Our Ref: Your Ref:

24 May 2016

Mr. Liam Fogarty
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Dear Mr. Fogarty



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### 2015-16 FOREST AUDIT PROGRAM FINAL AUDIT REPORTS

VicForests welcomes the final audit reports following the 2015-16 Department of Environment, Land, Water and Planning (DELWP) Forest Audit Program (FAP). The audit program varied to previous FAPs where three independent auditors were engaged to focus on three management areas. This included;

- 1. The Protection of Mandatory Exclusion Areas from the Impacts of Timber Harvesting
- 2. Construction and Rehabilitation of Waterway Crossings and;
- 3. Construction and Maintenance of In-coupe Roads

We are pleased that *The Protection of Mandatory Exclusion Areas from the Impacts of Timber Harvesting* audit received a compliance score of 100%, although note there are areas for improvement following recommendations raised as part of the *Construction and Rehabilitation of Waterway Crossings*, and *Construction and Maintenance of In-coupe Roads* audits. These similarly themed audits received a compliance score of 65% and 80% respectively.

While we accept that there needs to be improvements we do note that audit scores for the risk based audits, in particular *Construction and Rehabilitation of Waterway Crossings* has in part resulted from some subjective interpretation of the *Code of Practice for Timber Production 2014* that we have, and continue to dispute. Despite this we acknowledge that improvements to procedures and processes are required and have commenced work on this.

We believe that while focus themed audits identify areas for improvement in particular management areas, there is value in auditing a broader set of audit criteria for future audit programs. If the scope of an audit is altered to review a specific operation, then the Environmental Risk Assessment Matrix should also be updated to reflect the narrowed scope of the audit. Assessments of non-compliance varied greatly between audits and it is also, in our opinion that the risk matrix overstated the environmental impact assessment score, as it was no longer used for measuring compliance at a coupe level.



VicForests has reviewed the recommendations made by the auditors for each audit and have individually addressed them in Appendix 1, 2 and 3.

I would like to thank DELWP for the opportunity to comment on the final audit reports.

Yours sincerely,

Nathan Trushell

**General Manager Planning** 

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# Appendix 1. VicForests' response to recommendations raised in 'The Protection of Mandatory Exclusion Areas from the Impacts of Timber Harvesting' audit report

**Recommendation 1:** It is recommended that potential spatial data inaccuracies are taken into consideration when selecting appropriate sites for future audits, and that measures are put in place to increase the likelihood of selecting sites containing biodiversity values.

VicForests' Response: Recommendation for DELWP.

**Recommendation 2:** To aid in future compliance monitoring work undertaken by auditors or DELWP, it is recommended that VicForests adopt a standardised level of documentation across coupes and FMAs.

VicForests' Response: VicForests' Coupe Planning Instruction outlines documentation requirements within coupe folders. It is noted that there is some variance in the level of detail included in some coupe folders between regions. VicForests endeavours to implement consistency across the business.

**Recommendation 3:** VicForests set up checks to ensure LBP Habitat checks are happening in the field, and that they are being stored in a set place within the FCP for each coupe so that they can be easily accessed by staff managing the site to confirm the presence or absence of any biodiversity values.

VicForests' Response: VicForests' form used for the identification of Leadbeater's Possum habitat and regrowth retention harvesting instruction outline a series of checks throughout the coupe planning stages through to post-harvest and post-burn to ensure correct documentation has been recorded. VicForests retains records of habitat retention in both the coupe folder and a central regrowth retention harvesting tracking spreadsheet. VicForests will include review of coupe folders within its next internal audit.

**Recommendation 4:** If a coupe has only been re-opened for the use of the landing, VicForests should include an updated "Coupe planning Checklist" in the FCP targeted around the re-opening of the landing, highlighting biodiversity values, i.e. that a Leadbeater's Possum Habitat checklist would not need to be completed due to the type of works proposed on site.

VicForests' Response: VicForests will review its Coupe Planning Checklist to ensure it accurately reflects the operation.

**Recommendation 5:** VicForests set up checks to ensure Rainforest ID checks are happening in the field, and that they are being stored in a set place within the FCP for each coupe so that they can be easily accessed by staff managing the site to confirm the presence or absence of any biodiversity values.

VicForests' Response: VicForests will review the coupe folder contents form and provide clarity to staff as to where rainforest ID forms are stored. An assessment of rainforest documentation compliance forms part of the annual internal audit program.

**Recommendation 6:** When mapping features that require an exclusion zone (i.e. Rainforest patches that require a 40 m buffer), VicForests clearly show on the maps within the FCP that the area mapped as rainforest either a) includes the 40 m buffer, or b) apply an additional 40 m buffer on the rainforest mapping. This would make it clear



to those on the ground where the buffer is and where the value to be protected, in this instance rainforest, is located.

VicForests' Response: VicForests' operational maps provided to contractors are required to display the marked boundary of a coupe, and identify any special values located within or adjacent to the coupe. VicForests will review consistency of its mapping as part of the next internal audit program.

**Recommendation 7a:** VicForests make a submission to DELWP to update the SPZ layers when inaccuracies are identified during the field assessment so that the presence of an SPZ is updated within the DELWP spatial layers. This might be the removal or addition of an SPZ from within coupe boundaries, e.g. updating the SPZ layer for patches of Rainforest or the Alpine Walking Trail based on better spatial data for the location of the track.

VicForests' Response: Submissions to DELWP to update the Forest Management Zoning are often completed when inaccuracies are identified in the field. VicForests will continue to work with DELWP to ensure this process is completed in an efficient way.

**Recommendation 7b:** DELWP determine an appropriate response time and action for when VicForests submit applications to have areas re-zoned, and commit to meeting this target.

VicForests' Response: Recommendation for DELWP. VicForests supports this recommendation.

**Recommendation 8:** VicForests submit requests to DELWP to update spatial layers for mappable features (i.e. Waterways, Alpine Walking Trail, Rainforests) which have been inaccurately modelled in some areas.

VicForests' Response: As per Recommendation 7a, submissions to DELWP to update the Forest Management Zoning are often completed for inaccuracies identified in the field. There are a large number of modelled values that are not accurately mapped. The data regarding these values is not intended to be relied upon for small scale application, but provide a trigger to check for the value in the field. VicForests will continue to work with DELWP to ensure this process is completed in an efficient way.

**Recommendation 9:** VicForests identify habitat retention areas on both the Operations and/or Post Harvest (regeneration) maps within the FCP. By mapping these areas it can be clearly determined whether appropriate habitat retention standards have been met.

VicForests' Response: VicForests require habitat areas to be displayed on both operations and regeneration maps. VicForests will review compliance as part of its next internal audit.

**Recommendation 10a:** VicForests identify the location of retained seed trees within the maps stored in the FCP – either by marking individual trees on the operations or post-harvest maps, or by adding a polygon to the maps outlining any areas where trees have been intentionally retained as seed trees. A figure (number) should also be included identifying the number of seed trees that have been retained, clearly highlighting that consideration in to seed tree retention has occurred.

VicForests' Response: VicForests records in its coupe management system a figure for the target number of retained trees per hectare in the coupe planning stage, as well as an actual number retained per hectare post-harvest. Habitat patches are displayed



on maps, but scattered individual trees are not always displayed. VicForests will review its procedure regarding recording retention requirements on operations and post-harvest maps.

**Recommendation 10b:** Where seed trees are being retained for the dual purpose of habitat retention, VicForests should take the quality of trees retained as seed trees in to consideration, so that trees selected to be retained are those that are deemed as having a good probability of surviving and contributing hollows in the future. Refresher training of operational foresters needs to be maintained so that they are able to take full advantage of the opportunities to achieve optimal solutions on the ground.

VicForests' Response: VicForests will review the training framework for Operations Foresters and provide refresher training for seed and habitat tree selection where required.

**Recommendation 11:** VicForests introduce a requirement that forest contractors managing the coupes to include detail within the coupe diary entries outlining whether trees that have fallen/slid out of place have been retrieved or left in situ, and that they mark the location of all accidental tree falls on the operations maps, so that they correspond with the coupe diary notes. It should be clear whether any accidental tree falls have impacted any mandatory buffers or exclusion areas from both the coupe diary entries and the maps.

VicForests' Response: VicForests requires its contractors to record boundary intrusions in the coupe diary and to notify their supervising Forester. The supervising Forester assesses the incident on site, signs the diary entry and records the location on the post-harvest map. VicForests will ensure that this process is being adequately implemented.

**Recommendation 12:** DELWP establish a clear regulatory requirement for VicForests to submit applications to DELWP to update spatial data layers where inaccuracies are identified during planning and field work associated with timber harvesting operations, and commit to a specified timeframe in which DELWP must respond (either approving or denying the request, or requesting additional information). This maximum turn around period in which DELWP must respond to VicForests will be important in allowing VicForests to manage areas of forest effectively and to continue with their planning processes to meet operational requirements.

VicForests' Response: Recommendation for DELWP.

**Recommendation 13:** In the next review of the Code and MSP, DELWP considers providing further guidance on the requirements for assessing the presence of rare and threatened species during forest coupe planning. This could include the use of a risk based approach where the need for and level of assessment required is determined based on the likelihood of occurrence and potential impact of harvesting on the rare or threatened species.

VicForests' Response: Recommendation for DELWP.



## Appendix 2 VicForests' response to recommendations raised in the 'Construction and Rehabilitation of Waterway Crossings' audit report

**Recommendation 1:** It is again recommended that VicForests implements Recommendation VF3 from the 2014 audit report and increases the desktop VBA search area around waterway crossings to reflect common practice among other professional users of the VBA. The auditor understands that the threatened flora and fauna models referred to in Recommendation 2014 REG4 were reviewed by DELWP and found in their current form to be inadequate for use in forested areas. DELWP has advised that it is assessing if these models can be amended for future forest use.

VicForests' Response: VicForests conducts a search of environmental values within and surrounding coupes on the VBA prior to operations commencing. The desktop assessment process was reviewed following the 2014 audit report recommendations and has been broadened where determined necessary to help identify additional environmental values. VicForests will continue to engage with DELWP regarding any future review of these models.

**Recommendation 2:** It is recommended that if a rare or threatened species is identified as present or potentially present in the coupe but is not listed in the MSPs, VicForests as a minimum should contact DELWP for management advice, as a precautionary approach.

VicForests' Response: The Management Standards and Procedures provide authoritative advice on the management actions required for specific values. It is VicForests' understanding that species not listed have adequate representation and protection within standard Code protection measures or the supporting reserve system. Where VicForests encounters a species where additional advice is required, VicForests will contact DELWP for management advice.

**Recommendation 3:** It is recommended that VicForests implements Recommendation VF4 from the 2014 audit report. It is recommended that VicForests reviews, revises and implements its documented procedures to ensure that its operations systematically comply with the Code prescription that "Plans for roads must be based on field surveys to ensure that all environmentally sensitive locations are identified"; and that records are kept of findings (including nil findings) and management actions taken in response to findings.

VicForests' Response: VicForests disagrees with the above recommendation. All newly constructed roads are completed under a coupe plan which undergoes an assessment of values prior to operations commencing. New roads and crossings are assessed, approved and marked in the field. VicForests will review compliance of environmental value assessment during the next internal audit.

#### Recommendation 4:

It is recommended that VicForests obtains and documents engineering advice in relation to the construction of log bridge crossings to meet relevant Code and MSPs requirements.

VicForests' Response: VicForests engaged an Engineer to conduct an independent review of VicForests roading documentation. Following this, VicForests is currently in the process of addressing actions and reviewing roading activities across all regions. As part of this review, VicForests will assess documentation in relation to the construction of log bridge crossings and recording of engineering advice.



**Recommendation 5:** It is recommended that VicForests obtains revised datasets to accommodate pre- and post-harvest flows and design requirements for longer serving crossings.

VicForests' Response: VicForests will review its process in regards to pre- and post-harvest flow and design as part of the above mentioned roading review.

**Recommendation 6:** It is recommended that VicForests considers whether there are alternate crossing designs that require less cutting back of the stream bed, for example, using more fill and less cut at crossings with steep side slopes.

VicForests' Response: VicForests disagrees with the above recommendation. VicForests current process involves a thorough desktop and field assessment of proposed crossing location, and all other possible locations taking into account environmental impact. In the example that this recommendation refers to, all factors were considered in the design and construction and no feasible alternatives were present.

**Recommendation 7:** It is recommended that VicForests considers the modification of current culvert construction methods to prevent streambeds eroding beneath culvert outlets.

VicForests' Response: VicForests will include a review of its culvert construction methods as part of the roading review.

**Recommendation 8:** It is recommended that VicForests completes the current engineer review and approval of waterway crossing construction methods and materials used.

VicForests' Response: VicForests has completed the independent engineer review and are in the process of implementing required actions.

**Recommendation 9:** It is recommended that VicForests maintains current and accessible copies of manufacturers' specifications for all pipes used in waterway crossings.

VicForests' Response: VicForests will review maintenance of manufacturers' specifications for all pipes used in waterway crossings as part of the roading review.

**Recommendation 10:** It is recommended that VicForests considers, documents and internally communicates the key culvert design elements that contribute to protecting water quality to ensure all future culvert crossings are constructed using a consistent approach across all FMAs.

VicForests' Response: VicForests is in the process of reviewing culvert designs as part of the roading review.

**Recommendation 11:** It is recommended that VicForests develops a register of waterway crossings to monitor current installation status for its removal and rehabilitation program, and to also assist in scheduling and recording appropriate maintenance.

VicForests' Response: VicForests is in the process of developing a register of waterway crossings as part of its roading review.



**Recommendation 12:** It is recommended that VicForests documents, communicates and implements a procedure that ensures the removal of cording on completion of harvesting, with minimum damage to retained vegetation and soils, from stream buffers, filters and other areas of significance, such as rainforest.

VicForests' Response: Cording and Matting Prescriptions and the rehabilitation of snig tracks and landings are included within VicForests' Utilisation Procedures. Compliance is monitored through the monthly Coupe Monitoring Form. VicForests will ensure compliance continues to be monitored to ensure there is minimal damage to retained areas.



# Appendix 3 VicForests' response to recommendations raised in the 'Construction and Maintenance of In-coupe Roads' audit report

**Recommendation 1:** VicForests should document its planning of in-coupe roads in the "Roading" section of the FCP. Documented evidence of planning should include:

- Map of the planned road alignment;
- Explanation of rationale for the planned alignment;
- Analysis and discussion of the environmental and other risks posed by the road and which are to be managed through planning;
- Discussion of any alternatives routes to manage risks from waterway crossings, other wet areas, steep slopes etc.

If the actual and planned route of an in-coupe road differ substantively, an additional entry should be made in the FCP to explain the divergence and a map should be included which shows the actual route taken.

VicForests' Response: As per responses in Appendix 2, VicForests is currently in the process of conducting a review of roading activities across all regions. As part of this review, VicForests will review what documented evidence is required and where it should be stored in the Forest Coupe Plan.

**Recommendation 2:** VicForests should be more proactive in seeking engineering advice on the design and construction of in-coupe roads where they will traverse areas of steep slope and require deep side cuts and/or large fill embankments to be constructed. The precise limits for seeking engineering advice prescribed by the MSP (i.e. 30°/25° for areas withlower/higher soil erodibility) are not necessarily consistent with the limited accuracy of available topographic mapping, digital elevation models or field measurement. It is recommended that engineering advice is sought in these higher risk areas, based on the possibility (>50% chance) that:

- Side slopes will be within 5° of the respective MSP limit; and/or
- Side cuts or embankments greater than 2 m in height will need to be constructed.

VicForests' Response: As per recommendation 4 and 8 in Appendix 2, VicForests has completed the independent engineer review and are in the process of implementing required actions.

**Recommendation 3:** VicForests' FCP records should include the actual basis for design of its in-coupe roads, road drainage, larger embankments and waterway crossings. Record keeping should be proportional to the level of risk which is addressed through road design. The minimum requirement should be to specify the class of road (as per MSP Appendix 4) and explicitly reference which UP provisions are addressed by the road design. Evidence of engineering advice and how this has been incorporated into road design and construction should also be included whenever it has been sought.

VicForests' Response: VicForests will review FCP records proportional to the level of risk as part of the roading review.

**Recommendation 4:** VicForests should actively seek to reduce the incidence of road fill embankments covering the base of live trees which are retained within coupes. The mandatory nature of this requirement should be reinforced with contractors by targeted training, monitoring, reporting and corrective action (if non-compliance is detected).



VicForests' Response: The management of fill and material covering the base of live trees are included within VicForests' Utilisation Procedures. Compliance of road works activities is monitored through the monthly Coupe Monitoring Form. VicForests will ensure compliance continues to be monitored to ensure there is minimal impact to live trees.

**Recommendation 5:** VicForests should ensure that contractors construct MSP-compliant cross drainage systems along temporary in-coupe roads with less than 6 months intended use. This drainage should be constructed prior to a forecast significant rainfall event and/or to the temporary or permanent removal of harvesting machinery from the coupe. Construction of appropriate drainage systems must be confirmed through VicForests' temporary or final clearance monitoring process. Drainage systems should be constructed prior to the use of any in-coupe road which is intended to be used for more than 6 months.

VicForests' Response: The requirement for contractors to ensure there is adequate drainage prior to substantial rainfall being forecast is included within VicForests' Utilisation Procedures. Compliance is monitored through the monthly Coupe Monitoring Form – Temp Clearance. VicForests will ensure compliance continues to be monitored to ensure in-coupe roads are adequately drained.

**Recommendation 6:** VicForests should regularly communicate with its contractors about the risks to the environment which are posed by poorly constructed, maintained and/or rehabilitated waterway crossings. Contractors should be instructed in the construction and maintenance of waterway crossings which comply with the requirements of the Code, MSP and VicForests' internal Utilisation Procedures (UP). VicForests should regularly monitor compliance with waterway crossing requirements and assess the potential for sediment movement into waterways in the vicinity of crossings.

Corrective actions should be taken by VicForests and its contractors if waterway crossings are not constructed in compliance with the regulatory framework or if sediments are entering waterways at or near crossings. Any non-compliance issues and corrective actions should be recorded in the Forest Coupe Plan (FCP) and the potential environmental impact assessed using the FAP's environmental impact assessment (EIA) rating tool. Non-compliance issues and corrective actions should be reported to DELWP's Timber Harvesting Compliance Unit where the EIA rating is major or greater.

VicForests' Response: VicForests will review construction, maintenance and rehabilitation of waterway crossings as well as contractor compliance as part of the roading review.

**Recommendation 7:** VicForests should explore the more widespread use of rollovers or similar, trafficable cross-drainage structures for in-coupe roads. This type of structure has been observed to be used effectively by VicForests in some settings and by other Victorian forestry operators. They are also widely used in forest and rural roading in tropical and sub-tropical regions of Australia. Rollover structures reduce the need for culverts and, if properly constructed, should function effectively through and following harvesting. They are generally more stable and resilient to damage by post-harvest traffic than traditional "bar and breach" cross drainage structures.

VicForests' Response: The use of rollovers is not always appropriate in all circumstances, but VicForests will explore the more widespread use of rollovers as part of the roading review.