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 Building Nunavut Together
 Nunavut iluqatigiingniq
 Bâtir le Nunavut ensemble



DEPARTMENT OF COMMUNITY AND GOVERNMENT SERVICES
 NUNAVUT FIRE MARSHAL'S OFFICE
 2021 ANNUAL REPORT



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Message from the Honourable Minister David Joanasie



As the Minister responsible for the Department of Community and Government Services, I am pleased to present the Nunavut Fire Marshal's 2021 Annual Report.

The Nunavut Fire Marshal's Office promotes fire safety and helps build capacity at the community level. The Nunavut Fire Marshal's Office provides firefighters with training, tools, and resources to effectively respond to fire emergencies. Equipment and fire trucks are being upgraded or replaced as needed and the Nunavut Fire Marshal's Office will continue to increase support to municipalities for fire prevention education.

The prevention and suppression of fires is critical in avoiding loss of life, injury, and damage in our communities. These losses place a burden on

communities, families, and government, and are often preventable. We are working to help provide firefighters with training, tools, and funding resources to effectively respond to fire emergencies. Public awareness and education initiatives are key to ensuring that Nunavummiut have the right precautionary measures to make fire-safe choices in their homes, schools, and workplaces.

For the sacrifices our fire fighters made over this past year during a tough pandemic, for the service they continually give our communities, as their dedication keeps Nunavummiut safe, I would like to thank all our fire fighters and first responders, for their service, courage, and strength.

Hon. David Joanasie

Minister, Community and Government Services

Message from the Fire Marshal

The Nunavut Fire Marshal's Office's 2021 Annual Report provides fire-related statistics for Nunavummiut and updated information on the Nunavut Fire Protection Strategy. Statistics such as estimates of fire loss damages and value at-risk amounts are used to compare past performance in reducing fire losses and guiding the development of fire prevention and public education programs that help address fire safety issues.

The Nunavut Fire Marshal's Office helps provide a safe environment for Nunavummiut through firefighter training, fire investigations, fire and life safety inspections, fire prevention public education, and construction plan reviews. Funding is provided to acquire and maintain the critical equipment and supplies for our Hamlet and City fire departments.

Firefighting and fire prevention activities continue to be the priority of local Fire Departments across Nunavut. Firefighters play an important role in keeping their communities as safe as possible, but we all share the responsibility to support their efforts.

We are committed to continuing our fire prevention efforts with a focus on reducing deaths, injuries and property losses caused by fire.

I ask all residents of Nunavut to practise fire safety in their communities. This will help eliminate fire and life safety hazards to all Nunavummiut.



Ted Clouter, CD, CFEI
Nunavut Fire Marshal

2021 Annual Report Highlights of the Nunavut Fire Marshal's Office

2021 ANNUAL REPORT

HIGHLIGHTS OF THE NUNAVUT FIRE MARSHAL'S OFFICE

662

Fire and Life Inspections
Completed



120

Fires reported in Nunavut

37

Firefighter training courses



256

Fire fighters received training
throughout Nunavut

24%

Decrease in reported fires in the
past decade



75%

Decrease in fire related injuries
in the last decade

NUNAVUT FIRE MARSHAL'S OFFICE | 2021 ANNUAL REPORT

COVID-19 Operational Implications

The Covid-19 pandemic had significant human and financial impacts globally. Throughout 2021, under Covid-19 considerations, the Nunavut Fire Marshal's Office (NFMO) continued to provide services such as: critical Fire and Life Safety Inspections, Fire Investigations, and Firefighter Training. The pandemic had an impact on the services provided by the NFMO; a priority approach was taken to ensure the safety of Nunavummiut. For example, Fire and Life Safety Inspections focused first on critical infrastructure and buildings remaining open to serve the public throughout the pandemic. Planning continued for the priority approach into 2021.

Training, inspections, and investigations were completed ensuring that all personnel maintained the safety guidelines outlined per the Covid-19 restrictions implemented by the Department of Health and the Workers' Safety & Compensation Commission (WSCC).

2.0 Overview of the Nunavut Fire Marshal's Office

The Nunavut Fire Marshal's Office (NFMO) operates under the authority of the Fire Safety Act. The NFMO's mission is to provide expertise, leadership, and guidance in the preservation of life and property, and the reduction and elimination of hazards contributing to fire loss damage as well as helping to provide a safe environment for Nunavummiut.

The NFMO works closely with multiple groups, continuously building partnerships among stakeholders at the community, territorial, national, and international level. These relationships foster an environment for the NFMO to give advice and guidance to organizations regarding the facilitation of fire and life safety within the territory of Nunavut.

Throughout 2021, the NFMO performed fire and life safety inspections, conducted firefighter training, delivered, distributed fire prevention public education resources, and provided advice and guidance to stakeholders. It also provided resources to support fire services, supported and conducted fire investigations, maintained fire incident statistics and trends.

3.0 Fire and Life Safety Inspections

In the past year, 662 Fire and Life Safety Inspections were completed throughout Nunavut. Reports were issued to the buildings' owners, reporting deficiencies which required correction to adhere to the National Fire Code of Canada. Fire and Life Safety Inspections were conducted on buildings in the territory, with priority given to buildings which pose a high risk to life safety, as well as critical infrastructure. The statistics pertaining to the types of inspections conducted are illustrated in Figure 1 on the following page.

Figure 1– Fire and Life Safety Inspections by Building Type

| Fire and Life Safety Inspections by Building Type | |
|---|---------------------------------------|
| Building Type | Percentage of Inspections (662 total) |
| Assembly (schools, day-cares, community halls) | 52% |
| Institutional (health centres, care facilities, jails) | 18% |
| Residential (apartment building common areas) | 16% |
| Business and Personal Services (offices) | 4% |
| Mercantile (stores, retail outlets) | 5% |
| Industrial (manufacturing, gas bar, power plants) | 5% |
| Total | 100% |

4.0 Stakeholder Collaboration

One of the key activities of the Nunavut Fire Marshal’s Office (NFMO) is to act as a resource for its partners and stakeholders with whom it interacts. Staff at all levels within the NFMO provide information, interpretation of codes, and both advice and guidance regarding all aspects of building and fire and life safety.

The NFMO regularly collaborates with territorial counterparts from the Departments of Justice, Health, Education, Family Services, as well as the Nunavut Housing Corporation, the Royal Canadian Mounted Police (RCMP) and Nunavut hamlets. The partnership with each of these organizations plays a crucial role on the success of the NFMO mission. The NFMO continues to foster and develop relationships with the fire departments within Nunavut through territorial and community-based training courses facilitated by the Nunavut Municipal Training Organization.

5.0 Associations and Partnerships

The Nunavut Fire Marshal’s Office (NFMO) is an active member of several associations which enable the territory to remain at the forefront of *fire protection*, keeping abreast with current information and training through multiple platforms. These associations are further explained below:

5.1 Council of Canadian Fire Marshals and Fire Commissioners

The Council of Canadian Fire Marshals and Fire Commissioners (CCFMFC) is a recognized and trusted source of national leadership and knowledge for fire safety issues and in support of emergency resilience across Canada. The council applies a cohesive and consistent national approach to fire services issues and concerns. It is comprised of representatives from each of the provinces, territories, and the Department of National Defence.

5.2 National Fire Protection Association

The National Fire Protection Association (NFPA) is a global self-funded non-profit organization, established in 1896, devoted to eliminating death, injury, property, and economic loss due to fire hazards. Their mission is to help save lives and reduce loss with information, knowledge, and passion. The NFPA delivers information and knowledge through more than 300 consensus codes and standards,

research, training, education, outreach, and advocacy; and by partnering with others who share an interest in furthering their mission.

5.3 Canadian Fire Safety Association

The Canadian Fire Safety Association (CFSA) is a non-profit organization established in 1971, to promote fire safety using seminars, safety training courses, informative newsletters, and scholarships.

The CFSA is organized to promote the science and improve the methods of fire protection and prevention, to obtain and circulate information on these subjects, and to secure the understanding and cooperation of the Canadian public in establishing proper safeguards against loss of life and property by fire.

5.4 Aboriginal Firefighters Association of Canada

The Aboriginal Firefighters Association of Canada (AFAC) was founded in 1991 as a united body of regional Indigenous emergency and fire service organizations from across Canada. The Association was established to assist in the exchange of information, and support the implementation of services, promote national standards in fire prevention, suppression, and education within Indigenous communities in Canada.

5.5 Canadian Association of Fire Chiefs

Founded in 1909, the Canadian Association of Fire Chiefs (CAFC) is an independent, non-profit organization with a voluntary membership representing fire departments across the country. CAFCs mission is to connect Canada's provincial, territorial, and allied associations and external stakeholders for the advancement of public and firefighter safety.

6.0 Fire Protection Strategy

Members of the Nunavut Fire Marshal's Office (NFMO) completed fire department equipment audits. This was completed in addition to receiving and verifying monthly reports from fire departments to inventory and record the condition of the equipment that the department has received. The funding for equipment provided was obtained through the Public Fire Safety and Community Fire Department Contribution Policy. Audits and reports also documented fire hall and fire truck conditions which aided in determining the overall status and operational readiness of fire departments and whether additional equipment was required. The following are examples of the types of equipment provided:



- Replacement of worn/damaged firefighter protective clothing (bunker gear, gloves, boots, helmets, etc.)



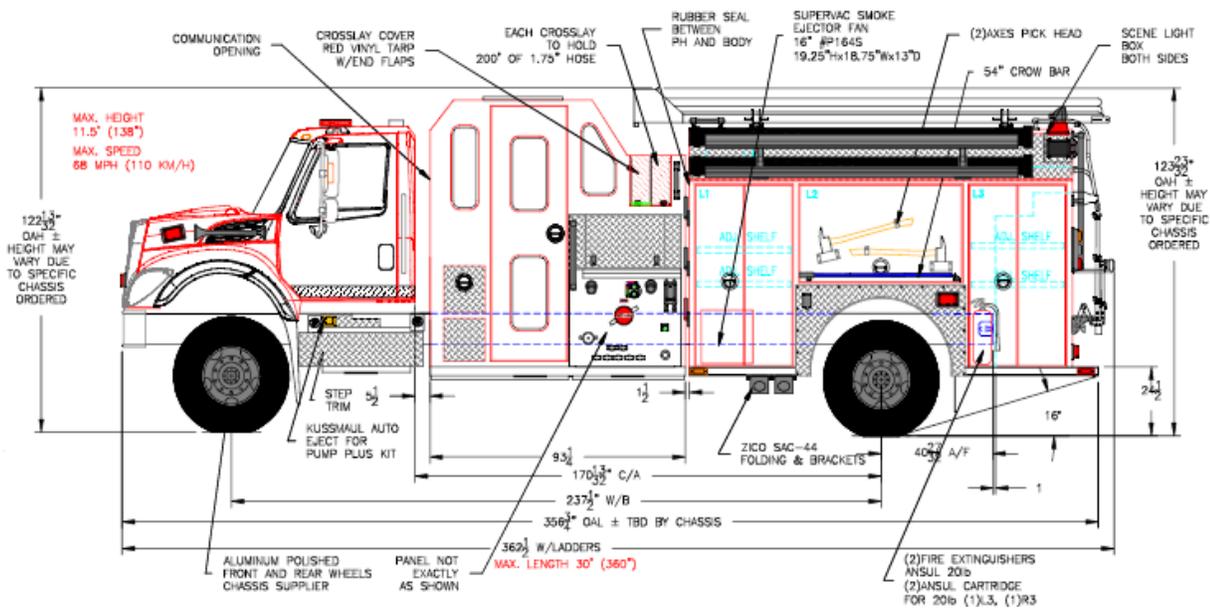
- Replacement of worn/damaged firefighter equipment (hoses, gated wyes, ladders, valves, axes, and nozzles, etc.)



- Replacement of damaged/unserviceable radios, pagers, and flashlights
- Replacement and service maintenance of compressor systems

6.1 Fire Truck Replacement

The NFMO supported the Territories Fire Truck Replacement Program. The annual capital budget for the



truck replacement is currently \$500,000.00 per apparatus. Fire trucks in Nunavut are certified to Underwriter Laboratories of Canada Standard S-515 with an expected life span of 20 years. In 2020, fire trucks were purchased for the communities of Naujaat and Gjoa Haven.

Figure 2– Fire Truck Replacement Specifications

Pictured Below: The Hamlets of Kugaaruk and Coral Harbour fire trucks received in 2021



6.2 Fire Truck Replacement Schedule

A replacement schedule, through to 2028, has been developed by Community and Government Services for all community fire trucks based primarily on age and condition. A preview of the of this schedule can be seen in Figure 3 below.

Figure 3– Fire Truck Replacement Schedule Preview

| Community | Year |
|--------------------|------|
| Kugaaruk | 2021 |
| Coral Harbour | 2021 |
| Sanikiluaq | 2023 |
| Igloolik | 2023 |
| Resolute Bay | 2023 |
| Clyde River | 2023 |
| Qikiqtarjuaq | 2024 |
| Arctic Bay | 2024 |
| Sanirajak | 2025 |
| Taloyoak | 2025 |
| Chesterfield Inlet | 2026 |
| Whale Cove | 2026 |
| Grise Fiord | 2027 |
| Pond Inlet | 2027 |
| Iqaluit | 2028 |
| Kimmirut | 2028 |

7.0 Firefighter Training

There were 37 territorial and community-based fire service training courses provided in 2021. Territorial courses allow for students to register from across the territory, while community-based courses are specific to each hamlet fire department. The combination of these course styles allows for firefighters to train with their counterparts from across Nunavut and develop skills within their own fire department using their own equipment. Throughout the territory, 256 firefighters received training, increasing their skills, knowledge, and abilities in various firefighting tactics.



Pictured left: Firefighters work together to extinguish a fire during a training exercise.

7.1 Firefighter Training Courses

Firefighter training courses were offered by the Nunavut Fire Marshal's Office (NFMO) in partnership with the Nunavut Municipal Training Organization (NMTO). A breakdown of the course type as well as the number of students receiving training throughout the territory in 2021, is shown in Figure 4.

Figure 4– Combined Territorial and Community-Based Training

| Combined Territorial and Community-Based Firefighter Training | | |
|--|--------------------------|-------------------------------|
| Course Type | Number of Courses | Number of Firefighters |
| Breathing Apparatus Training Courses | 10 | 68 |
| Territorial Training Courses | 8 | 63 |
| Community-Based Training Courses | 19 | 125 |
| Total | 37 | 256 |

Figure 5 gives a detailed breakdown of the territorial training courses, location, and number of firefighters offered by the NFMO.

Figure 5– Territorial Training Courses

| Territorial Training Courses | | |
|-------------------------------------|------------------|-------------------------------|
| Course | Location | Number of Firefighters |
| Firefighter Level 1 & 2 | Pond Inlet | 11 |
| Firefighter Level 1 | Rankin Inlet | 8 |
| Fire Pump Operations A | Baker Lake | 6 |
| Nunavut Fire Instructor | <i>Cancelled</i> | 0 |
| Firefighter Level 2 | Rankin Inlet | 6 |
| Fire Fighter Resources & Supplies | <i>Cancelled</i> | 0 |
| Fire Officer Level 1 | Cambridge Bay | 6 |
| Life & Fire Safety Educator | <i>Cancelled</i> | 0 |
| Fire Cause & Determination | Iqaluit | 7 |
| Fire Officer Workshop | Iqaluit | 19 |
| Total | | 63 |



Pictured Left: Firefighters take heights during training. They were being trained how to use ladders and working at height which are fundamental skills of a firefighter.

The following Figure 6 (below) gives a detailed breakdown on the location of Community-Based Courses offered by the NFMO, and the number of students receiving training, as mentioned in Figure 4.

Figure 6– Community-Based Training Courses

| Community-Based Training Courses | |
|----------------------------------|------------------------|
| Location | Number of Firefighters |
| Arviat | 14 |
| Baker Lake | 6 |
| Cambridge Bay | 9 |
| Chesterfield Inlet | 7 |
| Coral Harbor | 4 |
| Clyde River | 11 |
| Grise Fiord | 3 |
| Igloolik | 4 |
| Kimmirut | 4 |
| Kinngait | 8 |
| Kugluktuk | 4 |
| Kugaaruk | 9 |
| Pangnirtung | 12 |
| Pond Inlet | 4 |
| Qikiqtarjuaq | 5 |
| Sanirajak | 7 |
| Sanikiluaq | 3 |
| Taloyaok | 5 |
| Whale Cove | 6 |
| Total | 125 |



Pictured Above: Nunavut firefighters practising the use of portable fire extinguishers during a training course.

7.2 Aboriginal Firefighters Association of Canada National Aboriginal Firefighting Competition

Each year, the Aboriginal Firefighters Association of Canada (AFAC) collaborates with Indigenous Services Canada (ISC) and regional technical service groups (TSGs) to promote fire safety through the National Firefighting Competition. In 2021, AFAC held a virtual National Firefighting Competition (NFC). This decision was in support of the fight against the COVID-19 pandemic. AFAC encouraged those organizing and participating in the regional competitions to adhere to provincial, regional, and local directives to ensure the health and safety of participants and communities. Nunavut fire fighters did not participate in the virtual competition.

8.0 Plan Reviews

The Government of Nunavut adopted the Building Code Act in September of 2018, with enforcement of building safety codes (including fire code requirements for new construction and renovation projects) moving from the Nunavut Fire Marshal’s Office (NFMO) to the Office of the Chief Building Official. Construction Plans (drawings and specifications) are reviewed for conformance to respective national safety codes and to determine that the proper precautions are taken to prevent fire incidents. Through this transition, plan reviews beginning prior to the implementation of the Building Code Act in September 2018 are considered legacy and remain with the NFMO until completion of the construction project.

9.0 Fire Prevention and Public Education

The Nunavut Fire Marshal’s Office (NFMO) supports fire departments with presentation materials to aid them in the delivery of fire prevention and public education seminars in the communities. The funding for the resources provided was through the Public Fire Safety and Community Fire Department Contribution Policy.

9.1 Nunavut Youth Fire-setter and Arson Prevention Program

The NFMO continues to identify, interview, assess, and intervene with youth referred into its Nunavut Youth Fire-setter and Arson Prevention (NYFSAP) program. The NYFSAP program is aimed towards the prevention of fire-setting behaviour in children and youth. Components explored consisted of identifying children and youth involved in fire-setting, interviewing youth fire-setters and family members, using assessment tools to aid in determining the level of risk for future fire-setting, and providing effective intervention.

9.2 Remembering When

The NFMO continues to develop and adapt its ‘Remembering When’ program, which focuses on fire safety messages targeted towards elders in our communities. This program is a fire safety prevention program provided to local fire departments, caregivers, and other stakeholders interested in senior’s safety. The program provides local individuals with the training and skills to take the ‘Remembering When’ program out to seniors within their own communities.

9.3 Fire Prevention and Public Education

Public Education Seminars were held by fire prevention and public education teams throughout the territory. Participants learned a variety of fire safety skills which they in turn were implemented in their homes, schools, and communities. The NFMO supported these efforts and provided fire prevention materials, resources, and funding to the fire departments.

Pictured below: A fire safety poster about fire prevention.



9.4 Fire Prevention Colouring Contest and Calendar

Students from across Nunavut took part in the Annual Fire Prevention Colouring Contest. Drawings were chosen and paired with monthly fire prevention safety tips to create the following years Nunavut Fire Prevention Calendar. Each year, the calendar is distributed across the territory with the support of the hamlet fire departments.

9.5 Fire Prevention Week

Fire Prevention Week was held from October 3rd- 9th, 2021 with the campaign “Learn the Sounds of Fire Safety”. 2021 Fire Prevention Week had a different outcome due to COVID-19. The hamlets and fire departments continued to share fire safety tips and provide advice. The public was educated on sound differences smoke alarms and carbon monoxide alarms make including the action steps to take when the alarms ring. During Fire Prevention Week, children, adults, and teachers learnt how to stay safe in case of a fire. Firefighters provided lifesaving public education to drastically decrease casualties caused by fires. Fire departments provided fire prevention activities in their communities such as: fire hall tours, fire prevention sessions in schools, and fire department recruitment open houses. Fire prevention educational kits were provided to fire departments with the support of NFMO for Fire Prevention Week.

10.0 Territorial Fire Loss for 2021

In 2021, 120 fires were reported throughout the territory of Nunavut. The reported *dollar loss* value of fires throughout the territory was **\$3,148,432** with the reported total *value at risk* being **\$150,651,450**.

This is a decrease from last year’s number of reported fires and is less than the annual average of 124 fires over the past decade. In the previous decade, the number of reported fires has been within the range of 71 to 161 per year. Details pertaining to fire statistics over the last ten years can be seen in Figure 7 below:

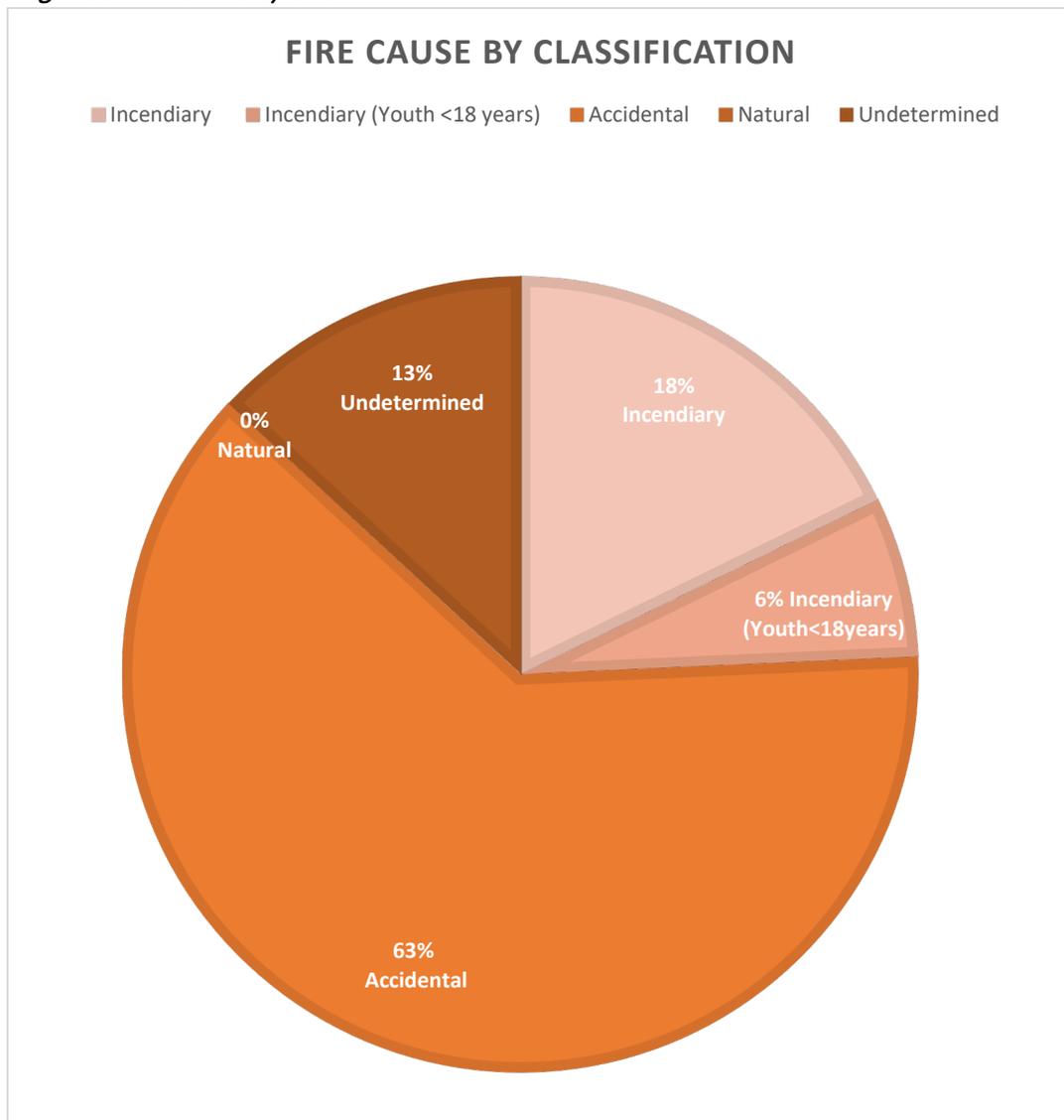
Figure 7– Combined Territorial Statistics from 2012-2021

| Combined Territorial Statistics from 2012-2021 | | | | | |
|--|-----------------|------------------|--------------------|-------------------|----------------------|
| Years | Number of Fires | Number of Deaths | Number of Injuries | Dollar Loss Value | Dollar Value at Risk |
| 2021 | 120 | 0 | 0 | \$3,148,432 | \$150,651,450 |
| 2020 | 131 | 2 | 6 | \$ 5,739,955 | \$ 579,385,503 |
| 2019 | 73 | 0 | 6 | \$ 7,373,765 | \$ 131,799,100 |
| 2018 | 71 | 1 | 8 | \$ 26,034,464 | \$ 306,796,623 |
| 2017 | 135 | 4 | 15 | \$ 41,781,679 | \$ 406,295,719 |
| 2016 | 115 | 0 | 15 | \$ 2,928,623 | \$ 416,894,831 |
| 2015 | 141 | 5 | 18 | \$ 44,560,547 | \$ 622,154,289 |
| 2014 | 134 | 1 | 8 | \$ 5,415,166 | \$ 403,155,161 |
| 2013 | 161 | 1 | 13 | \$ 4,386,188 | \$ 532,470,260 |
| 2012 | 157 | 6 | 20 | \$ 16,816,160 | \$ 512,205,110 |

10.1 Fire Cause Statistics

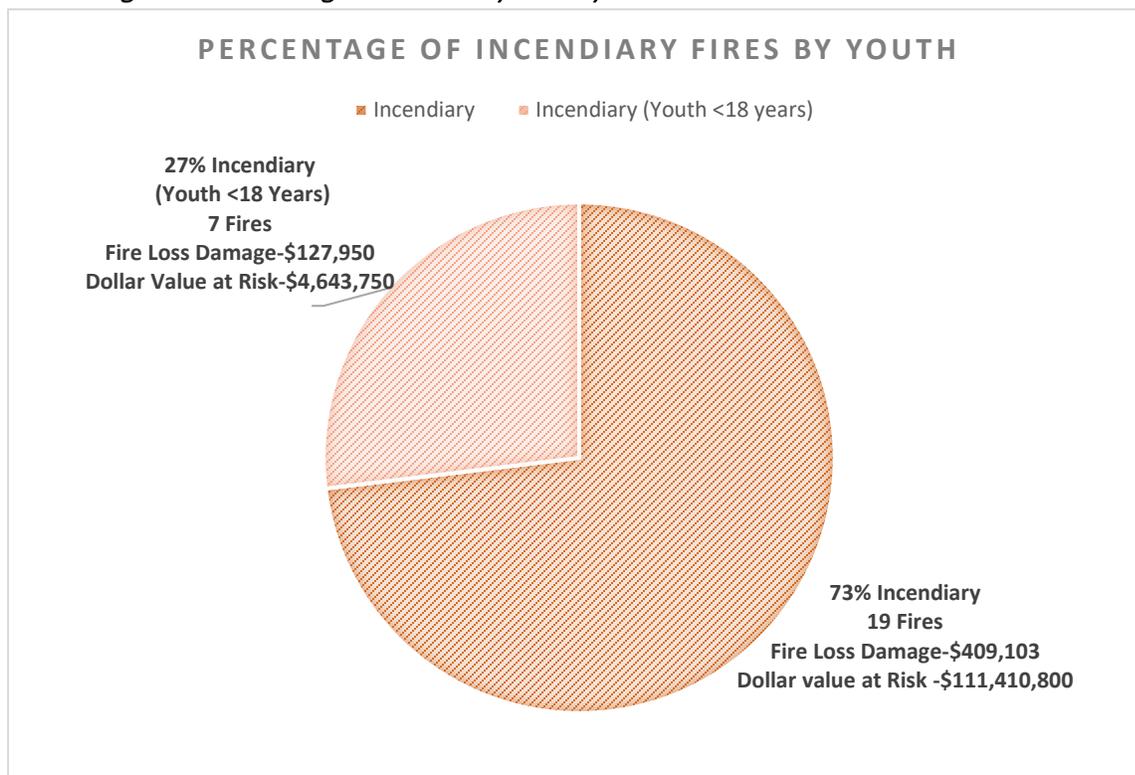
Fire statistics are broken down into the following four major categories: *accidental fire*, *incendiary fire*, *natural fire*, and *undetermined fire*. Category terminology and coding has been standardized across Canada from the Council of Canadian Fire Marshals and Fire Commissioners, who provide the Canadian Code Structure on Fire Loss Statistics. Refer to Figure 8 and Figure 9 for more details.

Figure 8- Fire Cause by Classification



10.2 Percentage of Incendiary Fires by Youth

Figure 9 - Percentage of Incendiary Fires by Youth



10.3 Combined Fire Loss by Property Classification

Figure 10, as seen below, provides an overview of the reported fire property classification, including a detailed breakdown of the dollar loss, dollar value at risk, and insurance coverage totals per classification type.

Figure 10– Combined Fire Loss by Property Classification

| Combined Fire Loss by Property Classification | | | | |
|---|-----------------|--------------------|----------------------|----------------------|
| Property Classification | Number of Fires | Dollar Loss | Dollar Value at Risk | Insurance Coverage |
| Assembly | 1 | \$150,632 | \$12,183,500 | \$265,000,000 |
| Institutional | 7 | \$277,050 | \$109,651,500 | \$265,000,000 |
| Residential | 64 | \$2,458,200 | \$5,724,550 | \$6,000,000 |
| Business and Personal Services | 0 | \$0 | \$0 | \$0 |
| Mercantile | 2 | \$44,000 | \$20,830,000 | \$2,980,000 |
| Industrial | 0 | \$0 | \$0 | \$0 |
| Storage Property | 26 | \$38,800 | \$431,900 | \$6,510,000 |
| Special Property & Transport Equipment | 20 | \$179,750 | \$1,830,000 | \$530,400 |
| Total | 120 | \$3,148,432 | \$150,651,450 | \$546,020,400 |

Note: Some government facilities are self-insured thus explaining the difference between the dollar value at risk and the insurance coverage amount reported.

10.4 Combined Fire Loss by Igniting Object

Figure 11, as seen below, provides an overview of the reported igniting object, including a detailed breakdown of the dollar loss, dollar value at risk, and insurance coverage totals per ignition source type.

Figure 11– Combined Fire Loss Igniting Object

| Combined Fire Loss by Igniting Object | | | | |
|---------------------------------------|-----------------|--------------------|----------------------|----------------------|
| Igniting Object | Number of Fires | Dollar Loss | Dollar Value at Risk | Insurance Coverage |
| Cooking Equipment | 40 | \$330,600 | \$34,940,250 | \$430,390,750 |
| Heating Equipment | 7 | \$3,500 | \$35,000,000 | \$38,465,200 |
| Appliances and Equipment | 4 | \$191,500 | \$11,740,000 | \$28,465,000 |
| Electrical Distribution Equipment | 4 | \$5,750 | \$25,860,000 | \$18,465,000 |
| Other Electrical Equipment | 1 | \$3,000 | \$17,522,000 | \$28,465,000 |
| Smokers Material and Open Flame | 31 | \$516,879 | \$11,850,300 | \$1,607,400 |
| Exposure | 0 | \$0 | \$0 | \$0 |
| Miscellaneous/undetermined | 33 | \$2,097,203 | \$13,738,900 | \$162,050 |
| | | | | |
| Total | 120 | \$3,148,432 | \$150,651,450 | \$546,020,400 |

Note: Some government facilities are self-insured thus explaining the difference between the dollar value at risk and the insurance coverage amount reported.

10.5 Combined Fire Loss by Act or Omission

Figure 12, as seen below, provides an overview of the reported act or omission, including a detailed breakdown of the dollar loss, dollar value at risk, and insurance coverage totals per the act or omission type.

Figure 12– Combined Fire Loss by Act or Omission

| Combined Fire Loss by Act or Omission | | | | |
|---------------------------------------|-----------------|--------------------|----------------------|----------------------|
| Act or Omission | Number of Fires | Dollar Loss | Dollar Value at Risk | Insurance Coverage |
| Incendiary | 19 | \$409,103 | \$111,410,800 | \$134,150,000 |
| Incendiary (Youth <18 years) | 7 | \$127,950 | \$4,643,750 | \$141,830,400 |
| Accidental | 61 | \$358,129 | \$22,409,500 | \$136,040,000 |
| Natural | 0 | \$0 | \$0 | \$0 |
| Undetermined | 33 | \$2,253,250 | \$12,187,400 | \$134,000,000 |
| | | | | |
| Total | 120 | \$3,148,432 | \$150,651,450 | \$546,020,400 |

Note: Some government facilities are self-insured thus explaining the difference between the dollar value at risk and the insurance coverage amount reported.

10.6 Fire Related Fatalities

Figure 13, as seen below, shows the specific fire incident breakdown of the property classification, igniting object, and fire cause, which resulted in a fire related fatality, as well as the type of victim.

Figure 13– Fire Related Fatalities

| Fire Related Fatalities | | | | | | | | |
|-------------------------|-------------------------|--------------------------------|------------|-----------------------|-----------------------|-------------------------|-------------------------|----------|
| Incident | Property Classification | Igniting Object | Fire Cause | Male Adult Fatalities | Male Child Fatalities | Female Adult Fatalities | Female Child Fatalities | Total |
| 1 | Unclassified | Smokers' Material & Open Flame | Accidental | 0 | 0 | 0 | 0 | 0 |
| 2 | Residential | Smoker's Material & Open Flame | Accidental | 0 | 0 | 0 | 0 | 0 |
| Total | | | | 0 | 0 | 0 | 0 | 0 |

10.7 Fire Related Injuries

Figure 14, as seen below, shows the specific fire incident breakdown of the property classification, igniting object, and fire cause, which resulted in a fire related injury, as well as the type of victim.

Figure 14– Fire Related Injuries Reported

| Fire Related Injuries | | | | | | | | |
|-----------------------|-------------------------|--------------------------------|------------|---------------------|---------------------|-----------------------|-----------------------|----------|
| Incident | Property Classification | Igniting Object | Fire Cause | Male Adult Injuries | Male Child Injuries | Female Adult Injuries | Female Child Injuries | Total |
| 1 | Residential | Smokers' Material & Open Flame | Incendiary | 0 | 0 | 0 | 0 | 0 |
| 2 | Residential | Miscellaneous | Accidental | 0 | 0 | 0 | 0 | 0 |
| 3 | Residential | Smokers' Material & Open Flame | Accidental | 0 | 0 | 0 | 0 | 0 |
| 4 | Unclassified | Miscellaneous | Accidental | 0 | 0 | 0 | 0 | 0 |
| 5 | Residential | Smokers' Material & Open Flame | Incendiary | 0 | 0 | 0 | 0 | 0 |
| 6 | Unclassified | Miscellaneous | Accidental | 0 | 0 | 0 | 0 | 0 |
| Total | | | | 0 | 0 | 0 | 0 | 0 |

11.0 Fire Trends in the Past Decade

Analysing fire statistics and trends allows the Nunavut Fire Marshal’s Office (NFMO) to provide a safer environment for Nunavummiut by providing expertise, leadership, and guidance in the reduction and elimination of hazards contributing to fire loss damage.

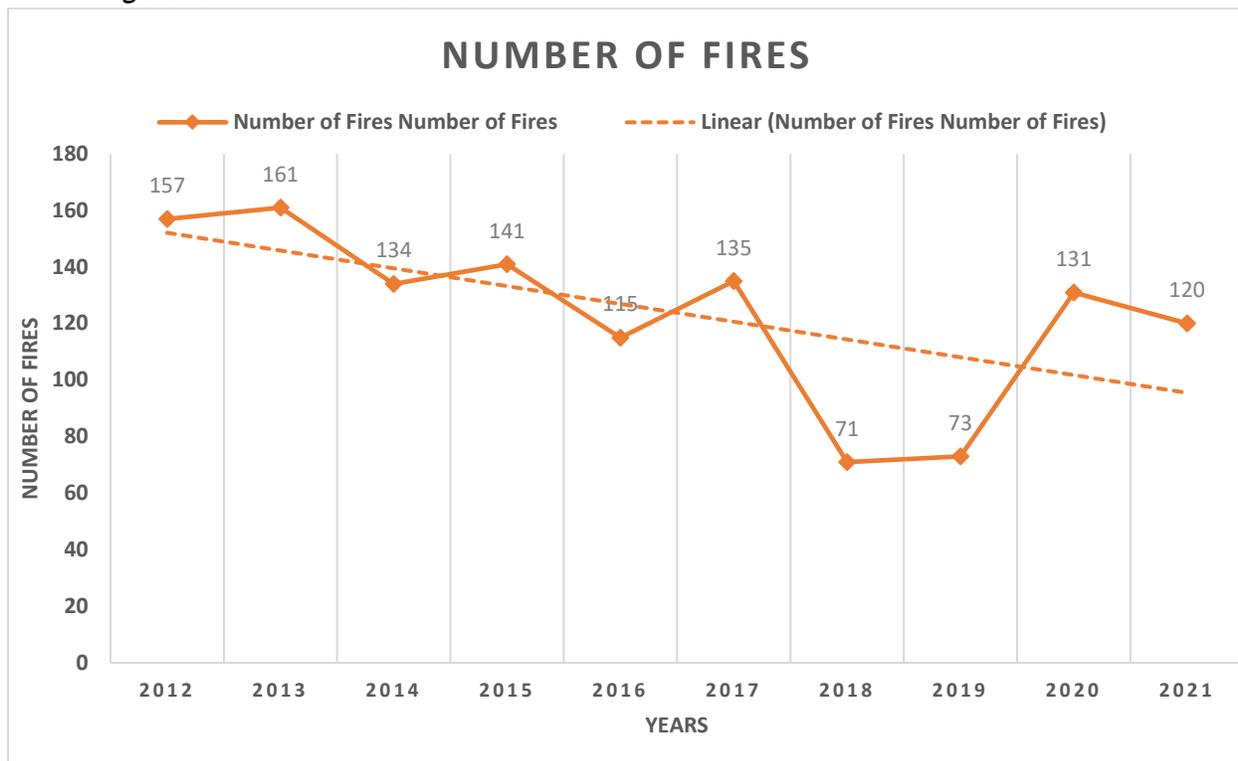
In 2021, the fires reported to the NFMO decreased, and the trendline over the past 10 years has also decreased. This can be attributed to factors such as technological advancements in building design, fire prevention activities, public education, and increased fire department training.

Year 2021 saw a decrease in reported dollar loss, and dollar loss at risk as well. The trendline over the past 10 years, shows a decrease in dollar loss and dollar loss at risk. The dollar loss at risk is related to the larger type of buildings occupancies, such as schools, where fire incidents took place. Understanding and interpreting fire statistic trends helps the NFMO allocate its focus and tailor future fire prevention activities.

11.1 Number of Fires

Figure 15, as seen below, shows the total number of reported fires over the past decade, including a trendline (linear) for the data shown.

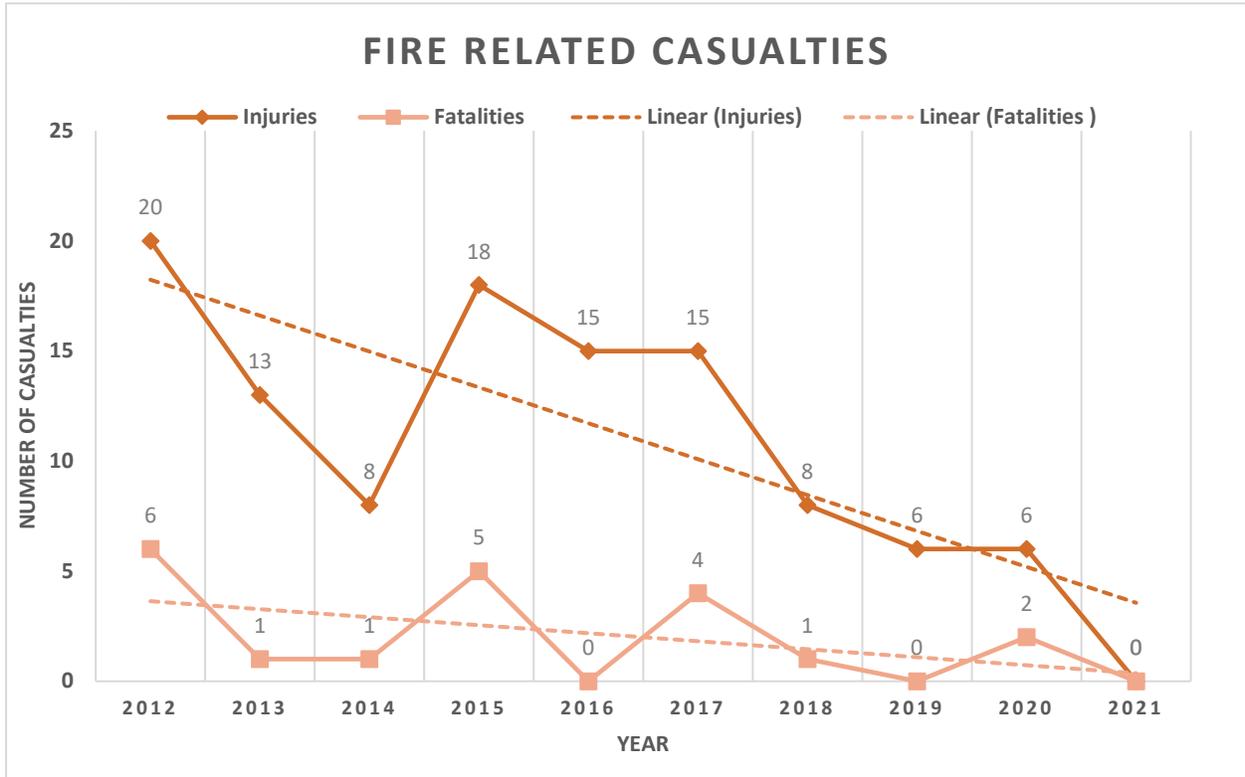
Figure 15– Number of Fires



11.2 Fire Related Casualties

Figure 16, as seen below, shows the total number of fire related casualties, both injuries and fatalities, over the past decade, including trendlines (linear) for both groups of data shown.

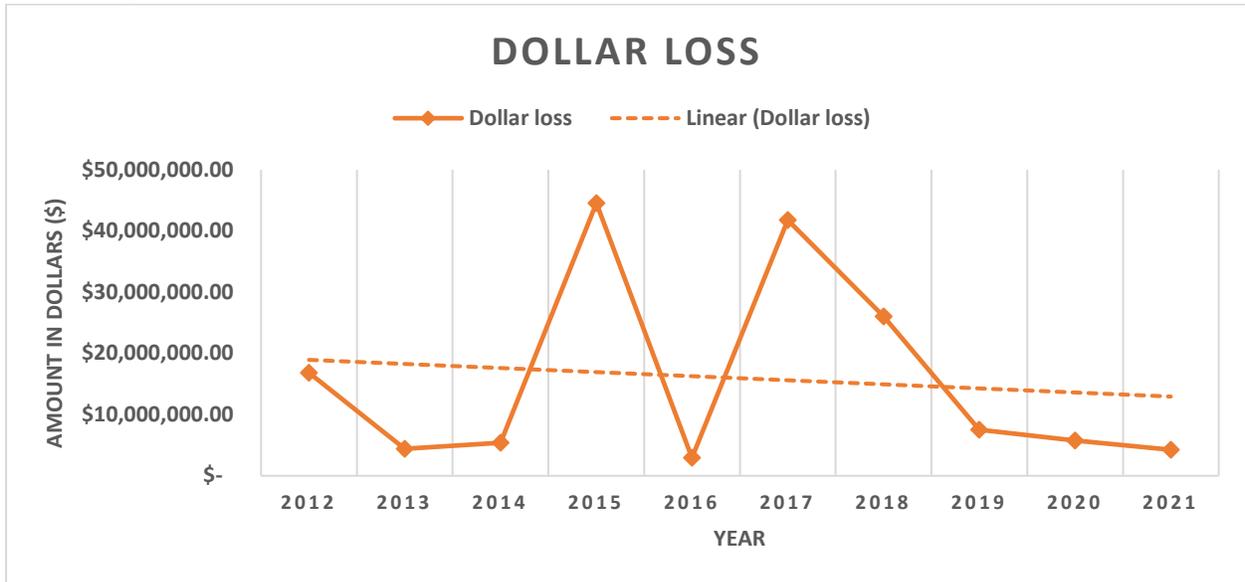
Figure 16– Fire Related Casualties



11.3 Dollar Loss

Figure 17, as seen below, shows the reported dollar loss of the previous decade, including a trendline (linear) for the data shown.

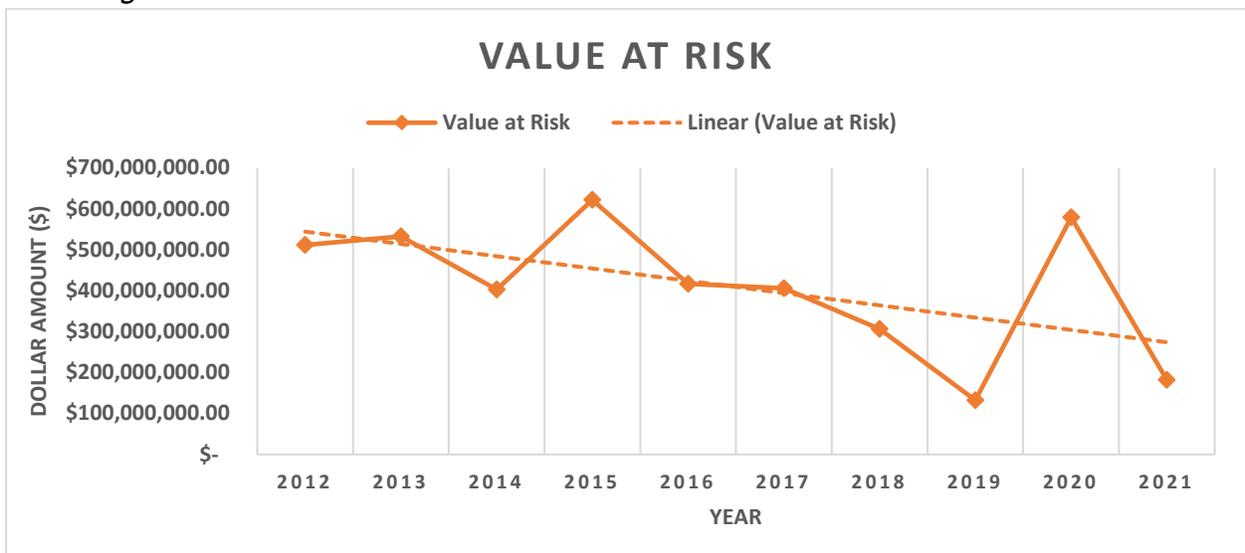
Figure 17- Dollar Loss



11.4 Value at Risk

Figure 18, as seen below, shows the reported dollar value at risk of the previous decade, including a trendline (linear) for the data shown.

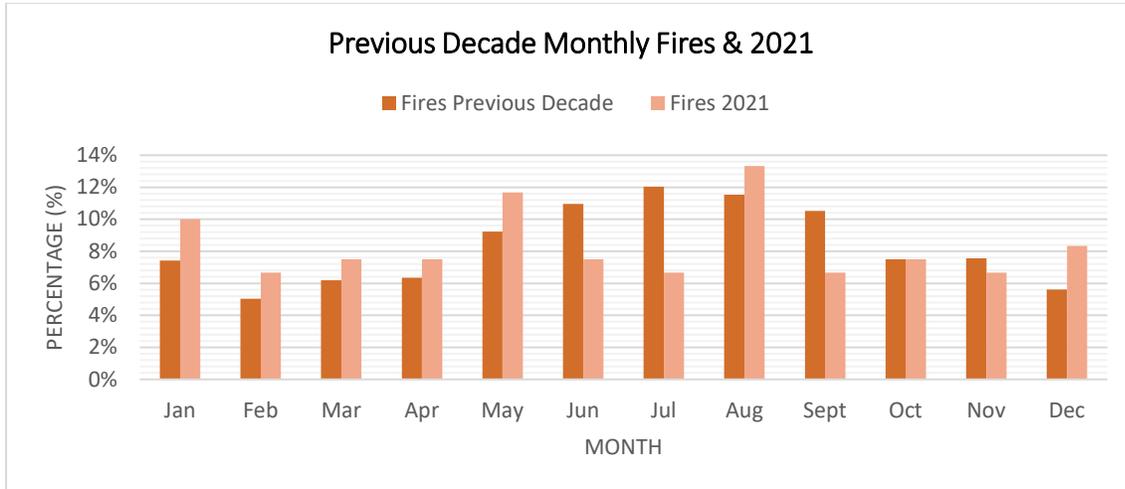
Figure 18- Value at Risk



11.5 Fires by Month Past Decade and 2021

Figure 19, as seen below, shows the reported percentage of fires over the past decade (1387), including a comparison of the percentage of fires reported in 2021 (120).

Figure 19– Percentage of Fire per Month Comparison



Pictured below: Firefighters operating a pump during a training course.



12.0 Fires per Community

All fires are investigated by the Nunavut Fire Marshal's Office directly or with the support of *Local Assistants*. This includes Fire Department personnel and the Royal Canadian Mounted Police who also assist in determining the cause and origin of fires. Throughout 2021, Assistant Fire Marshals either responded to or aided in the investigations of the 120 fires reported across the territory of Nunavut, as shown in *Figure 20*.

Figure 20– Fires per Community

| Fires per Community | |
|---------------------|-----------------|
| City/Town Hamlet | Number of Fires |
| Arctic Bay | 5 |
| Arviat | 4 |
| Baker Lake | 10 |
| Cambridge Bay | 4 |
| Chesterfield Inlet | 1 |
| Clyde River | 1 |
| Coral Harbour | 6 |
| Gjoa Haven | 3 |
| Grise Fiord | 0 |
| Igloolik | 4 |
| Iqaluit | 53 |
| Kimmirut | 1 |
| Kinngait | 4 |
| Kugaaruk | 1 |
| Kugluktuk | 4 |
| Nauyasat | 3 |
| Pangnirtung | 2 |
| Pond Inlet | 1 |
| Qikiqtarjuaq | 2 |
| Rankin Inlet | 9 |
| Resolute Bay | 1 |
| Sanikiluaq | 1 |
| Sanirajak | 0 |
| Taloyoak | 0 |
| Whale Cove | 0 |
| Total | 120 |

13.0 Closing

The Nunavut Fire Marshal's Office (NFMO) promotes and develops, building and life safety throughout the Territory of Nunavut. Dedicated staff maintain a high level of professionalism each day, as they work with partners to support the many initiatives and programs that the office is involved with. The NFMO strives to consistently improve the effectiveness and efficiency of its daily tasks and activities so it can continue to provide a safer environment for Nunavummiut.

14.0 Glossary

Accidental Fire

Accidental fires involve all those for which the proven cause does not involve an intentional human act to ignite or spread fire into an area where a fire should not be. When the intent of a person's action cannot be determined or proven to an acceptable level of certainty, the correct classification is undetermined.

Assembly Occupancy

A building, or part thereof, used for the gathering of persons for civic, political, travel, religious, social, educational, recreational or like purposes, or for the consumption of food or drink. Some examples are theatres, churches, community halls, libraries, license beverage establishments, restaurants, cafes, schools, arenas, and gyms.

Business and Personal Services Occupancy

A building, or part thereof, used for the transaction of business or the rendering or receiving of professional or personal services. Some examples are banks, hairdressing shops, dental offices, medical offices, offices, and police stations.

Dollar Loss Value

The total value of damage, measured in dollars, resulting from a fire incident.

Dollar Value at Risk

The total value at risk, measured in dollars, including the *dollar loss value* and the value of the entire property classification.

Fire Protection

Fire protection means the protection of the life and safety of persons and property from fire, including its engineering, prevention, public education, suppression, and investigation.

Incendiary Fire

A fire that is intentionally ignited in an area or under circumstances where and when there should not be a fire.

Industrial Occupancy (High Hazard)

A building used for the assembling, fabricating, manufacturing, processing, repairing, or storing of goods and materials and which contains sufficient quantities of highly combustible and flammable or explosive materials that, because of their inherent characteristics, constitute a special fire hazard. Some examples are bulk plants for flammable liquids, bulk storage warehouses for hazardous substances, distilleries, flour mills, grain elevators, spray painting operations, and wastepaper processing plants.

Industrial Occupancy (Medium hazard)

A building, or part thereof, used for the assembling, fabricating, manufacturing, processing, repairing, or storing of goods and materials in which the combustible content is more than 50 kg/m² or 1200 MJ/m² of floor area and not classified as high hazard industrial occupancy. Some examples are cold storage plants, factories, laboratories, repair garages, service stations, warehouses, and woodworking factories.

Industrial Occupancy (Low hazard)

A building used for the assembling, fabricating, manufacturing, processing, repairing, or storing of goods and materials in which the combustible content is less than 50 kg/m² or 1200 MJ/m² of floor area. Some examples are factories, laboratories, storage garages, warehouses, and workshops.

Institutional Occupancy

A building, or part thereof, used by persons who require special care or treatment because of cognitive or physical limitations or by persons who are restrained from, or are incapable of self-preservation because of security measures not under their control. Some examples are nursing homes, penitentiaries, prisons, hospitals and care homes with sleeping accommodations for more than ten persons.

Local Assistant

A person appointed as a Local Assistant to the Fire Marshal subject to the direction of the Fire Marshal, shall perform the duties imposed and may exercise the powers conferred on a Local Assistant defined in the Fire Safety Act and Regulations.

Mercantile Occupancy

A building, or part thereof, used for the displaying or selling of retail goods, wares or merchandise. Some examples are departments stores, exhibition malls, markets, shops, stores, and supermarkets.

Natural Fire

Natural fires are fires caused without direct human intervention or action, such as fires resulting from lightning, earthquake, wind, and flood.

Residential Occupancy

A building, or part thereof, used by persons for whom sleeping accommodation is provided but who are not harboured for the purpose of receiving care or treatment or are not involuntarily detained. Some examples are apartments, dormitories, hotels, houses, and motels.

Undetermined Fire

Undetermined fires are fires that have not yet been investigated or those that have been investigated, or are under investigation, and have insufficient information to classify further. The fire might still be under investigation and the cause may be determined later with the introduction or discovery of new information.