

Yalmy Road, Stony Creek (#2) Catchment of the Goongerah Creek, headwaters of the Brodribb River, Goongerah District, East Gippsland

891-514-0009

LONG-FOOTED POTOROO REMOTE CAMERA SURVEY DETECTION REPORT

Report on Long-footed Potoroo (*Potorous longipes*) detections
within VicForests scheduled logging coupe 891-514-0009

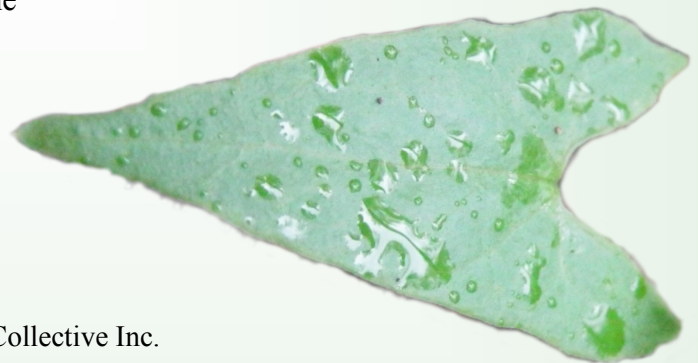
Abstract

The Long-footed Potoroo (*Potorous longipes*) is listed as 'endangered' in Australia under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act); 'endangered internationally under the The International Union for the Conservation of Nature (IUCN) "IUCN Red List of Threatened Species"; and 'threatened' in Victoria under the Flora and Fauna Guarantee Act 1988 (FFG Act).

VicForests' scheduled logging coupe 891-514-0009 was investigated to assess the presence/absence of Long-footed Potoroos (*Potorous longipes*) within State Forest scheduled for logging in accordance with the Department of Sustainability and Environment's [now Department of Environment and Primary Industries] Flora and Fauna Guarantee Act (1988) ("FFGA") Action Statement No. 58 (revised in 2009) for the Long-footed Potoroo *Potorous longipes*'s Appendix I "Prescriptions to be applied in State Forest".

Long-footed Potoroos were identified during this investigation within scheduled logging coupe 891-514-0009. This investigation concludes that VicForests, within coupes 891-514-0009 has scheduled logging in an area of forest currently inhabited by the endangered Long-footed Potoroo.

The methodology employed and the results of the investigation and the reports conclusions are detailed below.



Surveyors

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Date of Investigation 24/05/2014 – 08/06/2014

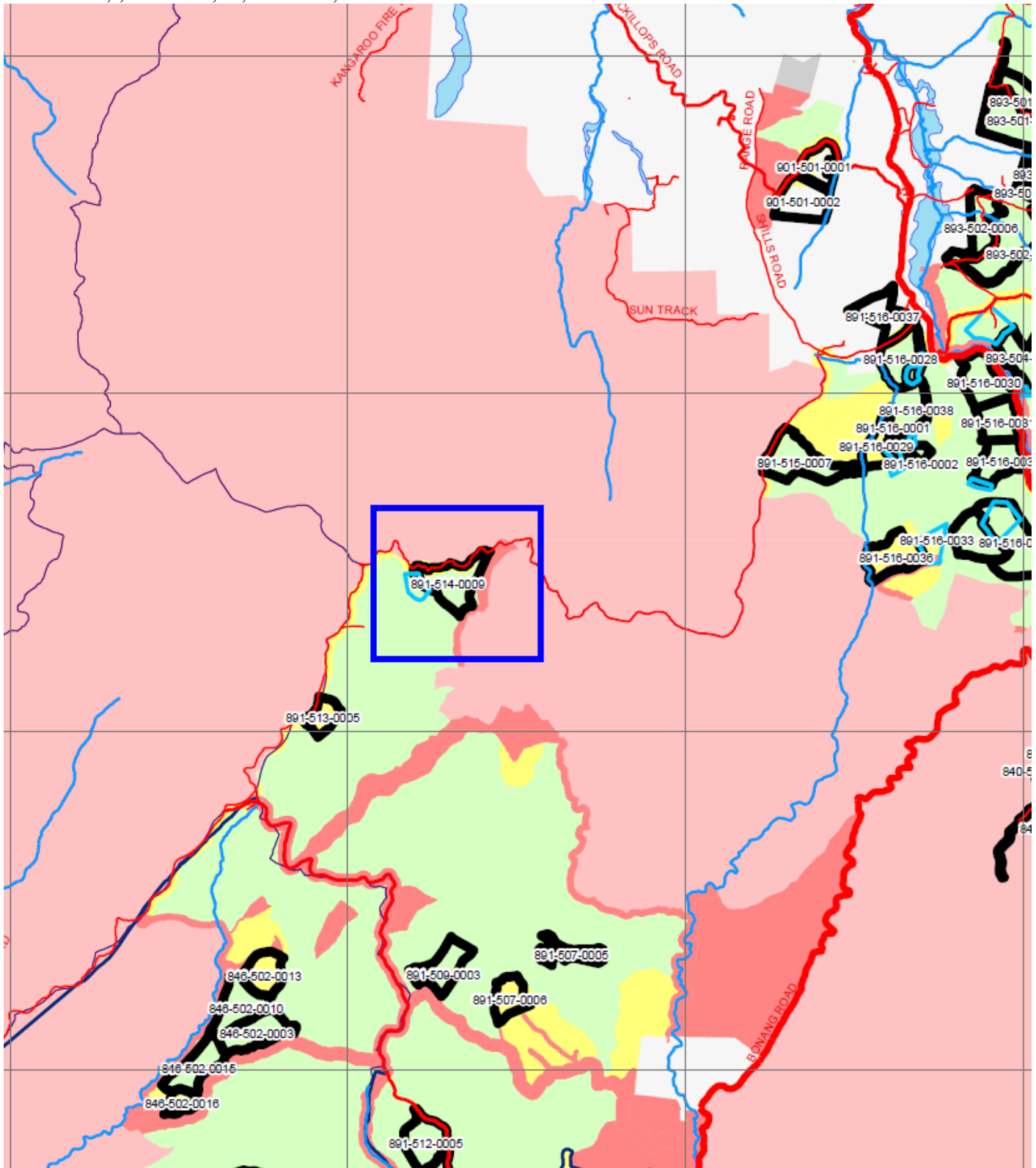
Date of report

08/07/2014

Location details

Within VicForests scheduled logging coupe 891-514-0009 off Yalmy Road in the Stony Creek Catchment of the Goongerah Creek and the headwaters of the Brodrribb River.

Figure A. Detail from: "Approved Timber Release Plan Map - 2013 - 2016 (with all approved amendments applied) Bendoc", VicForests, 07, November, 2013



* Investigation location within blue box.

Method (Remote Camera Survey – method used)

Remote Camera Survey [24/05/2014 – 08/06/2014]

Survey technique and Method used:

1. On the 24/05/2014 within VicForests scheduled logging coupe 891-514-0009 4 motion triggered infra-red night vision capable cameras were deployed with each directed at a steel container with a bait attractant comprising of oats, honey and truffle oil.
2. Each of the cameras were placed at the following locations and were configured with the following settings:

Camera Details	Waypoint:	Y2CAM01	Y2CAM02	Y2CAM03	Y2CAM04
	Location (GDA94/UTM):	55 H 0646686 // 5877276	55 H 0646685 // 5877179	55 H 0646449 // 5877172	55 H 0646478 // 5877283
	Brand/Type	Reconyx HC500 Hyperfire	Reconyx HC500 Hyperfire	Reconyx HC500 Hyperfire	Ltl Acorn
	Mode/Settings	10 Pictures	10 Pictures	10 Pictures	10 sec Video

3. On the 08/06/2014 the cameras were retrieved from the field.
4. The pictures and video captured on each of the cameras were inspected for the presence, among other fauna species, of the the Long-footed Potoroo.
5. See the “Results” section below for further details of the species discovered including the detection of the Long-footed Potoroo.

Figure B. “Y2CAM03” camera placement at: [55 H 0646449 // 5877172](#) (GDA94 UTM)



Method (analysis/conclusions/recommendations)

From: “*Flora and Fauna Guarantee Act (1988) Action Statement No. 58 (revised in 2009) for the Long-footed Potoroo [including] Appendix I 'Prescriptions to be applied in State Forest'*”¹

“Conservation Objective

Long term objective

To ensure that the Long-footed Potoroo can survive, flourish and retain its potential for evolutionary development in the wild.

Intended Management Actions

The intended management actions listed below are further elaborated in DSE’s Actions for Biodiversity Conservation (ABC) system. Detailed information about the actions and locations, including priorities, is held in this system and will be provided annually to land managers and other authorities. It is intended that the targets specified below be met within the five year timeframe of this Action Statement.

...

Action 4

Protect Long-footed Potoroo habitat at detection sites on public land outside the Core Protected Area

Establish additional protected areas where Long-footed Potoroos have been detected in State forest or other public land outside the Core Protected Area. In State forest, apply the protection measures specified in Appendix I. The protection measures will be formally reviewed in 2014.

Responsibility: DSE, VicForests

Appendix I: Prescriptions to be applied in State forest:

1. Each Long-footed Potoroo (LFP) detection site outside the Core Protected Area will generate a Special Management Zone (SMZ) of approximately 150 ha.
2. As far as possible, SMZ boundaries will follow recognisable landscape features such as ridges, spurs and watercourses.
3. Within each SMZ, at least one third (~50 ha) will be protected from timber harvesting and new roading.
4. This will be known as Long-footed Potoroo Retained Habitat.
5. The LFP Retained Habitat will include the best LFP habitat in the SMZ, which will generally be in gullies and on lower, sheltered slopes.
6. The LFP Retained Habitat may include areas otherwise unavailable for timber harvesting due to restrictions under the Code of Practice for Timber Harvesting.
7. The SMZ will also have a general restriction of one third of the total area that can be harvested in any three year period. If more than one coupe is to be harvested in an SMZ in the same year, the coupes must be separated by at least the equivalent of another coupe width.
8. The SMZ, with the LFP Retained Habitat clearly delineated, will be shown as part of the Forest Management Area zoning scheme.
9. The SMZ will be designed by DSE, in consultation with VicForests, and approved by DSE.
10. If the ~150 ha area includes any part of an existing conservation reserve or Special Protection Zone (SPZ), these areas will retain their existing reservation or zoning status but will be considered for inclusion as part of the area of retained habitat. In such cases, the final area designated as SMZ may be correspondingly smaller.”

1 “Flora and Fauna Guarantee Act (1988) (“FFGA”) Action Statement No. 58 (revised in 2009) for the Long-footed Potoroo *Potorous longipes*”, [when published] Department of Sustainability and Environment's, Victorian Government Department of Sustainability and Environment [now Department of Environment and Primary Industries], Melbourne, August 2009, pp. 7-8, 13

Results – Summary and Table 1.

Summary

1. Cameras were deployed on the afternoon of Saturday 24 May and as such the morning of that day is not part of a recording session. Similarly, cameras were retrieved on the afternoon of Sunday 8 June and that evening is also not part of a recording session.
2. In total there were 15 camera survey nights, from dusk till dawn, undertaken at the locations shown below.
3. Long-footed Potoroos were recorded as present within VicForests scheduled logging coupes on 3 out of the 4 cameras and on 8 (or 53%) of the 15 survey nights.
4. Images of each of the Long-footed Potoroo detections and further details are provided in the following “Results – Figures 1(a-n)” section below.
5. The following species were also recorded during this survey:

Common Name	Scientific name	Common Name	Scientific name
Swamp Wallaby	<i>Wallabia bicolor</i>	Antechinus sp.*	<i>Antechinus sp. (Likely: Antechinus swainsonii)</i>
Superb Lyrebird	<i>Menura novaehollandiae</i>	Wonga Pigeon	<i>Leucosarcia melanoleuca</i>
Cat	<i>Felis catus</i>	Mountain Brushtail Possum	<i>Trichosurus cunninghami</i>
Common Wombat	<i>Vombatus ursinus</i>	Bush Rat	<i>Rattus fuscipes</i>

Table 1. Summary of the recording schedule and Long-footed Potoroo detections

Camera Details		Waypoint:	Y2CAM01	Y2CAM02	Y2CAM03	Y2CAM04	All Cameras	
		Location (GDA94/UTM):		55 H 0646686 // 5877276	55 H 0646685 // 5877179	55 H 0646449 // 5877172	55 H 0646478 // 5877283	-
		Brand/Type		Reconyx HC500 Hyperfire	Reconyx HC500 Hyperfire	Reconyx HC500 Hyperfire	Ltl Acorn	-
		Mode/Settings		10 Pictures	10 Pictures	10 Pictures	10 sec Video	-
Date/Time/Survey Session (nights/dusk-dawn)/Time of recording	24	Saturday	AM PM					
	25	Sunday	AM PM			PM 06:57:54	PM 06:57:54	
	26	Monday	AM PM					
	27	Tuesday	AM PM					
	28	Wednesday	AM PM			PM 07:43:47	PM 07:43:47	
	29	Thursday	PM		PM 06:08:34	PM 08:53:49; 08:53:49	PM 06:08:34; 08:53:49; 08:53:49	
	30	Friday	AM PM					
	31	Saturday	AM PM	AM 01:14:01			AM 01:14:01	
	1	Sunday	AM PM					
	2	Monday	AM PM			AM 02:29:18	AM 02:29:18	
	3	Tuesday	AM PM			PM 11:52:28	PM 11:52:28	
	4	Wednesday	AM PM	PM 10:13:46			PM 10:13:46	
	5	Thursday	AM PM					
	6	Friday	AM PM	AM 03:09:39; 03:34:47	AM 01:08:56	AM 12:24:43	AM 12:24:43; 01:08:56; 03:09:39; 03:34:47	
	7	Saturday	AM PM					
	8	Sunday	AM PM					
	# out of 15 survey nights with Long-footed Potoroos present:			3	2	6	0	8
	% of 15 survey nights with Long-footed Potoroos present:			20%	13%	40%	0%	53%
	Legend:		Camera Survey Night	No Camera Survey		Long-footed Potoroo Present		

Results – Figures 1(a-n). and Figures [maps] 2 and 3.

Figure 1(a). “Y2CAM01”, Long-footed Potoroo detection 1/4 at: [55 H 0646686 // 5877276](#) (GDA94 UTM)
2014-05-31 01:14:01 AM Image 6/10



Figure 1(b). “Y2CAM01”, Long-footed Potoroo detection 2/4 at: [55 H 0646686 // 5877276](#) (GDA94 UTM)
2014-06-03 10:13:46 PM Image 1/10



Results – Figures 1(a-n). and Figures [maps] 2 and 3.

Figure 1(c). “Y2CAM01”, Long-footed Potoroo detection 3/4 at: 55 H 0646686 // 5877276 (GDA94 UTM)
2014-06-06 03:09:39 AM Image 1/10



Figure 1(d). “Y2CAM01”, Long-footed Potoroo detection 4/4 at: 55 H 0646686 // 5877276 (GDA94 UTM)
2014-06-06 03:34:47 AM Image 1/10



Results – Figures 1(a-n). and Figures [maps] 2 and 3.

Figure 1(e). “Y2CAM02”, Long-footed Potoroo detection 1/2 at: [55 H 0646685 // 5877179](#) (GDA94 UTM)
2014-05-29 06:08:34 PM Image 10/10



Figure 1(f). “Y2CAM02”, Long-footed Potoroo detection 1/2 at: [55 H 0646685 // 5877179](#) (GDA94 UTM)
2014-06-06 01:08:56 AM Image 1/10



Results – Figures 1(a-n). and Figures [maps] 2 and 3.

Figure 1(g). “Y2CAM03”, Long-footed Potoroo detection 1/8 at: 55 H 0646449 // 5877172 (GDA94 UTM)
2014-05-24 06:57:54 PM Image 5/10



Figure 1(h). “Y2CAM03”, Long-footed Potoroo detection 2/8 at: 55 H 0646449 // 5877172 (GDA94 UTM)
2014-05-24 07:02:53 PM Image 1/10



Results – Figures 1(a-n). and Figures [maps] 2 and 3.

Figure 1(i). “Y2CAM03”, Long-footed Potoroo detection 3/8 at: [55 H 0646449 // 5877172](#) (GDA94 UTM)
2014-05-27 07:43:47 PM Image 6/10



Figure 1(j). “Y2CAM03”, Long-footed Potoroo detection 4/8 at: [55 H 0646449 // 5877172](#) (GDA94 UTM)
2014-05-29 08:53:49 PM Image 4/10



Results – Figures 1(a-n). and Figures [maps] 2 and 3.

Figure 1(k). “Y2CAM03”, Long-footed Potoroo detection 5/8 at: [55 H 0646449 // 5877172](#) (GDA94 UTM)
2014-05-29 08:53:59 PM Image 9/10



Figure 1(l). “Y2CAM03”, Long-footed Potoroo detection 6/8 at: [55 H 0646449 // 5877172](#) (GDA94 UTM)
2014-06-02 02:29:18 AM Image 10/10



Results – Figures 1(a-n). and Figures [maps] 2 and 3.

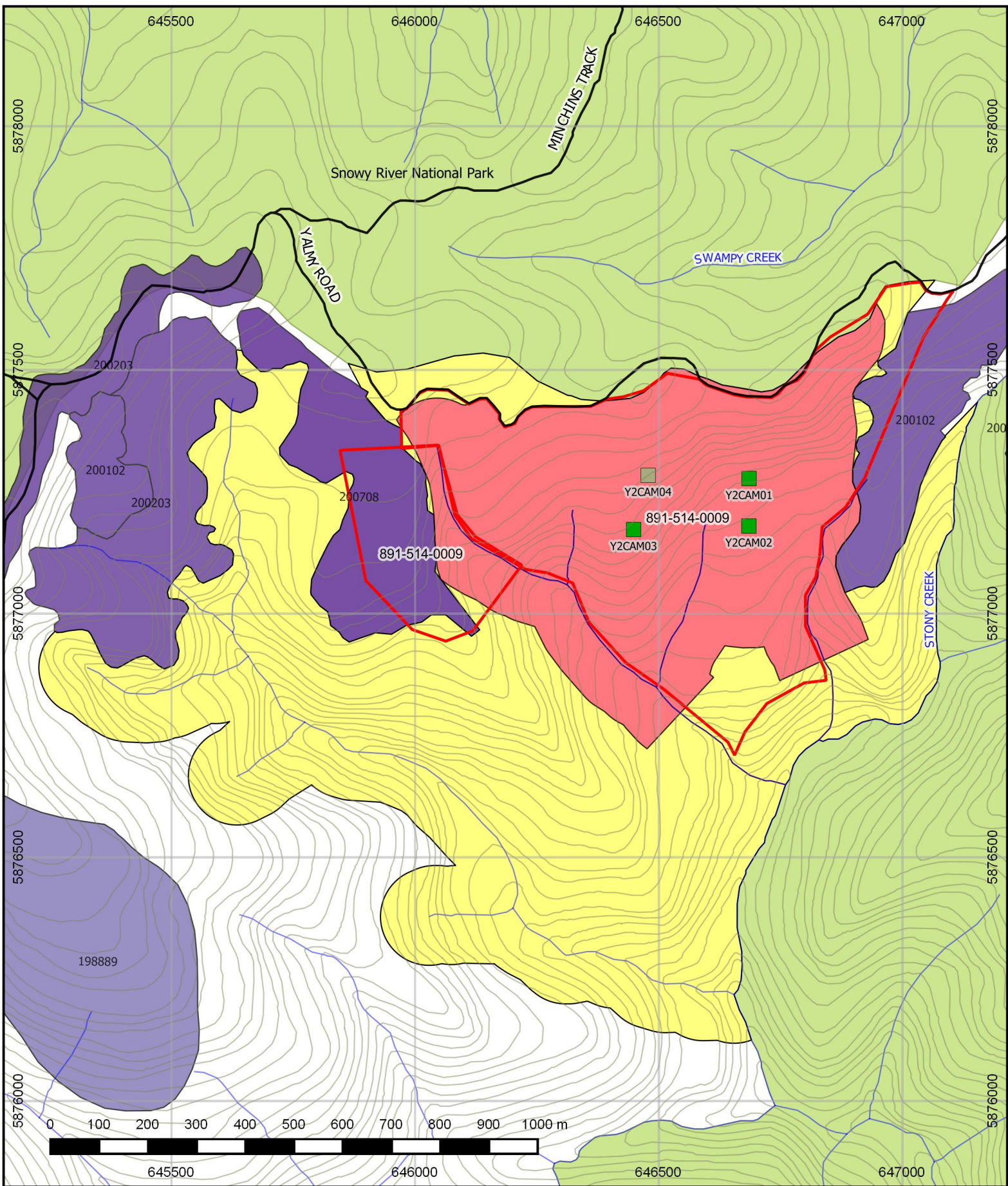
Figure 1(m). “Y2CAM03”, Long-footed Potoroo detection 7/8 at: [55 H 0646449 // 5877172](#) (GDA94 UTM)
2014-06-02 11:52:28 PM Image 1/10



Figure 1(n). “Y2CAM03”, Long-footed Potoroo detection 8/8 at: [55 H 0646449 // 5877172](#) (GDA94 UTM)
2014-06-06 12:24:43 AM Image 1/10

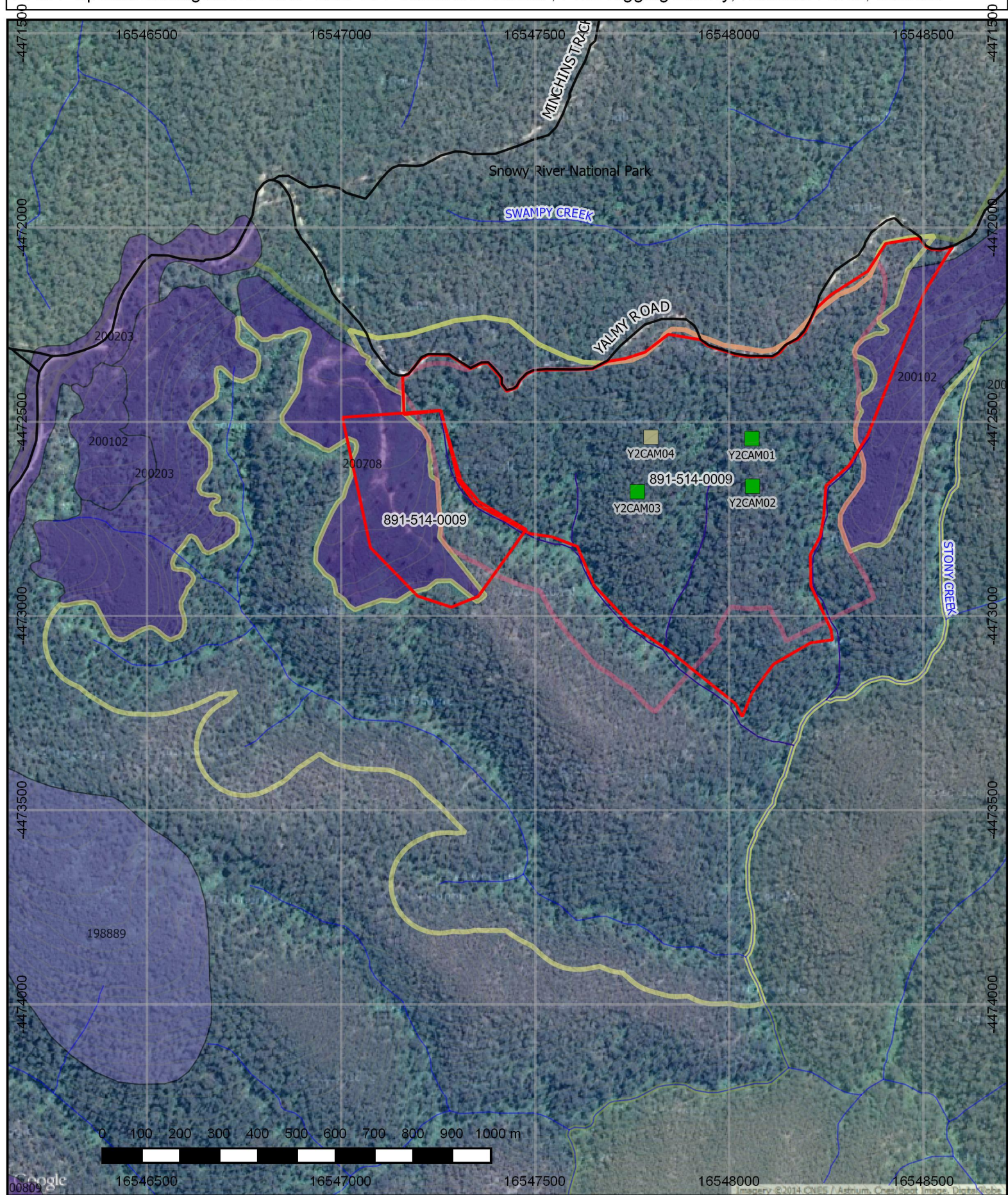





















Figure 2. Yalmy Road, Stony Creek - Long Footed Potoroo remote camera detection locations; Recommended FFGA "Special Management Zone" with "LFP Retained Habitat"; Prior logging history; National Parks



<ul style="list-style-type: none"> Long-footed Potoroo Detection locations Remote Camera Location <p>Recommended FFGA Management Actions</p> <ul style="list-style-type: none"> Long-footed Potoroo "Retained Habitat" (49.97ha) 	<p>Legend</p> <ul style="list-style-type: none"> LFP detection "Special Management Zone" (147.92ha) National Parks VicForests Scheduled Logging Coupes (Timber Release Plan) 	<ul style="list-style-type: none"> Roads Watercourses Contours 	<p>Prior Logging History (to 2011 by season)</p> <ul style="list-style-type: none"> 194950 195960 196970 197980 198990 199900 200910 201011 	<p>Projection: GDA94 / MGA zone 55</p> <p></p> <p>Map Scale: 1:10,000</p>
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Figure 3. Yalmy Road, Stony Creek - Long Footed Potoroo remote camera detection locations; Recommended FFGA "Special Management Zone" with "LFP Retained Habitat"; Prior logging history; National Parks; Satellite



Legend		Projection:	
 Long-footed Potoroo Detection locations	 LFP detection "Special Management Zone" (147.92ha)	 Roads	EPSG: 3857 Pseudo Mercator
 Remote Camera Location	 National Parks	 Watercourses	
Recommended FFGA Management Actions		 Contours	 N
 Long-footed Potoroo "Retained Habitat" (49.97ha)	 VicForests Scheduled Logging Coupes (Timber Release Plan)	 Google Satellite	
		Prior Logging History (to 2011 by season)	
		 194950  195960  196970  197980  198990  199900  200910  201011	

Discussion/Conclusions/Recommendations

“Flora and Fauna Guarantee Act (1988) Action Statement No. 58 (revised in 2009) for the Long-footed Potoroo [including] Appendix I 'Prescriptions to be applied in State Forest’”²

Appendix I: Prescriptions to be applied in State forest:

1. Each Long-footed Potoroo (LFP) detection site outside the Core Protected Area will generate a Special Management Zone (SMZ) of approximately 150 ha.
2. As far as possible, SMZ boundaries will follow recognisable landscape features such as ridges, spurs and watercourses.
3. Within each SMZ, at least one third (~50 ha) will be protected from timber harvesting and new roading.
4. This will be known as Long-footed Potoroo Retained Habitat.
5. The LFP Retained Habitat will include the best LFP habitat in the SMZ, which will generally be in gullies and on lower, sheltered slopes.
6. The LFP Retained Habitat may include areas otherwise unavailable for timber harvesting due to restrictions under the Code of Practice for Timber Harvesting.
7. The SMZ will also have a general restriction of one third of the total area that can be harvested in any three year period. If more than one coupe is to be harvested in an SMZ in the same year, the coupes must be separated by at least the equivalent of another coupe width.
8. The SMZ, with the LFP Retained Habitat clearly delineated, will be shown as part of the Forest Management Area zoning scheme.
9. The SMZ will be designed by DSE, in consultation with VicForests, and approved by DSE.
10. If the ~150 ha area includes any part of an existing conservation reserve or Special Protection Zone (SPZ), these areas will retain their existing reservation or zoning status but will be considered for inclusion as part of the area of retained habitat. In such cases, the final area designated as SMZ may be correspondingly smaller.

Long-footed Potoroo detection records

1. Long-footed Potoroo detection records were obtained between 24/05/2014 and the 08/06/2014 within scheduled logging coupe 891-514-0009 at the 3 locations detailed in the preceding “Results” section's Table 1. and Figures [maps] 2. and 3.”.
2. In total 14 10-image sequences of Long-footed Potoroos were obtained on a total of 8 out of 15 survey nights (53%). An image from each of these sequences is shown in the preceding “Results” section's Figure 1(a-n).”.
3. Figures [maps] 2. and 3. shows the three “Long-footed Potoroo Detection Locations”.
4. The *Long-footed Potoroo FFGA Action Statement* requires that each “*Long-footed Potoroo (LFP) detection site outside the Core Protected Area will generate a Special Management Zone (SMZ) of approximately 150 ha.*” Also, the FFGA Action Statement requires that “*as far as possible, SMZ boundaries will follow recognisable landscape features such as ridges, spurs and watercourses*”, and “*within each SMZ, at least one third (~50 ha) will be protected from timber harvesting and new roading,*” and that “*this will be known as Long-footed Potoroo Retained Habitat.*” and that “*the LFP Retained Habitat will include the best LFP habitat in the SMZ, which will generally be in gullies and on lower, sheltered slopes.*”
5. In *Environment East Gippsland v VicForests* [2010 VSC 335] His Honour Justice Osborne included in his judgment criticism by a DSE biodiversity officer of a proposed LFP Retained Habitat area that failed to cover the detection site itself at [419]:

² “Flora and Fauna Guarantee Act (1988) (“FFGA”) Action Statement No. 58 (revised in 2009) for the Long-footed Potoroo *Potorous longipes*”, p 13

“1. The intent of the SMZ and especially the Retained Habitat (RH) is to provide protection for the habitat of the LfPs [Long-footed Potoroos] around the detection site, partly so we can demonstrate that we are NOT knowingly logging forest likely to be the home range of the individual detected. “2. The home range of LfPs appears to be in the order of 10 to 20 ha, with some animals ranging over larger areas (up to 100 ha). Thus, the RH should be designed to try to capture an area of this order (ie low tens of ha) around the detection site (which is why the Action Statements states the RH is to be about 50 ha). Designing the RH so that it is greater than a few hundred metres from the detection site is not within the purpose and spirit of the prescription. Lee’s recommended SMZ design places about half of the RH further than 500 m from the detection site and thus well outside the expected home range of the detected individual.”

6. His Honour also stated at [420] that:

“The formulation of the retained habitat must [...] take into account each of the first, second and third detections.”

7. Figures [maps] 2. and 3. shows a recommended Long-footed Potoroo “Special Management Zone” (SMZ) of approximately 147.92 ha the spatial delineation of which follows the ridges, spurs and watercourses of the local terrain.
8. This “SMZ” contains an area of approximately 49.97 ha (the “Long-footed Potoroo Retained Habitat”) of the best available habitat comprising the three areas of known Long-footed Potoroo occupancy and the closest available gullies and lower sheltered slopes.
9. The recommended “Long-footed Potoroo Retained Habitat” of 49.97 ha “takes into account each of the first, second and third detections” and aims to cover, owing to what can be ascertained from the available evidence, the home range of the LFP's detected. The LFP Retained Habitat is contained within the closest 500m from each of the detection sites and thus within the expected home range of the individuals detected.
10. The Department of Environment and Primary Industries (DEPI) must restrain VicForests from logging within coupe 891-514-0009 until all necessary management actions triggered responsive to the Long-footed Potoroo detections detailed above are completed and should ensure that the recommended FFGA AS #58 LFP SMZ's with one third protected as LFP RH provided and shown in Figures [maps] 2. and 3. is implemented.
11. The Fauna and Flora Research Collective has detected the Long-footed Potoroo and corresponded on the appropriateness of responsive forest management planning for at least 37 locations in State Forests within scheduled logging coupes from 2009 to the present. The details of each detection is contained in the [27 survey reports and letters](#) submitted to the Department of Sustainability and Environment (“DSE”), now DEPI and VicForests. Serious ongoing disagreement concerning the quality and appropriateness of the design, approval and spatial arrangement of each of the SMZ's required to be enacted following each of the LFP detections demands the need for special attention to the appropriate design and implementation of any further FFGA AS#58 LFP SMZ's with one third protected as LFP RH in accordance with the meaning and intention of the Flora and Fauna Guarantee Act (1988). Further details can be found here: <http://faunaandfloraresearchcollective.wordpress.com/lfp-smz-review/>
12. In addition, VicForests must conduct (and the Department of Environment and Primary Industries must require that VicForests conduct) appropriate presence/absence surveys for the Long-footed Potoroo in all areas scheduled for logging within the distributional range of the Long-footed Potoroo prior to the commencement of any logging operations.