

# Planning and Development (Conditional Environmental Significance Opinion – Block 6 Section 12 and Block 6 Section 13, Division of Pialligo – Spitfire Avenue Link Road) Notice 2016 (No 1)

Notifiable Instrument NI2016–18

Made under the

Planning and Development Act 2007 s 138AD(4) (Requirements in relation to environmental significance opinions)

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## 1 Name of instrument

This instrument is the *Planning and Development (Conditional Environmental Significance Opinion – Block 6 Section 12 and Block 6 Section 13, Division of Pialligo – Spitfire Avenue Link Road) Notice 2016 (No 1)*.

## 2 Conditional Environmental Significance Opinion

- (1) On 27 August 2015, the Conservator of Flora and Fauna, pursuant to section 138AB(4)(b) of the *Planning and Development Act 2007* (the **Act**), gave the Applicant a conditional environmental significance opinion in relation to the construction, on Block 6 Section 12 and Block 6 Section 13, Division of Pialligo, of a new Spitfire Avenue Link Road.
- (2) In this section:  
***Conditional environmental significance opinion*** means the opinion in the schedule.

*Note* : under section 138AD(6) of the Act, the Conditional ESO and this notice expire 18 months after the day this notice is notified.

Dorte Ekelund  
Chief Planning Executive  
19 January 2016



**ACT**  
Government

Environment and Planning

Ms Dorte Ekelund  
Chief Planning Executive  
ACT Planning and Land Authority  
Dame Pattie Menzies Building  
DICKSON ACT 2602

Dear Ms Ekelund *Dorte*

This is to advise of my decision, under s.138AB(4) of the *Planning and Development Act 2007*, on the request for an Environmental Significance Opinion for the proposed construction of a single lane road connecting the Majura Parkway to the intersection of Spitfire Avenue and Majura Road. The proposal is not likely to have a significant adverse environmental impact provided the works are in accordance with the conditions as provided.

Please find attached the Environmental Significance Opinion and a Statement of Reasons for the decision.

Yours sincerely

Dr A. Lane  
Conservator of Flora and Fauna

*27* August 2015

## **ENVIRONMENTAL SIGNIFICANCE OPINION**

In accordance with section 138AB(4) of the *Planning and Development Act 2007* (the Act), I provide the following environmental significance opinion:

### **APPLICANT**

Misha Beljic, Senior Project Officer, Procurement and Capital Works, Chief Minister, Treasury and Economic Development Directorate.

### **APPLICATION and DEVELOPMENT PROPOSAL**

The applicant has applied under section 138AA to the Conservator of Flora and Fauna environmental significance opinion to the effect that the development proposal set out in the submission is not likely to have a significant adverse environmental impact (the application).

The development proposal is for the Spitfire Avenue Link Road, a single lane road connecting the Majura Parkway to the intersection of Spitfire Avenue and Majura Road, as described in the submission.

### **LOCATION**

Block 6 Section 12 and Block 6 Section 13 Pialligo

### **MATTERS TO WHICH THIS OPINION APPLIES**

This opinion applies only the development proposal as described in the application.

### **OPINION**

Provided the works are undertaken in the manner consistent with the following conditions, they are unlikely to cause a significant adverse environmental impact.

This opinion is granted subject to the following conditions made under s138AB(4) of the Act.

1. Clearance and disturbance of mapped Golden Sun Moth habitat does not exceed 0.9ha.
2. The recommended mitigation measures in the ESO application prepared by SMEC are implemented though slightly varied according to the following:

- i) Roadside and other areas of construction disturbance will be predominately revegetated (i.e. greater than 50% cover) with native grasses on which Golden Sun Moth is known to feed;
- (ii) Prior to disturbance, areas of medium or high density habitat will be either machine harvested for Golden Sun Moth larvae or have soil and grasswards containing larvae translocated to an adjoining unoccupied undisturbed roadside area, that contains suitable habitat; and
- (iii) The measures described in the ESO that may encourage the Striped Legless Lizard to cross under the bridge will be implemented, unless a continuous grass cover under the bridge can be achieved by other means.

Attached is a Statement of Reasons for the decision.



Dr A. Lane  
Conservator of Flora and Fauna

27 August 2015

## STATEMENT OF REASONS REASONS FOR THE DECISION

The proposed development is a proposal mentioned in Schedule 4 of the *Planning and Development Act 2007* – Development proposal for an activity requiring an EIS Schedule 4, being:

*Part 4.3, item 1(a) development that may impact on a species or ecological community that is endangered, a species that is vulnerable; protected; or has special protection status;*

The proposed development adversely impacts on two Commonwealth and ACT listed threatened species, the Golden Sun Moth (*Synemon plana*) and Striped Legless Lizard (*Delmar impar*).

The proponent wants the application for the development approval assessed for an environmental significance opinion on the grounds that the proposal is not likely to have a significant adverse environmental impact, and has applied to the Conservator of Flora and Fauna to that effect.

### Meaning of *significant* adverse environmental impact

An adverse environmental impact is *significant* if—

- (a) the environmental function, system, value or entity that might be adversely impacted by a proposed development is significant; or
- (b) the cumulative or incremental effect of a proposed development might contribute to a substantial adverse impact on an environmental function, system, value or entity.

In deciding whether an adverse environmental impact is *significant*, the following matters must be taken into account:

- (a) the kind, size, frequency, intensity, scope and length of time of the impact;
- (b) the sensitivity, resilience and rarity of the environmental function, system, value or entity likely to be affected.

In deciding whether a development proposal is likely to have a significant adverse environmental impact it does not matter whether the adverse environmental impact is likely to occur on the site of the development or elsewhere.

It has been determined that the proposal is unlikely to have a significant environmental impact, based on the documentation submitted, known values of the site, and provided the works and ongoing management are carried out in accordance with the conditions attached to this ESO.

**Project description**

It is proposed to construct a single lane, one-way road connecting Majura Parkway to the intersection of Spitfire Avenue and Majura Road.

**Documentation Submitted**

- Report titled Application for Environmental Significance Opinion – Spitfire Avenue Link Road (SMEC, August 2015) ;
- Referral Decision, Environment Protection and Biodiversity Conservation Act 1997;
- Form 1M.

**Natural conservation values present**

The proposed road will dissect a patch, approximately 50 ha in size, of native and exotic pasture that supports a high density and large population of the critically endangered Golden Sun Moth and a low density, moderate population of the vulnerable Striped Legless Lizard. Both the Golden Sun Moth and Striped Legless Lizard habitat was surveyed in the Spring – early Summer of 2013 by Biosis.

The access route to the construction area utilises an existing track and previously ploughed paddock. Provided the access track does not need to be upgraded or widened, then Golden Sun Moth and Striped Legless Lizard habitat has been avoided for this component of the project.

**Golden Sun Moth**

Biosis observed 1276 flying moths across the survey period. Higher seasonal counts have only been recorded at two other sites in the ACT (West Macgregor and Canberra Airport) and hence the habitat area appears to support one of the largest known populations. SMEC in the ESO application map a habitat area of about 50ha. Of the about 80 sites in the ACT from which Golden Sun Moth has been recorded, this habitat area is the 10<sup>th</sup> largest. The mean ACT habitat area is 22.5 ha while the median size is 2.8 ha. The total area of known habitat in the ACT is about 1,900ha.

Biosis did not record any moths flying within the proposed route of Spitfire Avenue, but they were recorded in the close vicinity and in 2014 SMEC did locate moth larvae within one of five soil sample plots surveyed in the general area. This suggests a low or moderate presence of moths in patches along the proposed alignment where the exotic Chilean Needle Grass occurs. This exotic weed is a close relative of Australian grass species on which the moth larvae feed and is a suitable feed plant of the endangered moth, whose roots the moth larvae eat.

The Commonwealth 's *Significant Impact Guidelines for the Critically Endangered Golden Sun Moth (Synemon plana)* consider that a significant loss of habitat occurs in

habitat patches larger than 10ha when over 0.5ha of habitat will be disturbed. The direct footprint loss is estimated by SMEC as 0.45 ha of habitat, which is likely be larger and potentially up to 0.9 ha if a construction buffer of 10m is applied to the road footprint.

The road will divide the Golden Sun Moth habitat into Blocks of about 35 and 15 ha. Male moths are able to fly up to 200m and can cross roads of this scale. However the raised bridge and earth works at the likely crossing point may impede movement. The moths are unlikely to go under the bridge.

Given that most sites in which the moth survives in the ACT are much smaller than 15ha, it is unlikely that fragmentation by the road would lead to a reduction in size of occupied habitat in the area, or significantly impact on long-term viability. Given that the batters of the road leading up to the bridge will be rehabilitated with suitable native grasses it also seems likely that a male moth would occasionally cross the bridge and road structure, which is probably sufficient to maintain genetic connection between the two populations.

It is also relevant that the habitat being destroyed is largely Chilean Needle Grass, which is likely to re-invade disturbed non-road areas following construction.

### **Striped Legless Lizard**

There is about 46ha of Striped Legless Lizard habitat within the vicinity of the proposal area. Biosis placed nine grids of 50 tiles across the area and captured 10 lizards within the grids. This is an average of 1.11 lizards per grid. Based on ecological knowledge of lizard movement, 20m has been used as the distance that a lizard may travel towards a survey tile. Thus each 50m x 25m grid samples an area of 5100 square metres, yielding an average of 2.18 lizards per hectare, giving a population estimate of 100 lizards across the area. Recent survey data across Gungahlin has found that Striped Legless Lizard are rarely recaptured in tiles more than 5m away from where they have been previously caught, thus 20m may actually be a conservative measure and 10m may be more appropriate, giving a population estimate of 200.

The ESO application refers to the *Environment Protection and Biodiversity Conservation Act 1999 referral guidelines for the vulnerable striped legless lizard, Delma impar*. These guidelines require a determination about whether or not the proposal is impacting an important population, which may be a population that is a;

- key source populations either for breeding or dispersal
- is necessary for maintaining genetic diversity, and/or
- is near the limit of the species range.

As noted in the ESO documentation the guidelines also state that an important population is one that is “necessary for a species’ longterm survival and recovery” and “is likely to be viable over the long-term”. It says an important population is not one that is “made up of small isolated areas of habitat which are currently under pressure, or are likely to experience long-term pressures” or one that is “made up of small sites which support marginal or low quality habitat”.

A population of 100–150 is small and may have an uncertain long term viability, while other development pressures are likely in this area. However, without information to the contrary the precautionary approach would be to assume that a population of around 100 is viable. Certainly Striped Legless Lizard are known in to occur, in the ACT, in habitats of 5 and 10 ha that have been isolated at least since the 1970s. The Commonwealth guidelines also state *“The minimum patch size threshold for medium to long-term habitat and population viability is  $\geq 0.5$  hectares, which supports predominantly tussock-forming grass species (native or non-native)”*. The habitat affected by the proposal well and truly meets this criterion.

Given the above, the population should be considered as important. Thus we need to consider whether the mitigations associated with the proposal have reduced the level of impacts below a significant level. The direct development footprint on SLL is 0.5 ha, much of which will be restored. Given the presence of SLL in former quarry sites and exotic pastures there is a high degree of confidence in the ability of the lizard to re-occupy disturbed areas.

The key question is whether the road fragments the populations. It will divide the habitat into a northern area of about 42ha and a southern area of 4ha. Assuming lizard movement is not possible across the road the southern fragment (with a population of around 15-20 lizards) is unlikely to be viable in the long term, while that of the northern fragment would be reduced, but probably would have long term viability.

There are around 1850 ha of known Striped Legless Lizard habitat within the ACT, and a population of at least 10,000 lizards. This mapped habitat has a wide range of lizard densities from 33 lizards per hectare down to 0.1 per hectare. Loss of 4 ha of low density habitat is unlikely to significantly impact on the viability of the lizard in the ACT.

The proposal tries to mitigate the impact of fragmenting the current lizard population by enhancing, through directed water flow, grass growth under a bridge over Woolshed Creek. It also proposes use of artificial shelter in the more heavily shaded areas. The chosen route is also the route of least impact in terms of a connection between land in this vicinity and the Majura Parkway.

Lizards don't appear to undertake large movements, at least during the survey period, but a movement of 80m within a survey period and 200m across years have been recorded. Thus the distance under the bridge is unlikely to be a major issue. It is more whether the lizard perceives the bridge, the habitat structures under it or the shading as a barrier. There is a high level of uncertainty in this regard. It is possible that on a warm or hot cloudy or rainy day, when shading will not be such an issue, the habitat underneath the bridge may not be perceived as a barrier. Only a few lizards per generation would have to make the crossing for connection to be maintained. However, given the lack of knowledge it has to be assumed that the road will be a barrier.

### **Potentially Significant Environmental Impacts**

The degree of impact on Golden Sun Moth is not significant. Mitigation measures contained in the ESO and conditions attached to the ESO will ensure that the impact on Golden Sun Moth is minimised.

The actual foot-print of disturbance on Striped Legless Lizard is small, but the road will fragment a current habitat of 46ha into two habitat areas, one of 4ha and a northern area of 42ha. The 4ha low density habitat is unlikely to be viable in the long term. However, loss of this 4ha of habitat and the lizards it contains is unlikely to significantly impact on the viability of the lizard both in an ACT perspective and in the remaining 42ha patch.

Thus the degree of impact on Striped Legless Lizard is not significant.

It has been determined that if the works are undertaken in a manner consistent with the above conditions of approval, they are unlikely to cause a significant adverse environmental impact.