

# Planning and Development (Conditional Environmental Significance Opinion – Namadgi National Park – Australian Mountain Research Facility (AMRF) project) Notice 2020

Notifiable instrument NI2020–696

made under the

Planning and Development Act 2007, s 138AD (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 – Namadgi National Park – Australian Mountain Research Facility (AMRF) project) Notice 2020*.

## 2 Commencement

This instrument commences on the day after its notification day.

## 3 Conditional environmental significance opinion

- (1) On 30 September 2020, the Conservator of Flora and Fauna, pursuant to section 138AB(4) of the *Planning and Development Act 2007* (the *Act*), gave the Applicant a conditional environmental significance opinion in relation to installation of temporary monitoring equipment in Namadgi National Park, on Block 91 Section 0, District of Tennent, Block 223 Section 0, District of Paddys River, and Block 21 Section 0, District of Cotter River.

(2) In this section:

***conditional environmental significance opinion*** means the opinion in the schedule.

*Note* Under section 138AD(6) of the Act, the conditional environmental significance opinion and this notice expire 18 months after the day the notice is notified.

Brett Phillips  
Delegate of the Planning and Land Authority  
26 October 2020

## Schedule

See section 3(2)

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### 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

Dr Zachary Brown.

#### APPLICATION and DEVELOPMENT PROPOSAL

The applicant has applied under section 138AA of the Act to the Conservator of Flora and Fauna for an 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 installation of temporary monitoring equipment in Namadgi National Park as part of the Australian Mountain Research Facility project as described in the submission.

#### LOCATION

Three sites have been proposed:

- Ginini Flats Ramsar-listed wetland, Block 21 District of Cotter River (35°31.212'S 148°46.913'E);
- Smokers Flat, Block 91 District of Tennent (35° 32.139'S 148° 54.281'E); and
- "Corin" Block 223 District of Paddys River (35° 31.151'S 148° 54.601'E)

#### MATTERS TO WHICH THIS OPINION APPLIES

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

#### OPINION

Provided the works are undertaken in a manner consistent with the following conditions in addition to the mitigation measures contained in the supporting application for an ESO, 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. The *DPIE Sol Survey* area be redesigned so that it is still within the proposed monitoring area (shown as a pink polygon in the Ginini Flat Generic setup map) but be at least 20m from recorded Sub-alpine Leek Orchid (*Prasophyllum sphacelatum*) locations.
2. Those engaged in the monitoring must familiarise themselves with both the recorded locations and appearance of the non-orchid rare plants. Where possible direct disturbance of these species during soil sampling or monitoring equipment set-up will be avoided. Locations of the below species can be found by clicking on the red distribution button.
  - [\*Botrychium australe\*](#) (Austral Moonwort)
  - [\*Pilularia novae-hollandiae\*](#) (Austral Pilwort)
  - [\*Myriophyllum pedunculatum\*](#) (Water Milfoil)
  - [\*Isolepis crassiuscula\*](#) (The Isolepis)
3. Directions from the Parks and Conservation Service to undertake or contribute to the control of pathogens or weeds which may have been introduced to the area as a result of the activities will be complied with; and
4. Those engaged in the monitoring must familiarise themselves with the appearance of the following weed species, photograph any suspected occurrences and post the images on [Canberra Nature Map](#).
  - *Centaurea stoebe* (Spotted Knapweed)
  - *Leucanthemum maximum* (Shasta Daisy)
  - *Leucanthemum vulgare* (Ox-eye Daisy)
  - *Pilosella aurantiaca* (Orange Hawkweed)
  - *Pilosella officinarum* (Mouse-ear Hawkweed)

Attached is a Statement of Reasons for the decision.



Ian Walker  
Conservator of Flora and Fauna

30 September 2020

## 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 sites contain:

One community listed as endangered:

- High Country Bogs and Associated Fens (forming a significant component of the Commonwealth listed Alpine Sphagnum Bogs and Associated Fens).

Eight animal species listed as threatened under the Nature Conservation Act 2014:

- Northern Corroboree Frog (*Pseudophryne pengilleyi*)
- Broad-toothed Rat (*Mastacomys fuscus*)
- Smoky Mouse (*Pseudomys fumeus*)
- Brown Treecreeper (*Climacteris picumnus*)
- Varied Sitella (*Daphoenositta chrysoptera*)
- White-Winged Triller (*Lalage sueurii*)
- Scarlet Robin (*Petroica boodang*)
- Little Eagle (*Hieraetus morphnoides*)

One plant species listed as threatened

- Austral Toadflax (*Thesium asutrale*)

*Part 4.3, item 3 proposal for development on land reserved under s 315 for the purpose of a wilderness area, national park, nature reserve or special purpose reserve.*

All three locations are located within Namadgi National Park and have a Pb: National Park overlay. Block 21 Cotter River and Block 91 Tennent also have a Pa: Wilderness overlay.

The proponent wants the application for the development approval assessed in the merit track 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**

The proposed works involve the installation of temporary equipment at three sites to investigate the impact of climate change on biodiversity and ecosystem services.

Works at each of the three sites include:

- Installation of three “DroughtNet” structures (3m x 3m x 1m) which will reduce precipitation by 40%. These are comprised of a metal frame with corrugated polycarbonate roofing and are paired with a control plot;
- Installation of six soil moisture/temperature probes;
- Installation of informative signage;
- Annual clipping of a 10cm x 1m strip of biomass from each plot;
- Taking of 50mm wide soil cores to a depth of 30cm;
- Site visits for data collection and maintenance; and
- Remediation at the termination of the project.

In addition to the works above, the below works are proposed for the Ginini site:

- Installation of one phenocam mounted on a 4m mast or tree in or near the plot;
- Installation of one 2m x 1.5m x 1.5m solar rack with two panels and a weatherproof cargo crate with batteries;

- Installation of one small V-notch weir (maximum size of 30cm x 40cm x 3mm) with a water level sensor at an adjacent stream;
- Installation of one weather station;
- Installation of one 1.5m precipitation gauge;
- Installation of one 3m mast with two 1.8m crossarms;
- Installation of six piezometers (mostly buried);
- Installation of three thermocouple arrays (nearly invisible); and
- Limited soil surveys involving excavation of soil up to a depth of 1 m and collection of a soil samples.

#### **Documentation Submitted**

- Supporting documentation regarding works at Ginini Flats for the application for an Environmental Significance Opinion;
- Supporting documentation regarding works at Smokers Flat and Corin for the application for an Environmental Significance Opinion;
- Commonwealth advice regarding the need for referral under the EPBC Act;
- Signed letters of authorisation; and
- Form 1M.

#### ***Natural conservation values present***

At least 35 species of mammals, 14 species or subspecies of frog, over 41 species of reptiles, four native fish species and over 130 species of birds have been recorded in Namadgi National park. There are 13 animal species listed as threatened under the *Nature Conservation Act 2014*, most of which have been recorded in the area of the three sites:

- Northern Corroboree Frog (*Pseudophryne pengilleyi*)
- Two-Spined Blackfish (*Gadopsis bispinosus*)
- Trout Cod (*Maccullochella macquariensis*)
- Macquarie Perch (*Macquaria australasica*)
- Murray River Crayfish (*Euastacus armatus*)
- Hooded Robin (*Melanodryas cucullate*)
- Scarlet Robin (*Petroica boodang*)
- Brown Treecreeper (*Climacteris picumnus*)
- Varied Sitella (*Daphoenositta chrysoptera*)
- Little Eagle (*Hieraaetus morphnoides*)
- White-Winged Triller (*Lalage sueurii*)
- Smoky Mouse (*Pseudomys fumeus*)
- Spotted-Tailed Quoll (*Dasyurus maculates*)

One threatened ecological community has been identified in or adjacent to the sites:

- High Country Bogs and Associated Fens (forming a significant component of the Commonwealth listed Alpine Sphagnum Bogs and Associated Fens).

Only one threatened plant species has been recorded at the sites (Austral Toadflax, *Thesium asutrale*), however several rare and unusual species are also present, including:

- *Prasosphyllum inubum*
- *Myriophyllum pedunculatum*
- *Isolepis crassiuscula*
- *Chiloglotis tufosa*
- *Pterostylis aneba*
- *Pilularia novae-hollandae*
- *Prasosphyllum viriosum*
- *Prasosphyllum sphacelatum*
- *Botrychium australe*.

The Ginini Flats Wetland Complex is an extensive mosaic of Alpine Sphagnum bogs and associated fens, wet heath and wet grassland communities. It contains the largest intact Sphagnum bog and fen community in the Australian Alps. The Ginini Flats Wetlands is included on the *List of Wetlands of International Importance* (Ramsar) in recognition of its significant ecological characteristics and is the only Ramsar Wetland in the ACT. The site also provides habitat for migratory birds listed under several international migratory bird agreements.

Ginini Flats is just one of two known ACT locations of the Alpine Darner Dragonfly and is also an important habitat of the Small Alpine Xenica butterfly. The Alpine Darner and Small Alpine Xenica are likely to be utilising much of the swamp areas and are unlikely to be significantly impacted by the scale of the works proposed.

The site has also been surveyed for the rare orchids listed above by orchid enthusiasts over a number of years so that there is confidence about the exact locations of the orchids within the swamp areas. The only rare orchid species that is within or close to the proposed monitoring sites or foot access routes is of the Sub-alpine Leek Orchid (*Prasosphyllum sphacelatum*). This orchid is considered to be near threatened in Victoria and is at its northern distribution limit at Ginini Flats. It is known in the ACT from about 6 locations. The Ginini Flat Locations are shown in Attachment A.

The non-orchid rare plants (*Myriophyllum pedunculatum*, *Isolepis crassiuscula*, *Pilularia novae-hollandae* and *Botrychium australe*) are all fairly non-descript species that are probably more widespread in the ACT than indicated by reported sightings.



The Smokers Flat and Corin sites are located on the outskirts of marginal sphagnum bogs and were burnt in the recent 2019-20 fires. Although the sites once contained sphagnum bog, they have over time become less boggy and signs of disturbance (weeds, damage by feral species) have increased. Despite this, several rare plants and threatened birds occur in the area.

### **Impact on the Reserve**

The scale of the works is very small, with only a few square meters of actual direct disturbance. Additionally, the disturbance is dispersed and at a scale that should allow rapid repair and regeneration. The site chosen at Ginini Flats is a dry grassland so impacts (including hydrological) to the bogs other than minor foot traffic are unlikely.

The monitoring sites will be reached via existing tracks and then by foot, thereby avoiding impacts from vehicles. No heavy machinery will be utilised in installing or dismantling the monitoring equipment and at the termination of the project (5-10 years) all equipment will be removed.

Visits are proposed no more than four times a year, involve only a few people and implement hygiene measures for pathogens and weeds.

The works will result in the collection of important data regarding the impacts of climate change on biodiversity and ecosystem services in the Australian Alps and may help inform future management works.

### **Potentially Significant Environmental Impacts**

The sites have been carefully chosen to utilise existing tracks and limit disturbance of sensitive ecological values.

Conditions have been included to reduce the likelihood of rare plants being impacted and to ensure that installation and ongoing visitation will not result in the spread or introduction of weed species:

1. The DPIE Sol Survey area be redesigned so that it is still within the proposed monitoring area (shown as a pink polygon in the Ginini Flat Generic setup map) but be at least 20m from recorded Sub-alpine Leek Orchid (*Prasophyllum sphacelatum*) locations.
2. Those engaged in the monitoring must familiarise themselves with both the recorded locations and appearance of the non-orchid rare plants. Where possible direct disturbance of these species during soil sampling or monitoring equipment set-up will be avoided. Locations of the below species can be found by clicking on the red distribution button.

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  - *Leucanthemum vulgare* (Ox-eye Daisy)
  - *Pilosella aurantiaca* (Orange Hawkweed)
  - *Pilosella officinarum* (Mouse-ear Hawkweed)

It has been determined that if the works are undertaken in a manner consistent with the above conditions attached to the ESO in addition to the mitigation measures contained in the supporting application for an ESO, they are unlikely to cause a significant adverse environmental impact.