



Department of Environment, Land, Water & Planning

Compliance Audit Approval and Oversight of Planned Burns

March 2016

Executive Summary

Following on from the independent audit of the Lancefield-Cobaw fire, DELWP commissioned this state-wide audit to assess the extent to which DELWP's current standards, directions, instructions and guidelines relating to approval and oversight of planned burns is complied with across DELWPs Regions and Districts.

For the purpose of conducting the audit, GHD has grouped the various approval and oversight compliance requirements into four audit themes:

Audit theme 1: Approval of key stages;

Audit theme 2: Approval of burn checklists;

Audit theme 3: Preparation of Burn Plan; and

Audit theme 4: Accreditation of the Burn OIC and Burns Controller

Compliance has been analysed across these four audit themes, and recommendations for improvement are made in relation to each.

It is noted that since the Lancefield-Cobaw fire that DELWP has, independently of this audit, put in place steps for improvement in potential areas of non-compliance identified in this report.

The following audit findings and recommendations are made in relation the each of the four audit themes:

Audit findings and recommendations

The following audit findings and recommendations are made in relation the each of the four audit themes:

Audit theme 1: Approval of Key Stages

DELWP's Fireweb Burns and Works module is the primary computer system used to record approval of different stages of planning for, and completing a planned burn. However when approval of a key stage is delegated¹, the system does not record that an approval has been made under an authorised delegation. It is relatively common that authorisations need to be made under delegation. The audit identified that for 33 planned burns audited for this theme:

- 28 were approved under delegation within Fireweb without evidence of formal delegation being located.
- Ignition of 24 planned burns was authorised by the Burns Controller or District Manager logged into Fireweb, with the remaining burns recorded by a delegated officer under authorisation of the Burns Controller or District Manager. Formal record of this delegation was not always documented.

It is recommended that:

A modification to Fireweb (or a future system) is made to provide a text field or business rule which provides for arrangements where a delegation is in place to be simply recorded.

Fireweb users be provided with the option to query who made status changes, as Fireweb currently does not show who approved changes, just that a change was made.

¹ In this report, the term delegation refers to an administrative practice, as opposed to a statutory delegation.

Audit theme 2: Approval of Burn Checklists

There are four mandatory planned burned checklists required to be completed as part of the planned burn approvals process. For 25 of the 33 planned burns audited for this component, either three or all four checklists were completed, or largely completed, in Fireweb.

A range of factors were identified by DELWP personnel as why checklists may not be fully completed, or completed at all, including negative perceptions of their usefulness in supporting efficient burn delivery, and perceptions regarding the practical difficulties in their completion.

There are currently no business rules about how attachments are named and stored in the Fireweb Burns and Works single folder for each planned burn.

It is recommended that:

DELWP review (involving relevant District representatives) all four checklists to determine their relevance, identifying which are mandatory, and what improvements can be made to content and completion processes.

That alternative means of completing checklists are considered (such as use of field-based apps or mobile access) to allow them to be completed without having to be logged into an office based computer.

If DELWP decides that signed and scanned copies of these checklists are to be kept and filed, then it is recommended business rules are developed to identify how this is completed (noting that for some checklists completion may be a staged/ progressive process occurring over potentially lengthy timeframes).

Audit theme 3: Preparation of Burn Plan

The audit identified that all 33 planned burns audited for this theme had a mandatory burn plan prepared through the Burns and Works module of Fireweb, and a mandatory burn risk assessment completed using the BRMP risk template. GHD notes that numerous experienced DELWP personnel provided feedback regarding the value and utility of the BRMP and identified that it is not useful for comprehensively and realistically appraising the potential operational risks associated with the burn.

Most Burn Plans had most of the mandatory information requirements identified in Guideline 10.1.3 of the fire management manual, however the desktop audit did identify some missing supporting information. When queries were made during the visits to three Districts about this missing information, Districts were readily able to locate the majority of this information, with the exception of the Site Safety Surveys record sheet and Planned Burn Operations Record proforma. It is considered that this occurrence is likely to be occurring in other Districts not visited during the audit.

It is also noteworthy that the mandatory burn plan produced in the Fireweb is not considered by Districts to generate a user-friendly burn plan supporting the safe and effective management of a burn – its utility is considered to be more tailored to documenting that planning compliance requirements have been met. Districts identified that out of operational necessity they must prepare, in parallel, a separate user-friendly burn plan, prepared using a SMEACs structure.

DELWP personnel identified that Districts used different systems and processes locally to prepare for planned burns, and save relevant information. This flexibility, to develop local systems and processes, while still maintaining compliance with DELWP standards, is permitted in the fire management manual. However, this variation in local procedures may potentially create inter-operability issues where people are transferred between District to assist with planned burning operations, where they are not familiar with locally developed systems and processes.

It is recommended that:

DELWP consider updating Fireweb, or developing an alternative system, which optimises the information entered to efficiently produce a burn plan and map in a SMEACS format in a user-friendly and operationally relevant format.

The implementation of such a system should seek to standardise Operational Burn Plan formats, generating concise plans with only operationally relevant information, reduce workloads for burn planners, allow greater interoperability between Districts, and provide more useful briefing prompts and information for Burn OICs.

DELWP consider reviewing the BRMP risk analysis tool to provide Burn Controllers and Burn OIC with a more comprehensive, efficient, and operationally focused risk appraisal.

Audit theme 3: Accreditation of the Burn OIC and Burns Controller

For the 48 burns audited for this theme² of the audit, there were no planned burns where a Burns Controller or a Burns OIC was not accredited to manage the planned burn. However the findings show six planned burns had a Burn OIC where their accreditation had expired and for three planned burns there were two persons with an expired Burn Controller accreditation (for three planned burns).

While there may be valid mitigating circumstances why these competencies may have expired, this is not consistent with the requirements of the fire management manual. DELWP personnel identified that the record keeping requirements of maintaining currency in various positions as onerous, and this can contribute to delays in collecting and submitting of existing evidence to provide confirmation of currency.

It is recommended that DELWP:

Review the full range of Burn Controllers and Burn OICs within the Department to identify those with expired or nearly expired accreditation that need to provide updated evidence to maintain the currency of their existing accreditation. Fireweb should be enabled only to allow currently accredited Burn OICs to approve burns.

Review existing resourcing and personnel tasking databases to establish if there are more efficient means which information required to maintain the currency of positions can be collected and submitted.

DELWP Management response

DELWP accepts each of the recommendations and will develop a detailed action plan with timelines for implementation by 30 April 2016

² For the other three themes, a narrower subset of 33 planned burns was subject to audit (see Appendix A).

Table of contents

1.	Scope and background	1
1.1	Purpose of this report.....	1
1.2	Limitations and assumptions	1
1.3	Legal disclaimer	2
1.4	GHD Audit Team.....	2
2.	Methodology.....	3
3.	Audit findings.....	5
3.1	Audit Theme 1 - Approval of Key Stages.....	5
3.2	Audit Theme 2 - Approval of Burn Checklists	8
3.3	Audit Theme 3 - Preparation of Burn Plan.....	10
3.4	Audit Theme 4 - Accreditation of the Burn OIC and Burns Controller	13
4.	Audit recommendations and management response	15
4.1	List of audit recommendations	15
4.2	DELWP Management Response	16

Table index

Table 1	Burn status changes during planned burn preparation and delivery	5
Table 2	Number of checklists completed/largely completed for each planned burn audited	9
Table 3	List of planned burns supplied by DELWP	19
Table 4	Summary of information sought for each planned burn.....	22

Figure index

Figure 1	Overview diagram of planned burn approvals process and indicative timing.....	6
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Appendices

Appendix A – List of planned burns supplied by DELWP

Appendix B – Audit question summary

1. Scope and background

1.1 Purpose of this report

This *Compliance Audit – Approval and Oversight of Planned Burns* was initiated by the Department of Environment, Land, Water and Planning (DELWP) in response to the independent investigation into the Lancefield-Cobaw fire of October 2015. In response to this investigation DELWP made a commitment to undertake the following three actions:

1. *Investigate the conduct of the approvals and oversight process for the Lancefield - Cobaw Crozier's Track planned burn, building on and consistent with the independent investigation.*
2. **Conduct a statewide audit of compliance with current standards, directions, instructions and guidelines issued by the Chief Fire Officer for the approval and oversight of a planned burn.**
3. *Conduct a statewide audit into the implementation of recommendations arising from past examinations, investigations or audits of planned burns that have breached containment lines since 2003.*

This report addresses the second action item with DELWP specifying the scope as follows.

- *Assessment of a sample of at least two planned burns conducted in each district in the last 12 months (approximately 32-40 planned burns) against DELWP's current standards, directions, instructions and guidelines issued by the Chief Fire Officer for the approval to plan and implement planned burns*
- *Assessment of whether approvals for each sampled burn were provided in accordance with departmental policies and procedures, including in respect of any relevant delegations*
- *Consideration of whether the implementation of officer oversight for each sampled burn was undertaken in accordance with departmental policies and procedures.*
- *Where non-compliance is determined, consideration of the reasons that may have contributed to the non-compliance (eg clarity and/or communication of standards, directions, instructions and guidelines)*

It was also identified that the project will be based on:

- *discussions with selected DELWP management and subject matter experts*
- *review of available documentation provided by the DELWP*
- *.... the audit is expected to be largely a desktop review. However, some travel to the regions may be required.*

DELWP specified that a draft report was to be completed by *Mid-March 2016* and the final audit report completed by *Late March 2016*.

1.2 Limitations and assumptions

The following limitations and assumptions apply to this report:

- As identified in the project scope this audit was primarily based on desktop methods only. Site visits were restricted to visits by GHD to three DELWP offices, for discussions with personnel that were available at the time of the visit.
- The audit did not include field audits or formal contact with all personnel involved with the planned burns that were subject to audit.
- GHD's audit is limited to the information provided by DELWP personnel within the timeframe available to review information and prepare this report. It is noted that DELWP personnel went out of their way to provide information to GHD but some information could

not be sourced where personnel were away, it could not be found in the time available or relevant staff had transferred to other roles, locations or left the Department.

1.3 Legal disclaimer

This report has been prepared by GHD for the Department of Environment, Land, Water & Planning and may only be used and relied on by Department of Environment, Land, Water & Planning for the purpose agreed between GHD and the Department of Environment, Land, Water & Planning as set out in Section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than Department of Environment, Land, Water & Planning arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer section 1.2 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report within the timeframe allocated on the basis of information provided by Department of Environment, Land, Water & Planning and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

1.4 GHD Audit Team

GHD staff assigned to this audit were:

Overall project lead	– Paul de Mar (Principal Natural Resources and Bushfire)
Lead auditor	– Dominic Adshead (Principal Natural Resources)
Assistant auditor	– Tom Young (Principal Chemical Engineer)
Peer review	– Andrew Roy (Principal Natural Resources)

2. Methodology

GHD's project methodology consisted of seven steps as follows:

Stage	Details
1	<p>Project inception meeting</p> <p>An initial inception was held to confirm the project methodology, consultation elements, activity schedule, clarify scope and confirm the arrangements required to enable access to DELWPs Fireweb web based planning burning works tool. This meeting occurred on Wednesday 24 February 2016 at DELWP's Nicholson St, Melbourne office.</p>
2 & 3	<p>Provision of and confirmation of standards and systems access</p> <p>GHD's team obtained access to Fireweb web-based planned burning tools, were provided with a list of burns to be subject to audit, and were supplied with a selection of hardcopy documents (supplied by the Districts / Regions).</p> <p>DELWP selected a sample of 48 planned burns from 2015 to be considered for audit based on a mix of:</p> <ul style="list-style-type: none"> - Burn District (three nominated per District (16 Districts) - Land manager (DEPI, Parks Victoria, Vic Forests, Melbourne Water) - Burn type (ecological, fuel reduction, windrows/heaps, regeneration) - Burn season (spring, winter, autumn, summer) - Planned burn area (ranging from 8179 to 0.1 hectares) - Intensity class - Land category (such as National Park, State Forest, Regional Park, etc) - Dominant vegetation class, ecological class and vegetation structural type - Aspect - Slope - Elevation <p>The list of planned burning areas is provided in Appendix A. Within the time available GHD was able to complete an audit of two planned burns per District (with an additional burn audit completed in Wimmera District), for a total audit sample of 33 planned burns. These are highlighted green in the planned burns list provided by DELWP in Appendix A. The exception is the review of the accreditation of the Burn OIC and Burn Controller that was able to be completed for all 48 planned burns.</p> <p>The primary reference document supplied to GHD to conduct the audit against was the <i>DELWP Fire Management Manual 10.1</i> (latest update 14/3/2012) ('fire management manual'). As identified in the fire management manual it provides the direction, standards and guidance for the conduct of planned burning on public land in Victoria. The manual also incorporates the relevant requirements of the <i>Code of Practice for Fire Management on Public Land 1995</i>, the updated Burn Risk Management Procedure (2012) and <i>Fire Management Instruction 10. Prescribed Burning</i> (DNRE 1999). The fire management manual was the key document GHD relied on to assess compliance for this audit.</p>
4	<p>Completion of Audit plan</p> <p>As per the project scope GHD prepared a series of questions to complete a largely desktop audit of the following information sources supplied by Districts:</p> <ul style="list-style-type: none"> - Through the online burn planning tool Fireweb, - From a selection of hardcopy documents. Note hardcopy documents were only supplied by some Districts, as other Districts elected to supply information available electronically - Electronic documents posted on the central DELWP 'R-drive'. <p>An edited summary of the initial audit questions is supplied in Appendix B.</p>

Stage	Details
5	<p>Desktop audit at DELWP Nicholson Street offices</p> <p>Two GHD auditors completed a desktop audit of two planned burns per DELWP District (16 Districts) based on the information available in Fireweb, hardcopy information provided by the District and electronic documents submitted which could be accessed. It should be noted that some Districts posted information on the DELWP 'R-drive' which was problematic to access and difficult and time consuming to download documents from. As such some documentation was not able to be accessed by the auditors in the timeframe available.</p> <p>During this stage GHD also sought from DELWP:</p> <ul style="list-style-type: none"> - A list of the persons logged into Fireweb who made status changes in the system at key stages of burn planning in order to clarify their role / authority. - Confirmation of the currency of the accreditation of the person listed Fireweb as completing the key authority roles of the Burns Controller and the Officer in Charge of the Burn (Burn OIC) for each planned burn audited.
6	<p>District consultation and follow up</p> <p>GHD's auditors completed site visits (three person days) to consult and clarify select burn plans with relevant DELWP staff at the following locations:</p> <ul style="list-style-type: none"> - Noojee (Friday 11 March 16) - Knoxfield (Tuesday 15 March 16) - Powelltown (Tuesday 15 March 16) <p>This face-to-face consultation with Districts was used to follow up on and clarify outstanding issues that were identified in the previous desktop stage.</p> <p>GHD also provided DELWP with a summary of its preliminary findings for each planned burn from the desktop audit to circulate to Districts, and return to GHD. The output list from Fireweb confirming the persons logged and making the status changes was also circulated to Districts to confirm the positions of the persons making key status changes as well as the time of the change.</p> <p>During this stage a number of Districts were also contacted directly via email or telephone. It is relevant to note that all DELWP personnel that were in contact with GHD were very responsive and diligently attempted to provide the information requested where possible. This is also at a busy time for Regions and Districts, which are preparing for the forthcoming planned burning season.</p>
7	<p>Draft report</p> <p>GHD's draft report was supplied to DELWP for review on 23 March 2016. GHD updated the report based on a single set of DELWP consolidated comments, and with DELWP's management response incorporated.</p>
8	<p>Final report</p> <p>DELWP will submit the final report to the Minister on 24 March 2016.</p>

3. Audit findings

Please note that these findings should be read in the context of the limitations and assumptions identified in Section 1, and should not be taken to be exhaustive or comprehensive. As a largely desktop exercise, and without interviewing every person with an approvals and oversight role at each key stage of each planned burn audited, or visiting each office, there may be information potentially of interest that a more detailed investigation may have uncovered. It is noted that where GHD was able to make contact with Districts to confirm a query, additional specific information was often provided to address this query. Therefore while initially missing information may indicate non-compliance, it may also reflect the difficulty in furnishing a record within this audit timeframe.

DELWP's fire management manual and Fireweb system do not include detailed specifics about how approvals and confirmation of delegation arrangements are obtained, confirmed and stored. The lack of specified DELWP requirements for standardising record keeping and file structures has resulted in variation in how information and approvals are stored between Districts, which can complicate searches for required information and may not contribute to easy third party audit.

3.1 Audit Theme 1 - Approval of Key Stages

3.1.1 Overview

The preparation and delivery of a planned burn passes through a number of approval gateways, where the burn status changes as each work element is completed and then approved. These status changes (as defined in detail in *Guideline 10.1.4* of the fire management manual) consist of the following stages listed in the table below and shown in Figure 1.

Table 1 Burn status changes during planned burn preparation and delivery

Status	Description
Nominated	A burn is nominated by any officer for burning in the next three years
Proposed	A burn has been accepted by the District Manager and strategic planning commences
'Planned'	Strategic planning processes are complete and the burn is approved by both the District Manager and Regional Director, and endorsed by the Chief Fire Officer in the form of approval of the Fire Operations Plan (FOP)
'Ready'	<p>The Burn Plan is complete and the planned burn is ready for ignition to be authorised over the next seven days. Approval of this stage is considered the formal approval of the burn plan.</p> <p>There are four mandatory checklists which must be completed for every planned burn (as detailed in Guideline 10.1.13 of the fire management manual), the first of which, <i>Checklist 1: Burn Planning</i>, is completed at this stage.</p>
Ignition Authorised	<p>Ignition is authorised by the Burn Controller (as delegated by the District level for lower risk burns and at the Regional level for high risk).</p> <p><i>Checklist 2: Operations</i> must be partially completed prior to ignition by the Burns Controller, although cannot be fully completed until the planned burn is 'Safe'.</p>

Ignition	The burn is ignited. <i>Checklist 3: Operations</i> must be partially completed on the day of ignition by the Burn OIC, although cannot be fully completed until the planned burn is 'Safe'.
Under Control 1	The burn perimeter is secure and blacking out and patrol is underway
Under Control 2	The burn perimeter is secure and routine patrol is underway
Safe	No further suppression or control is necessary

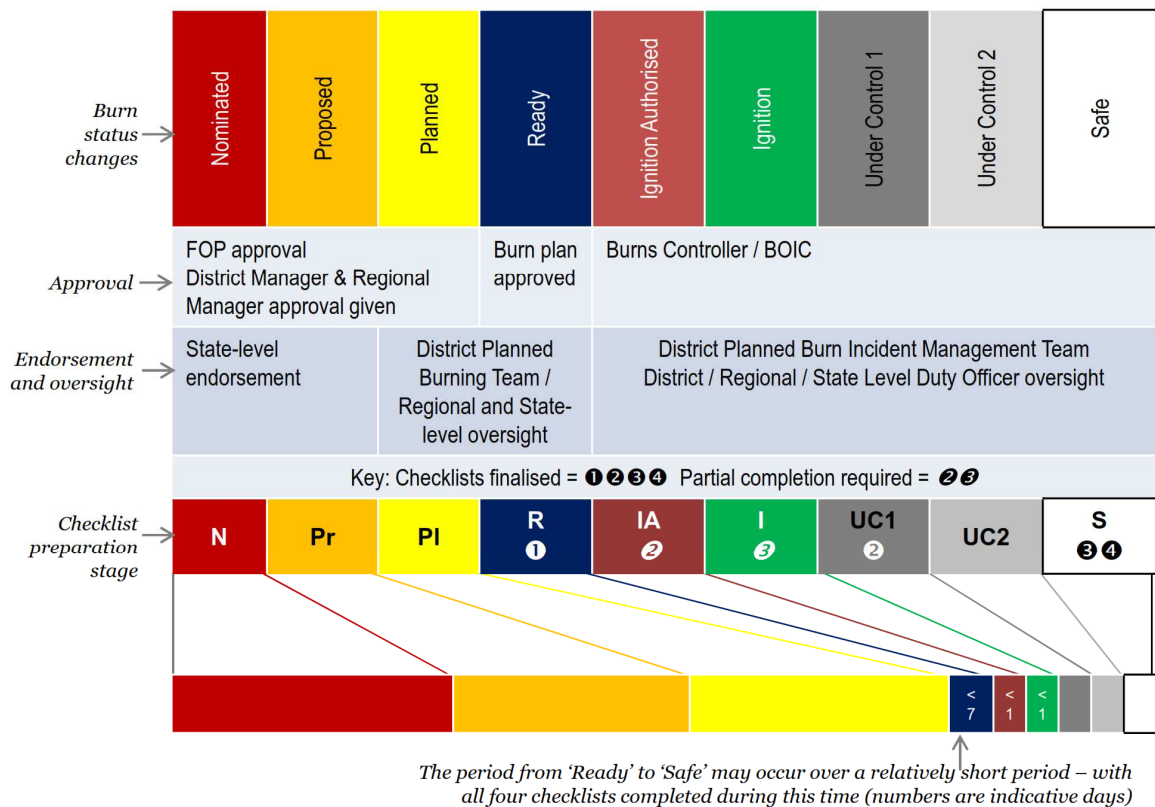


Figure 1 Overview diagram of planned burn approvals process and indicative timing

The passage of a planned burn through these status changes becomes very condensed as the burn is readied for the ignition phase (see Figure 1) with increased demands placed on those managing the burn. The higher tempo of activities include increased monitoring and measurement of weather and fuel, activation of the planned burn incident management teams, issue of notifications and mobilisation of a range of resources. During a ten-day period the planned burn status can change more than four times, from *Ready* through to *Under Control-1*, with at least three checklists required to be partially completed also.

The Burn OIC in particular is assigned a large number of tasks in the fire management manual (*Section 2.2.8, Section 4 – Prior to the Day of Ignition and Section 5 – On the Day of Ignition*), many of which cannot be completed until the day before or until the day of the burn. According to *Section 10.1 Prescribed Burning* of the fire management manual, the Burn OIC does not get involved in the checklist preparation or approval process until the day of the burn. The requirement of the Burn OIC to complete *Checklist 3* on the day of ignition, may result in

significant inefficiencies where the Burn OIC arrives at the burn to find that burning preparations and works are not satisfactory and require a rushed last minute rectification or deferring the burn and standing down the already mobilised resources. The Burns Controller, who might be responsible for a number of burns on the same day, also has a large number of tasks identified in the fire management manual (*Section 2.2.7*) for completion in a relatively short period.

Recognising the high workload and tempo required of key positions, the broad spans of control that may potentially arise, and the consultative nature of the management of planned burning operations, the fire management manual specifies the use of the Australasian Inter-Service Incident Management System (AIIMS) structure for planned burns. This approach provides a functional structure (planning, operations, logistics and public information) to planned burn management, that can be scaled up or down according to the conditions, and importantly provides for the delegation of tasks to team members for specific roles. This may include assigning responsibility to updating Fireweb and maintaining the communications record log.

Fireweb is the key system in which the approval of each planned burn status change from nomination, through to planning and delivery, is recorded and approved. As identified in *Section 2.2* of the fire management manual, the approval of each status change is the responsibility of the District Manager or their delegate, with the exception being high risk, summer or burns which represent elevated threats to assets, which are referred for Regional level approval. As per *Section 2* of the fire management manual, all delegation arrangements must be in writing and kept on file.

3.1.2 Findings

For the 33 planned burns audited for theme 1, Fireweb is the primary means Districts record and demonstrate that status changes are approved, but at the later stages of planning it was found that these status changes are not recorded in the form of a signed document confirming that this approval is given (the act of approval may be evidenced only by the change in status in Fireweb).

For all 33 burns the signed approval of the FOP by both the District Manager and Regional Director (and endorsed by the Chief Fire Officer) confirms the approval of the *Nomination*, *Proposed* and *Planned* stages of the planned burn. For the status changes that follow (from *Ready* through to *Safe*), the only record of approval is the Fireweb record. This status change can be made by a range of Fireweb users, and not necessarily the delegated approver, although the system does not identify who made the status change and if they held delegated authority. This flexibility, to enable a range of positions to be able to update Fireweb, reflects the provisions of the AIIMS structure in being able to delegate functional roles (such as record keeping) and the delegation provisions in the fire management manual.

In order to determine who was logged in when each status change was made for each prescribed burn, DELWP placed a request with Fireweb's external programmers to extract this information. For each status change the name of the person who made the change was generated. The reliance on external programmers to supply this information is not optimal internally, as such a requirement does not allow a quick internal audit of who made status changes in the system.

The audit then sought to establish if the person logged-in had the authority to make a status change or had the delegated responsibility to make the change. To assess this DELWP provided a log of who was logged-in at the time of each status change, as well as their position at the time of change. This was cross referenced with the accreditation of the Burns Controller and Burns OIC that was also provided by DELWP. Districts were also consulted, where possible, during the visits to District offices or by phone, to confirm any delegation arrangements

that were in place in those instances where the position making the change in Fireweb was not authorised to do so.

While all status changes are important the key two changes, in terms of delegation and oversight, are the approval of the burn plan (status change to *Ready*) and the approval to light up the planned burn (status change to *Ignition Authorised*). For the 33 planned burns audited:

Burn plan approval

- Approval of 28 planned burn was delegated, with evidence of formal delegation not available. This includes approval of 11 of the burn plans by the Fire Management Officer with the remainder approved by other positions. Documentation was not provided confirming formal delegation arrangements and it is noted that the fire management manual does not include a template to record delegated authority, nor does it specify where evidence of delegation should be kept.
- Five burn plans were approved (through a status change in Fireweb to *Ready*) by the District Manager.

Authorisation of ignition

- Ignition of 24 planned burns was authorised by the Burns Controller or District Manager logged into Fireweb (both of these positions have the authority to provide this approval).
- Ignition of the remaining nine burns was authorised by a delegate of the Burns Controller or District Manager under a District Planned Burn Incident Management Team arrangements. These decisions were recorded in planned burn incident logs or personnel logs, but were not formalised according to a fire management manual requirement to record delegations in writing and keep these on a file. Fireweb also does not provide a text field to record details of any delegations made.

3.1.3 Conclusion and recommendations

The Fireweb Burns and Works system is the key means by which the status changes associated with planned burn approvals are logged and updated. However the system does not allow users making changes in the system, to record details of delegated authority. In the instances where status changes not made by the District Manager which was followed up with Districts as part of the audit, it was confirmed these changes were made with the delegated approval of the District Manager, but without hard-copy documentation, as required by the fire management manual, confirming this delegation.

It is recommended that:

1. A modification to Fireweb (or a future system) is made to provide a text field or business rule which allows for arrangements where a delegation is in place to be simply recorded.
2. Fireweb users are provided with the option to query who made status changes, as Fireweb currently does not show who approved changes, just that the change was made.

3.2 Audit Theme 2 - Approval of Burn Checklists

3.2.1 Background

The fire management manual (*Guideline 10.1.13*) identifies four checklists that '*must be completed for every planned burn on public land and stored as part of the burn record unless advised otherwise*'. The four checklists consist of:

Checklist 1: Burn Planning – District Manager

Checklist 2: Operations – Burn Controller

Checklist 3: Operations – Burn OIC

Checklist 4: Recording – District Manager

Each checklist is required to be completed (either partially or fully) at different stages in the burn planning process (see Figure 1). Each checklist template also contains fields to manually record the approvers name, signature and date. Each checklist can be completed and finalised in Fireweb, however in order to physically sign off each checklist, it would have to be printed off.

While Fireweb provides a means to complete and approve each checklist, as with the approval of key status changes (see previous Section), Fireweb:

- Allows a range of users to complete and approve a checklist in system, as there is multiple positions that may be acting in the District Manager, Burn OIC or Burn Controller role. This flexibility accommodates the AIIMS provisions identified in the fire management manual that allows for the delegation of tasks. For example for remote burns the Burn OIC would not be able to enter parts of Checklist 3 required to be completed on the day of ignition into the Fireweb, as the Burn OIC must be present at the planned burn. Therefore another position would be required to complete the checklist on the Burn OIC's behalf.
- Permit approvals and changes to be made without identifying who made these changes, making it difficult to simply confirm who completed each checklist in the system. To audit who prepared and approved each checklist requires a query to be sent to the Fireweb programmers.

The audit involved:

- Checking in Fireweb if each checklist was completed and approved electronically.
- Checking the document repository in Fireweb or records supplied by the Districts (hardcopy or those placed on the R-drive) to confirm if hardcopy documents had been signed off.
- Querying verbally with Districts during the District Office visits if checklists were routinely signed and stored.

Time did not allow the audit to extend to cross checking details provided by the Fireweb programmers of who was logged in when a checklist was completed, then determining if the person named held an approvers position, was acting in that approved position, had formal delegated responsibility to complete the checklist or was a current Burns Controller or Burn OIC.

3.2.2 Findings

Of the 33 planned burns audited for theme 2, for 14 planned burns four checklists were completed or largely completed in Fireweb, and for 11 planned burns there were three checklists completed or largely completed. Overall, only four burns had separate checklists printed off and signed in the signature field. The audit findings are shown in the table below.

Table 2 Number of checklists completed/largely completed for each planned burn audited

Number of checklists completed / largely completed	All four checklists	Three checklists	Two checklists	One checklist	No checklist
Number of planned burns	14	11	2	4	3

Districts identified a range of reasons for not completing checklists including:

- It was not standard practice to complete them, or time constraints did not result in them being completed or the checklists were not seen to add value to the efficient delivery of operations. Districts identified that they have in place their own alternative systems systems to record and check that planned burning tasks are completed including white boards, hardcopy documents and electronic databases. The completion of many tasks are also confirmed verbally in a consultative approach within the District Planned Burning Team or when burning operations commence as part of the District Planned Burning IMT. These local arrangements often cover off on the requirements identified in the checklists, as well as additional tasks, and accordingly may be serving to capture such information outside of the checklists.
- It was an oversight on their behalf and perhaps they should be completed in the future; and
- That sometimes extended period over which Checklists 2 and 3 are completed, which may include a change in Burn Controller or Burn OIC, meant that they were sometimes never finalised at later stages of the planned burn.

3.2.3 Conclusion and recommendations

The four checklists are not universally complete across the 33 planned burns audited for a range of factors associated with the contribution they make to efficient burn delivery, the ease at which they can be completed or Districts perception of their value. Business rules are not included within the fire management manual identifying if these documents need to be signed off, scanned and stored, or if completion in Fireweb constitutes an approval.

It is recommended that:

3. DELWP review (involving relevant District representatives) all four checklists to determine their relevance, identifying which are mandatory, and what improvements can be made to the content and completion process.
4. That alternative means of completing checklists are considered (such as use of field-based apps or mobile access) to allow them to be completed without having to be logged into an office based computer.
5. If it is intended that signed and scanned copies of these checklists are to be kept and filed then it is recommended business rules are developed to identify how this is completed (noting that for some checklists completion may be a staged/ progressive process occurring over potentially lengthy timeframes). There are currently no business rules about how attachments are named and stored in the Fireweb Burns and Works single folder for each planned burn.

3.3 Audit Theme 3 - Preparation of Burn Plan

3.3.1 Overview

The Burns and Works module in FireWeb is a DELWP corporate system for planning planned burns, with a burn plan completed through filling in the required fields of the Implementation tab of the database. The Burn OIC must print and be in possession of this Burn Plan during burning operations. *Guideline 10.1.3* of the fire management manual identifies the required content for a burn plan.

Information already captured in the system does not automatically get populated into outputs or templates requiring burn planners to spend time re-typing or cutting and pasting information they have already previously put into the system. Input descriptions are also restricted by character limits, which may make it difficult to describe specific complexities associated with the

burn. The appraisal of assets nearby defaults to the nearest asset and does not enable a description of potentially vulnerable assets more broadly.

Burn planners are also required to use other systems to prepare key components of the burn plan such as:

- Preparation works schedules
- Risk assessment outputs (prepared in excel using the standard Burn Risk Management Procedure (BRMP) template)
- Resourcing information
- Detailed maps
- SMEACS based plans and briefing sheets

The Fireweb Burns and Works module provides a repository for collating together information and documents relating to a specific burn prepared using external systems such as those listed above.

3.3.2 Findings

The audit of 33 planned burns for theme 3 was based on information that was entered into and stored on Fireweb, provided by Districts in hardcopy format or on the DELWP R-drive, or provided to GHD during the District visits in response to queries raised. Most of the 33 planned burns had the mandatory information identified in *Guideline 10.1.3* of the fire management manual, with the findings identified in the table below.

Table: Burn plan audit results

Information requirement	No.	Comment
Planned burn prepared in Fireweb	33	All planned burns had a burn plan prepared through population of the required fields in the Implementation tab of the Burns and Works module of Fireweb
Risk assessment	33	All planned burns included a burn risk assessment completed using the BRMP template. During the audit, Districts provided feedback regarding the value and utility of BRMP and identified that this risk tool, while potentially having other benefits, is not useful for comprehensively appraising the potential operational risks associated with the burn and doesn't reflect the steps an experienced fire manager would mentally step through to determine risk. It was also suggested that a risk tool adapted from Planned Burn Analysis Proforma (Guideline 10.1.11 of the fire management manual) used to review burn escapes would provide more appropriate prompts to identify uncertainties to be managed in the planned burn, and could form the basis of a more realistic risk analysis.
Site Safety Proforma	20	Evidence of hazardous tree assessments and safe work method statements was available for a number of planned burns.
Planned Burn Operations Record	15	Proforma completed as per Guideline 10.1.12
Descriptions of adjoining fuels	3	Description and/or map of the fuel in adjoining areas. It was identified that information was less likely to be included in regional areas where external fire crews were not being used and personnel were familiar with the fuels involved
Notifications -	2	Evidence supplied that notifications were listed and recorded

Information requirement	No.	Comment
Resourcing – burn and standby	9	It was identified by Districts that actual resources deployed to planned burns is listed in separately in IRIS (Incident Resource Information System), the system used to record times of staff deployed to fires and planned burns.
Traffic management	4	
Smoke management	5	It was identified by Districts that this was addressed at the air catchment or State level by a higher Duty Officer role
Lighting up method and sequence	4	
Weather forecast	11	Districts identified this information is not routinely uploaded onto Fireweb but stored elsewhere locally
SMEACs Q briefing sheet	7	SMEACs (Situation, Mission, Execution, Administration and logistics, Command and communications, Safety)

GHD notes when queries were made during the visits to three Districts about missing information identified in the table above, that the majority of this information is available and readily located (ie the Districts were able to demonstrate compliance). GHD considers that we would expect similar findings in the remaining 13 Districts not visited. The only exception may be completed Site Safety Surveys record sheet and Planned Burn Operations Records proforma which were more difficult to locate, and potentially in some circumstances not available.

It is GHD's observation, with general concurrence of DELWPs District staff with which GHD liaised, that the Fireweb Burns and Works module does not generate a user-friendly burn plan. Accordingly, in practice the burn plan prepared in Fireweb is not widely used to operationally manage a planned burn as the information in it does not enhance burn delivery. The Fireweb-generated burn plan was identified by many DELWP personnel as a more of a compliance record, rather than a planning document containing relevant information to support the safe and efficient management of a burn. Districts identified that to meet burn objectives and to assist in safe burn delivery they must additionally prepare a user-friendly operational burn plan, prepared according to the SMEACs structure. A number of these SMEACs plans were saved in the Fireweb Burns and Works file repository and the format was found to vary somewhat between Districts. GHD was advised that presently there is no standard DELWP SMEACs burn plan template. Therefore while Burn OICs are required to have in their possession during the planned burn a Fireweb generated burn plan, in practice Burn OIC's typically also use a SMEACs- based burn plan, a burn map and additional attachments they have generated off-line to manage burning operations efficiently.

Districts identified that there is considerable variation between Districts in how burn planning information is prepared (such as tracking the progress of burn plan preparations, recording fuel moisture readings, resource tracking) and saved (such as hardcopy, DELWP systems or third party software). This process variation has the potential to complicate inter-operability between Districts for resource sharing during planned burning operations because seconded personnel may not be familiar with locally developed systems and processes. On the other hand, the flexibility to develop local systems and processes is accommodated in the fire management manual to enable the development and use of systems and processes suited to the local operating environment and constraints, while still maintaining compliance with DELWP standards.

3.3.3 Conclusion and recommendations

A major shortcoming of the Fireweb Burns and Works module is that that, despite all the information entered and cross referenced in populating fields, the system produced a burn plan has a number of key deficiencies – the plans are not:

- In a format considered suitable for providing key operational information to personnel participating in the burning operations;
- In a SMEACs format – the preferred format aligned with that also used for fire suppression operations; and
- Able to be used to guide SMEACS briefings by the Burn OIC.

District staff instead prepare their own planning information hardcopies (which involves cutting, pasting and duplicating effort) often to their own District standards, systems and requirements for use in the field. Where different systems and process are in place in different regions, the opportunity to smoothly and quickly transfer personnel between districts can be reduced by the need for them to become familiar with different local arrangements.

The BRMP risk tool has been identified by District staff to be not that useful in comprehensively appraising the potential operational risks associated with the burn, and doesn't reflect the intuitive and practical steps an experienced fire manager would consider in reviewing the risks and uncertainties associated with the planned burn, and considering mitigation options. The Planned Burn Analysis Proforma, used to assess burn escapes after the event, provides an indication of the prompts that could be considered in assessing and mitigating planned burn risks. These prompts (along with other additional factors such as long term soil dryness, potential for variation from forecast weather and suppression options) could form the basis for a revised risk analysis process.

It is recommended that:

6. DELWP consider updating Fireweb or developing an alternative system which optimises the information entered to efficiently produce a burn plan and map in a SMEACS format in a user-friendly and operationally relevant format.
7. The implementation of such a system should seek to standardise Operational Burn Plan formats, generating concise plans with only operationally relevant information, reduce workloads for burn planners, allows improved interoperability between Districts, and provide more useful briefing prompts and information for Burn OICs.
8. DELWP consider reviewing the BRMP risk analysis tool to provide Burn Controllers and Burn OIC with a more comprehensive, efficient, and operationally focused risk appraisal.

3.4 Audit Theme 4 - Accreditation of the Burn OIC and Burns Controller

3.4.1 Background

The fire management manual³ identifies that every planned burn must be managed by an accredited Burn OIC, from Ignition through to Under Control 2 status. The DELWP Fire Training Management System (FTMS) identifies that a DELWP Burn OIC must have a Burn OIC and an Operations Officer Level 1 accreditation.

³ Fire Management Manual – Sections 2.4, 2.5.1 and 2.6

The fire management manual identifies that the Burns Controller must be an accredited incident controller corresponding to the level the IMT that is activated for the planned burn⁴. It is also identified that it is desirable for the Burns Controller to have Burn OIC experience.

3.4.2 Findings

Training accreditation of Burn OICs and Burns Controllers was provided by DELWP for the full 48 planned burns audit sample (see Appendix A) . It should be noted that some multi-shift planned burns, may necessarily, have one or more changes in Burns Controller and/or Burn OIC managing the burn during its implementation. It was not possible to check the accreditation of these additional personnel within the timeframe allocated.

Of the 48 planned burns nominated, for the Burn OIC listed:

- 39 had current accreditation at the time the burn was carried out;
- Six held an accreditation that was expired; and
- Three had a person nominated where the accreditation could not be confirmed.

Of the 48 planned burns nominated, for the Burns Controller listed:

- 43 had current accreditation at the time the burn was carried out;
- Three burns had had an accreditation that was expired (note this comprised of two persons); and
- Two could not be established.

The results did not indicate any burns where a Burns Controller or a Burns OIC did not previously hold the appropriate accreditation for a position, however six planned burns had a BOIC where their accreditation had expired and two persons had an expired Burn Controller accreditation (for three planned burns).

3.4.3 Conclusion and recommendations

While there may be valid mitigating circumstances why for a small number of planned burns the Burn OICs and Burn Controller managing the burn held competencies that were listed as expired, this is not consistent with the requirements of the fire management manual. DELWP personnel identified that the record keeping requirements of maintaining currency in various positions may be seen as onerous and therefore contribute to delays in collecting and submitting of existing evidence to provide confirmation of currency.

It is recommended that DELWP:

9. Review the full range of Burn Controllers and Burn OICs within the Department to identify those with expired or nearly expired accreditation that need to provide updated evidence to maintain the currency of their existing accreditation. Fireweb should be enabled only to allow currently accredited Burn OICs to approve burns.
10. Review existing resourcing and personnel tasking databases to establish if there are more efficient means by which information required to maintain the currency of positions can be collected and submitted.

⁴ Fire Management Manual – Section 2.4.3

4. Audit recommendations and management response

The following recommendations were identified by this audit, across the four themes associated with the approval and oversight of planned burns. These findings should be read in the context of the limitations and assumptions identified in Section 1, and should not be taken to be exhaustive or comprehensive. It should be noted that in completing the audit as required by the project scope as desktop exercise remote from District offices, non-compliances with DELWP standards were found. However where direct contact was able made with Districts to follow up a query arising in the desktop phase, additional specific information was often provided to satisfactorily address this query. Based on the required scope and specified timeframe it was not possible to follow up every query identified.

Therefore while burn plans found during initial desktop audit to be missing information, this could indicate the occurrence of non-compliance with procedural requirements, however it is also likely that many of these deficient plans (missing required information) may in fact turn out to be compliant but that the current record keeping systems make it difficult to produce documentary evidence of compliance within this audit timeframe. A lack of discipline in attending to document administration/record keeping by some people is also a likely issue. This should be considered in reviewing the recommendations below.

4.1 List of audit recommendations

Approval of Key Stages

It is recommended that:

1. **A modification to Fireweb (or a future system) is made to provide a text field or business rule which allows for arrangements where a delegation is in place to be simply recorded.**
2. **Fireweb users be provided with the option to query who made status changes, as Fireweb currently does not show who approved changes, just that the change was made.**

Approval of Burn Checklists

It is recommended that:

3. **DELWP review (involving relevant District representatives) all four checklists to determine their relevance, identifying which are mandatory, and what improvements can be made to content and completion process.**
4. **That alternative means of completing checklists are considered (such as use of field-based apps or mobile access) to allow them to be completed without having to be logged into an office based computer.**
5. **If it is intended that signed and scanned copies of these checklists are to be kept and filed then it is recommended business rules are developed to identify how this is completed (noting that for some checklists completion may be a staged/ progressive process occurring over potentially lengthy timeframes). There are currently no business rules about how attachments are named and stored in the Fireweb Burns and Works single folder for each planned burn.**

Preparation of Burn Plan

It is recommended that:

6. DELWP consider updating Fireweb or developing an alternative system which optimises the information entered to efficiently produce a burn plan and map in a SMEACS format in a user-friendly and operationally relevant format.
7. The implementation of such a system should seek to standardise Operational Burn Plan formats, generating concise plans with only operationally relevant information, reduce workloads for burn planners, allow greater interoperability between Districts, and provide more useful briefing prompts and information for Burn OICs.
8. DELWP consider reviewing the BRMP risk analysis tool to provide Burn Controllers and Burn OIC with a more comprehensive, efficient, and operationally focused risk appraisal.

Accreditation of the Burn OIC and Burns Controller

It is recommended that DELWP:

9. Review the full range of Burn Controllers and Burn OICs within the Department to identify those with expired or nearly expired accreditation that need to provide updated evidence to maintain the currency of their existing accreditation. Fireweb should be enabled only to allow currently accredited Burn OICs to approve burns.
10. Review existing resourcing and personnel tasking databases to establish if there are more efficient means which information required to maintain the currency of positions can be collected and submitted.

4.2 DELWP Management Response

DELWP accepts each of the recommendations and will develop a detailed action plan with timelines for implementation by 30 April 2016.

Appendices

Appendix A – List of planned burns supplied by DELWP

Note: The 33 planned burns which were subject to the desktop audit are highlighted green, with the accreditation of the Burns Controller and Burn IC checked for all burns (48 planned burns).

Table 3 List of planned burns supplied by DELWP

Note: The 33 planned burns selected for desktop audit are highlighted **green** however all planned burns were accreditation of the Burn OIC and Burn Controller component (Section 3.4)

Burn Region	Burn District	Land manager	Burn number	Name	Burn Type	Burn Season	Nomination Date/ Time	Planned Burn Area	Land Category	Burn Record Year	Ecological vegetation class
Barwon South West	Far South West	PARKS VICTORIA	5FWA0667	BAY OF ISLANDS - BAILEYS ROAD	Ecological	Autumn	13-Jun-12	52	NPA Schedule 3 Other Park	2015	Coastal Headland Scrub/Coastal Tussock Grassland Mosaic
Barwon South West	Far South West	DEPI	5FCA0614	DERGHOLM - FORDS RD	Fuel Reduction	Autumn	16-May-11	629	State Forest	2015	Damp Heathland
Barwon South West	Far South West	DEPI	5FW	WKS FSW 2014-15	Fuel Reduction	Spring	6-Jun-14	2576	State Forest	2015	Riparian Scrub
Hume	Goulburn	DEPI	3GBN0006	Tatong - Tiger Hill Rd	Fuel Reduction	Autumn	2-Jun-11	2780	State Forest	2015	Herb-rich Foothill Forest
Hume	Goulburn	Parks Victoria	3GNA0023	Chinaman`s Garden	Fuel Reduction	Winter	29-May-08	277	National Park	2015	Sedgy Riverine Forest
Hume	Goulburn	COM OTHER	3GBN0041	Winton Wetland heaps	Windrows / Heaps	Spring	4-Jul-14	0.5	Natural Features Reserve	2015	
Gippsland	Latrobe	DEPI	5LATR087	Erica-481-501-0012-Mt St Gwinear Rd/1.9Km	Regeneration Ash	Autumn	15-Dec-14	10.95	State Forest	2015	Montane Wet Forest
Gippsland	Latrobe	DEPI	5LATR061	Noojee-457-501-0013-Tj Divide Trk/Alpine Rd	Regeneration Ash	Autumn	15-Dec-14	19.2	State Forest	2015	Montane Damp Forest
Gippsland	Latrobe	DEPI	5LATR098	Noojee-462-507-0023-Loch Extension Rd/Radford Rd	Regeneration Lems	Autumn	15-Dec-14	13.78	State Forest	2015	Wet Forest
Gippsland	Macalister	DEPI	2HBR001-D	BRIAGOLONG LMB - HOWLETT	Fuel Reduction	Autumn	26-May-11	2301	State Forest	2015	Shrubby Dry Forest
Gippsland	Macalister	DEPI	2MHE214	Heyfield-524-503-0005-South Rd/Green Hills Link Rd-Upper-A	Regeneration Ash	Autumn	15-Dec-14	30.69	State Forest	2015	Montane Damp Forest
Gippsland	Macalister	DEPI	2HHE212	Heyfield - Brobergs Heaps	Windrows / Heaps	Spring	22-Sep-14	0.1	Uncategorised Public Land	2015	Box Ironbark Forest
Loddon Mallee	Mallee	PARKS VICTORIA	4MHAT0003	HATTAH - RHB BITTERANG TRACK	Ecological	Winter	8-Jul-13	1171	National Park	2015	Intermittent Swampy Woodland
Loddon Mallee	Mallee	DEPI	277	BD Wagon Flat	Fuel Reduction	Spring	21-Jun-11	1341	State Forest	2015	Dunefield Heathland
Loddon Mallee	Mallee	PARKS VICTORIA	4MWAT0003	WATHE - NTH BOUNDARY HEAPS	Windrows / Heaps	Winter	17-Jul-14	0.1	Nature Conservation Reserve	2015	Loamy Sands Mallee
Port Phillip	Metropolitan	PARKS VICTORIA	EC003256	RAVENHALL - CHRISTIES ROAD	Ecological	Autumn	27-May-14	19.6	Nature Conservation Reserve	2015	Plains Grassland
Port Phillip	Metropolitan	PARKS VICTORIA	WGR0041	SOMERTON - COOPER ST NORTH	Ecological	Summer	17-Jun-13	18.7	Nature Conservation Reserve	2015	Plains Grassland
Port Phillip	Metropolitan	PARKS VICTORIA	EWD0015	St Andrews - Shaftesbury Ave	Fuel Reduction	Autumn	11-May-12	8.8	Natural Features Reserve	2015	Valley Grassy Forest
Grampians	Midlands	PARKS VICTORIA	5MCR0035	CRESWICK - AUSTRALASIA MINE	Ecological	Autumn	2-Jun-14	0.9	Historic And Cultural Features Reserve	2015	Plains Grassy Woodland
Grampians	Midlands	PARKS VICTORIA	5MCR0009	HEPBURN - BLOWHOLE RD	Fuel Reduction	Autumn	12-Apr-11	103	Regional Park	2015	Stream Bank Shrubland
Grampians	Midlands	DEPI	5MSE0025	ENFIELD - SOUTH POWERLINES	Fuel Reduction	Spring	22-Jun-12	446	State Forest	2015	Heathy Dry Forest
Loddon Mallee	Murray Goldfields	PARKS VICTORIA	MGFBGO042	MAIDEN GULLY - ANDREWS RD	Fuel Reduction	Spring	28-May-12	510.1	Regional Park	2015	Box Ironbark Forest
Loddon Mallee	Murray Goldfields	DEPI	MGFRSH006	RUSHWORTH - COMPLEX	Fuel Reduction	Spring	5-Jun-12	168	State Forest	2015	Box Ironbark Forest
Loddon Mallee	Murray Goldfields	PARKS VICTORIA	MGFBGO046	LONG GULLY - POULSTON ST	Fuel Reduction	Spring	17-Jun-13	6.7	Historic And Cultural Features Reserve	2015	
Hume	Murrindindi	DEPI	5120025	Alexandra-287-512-0025-Browns Road	Regeneration Ash	Autumn	21-Apr-15	13.5	State Forest	2015	Montane Wet Forest
Hume	Murrindindi	DEPI	5480005	MT DISSAPPOINTMENT-301-548-0005 ESCREETS RD	Regeneration Hems	Autumn	15-Jan-15	16.3	State Forest	2015	Herb-rich Foothill Forest
Hume	Murrindindi	DEPI	5110010	Marysville-309-511-0010-Mt Ritchie Rd	Regeneration Ash	Autumn	14-Jan-15	8.2	State Forest	2015	Wet Forest
Barwon South West	Otway	PARKS VICTORIA	5OPC0008	Coorimungle - Flora Reserve	Ecological	Autumn	14-Jun-11	350	Nature Conservation Reserve	2015	Damp Heath Scrub
Barwon South West	Otway	PARKS VICTORIA	5OAN0038	Eastern View - Golf Links Road	Fuel Reduction	Autumn	21-Jun-12	330	National Park	2015	Shrubby Foothill Forest
Barwon South West	Otway	DEPI	5OFO0025	Forrest - Cemetery	Fuel Reduction	Spring	14-Jun-11	67.5	Forest Park	2015	Lowland Forest

Hume	Ovens	DEPI	T134	Apex Hill	Fuel Reduction	Autumn	8-Jul-09	347.3	State Forest	2015	Shrubby Dry Forest
Hume	Ovens	DEPI	3OOV0017	Myrtleford - Old Ovens highway	Fuel Reduction	Autumn	14-May-12	91.5	State Forest	2015	Valley Grassy Forest
Hume	Ovens	DEPI	3OBR0039	Middle Demon Ridge Pines	Fuel Reduction	Autumn	1-Nov-13	641.1	State Forest	2015	Herb-rich Foothill Forest
Gippsland	Snowy	DEPI	2OBE0106	BEN 892-519-0013 FLU TK 1	Regeneration Hems	Autumn	19-Nov-14	7.2	State Forest	2015	Wet Forest
Gippsland	Snowy	DEPI	2OOR0187	ORBOST 830-501-0026 FREDs TK 2	Regeneration Lems	Autumn	16-Feb-15	9.5	State Forest	2015	Wet Forest
Gippsland	Snowy	DEPI	2OCR0155	CANN 872-511-0009 off Hilo Rd Lumpy	Regeneration Lems	Autumn	2-Dec-14	31.15	State Forest	2015	Lowland Forest
Gippsland	Tambo	DEPI	2BNN0018	BUCHAN - GILLINGALL	Fuel Reduction	Autumn	12-May-10	1603	State Forest	2015	Shrubby Dry Forest
Gippsland	Tambo	DEPI	2BBB0082	Jones - Wildhorse Creek Track	Fuel Reduction	Autumn	13-May-14	2282	State Forest	2015	Shrubby Dry Forest
Gippsland	Tambo	PARKS VICTORIA	2BNN0091	Tostaree - Pettman Road Heap	Windrows / Heaps	Spring	21-Nov-14	0.01	State Park	2015	Lowland Forest
Hume	Upper Murray	DEPI	3UMIT031	DARTMOUTH - MOUNT BENAMBRA	Fuel Reduction	Autumn	1-Jun-12	4087	State Forest	2015	Montane Dry Woodland
Hume	Upper Murray	PARKS VICTORIA	3UCOR049	DARTMOUTH - KINGS SPUR	Fuel Reduction	Autumn	10-Jul-12	15563	National Park	2015	Shrubby Dry Forest
Hume	Upper Murray	DEPI	3UMIT057	UM 749-501-05 LANMANS TK	Regeneration Ash	Autumn	6-Jan-15	45	State Forest	2015	Montane Damp Forest
Grampians	Wimmera	DEPI	5WGR0024	BEEAR - HALLAMS ROAD	Ecological	Autumn	3-Jun-11	752	State Forest	2015	Stony Rises Woodland/Stony Knoll Shrubland Complex
Grampians	Wimmera	PARKS VICTORIA	5WAS0008	DEEP LEAD - CENTRE TRACK	Fuel Reduction	Spring	18-May-11	58	Npa Schedule 4 Park Or Reserve	2015	Heathy Dry Forest
Grampians	Wimmera	PARKS VICTORIA	5WSW0050	APSLEY - APSLEY COMMON 2014	Fuel Reduction	Summer	1-Jul-13	10	Natural Features Reserve	2015	Plains Woodland
Port Phillip	Yarra	Parks Victoria	WY0001	MCMAHONS CREEK - LITTLE PENINSULA	Fuel Reduction	Autumn	8-Jun-10	102	National Park	2015	Damp Forest
Port Phillip	Yarra		MWCA12	MELBOURNE WATER CARDINIA - PB12	Fuel Reduction	Autumn	2-Jul-14	87.6	Water Production	2015	Damp Heathy Woodland
Port Phillip	Yarra	DEPI	VF0029	Powelltown-348-517-0006-East Ada Rd/3.0Km-Lower	Regeneration Ash	Autumn	15-Dec-14	28	State Forest	2015	Damp Forest

Appendix B – Audit question summary

Table 4 Summary of information sought for each planned burn

Note these questions are edited for reproduction in this document

Question
Burn listed on FOP
Burn nominated
Nominated burn changed status to proposed and burn number generated
District manager has reviewed nominated burns - status change to proposed
Burn plan risk management spreadsheet completed
Strategic planning process completed by the Fire and Land officer
Burn approval to change status to planned
Checklist 1 completed by the District Manager or delegate
Burn OIC confirms pre-burn works completed
Burn OIC nominates the burn as ready
Burn Controller confirms ignition authorised
Ignition authorised within seven days a status change from ready
Burns controller or delegate completes Checklist 2
Burn OIC or delegate completes Checklist 3
Burn ignition by Burn OIC
Burn ignition within 24 hours of ignition authorised
Burns controller approves ignition of burn
Burns controller nominated for duration of burn
Burn OIC identifies burn as UNDER CONTROL -1
Burn OIC identifies burn as UNDER CONTROL -2
Identification and notification of escape from planned burn (10.1.11):
Burn OIC identifies burn as SAFE
District Manager or delegate completes Checklist 4
BURN PLANNING (10.1.3)
Burn plan prepared according to <i>Fireweb</i> burn template
Burn name, number, location, area (ha) and season listed
Burn objectives listed
Burn plan complete (all fields completed in burns and works/template)
Burn plan includes map that is materially fit for purpose (scale, north, grid ref, date/version, topo features, burn area, exclusions, control and fallback lines, tracks and roads, escape routes/refuges, water supply, adjacent slopes, assets)
Burn plan identifies/describes fuels within burn unit and within 500m
Burn plan - significant assets identified
Burn plan - a significant values assessment has been completed
Site safety survey completed for day of ignition
Burn plan identifies constraints
Burn plan signed off (status change in Fireweb from planned to ready)
Notifications listed and recorded (10.1.16)
Resourcing – burn and standby
Traffic management considered (10.1.15)
Smoke management considered
Lighting up method and sequence
Weather forecast & observations (Planned burn operations record 10.1.12)
Burn risk assessment (BRMP or BRAT) attached
Burn plan includes SMEACs Q briefing sheet
Permission of adjoining neighbours (10.1.18)

GHD

133 Castlereagh St Sydney NSW 2000

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T: +61 2 9239 7100 F: +61 2 9239 7199 E: sydmail@ghd.com.au

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