OPEN EARTHWORKS AND UNPROTECTED STOCKPILES.
3. STOCKPILES SHALL BE EITHER COVERED OR SEEDED TO PREVENT DUST.
4. AREAS OF COMPLETED EARTHWORKS SHALL BE PROGRESSIVELY REHABILITATED WITH DRYLAND GRASS AND FENCED OFF AS SOON AS PRACTICABLE TO MINIMISE EROSION.
5. THE CONTRACTOR SHALL CONTACT ICON WATER TO OBTAIN AN EXEMPTION TO USE WATER ON SITE.
6. IN THE EVENT OF HIGH WINDS, WHERE DUST CANNOT BE CONTROLLED, WORK SHALL CEASE IMMEDIATELY.

CONTROL OF WASTE

1. ALL BUILDING MATERIAL AND WASTE STOCKPILES MUST BE LOCATED ON SITE UNLESS SEPARATE APPROVAL HAS BEEN GRANTED FROM ACT PARKS AND CONSERVATION SERVICE (PCS) TO STORE MATERIAL OFF SITE ON THE VERGE OR UNLEASED TERRITORY LAND.
2. THE WASTE ENCLOSURE IS TO BE USED AND IS TO BE CAPABLE OF HOLDING ALL WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF IN AN APPROPRIATE MANNER.

IMPORT / EXPORT OF SOIL

1. IF SOIL IS TO BE REMOVED OR IMPORTED ON SITE, THE DETAILS OF THE ORIGIN OF THE SOIL IMPORTED OR THE LOCATION WHERE THE SOIL IS TO BE EXPORTED ARE TO BE PROVIDED TO EPA A MINIMUM OF TWO WEEKS IN ADVANCE OF THE WORK.

LEGEND

- PROPOSED WATER MAIN (REFER TO UTILITY DRAWINGS FOR DETAILS)
- PROPOSED COMMS CABLES/ CONDUITS (REFER TO UTILITY DRAWINGS FOR DETAILS)
- INSTALL FILTER ROLL
- INSTALL SILT FENCE
- EXISTING DRAINAGE
- PROPERTY BOUNDARY

IC CERTIFICATE NUMBER:

AMD	DESCRIPTION	DESIGNER SIGN./DATE	VERIFIED SIGN./DATE	APPROVED SIGN./DATE
0	ISSUED FOR CONSTRUCTION	LM 09.08.2021	MB 09.08.2021	JP 09.08.2021

CO-ORDINATE SYSTEM: STROMLO | HEIGHT DATUM: AHD | SCALE: AS SHOWN

Transport Canberra | Light Rail

AECOM Australia Pty Ltd
A.B.N. 20 093 846 925

DRAWN S NAIDU
DESIGNED L MULYADI
DRG CHECK J SINGH
DESIGN CHECK M BLACKMORE
APPROVED J PETERS

CANBERRA LIGHT RAIL 2A

EARTHWORKS
RLC UTILITIES ENABLING WORKS
EROSION AND SEDIMENT CONTROL - NOTES
SHEET 1

DESIGN LOT No: S211-RLC ENABLING | SHEET: 01 OF 01 | ---
STATUS: FOR CONSTRUCTION | ©
DRG No. S210-ACM-DRW-CIV-EW-3201 | EDMS No. | 0

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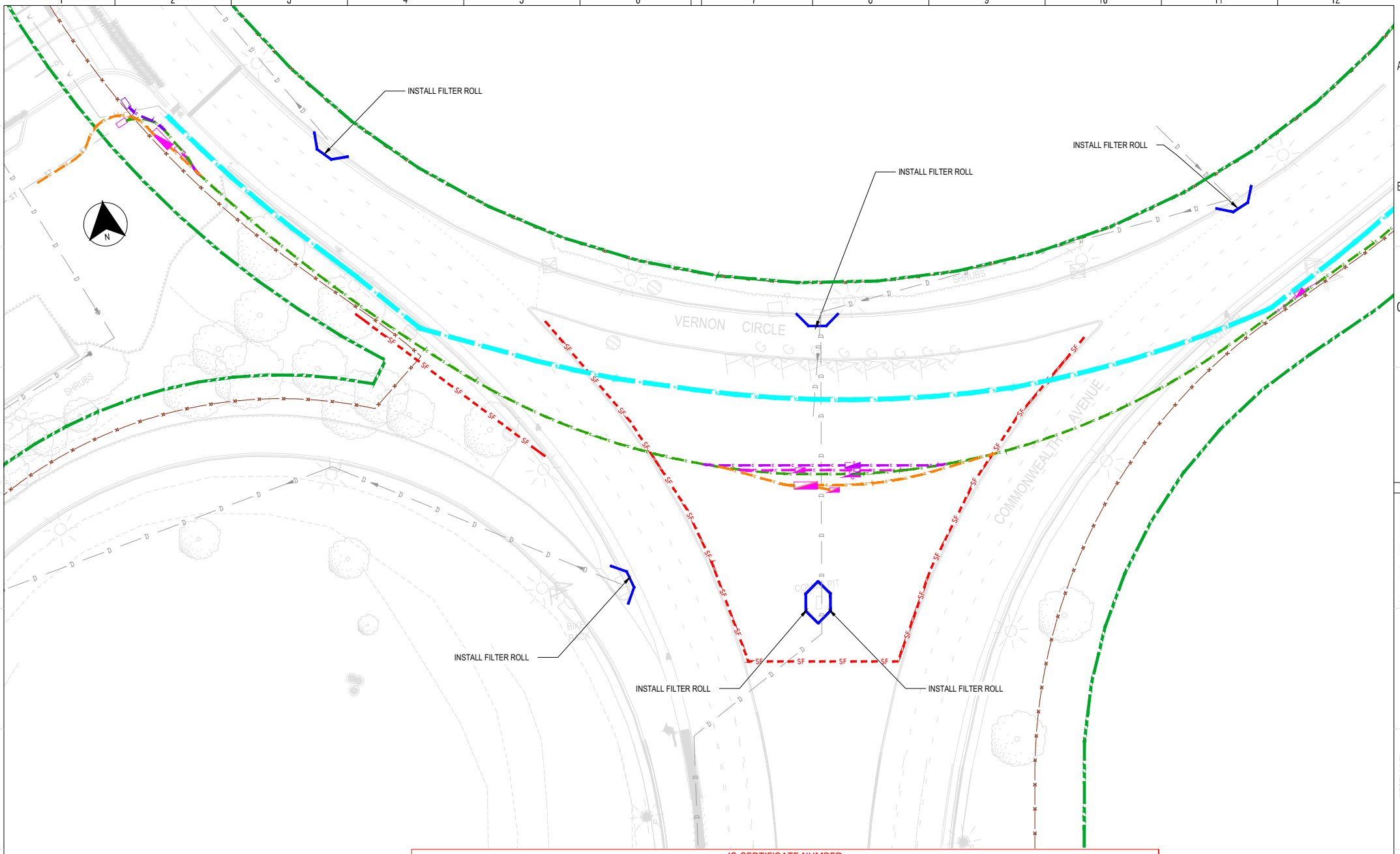

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DESIGNED L MULYADI
DRG CHECK J SINGH
DESIGN CHECK M BLACKMORE
APPROVED J PETERS

CANBERRA LIGHT RAIL 2A

EARTHWORKS

RLC UTILITIES ENABLING WORKS
EROSION AND SEDIMENT CONTROL - PLAN

SHEET 1

DESIGN LOT No: S211-RLC ENABLING | SHEET: 01 OF 04 | ---

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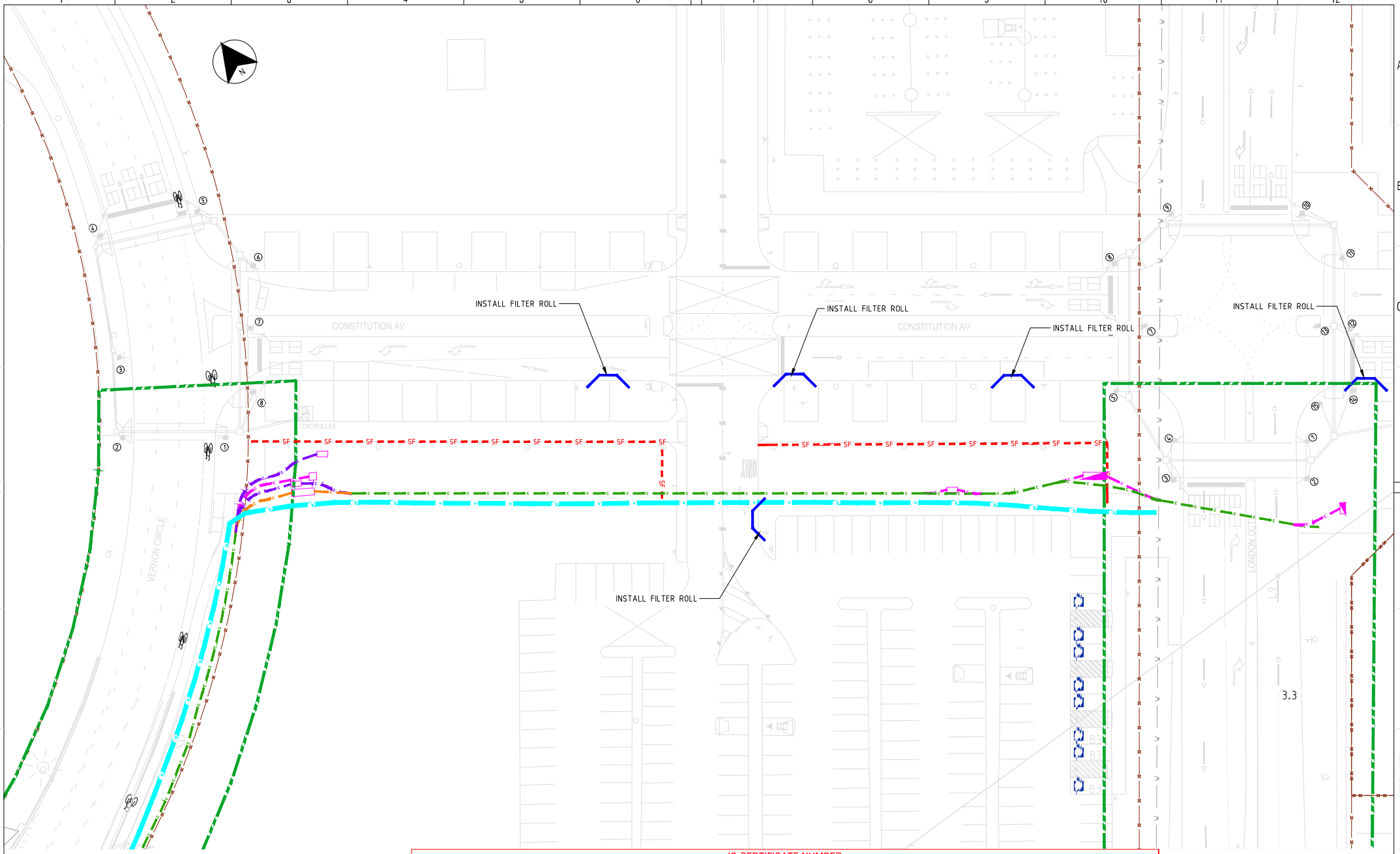

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CANBERRA LIGHT RAIL 2A

EARTHWORKS

RLC UTILITIES ENABLING WORKS
EROSION AND SEDIMENT CONTROL - PLAN

SHEET 2

DESIGN LOT No: S211-RLC ENABLING | SHEET: 02 OF 04 | ---

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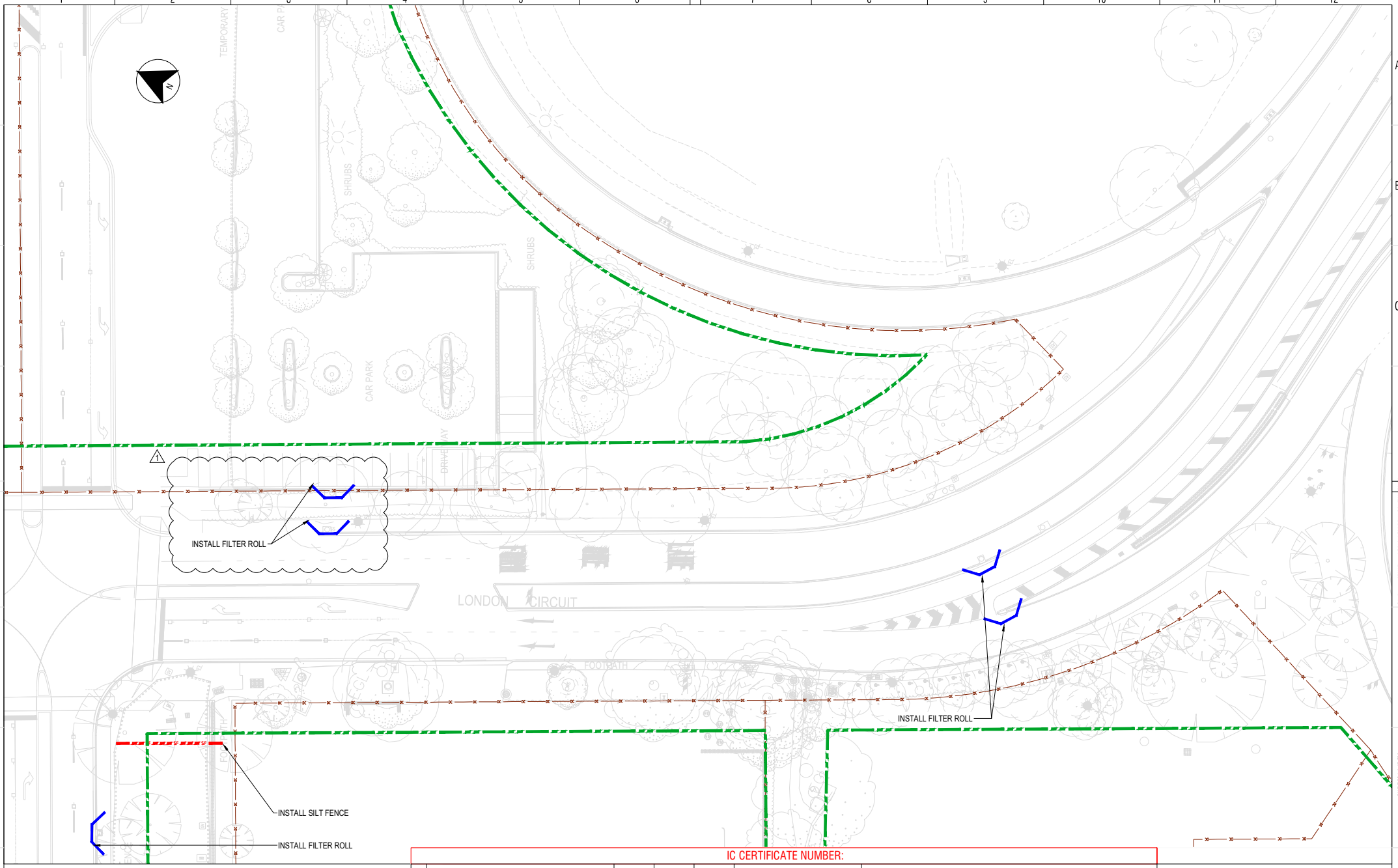

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CO-ORDINATE SYSTEM: STROMLO | HEIGHT DATUM: AHD | SCALE: AS SHOWN

TC Transport Canberra | Light Rail

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AECOM Australia Pty Ltd
A.B.N. 20 093 846 925

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DESIGN CHECK M BLACKMORE
APPROVED J PETERS

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EARTHWORKS

RLC UTILITIES ENABLING WORKS
EROSION AND SEDIMENT CONTROL - PLAN

SHEET 3

DESIGN LOT No: S211-RLC ENABLING | SHEET: 03 OF 04 | ---

STATUS: FOR CONSTRUCTION ©

DRG No. S211-ACM-DRW-CIV-EW-3204 | EDMS No. | 1

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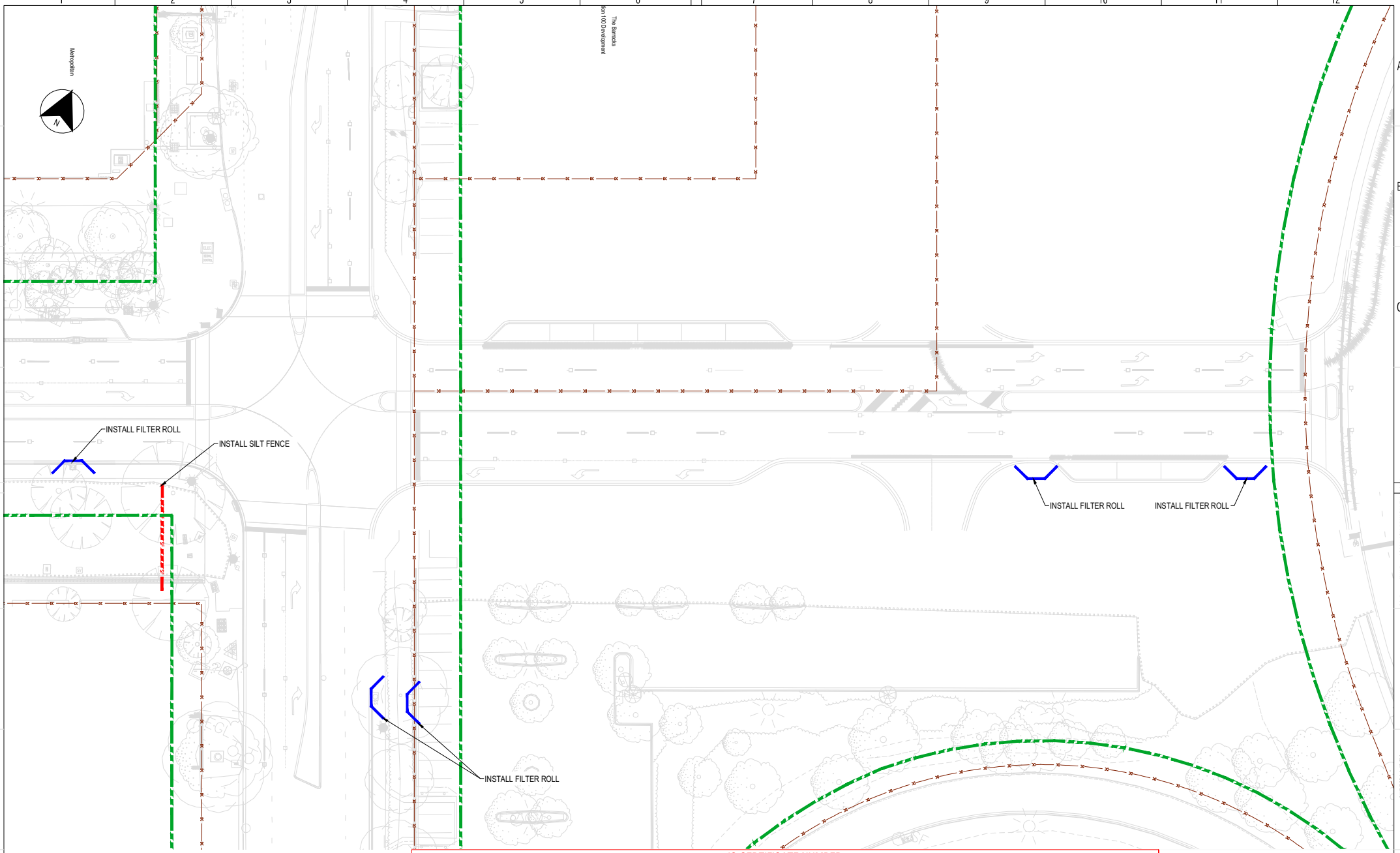


IC CERTIFICATE NUMBER:

AMD	DESCRIPTION	DESIGNER SIGN./DATE	VERIFIED SIGN./DATE	APPROVED SIGN./DATE
A	ISSUED FOR WORKS APPROVAL	LM 17.08.2021	MB 17.08.2021	JP 17.08.2021

CO-ORDINATE SYSTEM: STROMLO | HEIGHT DATUM: AHD | SCALE: AS SHOWN

Transport Canberra | Light Rail

AECOM Australia Pty Ltd
A.B.N. 20 093 846 925

DRAWN S NAIDU
DESIGNED L MULYADI
DRG CHECK J SINGH
DESIGN CHECK M BLACKMORE
APPROVED J PETERS

CANBERRA LIGHT RAIL 2A

EARTHWORKS

RLC UTILITIES ENABLING WORKS
EROSION AND SEDIMENT CONTROL - PLAN

SHEET 4

DESIGN LOT No: S211-RLC ENABLING | SHEET: 04 OF 04 | ---

STATUS: WORKS APPROVAL ISSUE | ©

DRG No. S211-ACM-DRW-CIV-EW-3207 | EDMS No. | A

2.5 0 2.5 5 7.5m
1 : 250 FULL SIZE A1

SCALE @ A1

DRAWING COLOUR CODED - PRINT ALL COPIES IN COLOUR

DF 801*554

DIAL BEFORE YOU DIG
www.1100.com.au

ELLERY CR

MARCUS CLARKE ST

McCOY CCT

GORDON ST

LEGEND

- OVERLAND FLOW PATH
- EXISTING TREES RETAINED/REMOVED
- WORK AREA Approx. 1970m²
- PROTECTED AREA Approx. 87m²
- STABILIZED CONSTRUCTION SITE ENTRY / EXIT
- WORK SITE FENCE 1.8m HIGH TEMPORARY FENCE MINIMUM 2m OFFSET FROM TREE CANOPY.
- TREE PROTECTION FENCE 1.8m HIGH TEMPORARY FENCE MINIMUM 2m OFFSET FROM TREE CANOPY.
- SILT FENCE
- SILT SOCK ON EXISTING SUMP
- EXISTING CONCRETE BARRIER

N

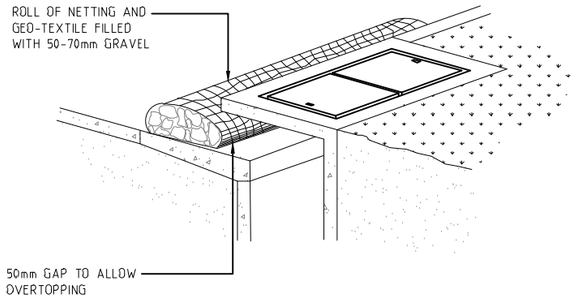
CORD CIVIL

SITE FOREMAN:
NAME: ..... PHONE: .....

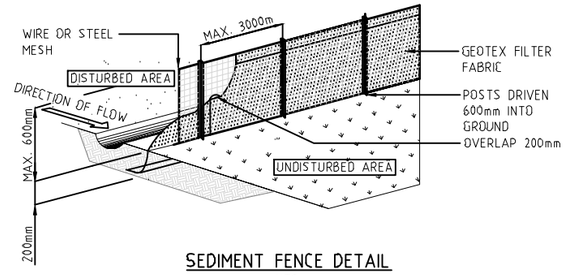
PROJECT MANAGER ..... PHONE: .....

ENVIRONMENT PROTECTION AGREEMENT NUMBER & EXP DATE:
.....

DETAILS



KERB INLET CONTROL DETAIL
NTS



SEDIMENT FENCE DETAIL
NTS

REV	DESCRIPTION	DATE
D	-	-
C	-	-
B	-	-
A	Revised Based on Comment	30/09/21

Approved As Suitable For Use:
Endorser: .....
Sign: .....
Drawn By: **Matt Sibrava**

Territory Traffic Engineering
15/160 Lysaght Street Mitchell ACT 2911
PO Box 545 Mitchell ACT 2911
T: 02 6241 3230 F: 02 6241 0230

Client:
CORD CIVIL

Project Location:
41-51 Marcus Clarke St Parking Canberra City
Drawing Title:
RLC Enabling Utilities Works Gordon St - Landscape Management Plan

Sediment Erosion, Landscape Management & Protection Plan

Project Number	Stage	Sheet No.
TTE21-CC1-1584	LMPP	1

Scale:	Compilation Date:	Rev:
N.T.S	21/09/2021	A

GENERAL NOTES

1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION AND SET OUT TO COMPLY WITH TAMS REFERENCE DOCUMENT 4 - LANDSCAPE MANAGEMENT AND PROTECTION PLANS (LMPP) ISSUE 2 REVISION 2 - 2010 (TAMS REF04)
2. ALL WORK IS TO COMPLY WITH ENVIRONMENT PROTECTION GUIDELINES AND OBJECTIVES SET OUT IN TAMS REF04
3. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION MANAGEMENT AND ALL ONGOING MAINTENANCE OF THE APPROVED PROTECTION MEASURES.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO TO UNDERTAKE A DILAPIDATION INSPECTION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND PREPARE A REPORT.
3. CONTACT THE DEVELOPMENT REVIEW AND ASSET ACCEPTANCE (DRAA) 6207 0019 OR ENVIRONMENTAL PROTECTION AGENCY (EPA) BY CALLING 13 22 81 FOR ADVISE ON OTHER AREAS

SEDIMENT CONTROL NOTES

1. EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED TO THE IN ACCORDANCE WITH ENVIRONMENT PROTECTION GUIDELINES BEFORE THE COMMENCEMENT OF ANY WORKS.
2. EROSION AND SEDIMENT CONTROL FEATURES TO BE OPERATED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AS WELL AS BEFORE AND AFTER RAIN EVENTS.
3. SILT SOCKS OR EQUIVALENT SEDIMENT TRAPS ARE TO BE INSTALLED AT ALL STORM WATER PIT ENTRANCES ABOVE AND BELOW WORK SITE. THESE ARE TO BE CLEANED AS NECESSARY AND TO BE REMOVED UPON COMPLETION OF WORK. REFER TO DETAIL PROVIDED.
4. COMBINED SITE WORK AREA IS APPROXIMATELY **0.197ha**. SEDIMENT CONTROL POND WILL NOT BE REQUIRED.
5. CONTRACTOR TO RETAIN A COPY OF THE "EROSION AND SEDIMENT CONTROL DURING LAND DEVELOPMENT" IN THE SITE OFFICE.
6. STOCK PILE(S) TO BE LOCATED AWAY FROM DRAINAGE LINES AND SURFACE FLOW PATHS. CONTOURED STRIATIONS OR FURROWS TO BE PROVIDED TO STOCK PILES TO MINIMIZE EROSION.
7. ALL NEW CONSTRUCTION WORK MUST BE CONTAINED WITHIN THE SITE EXCEPT FOR APPROVED SERVICE CONNECTIONS AND ROAD WORKS. STORAGE OF MATERIALS, EQUIPMENT OR PARKING OF VEHICLES OUTSIDE OF THE SITE BOUNDARY IS NOT PERMITTED WITHOUT TCCS APPROVAL.
8. NO STORAGE, AMENITIES OR SITE SHED TO BE ERECTED OUTSIDE OF BLOCK WITHOUT TCCS APPROVAL.
9. LIMIT ACCESS TO SITE DURING AND IMMEDIATELY AFTER RAIN EVENTS.
10. REGULARLY REMOVE ANY SOIL FROM ROADS ADJACENT TO THE SITE.
11. ALL SERVICE TRENCHES TO BE BACK FILLED WITHIN 24HRS OF INSPECTION.
12. EXCESS SOIL IS TO BE DISPOSED AT AN APPROVED LOCATION. REFER TO DISPOSAL OF SOIL SECTION.
13. SITE FOREMAN TO ENSURE CONTRACTORS ACCESS AND EGRESS SITE USING ONLY APPROVED INGRESS/EGRESS POINTS AS DETAILED IN THIS PLAN.

DUST MANAGEMENT

WHERE BUILDING WORK GENERATES DUST, ALL REASONABLE AND PRACTICABLE MEASURES SHOULD BE TAKEN TO MINIMISE THAT DUST.

THIS CAN OFTEN BE ACHIEVED BY:

1. STRIPPING AREAS PROGRESSIVELY AND ONLY WHERE IT IS NECESSARY FOR WORKS TO OCCUR.
2. EMPLOYING STABILISING METHODS SUCH AS MATTING, GRASSING OR MULCH.
3. DAMPENING THE GROUND WITH A LIGHT WATER SPRAY
4. ROUGHENING SURFACE OF EXPOSED SOIL.
5. COVERING STOCKPILES AND LOCATING THEM WHERE THEY ARE PROTECTED FROM THE WIND.
6. RESTRICTING VEHICLE MOVEMENTS.
7. ALL LOADS TO BE COVERED WHEN TRANSPORTING MATERIAL OFF SITE
8. CONSTRUCTING WIND BREAKS SUCH AS WIND FENCES IN ACCORDANCE WITH THE BLUE BOOK.
9. A WATER CART OR SUFFICIENT WATER SPRAYS SHALL BE MADE AVAILABLE AT ALL TIMES. IN ADVERSE CONDITIONS WHEN DUST CANNOT BE ADEQUATELY CONTROLLED WHEN WORKS AREA BEING UNDERTAKEN, WORKS WILL CEASE IN THESE AREAS UNTIL CONDITIONS IMPROVE.
10. WATER SHALL BE APPLIED TO SUPPRESS DUST FROM OPEN EARTHWORKS AS WELL AS UNPROTECTED STOCKPILES.
11. AREAS OF COMPLETED EARTHWORKS SHALL BE PROGRESSIVELY REHABILITATED WITH DRYLAND GRASS AND FENCED OFF AS SOON AS PRACTICABLE TO PREVENT FURTHER EROSION.
12. ALL WORK TO STOP IF DUST CONTINUES TO LEAVE SITE WHEN ALL ABOVE METHODS HAVE BEEN UNDERTAKEN

DISPOSAL OF SPOIL - WASTE MANAGEMENT

BEFORE DISPOSAL OF SPOIL OFF SITE, THE FOLLOWING INFORMATION MUST BE PROVIDED TO ENVIRONMENT ACT:

1. SPOIL WILL ORIGINATE FROM TRENCHES
2. CONTRACTOR WILL DISPOSE OF SPOILS
3. SPOILS WILL BE STORED ON SITE AND EXPORTED TO APPROVED LOCATION WHEN REQUIRED
4. THE QUANTITY AND NATURE OF EXPORTED MATERIALS IS TO BE RECORDED THROUGHOUT ANY DEMOLITION AND CONSTRUCTION PERIOD.
5. CONTRACTOR WILL KEEP A LOG ON SITE OF ALL SPOIL MOVEMENT INCLUDING DATE, DESTINATION, TYPE AND QUANTITY.
6. ANY SPOIL IS TO BE TAKEN TO AN APPROVED LANDFILL SITE. HOWEVER, IF THE SPOIL IS TAKEN TO AN AREA OTHER THAN APPROVED LANDFILL SITE, CONTRACTOR WILL ENSURE THE ACCEPTOR OF THE SPOIL IS AWARE OF THE ENVIRONMENT PROTECTION REQUIREMENTS.

FIRE

IN THE EVENT OF AN EMERGENCY DIAL '000'.

BURNING OF WASTE MATERIALS ON THE SITE, SUCH AS PLASTICS, CHEMICALS OR WOOD THAT MAY BE PAINTED, CHEMICALLY TREATED OR CONTAMINATED WITH CHEMICALS IS STRICTLY PROHIBITED.

FIRE SUPPRESSION DEVICES ARE TO BE RETAINED ON SITE AT ALL TIMES AND WHERE APPROPRIATE IN SITE VEHICLES.

NOISE

ENSURE ALL BUILDING WORK THAT GENERATES NOISE IS CONDUCTED WITHIN THE TIME PERIODS DETAILED IN SCHEDULE 2.

BUILDING WORK DETAILS	MONDAY TO SATURDAY	SUNDAY AND PUBLIC HOLIDAYS
INDUSTRIAL, CITY AND TOWN CENTRE AREAS	6AM TO 8PM	6AM TO 8PM
ANY OTHER AREA WHEN WORK COMPLETED WITHIN 2 WEEKS	7AM TO 8PM	8AM TO 8PM
ANY OTHER AREA WHEN WORK COMPLETED GREATER THAN 2 WEEKS	7AM TO 6PM	BUILDING WORK MUST NOT EXCEED NOISE STANDARDS

IN ADDITION:

1. SCHEDULE NOISY ACTIVITIES FOR THE LEAST SENSITIVE TIMES OF THE DAY SUCH AS MID-MORNING OR MID-AFTERNOON.
2. SELECT MACHINERY THAT PRODUCES LESS NOISE; AND

ENSURE MACHINERY IS WELL MAINTAINED.

MAINTENANCE SCHEDULE

WEEKLY:

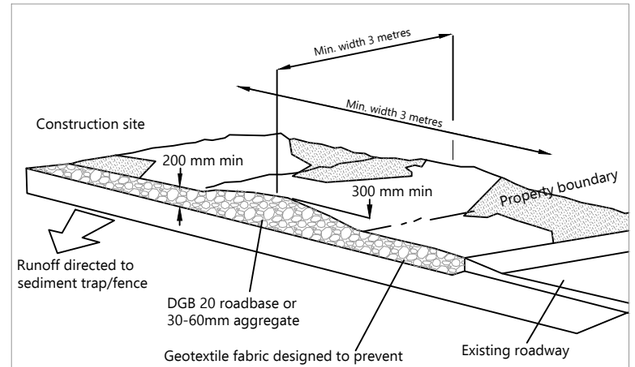
1. TURN OVER STABILISED CONSTRUCTION ENTRY MATERIAL AND RENEW WHEN REQUIRED.
2. CHECK AND REINSTATE SILT CONTROL FENCES

DAILY:

3. SWEEP AND REMOVE DIRT AND ANY OTHER BUILDING MATERIAL FROM GUTTERS, FOOTPATHS OR ROADWAYS ADJACENT TO THE SITE BY CLOSE OF BUSINESS AND PRIOR TO RAIN AND WHEN REQUIRED. ALL NECESSARY STEPS SHOULD BE TAKEN THAT ARE PRACTICAL AND REASONABLE TO MINIMISE DUST POLLUTION ON LAND DEVELOPMENT AND CONSTRUCTION SITE.

DURING/AFTER WET WEATHER:

4. LIMIT CONSTRUCTION VEHICLE ACCESS TO SITE DURING AND IMMEDIATELY FOLLOWING WET WEATHER.



STABILISED ACCESS DETAIL
NTS

CORD CIVIL

SITE FOREMAN:
NAME: ..... PHONE: .....
PROJECT MANAGER ..... PHONE: .....
ENVIRONMENT PROTECTION AGREEMENT NUMBER & EXP DATE: .....

REV	DESCRIPTION	DATE
D	-	-
C	-	-
B	-	-
A	Revised Based on Comment	30/09/21

Approved As Suitable For Use:
Endorser: .....
Sign: .....
Drawn By: **Matt Sibrava**

Territory Traffic Engineering
15/160 Lysaght Street Mitchell ACT 2911
PO Box 545 Mitchell ACT 2911
T: 02 6241 3230 F: 02 6241 0230

Client: CORD CIVIL

Project Location:
41-51 Marcus Clarke St Parking
Canberra City
Drawing Title:
RLC Enabling Utilities Works
Gordon St - Landscape Management Plan

Sediment Erosion, Landscape Management & Protection Plan

Project Number	Stage	Sheet No.
TTE21-CC1-1584	LMPP	2

Scale:	Compilation Date:	Rev:
N.T.S	21/09/2021	A

APPENDIX E

GSM PLAN APPROVAL AND OFFSET RETIREMENT-

Australian Government

Department of Agriculture, Water and the Environment

[redacted]
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 [redacted]

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 [redacted] directly or email the department's Post Approval Section at postapproval@awe.gov.au.

Yours sincerely

[redacted]
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.

Yours sincerely

[redacted]

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

21 June 2021

BioBanking

BioBanking Information Management System

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

NSW GOVERNMENT Office of Environment & Heritage

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

Code	Vegetation formation
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

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