Australian Government

Civil Aviation Safety Authority

AIRSPACE AND AERODROME REGULATION
File Ref: G17/213

13 November 2017

A Bowman
Town Planner
Bega Valley Shire Council
PO Box 492
BEGA NSW 2550

Dear Sir / Madam,

NOTIFICATION OF DA 2017.445 – FROGS HOLLOW RECREATIONAL FLGIHT SCHOOL

CASA has reviewed the documentation presented regarding the proposed development at Frogs Hollow Airstrip.

CASA's aerodrome regulations do not extend to uncertified or unregistered aerodromes such as Frogs Hollow. Therefore, CASA does not have any concerns regarding the amendment to the development application as presented.

We would however recommend that any development of runways and taxiways at Frogs Hollow take into consideration our Advisory Publication CAAP 92-1 (1) (enclosed for easy reference) for the establishment and operation of an Aeroplane Landing Area (ALA).

If you require further information, please call Matthew Windebank on 131757.

Yours sincerely

Matthew Windebank
Aerodrome Engineer
CASA Canberra Office

CIVIL AVIATION AUTHORITY

CIVIL AVIATION ADVISORY PUBLICATION

Date: July 1992 No: 92-1(1)

SUBJECT: GUIDELINES FOR AEROPLANE LANDING AREAS

IMPORTANT

The information in this publication is advisory only. There is no legal requirement to observe the details set out in this publication. The Civil Aviation Regulations set out the legal requirements that must be complied with in relation to the subject matter of this publication. There may be a number of ways of ensuring that the requirements of the Civil Aviation Regulations are met. This publication sets out methods that may be used and which experience has shown should, in the majority of cases, ensure compliance with the Regulations. However, before using the information in this publication the user should always read the Civil Aviation Regulations listed in the reference section below to ensure that he or she complies with the legal obligations of the Regulations.

PURPOSE

Civil Aviation Regulation 92 (1) states that: "An aircraft shall not land at, or take-off from, any place unless: ...(d) the place....is suitable for use as an aerodrome for the purposes of the landing and taking-off of aircraft; and, having regard to all the circumstances of the proposed landing or take-off (including the prevailing weather conditions), the aircraft can land at, or take-off from, the place in safety."

Regulation 92 (1) does not specify the method of determining which "circumstances", other than the prevailing weather conditions, should be considered in any particular case. These matters are the responsibility of the pilot in command and, in some circumstances, are shared with the aircraft operator.

These guidelines set out factors that may be used to determine the suitability of a place for the landing and taking-off of aeroplanes. Experience has shown that, in most cases, application of these guidelines will enable a take-off or landing to be completed safely, provided that the pilot in command:

(a) has sound piloting skills; and

(b) displays sound airmanship.

CANCELLATION

This is the second issue of CAAP 92-1, and supersedes CAAP 92-1(0).

REFERENCES

This publication should be read in conjunction with: Civil Aviation Regulations 92 (1), 93, 233 and 235; Civil Aviation Orders; and the Aeronautical Information Publication.

HOW TO OBTAIN COPIES OF THIS PUBLICATION

Copies of this publication may be obtained from:

Civil Aviation Authority Publications Centre
607 Swanston Street
Carlton
Victoria 3053

Telephone (008) 331676
(008) 334191
(03) 342 2000

CONTENTS

1 - DEFINITIONS

1. In these guidelines, unless the contrary is stated:

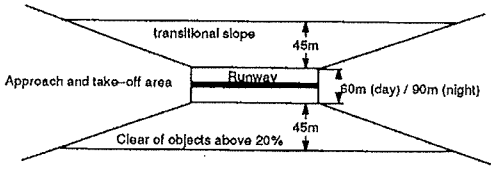
"clearway" means an area in which there are no obstacles penetrating a slope of 2.5% rising from the end of the runway over a width of 45m;

"float plane" means any aeroplane designed for landing or taking-off from water;

"fly-over area" means a portion of ground adjacent to the runway strip which is free of tree stumps, large rocks or stones, fencing, wire and any other obstacles above ground but may include ditches or drains below ground level;

"landing area" (LA) means an area of ground suitable for the conduct of take-off and landing and associated aeroplane operations under specific conditions;

"lateral transitional slope" means a desirable area around all LA's which provides greater lateral clearance in the take-off and landing area and may reduce wind-shear when the runway is situated near tall objects such as trees and buildings. The dimensions of a suitable lateral transitional slope are shown in the following diagram;



transitional slope : plan

Figure 1 - Transitional Slope

"obstacle free area" means there should be no wires or any other form of obstacles above the approach and take-off areas, runways, runway strips, fly-over areas or water channels;

"runway" means that portion of the landing area which is intended to be used for the landing or take-off of aeroplanes;

"runway strip" means a portion of ground between the runway and fly-over area which is in a condition that ensures minimal damage to an aeroplane which may run off a runway during take-off or landing;

"water alighting area" means a suitable stretch of water for the landing or taking-off of a float plane under specific conditions.

2 - CONVERSION TABLE

2. Landing area gradients and splays expressed as a percentage, in accordance with ICAO practice, may be converted into ratios or angles using the following table:

Percentage	Ratios	Degrees & Minutes
1	1:100	0 34'
2	1:50	1 09'
2.5	1:40	1 26'
2.86	1:35	1 38'
3	1:33.3	1 43'
3.33	1:30	1 55'
5	1:20	2 52'
12.5	1:8	7 08'
20	1:5	11 18'

3 - WHICH AIRCRAFT MAY USE A LANDING AREA?

3. Use of landing areas other than aerodromes is not recommended for aircraft with a MTOW greater than 5700 kg.

4 - WHICH TYPES OF OPERATIONS MAY BE CONDUCTED FROM A LANDING AREA?

4. Aeroplanes engaged in the following operations may use a landing area:

(a) private;

(b) aerial work—excluding student solo flying and student dual flying prior to successful completion of the General Flying Progress Test; and

(c) charter.

5 - RECOMMENDED MINIMUM PHYSICAL CHARACTERISTICS OF LANDING AREAS AND WATER ALIGHTING AREAS

5.1 **Runway Width**. For other than agricultural operations, a minimum width of 15 metres is recommended although aeroplanes with a MTOW below 2000kg can be operated safely on runways as narrow as 10 metres provided there is no or only light cross-wind. For agricultural operations, a 10 metre wide runway is the recommended minimum.

5.2 **Runway Length**. For other than agricultural operations by day, a runway length equal to or greater than that specified in the aeroplane's flight manual or approved performance charts or certificate of airworthiness, for the prevailing conditions is required (increasing the length by an additional 15% is recommended when unfactored data is used). For agricultural day operations, the minimum runway length is the greater of 75% of the take-off distance specified in the aeroplane's flight manual or approved performance chart for the prevailing conditions with the balance as clearway or the landing distance so specified.

5.3 **Longitudinal Slope**. The longitudinal slope between the runway ends should not exceed 2%, except that 2.86% is acceptable on part of the runway so long as the change of slope is gradual. For agricultural operations, the slope should not exceed 12.5% for day and 2% for night operations: where the overall slope exceeds 2% the runway should only be used for one-way operations — downhill for take-off and uphill for landing.

5.4 **Transverse Slope**. The transverse slope between the extreme edges of the runway strip should not exceed 2.5% or 12.5% upward slope over the fly-over area. For agricultural day operations, the transverse slope should not be more than 3% over the runway and 5% over the runway strip.

5.5 **Other Physical Characteristics**. Both ends of a runway, not intended solely for agricultural operations, should have approach and take-off areas clear of objects above a 5% slope for day and a 3.3% slope for night operations. Other recommended landing area physical characteristics are shown on the following diagrams:

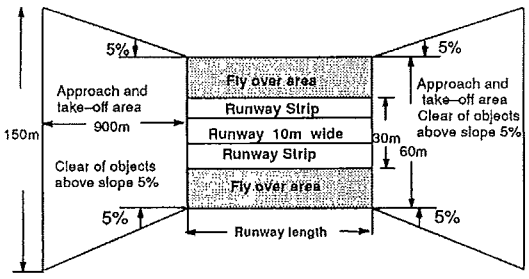


Figure 2A - Single engined and Centre-Line Thrust Aeroplanes not exceeding 2000 kg MTOW (day operations)

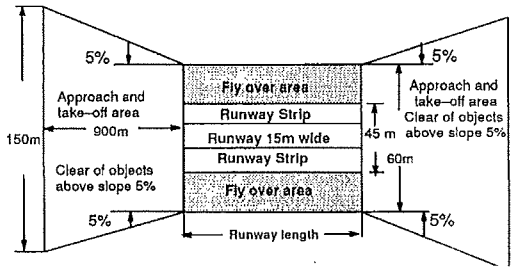


Figure 2B - Other Aeroplanes (day operations)

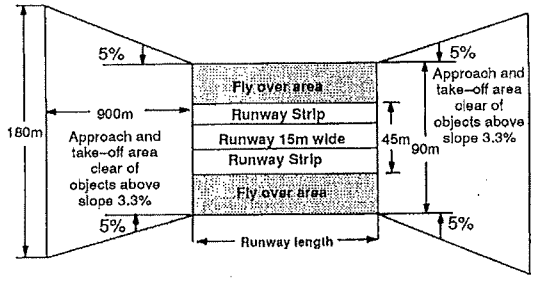


Figure 3 - Dimensions (night operations)

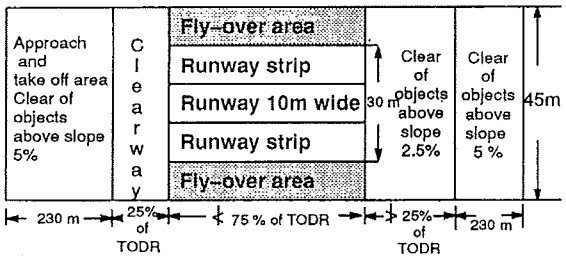


Figure 4 - Dimensions - agricultural day operations

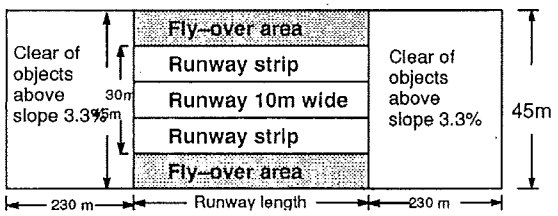


Figure 5 - Dimensions - agriculture night operations

5.6 **Float plane alighting areas**. For water operations, a minimum width water channel of 60 metres for day operations and 90 metres for night operations is recommended. The depth of water over the whole water channel should not be less than 0.3 metres below the hull or floats when the aeroplane is stationary and loaded to maximum take-off weight. An additional area, as shown in the following diagrams, provides a protective buffer for the water channel but need not consist of water. Where the additional area consists of water then it should be clear of moving objects or vessels under way. The centre line of a water channel may be curved, provided that the approach and take-off areas are calculated from the anticipated point of touchdown or lift-off.

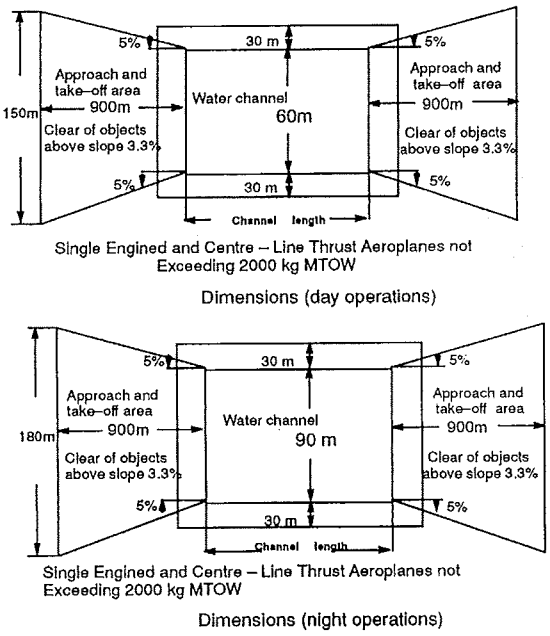


Figure 6 - Float planes

6 - MARKING OF LANDING AREAS

6.1 Where extended operations are expected to be conducted at a landing area, the owner/operator is encouraged to provide markings similar to those found at government and licensed aerodromes. If markings are provided, they should follow the colours and specifications set out in AIP AGA. A suitable layout is shown at Figure 7.

6.2 Where runway markers are provided which are not flush with the surface, they should be constructed of a material that is not likely to damage an aircraft.

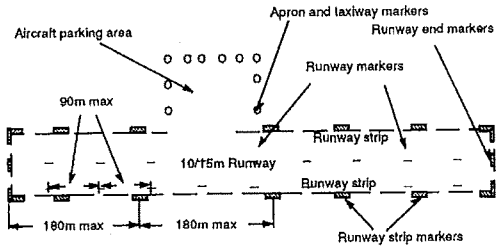


Figure 7 - Typical ALA layout and marking

7 - LIGHTING FOR NIGHT OPERATIONS

7.1 The recommended minimum lighting and layout is as follows:

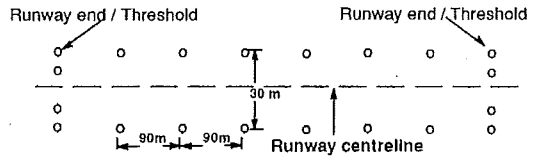


Figure 8 - Lighting for Night Operations

7.2 The lights should, under the weather conditions prevailing at the time of the flight, be visible from a distance of no less than 3000 metres.

7.3 Substitution of runway lights with reflectorised markers is permitted but not recommended by the Authority.

7.4 The different types of reflectorised markers vary in efficiency. Their luminosity can be affected by a number of factors, including equipment cleanliness/layout, the position/strength of the aircraft landing light(s) and meteorological conditions -— especially cross winds on final.

7.5 The following lights should not be substituted by reflectorised markers:

(a) runway end/threshold corner lights;

(b) lights 90m from each runway end/threshold; and

(c) lights nearest to the illuminated runway mid-length point.

8 - OTHER FACTORS THAT SHOULD BE CONSIDERED PRIOR TO USING A LANDING AREA

8.1 A pilot should not use a landing area or have an aeroplane engine running unless the aeroplane is clear of all persons, animals, vehicles or other obstructions.

8.2 A pilot should not use a landing area without taking all reasonable steps to ensure the physical characteristics and dimensions are satisfactory. For aerial work and charter operations the operator should provide evidence to the pilot on the suitability of a landing area prior to its use.

8.3 Runway lengths calculated for take-offs and landings should be increased by 50% for agricultural operations on one-way runways at night.

8.4 **Geographic Location**. A landing area should not be located:

(a) within the area or in such close proximity as to create a hazard to aircraft conducting a published instrument approach, excluding the holding pattern; or

(b) within any area where the density of aircraft movements makes it undesirable; or

(c) where take-off or landing involving flight over a populated area creates an unnecessary hazard.

8.5 Except in an emergency, the consent of the owner/occupier is required before a landing area may be used.

8.6 If the proposed landing area is located near a city, town or populous area or any other area where noise or other environmental considerations make aeroplane operations undesirable, the use of such a landing area may be affected by the provisions of the *Commonwealth Environment Protection (Impact of Proposals) Act 1974* and parallel State legislation as well as other legislation. It is the responsibility of the pilot and/or operator to conform with these requirements.

8.7 A method of determining the surface wind at a landing area is desirable. A wind sock is the preferred method.

8.8 The surface of a landing area should be assessed to determine its effect on aeroplane control and performance. For example, soft surfaces or the presence of long grass (over 150mm) will increase take-off distances while moisture, loose gravel or any material that reduces braking effectiveness will increase landing distance.

9 - SURFACE TESTING OF A LANDING AREA

9.1 **Rough Surfaces**. The presence of holes, cracks and ruts will degrade aeroplane performance and handling and increase the possibility of structural damage. The smoothness of a runway

can be tested by driving a stiffly sprung vehicle along the runway at a speed of at least 75 kph. If this is accomplished without discomfort to the occupants, the surface can be considered satisfactory.

9.2 **Soft, Wet Surfaces.** A test vehicle as indicated in the table below should be driven in a zig-zag pattern at a speed not exceeding 15 kph along the full length and width of the runway. Particular attention should be paid to suspect areas with possibly three passes over these areas. If tyre imprints exceed a depth of 25mm the surface is not suitable for aircraft operations represented by the test vehicle. Experience may prove that for a certain type of aircraft (eg, an aircraft with small wheels or high tyre pressure) operations are unsafe with a lesser imprint. Testing with a crowbar should also be done in several places along the runway to ensure that a dry surface crust does not conceal a wet base.

USER AIRCRAFT WEIGHT	SUGGESTED VEHICLE TO BE USED FOR TEST
1. MTOW not exceeding 2000kg	Fully laden utility, Landrover, station sedan.
2. MTOW 2001 kg to 3400kg	Fully laden 1.5 tonne truck or lightly laden 3 tonne truck.
3. MTOW 3401 kg to 5700kg	Fully laden 3 tonne truck
Attention should also be given to the remainder of the strip as this area is provided for run-off in the event of an abnormal take-off or landing.	

Bowman, Anna

From: Airport Developments <Airport.Developments@AirservicesAustralia.com>
Sent: Wednesday, 20 December 2017 11:14 AM
To: Bowman, Anna
Cc: airspace.protection@casa.gov.au
Subject: NSW-MA-508 - Noise, Dev, flight school, Lot 1 DP 109606 1070 Princes Hwy, Frogs Hollow [SEC=UNCLASSIFIED]
Attachments: ANEF General Overview [SEC=UNCLASSIFIED] (27.3 KB)

Categories: DA

Hi Anna,

Airservices have sent information to Steph Anderson at NGH Environmental, regarding compiling Australian Noise Exposure Forecast (ANEF) for airports (see attached). In the attached email, we have provided them several links to Department of Infrastructure and Regional Development website which has guidelines on preparing an ANEF.

An ANEF is used for land use planning purposes and is only required for federally leased airports. Frogs Hollow is not a federally leased airport however we can carry out a technical endorsement if Frogs Hollow Airport wished to undertake an ANEF.

Any noise regulation, restrictions on surrounding land and on the operations at the airport to manage noise may be set by council. Airservices is not involved in setting these restrictions as this is outside of Airservices jurisdiction. We recommend that the flight school commission the services of an acoustical consultant for detailed noise analysis.

For additional information, the *Airports (Environment Protection) Regulations 1997 (Cth)* identifies excessive noise guidelines for ground base operation at airports which may be useful for the applicant in managing the noise impact(s) of its operations.

Regards

William Zhao
Advisor Airport Development | Operational Standards & Assurance
Airservices Australia

Phone: +61 3 9339 2504
Email: airport.developments@airservicesaustralia.com

www.airservicesaustralia.com

From: Bowman, Anna [mailto:ABowman@begavalley.nsw.gov.au]
Sent: Tuesday, 12 December 2017 9:26 AM
To: Airport Developments <Airport.Developments@AirservicesAustralia.com>
Subject: 2017.445 Proposed recreational flight school at Lot: 1 DP: 109606 1070 Princes Highway FROGS HOLLOW

Bowman, Anna

From: Yorke, Ian <Ian.Yorke@AirservicesAustralia.com>
Sent: Friday, 1 December 2017 10:44 AM
To: steph.a@nghenvironmental.com.au
Cc: Latimore, Mark
Subject: ANEF General Overview [SEC=UNCLASSIFIED]
Attachments: image001.gif; ANEF Readiness Checklist for Website_NOT PUBLISHED.DOCX

Hi Steph,

Thanks for your call on Wednesday and sorry it has taken me a couple of days to get back to you I was just caught up with some other items I wasn't expecting.

As I mentioned, only Federally Leased Airports are required to conduct ANEF's every 5 years as part of their Master Planning Process (https://infrastructure.gov.au/aviation/airport/index.aspx). However privately owned airports or airports owned by local governments are more than welcome to submit ANEF's for endorsement and we have received quite a few of these examples. They are often carried out by these airports to protect land for future airport extensions and/or to protect land being newly developed within the vicinity of airports and within certain ANEF contours (which have restrictions on certain land uses).

The Manner of Endorsement Document on the DIRD website sets out requirements for ANEF's (https://infrastructure.gov.au/aviation/environmental/airport_safeguarding/index.aspx under "Technical Endorsement of Australian Noise Exposure Forecasts"). ANEF's can be standard (?20 years), long range (>20 years) or ultimate capacity. This part of the DIRD website is also a useful reference - https://infrastructure.gov.au/aviation/environmental/transparent_noise/expanding/app_a.aspx

Furthermore, I am attaching (see above) our ANEF Readiness Checklist which sets out our requirements in further detail from the Manner of Endorsement above and what we consider when conducting our ANEF technical endorsements.

Also it would be worthwhile considering the newly revised Australian Standard AS2021:2015 Acoustics - Aircraft noise intrusion - Building siting and construction as this as this sets out requirements and considerations for development of ANEF's.

I will be on leave Mon, Tues, Wed next week so if you having any urgent questions please contact Mark Latimore (mark.latimore@airservicesaustralia.com and 02 6268 5620) as he is the other team member who endorses ANEF's. Please let me know if you have any questions regarding any aspects of this.

Kind regards,

Ian Yorke

Senior Environment and Noise Specialist

Airservices Australia

t 02 6268 4420

e <mailto:ian.yorke@airservicesaustralia.com> ian.yorke@airservicesaustralia.com

<http://www.airservicesaustralia.com/>

RECREATIONAL
AVIATION AUSTRALIA

Recreational Aviation Australia

ACN 070 931 645

U3/ 1 Pirie Street
PO Box 1265
Fyshwick ACT 2609
Tel: 02 6280 4700
Fax: 02 6280 4775
www.raa.asn.au
Facebook: www.facebook.com/RecAviation

12 February 2018

Anna Bowman
Town Planner
Bega Valley Shire Council
PO Box 492
Bega NSW 2350

Dear Anna

Thank you for your email of 25 January 2018, regarding Sports Aviation College of Australia's development application.

RAAus fully supports the work being under taken by the college and has been kept informed of the work the team at the college are doing. Recreational Aviation is the leader in creating the next pool of pilots for commercial flying purposes and colleges of this nature play an important role in preparing pilots for their careers. Without concepts of this nature Australia would continue to suffer from a shortage of pilots.

We ask that you view the application very favourable and stand ready to assist you should you have any questions.

Yours Sincerely

Michael Linke
CEO
Recreational Aviation Australia

Our ref: STH08/02093/06
Contact: Andrew Lissenden 4221 2769
Your Ref: 2017.445

7 November 2018

Anna Bowman
Bega Valley Shire Council
BY EMAIL: council@begavalley.nsw.gov.au

DEVELOPMENT APPLICATION 2017.445 – LOT 1 DP 109606, 1070 PRINCES HIGHWAY, FROGS HOLLOW - RECREATIONAL FLIGHT SCHOOL

Dear Anna

Roads and Maritime Services (RMS) refers to an email from Xeros Piccolo Consulting Engineers dated 22 October 2018 (refer to **Attachment 1**) regarding the above development application (DA).

RMS has reviewed the additional information provided focusing on the potential impacts to the state road network. For the proposed access to this development, the key state/classified road is the Princes Highway.

Noting the above, RMS wishes to advise that it requires the submission of additional information to enable it to adequately assess the impacts of the development on the adjoining state/classified road (i.e. the Princes Highway). As such, the updated plans that have been provided are required to be amended and additional supporting information provided that address each of the comments provided in **Attachment 2** to this letter.

To ensure all required issues are addressed in any further amended plans and/or additional information that is provided, RMS advises that it would be happy to have a phone discussion with Xeros Piccolo Consulting Engineers should they have any questions. Should they or the applicant wish to pursue this option they can contact Andrew Lissenden a call on (02) 4221 2769.

RMS will reconsider the application once the above issues are addressed to its satisfaction.

Please ensure that any further email correspondence is sent to development.southern@rms.nsw.gov.au.

Yours faithfully

Chris Millet
Manager, Land Use
Southern Region

Cc: abowman@begavalley.nsw.gov.au;
saxon@xerospiccolo.com.au; and
steph.a@nghenvironmental.com.au

- Level of Detail: RMS has reviewed the updated design (refer to drawing with reference Drawing No. A1001, 1002, 1003, 1004, 2001, 3001, 4001, C1001, C1002, C1003, C1004, Rev A and dated 22.10.2018 and Design Report dated 22 October 2018 Issue B) using the current RMS design reference documents and requires the following issues to be addressed and/or additional information provided:

  - Cross falls should be a projection of the existing lanes (refer to *Austroads Guide to Road Design Part 3: Geometric Design* - Section 4.3.5 Shoulder Crossfalls*)*;
  - Width of flow (i.e. shoulder and 'SO' kerb and gutter capacity) needs to be assessed. This should be provided to confirm it has sufficient capacity (refer to See *Austroads Guide to Road Design Part 5: Drainage – General and Hydrology Considerations* Section 4.2 Road User Considerations and *Austroads Guide to Road Design Part 5A: Drainage – Road Surface*, *Networks, Basins and Subsurface* - Section 5.4 Design Criteria);
  - An aquaplaning assessment needs to be undertaken to ensure the extra pavement width doesn't introduce any surface flow problems (refer to *Austroads Guide to Road Design Part 5A: Drainage – Road Surface, Networks*, *Basins and Subsurface* - Section 4.3 Assessment Process);
  - The table drain shape should be trapezoidal (refer to *Austroads Guide to Road Design Part 3: Geometric Design* – Section 4.3.5 Shoulder Crossfall and *Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers* – Section 5.4.5 Treatment for Drains);
  - The table drain side slopes should be 6:1 but not steeper than 4:1 (refer to *Austroads Guide to Road Design Part 3: Geometric Design* - Section 4.3.5 Shoulder Crossfall);
  - A berm should be provided behind the 'SO' kerb and gutter where there is no significant constraint (refer to *Austroads Guide to Road Design Part 3: Geometric Design* – Section 4.4.2 Verge Slopes). A 0.5m berm would be considered acceptable;
  - Verge rounding should be provided on the fill batters even if they have guard fence (refer to *Austroads Guide to Road Design Part 3: Geometric Design* – Section 4.4.3 Verge Rounding;
  - A catch drain or other form of treatment needs to be provided to mitigate surface flow towards the cutting. Overland flow may erode the hinge point as well as allowing moisture to ingress into the top of the cutting; and
  - Where 'SO' kerb and gutter is directed onto overland flow, scour protection must be provided to help mitigate erosion (refer to *Austroads Guide to Road Design Part 5: Drainage – General and Hydrology Considerations* - Section 3.6.2).

- Flight Paths over the Princes Highway: RMS in its email dated 2 March 2018 and letter dated 3 July 2018 requested the following information:

  - Details on the maximum number of flights (for each stage of the development) that will result in crossing of the Princes Highway; and
  - Details on what the minimum heights will be at each crossing point of the Princes Hwy.

  RMS has been unable to locate the above details in the additional information provided and as such requests that it is provided so as to enable it to assess concerns it has with potential driver distraction caused by flying aircraft.

All communications to be addressed to:

Headquarters
15 Carter Street
Lidcombe NSW 2141

Telephone: 1300 NSW RFS
e-mail: pes@rfs.nsw.gov.au

Headquarters
Locked Bag 17
Granville NSW 2142

Facsimile: 8741 5433

The General Manager
Bega Valley Shire Council
PO Box 492
BEGA NSW 2550

Your Ref: 2017.445
Our Ref: D17/4072
DA17111010257 DD

ATTENTION: A Bowman

11 December 2017

Dear Sir / Madam

Integrated Development for 1070 Princes Highway Frogs Hollow 2550

I refer to your letter dated 3 November 2017 seeking general terms of approval for the above Integrated Development in accordance with Section 91 of the 'Environmental Planning and Assessment Act 1979'.

This response is to be deemed a bush fire safety authority as required under section 100B of the 'Rural Fires Act 1997' and is issued subject to the following numbered conditions:

1. The development proposal is to comply with the Development Plan Showing Proposed Infrastructure Stages 1-9 identified on the drawing prepared by Tasman Engineering Consultants numbered S518-04, dated October 2017.

Asset Protection Zones

The intent of measures is to provide sufficient space and maintain reduced fuel loads so as to ensure radiant heat levels of buildings are below critical limits and to prevent direct flame contact with a building. To achieve this, the following conditions shall apply:

2. At the commencement of building works and in perpetuity the entire property shall be managed to minimise fuel loads and inhibit fire paths as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.

3. At the commencement of building works and in perpetuity the property around each Flight School Building to a distance of 30 metres, shall be maintained as an inner protection area (IPA) as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.

Water and Utilities

The intent of measures is to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building. To achieve this, the following conditions shall apply:

4. Water, electricity and gas are to comply with sections 4.1.3 and 4.2.7 of 'Planning for Bush Fire Protection 2006'.

- Fire hydrant spacing, sizing and pressures shall comply with Australian Standard AS 2419.1– 2005 'Fire Hydrant Installations'.
- Reticulated or bottled gas is to be installed and maintained in accordance with Australian Standard AS/NZS 1596:2014: 'The storage and handling of LP gas' and the requirements of relevant authorities. Metal piping is to be used.

Access

The intent of measures for internal roads is to provide safe operational access for emergency services personnel in suppressing a bush fire, while residents are accessing or egressing an area. To achieve this, the following conditions shall apply:

6. Internal roads shall comply with following requirements of section 4.2.7 of 'Planning for Bush Fire Protection 2006'.

- Internal roads are twowheel drive, allweather roads.
- Roads are through roads. Dead end roads incorporate a minimum 12 metres outer radius turning circle, and are clearly signposted as a dead end.
- Traffic management devices are constructed to facilitate access by emergency services vehicles.
- A minimum vertical clearance of 4 metres to any overhanging obstructions, including tree branches, is provided.
- Curves have a minimum inner radius of 6 metres and are minimal in number to allow for rapid access and egress.
- The minimum distance between inner and outer curves is six metres. Curves have a minimum inner radius of 6 metres and are minimal in number to allow for rapid access and egress.
- Maximum grades do not exceed 15 degrees and average grades are not more than 10 degrees.
- Crossfall of the pavement is not more than 10 degrees.
- Roads do not traverse through a wetland or other land potentially subject to periodic inundation (other than flood or storm surge).
- Roads are clearly signposted and bridges clearly indicate load ratings.

- The internal road surfaces and bridges have a capacity to carry fullyloaded fire fighting vehicles (15 tonnes).

Evacuation and Emergency Management

The intent of measures is to provide suitable emergency and evacuation (and relocation) arrangements for occupants of special fire protection purpose developments. To achieve this, the following conditions shall apply:

7. In recognition of the isolated location of the development an emergency/evacuation plan is to be prepared consistent with the NSW Rural Fire Service document 'Guidelines for the Preparation of Emergency/Evacuation plan'.

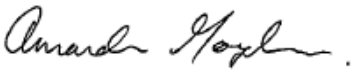
Design and Construction

The intent of measures is that buildings are designed and constructed to withstand the potential impacts of bush fire attack. To achieve this, the following conditions shall apply:

8. New construction for the Main Building and each building within each Squadron Compound shall comply with section 3 and section 6 (BAL 19) Australian Standard AS3959-2009 ‘Construction of buildings in bush fire-prone area’ or NASH Standard (1.7.14 updated) ‘National Standard Steel Framed Construction in Bushfire Areas – 2014’ as appropriate and section A3.7 Addendum Appendix 3 of 'Planning for Bush Fire Protection' 2006’.

For any queries regarding this correspondence please contact Deborah Dawson on 1300 NSW RFS.

Yours sincerely



Amanda Moylan
Team Leader Development Assessment & Planning

The RFS has made getting information easier. For general information on 'Planning for Bush Fire Protection, 2006' , visit the RFS web page at www.rfs.nsw.gov.au and search under 'Planning for Bush Fire Protection, 2006'.

NSW GOVERNMENT | Office of Environment & Heritage

DOC17/552916-12

The General Manager
Bega Valley Shire Council
PO Box 492
Bega NSW 2550
Attention: Anna Bowman
council@begavalley.nsw.gov.au

Dear Ms Bowman

Development Application No 2017.445 for recreational flight school at Lot 1 DP 109606, 1070 Princes Highway Frogs Hollow

Thank you for providing the Office of Environment and Heritage (OEH) with the opportunity to comment on the above development application and associated information. OEH understands that the proposal is for a recreational flight school at the existing Frogs Hollow airstrip.

The following comments relate to the biodiversity and Aboriginal cultural heritage aspects of this proposal.

Biodiversity
OEH supports the recommendations as set out in Section 6 – Recommendations in the Flora and Fauna Assessment, and these should be included in the conditions of consent.

Lowland Grassy Woodland EEC
We note that the land is identified on the terrestrial biodiversity mapping layer in the *Bega Valley Local Environmental Plan 2013* (BVLEP) which indicates the potential for the presence of the endangered ecological community (EEC) Lowland Grassy Woodland in the South East Corner Bioregion (Lowland Grassy Woodland) and threatened species habitat.

As the proponent has confirmed the presence of Lowland Grassy Woodland on the site, as shown in Figure 4-1, we consider that these areas should be protected in perpetuity. OEH considers that both the derived grassland and woodland component form the Lowland Grassy Woodland EEC. This is because the scientific determination for lowlands grassy woodland specifically states that 'the community also includes 'derived' native grasslands which result from removal of the woody strata from the woodlands and forests'.

This should be considered in an updated assessment of significance, particularly as the site inspection was carried out in early spring, (and only for 3 hours) where a number of species may not be visible above ground. The impact of grazing can also affect the number and relative abundance of some species, at any one time, above-ground individuals of some species may be absent, but the species may be represented below ground in soil seed banks or as dormant structures such as bulbs, corms, rhizomes, rootstocks or lignotubers.

The EEC should be protected in perpetuity through a section 88B instrument under the *Conveyancing Act 1919*. The s88B instrument should have a vegetation management plan attached

PO Box 733, Queanbeyan NSW 2620
11 Farrer Place, Queanbeyan NSW
Tel: (02) 6229 7188 Fax: (02) 6229 7001
ABN 30 841 387 271
www.environment.nsw.gov.au

that includes strategies to control African lovegrass and the noisy miner which are key threatening processes.

Risk of collision with threatened bird species
Further information should be provided by the proponent as there are several threatened bird species, specifically raptors, that may be at risk of collision with aircraft due to the increased use of the airstrip. As such, an assessment of significance should be carried out on birds that have been identified on the NSW Atlas within 10km of the subject site. These include;

- Grey falcon
- White bellied sea eagle
- Spotted harrier
- Little eagle
- In addition, the square tiled kite should be considered as it targets honeyeaters such as the noisy miner.

This will provide council the necessary information to adequately consider section 79C of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and clause 6.5 of the BVLEP. Any recommendations that come out of these assessments should be included as conditions of consent.

Aboriginal cultural heritage
We have reviewed the information provided and note that the Statement of Environmental Effects has chosen not to follow the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW 2010). The Due Diligence Code provides a process whereby a reasonable determination can be made about whether or not Aboriginal objects will be harmed by an activity, whether further investigation is warranted and whether the activity requires an approval from OEH.

Whilst an AHIMS search has been conducted - this is only part of the requirements to consider potential impacts to Aboriginal cultural heritage. Also, while there may be no Aboriginal sites recorded on this property, it should be noted that surveys for Aboriginal objects have not been done in many parts of NSW. Aboriginal objects may exist on a parcel of land even though they have not been recorded in AHIMS. Landscape features also need to be considered to determine whether there is potential for Aboriginal sites to occur. Aboriginal sites are recorded on AHIMS within a few kilometres north, south and west of the study area, some in landscape contexts and disturbed areas similar to the proposed development.

We remind Council and the proponent that the *National Parks and Wildlife Act 1974* (NPW Act) protects Aboriginal objects and Aboriginal places in NSW. It is in the interest of proponents to ensure that all reasonable precautions are taken to prevent the occurrence of harm to Aboriginal objects. In the event that Aboriginal objects are identified during any future construction, works must cease immediately and the nature and extent of the objects assessed. If Aboriginal objects and/or places will be directly or indirectly adversely affected, the proponent will need to apply for, and be issued, an Aboriginal Heritage Impact Permit (AHIP) by OEH to comply with the NPW Act. These requirements should be included as a safeguard and mitigation measures in Table 6 of the Statement of Environmental Effects.

If the proponent wishes, OEH is happy to attend a site visit to discuss biodiversity and Aboriginal cultural heritage values and the possibilities of siting future developments in a way that minimises impacts.

If you would like to discuss the above comments further, please contact Lyndal Walters on 02 6229 7157 for biodiversity matters, and Jackie Taylor for Aboriginal cultural heritage values on 02 6229 7089.

Yours sincerely

4/11/17.

ALLISON TREWEEK
Senior Team Leader, Planning - South East
Regional Operations Division
OFFICE OF ENVIRONMENT AND HERITAGE

NSW GOVERNMENT | Office of Environment & Heritage

DOC18/361441-25

The General Manager
Bega Valley Shire Council
PO Box 492
Bega NSW 2550
Attention: Anna Bowman
council@begavalley.nsw.gov.au

Dear Ms Bowman

Development Application No 2017.445 for recreational flight school at Lot 1 DP 109606, 1070 Princes Highway Frogs Hollow – response to additional information

Thank you for providing the Office of Environment and Heritage (OEH) with the opportunity to comment on the additional information for the above development application.

OEH has reviewed the information and the following comments relate to the biodiversity and Aboriginal cultural heritage aspects of this proposal.

Biodiversity
As advised in our letter of 4 November 2017, OEH supports the recommendations as set out in Section 6 – Recommendations in the Biodiversity Impact Assessment, dated October 2017. In addition, we support the recommendations in the Frogs Hollow Recreational Flight School Addendum (ref. 17-434; variation 1).

These recommendations should inform a Biodiversity Management Plan (BMP). OEH recommends the BMP should also include management actions for the following;

- The control of food sources for birds of prey including the removal of rabbits from the site. If grazing continues on the site, the prompt removal of livestock carcasses including dead lambs and other stock.
- The regular monitoring of habitat and refuge availability for raptors should also include monitoring for nests, and measures to deter nesting in the area.
- the BMP should also include a map showing the constraints of the site which clearly identifies the areas that will be protected by the s88B instrument

OEH notes that in the assessment of significance for the threatened bird species, it has been incorrectly stated that there are no records within 10km of the site. These birds were listed in our previous letter as there are records of all of them within 10km of the site in the NSW Atlas. The assessment of significance will need to be updated to reflect this.

Aboriginal cultural heritage
The additional information received included an Aboriginal Heritage Due Diligence Assessment prepared by NGH Environmental (NGH). The due diligence report has recorded that there are landforms in the development footprint that have moderate to high potential to contain subsurface archaeological material.

PO Box 733, Queanbeyan NSW 2620
11 Farrer Place, Queanbeyan NSW
Tel: (02) 6229 7188 Fax: (02) 6229 7001
ABN 30 841 387 271
www.environment.nsw.gov.au

OEH supports NGH's (2018:13) recommendations that an Aboriginal Cultural Heritage Assessment report (ACHAR) which includes the results of a program of subsurface archaeological testing is completed. The subsurface archaeological testing and the completion of an ACHAR in accordance with OEH guidelines should be undertaken prior to development approval.

The timing of this approach provides the best opportunity to conserve Aboriginal heritage sites and gives certainty to all parties about the Aboriginal cultural heritage management requirements. If Aboriginal objects are identified and will be subject to harm an Aboriginal Heritage Impact Permit (AHIP) issued by OEH under the *National Parks and Wildlife Act* 1974 would be required. Further detailed comments are appended in Attachment A.

Recommended conditions of consent

OEH recommends the following conditions of consent;

1. The Lowland Grassy Woodland endangered ecological community should be protected in perpetuity through a section 88B instrument under the *Conveyancing Act 1919.*

2. A Biodiversity Management Plan must be developed which incorporates the recommendations and additional OEH recommendations listed above to support the s88B instrument.

3. If Aboriginal objects are identified and will be subject to harm an Aboriginal Heritage Impact Permit (AHIP) issued by OEH under the *National Parks and Wildlife Act* 1974 would be required.

If you would like to discuss the above comments further, please contact Lyndal Walters on 02 6229 7157 for biodiversity matters, and Julia Maskell for Aboriginal cultural heritage values on 02 6229 7039.

Yours sincerely

21/6/18

ALLISON TREWEEK
Senior Team Leader, Planning - South East
Regional Operations Division
OFFICE OF ENVIRONMENT AND HERITAGE

Attachment A – Aboriginal cultural heritage matters relating to 1070 Princes Highway, Frogs Hollow

Due Diligence Assessment (NGH 2018)

OEH does not have a role in certifying due diligence assessments. It is the responsibility of the proponent to ensure that they have made all reasonable attempts to determine whether Aboriginal objects will be harmed through the proposed works. However, in this instance OEH has reviewed the due diligence assessment prepared by NGH (2018).

The due diligence assessment prepared by NGH (2018) identified landforms that had moderate to high potential to contain subsurface archaeological material. OEH supports the recommendation in the NGH (2018) report to complete subsurface archaeological test excavation and document the results of this investigation in an ACHAR.

This is necessary as subsurface archaeological test excavation will determine whether the areas described as moderate to high potential are Aboriginal sites and contain Aboriginal objects. Subsurface archaeological test excavation must be completed in accordance with the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales.* The test excavation should aim to collect information about the nature and extent of subsurface Aboriginal objects, based on a sample derived from subsurface investigations.

It should be noted that test excavation in accordance with the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales* requires that the *Aboriginal cultural heritage consultation requirements for proponents 2010* have commenced and are completed to the stage described in subclause 80C(6) of the *National Parks and Wildlife Regulation* 2009.

The Aboriginal Cultural Heritage Assessment Process

The results of an investigation would need to be documented in an ACHAR in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* and the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales.*

The investigation would require a full archaeological survey of the study area along with the subsurface archaeological test excavation. The ACHAR would also need to document how the *Aboriginal cultural heritage consultation requirements for proponents 2010* have been met.

If Aboriginal objects are identified and will be subject to harm an AHIP issued by OEH under the *National Parks and Wildlife Act* 1974 would be required. The ACHAR would then be part of the supporting documentation needed to apply for an AHIP (if an AHIP is required).

Guidance for Aboriginal Cultural Heritage Assessments

In addressing the above requirements, the proponent must comply with the processes described in the following documents:

- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, 2010) – www.environment.nsw.gov.au/licences/consultation.htm. This document further explains the consultation requirements that are set out in clause 80C of the *National Parks and Wildlife Regulation 2009*. The process set out in this document must be followed and documented in the report.
- *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010) – www.environment.nsw.gov.au/licences/archinvestigations.htm. The process described in this Code should be followed and documented where the assessment of Aboriginal cultural heritage requires an archaeological investigation to be undertaken.
- *Guide to investigation, assessing and reporting on Aboriginal Cultural heritage in NSW* (OEH, April 2011) – www.environment.nsw.gov.au/licences/investassessreport.htm. This document provides guidance on the process for investigating and assessing Aboriginal cultural heritage in NSW and OEH's requirements for an assessment report.
- *Applying for an Aboriginal Heritage Impact Permit: Guide for applicants* (OEH, May 2011) – www.environment.nsw.gov.au/licences/applyforahip.htm. The aim of this guide is to assist in

the preparation of an AHIP application. It should be read in conjunction with the *National Parks and Wildlife Act 1974* and the *National Parks and Wildlife Regulation 2009*.

NSW GOVERNMENT | Office of Environment & Heritage

DOC18/421442-2

The General Manager
Bega Valley Shire Council
PO Box 492
Bega NSW 2550
Attention: Anna Bowman
council@begavalley.nsw.gov.au

Dear Ms Bowman

Development Application No 2017.0445 for recreational flight school at Lot 1 DP 109606, 1070 Princes Highway Frogs Hollow – response to additional information received 25 June 2018

Thank you for providing the Office of Environment and Heritage (OEH) with the opportunity to comment on the additional information for the above development application. The information we have reviewed is titled *Addendum Statement of Environmental Effects, Proposed Recreational Flight School, 1070 Princes Highway, Frogs Hollow.*

OEH has previously provided advice and recommendations on the information provided for the development application on 4 November 2017 and 21 June 2018, and we refer Bega Valley Shire Council to these comments.

OEH reiterates the recommendation provided to Council on 21 June 2018 that further Aboriginal cultural heritage assessment, including test pitting and an *Aboriginal Cultural Heritage Assessment Report*, is completed prior to development approval. It should be noted that these investigations are not reliant on development consent being granted.

The timing of this approach provides the best opportunity to consider Aboriginal heritage sites and gives certainty to all parties about the Aboriginal cultural heritage management requirements. If Aboriginal objects will be harmed it would be necessary to apply, and be issued an Aboriginal Heritage Impact Permit (AHIP).

Please note it is standard procedure for OEH to require development consent prior to issuing an AHIP.

If you would like to discuss the above comments further, please contact Lyndal Walters on 02 6229 7157 for biodiversity matters or Julia Maskell for Aboriginal cultural heritage matters on 02 6229 7039.

Yours sincerely

5/7/18

ALLISON TREWEEK
Senior Team Leader, Planning - South East
Regional Operations Division
OFFICE OF ENVIRONMENT AND HERITAGE

PO Box 733, Queanbeyan NSW 2620
11 Farrer Place, Queanbeyan NSW
Tel: (02) 6229 7188 Fax: (02) 6229 7001
ABN 30 841 387 271
www.environment.nsw.gov.au

NSW EPA

Scan
CM
DOC 13 DEC 2017
TRIM
ACTION

Your Reference: DA 2017.445
Our reference: DOC17/585888-03
Contact: Tristan Johnston (02) 6229 7002

Bega Valley Shire Council
PO Box 550
BEGA NSW 2550

Attention: Anna Bowman, Town Planner
(via email: abowman@begavalley.nsw.gov.au)

Dear Ms Bowman,

RE: DA2017.445 – Lot: 1 DP: 109606 - 1070 Princes Highway FROGS HOLLOW

Thank you for your letter to the Environment Protection Authority (EPA) dated 23 November 2017 inviting comment on the above proposal. The EPA has now reviewed the development application and supporting documents for the Frog's Hollow Flight School and offers the following comments for your consideration:

EPA Regulatory Role

The project will be owned and operated by a private company and does not appear to trigger any of the thresholds for 'Scheduled Activities' in accordance with *Schedule 1* of the *Protection of the Environment Operations Act 1997* (the POEO Act) so will not require an EPA Licence or regulation by the EPA. Noise from aircraft (taxiing, take-off, flight and landing) is regulated by Airservices Australia (www.airservicesaustralia.com).

Application of the NSW Industrial Noise Policy

The EPA notes that two of the provided documents:

- '*Statement of Environmental Effects – Proposed Recreational Flight School at 1070 Princes Highway, Frogs Hollow*' (NGH Environmental, 2017 - p12-13); and
- '*Frogs Hollow Sports Aviation - Noise Assessment for Proposed Flight School*' (Renzo Tonin & Associates, 2017)

made assessment of the potential noise impacts from the project using methodology and criteria from the *NSW Industrial Noise Policy* 2000 (the INP). The EPA consider that the application of the INP is inappropriate for assessing the potential noise impacts from activities including: aircraft taxiing around the airfield prior to take-off or post landing; aircraft take-off and landing; or aircraft flying circuits around the airfield.

Noise from aircraft on the ground (not taxiing, taking off or landing) can be directly controlled through the POEO Act provisions. Therefore, noisy aircraft engine maintenance activities on the ground can

PO Box 622 Queanbeyan NSW 2620
Level 3/11 Farrer Place Queanbeyan NSW 2620
Tel: (02) 6229 7002 or 131 555
Fax: (02) 6229 7006
TTY 133 677 ABN 43 692 285 758
queanbeyan@epa.nsw.gov.au www.epa.nsw.gov.au

be controlled by, for example, specifying permitted hours and/or noise limits at affected residences. These provisions can be applied by councils to privately operated airports/facilities (other than Commonwealth owned and leased airports and helicopter facilities scheduled under the POEO Act).

Additionally, the INP has been superseded by the *Noise Policy for Industry* (2017) which can be accessed on the EPA website at: http://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/nsw-industrial-noise-policy . The INP only continues to be used when existing licence and consent conditions refer to the policy, except for Section 4 which has been replaced by the provisions in Fact Sheet C of the Noise Policy for Industry (2017).

Airservices Australia is responsible for regulating noise from aircraft in flight and aircraft movements such as taxiing, taking off and landing and should be the first point of contact for any noise issues relating to aircraft engaged in these activities in NSW. The EPA does not have noise criteria for aircraft in flight or for aircraft movements such as taxiing, take-off and landing and therefore expects that any requirements specified by Airservices Australia would be met by the proposal.

Additional information that may be of interest is referenced in section 3.3 *Managing Specific Noise Issues* (p3.16) of the EPA's *Noise Guide for Local Government* (available on the EPA website at: http://www.epa.nsw.gov.au/your-environment/noise/regulating-noise/noise-guide-local-government) regarding aircraft noise at airports without Australian noise exposure forecast (ANEF) contours. Guidance on appropriate noise levels may be obtained by consulting the *AS 2021–2015 Acoustics – Aircraft noise intrusion – Building siting and construction* (Standards Australia, 2015).

If you have any queries or wish to discuss this matter further, please contact Tristan Johnston or myself on (02) 62297002 or via email to queanbeyan@epa.nsw.gov.au .

Yours sincerely

6·12·17

MR MATTHEW RIZZUTO
Head of Operations – South East Region
Environment Protection Authority

From: Peter Harrington [mailto:Peter.Harrington@health.nsw.gov.au]
Sent: Monday, 19 February 2018 10:05 AM
To: Pyke, Jonathon
Subject: Flight School - Comments

Good morning Jonathon

In relation to the proposed flight school there is not many more comments to add from our previous discussion

However detailed below are comments from NSW Health Water Unit regarding the protection of rainwater supplies of drinking water:

The installing a first flush device on rainwater tanks is recommended.

Here is an extract from the NSW Health website:

First flush devices prevent the first portion of roof run-off from entering the tank and will reduce the amounts of dust, bird droppings and leaves etc., that can accumulate on roofs, from being washed into tanks. The use of these devices is recommended.
Alternatively the tank inlet should be disconnected so that the first run-off of rain after a dry spell is not collected.

Further information on tank maintenance is available here:
http://www.health.nsw.gov.au/environment/water/Pages/rainwater.aspx#bookmark2

Please call if you wish to discuss

Regards

Peter

Peter Harrington

Environmental Health Officer | Public Health Unit
Murrumbidgee and Southern NSW Local Health District
Community Centre, Bermagui 2546
| Mob 0427 004 992 | peter.harrington@health.nsw.gov.au
www.health.nsw.gov.au

NSW GOVERNMENT | Health

NSW GOVERNMENT | Department of Primary Industries

OUT18/14860

24 September 2018

The General Manager
Bega Valley Shire Council
PO Box 4992
Bega NSW 2550
council@begavalley.nsw.gov.au

Dear Ms Bowman,

Development application: 2017.445 Lot: 1 DP: 109606 - 1070 Princes Highway FROGS HOLLOW

Thank you for referring the above development application to NSW Department of Primary Industries (NSW DPI) Agriculture for comment in your letter dated 5 September 2018. NSW DPI Agriculture provides advice to consent authorities about the protection and growth of agricultural industries and the resources upon which these industries depend to provide economic growth.

You requested advice on the following points in response to concerns raised by the public to the proposed recreational flight school development.

- Livestock productivity and quality will be negatively impacted by aircraft noise and from emissions from aircraft.
- Negative impacts upon the somatic cell count of the cows' milk, and the difficulties in handling stressed animals which need to be handled daily in the dairy industry.
- The aircraft flight training circuits are proposed over the Wolumla Creek, which flows to the Bega River, resulting in pollution of waterways that farming lands rely on.
- The flight circuit training and aircraft movements at such a large scale will result in pollution of the soil which will impact agricultural uses of the land and inhibit current and future use of the surrounding farmland for organic food production.

As there is no information provided on the scale and area of the development, the development location, how close the aircraft are to dairy cows and the size of the aircraft etc: it is difficult for NSW DPI to provide accurate advice. However, the following general advice is offered.

Impacts on dairy cows and livestock

Generally, dairy cows and other livestock can cope with noisy machinery if regularly exposed. There will be stress at first to anything new, cows might be spooked and flighty, but they will settle with time. However, if the cows are within the immediate proximity to the planes (i.e. in the same paddock), they may not settle due to the continuous disturbance.

Somatic cell counts in milk are measured every milk pick up, and are an indication of the presence and level of mastitis causing pathogens in milk. They are generally not a sign of stress, unless the cow has an underlying bacterial infection. So the noise of planes itself should not cause elevated cell counts in milk.

Pollution of soil and water

The risk of soil and water pollution will need to be addressed as part of the development application. Any fuels or oils for instance will need to be correctly housed and bunded to prevent any leakage. The impact of any potential pollution from the development on any downstream irrigators will also need to be addressed. Measures to separate clean water from potentially contaminated runoff water would be required by diverting clean water around the proposed development.

The potential for fire would need to be addressed and fire management equipment provided and a fire management plan in place.

Any further more detailed information on the above aspects would require a more detailed development application to be provided.

I hope the information provided assists you. Should you require further clarification on any of the information contained in this response please contact Wendy Goodburn, Agricultural Land Use Planner on (02) 4424 3736.

DPI Agriculture is working to ensure that the advice provided is of the highest quality. Please take some time to provide us with feedback on our work by completing a short survey.

Yours sincerely

Wendy Goodburn
Agricultural Land Use Planner

nbn-Confidential: Commercial

19 January 2018

By Email: council@begavalley.nsw.gov.au
abowman@begavalley.nsw.gov.au

The General Manager
Bega Valley Shire Council
PO Box 492
BEGA NSW 2550

Dear Ms Leanne Barnes

Development Application: 2017.445 (DA 10-2017-445-1)
Site: 1070 Princes Highway, FROGS HOLLOW (Lot 1 DP 109606)
Description: Recreational Flight School

We refer to the above Development Application (**DA**) for which submissions from the public closed on 20 December 2017, Council's letter to NBN Co Limited (**nbn**) dated 19 December 2017, which informed **nbn** that Council would accept a submission on the DA from **nbn** if it was submitted within 21 days of that letter, and Council's email to **nbn** sent at 11:31am on 19 December 2017, which confirmed that Council would accept a submission on the DA from **nbn** if it was submitted by Friday 19 January 2018.

nbn has reviewed the Statement of Environmental Effects (**SEE**) dated 25 October 2017 prepared on behalf of the DA applicant, Sports Aviation Flight College Australia Limited (**SAFCA**), and the additional information provided to the Council dated 15 November 2017. The SEE and additional information was prepared to support the DA which seeks Council's consent to the proposed development of a recreational flight school at Frogs Hollow Airfield, 1070 Princes Highway, FROGS HOLLOW (Lot 1 DP 109606) (**DA Site**). **nbn** has also considered email correspondence from the applicant's representative to Council dated 22 December 2017.

nbn makes the following submission.

Background

nbn owns and operates a Satellite Earth Station facility (**SES**) for the **nbn** network at Wanatta Lane, WOLUMLA (Lot 401 DP 1191314), located approximately 2.74km south of the DA Site. Location of the SES is not noted on the

Localisation Plan (Sheet No. S518-02) (Attachment A to the SEE) although the neighbouring "Wolumla Waste Transfer Depot" is.

The SES is a nationally significant telecommunication infrastructure facility and is necessary for the improved communication within rural and remote areas of Australia in line with the Federal Government's vision for the provision of fast broadband services to all Australians. The SES has been a major investment by **nbn**, and forms a critical part of **nbn**'s network.

Critically, the SES consists of a four (4) antenna array sending signals to **nbn**'s Skymuster satellites. Each antenna is built to a maximum height of 15.67 metres and faces north to the equator in the direction of the DA Site.

The SES was approved by the Southern Joint Regional Planning Panel on 12 June 2012 (DA: 2012.360) (JRPP Reference: 2012STH021 DA).

Summary of Submission

In **nbn**'s submission, no consideration or assessment of the DA or any approval should be given until the applicant has provided, and **nbn** has had the opportunity to consider, reports prepared that assess:

(a) the potential interference impacts on the SES from the expanded airfield operations – refer to the discussion under SES Impact Submission below;

(b) the expanded and intensified flight operations against relevant guidelines such as the Civil Aviation Advisory Publication (CAAP) 92-1(1) *Guidelines for Aeroplane Landing Areas* (**CAAP Guidelines**) – refer to the discussion under SES Impact Submission and Aviation Safety Submission below; and

(c) the potential impact on aircraft operational instruments from radio frequency signals (**RF**) and electromagnetic energy (**EME**) generated by the SES – refer to the discussion under Aviation Safety Submission below.

In **nbn**'s view, there has been insufficient assessment of these issues in the DA documents provided by SAFCA. In the absence of such information, **nbn** is concerned that the proposed development will interfere with its nationally significant SES facility, which in turn could impact on **nbn**'s ability to provide broadband services using its Skymuster satellites.

Further, **nbn** considers that Council, as the consent authority, has no power to grant consent to the DA as:

(d) the proposed development is "designated development" under the *Environmental Planning and Assessment Regulation 2000* (NSW) (**EPA Regulation**), and no Environmental Impact Statement (**EIS**) has been submitted to the consent authority – refer to the discussion under Designated Development Submission below; and

(e) the proposed development is more correctly characterised as a flight training school or educational facility, and this is prohibited development under the *Bega Valley Local*

Environmental Plan 2013 (**LEP**) – refer to the discussion under Prohibited Development Submission below.

That said, if Council is minded to grant consent to the DA, **nbn** respectfully requests that **nbn** is consulted to assist Council in formulating conditions of consent that aim to minimise the impacts upon the operation of the SES and aim to minimise the impact of the SES upon aviation safety.

SES Impact Submission

The location of the SES was chosen by **nbn** after taking into consideration a number of matters, which included meeting **nbn**'s strict location criteria for satellite earth stations; and, minimising any potential for land use conflict.

The SES is one of **nbn**'s two critical satellite tracking stations. The purpose of the SES is to place and keep the **nbn**'s Skymuster satellites on station in at their designated orbital locations, for the length of the satellites' service life.

The SEE and additional information provides that there will be 10 student training squadrons with 36 students allocated to each squadron which equates to up to 360 students using the flight training school at any time. The training school will operate 24 hours per day for 12 week periods with each student flying 2 hours per day for 15 of the 88 days on campus, which will include numerous practise take-offs and landings. At full capacity the training school will have 40 active training aircraft.

The fifth response in the additional information provided by SAFCA notes that circuit training will mostly use the 36 and 27 circuit patterns. **nbn** expects as a training school, that the following training will unavoidably be outside these circuits, and will occur at a variety of altitudes including low levels:

(a) simulated engine failures;

(b) emergency landings;

(c) low altitude stalls;

(d) baulked landing approach and go-around procedures; and

(e) precautionary search and landings.

The significant increase in flights and training operations caused by the flight training school will result in the frequent use of additional flight paths. **nbn** believes that this will impact upon and interfere with the operation of the SES, ultimately leading to potentially material impacts on the provision of **nbn** services to a proportion of the Australian population.

The satellite earth station (**SES**) operates under apparatus licences issued by the ACMA pursuant to the *Radiocommunications Act 1992* (Cth). That Act establishes criminal offences for certain conduct by a person that results in substantial interference with or disruption of radiocommunications.

There are two aspects of the proposed development that have the potential to cause interference or disruption to the operation of the SES:

- radio interference from the airfield communications with aircraft, between aircraft or from supporting navigation or traffic control radars (if any); and
- physical interference from aircraft flying through the RF signal beam from the SES antenna array.

The DA does not include any assessment of the potential for RF or physical interference with the operation of the SES, and **nbn** considers that no consideration of the DA should be undertaken until SAFCA has provided further information about the following:

- the proposed radiocommunications useage and licensing arrangements for the expanded operations at the airfield;
- steps that will be taken by SAFCA to avoid RF or physical interference with the operations of the SES, and specifically, interference with or disruption of the RF signals generated by the SES.

In addition, there has been no assessment of the expanded and intensified flight operations against relevant guidelines such as the CAAP Guidelines (or other relevant documents).

nbn submits that it would not be in the public interest for the consent authority to approve any development application that has the potential to interfere with or impact upon the provision of **nbn** services.

In **nbn**'s view, SAFCA should be required to prepare reports addressing the issues outlined above, and **nbn** requests the opportunity to comment and make submission on those reports, before the consent authority considers or assesses the DA.

nbn notes that the independent expert is likely to require information about the transmission frequencies and pointing angle of the SES in order to assess the interference risks. **nbn** is able to provide that information on request.

Aviation Safety Submission

The operation of the SES generates RF signals and EME.

nbn is concerned that there has been no consideration of whether the RF signals and EME generated by the SES may impact upon the operation of aircraft, especially when aircraft move directly through or around the antenna beams.

This is particularly an issue for a flight training school given the inexperience of student pilots (who might be flying solo or in tandem with other students). We acknowledge that the airfield already exists but it is currently only used for recreational flying and the proposal will result in a change to flight training and a very significant intensification of use. Aviation safety is critical and **nbn** is concerned to ensure that thorough consideration is given to this issue by an independent expert with appropriate expertise in aviation safety.

Level 11, 100 Arthur Street, North Sydney NSW 2060
Phone (02) 9926 1900
Fax (02) 9926 1901
Email info@nbn.com.au
Web nbn.com.au

Further, there has been no assessment of the physical impact of SES's four (4) antenna array on any flight paths or training operations.

We have reviewed email correspondence from the applicant's representative to Council dated 22 December 2017 in which the representative states that "the landing and takeoff circuits go nowhere near the station", and also that there are no aviation concerns as the Frogs Hollow planes do not fly that low. However, SAFCA has not provided any thorough, considered, expert opinion on the issue of potential interference with the SES, having regard to the pointing angle of the SES and its RF signal beam.

Further, that email correspondence appears to consider the current airfield operations and not the proposed change of use and intensification proposed by the DA. We do not consider that information in those emails is able to be given any weight in considering aviation safety.

nbn therefore submits that it would not be in the public interest for the consent authority to determine the development application in these circumstances.

A report needs to be prepared on behalf of SAFCA by an appropriately qualified independent aviation expert addressing aviation safety issues including the potential impact on aircraft and aircraft operational instruments from RF signals and EME interference that has been generated by the SES, and risks posed by the physical existence of the SES.

nbn requests the opportunity to comment and make submissions on that report. As noted above, **nbn** is able to provide information about the Rf signals generated by the SES on request.

Designated Development Submission

Section 1.1 of the SEE provides that the proposed development is not deemed "designated development" under the EPA Regulation, as the proposed thresholds do not exceed the requirements set out under clause 2 "Aircraft Facilities" of Schedule 3 to the EPA Regulation. However, section 5.2.13 of the SEE provides that parts of the DA Site are mapped as a "watercourse" on the Riparian Land and Watercourses Map under the LEP.

A review of the Riparian Land and Watercourses Map confirms this. The Map indicates that "watercourses" touch the boundary of the DA Site and some "watercourses" enter onto the DA Site. The SEE seems to contradict itself as although it states that parts of the DA Site are mapped as a "watercourse" it also states in section 5.1.2 that there are no "natural waterbodies" within 40 metres of the DA Site. The SEE is not supported by any environmental study that addresses the issue of proximity to "watercourses" or "natural waterbodies".

nbn considers that the proposed development is "designated development" under clause 2(c)(iii) of Schedule 3 to the EPA Regulation, as the development will be located "within 40 metres of a natural waterbody". Clause 38(a)(ii) of Schedule 3 to the EPA Regulation defines "waterbody" as a "natural waterbody", and this includes "a river or stream, whether perennial or intermittent, flowing in a natural channel with an established bed or in a natural channel artificially modifying the course of the stream". It is reasonable to assume that the meaning of a "waterbody" includes a "watercourse".

Level 11, 100 Arthur Street, North Sydney NSW 2060
Phone (02) 9926 1900
Fax (02) 9926 1901
Email info@nbn.com.au
Web nbn.com.au

It is not clear to **nbn** whether the proposed development may also fall within one of the other triggers in clause 2 of Schedule 3 to the EPA Regulation. For example, under clause 2(a)(i) of Schedule 3, there will be a significant increase in the number of flight movements undertaken by the 360 students and 201 full time employees and they will use 40 active training aircraft which may result in a significant increase in environmental impacts. However, there has been no assessment of this potential impact.

As **nbn** considers that the proposed development is "designated development", **nbn** submits that, in accordance with section 78A(8) of the *Environmental Planning and Assessment Act 1979* (NSW), the DA must be accompanied by an EIS prepared by or on behalf of SAFCA in the form prescribed by the EPA Regulation.

nbn submits that as the DA is not accompanied by an EIS the consent authority has no power to grant consent to the proposed development.

Prohibited Development Submission

The DA Site is located in Zone SP2 Infrastructure under the LEP and is zoned for the purpose of an "Air Transport Facility", and this includes any development that is "ordinarily incidental" or "ancillary" to development for that purpose.

nbn considers that development for the purposes of a flight training school or educational facility is not "ordinarily incidental" or "ancillary" to development for the purpose of an "Air Transport Facility" (see *Londish v Knox Grammar School & Uniting Church in Australia Property Trust* (NSW) (1997) 97 LGERA 1).

In addition clause 23 of the *State Environmental Planning Policy (Infrastructure) 2007* (**Infrastructure SEPP**) provides that development for any of the following purposes may be carried out with consent on land within the boundaries of an existing "Air Transport Facility", if the development is "ancillary" to the "Air Transport Facility":

(a) passenger terminals,

(b) facilities for the receipt, forwarding or storage of freight,

(c) hangars for aircraft storage and maintenance,

(d) premises for retail, business, recreational, residential or industrial uses,

(e) tourist and visitor accommodation.

nbn considers that a flight training school or educational facility does not fall into any "ancillary" development listed in clause 23 of the Infrastructure SEPP.

nbn submits that accordingly the proposed development is "prohibited" development under the LEP and the consent authority has no power to grant consent.

Further, **nbn** considers that the change in use from the current recreational flight facility which is regularly used only by Frogs Hollow flying club, to a flight training school with up to 360 students, 201 full time employees, 36

Level 11, 100 Arthur Street, North Sydney NSW 2060
Phone (02) 9926 1900 Fax (02) 9926 1901
Email info@nbn.com.au Web nbn.com.au

flying squadrons and 40 active training aircraft results in a change in the characterisation of the development from that of an "Air Transport Facility" to that of a flight training school or educational facility.

nbn considers that development for the purposes of a fight training school or educational facility are contrary to the objectives of the Zone SP2 Infrastructure, which are:

- *to provide for infrastructure and related uses; and*
- *to prevent development that is not compatible with or that may detract from the provision of infrastructure.*

The consent authority must take the objectives of the zone into consideration when considering the DA.

Other issues

Given the critical status of the SES, **nbn** is also considering the impacts of the proposed development on the SES from a physical security perspective. **nbn** requests the opportunity to provide a further submission in the event that it identifies any security issues arising from the proposed development. **nbn** will provide any further submission by 29 January 2018.

Please do not hesitate to contact Jordan Wright on +61 403 891 298 or at jordanwright@nbnco.com.au if you would like to discuss any aspect of this submission.

Yours sincerely

Aude Vignelles
National Manager, Satellite Operations
nbn [tm]

Level 11, 100 Arthur Street, North Sydney NSW 2060

Phone (02) 9926 1900
Email info@nbn.com.au
Fax (02) 9926 1901
Web nbn.com.au

Australian Government

Department of Infrastructure, Regional Development and Cities

File Reference: P2005/0364

Ms Anna Bowman
Town Planner
Bega Valley Shire Council
PO Box 492
BEGA NSW 2550

Dear Ms Bowman

Subject: Development application: 2017.445

Thank you for the opportunity to comment on the proposal for a development application for the Sports Aviation Flight College at Lot 1, 1070 Princess Highway, Frogs Hollow. We acknowledge Council's awareness that this recreational flight school has the potential to generate noise impacts for the occupiers of surrounding lands, particularly those that are under or close to flight paths.

Land-use planning and management is an effective means to ensure that the activities of the flight school are compatible with aviation while maintaining the safety and amenity of nearby residents. In considering proposals where aircraft safety or noise may present an issue Council may wish to refer to guidance contained in the National Airport Safeguarding Framework (NASF).

NASF was agreed by Commonwealth and State and Territory governments in May 2012. It provides guidance to State/Territory and local government decision makers, airport operators and developers about recognition of aviation impacts in land use planning decisions. It includes seven guidelines relating to the regulation and management of the risks associated with: aircraft noise; building generated windshear at airports; wildlife strikes in the vicinity of airports; wind turbine farms as physical obstacles to air navigation; lighting distractions in the vicinity of airports, intrusions into the protected operational airspace of airports, and preservation of key navigation and communication equipment.

Full details of NASF, including guidance material, are available online at www.infrastructure.gov.au/aviation/environmental/airport_safeguarding/nasf/index

The NASF encourages planners to take into account all relevant information when assessing the appropriateness of a development. In particular, the issues of aircraft noise and wildlife strikes may be of importance to you.

In order to minimise community noise exposure, all aircraft operating in Australia are required to meet specified noise standards imposed through the Air Navigation (Aircraft Noise) Regulations 1984, which align with global standards imposed by the

International Civil Aviation Organization. These regulations are administered by the Department.

The Australian Noise Exposure Forecast (ANEF) may also be of use. Australian Standard AS2021 explicitly recognises that while the ANEF is a useful land-use planning tool it is based on average noise levels, so the significance of individual noise events can be underestimated, particularly for residents newly exposed to aircraft noise.

Additional information to assist you with future aircraft noise exposure levels and providing aircraft noise information can be found on the Department's website at https://infrastructure.gov.au/aviation/environmental/transparent_noise/index.aspx.

The Standards Australia hand book HB149:2016 *Acoustics – Guidance on producing information on aircraft noise* may also be of assistance to you in assessing the proposed development for the flight school. The best practice handbook can be found at https://infostore.saiglobal.com/en-au/Standards/SA-HB-149-2016-1865417/.

The NSW Government legislative requirements set out in section 3.5 *Development Near Licensed Aerodromes* of the Section 117 Direction, issued by the NSW Minister for Planning to local councils for the *Environment Planning and Assessment Act 1979* may also be relevant to the proposal.

The Australian Government does not have a direct regulatory role in the operation of non-federal airports such as Frogs Hollow. In order to manage potential noise impacts Council may wish to consider options such as preferred flight paths for circuit training, noise abatement procedures including training hours, number of circuits and a fly friendly agreement. You may also wish to bring this matter to the Civil Aviation Safety Authority (CASA), who are the civil aviation safety regulator.

In the event that this development application is approved, it would be important to ensure potential residents were fully informed as to the likely aircraft noise impacts.

The Department is available to provide Council with any further information or advice to assist with its process in this matter. Should you wish to discuss this matter further, please contact me at sharyn.owen@infrastructure.gov.au, or (02) 6274 6125.

Yours sincerely

Sharyn Owen
Director
Airport Safeguarding

15 /02/2018

Bega Local Aboriginal Land Council

Ms A Bowman
Environmental Health & Building Surveyor
BVSC
Po Box 492
Bega, NSW
2550

Date 20th November 2018

Dear Ms Bowman,

The Bega LALC would like to provide comment in regard to the Development Application 2017.445 Lot 1 DP: 109606 – 1070 Princes Highway Frogs Hollow

We have reviewed the DA documents, with a particular focus on the assessment of the Aboriginal Heritage Values of the proposed development subject area. We have also reviewed the *Aboriginal Heritage Due Diligence* report for the subject area which you recently provided to us for our records. One of the report recommendations from NGH Environmental was for a copy of the report to be sent to the Bega LALC. We cannot find any record of the report being sent to us by the proponent as recommended. We appreciate that BVSC have provided us with a copy of the report for consideration.

The Bega LALC endorse the recommendations of the report and agree that further assessment of the Aboriginal heritage values of the subject area is required. This assessment should include a consultation process with Aboriginal stakeholders as required under the relevant legislation. The consultation process can address tangible and any non-tangible Aboriginal heritage values that may be associated with the subject area.

The Bega LALC hold the view that the further assessment of Aboriginal heritage values should be undertaken prior to BVSC finalising the development consent.

Please contact me at your convenience should you require further information or clarification.

Yours sincerely

Glenn Willcox
CEO - Bega LALC

Email	Phone	Mail	Location
ceo_begalalc@commander.net.au **ABN** 60 937 578 961	02 6492 3950 **Fax** 02 6492 4087	PO Box 11 Bega NSW 2550	Level 1, 187 Carp St, Bega (Enter from Church St)