
Fire and Fuels Management Report

April 2012

REPORT

Prepared by the Professional Practice Committee

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Executive Summary

This report, from the professional practice committee (PPC) of the Association of BC Forest Professionals, is addressed to the ABCFP CEO for decision on recommended actions. It summarizes the work of the Fire and Fuels Management Taskforce (FFMT) that was struck by the PPC to identify and prioritize issues relating to fire and fuels management that are associated with professional practice and forest stewardship and to recommend actions for the ABCFP to take in regard to the top priority issues. The Fire and Fuels Management Taskforce completed its work and reported to the PPC in 2011. This PPC report to the CEO is a result of that work.

The FFMT described the scope of professional practice issues that relate to fire and fuels management by brainstorming for issues and then organizing them into three broad categories. A copy of this list is provided in Appendix I to this report. Seven priority issues were then identified from the brainstorm list based on importance and urgency, and finally, four top issues of greatest priority were described in greater detail and a number of options identified for ABCFP action. These portions of the FFMT report are copied into this report.

Based on the work of the FFMT, this report includes PPC recommendations to the ABCFP CEO for immediate action to address the top four issues. It is generally expected that the recommended actions can be completed by member volunteers working together with ABCFP staff, and that staff time will be the main cost for the association in this regard.

Finally, the PPC recommends that this report be amended to include ABCFP action commitments to address the recommendations and then be posted to the ABCFP website for member consideration.

Introduction

In November 2010, the professional practice committee (PPC) of the Association of BC Forest Professionals recommended that a taskforce be struck to consider fire and fuel related issues and to make recommendations to the PPC. This recommendation came after hearing an increasing number of member and public concerns in regard to wildfires in BC, and specifically in regard to the associated risks to the public and to forest lands of the province.

A fire and fuels management taskforce (FFMT) was struck in February of 2011, reporting to the PPC. It was tasked to provide a scoping perspective for the ABCFP by completing the following three tasks as set out in the FFMT terms of reference, approved by the ABCFP CEO.

1. To identify the scope of specific professional practice and stewardship issues relating to fire and fuels management.
2. To prioritize, by importance and urgency, the identified issues.
3. To recommend actions for the ABCFP to take on each issue.

It was agreed between ABCFP staff and the taskforce that the first task would focus on professional practice issues, and not on stewardship issues, because the taskforce reports to the PPC and not to the stewardship committee.

The FFMT met in April of 2011 to brainstorm fire and fuels management issues that are relevant to the ABCFP and to prioritize the identified issues by importance and urgency. Additional work was carried out by conference call and on-line to develop the discussion and to identify options for the top four priority issues. This work resulted in a draft report to the PPC in September of 2011 for its review and comment. The PPC completed its review and comments in November and this report summarizes the contents of the FFMT report, including suggestions and recommendations from the PPC. It also recommends actions for the association to take in regard to the top four priority issues.

The following individuals participated on the FFMT:

- Christine Lohr, RPF - FLNRO – Chair
- Hank Cameron, RFT - Consultant
- John Davies, RPF - Consultant
- Bruce Blackwell, RPF - Consultant
- Archie MacDonald, RPF – Industry (COFI)
- Scott King, RPF - Industry
- Chris Oman, RPF – Forest Practices Board
- Brian McIntosh, RFT – Wildfire Management Branch
- Gord Pratt, RPF – Wildfire Management Branch
- Tom Olafson, RPF - Industry
- Lauren Phillips, RPF - City
- Mike Larock, RPF – ABCFP Staff
- Jackie Hipwell, RFT – ABCFP Staff

Scope of Issues

The fire and fuels management taskforce identified a broad scope of professional practice issues relating to fire and fuels management which it organized into a three part list.¹ The three main headings in this list are: Regulatory, Practice and Other. In developing the list, the FFMT recognized that there are many overlapping concerns and interrelated properties between the various issues, and that there are likely additional issues that have not been identified in the list.

Regulatory

The scope of regulatory issues associated with fire and fuels management relates to a variety of legislation including but not limited to: the *Foresters Act*, the *Wildfire Act*, the *Forest and Range Practices Act* and the *Environmental Management Act*. In addition, there may be fire and fuels related bylaws set by local governments plus other expectations identified for Crown land, such as tenure holder plans, prescriptions and standard operating procedures. Some of the requirements may conflict with others, may contribute to increased fire hazard, or may be inconsistent with fire management objectives. Some may lack adequate definitions and clarity to effectively guide forest professionals and others who have a role in fire and fuels management activities in BC's forested areas.

In regard to the *Foresters Act* in particular, concerns have been identified that individuals who are not ABCFP members may be practising professional forestry in the area of fire and fuels and that some members may lack the necessary expertise to effectively practise in this area.

Practice

In the practice of professional forestry, there is an identified lack of continuing education opportunities, professional guidance, and availability of research information for forest professionals whose practice includes fire and fuels related activities. In addition, the taskforce is of the opinion that the current university and technology programs in forestry do not offer adequate courses in fire and fuels management. These issues appear to be resulting in a limited number of forest professionals who are competent in this area of professional practice, non-members practicing in fire and fuels management, and some fire and fuels management work that is not completed to the standards normally expected of a forest professional.

There is opportunity for the ABCFP to increase its efforts to draw both public and member attention to this important area of professional practice and to facilitate member competency in fire and fuels management.

¹ Appendix I – List of Professional Practice Issues related to Fire and Fuel Management – includes some 2012 updates.

Other

Other professional practice issues relating to fire and fuels management include a concern for risks to public safety, and an apparent lack of appropriate funding and other resources to address the risks. As well, there is concern for forest stewardship relating to an apparent lack of coordination between fire and fuels management and other forest activities in landscape level plans, including adequate consideration for the rapid pace of change in climate and ecology, and in societal expectations.

Priority Issues

When considering which issues should be of priority for the ABCFP, the fire and fuels management taskforce expressed concern that all priority issues to be addressed by the ABCFP will need to include consideration for the broader contexts of public safety and timber supply. In addition, the PPC recommends that general considerations for safety of fire fighters, good forest stewardship, impacts of climate change, and use of adaptive management practices be included.

The following seven priority issues were identified by the FFMT:

1. Need for standards of practice, or practice guidance, for ABCFP members who practise in the area of fire and fuels management. Registered members need to be aware of the skill requirements for this professional work. Clarity is needed regarding responsibilities between land owner or employer and the professional. (practice, professional reliance)
2. Need for clear, precise definitions that will apply across the full scope of fire and fuels management activities, including both legislated requirements for tenure holders and activities to reduce wildfire risk to communities. Definitions are required for: fire hazard, fire hazard assessment, fire hazard abatement. (practice)
3. Need for landscape-level planning to include consideration for fire and fuels management, and for fire and fuels related activities to include consideration for coordinated landscape planning and multiple objectives. (stewardship)
4. Need for members to be adequately trained and competent in fire and fuels management. This includes pre-registration education and ensuring a good mechanism to provide for continuing professional development. (practice, competence, professional reliance)
5. Need for adequate funding to address issues.
6. Need to identify and clarify jurisdictional responsibilities on the landscape, leading to good collaboration between jurisdictional bodies.

7. Need to return fire to the landscape, in consideration of acceptable risks.

Top Four Issues

The FFMT chose four basic areas of concern from seven priority issues it identified. For each of these four areas, it has identified the issue, provided a background and discussion and described options for action. The following is taken from the FFMT report.

1. Standards of Professional Practice

Issue: Professional standards and guidance available for forest professionals practising in the areas of fire and fuels management are limited.

Background: Greater emphasis and reliance on forest professionals to competently address fire and fuel management issues in BC forests requires the ABCFP to support the development of professional guidance to its members for their professional work in this regard. Because there are limited educational and experience opportunities for ABCFP members, the association can assist its members, and the public interest, by this action.

Wildfire Management Branch staff have worked to provide a more effective fire hazard assessment tool for operators as 'prescribed' by the *Wildfire Act* including a professionally reliant option. However, the ABCFP has no professional standards or guidance for its members that is specifically related to fire and fuel management. The Forest Practices Board asked for 'best management practices' to be developed in regard to fire hazard assessment and abatement in its Special Investigation Report of December 2008, *Fire Hazard Assessment and Abatement*.

Discussion: While some aspects of professional forestry practice in fire and fuel management are specifically prescribed, such as in the *Wildfire Act*, there is reliance on forest professionals to conduct many aspects of this work, including work to reduce wildfire risk in and adjacent to communities. This reliance on forest professionals can provide for flexibility and innovation in fire and fuels management related work, and provide for a professional consideration of the various resource and social values on the landscape. As well, it can expose the forest professionals, and their employers or clients, to a variety of associated liabilities if the risks are not assessed and managed appropriately, and/or if professional standards are not available to provide a measure for performance. Standards or guidance will help forest professionals to be duly diligent in these types of activities.

Options: The ABCFP can help its members be duly diligent in this area of the practice of professional forestry by promoting the development of guidelines for professional service in fire and fuels management. Professional guidelines serve two purposes, firstly, to identify the expected, or accepted, level of practice provided by

competent forest professionals, and secondly, to provide forest professionals with a degree of protection that they will not be judged beyond the reasonable level of professional service. Individuals with specific expertise in this area should be asked to contribute to the development of guidance.

2. Definitions – fire hazard, fire hazard assessment, fire hazard abatement

Issue: While various definitions are available, there exists no clear, commonly understood and accepted definition for fire hazard in British Columbia. Therefore, the terms fire hazard assessment and fire hazard abatement also lack clear, commonly understood and accepted definitions.

Background: These terms are used in the *Wildfire Act* to specify requirements which, if not met, may cause penalties to be levied. These terms are also used in other aspects of fire and fuel management, such as fuel management within a wildland-urban interface area, and may have somewhat different meanings in different contexts. It can be difficult to settle differences of opinion regarding what is or is not a fire hazard; how to best assess for fire hazard; and how and when to abate a fire hazard. The Forest Practices Board asked for ‘fire hazard’ to be defined in its December 2008 Special Investigation Report, “Fire Hazard Assessment and Abatement.”

Discussion: Because of the legislated requirements relating to the term ‘fire hazard,’ and because this term is commonly used in other aspects of fire and fuel management, it is important that practitioners understand what it means and can choose appropriate methods to assess it and abate it. As one aspect of the practice of professional forestry, fire and fuel management activities are subject to the ABCFP Standards of Professional Practice and the Code of Ethics. A definition for fire hazard is required to direct forest professional to meet their professional requirements, including due diligence and consideration for public safety and resource protection. It will also support professional reliance between members and their employers or clients, between members and the public, and between ABCFP members.

Options: To help with many aspects of fire and fuel management activities, the ABCFP can work with experts to develop a definition for the term ‘fire hazard.’ This definition should be all inclusive so it can be used for the variety of forest activities that involve assessing fire hazard and following up with abatement on sites which have unacceptable levels of hazard. Government officials involved with writing and interpreting forests legislation should be consulted to ensure the definition will not conflict with the application of the term in the *Wildfire Act* or in other forests legislation. The ABCFP document will provide the definitions for use in professional service.

If a new definition is available through government guidance document before this activity is undertaken, the recommendation may need to be re-visited.

3. Coordinated Landscape Planning and Multiple Objectives

Issue: Fire and fuels management activities may not be included in planning processes and documents and, at times, may occur in isolation or with limited consideration for other resource objectives.

Background: The majority of fire and fuels expertise in BC resides within the provincial government's Wildfire Management Branch. Basic forest fire fighting activities are generally conducted by non-professionals and in the case of small fires generally do not conflict with other resource values or objectives. For larger, complex fires and for general fuel management activities there is potential for conflict with other resource values which have specified objectives in the *Forest and Range Practices Act*, Ecological Reserves or GAR (Government Action Regulation) Orders. One action that is being taken to address this is the development of Fire Management Plans by forest districts that include identification of resource values.

In addition, there is potential for plans and activities for other resources and values (including timber) to lack consideration for fire and fuels issues.

Discussion: Fire and fuels management activities can fall under a variety of jurisdictions including federal government, First Nations, provincial government, local government and private land. As well, this is not an issue confined to forest activities because it may relate to mining, oil and gas, land development, species conservation and other situations. Because they are not identified in FRPA, forest management plans may not include consideration for fire and fuels, or overlapping jurisdictions may conflict in the manner that they address (or don't address) fire and fuels issues. There is opportunity for the development of objectives for fire and fuel management for all land management plans, and for the holders of these plans to communicate with their neighbours to ensure that consideration for fire and fuels, and other resource management objectives, is done in a coordinated manner across the landscape.

Options: This particular issue seems closely related to the object of the ABCFP in regard to stewardship – "to advocate for and uphold principles of stewardship of forest, forest lands, forest resources and forest ecosystems" and should be referred to the ABCFP volunteer committee for forest stewardship for its input and a report back to the PPC.

Members from this taskforce may be available to assist with this work.

4. Education – Internal (Member Training)

Issue: The general ABCFP membership has limited expertise in relation to fire and fuels management and there is a need for members to develop and maintain competence in this regard. This issue relates to the need for practice standards or guidance, because the lack of standards or guidance makes it difficult to identify educational gaps and conversely, gaps in education make it difficult for members to competently meet practice standards or guidance. Action on this issue will help to address the competency aspect of guidance, and action on standards or guidance will contribute to addressing this issue of member education.

Background: In their formal education, forest professionals are not receiving in-depth training or education in fire and fuel management. Basic subject areas, such as fuel management, fire hazard/abatement and fire behaviour, receive little attention in university and college programs and new ABCFP members generally do not have competency in these areas. Unless employed by the Wildfire Management Branch of the BC government, or identified as a mandatory requirement by their employer, it can be difficult for forest professionals to find and acquire training and expertise in these subject areas - even WMB has challenges to provide training to its own staff. Other employers, such as communities or contractors, are challenged to find forest professionals who have expertise in fire and fuels management. There may be a misconception that all forest professionals have competency in these areas and are therefore qualified to plan and conduct forest activities relating to fire and fuels.

Discussion: Forest professionals offer expertise in many aspects of general forest management to their employers; however, there is a lack of qualified and recognized practitioners in the areas of fire and fuels management and without intervention this trend is likely to continue. Wildfire management training is generally exclusive to employees of the Wildfire Management Branch, so ABCFP members having different employers who wish to acquire or maintain competency in this subject area, may need to seek training opportunities outside of BC. Basic fire suppression is not considered to be the practice of professional forestry and is usually conducted by non-members who have limited knowledge about general forest management. The management of large, complex fires, the use of fire as a management tool and the management of forest fuels all require consideration of other forest values and are appropriately conducted or guided/supervised by forest professionals who have some expertise in the area of fire and fuels. At a minimum, forest professionals should be engaged to identify the forest values, conduct analysis and develop plans for these activities.

Options: The ABCFP can work to identify opportunities for its members to acquire and maintain competency in the areas of fire and fuels management through its activities in professional reliance, continuing competency, policy review seminars,

member guidance and act enforcement. This may also include work with the BC Wildfire Management Branch to increase availability of its training courses and develop new training modules, or looking outside the province to identify available training. Work can include developing a list of training courses and creation of a mentor program that is specific to fire and fuels management. It can also include advocating with colleges and universities to promote more fire and fuels specific courses within and outside of their forestry programs, both inside and outside of BC, plus advocating with the provincial government to acknowledge and address the potential fire risks in BC, including the need to develop more associated expertise within the province. Another option is to increase fire education opportunities and potentially create a fire management institute, which would include certifications and nationally recognized courses within our province. Forest professionals should be encouraged to find and work with mentors in the area of fire and fuels management. The ABCFP continuing competence committee and Board of Examiners may be able to help with these issues.

Summary and Recommendations

The Fire and Fuels Management Taskforce has completed the tasks it was assigned by the CEO and has reported to the ABCFP professional practice committee. This report covers the scope of professional practice issues relating to fire and fuels management, its prioritization of issues by importance and urgency to identify seven general issues and detailed information for the top four issues, including options for action. The professional practice committee has reviewed the taskforce report and based on its content, provides the following recommendations for ABCFP action on the top four issues, including some benefits for completing the recommended actions for each of the four issues. The PPC offers to begin work on accepted actions and to update this report to include ABCFP action commitments so it can be posted on the ABCFP website.

1. Standards of Professional Practice

The PPC recommends that it, in consultation with competent and expert ABCFP members and with independent legal counsel, develop a guidance (or standards) document that will be available to members for their use when conducting professional practice in the area of fire and fuels management. Such guidance should identify which aspects of fire and fuel management are the practice of professional forestry, explain the professional liabilities that are associated with this work and describe how forest professionals practising in the area of fire and fuels management can meet their due diligence requirements.

The benefits of completing this action include:

- i. Contributing to member competence and due diligence, supporting the ABCFP and member responsibilities to the public.
- ii. Providing a reasonable expectation for professional service in this regard, to help limit potential member liability.
- iii. Helping to address Forest Practices Board recommendations in its report of December 2008 – “Fire Hazard Assessment and Abatement.”

2. Definition of Fire Hazard

The PPC recommends that the ABCFP, through the PPC, develop a definition for the term ‘fire hazard’ that will be adequately inclusive, for use not only in relation to legislated requirements under the *Wildfire Act*, but also for other activities such as assessment and abatement being conducted for the Community Wildfire Prevention Program. This definition can provide the basis for defining the related terms ‘fire hazard assessment’ and ‘fire hazard abatement.’ Completing this action will:

- i. Support due diligence of members and professional reliance in general, thus supporting the ABCFP and member responsibilities to the public.
- ii. Help to address FPB recommendations (see iii. above).

3. Coordinated Landscape Planning and Multiple Objectives

The PPC recommends that the ABCFP stewardship committee considers and addresses the issue of landscape level planning and management activities that do not include adequate consideration for fire and fuels management. There may be opportunity here, as well, to consider the related issue of planning and managing for fire and fuels without adequate consideration for other land use plans and objectives (one example is ‘let burn’ decisions). Any aspects of this issue which relate back to professional practice should be referred to the PPC. Benefits of completing this action include:

- i. Demonstration of ABCFP actions to advocate for and uphold principles of stewardship of forests, forest lands, forest resources and forest ecosystems.
- ii. Help forest professionals to meet their Code of Ethics and Standards of Professional Practice requirements for stewardship.

4. Education – Competency

The PPC recommends that the ABCFP (PPC and/or continuing competence committee) identify opportunities for its members to gain and maintain competencies in fire and fuels management. This work may include consultation with members of the Wildfire Management Branch, and looking for opportunities

outside of BC. Products might include a list of available training courses and development of a mentoring program. Benefits of completing this action include:

- i. Contributing to member competence and due diligence thus supporting the ABCFP and member responsibilities to the public.

The professional practice committee recommends that the ABCFP plan to take the actions identified in sections 1 to 4 above within the next one to two years, to address the four top fire and fuels management issues that were identified by the Fire and Fuels Management Taskforce. The main ABCFP costs that are foreseen for these activities will be for ABCFP staff time to ensure the actions are implemented and completed, plus costs for legal advice, which should fit within the existing budget for legal costs. It is hoped that experts and ABCFP committee members will volunteer to consult and participate on these tasks. The PPC offers to begin work immediately on top issues #1 and #2, and to make immediate referrals to the ABCFP stewardship committee for top issue #3 and to the ABCFP continuing competence committee for top issue #4.

Finally, on approval of these recommendations by the ABCFP CEO, the PPC would like to amend this report to include the ABCFP commitments and then post it on the ABCFP website for member and public viewing.

Appendix I – Scope of Issues

Issues identified through the FFMT brainstorming exercise are organized into three broad subject categories; regulatory, practice and other. They are numbered for communication purposes and have not been placed in any particular order within the categories.

A. Regulatory

1. Individuals practising who are not registered members of the ABCFP (potential enforcement issues; questionable quality of work (CWPP, hazard assess, fuel management prescriptions); providing access to professional practice for specific expertise)
2. Definition of Hazard
 - i. Fire hazard assessment (Consider the Canadian / BC Fire Weather System Danger Rating tools.
 - ii. Fire hazard abatement

2012 Update: WMB has posted new information regarding these definitions as they apply to the Wildfire Act and regulations.

3. Vague and uncertain interpretation of *Wildfire Act* and regulation (very little judicial decisions helping to define the act)
4. Timber Supply
 - i. Legislation requiring the retention of secondary forest structure that is actually, or may be, contributing to the fire hazard
 - ii. Other policies and legislations need to be put in the context of fire (revisit policies and legislation that have the potential to be inconsistent with fire management objectives e.g. OGMAs, WTRA, let burn areas) professionals have difficulty ascertaining the right balance of values and the appropriate risk (including areas where homes and forests are heavily integrated).
 - iii. Impacts of miscellaneous practices to TSR
5. Different jurisdictions of administration (local government, municipal and regional districts, Crown land, private)
 - i. Crown land within communities
 - ii. Local communities are stakeholders
6. Smoke management (MOE Open Burn Smoke Control Regulation)

7. Site-level risk rating (= probability + consequence)

B. Practice

1. Due diligence standards (professional forestry)
2. Standard of Practice in Fire and Fuel or Guidelines for Practice
3. Education
 - i. External: not enough public education (advocating prescribed burning, MPB threat, forest insects and disease benefits, nutrient exchanges, returning fire to the landscape(ecosystem restoration)
 - ii. Internal: knowledge level of the practitioner (specialist role? SIBC model?)
 - understanding fire behaviour (and how modifying forest fuel complexes can affect it)
 - understanding fire hazard
 - understanding the values at risk
 - What are the best methods to provide knowledge and skills (guidance documents/best practices/training/mentoring/adaptive management)?
 - What is the professional document that contains this information?
 - iii. Research: Inadequate fire and fuels management research (fire danger rating` system is not a useful tool in the MPB risk) and/or inadequately communicated to ABCFP members

2012 Update: WMB is seeking/planning further research south of Vanderhoof for additional learning in MPB fuels, in cooperation with Canadian Forestry Service. The National Fuel Management Task team is also addressing a deliverable how to better connect and engage industry and researchers for reducing fuel treatment costs, and sharing that info across Canadian fire management agencies.

4. Understanding professional liability
5. Balancing various objectives on the land
6. Recruitment and capacity building (and mentoring) of new practitioners to meet the current and future demand
7. Professional reliance
 - i. Potential for a reduced standard of practice for areas identified as low risk in the province, to be based on plan and rationale of the forest professional
 - ii. Address members practising outside their area of expertise

8. Smoke management
 - i. Blockaded prescribed fire as a tool to the practitioner
 - ii. Smoke is under the *Environment Act* – Open Burn Smoke Control Regulation (different regulation and administration; conflicting mandates)
9. Suppression Activities
 - i. Modified response: such as one flank, no action, etc. (very complex, and usually urgent, decision-making process)
 - ii. Full response
 - iii. Ecological, cultural, social, values are not at the fingertips of the fire response practitioner: spotted owl habitat, water values)
10. Where is the practice of professional forestry? (needs to be communicated and understood)
 - i. Examples: the person on the drip torch vs. the burn boss
11. Professional documents are not specifically identified nor their expected level of content (i.e. fire rehabilitation plans, CWPP, prescriptions)
12. Prescribed fires (skills and experience)
13. Under qualified practitioners: demonstrated accountability

C. Other

1. Multiple Landscape Objectives
 - i. Balancing various objectives (wildlife, people, forests, mining, forestry)
 - ii. Require a hierarchy of objectives (where does fire fit in forest management).
 - iii. Professionals have difficulty ascertaining the right balance of values and the appropriate risk

2012 Update: BC Wildfire Management Branch has recently hired a fire management planning forester to advance BC's landscape level fire and fuel management focus. This is also being discussed on the National Fuel Management Task team – for info sharing between provinces, territories and international fire management agencies.

2. Who is responsible?
3. Lack of funding and resources to adequately deal with the risk

4. Public safety
5. Rapid pace of change with respect to the forest ecology but also social aspects is a thread through all of the issues (climate changes, modified / alternative harvesting)
6. Lack of coordination in landscape-level planning, between fire and fuel management and managing for other activities such as agriculture, mining, hydro-electric structures



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