

# GREATER GLIDERS

## *(Petauroides volans)*

### BAW BAW (South Face)

Christmas Creek Road, South Growlers Track & Spurwood Road

#### VicForests' Logging Coupes:

483-503-0008 (Christmas Creek Road),  
483-504-0001, 483-504-0015 (South Growlers Track) and  
483-505-0002 (Spurwood Road)

#### Abstract

Forest areas within and/or adjacent to VicForests scheduled logging coupes 483-503-0008, 483-504-0001, 483-504-0015 and 483-505-0002 were investigated to assess the presence of rare or threatened species and other nocturnal fauna.

This report records the presence of Greater Gliders (*Petauroides volans*) across the investigation locations within various nocturnal active-search surveys.

The methodology, results, discussion and recommendations arising from this investigation are further detailed within this report.

#### Status of Site

- Logging has commenced in coupe 483-503-0008 as at 22 May 2017
- Logging has commenced in coupe 483-504-0001 as at 22 May 2017
- Logging is scheduled in coupe 483-504-0015
- Logging and/or roading works have commenced in coupe 483-505-0002

#### Surveyors

Survey #01 (16-17/05/2017)

Jake McKenzie,  
Blake Nisbet,  
Emma Chessel

Surveys #02-#04 (21-22/05/2017)

Jake McKenzie,  
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#### Date of Investigation

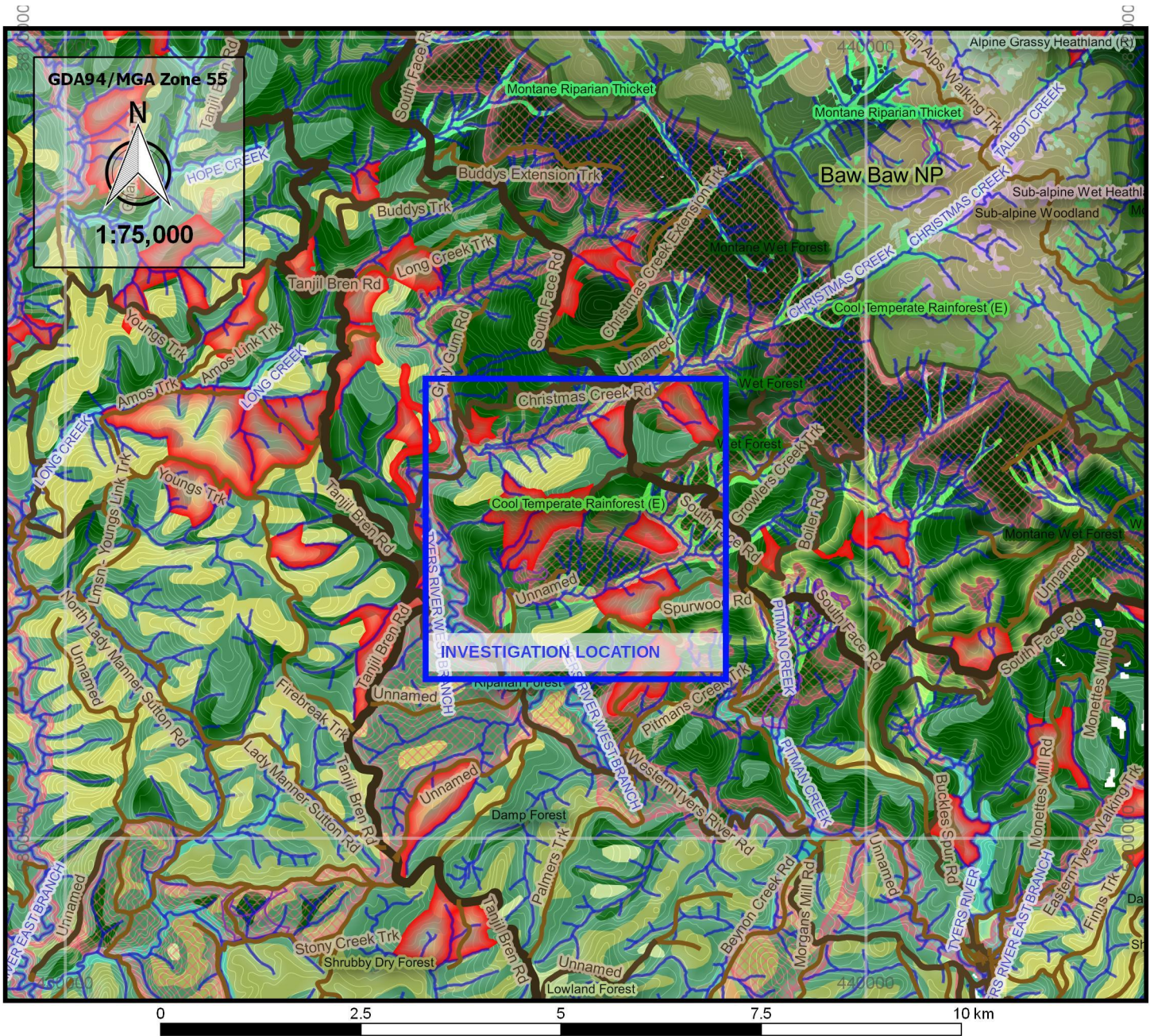
16-17 & 21-22/05/2017

#### Date of report

25/05/2017

# Investigation Location Overview

Figure A. Investigation location: VicForests logging coupes 483-503-0008, 483-504-0001, 483-504-0015 and 483-505-0002 off South Face Road near Mount Baw Baw in the Central Highlands.



## Method Used and Results 1 (Summary)

### Nocturnal Fauna Surveys [16-17 & 21-22/05/2016]

#### Equipment Used

- Hand-held Spotlight
- Binoculars
- Digital Photo and Video Camera
- Global Positioning System (GPS) [Garmin GPS]
- Compass, pen and paper

#### Methods and Results Summary [Surveys #01 - #04]

1. On the evenings of 16-17 and 21-22 May 2017 spotlighting was undertaken within VicForests logging coupes 483-503-0008, 483-504-0001, 483-504-0015 and 483-505-0002.
2. Parts of the forest within and adjacent to these coupes were searched for the presence of nocturnal fauna including by shining a hand-held spotlight to detect fauna movement or “eye shine”.
3. As fauna were observed their locations were marked with a GPS and time, species, bearing from recording location, an estimate of the distance from observation location were noted and where possible video footage and/or photographs were taken.

(NB: where distance is recorded as "N/A" or 0, location coordinates of fauna species were recorded at or beneath the fauna location.)

4. The following table summarises the Greater Glider records obtained as a result of the surveys described above.

Table 1. 16-17 and 21-22/05/2017\_Greater Glider Records Summary

Survey # (Date)	Time	Waypoint ID	Recording Location	Species	Common Name	Type	Bearing	Distance	Projected Animal Location (approx.)
Survey #01 (17/05)	00:39	SFL09	55H 436424 5804329	<i>Petauroides volans</i>	Greater Glider	Aural	N/A	N/A	55H 436424 5804329
Survey #01 (17/05)	01:48	SFL10	55H 436530 5804148	<i>Petauroides volans</i>	Greater Glider	Visual	N/A	N/A	55H 436530 5804148
Survey #02 (21/05)	19:10	SG101	55 H 436468 5804162	<i>Petauroides volans</i>	Greater Glider	Visual	N/A	N/A	55H 436468 5804162
Survey #02 (21/05)	19:32	SG102	55 H 436006 5804288	<i>Petauroides volans</i>	Greater Glider	Visual	N/A	N/A	55H 436006 5804288
Survey #02 (21/05)	20:11	SG105	55 H 436437 5804341	<i>Petauroides volans</i>	Greater Glider	Visual	N/A	N/A	55H 436437 5804341
Survey #03 (21/05)	23:18	SPW01	55 H 437579 5803029	<i>Petauroides volans</i>	Greater Glider	Visual	N/A	N/A	55H 437579 5803029
Survey #04 (22/05)	00:59	CCR01	55 H 435171 5805052	<i>Petauroides volans</i>	Greater Glider	Visual	140°	40m	55 H 435198 5805022

5. Photographs of each of the Greater Gliders listed in Table 1. are displayed below (Figure 1. a-g) as well as three maps (Figures 2-4) showing the location of these records within or adjacent to coupes 483-503-0008, 483-504-0001, 483-504-0015 and 483-505-0002 as the "large white outlined dark blue pentagons" labeled according to Table 1..
6. Further presentation of this information, as well as conclusions and discussion arising from this investigations' results are provided below.

## Results 2 (Photos)

Figure 1(a). Greater Glider - Survey #01, 17/05/2017, "SFL09", 55H 436424 5804329



Figure 1(b). Greater Glider - Survey #01, 17/05/2017, "SFL10", 55H 436530 5804148



Figure 1(c). Greater Glider - Survey #02, 21/05/2017, "SG101", 55 H 436468 5804162



Figure 1(d). Greater Glider - Survey #02, 21/05/2017, "SG102", 55 H 436006 5804288



Figure 1(e). Greater Glider - Survey #02, 21/05/2017, "SG105", 55 H 436437 5804341



Figure 1(f). Greater Glider - Survey #03, 21/05/2017, "SPW01", 55 H 437579 5803029

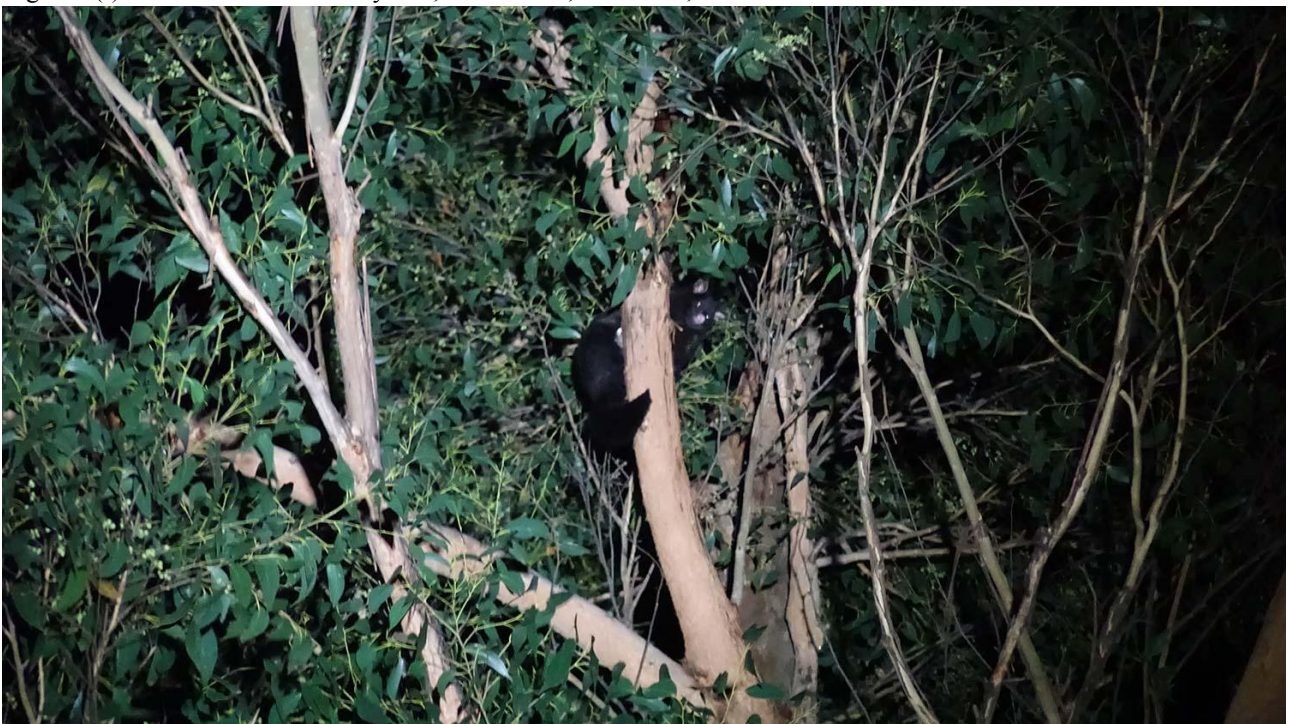


Figure 1(g). Greater Glider - Survey #04, 22/05/2017, “CCR01”, 55 H 435171 5805052



# Results 3 (Maps)

Figure 2. Surveys #01 and #02 - Greater Glider records

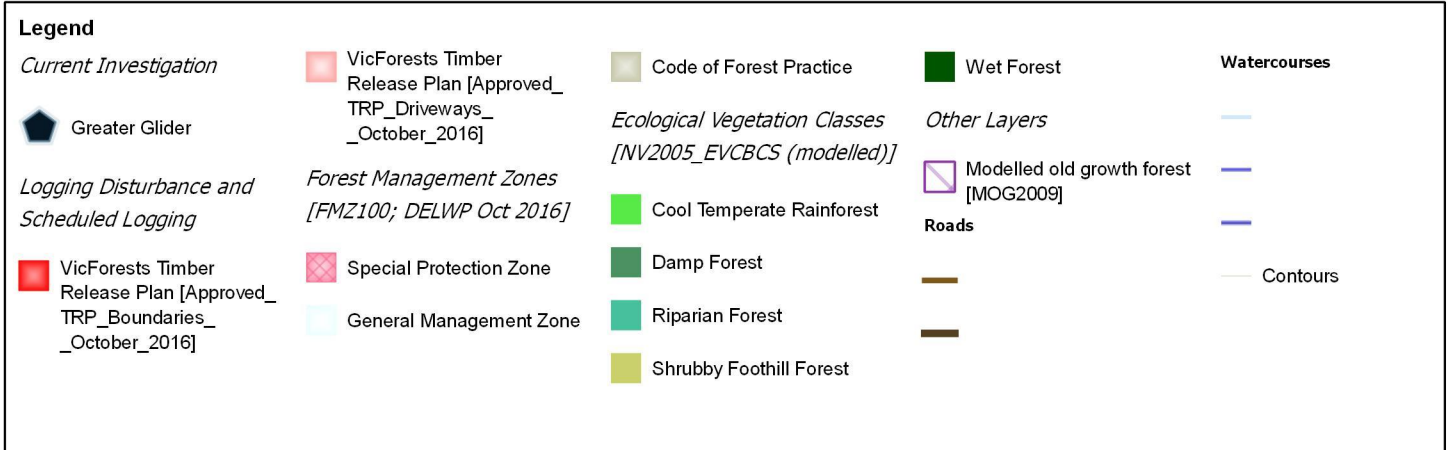
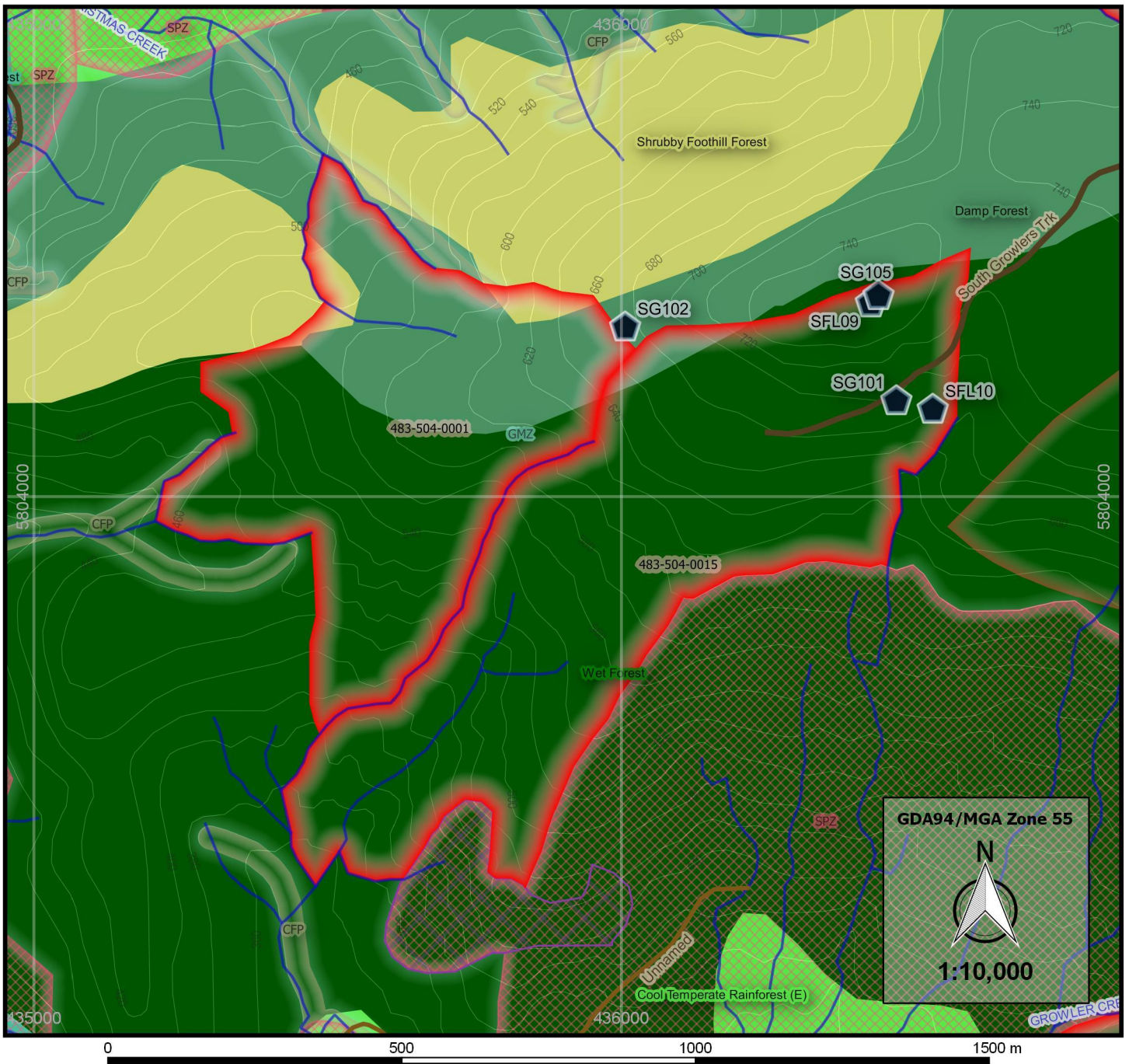




Figure 3. Survey #03 - Greater Glider records

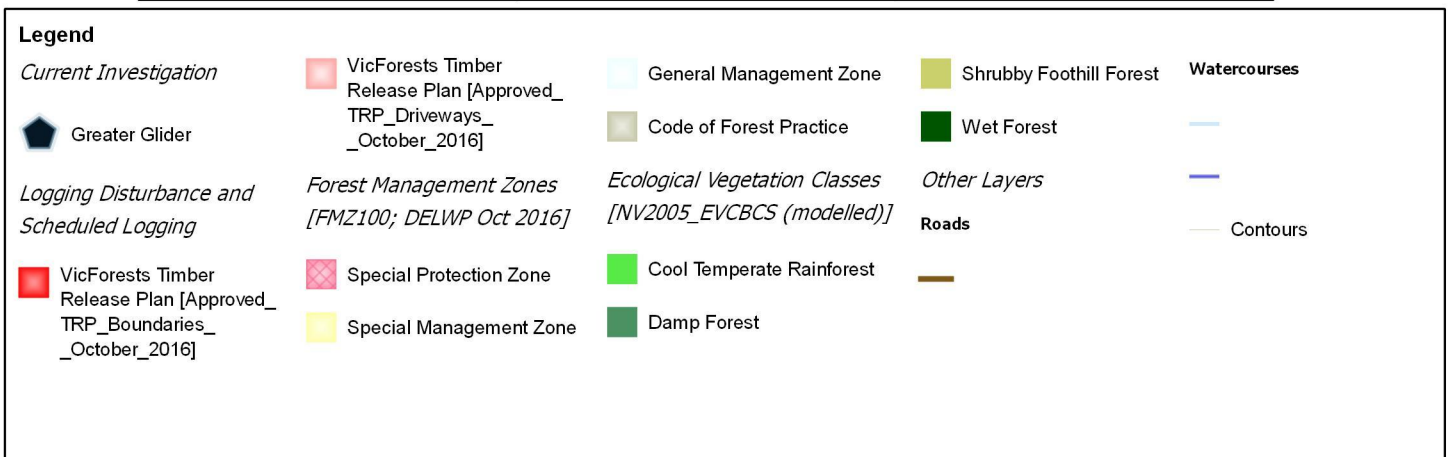
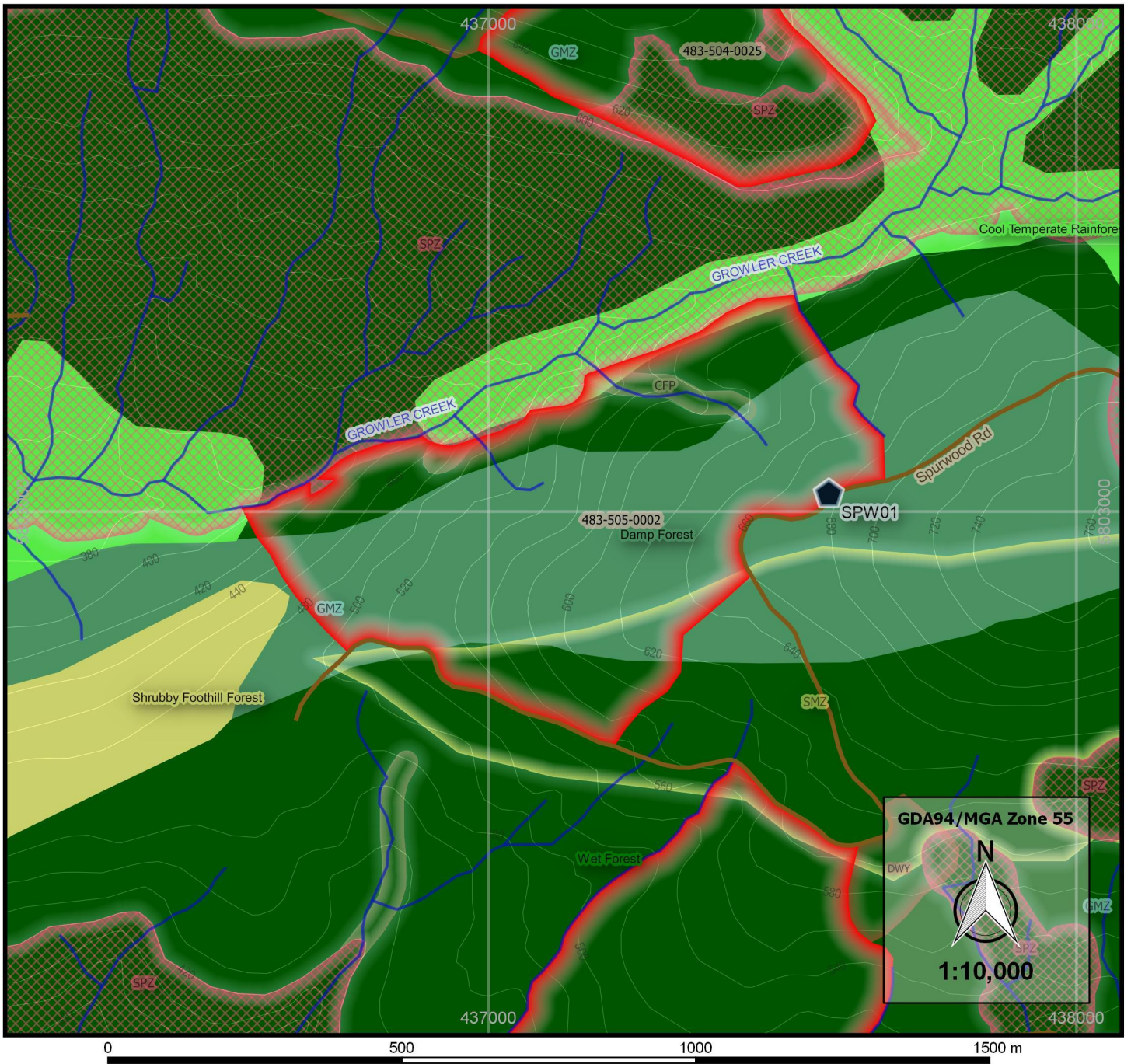
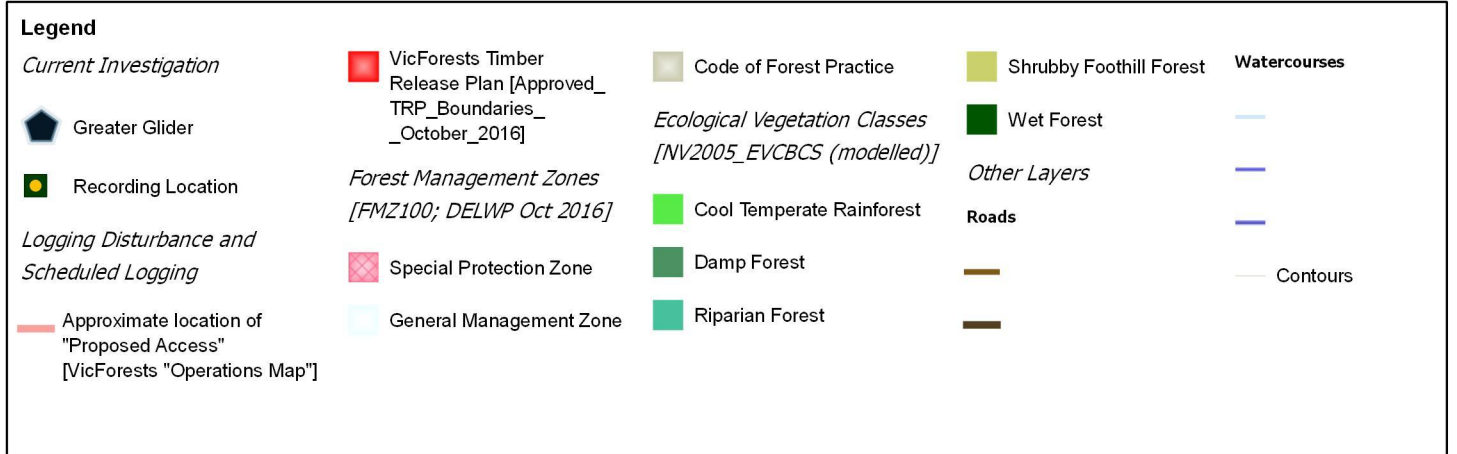
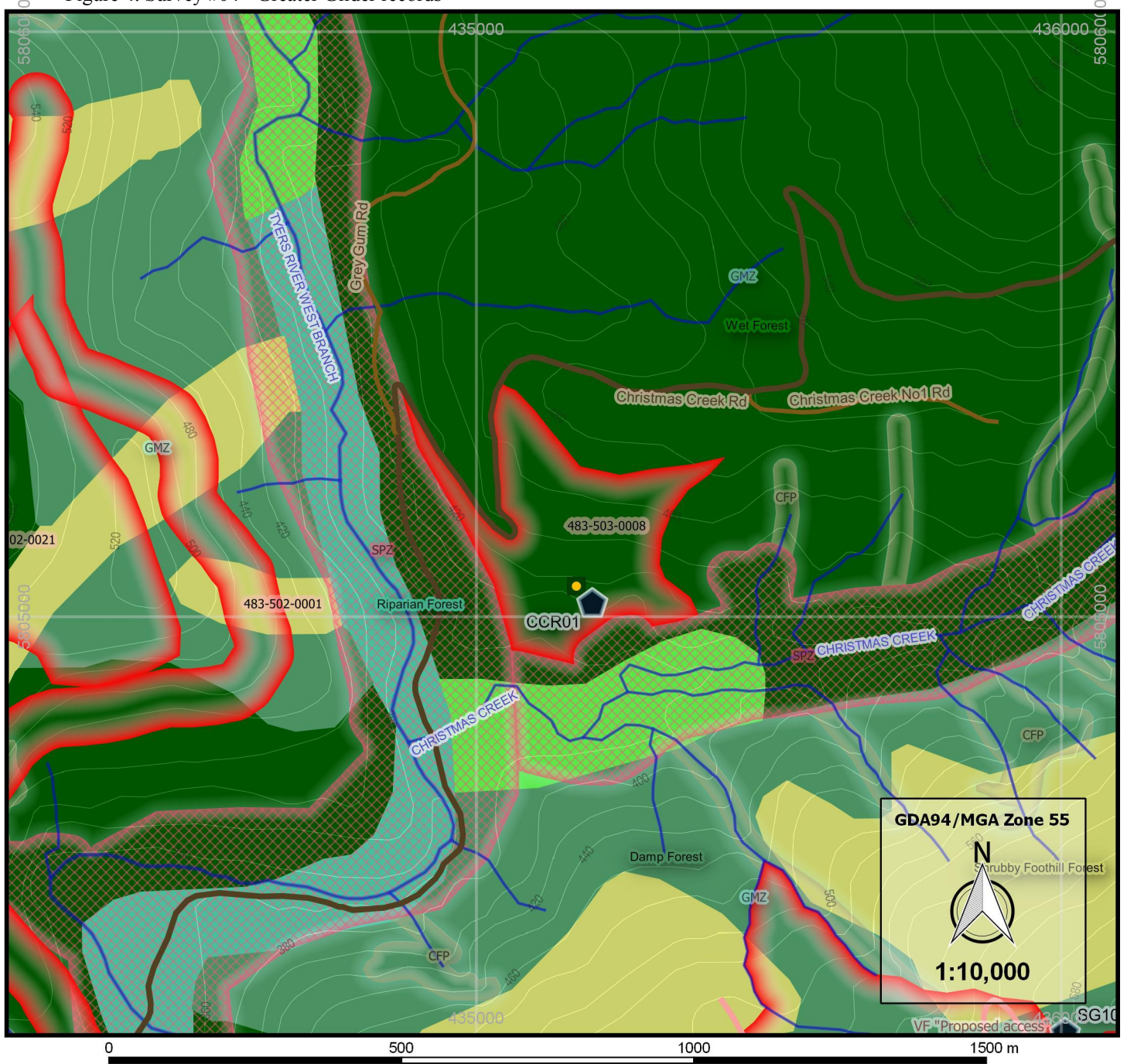


Figure 4. Survey #04 - Greater Glider records



## Summary/Conclusions/Discussion

### Detection of Greater Gliders (*Petauroides volans*)

1. Within and adjacent to VicForests scheduled logging coupes 483-503-0008, 483-504-0001, 483-504-0015 and 483-505-0002 Greater Glider (*Petauroides volans*) individuals were observed and recorded within nocturnal fauna surveys on the evenings of 16-17 & 21-22/05/2017. These record locations are displayed in the Tables and Maps of the Results sections of this report detailed above.
2. On 10 November 2016 the Victorian Flora and Fauna Guarantee Scientific Advisory Committee (SAC) received a nomination for listing as a threatened species for the Greater Glider (*Petauroides volans subsp. volans* Kerr 1792). A preliminary nomination supporting the listing of the Greater Glider was made on 21 November 2016 and on 16 March 2017 the SAC made its final nomination recommending the Greater Glider be listed as threatened.<sup>1</sup>
3. In the SAC's final nomination they noted that "Wood production practices are known to substantially deplete Greater Glider populations and gliders usually die if all or most of their home range is intensively logged or cleared (Menkhorst op. Cit.)".<sup>2</sup>
4. The SAC found that the Greater Glider satisfied their criteria for listing on the basis that:
  - a) The Greater Glider is "in a demonstrable state of decline which is likely to result in extinction";
  - b) The Greater Glider is "significantly prone to future threats which are likely to result in extinction", and;
  - c) The threat to the Greater Glider is "currently operating and is expected to operate at a level in the future which is likely to result in the extinction of the [greater glider]"<sup>3</sup>
5. The SAC note that:

*"Timber harvesting in greater glider habitat has been proven to cause declines and/or local extinctions of greater glider populations (Lindenmayer et al. 2011, Kavanagh and Webb 1998, Lunney 1987, Dunning and Smith 1986, Tyndale-Biscoe and Smith 1969). Timber harvesting practices reduces the number of hollow bearing trees available for denning by tree removal or as a result of regeneration burns after the logging (Lindenmayer et al. 2011, 2002; Lunney 1987). In addition, the species does not cope well with habitat change (Kavanagh and Wheeler 2004, Tyndale-Biscoe and Smith 1969). Although all animals may not die from the initial impact they will die shortly afterwards. This is due to life history traits: affinity with home range, small home ranges, attachment to hollow bearing trees they use for denning and their specialist diet (Tyndale-Biscoe 2005).*

*In Victoria timber harvesting is widespread in the eastern and central parts of state. This is also the main distribution and habitat of the greater glider. Considering the known impacts of timber harvesting on gliders (Kavanagh and Webb 1998, Lunney 1987, Tyndale-Biscoe and Smith 1969, Dunning and Smith 1986), it is likely that other local extinctions of this species have already occurred and will continue to occur in the future." ...*

*"Local extinctions from fire, timber harvesting, drought or predation across the range of the greater glider will lead to a loss of habitat connectivity. McCarthy and Lindenmayer (1999) and Possingham et al (1994) found small patch sizes (McCarthy and Lindenmayer: less than*

1 Final Recommendation on a nomination for listing, *Petauroides volans subsp. volans* Kerr 1792 - Greater Glider (Nomination no. 879, Item no.: 11133), Flora and Fauna Guarantee Scientific Advisory Committee (SAC), March 2017, p. 1

2 *ibid.*, p. 3

3 *ibid.*, p. 1-2

*500 ha; Possingham et al. less than 1000 ha) of habitat are unviable for the greater gliders long-term viability. Lindenmayer and Taylor (2003) found evidence of genetic erosion in the species after 5-6 generations in small forest patches (approximately 20ha) near Tumut in southern New South Wales.”<sup>4</sup>*

6. The SAC also highlight that “Greater Gliders have recently been classified as ‘Vulnerable’ under the Environment Protection and Biodiversity Conservation Act 1999 (Department of Environment and Energy 2016)”.<sup>5</sup>
7. **Given the presence of Greater Gliders within and/or adjacent to coupes 483-503-0008, 483-504-0001, 483-504-0015 and 483-505-0002 as detailed in this report, VicForests should refrain from logging each of these coupes.**



4 *ibid.*, p. 3

5 *ibid.*, p. 3