



Wildfire Act Determinations

SPECIAL INVESTIGATION

December 2022

FPB/SIR/54

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Executive Summary

When a person causes or contributes to a wildfire, the *Wildfire Act* allows government officials to hold the person accountable for the costs to fight the fire and the damages it caused to public resources. The decision to levy penalties and/or seek damages by a government official is called a “determination.”

This special investigation examined whether government determinations made under the *Wildfire Act* are fair, consistent and timely. The Board examined all *Wildfire Act* determinations made from 2015 to 2020.

The investigation found that when government pursues a determination, it has a well-defined and consistent process that usually leads to well-written and coherent determinations. This is an improvement from the Board’s 2014 special investigation that noted the need for clearer descriptions of how factors are taken into account in determinations. While most determinations are consistent and fair, there are opportunities for improvement, which are described in this report.

The Board notes that government is already addressing two of the issues identified in the determinations that we reviewed. The Board was concerned to find that, during our review, few determinations included an order for the recovery of damages to public resources like timber, forest land and grassland. We are encouraged to learn of government policies now in place to consistently assess those damages. We also found that most determinations aren’t made until close to the end of the three-year limitation date described in the *Wildfire Act*. Conducting hearings and issuing determinations close to the end of the limitation period can make it difficult for a person facing allegations, especially if the person was not aware of the investigation into their activities. The Board is encouraged that government has taken steps to notify people under investigation earlier in the process, a step that should help people better prepare to address the allegations made against them.

Government has a responsibility to help the public understand that they could be liable for the costs of extinguishing a wildfire they cause or contribute to and the value of damage to public resources and government property that may result. While government is now making most *Wildfire Act* determinations publicly available, most people would not know to look for them and there is still a missed opportunity to get the message out to the public. An awareness of the high price of risky or irresponsible behaviour may help reduce the number of human-caused fires.

The Board also found that some issues associated with the fairness, consistency and timeliness of determinations are the result of current legislation.

The first of these issues concerns the valuation of mature and immature public timber damaged or destroyed by a wildfire. The *Wildfire Act* relies on the appraisal system under the *Forest Act* to determine the stumpage value of mature timber. However, with large fires becoming more frequent, the appraisal system is currently not a practical method of assessing damage over vast areas. Moreover, our review did not identify any instances where the government ordered a person to pay for immature¹ timber damaged or destroyed by a wildfire. Government needs to ensure that the public is fairly compensated for the loss of mature timber and the value of immature timber.

The second issue concerns the *Wildfire Act*'s 'all or nothing' approach to the recovery of fire control costs and damage to public resources. Decision makers are only authorized to order a person to pay all of the government's costs of fire control or none of those costs. The same applies for the value of damage to public timber and other government resources and property. This approach applies when multiple persons are liable under the *Wildfire Act*, regardless of a person's degree of fault and even if the government's conduct contributed to the costs or damage. Decision-makers need the ability to exercise discretion to assess a person's liability based on the degree of fault, including apportioning liability between multiple persons.

Thirdly, most of the determinations reviewed were for the recovery of government's fire control costs and in some cases, for the value of resources damaged or destroyed due to a person causing or contributing to a wildfire. In the majority of these determinations, the person alleged to have caused or contributed did not contravene the *Wildfire Act* and could not rely on a statutory defence, which is only available to a person alleged to have contravened the Act. Accordingly, a person may have been diligent but could not rely on a due diligence defence, which would have been available if they had contravened the Act. People who have not contravened the legislation should have the same ability to defend their actions.



The last regulatory issue concerns liability for wildfires that arise from fire hazard abatement activities. Forest agreement holders may be exempt from paying the government's costs of fire control if they cause a wildfire as a result of certain activities, such as timber harvesting or silviculture. Those exemptions do not include fire hazard abatement, even though reducing wildfire risks via hazard abatement is a legal requirement. That means that if a person's hazard abatement activity causes or contributes to a wildfire, even if it is not willful, they could be subject to an order for the recovery of fire control costs. The Forest Appeals Commission has found on two occasions that debris pile burning, a form of fire hazard abatement, is a timber harvesting and silviculture activity, but the Commission's decisions are not binding on *Wildfire Act* decision-makers. Government needs to ensure that the legislation does not create a disincentive to conducting proper hazard abatement activities while also administering penalties for contraventions.

¹ Immature timber refers to areas damaged or destroyed after they have been declared free growing.

In accordance with section 68(3) of the *Wildfire Act* and section 131(2) of the *Forest and Range Practices Act* (FRPA), the Board recommends that:

1. The Ministry of Forests fairly and consistently value merchantable and non-merchantable timber damaged or destroyed by wildfire.
2. Government provide decision-makers with the discretion to order a liable person to pay none, some, or all of the government's fire control costs and damage to government resources and property.
3. Government amend the *Wildfire Act* to make the statutory defences to a contravention described in section 29 of the *Wildfire Act* available to persons who are subject to allegations made under section 25 of the *Wildfire Act* for causing or contributing to the start or spread of wildfire.
4. Government amend the *Wildfire Regulation* to make fire hazard abatement a circumstance for not seeking cost recovery.

The Supreme Court of BC issued a decision on December 5, 2022 in His Majesty the King in Right of the Province of BC v. Tolko Industries Inc. (2022 BCSC 2097) in which the court interpreted the meaning of section 29 of the *Wildfire Regulation*. The court's decision is relevant to whether debris pile burning is a circumstance for not seeking cost recovery. The court's decision does not change the Board's recommendation that the government amend the *Wildfire Regulation* to make fire hazard abatement a circumstance for not seeking cost recovery.

In accordance with section 132 of FRPA, the Board requests the Ministry of Forests to reply by June 30, 2023, and state whether or not the government accepts, partially accepts, or rejects these recommendations and describe the actions it intends to take to address them.

Introduction

Background, Purpose, and Scope

BC experiences hundreds of wildfires every year. While statistics (2008 to 2020) show that most are caused by lightning, a significant number (40 percent) are caused by people.² Fire suppression costs for all fires exceeded \$700 million in 2021, about one percent of all government expenditures. The BC government does have the authority to recover costs and losses relating to human-caused wildfires in certain circumstances. It has undertaken the determination process on 101 of the 3238 human-caused wildfires between 2015-2020.

The *Wildfire Act* (the Act) includes multiple processes under which government may attempt to recover its costs of fire control and the value of property and resources that have been damaged or destroyed.

If government suspects that a person is liable under the Act, it conducts an investigation. If the investigation concludes that a person is liable, they present the evidence to a government official responsible for making a decision, often referred to as a determination. In addition to receiving evidence from the investigation, the official must give the person an opportunity to defend themselves. The official "determines" whether the person is liable under the Act.

WHAT IS A "DETERMINATION"

A determination is a legal order made at the end of an investigation process where the Minister or their delegate reviews evidence and makes an official decision. Determination orders are binding but some, including those listed below, may be appealed to the independent Forest Appeals Commission. In the case of the *Wildfire Act*, determinations may be made regarding several sections including:

- section 17 Compensation for persons carrying out fire control
- section 25 Recovery of fire control costs and related amounts
- section 26 Contravention orders
- section 27 Administrative penalties and cost recovery
- section 28 Remediation orders

This report is primarily concerned with determinations referencing sections 25, 26, and 27. As well, many of these determinations involve an examination of defences (section 29). There were no determinations involving remediation orders (section 28).

Section 68 of the Act permits the Board to conduct special investigations to determine compliance by parties with certain parts of the Act and the appropriateness of government enforcement. The last Board investigation that assessed determinations over a five-year period was in 2014.³

The primary objective of this special investigation is to evaluate whether determinations enforcing the Act are appropriate. For this investigation, 'appropriate' means consistent, fair, and timely. The other objective is to identify policy issues, such as how this system of administrative law affects the abatement of fire hazard. The scope of the special investigation covers all *Wildfire Act* determinations made from 2015 to 2020. These determinations involved sections 17, 25, 26, 27, and 29.

² [BC Wildfire Averages, accessed March 21, 2022.](#)

³ Forest Practices Board. 2014. *Timeliness, Penalty Size and Transparency of Penalty Determinations*. FPB/SIR/41.

Legal Framework

The Act and its related regulation, the *Wildfire Regulation* (the Regulation), were created following the severe 2003 fire season. The Minister responsible for the Act at the time stated:

*The key objectives of the Act are to ensure that all users of our forests — not just forestry licensees but all users of our forests — are aware of and understand their responsibilities with respect to fire use, prevention, control, and rehabilitation. I'll repeat that: not just those licensees that are engaged in forestry activity but recreational users, hikers, campers, hunters — anyone on the land base and frequenting our beautiful forests.*⁴

To achieve these objectives, the Act and Regulation set out remedies, including tickets, administrative penalties, and orders to recover costs. These remedies are meant to recover costs when warranted and act as a deterrent to behaviour that causes or contributes to wildfires.

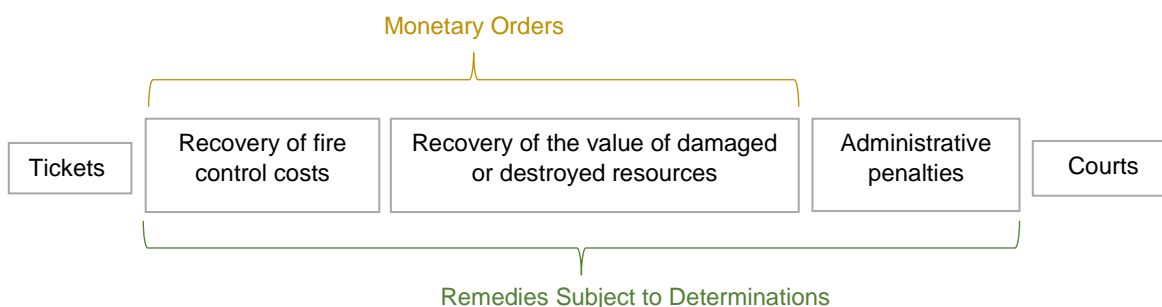


FIGURE 1. Types of remedies under the *Wildfire Act*.

Section 25 of the Act authorizes government to recover the costs of fire control and the value of property and resources damaged or destroyed in a wildfire from a person who caused a wildfire or contributed to its spread and owns the land, leases the public land, or occupies the land on which the fire ignited.

If a person is found to have contravened the Act under section 26, then section 27 authorizes the government to levy administrative penalties. These administrative penalties are similar to a fine and can be levied in addition to other monetary orders. Like section 25, this section authorizes the government to recover its costs of fire control and the value of property and resources damaged or destroyed as a result of the contravention. Unlike section 25, a person alleged to have contravened the Act can use several defences, such as exercising due diligence. Defences are provided under section 29, and if the defence is established (accepted by the delegated decision maker or DDM), the person cannot be found to have contravened the Act.

⁴ Hansard, Official Report of Debates of the Legislative Assembly (Hansard) Tuesday, April 20, 2004, Afternoon Sitting.

Overview of Determination Process

The BCWS has established procedures for enabling decisions on whether to proceed with cost recovery efforts, summarized in Figure 2. These consider practical or administrative factors such as whether the fire is human-caused, whether that person can be identified, and whether the person meets the circumstances for not seeking cost recovery (see description in the text box). BCWS and the Compliance and Enforcement Branch (CEB) procedures also consider if it's in the public interest to investigate, known as a 'public interest test'. To do this, fires are grouped into major, moderate, or minor incidents. Minor incidents are those where arson is not suspected, costs are low, damages are minor, and no person is identified. Major and moderate incidents comprise the remainder of the incidents, and government considers it in the public interest to proceed with cost recovery on these. Depending on resources, that means starting with a fire origin and cause (FOC) investigation.

NOT SEEKING COST RECOVERY

If a person has a wildfire response agreement with the Province or is a specified licence holder under the *Forest Act* then, under certain conditions, government may not seek to recover some or all the costs of fire control.

Government can enter into wildfire response agreements with any person including municipalities, private forest landowners, railroads, or other entities.

Under a wildfire response agreement, the person agrees to pay the government an amount of money and the government agrees to reduce or eliminate the costs that it can recover from the person.

Most forest tenure holders meet these conditions if they are not in arrears in their annual rent. Wildfires that are a result of timber harvesting, silviculture treatments, road construction, road maintenance or road deactivation may not be subject to cost recovery efforts by government.

If a person is suspected to have caused or contributed to the spread of the fire, then there is an investigation into the potential contravention and damages. Once this is complete, government must provide the person with an opportunity to be heard (OTBH), followed by a determination. The standard of proof that applies to administrative law, including determinations made under the Act, is referred to as a "balance of probabilities" rather than the criminal law standard of "proof beyond a reasonable doubt." The courts in BC often refer to a balance of probabilities as something that is more likely than not. As it relates to determinations under the *Wildfire Act*, government must prove that a person was more likely than not to have caused or contributed to a wildfire. The same applies to contraventions, the assessment of fire control costs and the assessment of damage to public resources and property. There is a legal limitation period of 36 months⁵ to complete the determination.

FOC INVESTIGATIONS AND REPORTS

The purpose of fire origin and cause reports is to determine where and how a wildfire started, and if possible, to identify who caused or contributed to it. Sometimes this is easy, such as when there are witnesses or when the responsible person admits it to authorities. More often it is a complex process of following clues, interviewing witnesses, collecting evidence, and reviewing other information to determine the origin site and a cause or person responsible. BCWS and CEB have specially trained personnel who conduct FOC investigations.

⁵ The 36-month period generally commences on the date on which the facts that led to the order first came to the knowledge of an official. (Section 42 of the *Wildfire Act*). This is often at, or soon after, the date the fire was discovered.

An OTBH is known as a procedural fairness right. An OTBH is simply an opportunity for the person who allegations are made against, and CEB or BCWS staff, to provide evidence or “their sides of the story” to a DDM. This can be an oral hearing chaired by a DDM or through written submissions. The CEB will provide a case binder with evidence. It is a legal requirement for the DDM to offer an OTBH to the alleged offender, but if declined a decision can be made without an OTBH.

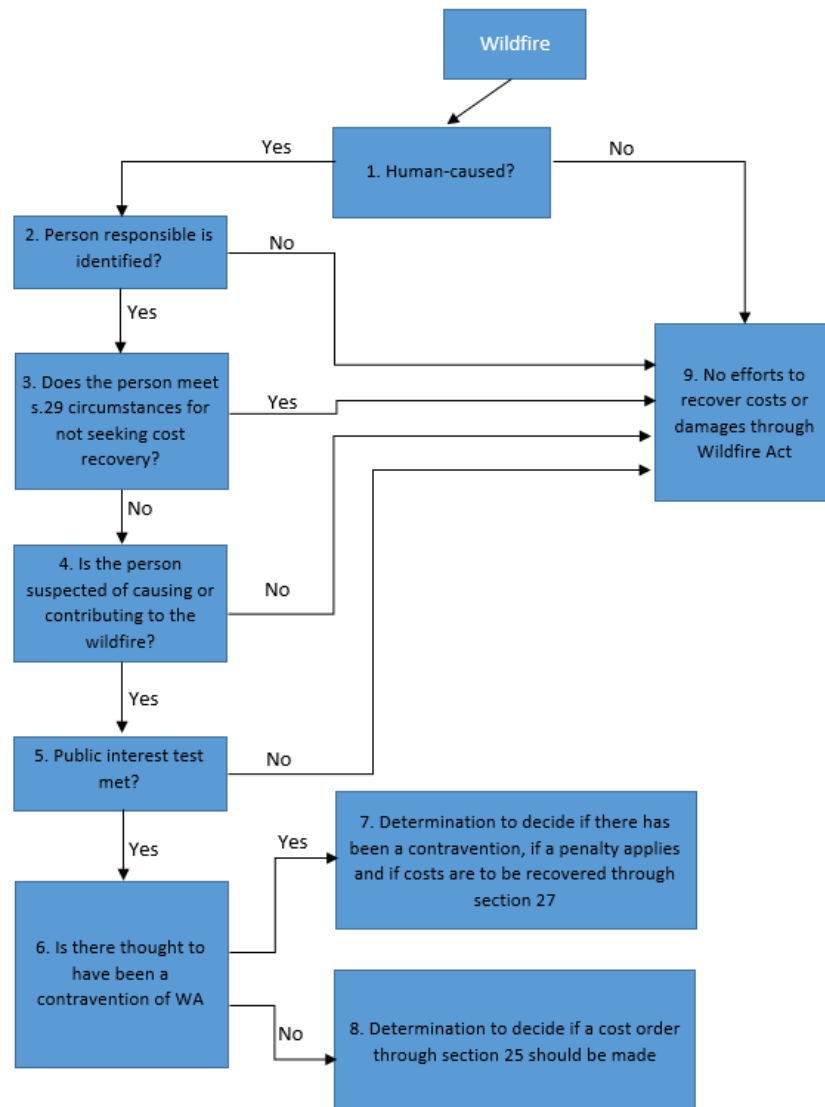


FIGURE 2. Process flow for decisions on proceeding to a *wildfire act* determination.⁶

⁶ Note that a person who meets the conditions under section 29 of the *Wildfire Regulation* may not be subject to fire control costs, but can still be liable for damages and can be subject to administrative penalties if they have contravened the Act.

Approach

The objectives of this special investigation are to determine if *Wildfire Act* determinations are appropriate and more specifically, determine the extent to which they are consistent, fair, and timely. The scope included all 72 determinations completed between 2015 and 2020. The investigation also looked at how determinations affect the public interest, such as fire hazard abatement work. To meet these objectives, the investigators:

1. reviewed BC law regarding wildfires
2. reviewed BC policy regarding wildfires
3. reviewed all known *Wildfire Act* determinations and Forest Appeals Commission (FAC) appeals from 2015 to 2020;
4. reviewed wildfire investigation literature;
5. reviewed data, such as FOC reports, that inform determinations;
6. interviewed wildfire experts from inside and outside government; and
7. interviewed some of the persons accused in determinations.

The Board tracked over 50 key attributes of each determination, such as the cause of the fire, penalty amounts, the cost of fire control ordered, whether the person subject to allegations was an individual or corporation, whether the fire was the result of a non-compliance, the date of the wildfire discovery, and the date of the determination.

Of the 72 determinations reviewed, eighteen were appealed to the FAC. The Board also reviewed the results of these appeals.

Findings and Discussion

Findings are grouped into discrete subject areas, with each subject spanning, to various degrees, the investigative objectives relating to consistency, fairness, and timeliness as well as policy issues. These subjects are:

- a) **General Findings:** An overview of what was found in the investigation and minor findings that did not justify a section of their own
- b) **FOC Reports:** What they are, how they are used, and opportunities for improvements
- c) **Cost Determination:** How costs are calculated and discussion of issues
- d) **Cost Apportionment:** A look at if costs can be apportioned and the related issues
- e) **Defences:** The use of defences like due diligence in OTBHs
- f) **Administrative Penalties:** The use of these penalties in determinations
- g) **Timeliness:** Time taken from wildfire to determination
- h) **Determinations Made Known:** How the results of determinations are made known and their effectiveness as deterrents
- i) **Liability and Fire Hazard Abatement:** Cost orders for wildfires caused by abatement activities

a) General Findings

The 72 determinations made under the *Wildfire Act* from January 1, 2015, to December 31, 2020, involved 101 wildfires.⁷ This averages 12 determinations per year. The wildfires involved several different categories of industry or persons alleged to have contravened the legislation or caused or contributed to a wildfire (Table 1).

TABLE 1. Determination Statistics by Category of Person or Entity Responsible

Penalty and/or cost order numbers overlap (e.g., one determination may have a penalty and a cost order).

CATEGORY	NUMBER OF WILDFIRES WITH DETERMINATIONS	WILDFIRES WITH ADMIN PENALTY AND/OR COST ORDER	WILDFIRES WITH ADMIN PENALTY	WILDFIRES WITH A COST ORDER	WILDFIRES WITH TIMBER OR OTHER RESOURCES ORDER	WILDFIRES WITH A SILVICULTURE COST ORDER
Railway	39	39	7	34	3	2
Private Property Work	22	20	3	20	-	-
Forestry	20	13	11	7	4	4
Oil & Gas	7	6	3	6	-	-
Other	5	5	4	3	1	-
Recreation	4	3	2	3	-	-
Agriculture	3	2	-	2	-	-
Sawmill Maintenance	1	1	1	-	-	-
TOTAL	101	89	31	75	8	6

These 101 wildfires account for approximately 1.8 percent of the area burned due to human-caused wildfires between 2015-2020 (see Figure 3). Coincidentally, over this period, about 2 percent of all of BC's wildfire costs were subject to monetary orders made via *Wildfire Act* determinations. The wildfire determinations by Act section are shown in Table 2.

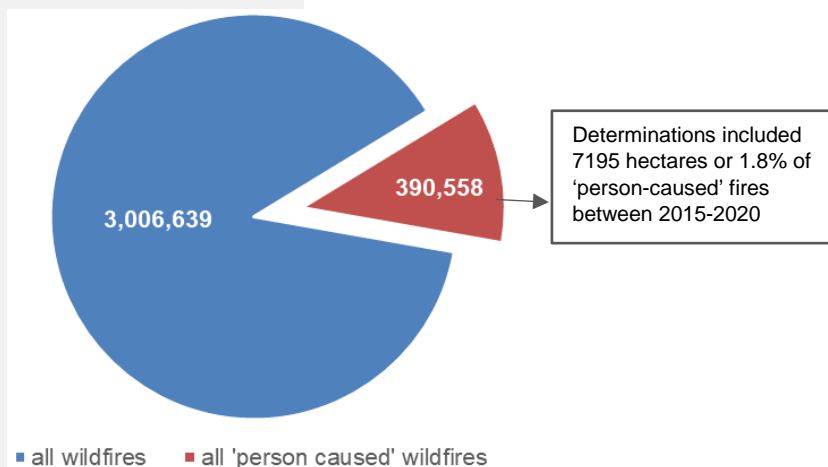


FIGURE 3. The area (hectares) of all wildfires that burned between 2015 and 2020 relative to the area of human-caused wildfires.

TABLE 2. Number of Wildfires with Determinations by Act Section

WILDFIRE ACT SECTION	WILDFIRES
S. 17	3
S. 25	58
S. 26/27	40
TOTAL	101

⁷ Several of the railway determinations included multiple fires.

There were three determinations relating to section 17 in the 6 years examined. These were all cases where a forest company's crews and equipment worked on a fire that the company had started by accident. The companies requested compensation under section 17 but were denied because they caused the fire in question, a reason for which compensation is not payable.

The majority of *Wildfire Act* determinations from 2015-2020 were about wildfires related to burning debris piles or railway operations, with 70 percent of the determinations involving corporations (see Figure 4.) Nearly 20 percent of all determinations involve 'holdover' fires where fires, mostly originating from debris piles, burn underground, usually undetected for weeks or months before emerging again as surface fires.

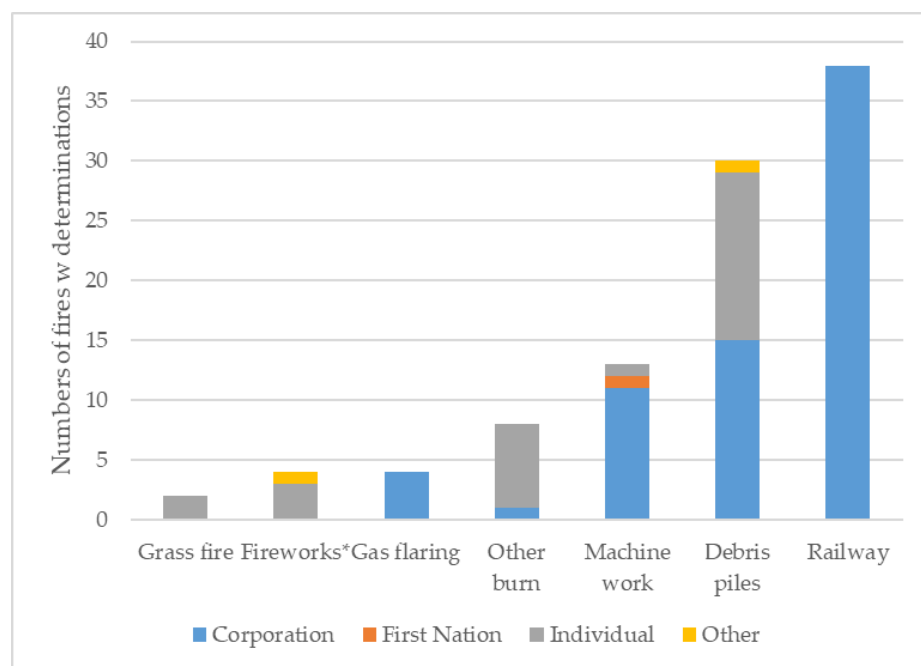


FIGURE 4. General types of fires and entities subject to determinations made between 2015-2020.

Note: For this graphic, 'fireworks' includes fires originating from firearms. 'Other' includes a municipality or an association.

One-quarter of the determinations made during our review period were appealed to the FAC. If an appeal proceeds to a hearing, the FAC has the authority to confirm, vary or rescind the order or refer the matter back to the decision-maker who made the order, with or without directions, for reconsideration. Eighteen of the determinations reviewed from 2015-2020 were appealed to the FAC, and eight of these were dismissed by the FAC. For those appeals that were allowed, appellants had an average 40 percent reduction from the original cost recovery orders. No appeals led to reductions in administrative penalties. The majority of appeals were resolved by way of a consent order endorsed by the FAC, where lawyers from the parties involved negotiated a resolution before a hearing. Consent orders resulted in an average 78 percent reduction in cost recovery orders. Consent orders are agreements between parties, and the facts or rationale leading to a consent order are not disclosed.

The Board found that the determination process is well defined by internal policies, starting with ministerial-level policies (assigning roles between branches of the Ministry and delegating authorities), memorandums between the branches (defining the roles), as well as joint investigative process documents describing the sequence of responsibilities. A joint management team between the BCWS and CEB is made up of managers from each branch to provide direction to staff and ensure collaboration meets common goals. DDMs have access to the same experts, like wildfire cause investigators or legal counsel, which leads to consistency in decision-making. In other words, there is generally the same chance that a determination will end in a penalty or cost order regardless of which branch of the Ministry the DDM is from.

b) Fire Origin and Cause Investigations and Reports

The purpose of fire origin and cause (FOC) reports is to document FOC investigations and answer the questions:

- Where did the fire start?
- What is responsible for causing or contributing to the fire?⁸

INSUFFICIENT GROUNDS FOR COST RECOVERY

The Regional District of Okanagan-Similkameen issued an evacuation order on August 14, 2015, for the town of Oliver due to the close proximity of a 317 hectare wildfire. An FOC investigation concluded that the wildfire started on private land and likely in a substandard exterior electrical fixture in an outdoor work area. If the DDM concluded that the occupant caused or contributed to the wildfire, the DDM could have ordered significant fire control costs. However, a family member had taken photographs and video during the fire that clearly showed that the conclusion in the FOC report was false. This footage was somehow not accounted for in the FOC investigation, but in the determination it led the DDM to conclude there were no grounds for a cost recovery order under section 25.

The reports are a key part of FOC investigations and are used by decision-makers, along with other information, in making determinations.

The scope of this special investigation is not to assess the appropriateness of FOC investigations.

However, investigators looked for consistency in the FOC reports and well-established reporting guidelines. To assess if FOC reports were contributing to consistent and fair determinations, the Board reviewed the formats and content suggested in the *Guide to Wildland FOC Determination*, the [BCWS FS1348 form](#),⁹ and the generally available literature.^{10 11 12} Board investigators also looked at how FOC reports are used in determinations. Then Board investigators reviewed eleven FOC reports completed on fires in the determination sample period.

The [National Wildfire Coordinating Group \(NWCG\)](#) is an organization based in the United States, but with government participation from Canada, Australia, and New Zealand, that has helped create standards and procedures for wildland fire investigations. The NWCG has published a manual and created training programs.¹³ The suggested contents and format of FOC reports are provided in their [Guide to Wildland Fire Origin and Cause Determination](#). The guide and the NWCG's programs are the basis for the BCWS's training and certification system, which classifies two levels of investigators based on their level of training and amount of experience. In 2016 the BCWS established the position of a Wildfire Enforcement Superintendent to help oversee the coordination and quality of FOC investigations in BC.

⁸ The FOC report will attempt to answer the question "what started the fire?" This may lead to a clear idea of "who" started the fire, but ultimately, it is up to the CEB investigators to attempt to answer the "who" question.

⁹ The FS1348 form is a form designed by the BCWS to include all information normal required in an FOC investigation.

¹⁰ R. Disbrow, *Wildfire Origin and Cause Investigation*, Firehouse, May 2011. <https://www.firehouse.com/community-risk/article/10462671/fire-investigation-wildfire-arson-cause-and-investigation>.

¹¹ Bureau of Indian Affairs, *Wildland Fire Origin and Cause Investigation Handbook*, BIA Division of Forestry and Wildland Fire Management, 2019.

¹² Interfire, *Investigating Wildfires: Part one, Part two*, accessed Jan 10, 2022. <https://www.interfire.org/features/wildfires.asp>

¹³ NWCG, *PMS 412, Guide to Wildland Fire Origin and Cause Determination*, April 2016.

Findings

The Board reviewed three determinations in which the DDM did not accept the origin and cause of a wildfire proposed in the FOC report. During the opportunity to be heard process, one defendant produced video evidence that refuted the FOC report (see text box on page 11). The Board is also aware of two other FOC reports where the decision-maker did not find enough evidence to conclude that a person was responsible for the fire. The decision-maker in one determination wrote "It may very well have been that if all the issues were clarified by a complete and thorough report, I would have arrived at a different decision. However, I do not know that and must base my decision on the information presented."¹⁴ In another recent determination, the decision-maker wrote, "FOC investigative approach was focused on the most likely cause of the wildfire. Although the investigation applied a reasonable science-based approach to the conclusion, not all possible sources of ignition were fully ruled out..."¹⁵ These errors or issues emphasize that FOC reports are not foolproof and must be weighed like any other piece of evidence during determinations.

In reviewing FOC reports, the Board noted that the format used in BC ensures a place for all the standard information in a FOC report. However, the Board noted some inconsistencies in content between FOC reports, with some FOC reports lacking detail, including:

- The fire and its consequences
- The actions of the investigators on-site
- How the evidence was protected and gathered
- Authoritative references (citations) to support certain facts
- Qualifications and experience of the FOC investigators, and
- How hypotheses were developed (deductive inferences drawn by process of elimination)

Government staff told the Board that there are shortfalls in the number of qualified investigators with the required training and experience to undertake the growing number of fire investigations.

Discussion

FOC reports provide the documentation and analysis of cause that may lead to thousands or even millions of dollars in costs being ordered against persons allegedly responsible. The determinations are also typically made almost three years after the fire, long after any physical evidence on site is gone. For these reasons, it is very important that qualified fire investigators do investigations, and reports are consistently written to provide sufficient information that can be fairly assessed, and if necessary, challenged two to three years after the fire.

Most of the FOC reports reviewed left the Board confident conclusions were correct. However, some of the reports inspired less confidence. The knowledge that one report was proven wrong by video evidence and two other reports had shortcomings identified by the decision-maker indicates that there are opportunities for improvement in FOC reports. As determinations are made up to three years after the fire, many of the FOC reports during our review were from 2017 or older. The Board heard from BCWS that the quality of FOC reports is improving, in part because of a recently created provincial wildfire enforcement superintendent position. This position works between agencies, coordinates the resources needed to investigate a wildfire, helps ensure FOC report consistency, and supports determinations.

¹⁴Contravention Order No. FCO-37318 Issued under section 26 of the *Wildfire Act* AND Administrative Penalty and Cost Recovery Order No. V50433 (2018) Issued under section 27(1) of the *Wildfire Act*, May 26, 2021.

¹⁵ Contravention Order No. FKA-37236 Issued under section 26 of the *Wildfire Act*, May 19, 2021.

Despite this progress, regional (fire-centre) level expertise in FOC investigations is limited with a heavy reliance on a handful of Provincial experts to conduct these investigations. During interviews, the Board heard that there were sometimes shortages of qualified investigators – particularly when there are many active wildfires.

c) Cost Determination

As described earlier in this report, the Regulation specifies how to calculate the value of damaged resources and government's fire control costs. These include the cost to suppress the fire (control costs), the value of timber, other forest land resources, grassland, other property, and finally silviculture costs.

Some of these costs and values have clear calculation methods or values specified in the Regulation (section 31). The amount of fire control costs in orders are rarely contested, possibly because they are generally well documented in BCWS standardized daily activity and cost reports are subject to internal BCWS audits.

For immature timber, government can seek to recover the full value of the timber, but for mature timber government can only seek to recover the value of stumpage.

'Forest land resources' can include protected areas or areas subject to *Government Action Regulation* orders (such as ungulate winter ranges). These areas, and grassland resources, have values assigned under section 30 of the Regulation. For "other property," it is the replacement value. Determining the value of timber is more complex and requires separate calculations for mature and immature timber. For immature timber, government can seek to recover the full value of the timber, but for mature timber government can only seek to recover the value of stumpage. Stumpage is the portion of the market value that government would receive if the timber was logged through regular commercial operations such as by a tree farm licence holder.

The CEB is responsible for completing assessments of damages and coordinates these assessments with the Timber Pricing Branch, which calculates stumpage values for mature timber. CEB and the Timber Pricing Branch have damage assessment protocols and tools to identify the perimeter of fires, classify the intensity of damage (often with remote sensing technology), and overlay that with inventory information. For small fires (generally under 250 hectares) forest and grassland inventories are, where possible, informed by ground-truthed information such as overview flights or inferred through data (like timber cruising) from similar nearby forests. For large fires, the Provincial Vegetation Resource Inventory is more often relied upon in addition to those previously mentioned inventory methods. These assessments, particularly volumes of wood damaged, are subject to dispute by defendants providing alternate and sometimes more detailed inventories ahead of or during the OTBH for the DDM's consideration. The damage assessment process has been refined after FAC decisions have clarified some issues such as what constitutes damage to a tree.

Findings

The most common monetary order in a *Wildfire Act* determination is an order to recover the costs of fire control. Section 31 of the *Wildfire Regulation* itemizes the types of costs and expenses that can be recovered as fire control costs, including hourly wages, vehicle use, equipment rental, expendable supplies and aircraft costs.

Table 3 is a summary of *Wildfire Act* determinations that the Board reviewed, organized by type of monetary order and the minimum, maximum and averages of those orders.

TABLE 3. Summary of Monetary Orders in Determinations Made Under the *Wildfire Act*

REMEDIES	# DETERMINATIONS	MINIMUM	MAXIMUM	AVERAGE PER DETERMINATION	TOTAL ORDERED TO PAY
Cost Recovery Fire Control 25(1)(a) or 27(1)(b)	72	\$ 526	\$ 11,956,817	\$ 384,626	\$ 27,697,373
Cost Recovery Crown Timber 25(1)(b) or 27(1)(c)	8	\$ 686	3,085,945	\$ 453,693	\$ 3,629,542
Cost Recovery 'Forest Land Resources' 25(1)(b) or 27(1)(c)	6	\$ 12,780	8,844,300	\$ 1,841,331	\$ 11,047,988
Cost Recovery Grass Land Resources 25(1)(b) or 27(1)(c)	2	\$ 46,850	74,800	\$ 60,825	\$ 121,650
Cost Recovery Silviculture 25(1)(b) or 27(1)(c.1)	6	\$ 937	165,065	\$ 61,682	\$ 370,092

Note there can be overlaps where one determination includes orders from different sections of the Act.

Immature Timber

Section 30(b) of the *Wildfire Regulation* specifies how to calculate the value of immature timber for cost recovery. The location, age and species of immature timber, and the area and extent of damage are all relevant factors for valuation. The value of damaged immature timber that has not been declared free growing is commonly determined from silvicultural investments up to the time of the wildfire. The Board is unaware of any determination ordering a person to pay the value of damaged immature timber after it has been declared free growing. CEB has developed a method of assigning value to immature timber, but this has yet to be tested through determinations and appeals.

Mature Timber

Accurately assessing the value of mature timber damaged or destroyed for the purposes of cost recovery can be challenging and complex. Wildfires are often much larger than typical areas where a stumpage value would be assessed. These wildfires can span many tenured and non-tenured areas, each with a different applicable stumpage rate. Some wildfires spread to areas where forest licensees would not choose to operate because the costs of doing so would be too high. Each of these factors adds to the challenge of calculating stumpage for mature timber damaged or destroyed in a wildfire.

For timber damaged or destroyed by someone without authorization (such as by fire), the *Forest Act* sets the stumpage rate based on the tenure deemed likely if rights to the timber had been granted. Stumpage rates vary considerably between types of tenures. If an area burned outside established tenures, the pricing officer must decide what hypothetical tenure or tenures to assign to the burn. The stumpage values vary depending on this assumption. In the north-central forest zone in the current *Interior Appraisal Manual*, the average sawlog stumpage varies depending on tenure type from less than \$20 to over \$100 per cubic metre.

Another variable relevant to a pricing officer's assessment of stumpage is development costs and merchantability. Stumpage often varies depending on the costs required to log an area. The higher the marginal cost (e.g., further from a market, lower value timber, or steeper ground, etc.) the lower the stumpage. Licensees often leave standing those areas that are too expensive to operate.



Remnants of Elephant Hill wildfire.

Stumpage is also normally calculated on smaller areas, such as cutblocks or salvage areas, with each having distinct development costs. The largest fire cost order (by area) during our review was 15 739 hectares. The largest human-caused fire on record, although not subject to a determination, was the 2017 Elephant Hill wildfire near Ashcroft, which burned 191 865 hectares. Normal stumpage calculations would divide these types of areas into potentially hundreds or thousands of tenures or cutblocks, each with its unique attributes informing stumpage. The Board learned that, for very large fires, it can be very difficult for pricing officers to determine a multitude of rates for different areas burned.

Public Resources

Of the 72 determinations issued from 2015 to 2020, only a small subset included an assessment of damage to timber or other values. Five of these determinations involved private land only (no damage to public resources), and 16 clearly stated that there was no damage to public or other property. Of the remaining 51 determinations, only 8, or 16 percent, had cost recovery orders that included damage to values. Some of these fires were within grasslands or the area of a previously harvested cutblock, limiting the damage to timber. Nevertheless, the *Wildfire Act* authorizes the Minister to order persons liable for a wildfire to pay the value of grassland damaged or destroyed or the cost to re-establish a stand. Sometimes, despite the damage to public timber the government did not seek to recover the value because evidence of an assessment of damages was not provided to the decision-maker. Since 2020, CEB has had a dedicated person to calculate damages for wildfires. The damages specialist is responsible for calculating the damage to public resources (e.g., timber, other forest land resources, grassland resources, etc.) for any contravention CEB is pursuing and works with BCWS on cost recoveries.

MONETARY ORDERS AFTER THE CISCO ROAD FIRE

One of the largest cost recovery orders related to damaged resources was in a determination related to the 2015 Cisco Road fire near Lytton in 2015, which is arguably one of the most expensive rail-caused wildfires in BC's history. That fire, caused by CN rail workers using a spark-producing tool, grew to nearly 2400 hectares, led to a number of homes being evacuated and took four months to extinguish. The BCWS ordered CN to pay \$16,044,607, which included \$8,844,300 in damages to forest land resources (e.g., protected area, community watersheds) and over \$7,000,000 in fire control costs. Interestingly, CN did not have a wildfire response agreement with the BCWS at the time of the fire, having opted to not renew an agreement that expired in 2013. CN's payments under that wildfire response agreement was based on previous 10-year average of the BCWS's annual wildfire costs multiplied by the percentage of CN-caused wildfires, with payments not to exceed \$382,500 a year. CN disputed the cost recovery order and appealed the determination to the FAC, which dismissed the appeal and in fact, increased the order for the costs of fire control and order for the value of damaged or destroyed forest land and grass land resources.

Cost recovery orders for the value of damaged resources were mostly included in determinations where a person was found in contravention of the *Wildfire Act*. The Act however allows the government to recover the cost of damages regardless of a contravention. Of the eight determinations that included a value for damaged resources, only one was for a fire where a contravention hadn't occurred (e.g., started on leased land or private land and spread to public land and charged under section 25). Board staff interviews with decision-makers confirmed this imbalance.

Discussion

The lost value from damage to immature timber on public lands has never been included in a *Wildfire Act* determination. While valuing immature stands is difficult, there are well-established valuation methods for managed forests regardless of age. These include the use of forest growth models and using financial

discount formulae to determine net present values. Another method is to apply a flat-rate value per hectare for stands that aren't merchantable. A similar area-based calculation is already in use for activities under the *Oil and Gas Activities Act* or *Land Act*.¹⁶ The Board encourages the work underway to incorporate immature or non-merchantable timber valuation into determinations, as not recovering damages undervalues an important public resource and does not uphold an important intent of the Act.

The *Wildfire Act* is linked to the *Forest Act* when calculating the stumpage of mature timber damaged or destroyed from fire. The Board heard that this works well for small fires, however, assigning tenure types and development costs for calculating stumpage across huge areas can be challenging with variable forest and operating types. Some areas of the Province use flat rates (average stumpage rates) for calculating stumpage over very large areas burnt. This might be a practical solution for assigning stumpage for large fires but it is not yet a consistently used methodology in the Province.

Only eight *Wildfire Act* determinations from 2015 to 2020 included an order for the value of damages to public resources. This sends a message that public resources aren't valued. It also creates an unfairness whereby one person had to pay for damages and another not. Of the eight determinations that ordered a person to pay for damages to public resources, only one of them was issued to a person who caused or contributed to a wildfire on private land or leased public land. In other words, government favours pursuing damages under section 27(1)(c) and not under 25(1)(b) even though the *Wildfire Act* allows it.

¹⁶ See section 6.8 of the *Interior Appraisal Manual* (Ministry of Forests).

The Board found that one reason government hadn't been systematically pursuing damages is that a protocol to assess damage was not in place before 2018. However, by 2018 CEB had developed a detailed procedure to assess damages, which was applied to wildfires post-2018. The damage assessment procedure policy clearly outlines how and who should be involved in damage assessments and helped resolve the inconsistency noted in our investigation. A review of determinations from fires started during or after 2018 reveals that damage assessments are now being completed and included in determinations.

d) Cost Apportionment

There are two related issues involving cost apportionment. First, if a decision maker determines that wildfire costs must be paid by a person, then that person is liable for 100 percent of the costs no matter what other circumstances might seem to reduce their responsibility. Second, if more than one person is responsible for the start or the spread of a fire, the *Wildfire Act* does not provide a way to apportion this liability between the persons.

In the past, the Board has been a third party to appeals of fire order costs¹⁷ arguing that costs may be excessive where a person may have only contributed to the fire or its spread, where a person may have been diligent and not acted deliberately, or where the government's negligence may have contributed to the costs. The FAC has upheld that while the government has the discretion to order the recovery of government fire control costs, it doesn't have the discretion to reduce those costs.¹⁸

The Board argued in its Unger appeal to the FAC that more than one person can be responsible for the start or the spread of a fire. However, the Act does not provide a way of apportioning liability, where government would recover costs to the extent that each person contributed.

Findings

During the period of our review there were nine determinations spanning five wildfires where multiple parties were found to have started or contributed to the spread of the fire. In these cases, the *Wildfire Act*, and how the FAC has interpreted it, prevented each DDM from apportioning liability among the responsible parties. This has led to inconsistencies in how decision-makers adjudicate situations where multiple parties are liable. Several determinations levied one responsible party an administrative penalty and the other responsible party the government's fire control costs, despite different sizes in monetary orders and similar blameworthiness. Another determination was appealed to the FAC and resolved by way of a consent order leading to no costs being payable by any party. This came after appellant alleged that a local

¹⁷ FAC [Decision NO. 2012-WFA-002\(b\)](#), the 'Unger' appeal

¹⁸ FAC [Decision NO. 2019-WFA-008\(b\)](#)

fire department neglected to fight the fire despite being on site (see *Escaped Fire* text box). In these cases, despite the evidence of multiple parties contributing to the spread of the fire, DDMs could not apportion the degree to which a person was at fault in their determination.

Discussion

While apportioning liability requires expertise and evidence to support a decision, it is not uncommon in BC law. For example, the *Negligence Act* requires the court to determine the degree to which two or more persons are at fault for a person's damage or loss expressed as a percentage of the total fault. The *Environmental Management Act* includes several sections¹⁹ that involve remediation orders, and assessing a person's contribution to site contamination. Likewise, the *Water Sustainability Act* allows government to apportion costs that government incurs as a result of one or more person's failure to carry out an order among those persons (i.e., such as costs associated with changing a stream channel). As documented in this investigation, because more than one person can be responsible for the start or the spread of a fire, being able to apportion fault could help attain fair compensation from human-caused fires.

ESCAPED FIRE

A person was burning a debris pile on their private property near Rossland when the fire got out of control. The local fire department responded with 2 fire trucks, 2 water trucks, and 17 firefighters. The fire department requested aerial firefighting support from the BCWS. That evening and the next morning the BCWS dispatched an air tanker, a helicopter, and a firefighting crew to attend the fire. The efforts led to the fire, which grew to two hectares in size, being declared out two days later. The person was ordered under section 25 of the *Wildfire Act* to pay the Ministry's fire suppression costs totaling \$61,639. The person appealed the decision to the FAC, arguing that they alone were not at fault for the size of the fire, as the fire department could have done more to stop it, and that they had been diligent through monitoring the burning of a debris pile. The appeal was resolved by consent order, with no costs payable by either party.

e) Defences

If a person has contravened a provision of the *Wildfire Act* or the Regulation, then they may be found responsible through sections 26 and 27 of the Act for fire control costs, the value of lost resources, and silviculture costs. Similarly, a person who is the owner or occupier of the land where a wildfire originates and is deemed to have caused or contributed to the wildfire, may be found responsible for costs under section 25. There is an important difference between the two circumstances. Under section 26, the person can raise the defences of due diligence, mistake of fact, and officially induced error and if successful, avoid being ordered to pay any costs or damages. These defences are not available for determinations made under section 25.

Findings

Cost recovery orders were made for 31 out of 72 determinations under section 25 of the *Wildfire Act*. These determinations represent fires that started on leased public land or private land, but where no person contravened the Act. Many of the fires in these determinations involved persons, including corporations, who were burning debris or grass in an attempt to reduce the risk of wildfire. Some determinations acknowledged the reasonable care taken by persons to limit the risk of the fire spreading. Two unrelated determinations illustrate a level of unfairness in the Act by allowing for the use of defences, like due diligence, for those charged under section 26 and not allowing these under section 25.

¹⁹ *Environmental Management Act*, Section 48(4)(b), Section 49, Section 50.

Two persons were found to have ignited separate fires on private land to abate a fire hazard: one was a grass fire near Dawson Creek, and the other burn piles consisting of logging slash near Taylor, BC. Both persons had a lot of experience with fire, arguing that reasonable measures were taken to prevent the spread of their fires (such as making sure they were out and having fire guards). Unfortunately, both fires led to holdover fires, causing damage to public resources and accruing suppression costs from the BCWS.

The fire that originated from grass burning cost \$349,445 to suppress. A burn registration number wasn't needed, and the wildfire originating from the grass burning did not lead to a contravention under the *Wildfire Act*. The person responsible could not use a due diligence defence because they had not contravened the Act. The facts supporting any potential diligence were not considered in the determination and the person was required to pay \$349,445.

The fire from burn piles cost \$396,246 in suppression costs. The person responsible had a Category 3 burn registration number and the person contravened the *Wildfire Act*, as the fire eventually escaped and burned outside the area and time period specified by the burn registration number. Because of that contravention, under section 29 of the *Wildfire Act*, the person was able to successfully use a due diligence defence and did not pay any damage or suppression costs.

Discussion

The determinations involving grass burning near Dawson Creek and debris burning near Taylor are quite similar, raising an issue of fairness in determinations made under the *Wildfire Act*. Both fires were lit on private land to reduce fuels and abate hazard. Both persons had experience with fire but ultimately both spread onto public lands and amassed significant costs to control. The burn pile required a burn registration number which led to charges under section 26, the grass fire led to charges under section 25. Due diligence couldn't be used under section 25 of the *Wildfire Act*, so they paid full suppression costs, while those charged under section 26 paid nothing.

f) Administrative Penalties

DDMs have the authority to levy an administrative penalty if they find a person in contravention of the Act or Regulation. Nearly one-third of all determinations in the review period involved contraventions and most of these included administrative penalties. Violation tickets are sometimes issued but in those cases decision makers cannot levy administrative penalties for the same contravention.²⁰ Section 27(3) of the *Wildfire Act* provides several considerations to be made in levying penalties (see text box on page 20).

²⁰ As per section 53 of the *Wildfire Act*.

SECTION 27(3) CONSIDERATIONS BEFORE LEVYING AN ADMINISTRATIVE PENALTY

- a) previous contraventions of a similar nature by the person,
- b) the gravity and magnitude of the contravention,
- c) whether the contravention was repeated or continuous,
- d) whether the contravention was deliberate,
- e) any economic benefit derived by the person from the contravention, and
- f) the person's cooperativeness and efforts to correct the contravention.

Findings

Ninety-seven percent of determinations with contraventions resulted in either a violation ticket or administrative penalty. From 2015-2020, administrative penalties levied ranged from \$300 - \$75,000 with an average of \$12,274 per determination, with a total ordered to pay amounting to \$331,400.²¹ The average penalty amount was 9 percent of the maximum allowed under the *Wildfire Regulation*. Seventy percent of these penalties were issued to corporations, and approximately half of those were within the forest sector (25 determinations). That contrasts with 7 administrative penalties levied against the rail industry and three against the oil and gas sector. Table 4 shows the most common contraventions during our review.

TABLE 4. Numbers of Most Common Contraventions and Maximum Penalties under the Act (2015-2020)

ACT/REGULATION	SECTION	CONTRAVENTIONS	MAX ADMIN PENALTY	DESCRIPTION
Wildfire Act	5(1)	8	\$ 10,000	Non-industrial use of open fire (lighting a fire within 1km of forest or grass land)
Wildfire Act	3(1)	7	\$ 10,000	Mishandling burning substances (starting or risking to start a fire by dropping, releasing, or mishandling a burning substance or equivalent)
Wildfire Regulation	22(3)	7	\$ 100,000	Category 3 Open Fire – making sure it doesn't escape
Wildfire Act	6(3)	6	\$ 100,000	Industrial Activities – does not carry out fire control
Wildfire Act	6(2)	5	\$ 100,000	Industrial Activities – not carrying out activities in a manner to prevent fires from starting
Wildfire Regulation	6(2)	5	\$ 100,000	High Risk Activities – not determining Fire Danger Class
Wildfire Regulation	6(3)	5	\$ 100,000	High Risk Activities – not carrying out activities in accordance with restrictions
Wildfire Regulation	22(2)	5	\$ 10,000	Category 3 Open Fire – ensure the fire is extinguished by the date specified

²¹ These penalty values are for amounts levied in determinations. Some of these penalties may not have been collected or may have been appealed.

For this review, the two most significant section 27(3) factors affecting administrative penalties appeared to be the gravity and magnitude of the contravention (88 percent of determinations with penalties) followed by whether a contravention was deliberate (24 percent of determinations with penalties). Gravity refers to the seriousness of the contravention, considering things like a person's conduct, whether there were evacuations or known risks for the fire to spread and impact values. These were well documented throughout the determinations reviewed. While magnitude may consider the damage to values, it often considers the size of a fire. Analysis shows that the severity of penalties is not correlated to fire size (e.g., a larger fire doesn't necessitate a larger penalty).

Discussion

Most of the contraventions were for persons starting fires that later escaped. The heaviest penalties, those that can reach \$100,000 per contravention, are associated with industrial activity. When section 27(3) factors were relevant, their consideration was well described in the determinations. This is an improvement since the Board's 2014 special investigation,²² which found that section 27(3) factors weren't well documented.

While a contravention of the *Wildfire Act* likely results in an administrative penalty, and most are for industrial activities, decision-makers do not come close to levying the maximum administrative penalties. The average size of penalties was only 9 percent of the maximum allowed under the *Wildfire Regulation*. This is unchanged since the Board's previous review of determinations in 2014.

Consistently low penalties may not be effective as deterrents.

Penalties are low regardless of whether a person is a corporation or an individual and are unrelated to whether or how much a person pays for fire suppression or damages caused by the fire. Consistently low penalties may not be effective as deterrents.

A factor not included in section 27 (3) is the ability to pay. A concern raised by various government staff, including decision-makers, was an acute understanding of the hardship that some of these large-cost orders can have on individuals. The regulation provides very little room for such a consideration. Other regulations, such as the *Fuel Price Transparency Act*, give decision-makers leeway in determining administrative penalties by requiring consideration for any undue hardship that might arise from the amount of the penalty.

²² *Timeliness, Penalty Size and Transparency of Penalty Determinations*. Special Investigation. SIR 41, 2014.

g) Timeliness

There is a 36-month limitation period from the date a government official becomes aware of the relevant facts (usually the wildfire discovery date).²³ After that, no administrative penalty or cost recovery order can be imposed. For section 25 wildfires, this is most likely the date that the fire was discovered. However, for section 27 wildfires, the government official must become aware of an infraction related to the wildfire. This may come on the date of fire discovery, or in the days or weeks following. Board investigators could not readily discern this date from the information within most determinations, so for the sake of simplicity, this report uses the date on which the government becomes aware of a wildfire as the start of the limitation period to determine timeliness.

Delays may occur at several stages. An investigation by BCWS and CEB must be completed. This will include a FOC report. The investigation must be presented to a statutory decision-maker, usually a fire-centre manager, who will eventually make the determination. The person who is believed to have contravened the Act or regulation, or ignited or contributed to the wildfire, is given an “opportunity to be heard” where evidence is presented to the decision-maker. The decision-maker must then write a determination letter. There is ample opportunity for delay at each stage. This is particularly true for wildfire determinations because many government officials may be amid a busy fire season with emergency priorities.

Findings

All 72 determinations examined were issued within 36 months. The average time from the discovery of the wildfire to the date the determination letter is signed is 35 months. There has been no significant change in this average through the 6 years studied. No files during the period of our review were dropped as a result of extending past this limitation period.

Discussion

There are opportunities for improvement in timeliness. The limitation periods were met in all cases, but very near the end of the period. The case for fewer delays is strong—improved fairness for alleged offenders, and possibly improved deterrence potential because the penalties or cost orders are made sooner.

Long periods between a wildfire and a determination hearing are problematic. They may put the decision-maker in a difficult situation if a hurried decision is needed because of a looming limitation period deadline. Delays can be unfair to the person alleged to be responsible for the wildfire in that evidence needed for defence may be compromised by the delay or as memories fade. The uncertainty of an eventual outcome can be stressful for individuals or adversely affect a business.

The Board found that government is now providing early notice to those persons who are under investigation for having started or contributed to the spread of a wildfire. This provides an opportunity for those persons to collect evidence about the cause of the fire, hire their own FOC investigator, or otherwise prepare for an OTBH.

²³ Limitation periods periodically change. Prior to June 3, 2010, the limitation period for a contravention-based order was 2 years—now it is 3 years. For section 25 orders, the limitation period was 6 years prior to March 16, 2017—now it is 3 years.

h) Determinations Made Known

The primary purpose of administrative penalties under the *Wildfire Act* is to discourage certain conduct, while cost recovery orders are to compensate the public. However, the prospect of large cost recovery orders is likely a very strong deterrent.

Findings

The [Natural Resource Compliance and Enforcement Database](#) (NCRED), which is accessible to the public, provides records, documents, and details of compliance and enforcement activities undertaken by natural resource agencies in BC, including the BCWS. Some, but not all, *Wildfire Act* determinations have been added to this database since 2017. Thirty-four out of 47 determinations made between 2017 and 2020 are available on the NCRED.

Discussion

Determination letters were not published or made available to the public before 2017. Since 2017, some determinations have been added to the NCRED. The NCRED goes a long way to meet the Board's 2014 recommendation that: *government should establish a publicly-accessible, online database of all penalty determinations under FRPA and Wildfire Act*. Although the NCRED can be accessed on the internet, it is not widely known, and not all determinations are added to it. It also requires knowledge about BC's natural resources legislation to be used effectively. The NCRED does not communicate how the public can be liable for wildfire costs. Therefore the NCRED alone does not deter people from behaviour that risks causing or contributing to the spread of wildfires.



i) Liability and Fire Hazard Abatement

The *Wildfire Act* requires forest licensees and others engaged in industrial activities to “abate” fire hazards during and after their activities. For forest licensees, this usually involves piling roadside and landing woody debris with machinery and then burning the piles. Although “abate” is not defined in the Act or Regulation, the Regulation does state that a person “...must reduce the fuel hazard as necessary to ensure that carrying out the activity:

- a) does not increase the risk of a fire starting on the site, and
- b) if a fire were to start, would not increase the fire behaviour or fire suppression associated with the fire.”

A portion of forest licensees' annual rent is an annual fee to government that provides a sort of fire "insurance". If the licensee is not in arrears and does not willfully cause or contribute to the start or spread of a fire, government cannot recover the costs of fire suppression from the licensee. Section 29 of the Regulation limits the activities covered by this "insurance" to timber harvesting, silviculture treatments, road construction, road maintenance, or road deactivation. Fire hazard abatement is not mentioned, but it has recently been addressed by the FAC in two appeals (see Fire Hazard Abatement text box below).

Findings

Of the 72 determinations reviewed, 17 involved forest licensees. Of these 17 determinations, 11 involved hazard abatement activities. These 11 determinations involved 8 fires. Determinations related to 6 of the 8 fires included an order to recover fire control costs. The average order for the costs of fire control was over \$2,000,000.

The orders were imposed because the decision-makers had interpreted that piling and burning were hazard abatement activities and not timber harvesting, silviculture, road construction, road maintenance, or road deactivation activities. Therefore, the licensees were ordered to pay the government's fire control costs.

The interpretation of this section of the Regulation has been a recent topic of interest at Forest Appeals Commission hearings and a BC Supreme Court decision.²⁴

Discussion

Aside from hazard abatement, another benefit of piling and burning logging debris is that it clears the way for reforestation. At the stand level, site plans completed by professional foresters will often specify site preparation activities, including piling slash accumulations, to facilitate tree planting. At the forest level of planning, allowable annual cut calculations are made after considering the amount of land rendered non-productive by roads and landings. Licensees will pile roadside slash accumulations in cutblocks to minimize the non-productive land associated with roads. Both these activities would be considered silvicultural. It might also be argued that piling debris during logging is an essential part of the logging operation. Road building also involves stripping stumps and slash from the road footprint. If this material cannot be used in the roadbed, it must be disposed of in another way. Sometimes it is distributed in the cutblock, buried along the road margin and at other times piled and burned, potentially constituting a road construction activity.

LARGEST FIRE CONTROL COST

The largest fire control cost during our investigation period was for a 2016 wildfire that began as a result of a timber sale licensee burning debris piles northwest of Fort St. John. That fire grew to 15 739 hectares, and the licence holder was ordered to pay a total of \$15,654,726 to government for fire control costs and damages to public property.

²⁴(1) Tolko Industries Ltd. v. Government of British Columbia, 2019-WFA-002(b), May 27, 2021; (2) North Enderby Timber Ltd. and Canadian Cedar Oil Technologies Ltd. v. Government of British Columbia, FAC-WFA-20-A001(a) and FAC-WFA-20-A002(a), April 1, 2022; (3) His Majesty The King In Right Of The Province Of British Columbia v. Tolko Industries Inc., 2022 BCSC 2097



Thousands of debris piles are burned annually in BC as part of hazard abatement. In its 2019 submission to the FAC, Tolko Industries Ltd. stated that it can burn up to 65 000 debris piles annually, most as roadside debris. One licensee told the Board that because of the financial risk, they are very cautious, burning only what they absolutely must to meet the requirements of the legislation.

On the one hand, licensees are legally required to abate fire hazards; on the other, liability under the Act can be a disincentive and limit fire hazard abatement activities.

Conclusions

The primary objective of this special investigation is to determine whether determinations enforcing the *Wildfire Act* are appropriate. The Board considers 'appropriate' decisions to be consistent, fair, and timely. The other objective is to identify policy issues, such as how this system of administrative law affects the abatement of fire hazards.

The determinations reviewed were found to be fair, consistent and timely, with a few exceptions that are described below. Therefore, the Board concludes that determinations under the *Wildfire Act* are appropriate. The investigation found that government is not adequately informing the public of the liabilities they may face for having started or contributed to the spread of fire. The Board is also concerned that liabilities for government's fire control costs can discourage fire hazard abatement activities.

Consistent

Board investigators evaluated whether the determinations were consistent—free from unreasonable variation or contradiction.

Wildfire act determinations were largely well-written and coherent.

The format was consistent over the years examined and between authors. This supported consistency in decisions because it was easy to compare one determination to another. For example, when deciding on penalties, almost all determinations had clear descriptions of each factor relevant to the decision and how they were considered.

Fire origin and cause reports are often key to the determination process.

Most FOC reports reviewed by the Board contained adequate information to support their conclusions. This is supported by a standard format used in writing the reports. However, the Board found that some FOC reports were inconsistent in that they did not provide adequate information on the fire itself, the actions of investigators on-site, evidence collection and protection, provision of references for key background facts, and qualifications of the investigators and hypothesis development. These improvements would better align BC's FOC reports with international standards for wildfire investigation reporting. The Board also notes that FOC reports are not foolproof and should be critically considered in the determination process like other evidence. The Board heard that there were not enough qualified wildfire investigators available to government, which may have contributed to the above issue.

Cost determinations most often include the cost of wildfire suppression.

Few of the determinations included damages to Provincial resources such as timber, property, other resources, or lost silvicultural investments, even when it was apparent that there was likely damage to these resources. While this was true during the period covered by our review, since 2018 Government has developed and is applying damage assessment protocols and is providing this information to decision makers.

For mature timber damaged or destroyed by fire, the *Wildfire Act* enables the recovery of only the stumpage value, as derived through the *Forest Act*.

This can be difficult for large fires because pricing officers must apply a rate that would likely have applied to the timber if rights had been granted under an agreement. That can mean assigning tenures and development costs for different areas of a single burn, which can be challenging over huge areas with variable forest and operating types. Applying flat rates (volume-weighted averages) is a tenable solution, but the Board found this isn't consistently applied across the Province.

Fair

In the context of this report, 'fair' is when the *Wildfire Act* and the application of the *Wildfire Act* treat persons in similar circumstances in a similar way. The application of the *Wildfire Act* should result in outcomes that reasonably reflect the circumstances. The *Wildfire Act* should be predictable and government should support complex parts of the legislation with reasonable policies that are available to the public. Most determinations met this standard. However, the Board noted several fairness issues.

The application of the *Wildfire Act* should result in outcomes that reasonably reflect the circumstances.

The first of these is regarding damages to resources. Some determinations included costs for damaged resources while others did not. This led to some entities paying for damages caused by wildfires that they were responsible for while others were not charged for similar damages. Related to this, it is unfair to the BC public when damages to public resources are not recovered as provided for under the Act. As noted above, government is now following a damage assessment protocol which should result in similar outcomes for similar circumstances.

Immature timber is also an issue. Immature timber may not have value at present because it has not grown large enough to harvest, but as it matures, it will be valuable. None of the determinations reviewed charged for the potential value of immature timber damaged or destroyed. Government has developed a valuation system to account for economic factors like net present values and discount rates to help assign a value to immature timber, but this has yet to be tested through determinations and appeals.

Cost apportionment is also potentially unfair. Unlike some other Provincial acts, the *Wildfire Act* does not enable apportionment of costs between parties or ordering less than full costs to an individual. There is an opportunity for the improvement of fairness by enabling the apportionment of liability between those responsible. Further, allowing consideration of the person's ability to pay could improve fairness.

Another potentially significant fairness issue relates to those ordered to pay wildfire costs under different sections of the Act. Those ordered to pay costs under section 25 of the Act are directly charged without government having to show a contravention. The test is simply if the person owns, occupies or leases the property where the fire started and ignited or contributed to the spread of the fire regardless if they broke any laws or made herculean efforts to contain the blaze. In contrast, those ordered to pay costs under section 27 must first have contravened the Act or Regulation. If a person has such a contravention, then the defences of due diligence, mistake of fact, or officially induced error are available to them and if they successfully use these defences, then they cannot be ordered to pay the wildfire costs. Those defences are not available under section 25. The Board reviewed a situation where two similar wildfires with very similar situations resulted in vastly different outcomes for the individuals.

There is also a fairness component in relation to the size of administrative penalties. It is not always clear that these penalties remove any economic benefit or act as a strong deterrent. Administrative penalty amounts seem low, with the average being only nine percent of the maximum.

Timely

Determinations occur within the limitation period mandated under the *Wildfire Act*. The average time from the discovery of a wildfire²⁵ to the completion of a determination is almost three years, which is very close to the end of the limitation period. This is problematic. First, it can be very difficult to mount an effective defence so long after the event. For those alleged to have caused or contributed to the spread of a fire, memories fade and evidence on the site disappears, highlighting the importance of giving early notice of an investigation to the person and delivering case binders with evidence to persons earlier and holding OTBHs earlier. Second, this leaves persons responsible for the wildfire in stressful situations for long periods of time while awaiting decisions on whether they will be ordered to pay large sums of money. The Board found that government is now informing people earlier if they are under investigation, which may help achieve a fairer administrative process.

²⁵ The limitation period commences when government officials are made aware of the facts related to the determination. For many determinations this is the date of the discovery of the fire.

Policy Issues

In addition to the objective of determining the appropriateness of determinations, this investigation was intended to identify policy issues. This investigation found two key issues.

The first of these relates to public awareness of *Wildfire Act* determinations. Most of the determinations are posted on the [Natural Resource Compliance and Enforcement Database](#) (NRCED). They are technically available to the public, but few people know about the database, and few people are aware of their potentially huge liabilities if they ignite or contribute to the spread of a wildfire. People must also have a basic knowledge of the forest legislation to decipher the information in the NRCED. More effort to make the public aware of the results of these determinations could help reduce the number of wildfires.



The other policy issue relates to the potential liabilities to forest licensees while carrying out fire hazard abatement. Piling and burning slash accumulations in cutblocks can serve overlapping purposes for silviculture, road building and fire hazard reduction. Some activities are legally required as a condition for operating. A portion of annual rents therefore contribute to fire control costs and the *Wildfire Regulation* sets circumstances for not seeking cost recovery in the event of an unintentional fire caused by timber harvesting, silviculture or road-related activities. In return, if an unintentional fire starts due to silviculture activities for example, then the licensee doesn't pay fire control costs.²⁶ Fire hazard abatement is also legally required as a condition for operating. However, if an unintentional fire starts from abatement activities, then the licensee has to pay fire control costs. The Board is concerned that this liability may serve as a disincentive to more thorough hazard reduction.

²⁶ If there has been a contravention to the *Wildfire Act* from the industrial activities listed under section 29(b) of the *Wildfire Regulation* then government can still hold a person liable for damages or levy administrative penalties.

Recommendations

In accordance with section 68(3) of the *Wildfire Act* and section 131(2) of the *Forest and Range Practices Act*, the Board recommends that:

1. The Ministry of Forests fairly and consistently value merchantable and non-merchantable timber damaged or destroyed by wildfire.
2. Government provide decision-makers with the discretion to order a liable person to pay none, some, or all of the government's fire control costs and damage to government resources and property.
3. Government amend the *Wildfire Act* to make the statutory defences to a contravention described in section 29 of the *Wildfire Act* available to persons who are subject to allegations made under section 25 of the *Wildfire Act* for causing or contributing to the start or spread of wildfire.
4. Government amend the *Wildfire Regulation* to make fire hazard abatement a circumstance for not seeking cost recovery.

The Supreme Court of BC issued a decision on December 5, 2022, in His Majesty the King in Right of the Province of BC v. Tolko Industries Inc. (2022 BCSC 2097) in which the court interpreted the meaning of section 29 of the *Wildfire Regulation*. The court's decision is relevant to whether debris pile burning is a circumstance for not seeking cost recovery. The court's decision does not change the Board's recommendation that the government amend the *Wildfire Regulation* to make fire hazard abatement a circumstance for not seeking cost recovery.

In accordance with section 132 of FRPA, the Board requests the Ministry of Forests to reply by June 30, 2023, and state whether or not the government accepts, partially accepts, or rejects these recommendations and describe the actions it intends to take to address them.



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