

BRITISH COLUMBIA

# Office of the Fire Commissioner

Annual Report  
2023



Office of the  
Fire Commissioner



# Emerging Issues and Strategic Response—Office of the Fire Commissioner 2023 Annual Report

## HONOURABLE MIKE FARNWORTH

Minister of Public Safety and Solicitor General  
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## DEAR HONOURABLE MIKE FARNWORTH,

I have the honour of submitting the Office of the Fire Commissioner's 2023 Annual Report, *Emerging Issues and Strategic Response*.

It is a compilation of:

1. the Office of the Fire Commissioner's (OFC) 2023 activities
2. the OFC's direction for 2024
3. an analysis of the fire reporting data submitted to the OFC between January 1, 2023, and December 31, 2023.

The statistics and trends identified in the OFC's annual report inform and support local government fire services' effective allocation of personnel and resources to reduce the number of fires, fire-related injuries and fire-related deaths. This report also documents emerging issues and new areas of emphasis for the OFC. For example, in 2023

the main issues that emerged, and will continue in 2024 and beyond, include wildland structure fires, encampments and single room occupancy (SRO) fires, and fires resulting from the increasing use of rechargeable batteries. On a positive note, in 2023, there were fewer fire-related deaths and there has been an increase in the number of working smoke alarms for reported structure fires. The OFC and our fire services are working hard to keep those numbers moving in the right direction.

The OFC conducts ongoing situational awareness in three areas for the purpose of tracking emerging issues and assessing their potential impact on the OFC's core business. Those three areas are:

1. Natural environment: climate change impacts, wildland urban interface (WUI) fires.
2. Built environment: aging building stock; increasing building density; proposed changes to building design, such as single point of ingress, increased use of mass timber in building construction with increased height and occupancy types and increasing development in rural areas.
3. Population: aging population, increasing vulnerable populations in encampments and SRO buildings.



As directed by the Province, the OFC is working with the Union of BC Municipalities, the Local Government Management Association, regional districts, the Fire Chiefs' Association of BC, and the ministries of Municipal Affairs and Housing to bring the Fire Safety Act (FSA) into force. The FSA was passed in 2016 but was not brought into force primarily due to issues raised by local governments that are now being addressed. Once in effect, the FSA will provide fire services with the enforcement tools required to ensure compliance with fire codes and legislation. This is critical given the increase in the number of reported fires in multi-unit complexes.

The OFC plays a crucial role in the Province's public safety system. The OFC will continue to work toward

strategic and operational excellence in all aspects of its diverse service delivery mandate to protect the public and firefighters. The OFC will also continue to build strategic alliances with fire services and first responder organizations throughout the province, across the country and internationally. We will also continue to grow our collaboration with Provincial agencies, the Coroners Service and the Ministries of Forests, Municipal Affairs, Housing and Social Development and Poverty Reduction.

Yours truly,

**Brian Godlonton**  
**Fire Commissioner**

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# Office of the Fire Commissioner—2023 in Review and the Year Ahead

## FOCUS—EMERGING ISSUES AND STRATEGIC RESPONSE

The Office of the Fire Commissioner’s (OFC) mandate is to minimize the loss of life, injury, and damage to property from fire by administering and enforcing British Columbia’s fire safety legislation. The OFC leads provincial fire prevention and fire reporting programs, promotes fire safety awareness, and establishes minimum training standards for fire services personnel. The OFC also provides structure fire expertise and coordinates fire services during emergencies.

The OFC’s mission is to reduce the number of fires and the risk of fire-related injuries and deaths. Since 2019, there has been an increasing number of fire-related injuries and deaths, particularly in the older adult populations. Between 2019 and 2023, there were 1,064 reported fire-related injuries and 293 reported fire-related deaths. The number of reported fire-related deaths increased each year between 2019 (28) and 2022 (86). In 2023, there were 62 fire-related deaths which, while fewer than 2022, is still concerning and reflect a 121 percent increase since 2019. Reducing fire-risk in communities is key to reversing that trend.

The OFC’s 2023 Annual Report follows the same format as the 2021 and 2022 reports. As stated in the 2022 Annual

Report<sup>1</sup>, data (informed decision-making), education and engagement continue to be the OFC’s three areas of focus for delivering on its fire prevention mandate.

The OFC anticipates that 2024 will be another challenging year, particularly given the current drought conditions throughout the province and other emerging issues.

The OFC will continue to work with its partners and seek opportunities for improving fire and life safety. Preparedness and the ability to adapt are key. Consequently, the OFC conducts ongoing situational awareness in three areas for the purpose of tracking emerging issues, assessing their potential impact on the OFC’s core business, and responding strategically. Those three areas are:

1. Natural environment: climate change impacts, wildland urban interface (WUI) fires.
2. Built environment: aging building stock; increasing building density; proposed changes to building design, such as single point of ingress; increased use of mass timber in building construction with greater heights and occupancy types; and increasing development in rural areas.
3. Population: aging population; increasing vulnerable populations in encampments; and single room occupancy (SRO) buildings.

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In 2022, the OFC identified three emerging areas to incorporate into its core business: wildfires, specifically structure losses associated with WUI fires; rechargeable battery fires (e.g., lithium-ion); and encampment and vehicle fires (see Appendix A). In addition, the OFC will continue to monitor and address the following areas:

- **Climate change:** The potential for urban neighbourhood fires is increasing. The OFC will continue to work with FireSmart, the BC Building Codes and Standards Branch and its fire services partners to address this issue.
- **Changes in the built environment:** Population increases, and the subsequent housing demand is resulting in the construction of more multi-unit complexes. Fires in large residential complexes can have a significant socio-economic impact on community businesses and the local governments responsible for housing affected residents.<sup>2</sup> In addition, changes in building design, such as the proposal to adopt a single point of ingress, increased use of mass timber in building construction with greater heights and occupancy types, and increasing development in rural areas, could have an impact on firefighting response.
- **Volunteer fire services training, retention, and recruitment:** This has been an ongoing challenge and the OFC has initiated work to assess the extent of the challenge and develop potential options and solutions.

- **Changing demographics:** The province has an increasing population, including newcomers to Canada and an aging demographic. The OFC will continue to address such changes and associated vulnerabilities by supporting education and prevention efforts using tools such as the Community Fire-Risk Reduction Dashboard.
- **Encampments:** The unhoused population is increasing in many communities, as are the number of encampment fires. In 2023, 485 fires occurred in encampments, 387 were outdoor, 87 were in structures and 10 were in vehicles. The fires resulted in six injuries and three deaths. The OFC will continue to work with fire services to accurately report and record encampment-related fires.
- **Electrical-related structure fires:** Over the last 10 years there have been 27 deaths and 239 injuries due to electrical distribution and other electrical fires with one of those deaths occurring in 2023. Rechargeable battery fires are an emerging issue. Fire prevention education will be part of managing this risk. In addition, a Rechargeable Battery Safety Working Group (RBSWG)<sup>3</sup> has been created by, and is chaired by, the OFC. The objectives of the RBSWG are to make provincial, regional and municipal entities, and citizens and emergency response organizations, aware of the inherent risks related to rechargeable batteries. In addition, the RBSWG is focused on changing stakeholder behavior and reducing the amount of injuries and deaths related to rechargeable battery fires.

<sup>2</sup> Between 2012 and 2023 apartment fires increased from 472 to 779 (65 percent increase).

<sup>3</sup> This working group consists of OFC staff, representatives from Fire Chiefs' Association of BC, Volunteer Firefighters' Association of BC, Vancouver Fire Rescue Services, Surrey Fire Service, Prevention Officers' Association of BC, BC Professional Firefighters' Association, and other government representatives.

# 2023 Highlights

In 2023, the OFC continued to progress its mandate in the five reporting areas below.

## ORGANIZATIONAL EFFECTIVENESS (STAFFING, LEGISLATION, FUNDING)

**Staffing:** To support fire services, the Office of the Fire Commissioner (OFC) has placed Fire Service Advisors (FSAs) in key locations throughout the province to assist and advise the over 400 fire departments in British Columbia. All regional FSAs provide expert advice, guidance, and support to fire services and Local Assistants to the Fire Commissioner (LAFs) on fire investigations, inspection best practices, fire incident reporting, training, and the administration of the Fire Services Act and the British Columbia Fire Code. Their responsibilities also include enforcement, when required, through provincial fire orders. To further support fire services, in 2023 the OFC hired a second Fire Services Training Specialist to modernize its fire prevention and public education efforts.

The OFC continues to action the priorities identified in the OFC's 2022 Annual Report<sup>4</sup>, including assessing current and future staff responsibilities, capacity, workflow process improvements and future resource requirements. The OFC will also develop a strategic plan to align its current activities with strategic objectives.

.....  
<sup>4</sup> [BC Office of the Fire Commissioner – Annual Report 2022](#)

**Legislation:** As directed by the Province, the OFC has been working with the Union of BC Municipalities (UBCM), the Local Government Management Association, the Ministries of Housing and Municipal Affairs, regional districts and the Fire Chiefs' Association of BC (FCABC) to bring the Fire Safety Act into force.

**Funding:** In 2023, the Province provided the following funding to support fire prevention and training:

- ▶ **\$1.4 million** has been provided to UBCM for community firefighting training and the purchase of new or replacement fire equipment such as fire hoses and first-aid kits.
- ▶ **\$1.75 million** was provided to FCABC to support rural communities and First Nations fire departments by providing regional access to joint live-fire training for fire services.
- ▶ **\$1.6 million** was provided to the BC Injury Research and Prevention Unit for FireSafe, a targeted smoke alarm and social marketing campaign to educate the public about the importance of having a working smoke alarm. The campaign ran in fall 2023 and spring 2024.
- ▶ **\$6 million** was contributed by the Province to the Community Emergency Preparedness Fund (CEPF) Volunteer and Composite Fire Departments Equipment and Training funding stream which supported the release of the Training Standards. That funding stream will once again be open to local governments, First Nations, legally incorporated society-run fire departments and improvement districts in 2024.



**FIRE SERVICES TRAINING**—In September 2022, the OFC published the British Columbia Firefighter Minimum Training Standards (Training Standards), which is essential for ensuring the skills and safety of firefighters in the field. The manual, policy and curriculum can be obtained through the OFC’s website. Since fall 2022, the OFC has facilitated 12 training webinars. More than 550 fire services personnel and local government staff participated in the sessions and people continue to view the YouTube video. Additional training webinars will be offered in 2024.

As mentioned under Funding, through a Provincial grant, there will be new live-fire regional training hubs in select communities to support local fire crews with enhanced firefighting skills, along with reduced travel time and costs. This training gives firefighters the opportunity to train in scenario-based exercises, allowing them to meet legislated training standards and ensure firefighter safety. The primary purpose of this project is to improve access to this important training throughout the province.

**FIRE REPORTING AND DATA**—The OFC has been actively working with fire departments, through training and regular communication, to increase fire department fire reporting. Under the Fire Services Act, fire services are required to investigate fires and submit fire reports in a format and by the means approved by the fire commissioner. Reports are currently submitted through the Fire Inventory Reporting Evaluation System (FIREs). The OFC supports fire reporting efforts through direct, firsthand assistance to fire departments, education about the importance of reliable and

consistent data and technological improvements to FIREs. Fire department reporting has increased substantially over the last five years—from 191 departments in 2018 to 317 departments in 2023 – a 70 percent increase. Consistent with the last two years, in 2023, 100 percent of known fire-related deaths were reported.

**PUBLIC EDUCATION AND ENGAGEMENT**—There are four key annual opportunities the OFC leads or participates in to increase awareness of fire prevention and fire life safety: Fire Prevention Week, Burn Awareness Week, Emergency Preparedness Week and Carbon Monoxide Awareness Week. In addition to these campaigns, the OFC’s public education work includes creating social media messages, developing education resources and programs, collaborating on other awareness campaigns, and participating in media interviews. These efforts are key to educating people on how to take steps to keep themselves and their loved ones safe and raising the OFC’s profile as a leader in fire safety.

**FireSafe:** The OFC and the BC Injury Research and Prevention Unit are co-leading FireSafe, a smoke alarm campaign to address the increasing trend in the number of fires where there was no working smoke alarm. Planning is underway on how best to reach historically under-served populations, including Indigenous communities and Elders and seniors.

**Get to Know Fire:** The OFC is working with its fire prevention partners to create Get to Know Fire, its flagship fire prevention education program. It is an updated and expanded version of the previous Getting to Know Fire





curriculum that brought fire safety education to so many people in the province. Get to Know Fire lesson plans are free for fire services to use in their communities and the OFC, through their FSA, will also be providing training and facilitation support. FSAs provide in-community connection with local government fire services and engage at the local level to actively encourage and support fire prevention public education efforts.

**PARTNERSHIP DEVELOPMENT**—The OFC continues to maintain ongoing engagement with its fire services partners and government ministries and agencies. There are six key projects and efforts that demonstrate the OFC’s commitment to collaborative working relationships: 1) the Community Fire-Risk Reduction Dashboard; 2) wildland urban interface fire coordination; 3) a Coroners Service agreement; 4) a First Nations Emergency Services Society Letter of Understanding; 5) encampments support coordination (Ministry of Mental Health and Addictions); and 6) Council of Canadian Fire Marshalls and Fire Commissioners Public Education Committee collaboration.

**Community Fire-Risk Reduction Dashboard:** The OFC continues to partner with Statistics Canada, the Canadian Centre for Justice and Community Safety Statistics on an interactive community fire-risk reduction dashboard. Fire incident data is mapped with demographic and fire risk factors comprising, census attributes, residential fire rates, deaths, injuries and smoke alarm function at the time of a fire. The dashboard is available to all community fire services in the province.

**Wildland-Urban Interface Coordination:** The OFC is continuing to work with BC Wildfire Service and the FCABC to ensure a safe, efficient and coordinated response to

wildland urban interface fire incidents. Local governments have expressed the need to ensure appropriate service levels are maintained when local fire services are deployed outside their jurisdiction.

**Coroners Service:** The OFC and the Coroners Service are working together to ensure consistent and accurate reporting of fire-related deaths.

**First Nations Emergency Services Society (FNESS) Letter of Understanding (LOU):** In April 2023, the Ministry of Emergency Management and Climate Readiness and BC Wildfire Service drafted an LOU with FNESS to strengthen collaborative approaches to emergency management and wildfire management. The OFC was later invited to sign, and has signed on, as party to the LOU.

**Encampments Coordination:** The OFC is continuing to work with the cross-ministry Strategic Fire Prevention Group to enhance fire safety and prevention in encampments of people experiencing homelessness. Fire life safety equipment, including fire retardant tarps, fire extinguishers, fire blankets, hand and foot warmers and carbon monoxide monitors were distributed to 23 communities between January and April 2023. In early 2024, working with the OFC, the Ministry of Social Development and Poverty Reduction distributed fire-retardant tarps, fire extinguishers, carbon monoxide detectors, solar powered lanterns and hand warmers in select communities.

**Council of Canadian Fire Marshalls and Fire Commissioners Public Education Committee collaboration:** The OFC is working with provinces and territories to develop public education programs.



## 2024 Ongoing Commitments and Future Direction

The Office of Fire Commissioner (OFC) continues to position itself to effectively support, coordinate, and work with community fire services and provincial agencies on an ongoing basis and during emergency incidents and extreme emergency events.

In 2024, as part of its commitment to continuous improvement, the Office of Fire Commissioner (OFC) will continue to build its capacity to deliver its mandate by:

- ▶ Improving organizational effectiveness through a new strategic plan.
- ▶ Identifying and actioning program improvement opportunities.
- ▶ Continuing to provide ongoing guidance and support to fire services through the OFC's Fire Services Advisors, and continuing to build new and strengthen existing relationships with fire services partners informally and through formal arrangements and agreements.
- ▶ Increasing fire reporting based on current trends, which will support the OFC's commitment to evidence-based decision-making. Fire data for rechargeable (e.g., lithium-ion) batteries will be captured through fire reporting codes developed in 2022.
- ▶ Ensuring the OFC is prepared to stand up provincial fire services as stated in the Emergency Disaster Management Act.
- ▶ Monitoring and looking for improvements in the Fire Services Awards Program. Fire service awards submissions are expected to increase significantly over the next decade.
- ▶ Dedicating significant effort toward evidence-based fire prevention efforts and public education, including its social media presence and building on the 2023 and 2024 FireSafe neighbourhood smoke alarm installation campaign.

# Fire Statistics—2023 Summary<sup>5</sup>

As required under the Fire Services Act, the 2023 Office of the Fire Commissioner (OFC) Annual Report includes an analysis of fire statistics submitted between January 1, 2023, and December 31, 2023, to the OFC by fire services across the province. The data and tables have been extracted from the Fire Inventory Reporting Evaluation System (FIRES). This information will guide the OFC’s work in 2024.

## 2023 FIRE STATISTICS AND TRENDS

National: The OFC, in partnership with Statistics Canada and Canadian Council of Fire Marshals and Fire Commissioners conducted a retrospective analysis of fire-related deaths from the Canadian Corner and Medical Examiner database between 2011 and 2020. This analysis revealed that there was an average of 220 fire-related deaths in Canada annually. Most of the deaths (81 percent) were unintentional, 15 percent were deaths by suicide and homicides and 4 percent were undetermined. Of the unintentional fire-related deaths, 92 percent occurred in a residence; over 39 percent of those deaths were 65 years or older and the majority of those who died were male. At least one of the following risk factors was present for those deaths: cigarettes or smoking materials; alcohol, cannabis or illicit drugs, and the absence of a working smoke alarm.

Provincial: The OFC reviews British Columbia fire statistics on an ongoing basis, releasing quarterly reports beginning on April 1. The overall trends continue to be as concerning as the national trends described previously.

- In 2022, there were 86 fire-related deaths—a 46 percent increase from 2021.
- In 2021, there were 59 fire-related deaths—a 5 percent increase from the previous year.
- Between 2019 and 2023, there was a 121 percent increase in fire-related deaths.
- Between 2019 and 2020, fire-related deaths in British Columbia rose from 28 to 56—a 100 percent increase.

The leading causes for structure fires continue to be smokers’ materials (match, lighter, etc.), cooking equipment, electrical, heating, smoking and appliances. Most fire-related deaths and injuries occur in people’s homes. The number of fires where there was no working smoke alarm also continues to be concerning. In 2023, 47 percent of reported structure fires had a working smoke alarm<sup>6</sup>. It is imperative that fire services continue to increase public education efforts, particularly home fire safety programs for the youth and the elderly, who according to the OFC’s data, are most at risk. Working smoke alarms remain the most effective measure for preventing fire injuries and

<sup>5</sup> Disclaimer: This report is based on data entered in to FIRES as of February 15, 2023. Data in FIRES is “live”. As a result, the outcome of any additional data analysis after February 15, 2023, may produce results different from that in this report.  
<sup>6</sup> Subtracting the 614 wildfires reported from the 3,549 B.C. residential structure fires increases the percentage of B.C. residential structure fires where a working smoke alarm was present from 38 percent to 47 percent. This is a 2 percent increase from 2022 when a working smoke alarm was present in 45 percent of B.C. residential structure fires.





death. It is anticipated that FireSafe, the 2023/2024 smoke alarm education campaign, will increase the public's understanding of the importance of having a working smoke alarm and result in an increase in working residential smoke alarms.

Factors contributing to fires, fire-related injuries, and fire-related deaths in the province include:

- **Climate change**—increased structure losses due to longer wildfire seasons; wildland urban interface fires.
- **Changes in land use**—increased development and population density in rural areas.
- **Demographic shifts**—increase in population, aging population and newcomers to Canada.
- **People experiencing homelessness**—increase in the number of encampments and people living in vehicles in many communities.
- **Technology**—increase in the use of rechargeable batteries.

## NUMBER OF FIRES AND DISTRIBUTION

In 2023, there were 12,342 fires resulting in 262 injuries and 62 deaths. Of these:

- **4,459** (36 percent) were structure fires (192 injuries and 37 deaths)
- **1,644** (13 percent) were vehicle fires (38 injuries and 12 deaths)
- **43** (0.3 percent) were person fires (21 injuries and nine deaths)
- **6,196** (50 percent) were outdoor fires (11 injuries and four deaths)

Of the 12,342 reported fires:

- **61 percent** were from the Lower Mainland region
- **16 percent** were from Thompson Okanagan region
- **9 percent** were from Vancouver Island region
- **5 percent** were from Northern B.C. region
- **4 percent** were from the Southeast region
- **4 percent** were from other agencies acting on behalf of the OFC

## STRUCTURE FIRE-RELATED INJURIES, DEATHS, AND CAUSES

Of all reported fires in 2023, structure fires resulted in the greatest number of injuries and deaths. Most structure fires were residential.

There were 3,549 residential structure fires (80 percent of structure fires). Residential structure fires resulted in 176 injuries (92 percent of total) and 31 deaths (84 percent of total). The most frequent causes of residential structure fires were and open flames resulted in 833 fires, 59 injuries and seven deaths. Cooking equipment was the second most frequent cause of residential structure fires resulting in 665 fires, 46 injuries and two deaths.

## FIRE SAFETY SYSTEM EFFECTIVENESS

Fire safety system effectiveness is evaluated based on the presence or absence of fire safety systems such as smoke alarms and sprinkler systems:

- Injury rates were significantly higher in structures with a working smoke alarm and no sprinkler protection than when there was no working smoke alarm. This is likely because residents attempted to control the fires themselves when the alarms were activated. However, death rates were lower in structures with working smoke alarms than in structures without a working smoke alarm.

- Death rates were significantly lower whenever fires occurred in structures with sprinkler protection.
- The presence of smoke alarms and/or sprinkler protection reduced the dependence on the fire department to control the fires.
- The presence of smoke alarms and/or sprinkler protection reduced the extent to which fires spread beyond the room of origin.

A working smoke alarm and sprinkler systems create the greatest opportunity for surviving a fire.

## FIRE DEMOGRAPHICS

In British Columbia, each year for the last five years, of those people who died in a fire, 34 percent were over the age of 65 and 11 percent were over the age of 80. These numbers will likely increase as according to 2021 census, those over 65 years represented 19 percent of the Canadian population and those over 80 years of age represented 5 percent of the Canadian population.<sup>7</sup> Fire services need to provide more services and targeted public education programs to protect our aging population.

7 Statistics Canada. Table 98-10-0027-01 Age (in single years), average age and median age and gender: Canada and forward sortation areas ©



## FIRE PREVENTION AND EDUCATION

It is evident from the 2023 fire data and the current fire-related death trends in British Columbia that fire services need to increase community awareness about fire risk-reduction.

For example, according to fire research, having working smoke alarms would reduce the risk of fire deaths by as much as 50 percent. As previously stated, in 2023, 47 percent of reported residential structure fires had a working smoke alarm.<sup>8</sup> This indicates a significant public safety education opportunity for the fire services to continue increase fire prevention education campaigns and programs, such as FireSafe, to promote the importance of working smoke alarms.

## Fire Facts

Based on current fire reporting, the areas below would benefit, or continue to benefit, from coordinated provincial efforts, fire prevention education programs, and targeted interventions:

- **Electrical-related structure fires:** In 2023, one person died and 33 people were injured due to fires originating from an electrical-related fire. In addition, fires associated with rechargeable (lithium-ion) batteries are increasing. New 2023 fire reporting codes for rechargeable battery fires allow for the collection of more specific data. Previously, rechargeable battery fires may have been categorized as electrical-related fires.
- **Drugs, alcohol, and medication:** Suspected impairment, sleep, and the suspected use of alcohol, drugs or medication resulted in four deaths and 27 injuries.
- **Candles:** Candles remain one of the leading causes of fires with 70 incidents in 2023 resulting in seven injuries, no deaths.
- **Encampments:** 387 fires were reported within encampments. Six people were injured and three deaths were recorded.

<sup>8</sup> Subtracting the 614 wildfires reported from the 3,549 B.C. residential structure fires increases the percentage of B.C. residential structure fires where a working smoke alarm was present from 38 percent to 47 percent. This is a 2 percent increase from 2022 when a working smoke alarm was present in 45 percent of B.C. residential structure fires.

# Fire Statistics in 2023<sup>9</sup>

In 2023, 12,342 fires were reported to the Officer of Fire Commissioner (OFC), including 262 fire-related injuries and 62 fire-related deaths. The following 17 tables include a breakdown of fires by fire department, region, type, type of control, life safety systems, trends, causality, and casualties.

## REPORTING ENTITIES

► **TABLE 1** shows that structure fires and outdoor fires accounted for 50 percent of the total fire events, with vehicle fires accounting for 13 percent. Career fire departments (54 percent) and composite departments (34 percent) reported the majority of the total fire events. There were 21 injuries and five deaths per 1,000 fires in 2023.

**Table 1.** All B.C. fires (2023) by fire department type and incident type

FIRE DEPARTMENT TYPE	INCIDENT TYPE	2023 TOTAL	% FIRES	# INJURIES	INJURY RATE PER 1,000 FIRES	# DEATHS	DEATH RATE PER 1,000 FIRES
<b>CAREER</b>	<i>All fires</i>	6,619	53.6%	159	24.0	15	2.3
	Structure fire	2,070	16.8%	125	60.4	10	4.8
	Vehicle fire	463	3.8%	21	45.4	0	0.0
	Outdoor fire	4,065	32.9%	2	0.5	1	0.2
	Person fire	21	0.2%	11	523.8	4	190.5
<b>COMPOSITE</b>	<i>All fires</i>	4,243	34.4%	86	20.3	28	6.6
	Structure fire	1,507	12.2%	57	37.8	17	11.3
	Vehicle fire	924	7.5%	13	14.1	5	5.4
	Outdoor fire	1,794	14.5%	7	3.9	1	0.6
	Person fire	18	0.1%	9	500.0	5	277.8
<b>VOLUNTEER</b>	<i>All fires</i>	1,243	10.1%	16	12.9	17	13.7
	Structure fire	709	5.7%	9	12.7	10	14.1
	Vehicle fire	211	1.7%	4	19.0	7	33.2
	Outdoor fire	319	2.6%	2	6.3	0	0.0
	Person fire	4	0.0%	1	250.0	0	0.0
<b>OTHER</b>	<i>All fires</i>	237	1.9%	1	4.2	2	8.4
	Structure fire	173	1.4%	1	5.8	0	0.0
	Vehicle fire	46	0.4%	0	0.0	0	0.0
	Outdoor fire	18	0.1%	0	0.0	2	111.1
	Person fire	0	0.0%	0	Undefined	0	Undefined
<b>TOTAL</b>	<i>All fires</i>	12,342	100.0%	262	21.2	62	5.0
	Structure fire	4,459	36.1%	192	43.1	37	8.3
	Vehicle fire	1,644	13.3%	38	23.1	12	7.3
	Outdoor fire	6,196	50.2%	11	1.8	4	0.6
	Person fire	43	0.3%	21	488.4	9	209.3

<sup>9</sup> Does not include wildfires or interface fires. There may be a difference between the OFC's and the Coroners Service's fire fatality data due to definitions and criteria. This report provides preliminary data on fire-related incidents and fatalities. The findings should be interpreted with caution as they do not take a coroner's investigative findings into consideration. The OFC and the Coroners Service are working to reconcile their data sets.

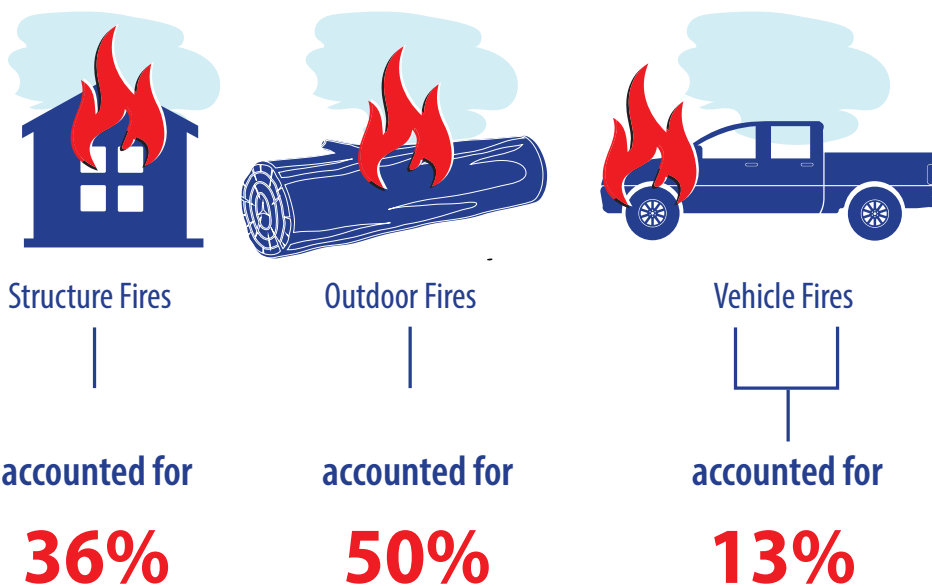
▶ **TABLE 2** shows 61 percent of 2023 fire reports originated in the Lower Mainland (accounting for 186 injuries and 25 deaths).

**Table 2.** All B.C. fires (2023) by region

FIRE BY REGION	2023 TOTAL	% FIRES	# INJURIES	INJURY RATE PER 1,000 FIRES	# DEATHS	DEATH RATE PER 1,000 FIRES
Lower Mainland	7,546	61.1%	186	24.6	25	3.3
Vancouver Island	1,092	8.8%	25	22.9	10	9.2
Thompson Okanagan	2,000	16.2%	20	10.0	8	4.0
South East	526	4.3%	14	26.6	4	7.6
Northern	643	5.2%	13	20.2	6	9.3
Regional districts and other associations	535	4.3%	4	7.5	9	16.8
<b>TOTAL</b>	<b>12,342</b>	<b>100.0%</b>	<b>262</b>	<b>21.2</b>	<b>62</b>	<b>5.0</b>

**12,342** fires were reported to the OFC in 2023.

Of the total fire events in B.C.:





## METHOD OF FIRE CONTROL

► **TABLE 3** indicates that fire departments controlled 49 percent of fires through water application (31 percent of these events requiring one hand line or less), handheld extinguishers (17 percent), and other firefighting aids (13 percent). 14 percent of fires burned out without intervention.

**Table 3.** All B.C. fires (2023) by method of fire control

METHOD OF FIRE CONTROL (GROUPED)	METHOD OF FIRE CONTROL SUB-CATEGORIES (FIRE DEPARTMENT INVOLVEMENT ONLY)	2023 TOTAL	% FIRES	# INJURIES	INJURY RATE PER 1,000 FIRES	# DEATHS	DEATH RATE PER 1,000 FIRES
Hand held extinguisher		2,063	16.7%	45	21.8	3	1.5
Standpipe and hose systems		98	0.8%	0	0.0	0	0.0
Makeshift firefighting aids		1,563	12.7%	29	18.6	0	0.0
Fire Department – water application	<b>All fires</b>	<b>6,098</b>	<b>49.4%</b>	<b>129</b>	<b>21.2</b>	<b>53</b>	<b>8.7</b>
	25mm (1") or less hose	472	3.8%	1	2.1	1	2.1
	38mm or 42mm (1 1/2" or 1 3/4") hose – 1 hand line	3,244	26.3%	59	18.2	15	4.6
	65mm or 70mm (2 1/2" or 3") hose – 1 hand line	83	0.7%	4	48.2	0	0.0
	38mm or 42mm (1 1/2" or 1 3/4") hose – 2 or more hand lines	1,499	12.1%	39	26.0	27	18.0
	65mm or 70mm (2 1/2" or 3") hose – 2 or more hand lines	136	1.1%	7	51.5	5	36.8
	Combinations of 38/42mm, 65mm, 77mm, or larger hand lines	153	1.2%	10	65.4	2	13.1
	Portable/fixed water deluge/master stream set	81	0.7%	0	0.0	1	12.3
	Unclassified	430	3.5%	9	20.9	2	4.7
Fire Department – other than water	<b>All fires</b>	<b>176</b>	<b>1.4%</b>	<b>4</b>	<b>22.7</b>	<b>0</b>	<b>0.0</b>
	Dry chemical – under 450kg	10	0.1%	0	0.0	0	0.0
	Dry chemical – 450kg and over	0	0.0%	0	Undefined	0	Undefined
	Combination foam-dry chemical	3	0.0%	0	0.0	0	0.0
	Compressed air foam systems	41	0.3%	0	0.0	0	0.0
	Crash-fire foam vehicle – using hand lines	15	0.1%	0	0.0	0	0.0
	Crash-fire foam vehicle – using monitor	2	0.0%	0	0.0	0	0.0
	Pumper – foam hand lines only, via educator/injector	43	0.3%	0	0.0	0	0.0
	Unclassified	62	0.5%	4	64.5	0	0.0
Sprinkler protection		194	1.6%	15	77.3	1	5.2
Fixed system other than sprinklers		58	0.5%	0	0.0	0	0.0
Burned out		1,694	13.7%	27	15.9	3	1.8
Miscellaneous method of fire control/extinguishment		227	1.8%	7	30.8	0	0.0
Cannot be determined		171	1.4%	6	35.1	2	11.7
<b>GRAND TOTAL</b>		<b>12,342</b>	<b>100.0%</b>	<b>262</b>	<b>21.2</b>	<b>62</b>	<b>5.0</b>



## STRUCTURE FIRES BY PROPERTY COMPLEX TYPE

► **TABLE 4** shows the properties associated with the 4,459 reported structure fires. They account for 192 injuries and 37 deaths. Residential structure fires account for 80 percent of all structure fires and resulted in 92 percent of injuries and 84 percent of deaths.

**Table 4.** All B.C. structure fires (2023) by property complex

PROPERTY COMPLEX GROUP	PROPERTY COMPLEX SUB-GROUP	# FIRES	% FIRES	# INJURED	% INJURIES	INJURY RATE PER 1,000 FIRES	# DEATHS	% DEATHS	DEATH RATE PER 1,000 FIRES
<b>ASSEMBLY USE</b>	<i>(Total for whole group)</i>	203	4.6%	7	3.6%	34.5	0	0.0%	0.0
	Amusement park, exhibition & fair ground, stadium	1	0.0%	—	0.0%	0.0	—	0.0%	0.0
	Auditorium, theatre, arena, cultural centre	29	0.7%	1	0.5%	34.5	0	0.0%	0.0
	Church, funeral home	19	0.4%	1	0.5%	52.6	0	0.0%	0.0
	Educational institution (non-residential)	44	1.0%	1	0.5%	22.7	0	0.0%	0.0
	Food or beverage establishment	77	1.7%	2	1.0%	26.0	0	0.0%	0.0
	Recreation, sports facility, sports club, social club	33	0.7%	2	1.0%	60.6	0	0.0%	0.0
<b>INSTITUTIONAL USE</b>	<i>(Total for whole group)</i>	47	1.1%	3	1.6%	63.8	1	2.7%	21.3
	Hospital, medical centre, clinic, sanatorium	21	0.5%	2	1.0%	95.2	1	2.7%	47.6
	Licensed care facility	22	0.5%	1	0.5%	45.5	0	0.0%	0.0
	Prison, penitentiary, jail, detention centre, correctional facility, reformatory	4	0.1%	—	0.0%	0.0	—	0.0%	0.0
<b>RESIDENTIAL USE</b>	<i>(Total for whole group)</i>	3,549	79.6%	176	91.7%	49.6	31	83.8%	8.7
	Camp site/RV park	16	0.4%	1	0.5%	62.5	0	0.0%	0.0
	Camp site/RV park – other	86	1.9%	3	1.6%	34.9	2	5.4%	23.3
	Educational institution (residential)	4	0.1%	—	0.0%	0.0	—	0.0%	0.0
	Hotel, motel, lodge, hostel, boarding house, dormitory	359	8.1%	17	8.9%	47.4	1	2.7%	2.8
	Residential - row, garden, town housing, condominium	222	5.0%	12	6.3%	54.1	0	0.0%	0.0
	Residential – single detached	1,831	41.1%	68	35.4%	37.1	21	56.8%	11.5
	Residential – apartment	779	17.5%	61	31.8%	78.3	2	5.4%	2.6
	Residential – duplex, 3-plex, 4-plex	105	2.4%	11	5.7%	104.8	0	0.0%	0.0
	Residential – mobile home/trailer park	115	2.6%	3	1.6%	26.1	4	10.8%	34.8
	Residential – with business/mercantile, up to three stories	32	0.7%	0	0.0%	0.0	1	2.7%	31.3

TABLE 4 CONTINUED ON NEXT PAGE

PROPERTY COMPLEX GROUP	PROPERTY COMPLEX SUB-GROUP	# FIRES	% FIRES	# INJURED	% INJURIES	INJURY RATE PER 1,000 FIRES	# DEATHS	% DEATHS	DEATH RATE PER 1,000 FIRES
<b>BUSINESS USE</b>	Office building	50	1.1%	1	0.5%	20.0	0	0.0%	0.0
<b>COMMERCIAL/ MERCANTILE USE</b>	<i>(Total for whole group)</i>	<b>203</b>	<b>4.6%</b>	<b>0</b>	<b>0.0%</b>	<b>0.0</b>	<b>7</b>	<b>2.7%</b>	<b>4.9</b>
	Commercial centre including fuel dispensing (may include restaurant, stores, etc.)	41	0.9%	—	0.0%	0.0	—	0.0%	0.0
	Commercial centre, shopping centre, strip mall	107	2.4%	0	0.0%	0.0	1	2.7%	9.3
	Department store, variety store	34	0.8%	—	0.0%	0.0	—	0.0%	0.0
	Service station with storage in back lot (includes fuel dispensing)	10	0.2%	—	0.0%	0.0	—	0.0%	0.0
	Strip mall including fuel dispensing	11	0.2%	—	0.0%	0.0	—	0.0%	0.0
<b>MANUFACTURING USE</b>	Industrial manufacturing	103	2.3%	1	0.5%	9.7	0	0.0%	0.0
<b>STORAGE USE</b>	<i>(Total for whole group)</i>	<b>24</b>	<b>0.5%</b>	<b>—</b>	<b>0.0%</b>	<b>0.0</b>	<b>—</b>	<b>0.0%</b>	<b>0.0</b>
	Grain elevator	4	0.1%	—	0.0%	0.0	—	0.0%	0.0
	Industrial storage facility, bulk storage tanks	20	0.4%	—	0.0%	0.0	—	0.0%	0.0
<b>OTHER SPECIAL USE</b>	<i>(Total for whole group)</i>	<b>265</b>	<b>5.9%</b>	<b>3</b>	<b>1.6%</b>	<b>11.3</b>	<b>4</b>	<b>10.8%</b>	<b>15.1</b>
	Air transportation use, air terminal, airport	1	0.0%	—	0.0%	0.0	—	0.0%	0.0
	Building/structure unclassified (describe)	150	3.4%	1	0.5%	6.7	3	8.1%	20.0
	Bus terminal	2	0.0%	—	0.0%	0.0	—	0.0%	0.0
	Car park	25	0.6%	1	0.5%	40.0	0	0.0%	0.0
	Communications	2	0.0%	—	0.0%	0.0	—	0.0%	0.0
	Farm or agricultural use	42	0.9%	0	0.0%	0.0	1	2.7%	23.8
	Harbour, waterfront property, marine terminal	6	0.1%	—	0.0%	0.0	—	0.0%	0.0
	Laboratory	1	0.0%	—	0.0%	0.0	—	0.0%	0.0
	Mine	3	0.1%	—	0.0%	0.0	—	0.0%	0.0
	Parks (federal, provincial or city) (includes historic sites)	14	0.3%	1	0.5%	71.4	0	0.0%	0.0
	Railway terminal, yard (excludes subway)	1	0.0%	—	0.0%	0.0	—	0.0%	0.0
	Subway	1	0.0%	—	0.0%	0.0	—	0.0%	0.0
	Utility	17	0.4%	—	0.0%	0.0	—	0.0%	0.0
<b>UNKNOWN</b>	Cannot be determined	15	0.3%	1	0.5%	66.7	0	0.0%	0.0
<b>TOTAL</b>		<b>4,459</b>	<b>100.0%</b>	<b>192</b>	<b>100.0%</b>	<b>43.1</b>	<b>37</b>	<b>100.0%</b>	<b>8.3</b>



**(80%)** of all structure fires in 2023 occurred in residential structures and lead to **92%** of injuries and **84%** of deaths.





## RESIDENTIAL STRUCTURE FIRES

► **TABLE 5** shows the room of fire origin for the 3,549 residential<sup>10</sup> structure fires reported in 2023 (resulting in 176 injuries and 31 deaths). Bedrooms accounted for 15 percent of fires (31 percent of injuries and 19 percent of deaths), living rooms accounted for 7 percent of fires (8 percent of injuries and 19 percent of deaths) and kitchens accounted for just under one-fifth of fires (28 percent of injuries and 7 percent of deaths).

**Table 5.** All B.C. residential structure fires (2023) by room of fire origin

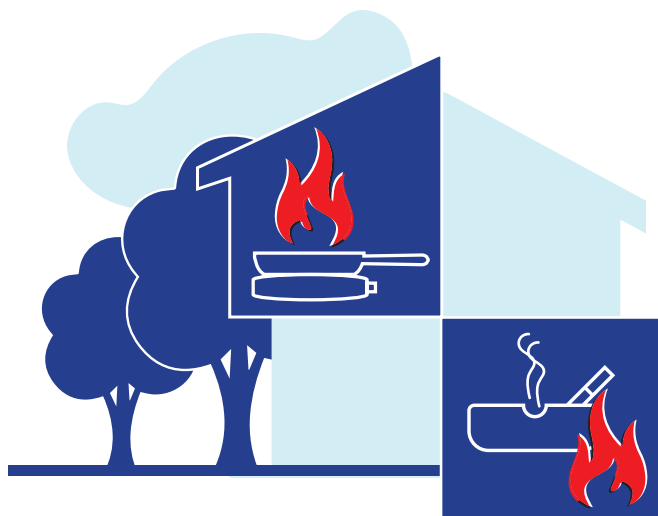
ROOM OF ORIGIN GROUPED	# FIRES	% FIRES	# INJURED	% INJURIES	INJURY RATE PER 1,000 FIRES	# DEATHS	% DEATHS	DEATH RATE PER 1,000 FIRES	# EXTENDED BEYOND ROOM OF ORIGIN	% EXTENDED BEYOND ROOM OF ORIGIN
Bathroom	64	1.8%	6	3.4%	93.8	1	3.2%	15.6	9	14.1%
Bedroom	532	15.0%	55	31.3%	103.4	6	19.4%	11.3	67	12.6%
Office	7	0.2%	0	0.0%	0.0	0	0.0%	0.0	2	28.6%
Closet	7	0.2%	3	1.7%	428.6	0	0.0%	0.0	2	28.6%
Assembly area – other	37	1.0%	0	0.0%	0.0	1	3.2%	27.0	12	32.4%
Laundry room	73	2.1%	2	1.1%	27.4	0	0.0%	0.0	8	11.0%
Hallways and means of egress	103	2.9%	7	4.0%	68.0	0	0.0%	0.0	13	12.6%
Living room	231	6.5%	14	8.0%	60.6	6	19.4%	26.0	60	26.0%
Function area – unclassified	11	0.3%	0	0.0%	0.0	0	0.0%	0.0	4	36.4%
Foyer	15	0.4%	0	0.0%	0.0	0	0.0%	0.0	5	33.3%
Kitchen	662	18.7%	50	28.4%	75.5	2	6.5%	3.0	42	6.3%
Dining area	20	0.6%	0	0.0%	0.0	0	0.0%	0.0	4	20.0%
Porch	142	4.0%	5	2.8%	35.2	0	0.0%	0.0	43	30.3%
Balcony	100	2.8%	5	2.8%	50.0	0	0.0%	0.0	30	30.0%
Storage area	49	1.4%	2	1.1%	40.8	2	6.5%	40.8	28	57.1%
Garage	141	4.0%	3	1.7%	21.3	0	0.0%	0.0	63	44.7%
Outside area – other	769	21.7%	4	2.3%	5.2	2	6.5%	2.6	688	89.5%
Utility, equipment, furnace room	54	1.5%	3	1.7%	55.6	1	3.2%	18.5	6	11.1%
Trash area	26	0.7%	0	0.0%	0.0	0	0.0%	0.0	6	23.1%
Chimney, flue pipe, gas vent	72	2.0%	1	0.6%	13.9	0	0.0%	0.0	9	12.5%
Service facilities	17	0.5%	0	0.0%	0.0	0	0.0%	0.0	2	11.8%
Crawl space	17	0.5%	2	1.1%	117.6	0	0.0%	0.0	13	76.5%
Structural area – other	238	6.7%	8	4.5%	33.6	1	3.2%	4.2	98	41.2%
All other areas	162	4.6%	6	3.4%	37.0	9	29.0%	55.6	121	74.7%
<b>TOTAL</b>	<b>3,549</b>	<b>100.0%</b>	<b>176</b>	<b>100.0%</b>	<b>49.6</b>	<b>31</b>	<b>100.0%</b>	<b>8.7</b>	<b>1,335</b>	<b>37.6%</b>

<sup>10</sup> PC3100-PC3900 throughout the report when referring to residential-use structure fires.

► **TABLE 6** shows the source of ignition for residential structure fires. 24 percent of fires resulted from smokers' materials and open flames (34 percent of injuries and 8 percent of deaths), with the source of ignition shown in the table. Nearly one fifth of fires were caused by cooking equipment (26 percent of injuries and 6 percent of deaths). In 18 percent of cases the source of ignition could not be determined.

**Table 6.** All B.C. residential structure fires (2023) by source of ignition

SOURCE OF IGNITION GROUPED	SOURCE SUB-CATEGORY (SMOKERS' MATERIAL ONLY)	# FIRES	% FIRES	# INJURED	% INJURIES	INJURY RATE PER 1,000 FIRES	# DEATHS	% DEATHS	DEATH RATE PER 1,000 FIRES
Cooking equipment		665	18.7%	46	26.1%	69.2	2	6.5%	3.0
Heating equipment		187	5.3%	5	2.8%	26.7	0	0.0%	0.0
Appliances & equipment		124	3.5%	7	4.0%	56.5	0	0.0%	0.0
Electrical distribution equipment		207	5.8%	17	9.7%	82.1	0	0.0%	0.0
Other electrical equipment		99	2.8%	10	5.7%	101.0	0	0.0%	0.0
Smokers' material and open flame	<b>(Total for whole group)</b>	<b>833</b>	<b>23.5%</b>	<b>59</b>	<b>33.5%</b>	<b>70.8</b>	<b>7</b>	<b>22.6%</b>	<b>8.4</b>
	Cigarette, pipe or cigar	206	5.8%	14	8.0%	68.0	2	6.5%	9.7
	Ashtray	22	0.6%	0	0.0%	0.0	0	0.0%	0.0
	Lighter or match	315	8.9%	17	9.7%	54.0	1	3.2%	3.2
	Lamp/lantern – non-electric	0	0.0%	0	0.0%	Undefined	0	0.0%	Undefined
	Candle	70	2.0%	7	4.0%	100.0	0	0.0%	0.0
	Cutting torch/welding equipment	12	0.3%	0	0.0%	0.0	0	0.0%	0.0
	Hot ashes/embers (non-smoking)	20	0.6%	0	0.0%	0.0	0	0.0%	0.0
	Torch (non-cutting/welding)	62	1.7%	11	6.3%	177.4	2	6.5%	32.3
	Unclassified/cannot be determined	126	3.6%	10	5.7%	79.4	2	6.5%	15.9
Exposure		726	20.5%	2	1.1%	2.8	0	0.0%	0.0
Miscellaneous igniting object		61	1.7%	0	0.0%	0.0	0	0.0%	0.0
Cannot be determined		647	18.2%	30	17.0%	46.4	22	71.0%	34.0
<b>TOTAL</b>		<b>3,549</b>	<b>100.0%</b>	<b>176</b>	<b>100.0%</b>	<b>49.6</b>	<b>31</b>	<b>100.0%</b>	<b>8.7</b>



Nearly one-fifth (**19%**) of fires were caused by **cooking equipment**.

An additional **24%** resulted from **smokers' materials and open flames**.

▶ **TABLE 7** shows human failing (e.g., asleep, distracted, impaired) was responsible for 33 percent of fires resulting in 49 percent of injuries and 26 percent of deaths. Other major acts/omissions were mechanical/electrical failure/malfunction (9 percent of fires, 15 percent of injuries, and 3 percent of deaths) and incendiary fires (9 percent of fires, 5 percent of injuries, and no deaths). The act or omission involved could not be determined in 17 percent of fires.

**Table 7.** All B.C. residential structure fires (2023) by act or omission

ACT OR OMISSION GROUPED	# FIRES	% FIRES	# INJURED	% INJURIES	INJURY RATE PER 1,000 FIRES	# DEATHS	% DEATHS	DEATH RATE PER 1,000 FIRES
Incendiary fires	301	8.5%	9	5.1%	29.9	0	0.0%	0.0
Misuse of source of ignition	238	6.7%	17	9.7%	71.4	3	9.7%	12.6
Misuse of material ignited	102	2.9%	10	5.7%	98.0	0	0.0%	0.0
Mechanical/electrical failure/malfunction	332	9.4%	27	15.3%	81.3	1	3.2%	3.0
Construction, design, or installation deficiency	53	1.5%	2	1.1%	37.7	0	0.0%	0.0
Misuse of equipment	99	2.8%	1	0.6%	10.1	0	0.0%	0.0
Human failing	1,158	32.6%	87	49.4%	75.1	8	25.8%	6.9
Vehicle accident	5	0.1%	2	1.1%	400.0	0	0.0%	0.0
Miscellaneous act or omission	651	18.3%	1	0.6%	1.5	1	3.2%	1.5
Cannot be determined	594	16.7%	20	11.4%	33.7	18	58.1%	30.3
Not applicable	16	0.5%	0	0.0%	0.0	0	0.0%	0.0
<b>TOTAL</b>	<b>3,549</b>	<b>100.0%</b>	<b>176</b>	<b>100.0%</b>	<b>49.6</b>	<b>31</b>	<b>100.0%</b>	<b>8.7</b>

▶ **TABLE 8** shows that just over one third (37 percent) of fires originated on the ground floor of the building (44 percent of injuries and 74 percent of deaths) and 15 percent commenced on the second storey (18 percent of injuries and 19 percent of deaths).

**Table 8.** All B.C. residential structure fires (2023) by level of fire origin

LEVEL OF ORIGIN GROUPED	# FIRES	% FIRES	# INJURED	% INJURIES	INJURY RATE PER 1,000 FIRES	# DEATHS	% DEATHS	DEATH RATE PER 1,000 FIRES
Basement, sub-basement	223	6.3%	14	8.0%	62.8	2	6.5%	9.0
Ground floor, grade level or grade to 3m	1,297	36.5%	77	43.8%	59.4	23	74.2%	17.7
Second storey or over 3m to 6m above grade	515	14.5%	31	17.6%	60.2	6	19.4%	11.7
Third storey or over 6m to 9m (20ft to 30ft) above grade	236	6.6%	17	9.7%	72.0	0	0.0%	0.0
Fourth to 12 <sup>th</sup> storey (inclusive) or over 9m to 36m (30ft to 120ft) above grade	317	8.9%	15	8.5%	47.3	0	0.0%	0.0
Over 12 <sup>th</sup> storey or over 36m (120ft)	35	1.0%	8	4.5%	228.6	0	0.0%	0.0
Crawl space, under structure	20	0.6%	2	1.1%	100.0	0	0.0%	0.0
Mezzanine (any floor)	5	0.1%	0	0.0%	0.0	0	0.0%	0.0
Roof level (includes concealed roof space, attic)	76	2.1%	5	2.8%	65.8	0	0.0%	0.0
Exposure fire	726	20.5%	1	0.6%	1.4	0	0.0%	0.0
Cannot be determined	99	2.8%	6	3.4%	60.6	0	0.0%	0.0
<b>TOTAL</b>	<b>3,549</b>	<b>100.0%</b>	<b>176</b>	<b>100.0%</b>	<b>49.6</b>	<b>31</b>	<b>100.0%</b>	<b>8.7</b>

▶ **TABLE 9** shows that approximately eight out of ten (82 percent) of all residential structure fires occurred in buildings four storeys high or lower (78 percent of injuries and 100 percent of deaths).

**Table 9.** All B.C. residential structure fires (2023) by building height

BUILDING HEIGHT GROUPED	# FIRES	% FIRES	# INJURED	% INJURIES	INJURY RATE PER 1,000 FIRES	# DEATHS	% DEATHS	DEATH RATE PER 1,000 FIRES
One storey above grade	1,126	31.7%	41	23.3%	36.4	15	48.4%	13.3
Two storeys above grade	1,084	30.5%	53	30.1%	48.9	14	45.2%	12.9
Three storeys above grade	420	11.8%	26	14.8%	61.9	2	6.5%	4.8
Four storeys above grade	269	7.6%	18	10.2%	66.9	0	0.0%	0.0
Five or six storeys above grade	223	6.3%	14	8.0%	62.8	0	0.0%	0.0
Seven to 12 storeys above grade	203	5.7%	13	7.4%	64.0	0	0.0%	0.0
13 storeys and over above grade	127	3.6%	11	6.3%	86.6	0	0.0%	0.0
Cannot be determined	97	2.7%	0	0.0%	0.0	0	0.0%	0.0
<b>TOTAL</b>	<b>3,549</b>	<b>100.0%</b>	<b>176</b>	<b>100.0%</b>	<b>49.6</b>	<b>31</b>	<b>100.0%</b>	<b>8.7</b>



Approximately 8 out of 10 (**82%**) of all residential structure fires occurred in buildings **4 storeys high or lower** and lead to **78%** of injuries and **100%** of deaths.



## INFLUENCE OF LIFE SAFETY SYSTEMS ON RESIDENTIAL FIRE OUTCOMES

► **TABLE 10** looks at the fire outcomes for residential use structure fires. Smoke alarm status represents those fires that had an alarm activated ('yes') or no confirmed working smoke alarm installed ('no'). Similarly, sprinkler status represents those fires that had confirmed sprinkler protection ('yes') or no sprinkler protection ('no'). According to this classification process, the 'other' category fires shown in these tables were neither 'yes' or 'no' for smoke alarm or for sprinkler protection. Where appropriate, 95 percent confidence intervals are included to show the estimated range around each rate and percentage.<sup>11</sup>

Table 10. All B.C. residential structure fires (2023) by life safety system

SMOKE ALARM	SPRINKLER	FIRES (% TOTAL)	INJURIES (% TOTAL)	INJURY RATE (95% CI)		DEATHS (% TOTAL)	DEATH RATE (95% CI)		% FIRE DEPARTMENT EXTINGUISH (95% CI)		% BEYOND ROOM OF ORIGIN (95% CI)	
Yes	Yes	607	44	72.5		0	0.0		11.0%		2.8%	
		17%	25%	51.1	93.9	0%	0.0	0.0	9.8%	12.3%	2.1%	3.5%
No	Yes	193	15	77.7		0	0.0		20.7%		4.1%	
		5%	9%	38.4	117.1	0%	0.0	0.0	17.8%	23.6%	2.7%	5.6%
Yes	No	758	44	58.0		5	6.6		38.8%		20.7%	
		21%	25%	40.9	75.2	16%	6.6	6.6	37.0%	40.6%	19.2%	22.2%
No	No	1,991	73	36.7		26	13.1		47.7%		57.9%	
		56%	41%	28.3	45.1	84%	13.1	13.1	46.6%	48.8%	56.8%	59.0%
<b>TOTAL</b>		<b>3,549</b>	<b>176</b>	<b>49.6</b>		<b>31</b>	<b>8.7</b>		<b>38.1%</b>		<b>37.6%</b>	
		<b>100%</b>	<b>100%</b>	<b>42.3</b>	<b>56.9</b>	<b>100%</b>	<b>8.7</b>	<b>8.7</b>	<b>37.3%</b>	<b>38.9%</b>	<b>36.8%</b>	<b>38.4%</b>

With a focus on the presence/absence of fire safety systems, relative to the base case (no smoke alarm and no sprinkler protection), the following trends can be seen in Table 10:

- Injury rates are higher in the presence of a working smoke alarm and no sprinkler protection, likely because residents attempted to control the fires themselves when the alarms activated.
- Death rates are significantly lower whenever the fires occurred in the presence of sprinkler protection.
- The presence of smoke alarms and/or sprinkler protection significantly reduced the dependence on the fire department to control the fires.
- The presence of smoke alarms and/or sprinkler protection significantly reduced the extent to which fires spread beyond the room of origin.

<sup>11</sup> Excluding 614 wildfires, reported amongst the 3,549 B.C. residential structure fires, reduces the percentage of B.C. residential structure fires with a working smoke alarm present from 38 percent to 47 percent.



## FIRE CASUALTIES: 5-YEAR TRENDS

From 2019 to 2023 there were 1,064 fire-related injuries reported to the OFC. During the same time, there was a total of 293 fire-related deaths reported.

▶ **TABLE 11** shows the annual casualties for all fires reported to the OFC. The average injury rate per 1,000 fires over this time was 23.2 and the average death rate was 6.4. The injury rate for fire/police was 1.3 and two fatalities for first responders in 2023.

**Table 11.** All B.C. fire casualties and police/fire casualties (2019-2023).

YEAR	ALL CASUALTIES							FIRE/POLICE			
	# FIRES	# INJURIES	% INJURIES	INJURY RATE	# DEATHS	% DEATHS	DEATH RATE	# INJURIES	INJURY RATE	# DEATHS	DEATH RATE
2019	7,025	207	19.5%	29.5	28	9.6%	4.0	10	1.4	0	0.0
2020	7,314	185	17.4%	25.3	56	19.1%	7.7	12	1.6	0	0.0
2021	9,499	199	18.7%	20.9	60	20.5%	6.3	11	1.2	0	0.0
2022	9,718	211	19.8%	21.7	87	29.7%	9.0	15	1.5	0	0.0
2023	12,342	262	24.6%	21.2	62	21.2%	5.0	10	0.8	2	0.2
<b>TOTAL</b>	<b>45,898</b>	<b>1,064</b>	<b>100.0%</b>	<b>23.2</b>	<b>293</b>	<b>100.0%</b>	<b>6.4</b>	<b>58</b>	<b>1.3</b>	<b>2</b>	<b>0.0</b>

▶ **TABLE 12** shows all injuries and police/fire injuries by injury seriousness for all fires reported to the OFC between 2019 and 2023. The average rate for minor injuries over this time was 10.8 per 1,000 fires, with corresponding rates of 8.0 for light injuries and 4.4 for serious injuries. The rates for fire/police injuries were lower and the rate of serious injuries for this group was 0.2 per 1,000 fires.

**Table 12.** All B.C. fire casualties and police/fire casualties (2019-2023) by injury seriousness

YEAR	ALL CASUALTIES							FIRE/POLICE					
	# FIRES	# MINOR INJURIES	RATE MINOR INJURIES	# LIGHT INJURIES	RATE LIGHT INJURIES	# SERIOUS INJURIES	RATE SERIOUS INJURIES	# MINOR INJURIES	RATE MINOR INJURIES	# LIGHT INJURIES	RATE LIGHT INJURIES	# SERIOUS INJURIES	RATE SERIOUS INJURIES
2019	7,025	90	12.8	79	11.2	38	5.4	6	0.9	3	0.4	1	0.1
2020	7,314	83	11.3	78	10.7	24	3.3	5	0.7	7	1.0	0	0.0
2021	9,499	98	10.3	63	6.6	38	4.0	5	0.5	5	0.5	1	0.1
2022	9,718	84	8.6	72	7.4	55	5.7	11	1.1	1	0.1	3	0.3
2023	12,342	139	11.3	77	6.2	46	3.7	6	0.5	1	0.1	3	0.2
<b>TOTAL</b>	<b>45,898</b>	<b>494</b>	<b>10.8</b>	<b>369</b>	<b>8.0</b>	<b>201</b>	<b>4.4</b>	<b>33</b>	<b>0.7</b>	<b>17</b>	<b>0.4</b>	<b>8</b>	<b>0.2</b>

**Note:** 'Minor' injuries required less than one day in hospital or off work, 'light' injuries required one to two days hospital and/or one to 15 days of work, and 'serious' injuries required three or more days in hospital and/or more than 15 days off work.

► **TABLE 13** shows the relative frequency of fire casualties by age group for all fires submitted to the OFC between 2019 and 2023. 49 percent of injuries and 31 percent of deaths were classified as ‘missing’ the age information, this table also corrects the percentages within each age group to remove the influence of unknowns. These percentages are then compared (for deaths) to the overall population size of each age group in British Columbia, using Census data. This shows that citizens who are aged 65 and over are overrepresented with respect to frequency of death by fire. Those 80 and over were 2.2 times greater in terms of the death to Canadian population ratio.

**Table 13.** All B.C. fire casualties (2019-2023) by age group

AGE GROUP	ALL FIRES				CORRECTED (REMOVING UNKNOWN)		% POPULATION	DEATH: POPULATION RATIO
	# INJURIES	% INJURIES	# DEATHS	% DEATHS	% INJURIES	% DEATHS		
Under five	16	1.5%	2	0.7%	3.0%	1.0%	4.34%	0.2
5 to 9	10	0.9%	1	0.3%	1.8%	0.5%	4.88%	0.1
10 to 14	7	0.7%	2	0.7%	1.3%	1.0%	5.11%	0.2
15 to 19	10	0.9%	2	0.7%	1.8%	1.0%	5.07%	0.2
20 to 24	19	1.8%	10	3.4%	3.5%	4.9%	5.89%	0.8
25 to 29	38	3.6%	8	2.7%	7.0%	3.9%	6.74%	0.6
30 to 34	60	5.6%	18	6.1%	11.1%	8.9%	7.17%	1.2
35 to 39	43	4.0%	11	3.8%	7.9%	5.4%	7.07%	0.8
40 to 44	55	5.2%	15	5.1%	10.1%	7.4%	6.39%	1.2
45 to 49	40	3.8%	9	3.1%	7.4%	4.4%	6.20%	0.7
50 to 54	49	4.6%	16	5.5%	9.0%	7.9%	6.58%	1.2
55 to 59	39	3.7%	15	5.1%	7.2%	7.4%	7.13%	1.0
60 to 64	42	3.9%	24	8.2%	7.7%	11.8%	7.10%	1.7
65 to 69	29	2.7%	25	8.5%	5.4%	12.3%	6.39%	1.9
70 to 74	17	1.6%	13	4.4%	3.1%	6.4%	5.45%	1.2
75 to 79	10	0.9%	10	3.4%	1.8%	4.9%	3.62%	1.4
80 and over	58	5.5%	22	7.5%	10.7%	10.8%	4.87%	2.2
Unknown	522	49.1%	90	30.7%	—	—	—	—
<b>TOTAL</b>	<b>1,064</b>	<b>100.0%</b>	<b>293</b>	<b>100.0%</b>	—	—	—	—

**Note:** B.C. population estimates derived from the 2021 Census Profile, accessed at: <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E>



## FIRE-RELATED CASUALTIES: 2023 CASUALTY BEHAVIOUR

The following tables detail the information recorded about the fire-related casualties resulting from residential structure fires reported to the OFC in 2023 (resulting in 176 injuries and 31 deaths).

► **TABLE 14** shows the conditions of casualties from 2023 residential structure fires. Almost one-quarter of injuries (26 percent) were unknown/unclassified, and 30 percent were awake with no impairment at the time of injury. Over 58 percent of deaths were unknown/unclassified, and one-fifth (19 percent) were asleep at the time of the fire.

**Table 14.** All B.C. residential structure fire casualties (2023) by condition of casualty

CONDITION OF CASUALTY	# INJURIES	% INJURIES	# DEATHS	% DEATHS
Awake or no physical/mental impairment	53	30.1%	0	0.0%
Too young to react to fire emergency	0	0.0%	0	0.0%
Asleep at time of fire	31	17.6%	6	19.4%
Bedridden or other physical disability	0	0.0%	3	9.7%
Mental disability	3	1.7%	0	0.0%
Impairment by alcohol, drugs or medication	27	15.3%	4	12.9%
Under restraint or detention	0	0.0%	0	0.0%
Unknown	45	25.6%	14	45.2%
Unclassified	17	9.7%	4	12.9%
<b>TOTAL</b>	<b>176</b>	<b>100.0%</b>	<b>31</b>	<b>100.0%</b>

► **TABLE 15** shows the actions of casualties from 2023 residential structure fires. Over 43 percent of injuries were unknown/unclassified, and 24 percent voluntarily entered/remained in the fire area, and 18 percent were injured while attempting to escape. Almost three quarters of deaths (71 percent) were unknown/unclassified, and 7 percent died attempting to escape.

**Table 15.** All B.C. residential structure fire casualties (2023) by action of casualty

ACTION OF CASUALTY	# INJURIES	% INJURIES	# DEATHS	% DEATHS
Injured while attempting to escape	31	17.6%	2	6.5%
Over-exertion, heart attack	1	0.6%	0	0.0%
Voluntarily entered/remained – rescue	1	0.6%	0	0.0%
Voluntarily entered/remained – firefighting	34	19.3%	1	3.2%
Voluntarily entered/remained – save property	7	4.0%	0	0.0%
Loss of judgement/panic	13	7.4%	0	0.0%
Received delayed warning	2	1.1%	1	3.2%
Did not act	10	5.7%	5	16.1%
Unknown	53	30.1%	20	64.5%
Unclassified	24	13.6%	2	6.5%
<b>TOTAL</b>	<b>176</b>	<b>100.0%</b>	<b>31</b>	<b>100.0%</b>



▶ **TABLE 16** shows the cause of injuries residential structure fires. Over a quarter of deaths resulted from smoke inhalation and 16 percent resulted from burns. Almost 55 percent of deaths were unknown/unclassified.

**Table 16.** All B.C. residential structure fire casualties (2023) by cause of injury

CAUSE OF INJURY	# INJURIES	% INJURIES	# DEATHS	% DEATHS
Smoke inhalation	104	59.1%	8	25.8%
Burns – fire/flames	46	26.1%	5	16.1%
Burns – hot substances	14	8.0%	0	0.0%
Struck by objects/persons	1	0.6%	0	0.0%
Falls	4	2.3%	1	3.2%
Explosives	0	0.0%	0	0.0%
Electrical current	0	0.0%	0	0.0%
Unknown	2	1.1%	17	54.8%
Unclassified	5	2.8%	0	0.0%
<b>TOTAL</b>	<b>176</b>	<b>100.0%</b>	<b>31</b>	<b>100.0%</b>

▶ **TABLE 17** shows the cause of failure to escape from residential structure fires. Almost 95 percent of injuries and 74 percent of deaths were classified as unknown/unclassified with respect to the cause of failure to escape. A further 10 percent of deaths were classified as trapped by fire/smoke.

**Table 17.** All B.C. residential structure fire casualties (2023) by cause of failure to escape

CAUSE OF FAILURE TO ESCAPE	# INJURIES	% INJURIES	# DEATHS	% DEATHS
Trapped by fire/smoke – vertical openings	1	0.6%	2	6.5%
Trapped by fire/smoke – horizontal openings	2	1.1%	1	3.2%
High flame spread of combustible surfaces	2	1.1%	4	12.9%
Building collapse	0	0.0%	0	0.0%
Falling debris	1	0.6%	0	0.0%
Explosion	1	0.6%	0	0.0%
Exit locked/obstructed	3	1.7%	1	3.2%
Outdoor fire	0	0.0%	0	0.0%
Unknown	71	40.3%	22	71.0%
Unclassified	95	54.0%	1	3.2%
<b>TOTAL</b>	<b>176</b>	<b>100.0%</b>	<b>31</b>	<b>100.0%</b>

## Appendix A – 2023 Emerging Issues

As referenced under the report titled Focus—Emerging Issues and Strategic Response, the Office of the Fire Commissioner (OFC) has identified and is responding to three emerging issues:

- ▶ wildland urban interface (WUI) fires.
- ▶ rechargeable battery fires (e.g., lithium-ion).
- ▶ encampment and vehicle fires.

A collaborative, all-of-government approach is required to address these issues, which are complex due to the resources required, legislation and jurisdictional overlap.

## WILDFIRE STRUCTURE LOSSES

Trend: Nationally, structure losses due to wildfire have been increasing quickly and British Columbia has followed that trend. Wildfire seasons are lasting longer and consuming more resources. These fires impact communities and the province in firefighting costs, insurance, mental and physical health, along with vehicle, residential, and commercial structure losses.

### STRUCTURES:

► **Figure 1** reflects that in 2013, there were 21 reported WUI fires in the province. In 2023, there were 999 reported WUI fires in FIRES.<sup>12</sup> In 2023, these interface fires caused an estimated \$880 million in damages to insured property, while the total value that was at risk was just under an estimated one billion dollars.

**Figure 1** – B.C. WUI fires 2013 – 2023.

YEAR	# FIRES	% FIRES	# INJURIES	# DEATHS	% INJURIES	% DEATHS	CONTENTS LOSS	STRUCTURE LOSS	TOTAL LOSS	TOTAL VALUE AT RISK
2013	21	1.23%	—	—	0%	0%	\$3,001	\$2,001	\$5,002	\$4,616,102
2014	32	1.87%	—	—	0%	0%	\$155,000	\$339,000	\$494,000	\$5,661,700
2015	26	1.52%	—	—	0%	0%	\$15,000	\$25,000	\$40,000	\$830,000
2016	8	0.47%	—	—	0%	0%	—	\$80,500	\$80,500	\$1,480,000
2017	31	1.81%	—	—	0%	0%	\$961,800	\$1,229,500	\$2,191,300	\$16,748,533
2018	23	1.35%	—	—	0%	0%	—	\$6,100	\$6,100	26,771,600
2019	36	2.11%	1	0	100%	0%	\$106,001	\$764,001	\$870,002	5,618,102
2020	43	2.51%	—	—	0%	0%	\$933,007	\$1,345,133	\$2,278,140	10,318,107
2021	429	25.09%	0	2	0%	100%	\$93,998,600	\$162,479,185	\$256,477,785	342,094,499
2022	62	3.63%	—	—	0%	0%	\$2,085,005	\$5,692,157	\$7,777,162	30,151,161
2023	999	58.42%	—	—	0%	0%	\$292,360,378	\$586,916,268	\$879,276,646	999,323,248
<b>TOTAL</b>	<b>1,710</b>	<b>100.00%</b>	<b>1</b>	<b>2</b>	<b>100.0%</b>	<b>100.0%</b>	<b>\$390,617,792</b>	<b>\$758,878,845</b>	<b>\$1,149,496,637</b>	<b>\$1,443,613,052</b>

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**12** The OFC is mandated by the Fire Services Act to collect and disseminate information on fires within B.C. for fire prevention. OFC staff and fire departments use the FIRES database to manually and electronically submit fire report information in a timely manner, which allows the OFC to consolidate and disseminate data providing accurate information on trends and statistics to all stakeholders and the public.

## PROPERTIES AND CLASSIFICATION:

Figure 2 reflects the broad range of properties that were either destroyed or partly destroyed by WUI fires in 2023. Over half of the properties (578) were classified as residential and one-third were classified as vehicle, outdoor or person.

Figure 2 – Properties by classification WUI fires destroyed, or party destroyed by WUI fires in 2023.

PROPERTY CLASSIFICATION	# FIRES	% FIRES	# INJURIES	# DEATHS	CONTENTS LOSS	PROPERTY LOSS	TOTAL LOSS	TOTAL VALUE AT RISK
Assembly – Education institution (non-residential)	1	0.10%	—	—	\$154,000	\$220,000	374,000	\$83,980
Assembly – Food or beverage establishment	1	0.10%	—	—	\$8,000,000	\$12,000,000	\$20,000,000	\$20,000,000
Assembly – Recreation, sports facility, sports club, social club	3	0.30%	—	—	\$1,550,000	\$2,650,000	\$4,200,000	\$4,200,000
Business use – Office building	3	0.30%	—	—	\$2,500,000	\$3,900,000	\$6,400,000	\$6,400,000
Commercial/mercantile use	4	0.40%	—	—	\$3,860,000	\$5,620,000	\$9,480,000	\$21,990,000
Commercial/mercantile use – Department store, variety store	1	0.10%	—	—	\$20,000	\$20,000	\$40,000	—
Manufacturing use – Industrial manufacturing	5	0.50%	—	—	\$5,670,000	\$8,450,000	\$14,120,000	\$14,120,000
Other special use – Building/structure unclassified (describe)	4	0.40%	—	—	\$50,000	\$263,000	\$313,000	\$2,020,000
Other special use – Communications	1	0.10%	—	—	\$75,000	\$150,000	\$225,000	\$225,000
Other special use – Farm or agricultural use	11	1.10%	—	—	\$3,575,860	\$6,269,300	\$9,845,160	\$9,862,140
Other special use – Mine	1	0.10%	—	—	\$1,000,000	\$1,800,000	\$2,800,000	\$2,800,000
Other special use – Not applicable (e.g. vehicle, outdoor, person)	344	34.43%	—	—	\$815,908	\$33,918,414	\$34,734,322	\$51,849,617
Other special use – Parks, (federal, provincial or city) (includes historic sites)	1	0.10%	—	—	\$100,000	\$500,000	\$600,000	\$600,000
Other special use – Utility	1	0.10%	—	—	\$2,000,000	\$3,500,000	\$5,500,000	\$5,000,000
Residential use – Camp site/RV park	4	0.40%	—	—	\$4,792,000	\$7,094,000	\$11,886,000	\$11,886,000
Residential use – Hotel, motel, lodge, hostel, boarding house, dormitory	4	0.40%	—	—	\$1,050,000	\$63,750,000	\$64,800,000	\$87,800,000
Residential use – Residential – row, garden, town housing, condominium	5	0.50%	—	—	\$16,016,000	\$22,884,000	\$38,900,000	\$38,900,000
Residential use – Residential – single detached	578	57.86%	—	—	\$177,746,610	\$314,079,054	\$491,825,664	\$557,062,902
Residential use – Residential – apartment	7	0.70%	—	—	\$58,200,000	\$91,200,000	\$149,400,000	\$149,400,000
Residential use – Residential – duplex, 3-plex, 4-plex	3	0.30%	—	—	\$1,800,000	\$3,280,000	\$5,080,000	\$5,080,000
Residential use – Residential – mobile, home/trailer park	13	1.30%	—	—	\$2,735,000	\$4,788,500	\$7,523,500	\$8,813,509
Storage use – Industrial storage, facility, bulk storage tanks	4	0.40%	—	—	\$650,000	\$580,000	\$1,230,000	\$1,230,000
<b>GRAND TOTAL</b>	<b>999</b>	<b>100.00%</b>	<b>—</b>	<b>—</b>	<b>\$292,360,378</b>	<b>\$586,916,268</b>	<b>\$879,276,646</b>	<b>\$999,323,248</b>

## FIRE SERVICES THAT RESPONDED TO WILDLAND URBAN INTERFACE FIRES IN 2023:

➤ **Figure 3** reflects the type of fire services that responded to WUI fires: volunteer 44 percent, career and volunteer 38 percent and no fire service 7 percent.

**Figure 3** – Fire Services that responded to WUI fires in 2023.

FIRE SERVICE	# FIRES	% FIRES	# INJURIES	# DEATHS	% INJURIES	% DEATHS	CONTENTS LOSS	PROPERTY LOSS	TOTAL LOSS	TOTAL VALUE AT RISK
Career fire department only	14	1.40%	—	—	0%	0%	—	\$32,001	\$32,001	\$3,068,000
Composite – career and volunteer/paid-on-call fire department	381	38.14%	—	—	0%	0%	\$32,611,285	\$56,350,665	\$88,961,950	\$123,828,245
Fire service – contract to others	13	1.30%	—	—	0%	0%	\$1,479,250	\$2,674,900	\$4,154,150	\$2,161,075
Fire service – unclassified	71	7.11%	—	—	0%	0%	\$23,642,300	\$42,319,000	\$65,961,300	\$77,236,300
Forestry/renewable resources/wildland	2	0.20%	—	—	0%	0%	—	\$580,000	\$580,000	—
No fire service	79	7.91%	—	—	0%	0%	\$22,196,200	\$57,460,000	\$79,656,200	\$106,767,659
Volunteer/paid-on-call fire department only	439	43.94%	—	—	0%	0%	\$212,431,342	\$427,499,702	\$639,931,044	\$686,261,969
<b>GRAND TOTAL</b>	<b>999</b>	<b>100.00%</b>	<b>—</b>	<b>—</b>	<b>0%</b>	<b>0%</b>	<b>\$292,360,378</b>	<b>\$586,916,268</b>	<b>\$879,276,646</b>	<b>\$999,323,248</b>

#### METHOD OF FIRE CONTROL:

➤ **Figure 4** represents how fire services in British Columbia battled the WUI fires, with 44 percent of the fires fought with an application of water, while 54% burned out.

**Figure 4** – Method of Fire Control, how WUI fires were battled in 2023.

METHOD OF FIRE CONTROL	# FIRES	% FIRES	# INJURIES	# DEATHS	% INJURIES	% DEATHS	CONTENTS LOSS	PROPERTY LOSS	TOTAL LOSS	TOTAL VALUE AT RISK
Hand held extinguisher	1	0.10%	—	—	0.0%	0.0%	—	—	—	—
Makeshift firefighting aids	3	0.30%	—	—	0.0%	0.0%	—	\$1,000	\$1,000	\$442,000
Fire Department – water application	439	43.94%	—	—	0.0%	0.0%	\$32,791,387	\$56,600,067	\$89,391,454	\$129,278,642
Fire Department – other than water	3	0.30%	—	—	0.0%	0.0%	\$4,300	\$10,200	\$14,500	\$603,000
Fixed system other than sprinklers	6	0.60%	—	—	0.0%	0.0%	\$100	\$185,100	\$185,200	\$3,376,200
Burned out	540	54.05%	—	—	0.0%	0.0%	\$259,564,591	\$530,012,901	\$789,577,492	\$862,797,906
Miscellaneous method of fire control/extinguishment	5	0.50%	—	—	0.0%	0.0%	—	\$55,000	\$55,000	\$1,010,000
Cannot be determined	2	0.20%	—	—	0.0%	0.0%	—	\$52,000	\$52,000	\$1,815,500
<b>GRAND TOTAL</b>	<b>999</b>	<b>100.00%</b>	<b>—</b>	<b>—</b>	<b>0.0%</b>	<b>0.0%</b>	<b>\$292,360,378</b>	<b>\$586,916,268</b>	<b>\$879,276,646</b>	<b>\$999,323,248</b>

To address this concerning uptick in interface fires, the province is taking the following action:

- **All-of-government approach:** interagency coordination and engagement, e.g., data sharing.
- **Fire services response capacity:** expanding Provincial sustained response planning.
- **Volunteer firefighting:** further developing rural/remote volunteer capacity for response.
- **Community risk-reduction initiatives:** supporting FireSmart engagement with homeowners and local governments, supporting evacuation planning.

## RECHARGEABLE BATTERY FIRES

Figure 5 reflects the significant costs associated to rechargeable battery fires in 2023 – with over \$3.3 million in total property loss and over \$848 million of property at risk that was associated by these types of fires. We have seen worldwide, as rechargeable battery usage increases, so do the number of fires involving these batteries, the devices they power (e.g., micromobility devices, vehicles, phones) and the areas where these devices are housed (e.g., garages, apartments). Fires involving rechargeable batteries pose significant challenges to fire services due to the toxic smoke, amount of stored energy within the batteries, and the difficulty in extinguishing the fires due to thermal runaway<sup>13</sup>. The water that extinguishes these fires may also contaminate the environment.

In recognition of this growing challenge, the OFC is working on fire safety education resources to support and promote the safe use, storage and maintenance of rechargeable batteries. The OFC is also working with fire safety education partners to develop messaging and best practices around rechargeable battery safety and education. These resources will be made available to support fire services around the province in their community education efforts and will be shared publicly by the OFC.

In addition, a new code has been added to the OFC reporting system to track rechargeable battery fires. This will enable data analysis that will inform fire services’ response and public education messaging.

Figure 5 – Igniting object associated with the source of ignition associated with a structure and a battery.

2023 – IGNITING OBJECT — STRUCTURE FIRES	# FIRES	% FIRES	# INJURIES	# DEATHS	% INJURIES	% DEATHS	CONTENTS LOSS	PROPERTY LOSS	TOTAL LOSS	TOTAL VALUE AT RISK
Rechargeable battery (all types)	53	75.71%	4	0	100.0%	0	\$804,300	\$2,457,150	\$3,261,450	\$847,021,350
Rechargeable battery charger/rectifier (all types)	17	24.29%	—	—	0.0%	0	\$9,000	\$102,270	\$111,270	\$1,518,270
<b>GRAND TOTAL</b>	<b>70</b>	<b>100.00%</b>	<b>4</b>	<b>0</b>	<b>100.0%</b>	<b>0</b>	<b>\$813,000</b>	<b>\$2,599,420</b>	<b>\$3,372,720</b>	<b>\$848,539,620</b>

## ENCAMPMENT AND VEHICLE FIRES

Most communities in British Columbia and across Canada are experiencing an increasing number of people experiencing homelessness. Some of these individuals shelter in isolation, while others form encampments and/or shelter in vehicles. Open flame, generally a lockable lighter, such as a butane torch lighter, is used in some of these circumstances for cooking, keeping warm and drug use. The combination of an increasing population and the use of open flames has resulted in an increase in fires, fire related injuries and fire related death.

As noted earlier in this report, a cross-ministry Strategic Fire Prevention Group was formed to prevent fires and enhance fire safety in encampments of people experiencing homelessness. To reduce the risk of fire to this population and provide support, fire life safety equipment, including fire retardant tarps, fire extinguishers, fire blankets, hand and foot warmers and carbon monoxide (CO) detectors were distributed to 23 communities between January and April 2023. In early 2024, working with the OFC, the Ministry of Social Development and Poverty Reduction distributed fire-retardant tarps, fire extinguishers, CO detectors, solar powered lanterns and hand warmers in select communities.

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**13** Thermal runaway is one of the primary risks related to lithium-ion batteries. It is a phenomenon in which the lithium-ion cell enters an uncontrollable, self-heating state.





Office of the  
Fire Commissioner

