

### Department of Environment, Land, Water and Planning (DELWP)

## Timber Harvesting Compliance Unit (THCU) Case Management Report

**DELWP Case Reference Number: 2015-0006** 

Coupe: 892-508-0006 (Last Minute) in the Bendoc State forest (East Gippsland).

Issue: Alleged harvesting of rainforest, water protection prescriptions not applied and rainforest

protection requirements not identified and planned.

### **THCU Case Assessment Team**

### Background

On 8 April 2015 of the Goongerah Environment Centre (GECO) submitted a report to the THCU containing maps, photos, and other supporting evidence relating to the following allegations:

- i. VicForests had harvested of a patch of rainforest within the reference coupe.
- ii. That pooling of water within the coupe suggests that an area should have been considered as a waterway, and that VicForests had not protected the area in accordance with the requirements specified in the Code of Practice for Timber Production 2014 (the Code).
- iii. That VicForests had not identified another patch of rainforest within the coupe in the "south-east corner" and that this had not been "taped out" to exclude the area from harvesting.

The report provided details of rainforest canopy tree species located within a gully inside the coupe. The report also included details of "differential rainforest species" and a map alleging that the rainforest patch covered approximately 0.95 ha in size (see Attachment 1).

The report requested that DELWP act to protect the rainforest areas from further timber harvesting and to investigate VicForests for alleged breaches of the regulatory framework.

A supplementary report was also submitted to DELWP by on 16 April 2015 providing additional supporting information about this case. This report was considered but did not change the primary allegations outlined above. This report alluded to additional potential breaches of the regulatory framework relating to rainforest in the adjacent coupe 892-508-0002, but did not provide sufficient detail to warrant investigation at this time.



### Regulatory requirements for the protection of rainforest communities

The Code defines rainforest as "closed (>70 per cent projected foliage cover) broadleaved forest vegetation with a more or less continuous rainforest tree canopy of variable height, and with a characteristic composition of species and life forms, of at least 0.1 ha in area and 20 metres width. Rainforest includes closed transitional and seral communities, with emergent eucalypts, that are of similar botanical composition to mature rainforests in which eucalypts are absent."

The characteristic rainforest tree canopy species are defined in the incorporated *Management Standards and Procedures for timber harvesting operations in Victoria's State forests 2014* (MSPs), along with a process for the recognition and delineation of rainforest in the field.

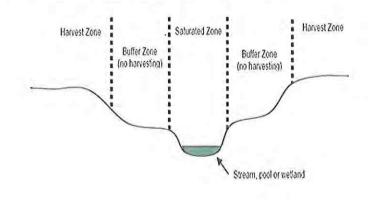
The Code contains a mandatory action relating to rainforest under Section 2.2.2 Conservation of Biodiversity and Action 2.2.2.7 states that "Rainforest communities must not be harvested." Additional rules relating to the application of protective buffers around rainforest patches of various sizes are also outlined in section 4.4.9 of the MSPs.

The presence or absence of a "rainforest canopy" is particularly important in the identification of rainforest in the field. The MSPs note that "special care is required when assessing the presence and extent of rainforest where disturbance such as fire has temporarily removed the rainforest canopy or has created temporary canopy gaps. In cases where the canopy disturbance is less than ten years old and further guidance as to the boundary of rainforest is required, the 'differential species approach' is to be used. Where the rainforest canopy is absent and there is little or no evidence of the regeneration of a rainforest canopy after 10 years following disturbance the 'differential species approach' should not be used to identify rainforest and the stand should no longer be considered to be rainforest."

### Regulatory requirements for protection of waterways and riparian zones

The Code defines a number of words that relate to the identification and protection of various "waterways" that may be associated with timber harvesting operations. Of relevance to the report concerns the definition of "pool" "means an area of still water of at least 4 metres in diameter within or adjacent to the main channel of a permanent or temporary stream. A pool may dry out in extremely dry years. In native forests, pools buffered from harvesting." buffering is outlined in the adjacent figure:

Figure 2 - Permanent Streams, Pools or Wetlands in Native Forests<sup>2</sup>



The Code contains a mandatory action relating to rainforest under Section 2.2.1 Water Quality, River Health and Soil Protection and Action 2.2.1.4 states that VicForests must "use buffers and filters of effective width in forest adjacent to aquatic and riparian habitats to protect them from microclimate changes, sedimentation and disturbance." Additional rules relating to width of protective buffers and/or filters that must be applied around waterways are also outlined in section 3.3. of the MSPs.



### Relevant offence

Section 45 of the Sustainable Forests (Timber) Act 2004 (SFTA) outlines the offence of "unauthorised timber harvesting operations". The maximum penalty for this offence in the case of a body corporate is 240 Penalty Units.

The definition of authorised timber harvesting operations under S45(2) of the SFTA defines these in the case of VicForests' vested timber resources as "timber harvesting operations undertaken by, or on behalf of, VicForests in accordance with an allocation order and a timber release plan that relates to that allocation order. Paragraph 14 of the Allocation Order specifies the obligation for VicForests' to comply with the Code. Timber harvesting which is not undertaken in accordance with the Code may therefore be considered "unauthorised harvesting" and subject to consideration under this offence.

Actions undertaken by	the THC	:U
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On 16 April 2015, THCU officers travelled to Bendoc and met with VicForests staff to investigate the alleged breaches.

The coupe planning process was reviewed to determine what pre-harvest value assessments had been carried out by VicForests for coupe 892-508-0006. VicForests staff advised that:

- Value checks were carried out by VicForests' tactical planners, planning officers and harvesting managers prior to harvesting commencing at coupe 892-508-0006.
- The rainforest gully in relation to allegation (i) was assessed by the field in December 2014 using the VicForests Rainforest Identification Procedure. He assessed that two separate patches of rainforest canopies were present in the coupe but that these were both less than 0.1ha in size, and deemed to not require further protective action. A written record of the VicForests procedure and assessment (dated 30 January 2015) was provided to the THCU officers (see below).
- There has been no identified "disturbance" in the area since the last logging operations were conducted in 1968/69, which suggested that the "differential species technique" did not apply in relation to this coupe.
- Harvesting commenced in the coupe on 10 March 2015.
- The harvesting target species for the coupe were "Mixed Species Eucalyptus" and the alleged rainforest area referred to in allegation (i) did not contain any trees with merchantable timber values. VicForests confirmed that it had no plans to use the felled rainforest canopy trees for specialty timber purposes.
- After recent rains there was water flowing in the area of interest, but that these flows and the body of pooled water referred to in allegation (ii) was probably only formed recently following the soil disturbance associated with the pushing over of the rainforest canopy trees which has exposed sub-surface water flows.
- The East Gippsland Cool Temperate Rainforest community near the south-eastern boundary in relation to allegation (iii) had been identified during the planning process and a 40m harvesting buffer had been put in place. A copy of the "operations map" containing this information was provided to the THCU officers (see below).

VicForests provided with c	copies of the following documents:
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- VicForests' Pre-harvest Field Identification of Rainforest Form (Attachment 4)

  The field identification form records that the area relating to allegation (i) was assessed by

  in December 2014 to have two separate small patches of rainforest species with a
  canopy cover >70%, both of which were assess to be <0.1ha in size. The two patches were
  measured to be 20m X 27m (0.05 Ha) and 24m x 31m (0.07 Ha). The gap between the two
  patches was measured to be greater than 40m. The form was signed and dated 30 January
  2015.
- VicForests reviews of historical disturbance within the coupe (Attachment 5): Maps showed that previous logging dated 1968-1969 has occurred at the site. Maps also showed known presence of a rainforest community in the gully at the south-eastern boundary of the coupe which related to allegation (iii).
- VicForests Planning Overlay Assessment (Attachment 6)

  The planning output data generated by VicForests' officer indicated that Cool Temperate Rainforest (EVC 31) was present in the coupe at the southeastern boundary and should be buffered accordingly.
- VicForests Operations Maps (Attachments 7 and 8)
  Map outlining the planned harvesting area on the coupe shows a 40 m buffer was applied to the south-eastern boundary Cool Temperate Rainforest community allegation (iii). VicForests had also checked aerial photography in the area of interest in relation to allegation (i)
- VicForests Coupe Plan Harvesting Commencement & Completion Declaration (Attachment 9)

  Documents that the harvesting commencement date for this coupe was 10 March 2015.

then travelled to coupe 892-508-0006 (Last Minute) to further assess the allegations made in report. A series of photographs were taken by from within the coupe, and a selection are included in this report (see Attachment 3).

through the area of interest relating to allegation (i) and were accompanied by

Figure 1 shows the area of interest that was assessed by the THCU officers.



Figure 1. Photograph from within coupe 892-508-0006 (Last Minute) showing the gully containing at least 22 pushed rainforest canopy trees in relation to allegation (i) and the surrounding general harvesting area within the coupe.



The officers noted the presence of a number of Black Olive-Berry and Southern Sassafras trees (East Gippsland Cool Temperate Rainforest canopy tree species) which appeared to have been pushed over with harvesting machinery. A total of 22 large rainforest canopy trees were identified and inspected by the officers. Each was assigned a number and marked with white paint by the officers. Captured GPS data points and photographed the trees and ook tree diameter measurements (breast height over bark) where possible. Due to the high degree of disturbance caused by the surrounding harvesting operation, measuring the trees was not always possible.

Assessing presence or absence of rainforest using the standard "canopy assessment method" in line with the guidance provided in the Management Standards and Procedures for timber harvesting operations in Victoria's State forests 2014 was not possible at this site because all relevant canopy trees had been pushed over. determined that the next best option was to attempt to "reconstruct" the vegetation that was likely to have been present at the site using a combination of aerial photography and field observations. To achieve this the GPS data to who used spatial analysis software to compare the location of the tree crowns observable in the available aerial photography (21 October 2010) to the GPS points taken in line with field observations and still in the field. This analysis was reviewed by noted that there was a small variation between the aerial photograph location and GPS points but that these were attributed to the usual level of inaccuracy that occurs when using a GPS and the possible movement and rearrangement of pushed trees during concluded that there was sufficient evidence available to suggest that the harvesting. trees observed in the field were the same that were present in the aerial photograph. established two polygons of potential rainforest canopy where the rainforest canopy tree species crowns were closely packed together, and where he assessed that it would be likely to achieve a 70% projected foliage canopy cover. An approximate size of each potential rainforest patch was then calculated by using the spatial software. then prepared a map outlining the results of this analysis (see Appendix 2).

The gap areas between the two potential rainforest patches (see Appendix 2) consisted of scrubby wet gully areas that were dominated by tree ferns. The officers noted that tree ferns are not considered as tree canopy species in the regulatory documents. There was no evidence present to suggest that rainforest was likely to have been recently present in these gap areas. The THCU officers noted that apart from the obvious recent disturbances associated with the timber harvesting operation, there was no evidence of any other recent "disturbance" in the area (such as fire, storm damage or disease) since the last logging operations were conducted in 1968/69. Evidence of the historical logging was observed by the officers in the coupe, with multiple stumps and large remnant logs observed (see Attachment 3D and 3E). The officers determined that a lack of relevant disturbance in the past 10 years, meant that the "differential species technique" for identifying rainforest boundaries would not apply in relation to this coupe.

### **THCU findings**

In relation to allegation (i): Alleged harvesting of rainforest gully.

The THCU confirmed the presence of a significant quantity of rainforest canopy tree species at the site including Southern Sassafras (Atherosperma moschatum), Black Olive-berry (Elaeocarpus holopetalus), Gippsland Waratah (Telopea oreades), and Banyalla (Pittosporum bicolor).



Based on the field observations made by the THCU has concluded that it is likely that two potential small patches of vegetation worth assessing for the presence of rainforest were present in the area of interest before the commencement of harvesting. The size of the potential rainforest patches is critical in assessing compliance with the Code. The regulatory requirements for excluding timber harvesting commence after a patch reaches 0.1 ha in size. The estimated size of the two patches was 0.12 and 0.06 Ha (see map at Attachment 2). The distance between these two rainforest patches was estimated to range between 17 and 23m (see map at Attachment 2), with the vegetation in this area comprising a scrubby area dominated by tree ferns. The THCU notes that the regulatory documents do not provide definitive guidance on the treatment of gaps between rainforest but that this particular gap appeared in the field to be of sufficient size to warrant separation of the two rainforest patches.

Of key importance to guiding the outcomes of this investigation, the THCU notes that these findings include approximations based on a reconstruction of what was likely present before commencement of harvesting. The current disturbed state of the area (caused by the harvesting operation) does not permit an accurate physical assessment or measurement. This disturbance combined with the potential margin of error associated with the theoretical 'reconstruction' of the vegetation means it is therefore not possible to determine "beyond reasonable doubt" the area of the potential rainforest present in the patches, or whether the canopy achieved projected foliage cover in excess of 70% prior to the commencement of the harvesting operation.

For the reasons outlined above, the THCU must return an inconclusive finding as it has been unable to determine whether this allegation does or does not represent a breach of the Code requirements. The THCU does note significant concerns about the conduct of the harvesting operation in this area given that there was no obvious reason or rationale identified (in discussion with VicForests) for the contractor to push over the established (non-merchantable) rainforest canopy trees. The THCU also notes that VicForests retains a degree of culpability for this outcome as it did not provide any direction to its harvesting contractor in the Forest Coupe Plan about excluding harvesting in the area of interest. The unwarranted destruction of these trees is not considered by the THCU to be consistent with "best practice" for native timber harvesting operations in State forest, and will likely contribute to a negative environmental impact during the regeneration of the site and impact on the local biodiversity.

### In relation to allegation (ii): Alleged pooling of water and protection of waterways

A pool of water in relation to allegation (ii) was located by	in the coupe
(see Attachment 3A). The pool was measured by	at 2m in diameter confirming the
evidence presented by in the report submitted. The of	
of water (and the nearby running water) was likely forn	
operation causing soil disturbance exposing sub-surface v	vater flows.
noted that the area was sodden, but found no evidence o	f formed "channels" suggesting that
there was no pre-existing waterway at the site which req	juired protection under the Code of
Practice for Timber Production 2014.	

The THCU has concluded that no breach of the Code requirements was identified in relation to this allegation.

In relation to allegation (iii): Allegedly unidentified and unprotected south-eastern boundary Cool Temperate Rainforest community



The operational plan provided by VicForests clearly showed that the Cool Temperate Rainforest community in the south-eastern part of the coupe was identified prior to harvesting and had been protected with a marked 40m buffer zone. This was sufficiently clear in VicForests' operations map (attachment 4).

The THCU has concluded that no breach of the Code requirements was identified in relation to this allegation.

### Analysis

As insufficient evidence exists to support a definitive breach of the regulatory framework for all three allegations, this section of the report has not been used.

Environmental impact: n/a

Offender culpability: n/a

Offender history: n/a

Timing of these findings: n/a

Method and timing of notification: n/a

### Recommendations

Formal regulatory action is not recommended in relation to any of the allegations. Any formal action would be unlikely to succeed due to the high degree of uncertainty in establishing the existence of a rainforest patch of sufficient size and with sufficient projected foliage cover that would satisfy the definition provided in the regulatory documents. A prima facie case cannot be established.

Regardless of this, the THCU recommends that DELWP engage VicForests to further discuss the outcome where the 22 large rainforest canopy trees were felled. The THCU officers have determined that although this was not a technical breach of the regulatory rules, this was unnecessary and that similar outcomes should be avoided for future timber harvesting operations. It is not considered best practice for large rainforest canopy trees (such as the one seen in Attachment 3C) to be needlessly destroyed. The officers assessed that the area of interest included significant environmental assets, but had no merchantable value and was unlikely to significantly obstruct the harvesting of the surrounding target eucalypts or impact on future regeneration objectives.

VicForests retains ultimate responsibility for the training and supervision of its harvesting contactors. VicForests is also responsible for planning coupes and establishing appropriate harvesting exclusion zones within its operations. THCU recommends that VicForests reviews the guidelines and instructions provided to harvesting contractors to emphasize the need for appropriate judgment in the selection and felling of un-merchantable tree species, especially when they are large (>0.5m DBH) rainforest canopy species such as the Southern Sassafras (*Atherosperma moschatum*) and Black Olive-berry (*Elaeocarpus holopetalus*).

In summary, it is recommended that:

No further regulatory action be undertaken by DELWP at this time;



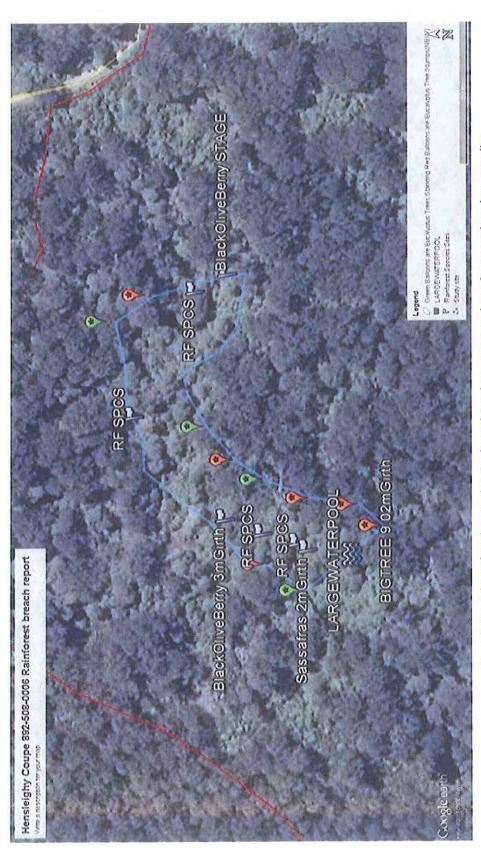
0	That the	write to	and	VicForests to	inform	them	of th	ie
	results of the investigation.							

### Other Issues

• Nil.

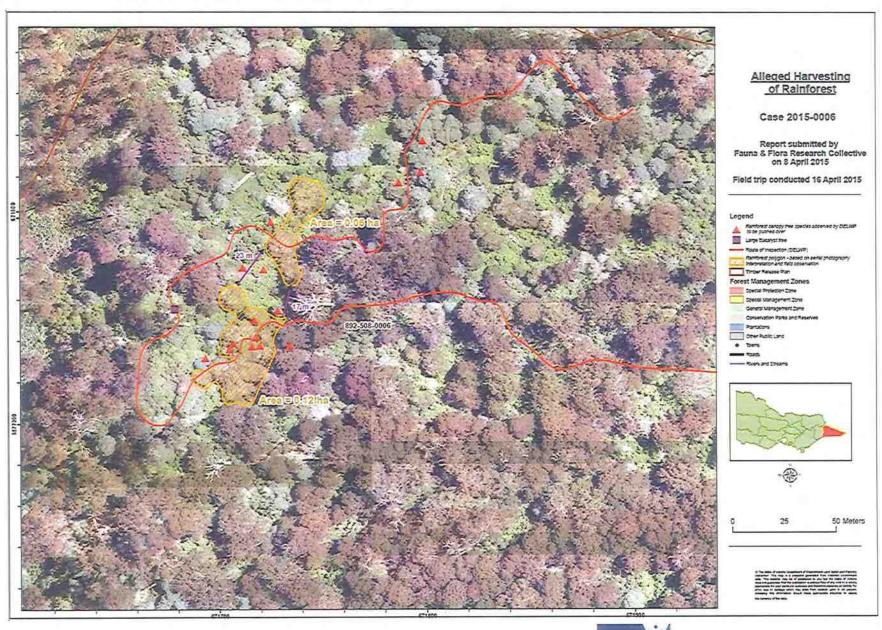
Report prepared by:	Report approved by:
23 April 2015	2414-115





pushed over rainforest cannopy trees with circumfrence measurements. Note the clear difference in cannopy differential key were present. Sassafras 2m Girth and Black Olive Berry 3m Girth indicate location of large Figure 2: Boundary of study area showing logged Eucalyptus trees on boundary as red markers, standing Eucalyptus trees as green markers. RFSPCS represesnts sites where rainforest character species from the cover (color and texture) within the study area that was rainforest prior to logging.

Attachment 2 – DELWP mapping and spatial analysis showing two polygons of potential rainforest within coupe 892-508-0006 (Last Minute) for aerial photograph taken in 2010 prior to the commencement of harvesting



# Attachment 3 – Selection of THCU photographs taken within coupe 892-508-0006 (Last Minute)

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allegation (ii). B: Example of high level of disturbance in the area of interest associated with the pushing of multiple large Black Olive Berry trees relating to allegation (i). C: Very large Black Olive Berry tree that was pushed over relating to allegation (i). Selection of photographs from coupe 892-508-0006 (Last Minute): A: Pooling and running water observed in relation to



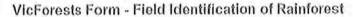
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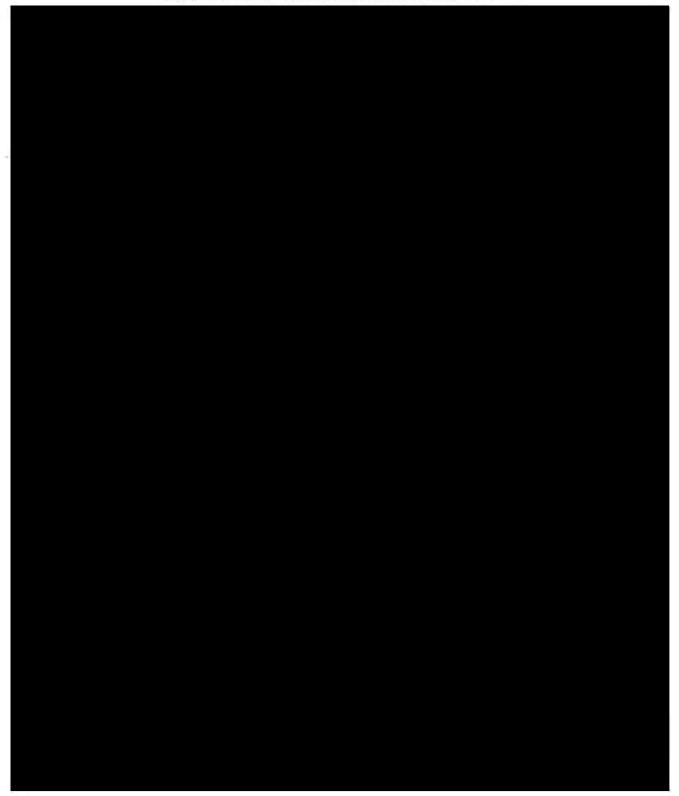


Selection of photographs from coupe 892-508-0006 (Last Minute) Photos D and E: Evidence of old logs and tree stumps from previous 1968-69 logging history.









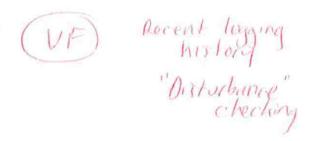
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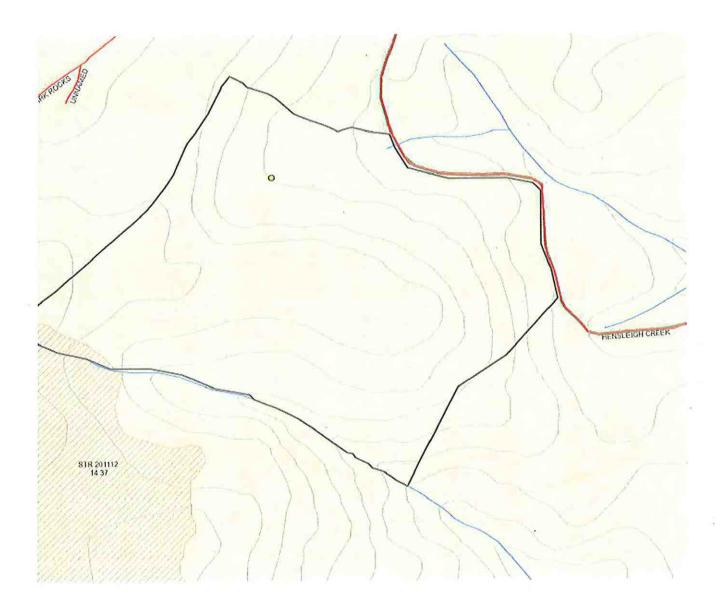
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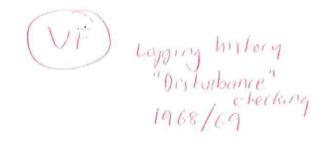


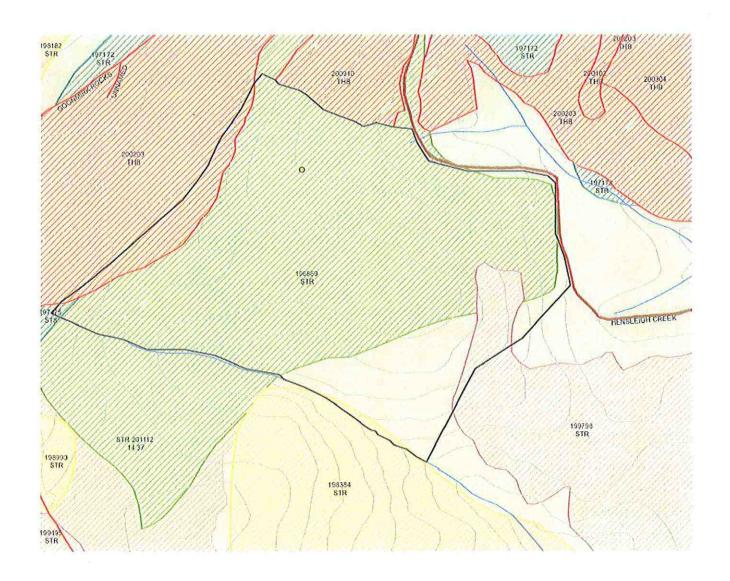
Attachment 5: VicForests Maps showing checks conducted to determine recent disturbances in relation to rainforest values





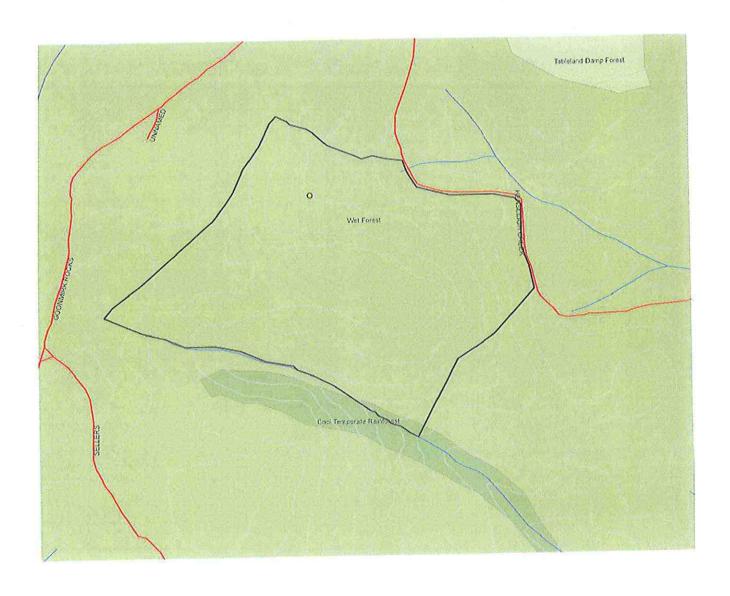








(VF) evidence of rainforest





## Management Issues - TRP Bdy 892-508-0006 - Last Minute

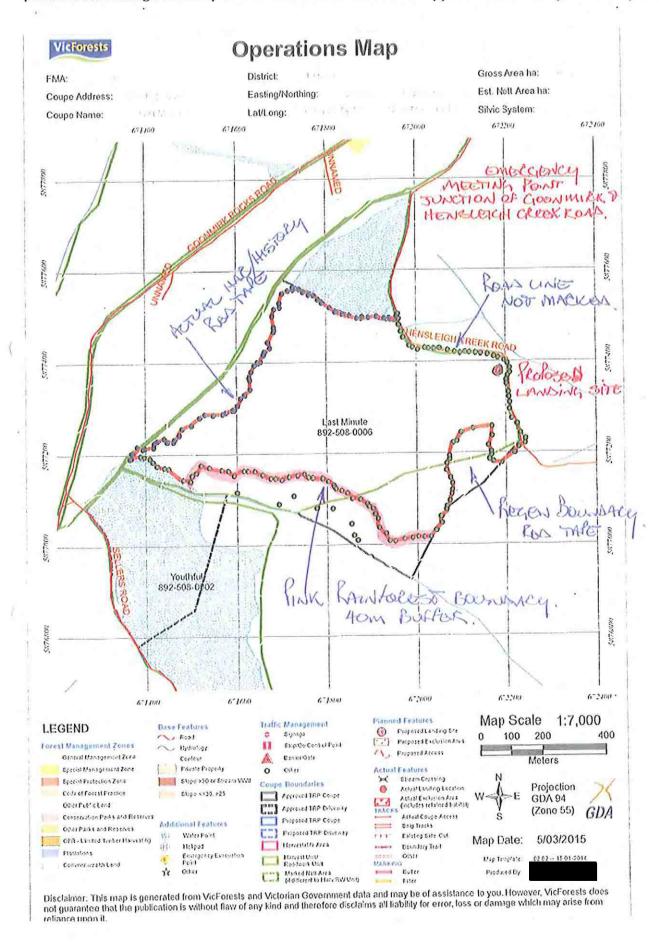
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Date: 06 Feb 2015

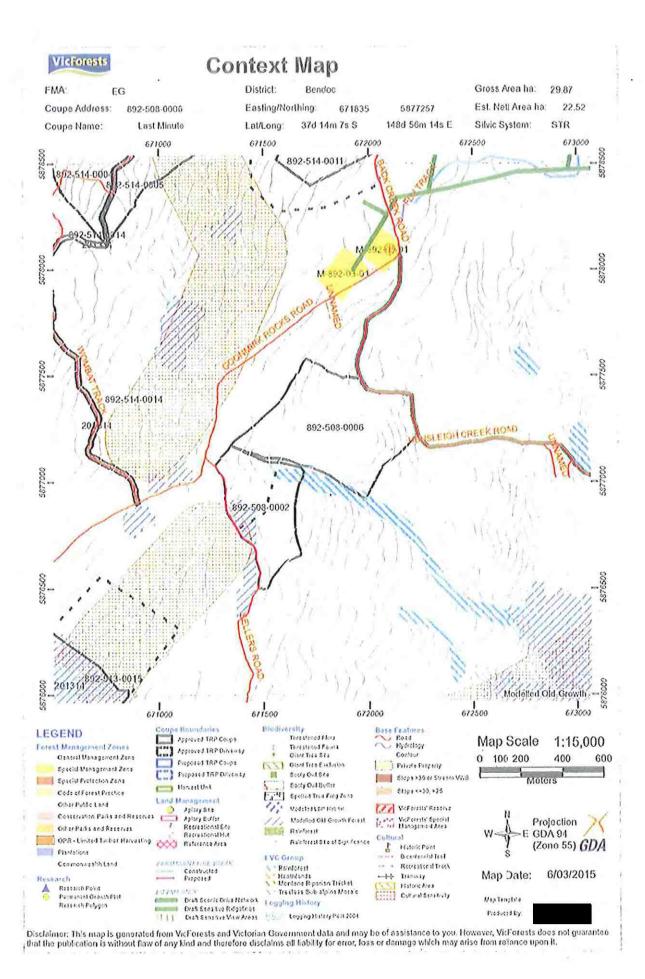
Issue	Overlay	Field Check	Comments	Wanagement
Barred Galaxias streams in coupe or within 500m; Barred Galaxias catchment in coupe or within 500m.	Not present	Not present	No action required	
Spottled Tree Frog catchment in coupe :	Not present	Not present	No action required	
Spotted Tree Frag catchment within 500m :	Not present	Not present	No action required	
Spotted Tree Frog in coupe : "None found "	Not present	Not present	No action required	
Spotted Tree Frog within 500m; None found	Not present	Not present	No action required	
Long-footed Potorco in coupe : " None found "	Not present	Not present	No action required	
Long-footed Potoroo within 500m; "None found"	Not present	Not present	No action required	
Threatened EVG in coupe : Cool Temperate Rainforest	. 0.24	Present 0.24 ha	Cool Temperate Rainforest EVC 31 detected if Rainforest identified in the field, buffer according to latest Rainforest Action Sta Forest Management Plan and Managem Frosedure. Buffer will be located and matthe field using a GPS, compass, hip chairange finder, Roading must be excluded rainforests buffer unless consultation and approval received from	If Rainforest identified in the field, buffer according to latest Rainforest Action Statement, Forcest Management Plan and Management in Procedure, Buffer will be located and marked in the field using a GPS, compass, hip chaim and/or range finder. Roading must be excluded from rainforest and rainforests buffer unless consultation and approval received from DELWP.
Threatened EVC within 500m : Cool Temperate Rainforest	88	Present 5.69 ha	Cooi Temperate Rainforest EVC 31 detected If Rainforest identified in the field, buffer in overlay process within SODm of coupe Forest Management Plan and Managem boundary.  Forest Management Plan and Managem and Managem in Procedure. Buffer will be located and my the field using a GPS, compass, the characteristic for the consultation and approval received from	If Rainforest identified in the field, buffer according to largest Rainforest Action Statement. Forest Management Plan and Management in Proceedure. Buffer will be located and marked in the field using a GPS, compass, hip chain and/or range finder. Rading must be excluded from range and rainforests buffer unless consultation and approval received from DELWP.
Rainforest in coupe : 0	00.0	Not present	No action required	
Rainforest site in coupe : " None found "	0.00	Not present	No action required	
Rainforest site within 500m; Rainforest site of significance	Not present	Not present	No action required	
Giant Trees or buffer in coupe	Not applicable	Not present	No action required	
Giant Trees or buffer within 500m	Not applicable	Not present	No action required	



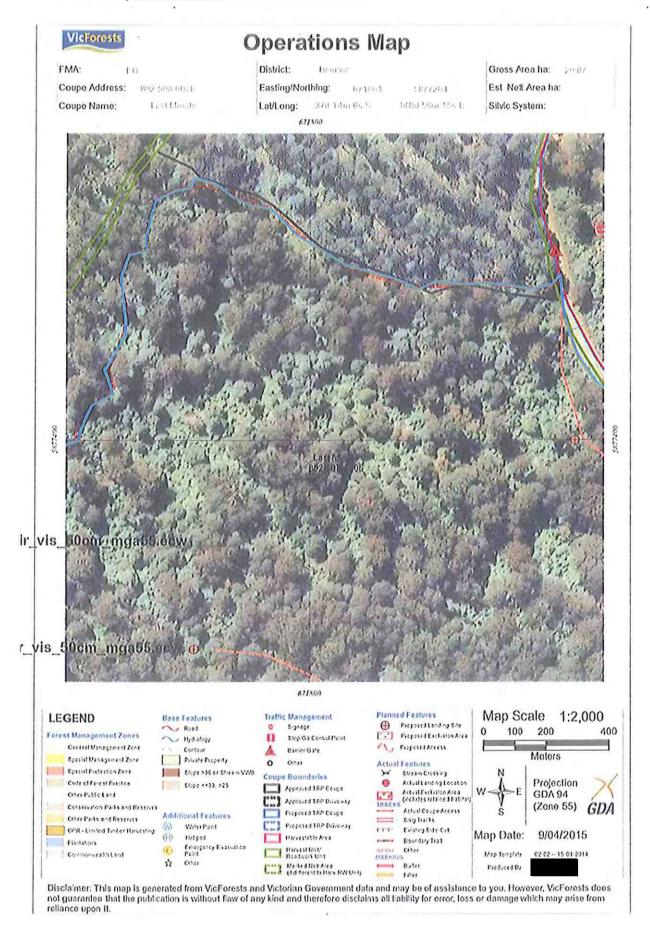
Attachment 7: VicForests Operations and Context Maps (2 maps) showing the location of planned harvesting boundary and 40 meter rainforest buffer applied in southern part of coupe.















### FOREST OPERATIONS COUPE PLAN - SECTION 4 Contractor Section - Harvesting Commencement & Completion Declarations

892-508-0006 - Last Minute, Harvest Unit 892-508-0006-A - Last Minute Bendoc, 892 - Queensborough Easting/Northing: 671861/5877284 Zone 55. Latitude/Longitude: 37° 14' 6" S, 148° 56' 14" E

Prepared By Sign Date 10-3-15

- . Thave received a copy of the Forest Coupe Plan and a copy of the Utilisation Procedures.
- . I have discussed this Forest Coupe Plan with an Officer of VicForests and understand it.
- . I will ensure that this operation is conducted in accordance with the Forest Coupe Plan, the Utilisation Procedures and the Occupational Health and Safety Act.
- . I will ensure that all operators working on this coupe are aware of their responsibilities under this Forest Coupe Plan.
- I will ensure that all operators hold a current Timber Harvesting Operators Licence with all appropriate endorsements prior to them commencing work on the coupe.

Contractor / LTI

Witnessed By
VicForests Office

Sign

Date 10-3-15

The names and Timber Harvesting Operator Licence numbers of the crew working on this Harvest Unit are:

LTL THOL No
Log Grader THOL No
Crew Member THOL No
Crew Member THOL No
Crew Member THOL No
Crew Member THOL No
THOL No
THOL No
THOL No
THOL No
THOL No

