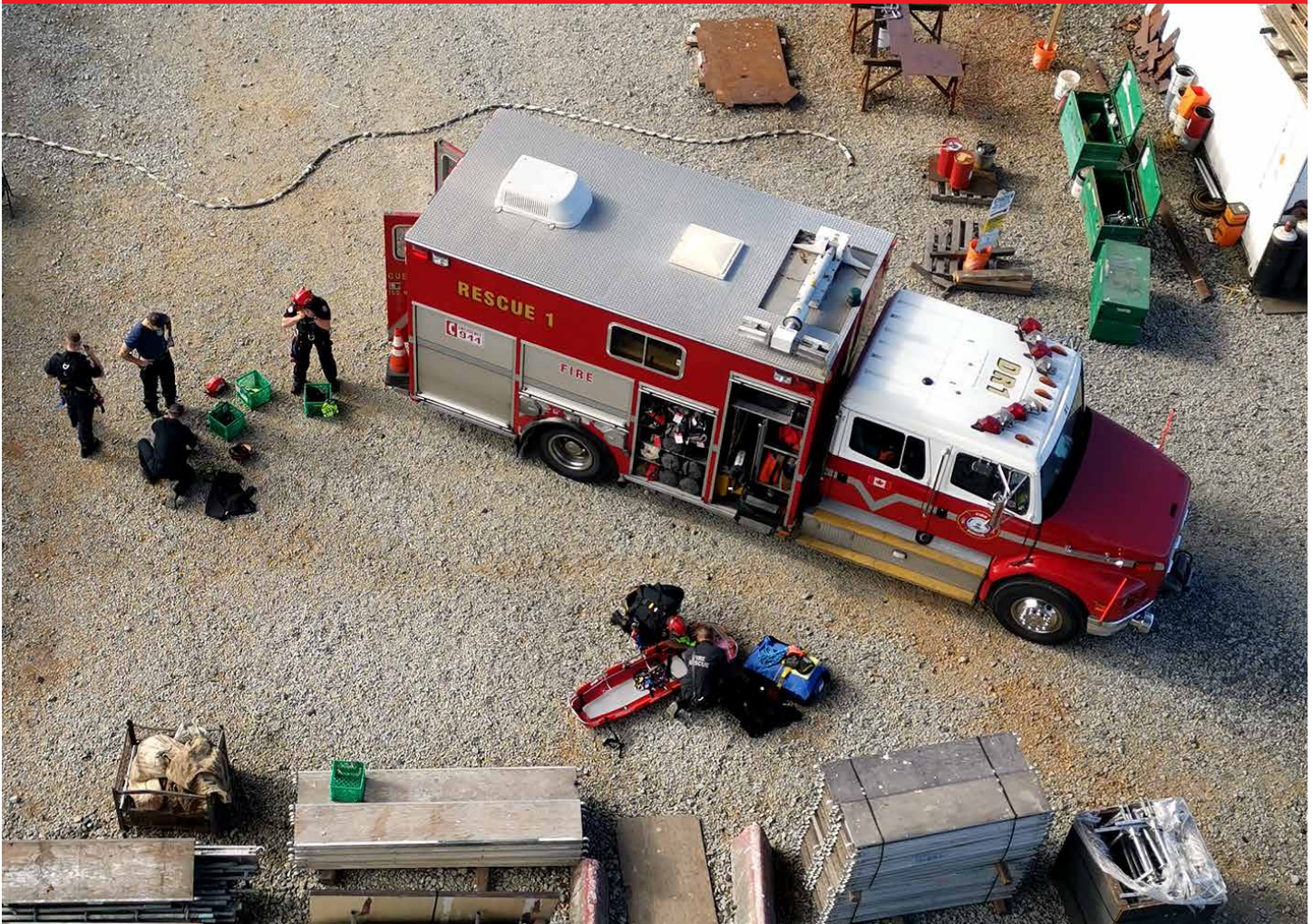




FIRE AND RESCUE ANNUAL REPORT 2021



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District of North Vancouver Fire and Rescue Services (DNVFRS) provides essential emergency, risk education, and support services to our community.

We are committed to reducing life and property loss due to fire, and promoting public safety through fire education and awareness.

This report is a concise summary of our work and achievements in 2021.

Thank you to Silvester Law for contributing many photos that appear in this report.

A WELCOME FROM CHIEF BRIAN HUTCHINSON

I am proud to present the District of North Vancouver Fire & Rescue Services (DNVFRS) Annual Report 2021.

This past year brought many challenges, from the ongoing COVID-19 pandemic and opioid crisis to an unprecedented heat dome and record wildfire season.

Despite these added demands, our members remained focused and committed to delivering the highest level of service to the residents and visitors of the District of North Vancouver.

We are very proud of how our fire department members and support staff have persevered under these trying circumstances.

Our co-workers are our extended family, and we recognize that it is more important than ever to watch out for each other and support the mental health and wellness of all our personnel.

This annual report describes how we did in the past year, not only by reporting the outcomes achieved in terms of data and statistics but also — and perhaps more importantly — through sharing some of the stories of how our innovative and community-focused staff serve the community.

As the District has evolved and transformed, so too has its Fire & Rescue Service. We are constantly striving to improve the effectiveness and efficiency of our services through innovation and ongoing analysis of our operational results.

A key message that should become crystal clear within the pages of this report is that our greatest asset is the women and men who report to work every day. They wear the uniform with pride, serve the community with professionalism, and make the DNVFRS a progressive, inclusive and proactive Fire & Rescue Service. As Fire Chief, I am truly honoured to serve with such a diligent and compassionate team who provide superior service and exemplary care throughout our community. I'm also thankful for the ongoing support from District Council, our public safety partners, and the different operational divisions within the DNV.

Council and residents alike can be proud that their Fire & Rescue Services team is one of the most highly trained, innovative, resilient, and compassionate emergency service agencies in North America.

Respectfully,

Brian Hutchinson, MA, CEM®, ECFO, CFO



DNVFRS Fire Chief, Brian Hutchinson MA, CEM®, ECFO, CFO

1. LEARN MORE ABOUT THE DNVFRS



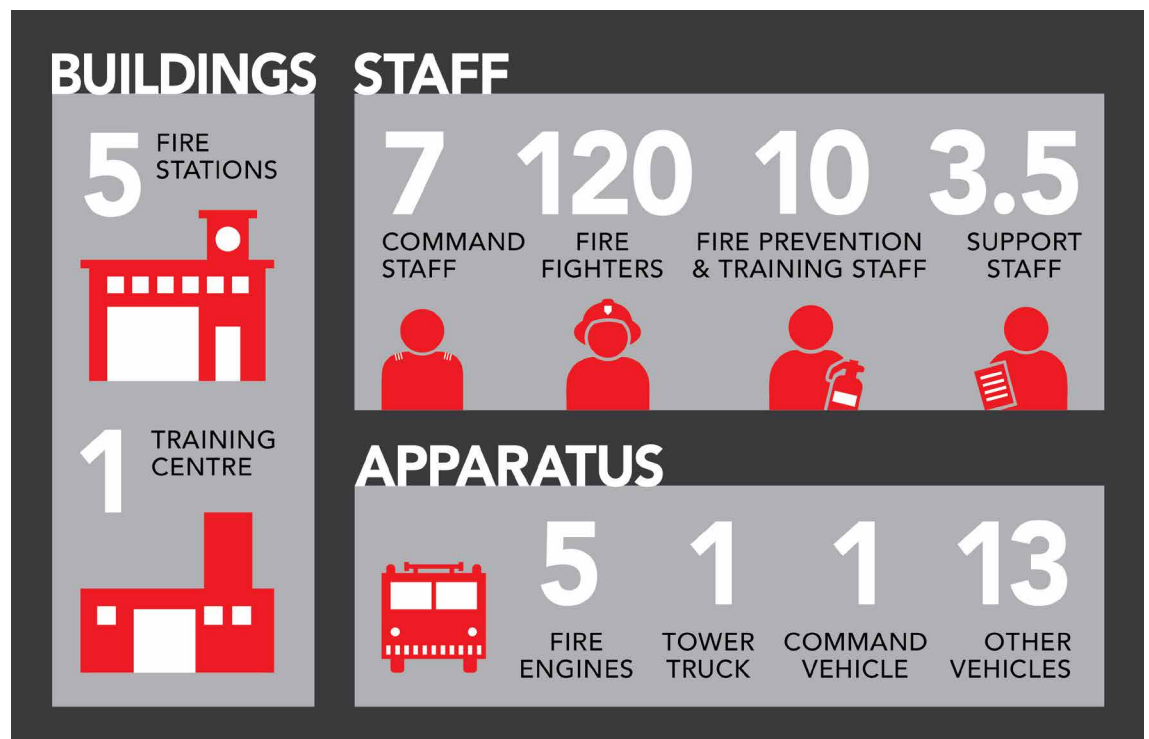
The District of North Vancouver Fire & Rescue Services (DNVFRS) is a mission-oriented emergency services agency focused on the safety and well-being of our community.

Our members provide caring and compassionate fire, rescue and emergency medical services to our citizens and visitors.

We deliver services through an integrated approach that encompasses emergency response for fire, rescue, and life safety and community risk reduction through public safety programs, including risk-based inspections, fire investigation, and targeted public education.

YOUR DNVFRS AT A GLANCE

With nearly 140 firefighters, command, training, and support staff, we serve the District's 89,767 residents and 160 square kilometres of urban and wilderness land from five strategically located fire stations and a training centre.



WHAT WE BELIEVE

OUR MISSION

We proudly serve our community by providing exceptional fire suppression, medical aid, technical rescue, fire prevention and public education services.

OUR VISION

To be an inclusive and progressive leader that consistently provides our community with excellent service

OUR VALUES

- **Community** — Treat people with kindness and respect
- **Integrity** — Do the right thing
- **Wellbeing** — Foster physical, mental, and emotional wellbeing
- **Innovative** — Drive change for the good



PART OF A REGIONAL FIRE AND EMERGENCY SYSTEM

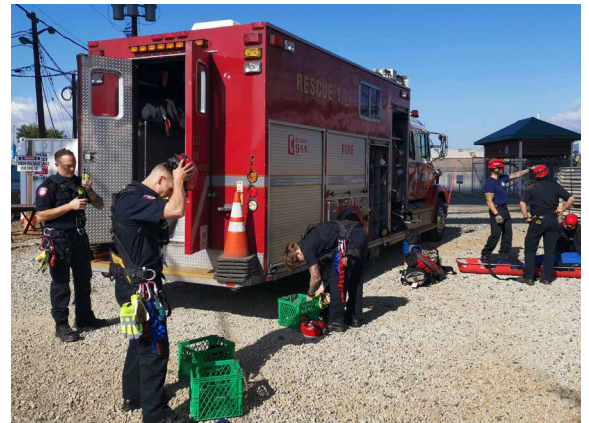
We are part of a regional fire and emergency services system, working alongside West Vancouver Fire and Rescue and the North Vancouver City Fire Department under a Cooperative Fire/Rescue Services agreement.

As a participating agency along with our two North Shore partners, the DNVFRS has agreed to eliminate jurisdictional borders for fire and rescue responses to support a timely and effective response.

This system is a model within British Columbia and across Canada and provides a much higher service level for citizens in the three participating municipalities.

We continue to focus on moving to a 'Closest Hall' dispatching model that will further remove municipal boundaries in the deployment of fire and rescue to ensure the timeliest response to emergencies across the North Shore.

For more info visit cnv.org/city-services/health-and-public-safety/fire-department and westvancouver.ca/government/district-operations/departments/west-vancouver-fire-rescue



2. COVID-19 PANDEMIC RESPONSE



The ongoing global pandemic required DNVFRS to continue adapting and developing a strategy that would allow us to maintain our current level of professional emergency services safely and responsibly.

In 2021, we implemented or continued the following initiatives:

- **Virtual Town Halls** — We hosted regular virtual meetings that brought all five fire stations, the training centre and command staff together for regular updates on COVID-related issues, changing medical response protocols, and further guidance from our Medical Director.
- **Aeroclave Decon Units** — We installed Aeroclave decontamination units at all fire stations to disinfect fire engines, equipment, and buildings and reduce the risk of exposure to dangerous pathogens.
- **Fire Training Risk Mitigation Plan** — At the onset of the pandemic, we developed procedures and precautions that would allow our firefighters to continue to fulfill our mandatory training and maintain staff safety. We continue to evaluate training plans and monitor changes to provincial COVID protocols.
- **Procuring Medical Personal Protective Equipment (PPE)** — To prevent the risk of medical PPE shortages, we worked collaboratively with our partners to secure alternative and reliable PPE sources, building out our critical resource stockpiles. This proactive approach allowed us to provide uninterrupted medical response services safely.
- **Public Education** — With limited access to schools and public events during the pandemic, we built on our ability to deliver fire and life safety education virtually. A primary focus was on using digital technology to provide virtual engagement.
- **Learning Management System** — To limit potential exposure between staff at training events, we delivered most lecture and classroom-based activities online ahead of practical training sessions. The Learning Management System offers engaging and interactive training formats that we will continue to add to in the future.

Understanding that the COVID-19 pandemic will continue into 2022, we plan to introduce additional measures this year and to remain adaptable amid constantly changing conditions.



3. REDUCING RISK



Mitigating the impacts of fire — and reducing the number of fires that start in the first place — is a primary goal of DNVFRS.

We pursue this objective by investigating fires to determine cause and origin and working with builders and developers to ensure that measures are in place to limit fire risk. We also regularly inspect commercial, industrial, and multi-family buildings to check for compliance with all fire codes and standards.

Here are highlights of our work in 2021 that helped minimize the risk of fire in the District.

PRE-FIRE PLANNING AND MOBILE INSPECTIONS

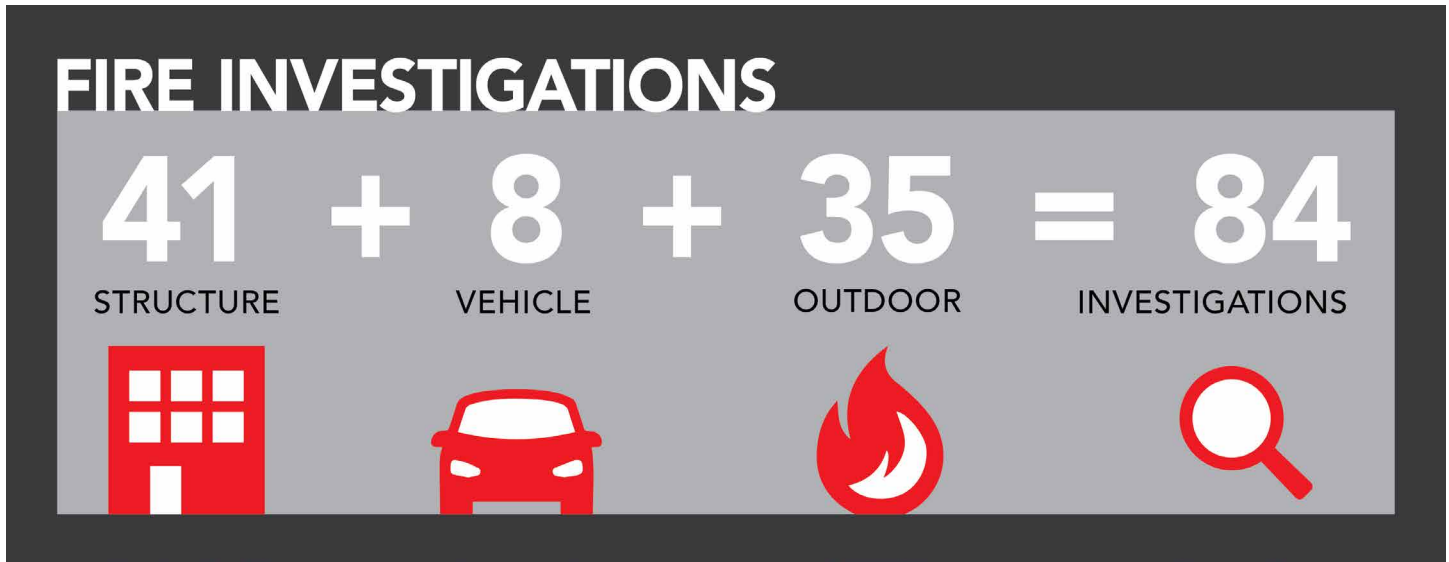
The mobile computers and digital devices on all fire engine apparatus have been linked to a new mobile software program. The program allows for real-time updates and access to pre-incident plans — a site plan of a building and property to be used by, and ensure the safety of our firefighters. For 2022, the pre-incident planning program will be expanded to include high-risk construction sites, and communities at greatest risk of wildfire.

The new software program also provides us with access to pre-incident plans for our shared service partners in the District of West Vancouver and the City of North Vancouver.

FIRE INVESTIGATIONS

As Local Assistants to the BC Fire Commissioner, we are responsible for investigating fires in our municipality to determine whether the fire was due to accident, negligence, or design flaw.

In 2021, we investigated 84 structure, vehicle, and outdoor fires. DNVFRS recovered \$2,500 for five of the billable fire investigations. Cost recovery is a Fire Bylaw requirement that provides direct costing for these investigations.



FIRE INSPECTIONS

Our Public Safety Officers routinely inspect public buildings, industrial, commercial and multi-residential buildings and lodging houses.

In 2021, we conducted 4,190 inspections, which generated \$18,750 in cost recovery resulting from non-compliance and re-inspection fines. In early 2020, we paused regular inspections due to COVID-19. However, special inspections such as complaints, new occupancies and new businesses continued with new protocols in place allowing us to re-engage in this area for all of 2021.

As a result of the most recent upgrade of the Flexible Data Management (FDM) system, the Public Safety Division has shifted to a fully mobile inspection program that saves time, improves data entry and enhances our customer service to the community.



FIRE SAFETY PLANS

As part of fire inspection work, our staff also processes fire safety plans. In 2021, we processed 51 fire safety plans for buildings that meet these minimum requirements:

- Buildings that the BC Building Code requires to have a fire alarm
- Demolition and construction sites
- Storage areas
- Where flammable liquids are stored or handled
- Where hazardous processes or operations occur
- Buildings that have assembly, care, treatment, or detection uses



CONSTRUCTION FIRE SAFETY PLAN REVIEWS

Our Public Safety Division staff work directly with developers during a project's design and build phase.

This process allows us to ensure that new buildings comply with the BC Building Code and the BC Fire Code and meet fire department operational requirements while under construction, during an occupancy inspection, and over the life of the building.

In 2021, our Public Safety members reviewed 21 detailed plans and collected 0.075% of the value of the work to offset the cost of staffing, which amounted to \$125,064 last year.

During this time, we reviewed submissions for alterations, additions, demolitions, and new construction, including review and recommendation for potential new projects.



PRE-INCIDENT FIRE PLAN REVIEWS

Our staff maintains a database of building details and plans for properties in the District, and we're working on updating an online access program. The building database supports fire department operations with timely access to information during an emergency. In 2021, developers submitted 39 plans to DNVFRS personnel for review and implementation and paid \$6,586 in review fees.

We also created 38 new building preplans, updated 138 buildings and added 5,659 images to updated building data sets.

DIRECT FEE/COST RECOVERY

The Public Safety Division provides other services directly to the community, such as processing firework permits and information requests.

In 2021, our staff issued 325 fireworks permits (\$1,625 in service fees) and processed 37 file searches and Freedom of Information Act inquiries (\$7,239 in service fees).



ENERGY EFFICIENT PUBLIC SAFETY FLEET

In 2021, the DNVFRS transitioned two additional gas-fueled public safety vehicles to alternative fuel vehicles. As a result, we now have seven environmentally friendly vehicle options for our staff to do their work in the community.

This switch has resulted in positive feedback from personnel and further reduces the District's carbon footprint.

COMMUNITY RISK REDUCTION

To increase public engagement, review and revise our programs, and identify new ways to reach at-risk groups, DNVFRS has a Captain of Public Safety and Community Risk Reduction.

This position helps DNVFRS build a comprehensive assessment of the specific risks to our community demographic and design and create a community risk-reduction plan. The goal is to make targeted public education programs for our community and stakeholders, including redesigning our traditional educational programs to meet current COVID-19 protocols.

4. FIRE SERVICE ACCREDITATION



In 2018, we began a multi-year process to become an accredited fire service through the Commission on Fire Service Accreditation (CFAI).

The journey to accreditation exemplifies our commitment to building on the proactive fire department culture, with an emphasis on self-improvement and providing the community with an innovative, progressive fire department that meets and exceeds expectations.

In 2021, we completed the requirements to become a 'candidate' agency. We were assigned a Peer Assessment Team slated to visit on-site in January, 2022. This assessment will allow us to apply for formal accreditation at a public hearing in spring 2022.



WHAT'S INVOLVED

Gaining international accredited agency status is a rigorous process. If DNVFRS is successful, we will be the first career fire department to achieve accreditation in British Columbia and only one of 10 in Canada.

Here are the steps involved:

- Building an accreditation team
- Creating three documents:
 - Community Risk Assessment — Standards of Cover
 - Strategic Plan
 - Self-Assessment Manual
- Peer review of the documents, onsite assessment, and accreditation report
- Meeting requirements of Commission of Fire Accreditation International

WHY BECOME AN ACCREDITED AGENCY?

We are committed to attaining and maintaining CFAI accreditation. The path to achieving this goal provides the opportunities to:

- Emphasize our dedication to excellence
- Establish a culture of continuous improvement
- Receive independent validation of our work
- Provide tangible data for our elected officials and stakeholders

GOALS AND PERFORMANCE

The goals and performance of the DNVFRS are articulated in the three companion documents of accreditation:

- **Community Risk Assessment /Standards of Cover 2020-2025 (CRA/SOC)**
- **Fire & Emergency Service Self-Assessment Manual 2021-2026 (FESSAM)**
- **Strategic Plan 2020-2025**

Learn more at [DNV.org/FireAccreditation](https://www.dnv.org/FireAccreditation)

5. RESPONDING TO INCIDENTS



Our highly-trained firefighters are industry certified to fight fires of all types, from structure blazes to fires in vehicles and boats.

Our firefighters also routinely respond to calls for medical assistance, rescues of all kinds, hazardous material concerns, requests for public assistance, and more.

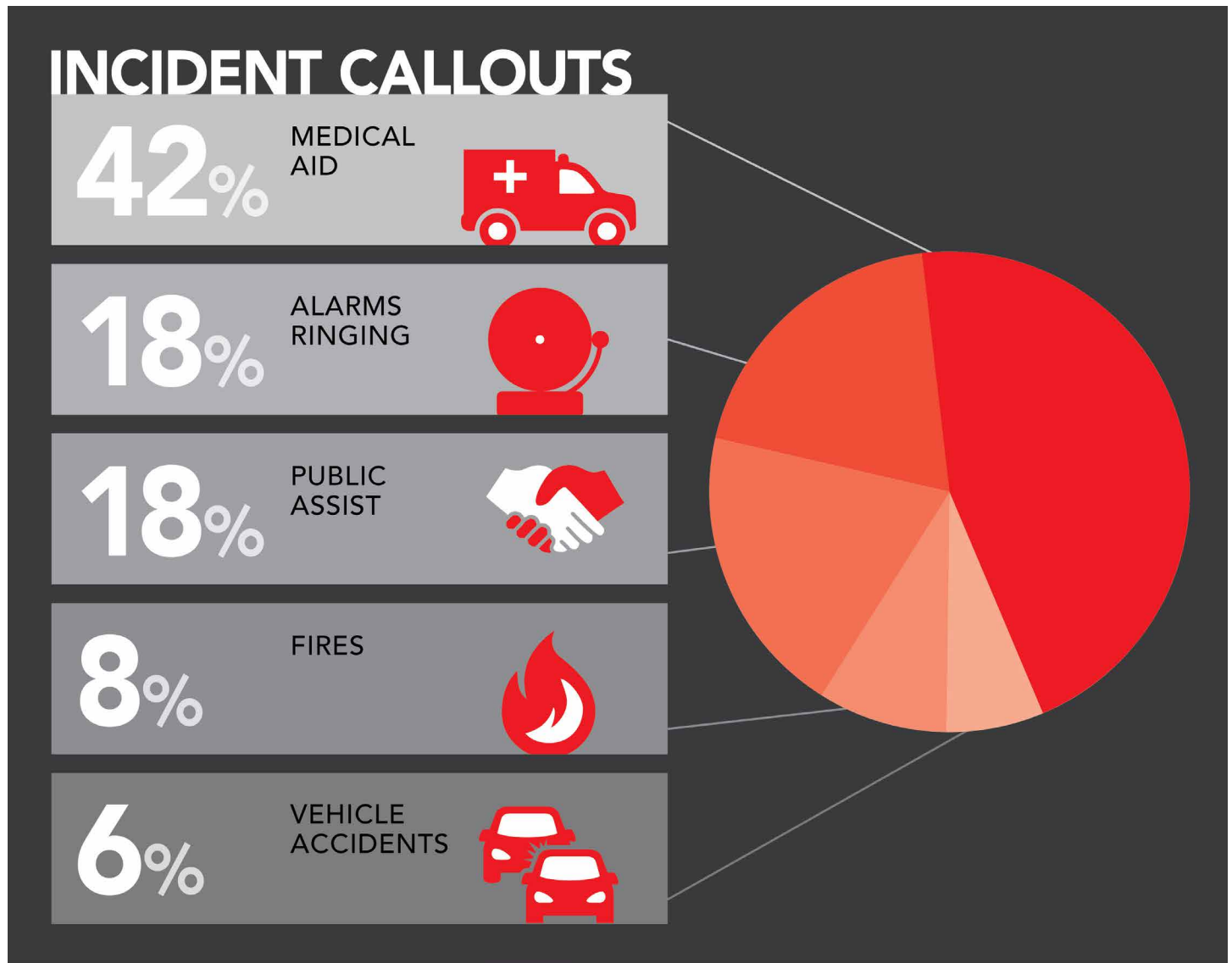
In 2021, we responded to 5,216 incidents, either independently or as part of a tri-municipal effort. Our 90th percentile turnout time was 2 minutes and 7 seconds, and our 90th percentile total response time was 8 minutes and 50 seconds, meaning we achieved these times or better in 90% of our calls.



Turnout Time is the elapsed time from when a fire engine is dispatched until all firefighters are on the vehicle, properly attired, and heading out the station doors. Total Response Time is the elapsed time from when the 911 call is answered, to when the fire engine arrives at the street address and includes call processing time, turnout time and travel time.

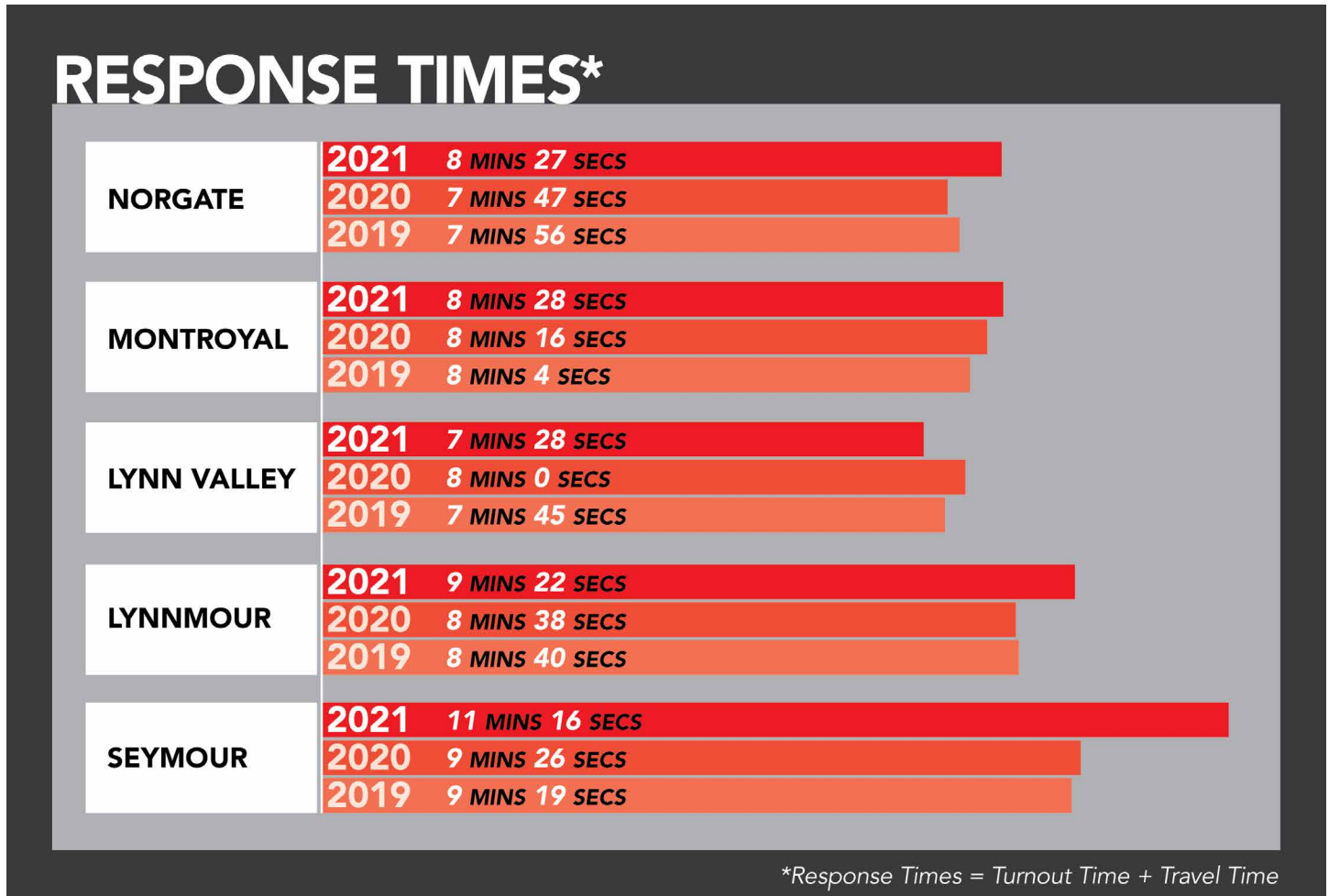
TOP 5 INCIDENT CALL OUTS FOR 2021

Our firefighters respond to a wide range of incidents, including fires, accidents, rescues, and medical emergencies.



RESPONSE TIME BY FIRE STATION

Firefighters respond to incidents from one (or more) of five different fire stations, depending on the emergency's location and size. In 2021, we achieved an overall response time of 8 minutes and 50 seconds for 90% of our emergency responses.

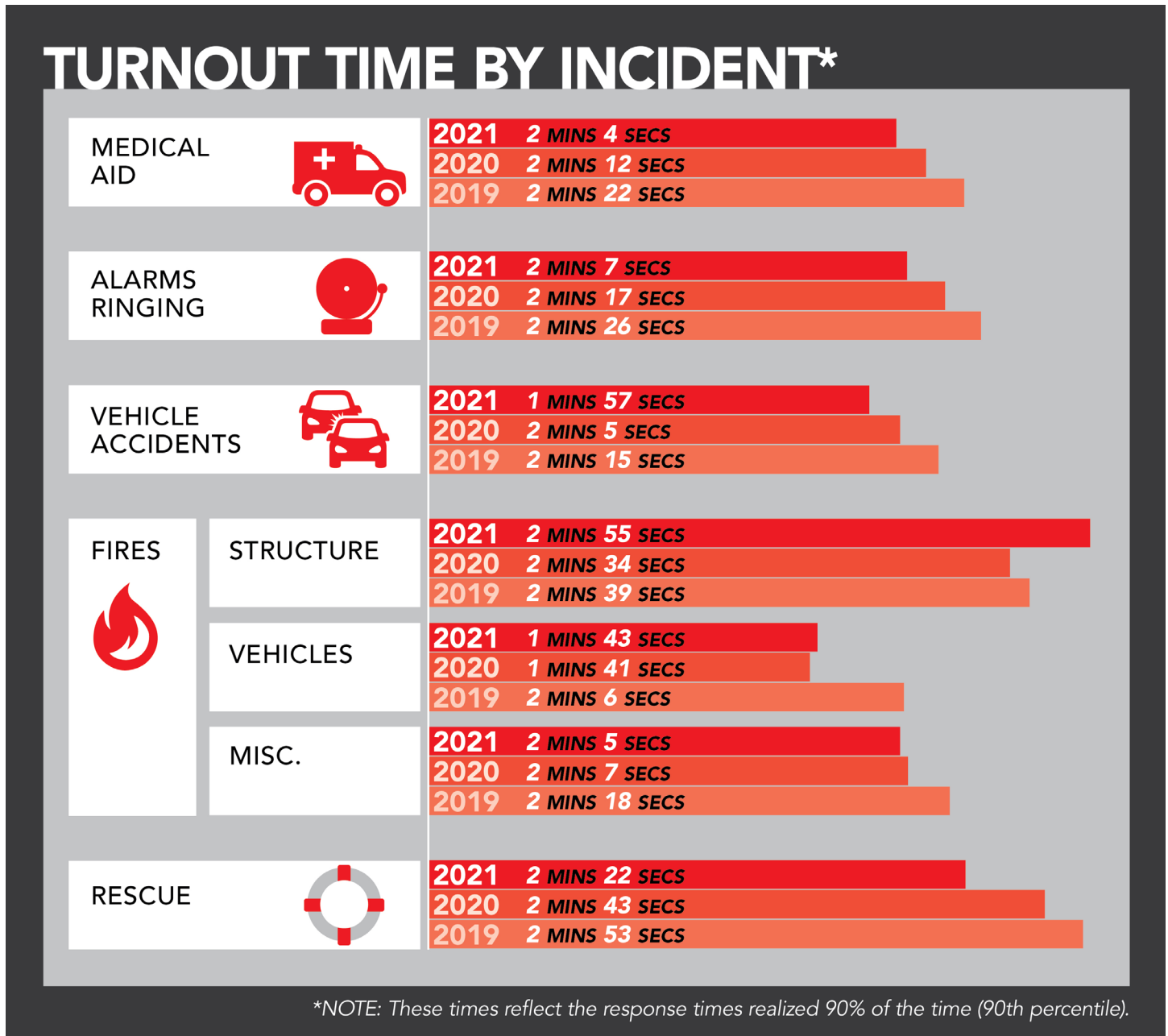


TURNOUT TIME BY INCIDENT

In 2021, we achieved a turnout time of 2 minutes, 7 seconds across all incident types for 90% of our responses.

Turnout time measures the firefighters' ability to stop what they are doing, get to the appropriate fire engine, put on their personal protective equipment, board the fire engine, and safely secure themselves for travel to the emergency.

90th percentile means that nine times out of 10, we meet the times indicated or better.



A CLOSER LOOK AT TECHNICAL RESCUES

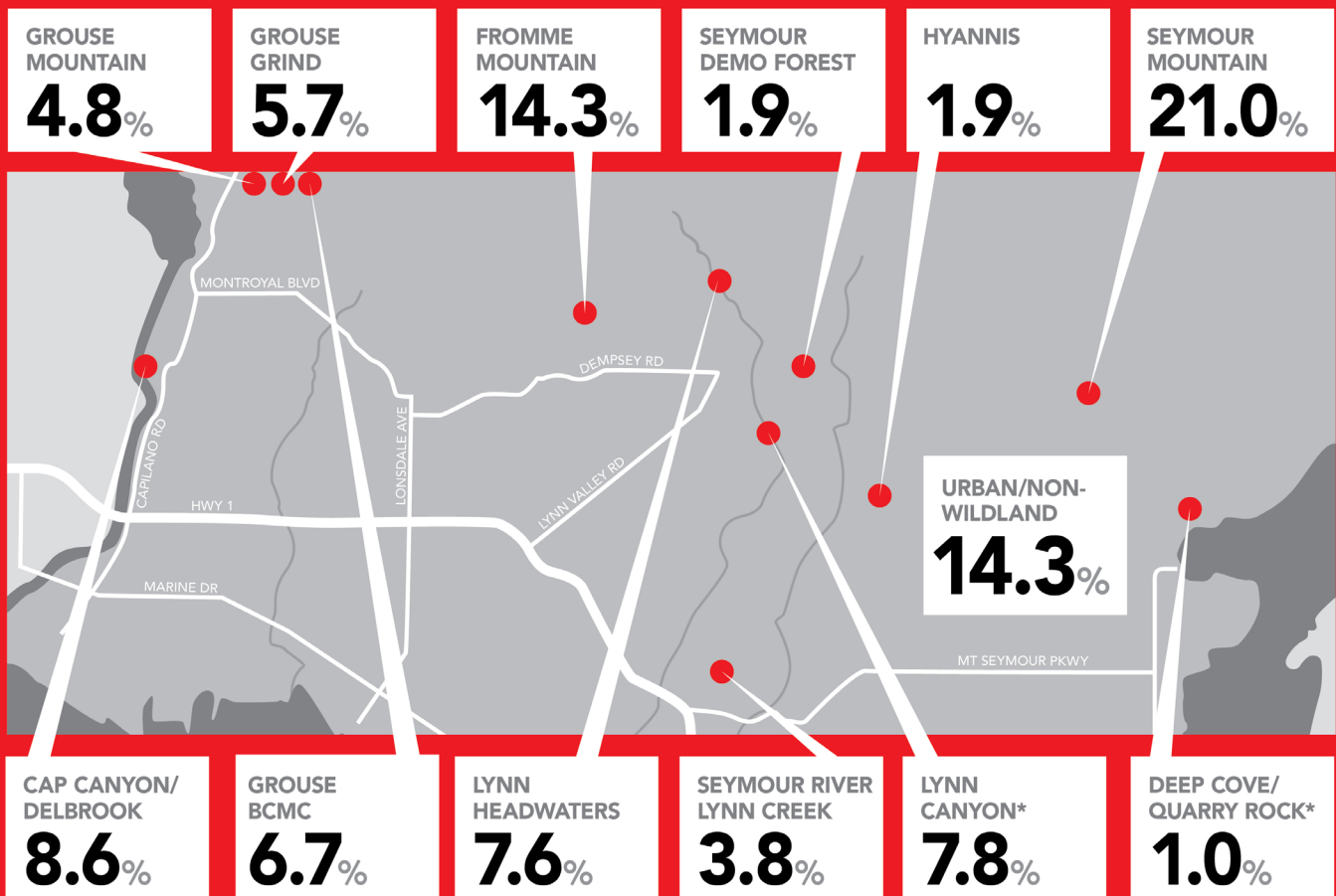
The District of North Vancouver's urban core is surrounded by hundreds of square kilometres of rugged mountain wilderness, with a vast network of hiking and mountain biking trails intersected by rivers and ravines.

We are also home to Grouse Mountain and Seymour Mountain ski operations and the Grouse Grind, BC Mountaineering Club and Baden Powell trail systems.

Our team is unique in Metro Vancouver because of the number of highly technical rescues we execute each year and the close mutual support relationship we have with the all-volunteer North Shore Rescue (NSR) team.

In 2021, we attended 105 rescue incidents, with 42% occurring on Mount Fromme, Mount Seymour and or Lynn Canyon.

RESCUE REGIONS

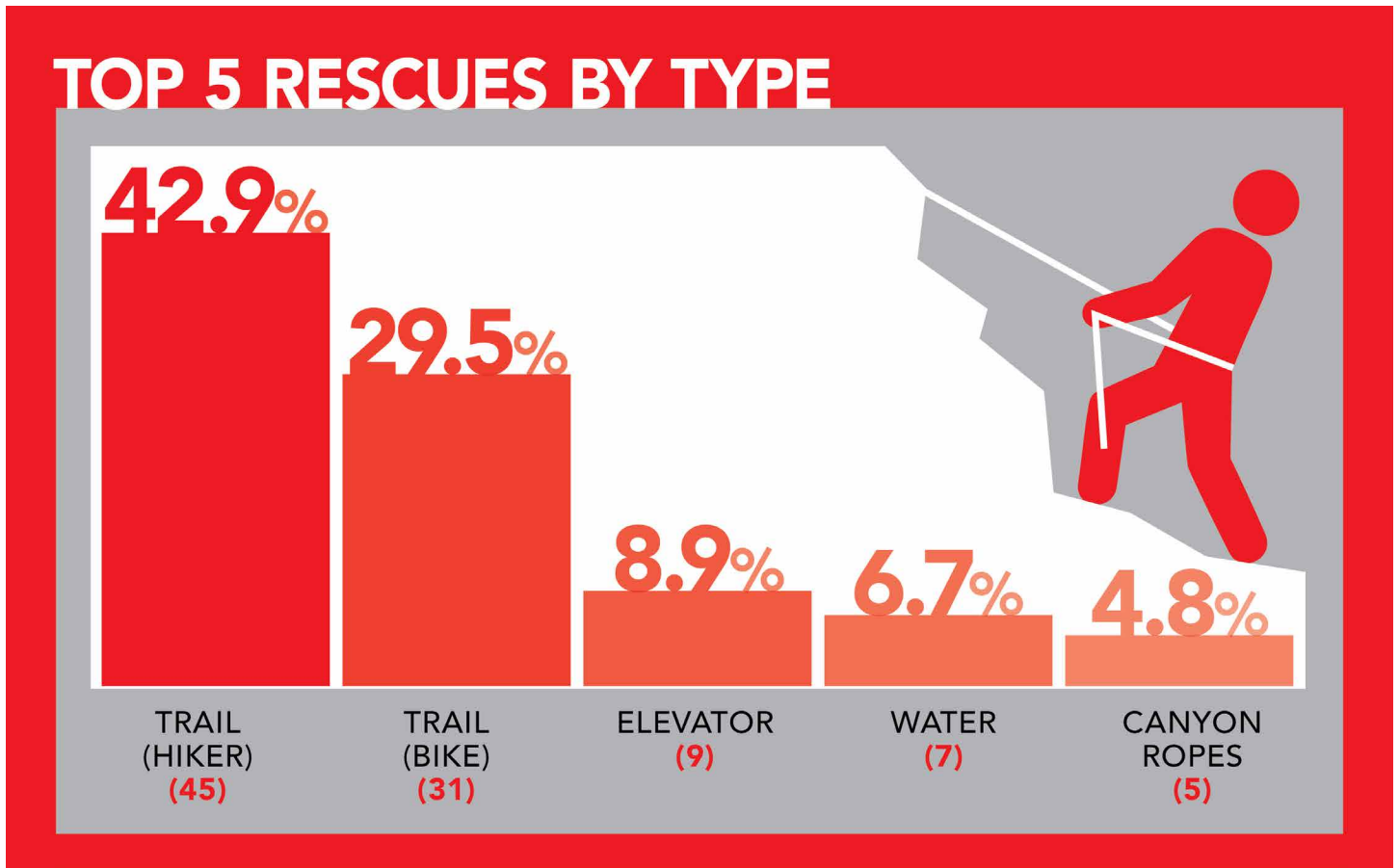


*NOTE: The Lynn Canyon Suspension Bridge reopened late summer 2021. Quarry Rock Trail remained closed during 2021 due to land access and COVID-19 precautions.

TYPICAL RESCUES

In 2021, DNVFRS responded to 105 rescue calls. Of that number, 91% related to outdoor recreation in our forested areas (hikers, mountain bikers, swimmers, kayakers, etc.). Elevator rescues were next at 9%.

Our firefighters are trained to meet, and in many cases, exceed industry standards in high-angle rope rescues and swift-water rescue techniques that are used every summer in Lynn Canyon, Capilano Canyon, and Quarry Rock in Deep Cove.



WORKING WITH NORTH SHORE RESCUE

We immediately liaise with North Shore Rescue (NSR) when responding to wildland search and rescues, and technical trail and water rescues that occur in the District to coordinate our efforts and ensure that each agency is aware of the incident.

Our strong working relationship with NSR allows us to capitalize on the skill sets of both of our agencies to best serve residents and visitors, while providing an efficient and coordinated response to all emergencies on the North Shore. We also work collaboratively to exchange information and host training programs that focus on our respective strengths as response agencies.



Due to provincial COVID-19 restrictions, we had limited opportunities to participate in interagency training activities in 2021. We look forward to working collaboratively to further align our training with NSR in 2022.

You can read more about the life-saving services that North Shore Rescue provides at northshorerescue.com.

RESPONDING TO MARINE EMERGENCIES WITH ROYAL CANADIAN MARINE SEARCH AND RESCUE

We work with Royal Canadian Marine Search and Rescue (RCMSAR) on all marine and waterfront emergency responses in the District.

This includes transporting firefighters and equipment to remote and boat-only access locations, providing water-based information and intelligence for shore-based emergency operations, and performing water rescues in areas that are inaccessible by DNVFRS firefighters.

As with our other partner agencies, we work closely with RCMSAR to share information and provide training that capitalizes on each agency's strengths. This collaboration includes preplanning and preparing for access to the Indian Arm communities of Cascades, Sunshine Falls, and Woodlands.

Due to provincial COVID-19 restrictions, we had limited opportunities for interagency training activities in 2021. However, we look forward to re-engaging and building upon our close working relationship moving into 2022.

For more information about North Vancouver Royal Canadian Marine Search & Rescue, visit rcmsar.com.

6. PLANNING FOR EMERGENCIES



Helping prepare for, respond to, and recover from major North Shore-wide emergencies is a significant focus of our fire department.

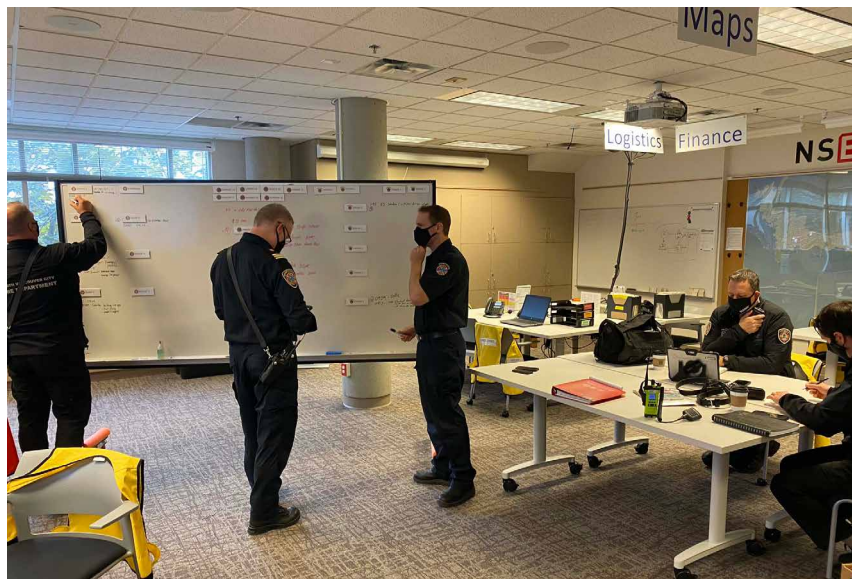
Our comprehensive major emergency operations plan and pandemic/infectious disease plan are living documents that are continually updated to stay relevant and effective.

The COVID-19 pandemic has validated our established process and focus on planning for emergencies that are anything but routine. The continuation of the pandemic in 2021 has refined and strengthened our ability to deal with major emergencies that impact the entire community.

MAJOR EMERGENCY OPERATIONS PLAN (MEOP)

We are part of an annual tri-municipal training initiative that prepares us to respond to large-scale incidents resulting in the failure of critical infrastructure, communications, and supply chains.

The Major Emergency Operations Plan (MEOP) resulted from the District's Earthquake Ready Action Plan, which is designed to strengthen our earthquake resiliency in four key areas — mitigation, preparedness, response, and recovery — by focusing on the people, buildings, infrastructure, and the most vulnerable systems.



The plan is reviewed and tested annually by all three municipalities during field exercises that replicate a post-disaster environment when all resources are overwhelmed.

In 2021, 81 staff and 14 pieces of apparatus from all three North Shore fire departments were exercised over the course of four days, with 324 overall participants. During the test, crews went into the field during a simulated earthquake to review the structural integrity of bridges, roadways, and other infrastructure and reported back on their findings.

The exercise in 2021 also incorporated a simulated activation of the Department Operations Centre (DOC), which is used to coordinate response activities, gather real-time intelligence, provide logistical and operations support, and maintain a chronological report of incidents and status updates in the event of an emergency.

The COVID-19 pandemic caused us to adapt, be flexible, and employ creative approaches to exercising this plan. The reality of potential concurrent events (for example, an earthquake during a pandemic) reinforced the importance we place on this approach across the North Shore. These adaptations allowed us to test our ability to set up a mixed in-person and virtual DOC, which aligns with the actual situation where our chief officers and municipal officials cannot physically come together due to the nature of the emergency.

The timing of the field exercise aligned again with the annual Great British Columbia ShakeOut earthquake drill to coordinate the District's earthquake initiatives with provincial efforts.

URBAN SEARCH AND RESCUE

Urban Search and Rescue (USAR) provides critical resources and a specially trained task force of personnel with medical, fire suppression, emergency response, search and rescue, and engineering backgrounds.

In 2021, we completed outfitting a response-ready structural collapse/urban search and rescue trailer. This coincided with a two-day exercise involving the 12 members of this team. USAR teams deploy in the field with specialized tools, training, and equipment to remove debris and help extract people trapped in major structural collapses during naturally occurring emergencies such as earthquakes.

Our members regularly attend monthly training sessions alongside Canada Task Force (CANTF-1), the provincial Heavy Urban Search and Rescue (HUSAR) team based in Vancouver.

Following program guidelines set by Public Safety Canada, DNVFRS continues working towards ensuring all our firefighters have the training and equipment to support our team, and to be interoperable with our CANTF-1 partners.



MARINE FIREFIGHTING

We are active partners alongside West Vancouver Fire & Rescue, North Vancouver City Fire Department, and Vancouver Fire & Rescue when responding to marine emergencies.

Over the past year, 40 additional North Shore firefighters received training to prepare for, respond to, and recover from several emergencies that can occur on the water, including 23 of our members. This increases the number of North Shore firefighters qualified to this standard to over 100, including 74 from the DNVFRS.

The Justice Institute of British Columbia (JIBC) delivered this training program that was hosted by our partners at Seaspn Vancouver Shipyards.

The programs are a model of interagency collaboration, with the following agencies actively participating in each session:

- Royal Canadian Marine Search and Rescue (RCMSAR)
- Royal Canadian Mounted Police Marine Unit
- Vancouver Fire & Rescue Services Fireboat
- Vancouver Police Department Marine Unit
- Port of Vancouver



NORTH SHORE EMERGENCY MANAGEMENT

North Shore Emergency Management (NSEM) is an inter-municipal agency that provides emergency management services to all three North Shore municipalities.

We work closely with NSEM on training initiatives and disaster relief exercises that simulate real-life response to scenarios such as urban interface fires, earthquakes, floods, and other emergencies.

NSEM is a valued partner agency that also supports the Disaster Emergency Readiness Training (DERT) program, which aims to improve the District of North Vancouver's operational resiliency in the event of large-scale emergencies.

You can learn more about the work that North Shore Emergency Management does for North Shore Communities at [NSEM.info](https://www.nsem.info).

35-MEMBER EXTENDED OPERATIONS UNIT

In 2018, we established the District of North Vancouver Extended Operations Unit (EOU) to strengthen the response to local, naturally occurring emergencies, increase community resiliency, and facilitate swift recovery from a natural disaster.

The 35-member team consists of DNV employees — many of whom already have relevant skills and experience from their 'day' jobs (arborists, heavy equipment operators, and so on). In the event of earthquakes, landslides, floods, wildfires, and other natural disasters, this team would be called on to support DNVFRS.

During large or significant naturally occurring emergencies, this group of trained staff will enhance our capacity and capability to mitigate incidents.



EOU TRAINING IN 2021

IN 2021, DNVFRS instructors delivered the following training opportunities to EOU members to enhance emergency response skills and knowledge:

- Wildfire Basic Fire Suppression and Safety (S-100)
- Wildfire Entrapment Avoidance (S-185)
- Red Cross First Aid Level I Training
- Initial Attack Crew Training
- CISM/Resilient Minds Training
- Chainsaw Safety

7. IN THE COMMUNITY



Serving in and caring for our community is our top priority, and we take pride in the work we do for our residents and businesses.

Whether teaching fire safety to children, helping our seniors plan and practice evacuation in an emergency, or demonstrating the tools and techniques we use daily to help keep everyone safe, we are always looking for opportunities to connect with people.

Despite the many challenges presented by the global pandemic, we offered several COVID-friendly events to increase public awareness and safety throughout 2021.

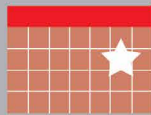
COMMUNITY EVENTS AND OUTREACH

We are always looking for opportunities to bring members of the public together to learn about fire safety, get to know our firefighters, and have some fun.

In 2021, we held 51 events, engaging with over 3,851 members of our community.

EVENTS

51 EVENTS
HELD



3,851

ATTENDEES



Some of the more notable events included:

- **Community Events:** We participated in seven COVID-19 friendly community events, including the North Vancouver Canada Day Parade and the Remembrance Day Celebration.
- **High School Grad Parades:** We were honoured to help our 2021 high school graduates celebrate their special day by participating in multiple grad parades.

Unfortunately, in-person kindergarten class visits were temporarily suspended in 2021 due to ongoing COVID-19 restrictions. We look forward to continuing our visits once restrictions are lifted.

GIVING BACK

Our firefighters contribute hundreds of volunteer hours annually through the DNV Firefighters Charitable Society and, in 2021, raised \$253,772.

These funds benefit important causes such as youth mental health, high school scholarships, the BCPFFA Burn Fund, Athletics 4 Kids, Seymour Salmonid Society, Muscular Dystrophy Canada, and other local organizations.

Event	Charity	Amount raised
Annual Fishing Derby	Seymour Salmonid Society and Athletics 4 Kids	\$60,000
Edgemont Haunt/Dover Court Crypt	BCPFFA Burn Fund	\$14,557 + \$5,000 grant - \$19,557
Pumpkin Drop	DNVFRS Charitable Society	\$3,355
SD44 School Board Scholarships	High school students interested in a firefighting career	\$1,000 scholarships (4)
Clothing donation bins	DNVFRS Charitable Society	\$79,000



DNVFRS firefighters receive a charitable donation from a resident.



The 2021 Annual Fishing Derby raised money for Seymour Salmonid Society and Athletics 4 Kids.



The Edgemont Haunt/Dover Court Crypt raised money for the BCPFFA Burn Fund.



DNV firefighters wear pink in support of Anti-Bullying Day.

In addition, we made donations to:

- Cancer Drivers Society
- Muscular Dystrophy Canada
- BC Lung Association
- BCPFFA Burn Fund
- North Shore Mountain Bike Association
- Canadian Red Cross Society

For more information, please visit the DNV Fire Charitable Society at dnvfirecharity.ca.

8. WILDFIRE PREPAREDNESS AND RESPONSE



With more than 1,600 fires burning nearly 8,700 square kilometres of land this year, the 2021 wildfire season in BC was the third-worst on record in terms of area burned.

Many of these fires burned dangerously close to communities. Two of the most notable and devastating wildfires in 2021 were the Lytton Creek and White Rock Lake wildfires, both of which had DNVFRS personnel in key leadership roles sharing experience and expertise.

We have long recognized that the District of North Vancouver has a significant area where our community meets the forest, which may be especially vulnerable to wildfire damage. Therefore, we enhance our wildfire preparedness and readiness capabilities through programs, partnerships, and training, as well as grant and funding opportunities.

Our approach has been and continues to be a multi-year effort that entails creative and innovative initiatives and building close working relationships with key partners.

WILDFIRE DEPLOYMENTS

In 2021, the DNVFRS supported the provincial response to the wildfire season by filling 45 positions for BC Wildfire Service throughout the summer. Our foremost priority is protecting and serving the residents of the District of North Vancouver, and our deployments are only undertaken when we can ensure appropriate personnel and resources remain response ready for the DNV. Here's a brief overview of these deployments:



COMMAND POSITIONS

- **Lytton Creek** — We deployed a chief officer to serve as an Agency Representative from the Office of the Fire Commissioner to the Incident Management Team. This role provided strategic liaison with all responding agencies and supported local government through the crisis.
- **Deka Lake (100 Mile House)** — We deployed a chief officer as a Task Force Leader to this incident to provide tactical oversight of firefighting resources used to defend homes and structures.
- **White Rock Lake** — DNVFRS filled four Task Force Leader positions over a month-long period. Structure defense operations in the North Division (Westwold) and South Division (Fintry) had night operations oversight by the DNVFRS, providing leadership to firefighting resources from across the province.

STRUCTURE PROTECTION

DNVFRS personnel are trained to provide many specialty disciplines, including our Structure Protection Crews and Structure Protection Units, which deployed throughout the province this wildfire season to protect threatened homes and infrastructure.

- **McKay Creek (Lillooet)** — We deployed a five-person Structure Protection Crew for 10 days to this incident.
- **Bill Nye Mountain (Cranbrook)** — We deployed a second five-person Structure Protection Crew deployed with one of our Structure Protection Units to this incident. During the nine-day deployment, they undertook operations at Okanagan Falls, Vernon, and finally protecting structures outside Cranbrook.
- **Tremont Creek (Ashcroft/Cache Creek)** — For over six weeks, DNVFRS personnel serving on our five-person Structure Protection Crews alongside our deployed Structure Protection Units conducted operations as a core element for this incident. We rotated our five-person crews every 14 days.

STRUCTURE DEFENSE

- **Logan Lake** — As this incident progressed rapidly and the Town of Logan Lake was in imminent threat, DNVFRS deployed a four-person fire engine to serve in a structure defense role. This eight-day deployment saw one of our Reserve Fire Engines helping to protect this community.

WILDFIRE FAQS

What does a Task Force Leader do?

The Task Force Leader directs a large combination of personnel, crews and different equipment during wildland fire incidents. All chief officers at DNVFRS are qualified as Task Force Leaders through the BC Wildfire Service.

What is a Structure Protection Unit and how many does DNVFRS have?

A Structure Protection Unit (SPU) is a cache of equipment stored in a trailer used by trained specialists to set up sprinklers on and around a structure. SPUs can effectively reduce wildfire threats to some types of buildings, such as houses, cabins, barns or other outbuildings. Each SPU can protect upwards of 35 homes or structures, and the DNVFRS has three of these units.

What is the difference between Structure Defense and Structure Protection?

Structure Defense is wildland firefighting and involves standard wildland strategy and tactics. It also may include removing wildland fuels around structures and using water enhancers and or foam on surrounding vegetation and the structures. Structure Protection strategies and tactics are used when there's a possibility that a wildfire could move into an urban environment. These specialists also use FireSmart principles that can be very useful to helping to protect homes and buildings in a wildfire's path.

SPECIALIZED WILDFIRE TRAINING

Our firefighters participate in regular annual training to ensure we're ready to respond to any wildfire threat quickly. In addition, the DNVFRS seeks out opportunities to innovate, implement best practices in the field, and introduce ground-breaking initiatives. Some highlights from our 2021 training programs and exercises included:

- **Wildfire Initial Attack Crew (DNV-IAC)** — This 25-person special teams program, unique to a BC municipal fire department, has been established to fight wildfires within or adjacent to the wildland areas of the District. These fires may be inaccessible to our fire engines, so personnel have the training to deploy and operate in remote settings for extended periods. The capacity to halt or control a wildfire before it infringes on our urban area is our goal.
- **Interagency wildfire field exercise** — In fall 2021, we held a full-day field exercise, deploying our Initial Attack Crew (DNV-IAC) alongside BC Wildfire Service and Metro Vancouver Watershed Protection initial attack and unit crew personnel.

- **BC Wildfire Service 'Engine Boss'** — In 2021, the Office of the Fire Commissioner and BC Wildfire introduced the Engine Boss course to BC. The District was selected as one of five locations across the province to host this program. Firefighters from 11 different departments travelled to the North Shore and participated in this practical, hands-on program to support wildland interface operations.



- **Danger Tree Assessor Certification** — In 2021, we recertified 11 of our danger tree assessors and added 13 new DTAs for a full complement of 29 certified personnel. This program supports our wildfire readiness by providing the knowledge and technical procedures for assessing tree hazards and establishing appropriate safe-work practices in situations with potential exposure from dangerous trees to workers on the fire line.
- **Wildfire Response Engines** — We acquired three new Wildfire Response Engines as part of our multi-year approach to building internal capacity to fight wildfires. These 'Squads' will serve a multi-purpose response role for the DNVFRS while also meeting the requirements needed to integrate into the BC Wildfire response system.
- **Strategic Wildfire Working Group** — In partnership with Metro Vancouver Watershed Protection, Coquitlam Fire/Rescue, and West Vancouver Fire & Rescue, we established this platform for interagency collaboration. As one of the three primary fire departments adjacent to the Capilano, Seymour, and Coquitlam watersheds, we have a vested interest in ensuring our approaches and responses at the strategic and tactical level are aligned and we can support one another through mutual aid.

PARTNERSHIP WITH METRO VANCOUVER

We continue to work with Metro Vancouver Watershed Protection on a variety of initiatives to enhance our inter-agency relationship and increase our interoperability in the event of a wildfire emergency or technical rescue. We will continue to:

- Liaise with the Metro Vancouver Watershed Protection team on joint initiatives such as the Wildfire Initial Attack Crew (DNV-IAC) training, dangerous tree assessment, helicopter training and overall wildfire protection across the North Shore and in our two watersheds (Capilano and Seymour).
- Coordinate communications through weekly fire danger rating reports to update our new signage and social media channels throughout the hot and dry season.

FIRESMART COMMUNITY PROGRAM

Due to the early start of the 2021 wildfire season, there was a heightened concern for home and property safety in our community.

Our town hall meeting with the residents of the Indian Arm communities spurred individual neighbourhoods to request FireSmart presentations and, later, neighbourhood recognition. As a result, 15 neighbourhoods participated in the FireSmart Canada Neighbourhood Recognition Project (FSCNRP) program. DNVFRS members, trained as Local Fire Smart Representatives (LFRs), assessed and provided recommendations to reduce risks to property by wildfire and increase the community's resiliency. As of 2021, we have 18 members qualified through FireSmart Canada as LFRs.

During the dry season, as part of the FireSmart door hanger program, our firefighters, public safety personnel, chief officers, administrative staff, and District park rangers delivered outdoor burning information to 3,271 homes in the urban interface and wildfire development permit area.

Members trained as Local FireSmart Representatives performed FireSmart assessments of 66 critical First Nations and publicly owned buildings.

We will continue to partner with the community and other agencies on the North Shore to increase FireSmart awareness and community risk reduction by meeting weekly with these partners to discuss information about potential fire dangers and preparedness tactics when the fire danger rating reaches high or extreme.

COMMUNITY WILDFIRE PROTECTION PLAN

Urban interface fires typically require more personnel and equipment resources than any single department has available, so cooperation and coordination between multiple departments, agencies, and organizations is required.

Our Community Wildfire Protection Plan (CWPP), updated in 2020, helps us prepare for, respond to, and recover from wildfires, particularly in areas where our community meets the forest, known as the "wildland urban interface."

The CWPP contains 52 recommendations for improving our emergency response and training, community education, emergency communications, building practices, and more to make the district as fire-safe as possible. DNVFRS is moving forward with many of these recommendations.

For more information on the Community Wildfire Protection Plan please visit [DNV.org/sites/default/files/edocs/dnv-cwpp-update-2020.pdf](https://dnv.org/sites/default/files/edocs/dnv-cwpp-update-2020.pdf).

9. TEAM BUILDING



The firefighters of DNVFRS are our greatest asset, and we're proud of the work they do every day to keep our community safe.

We are continually developing and supporting our diverse and inclusive team of dedicated professionals. We strive to provide an environment of professionalism and well-being that aids our team in obtaining the skills and attributes that allow them to excel in their positions. We are building an exemplary workforce through our tri-municipal recruiting program, health and wellness, and training and certification programs.

Our team-building initiatives are reflected in the positive working relationships and partnerships that we maintain with our region's many other professional and emergency service agencies. We continually support these relationships with regular initiatives, including interagency training and leadership programs.

SUCCESSION PLANNING

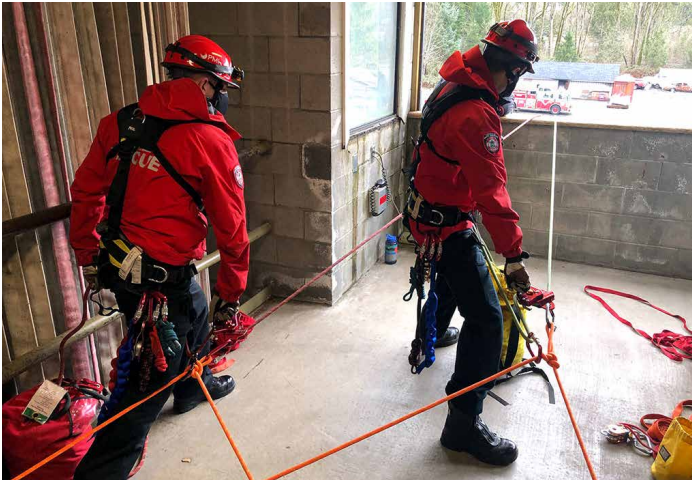
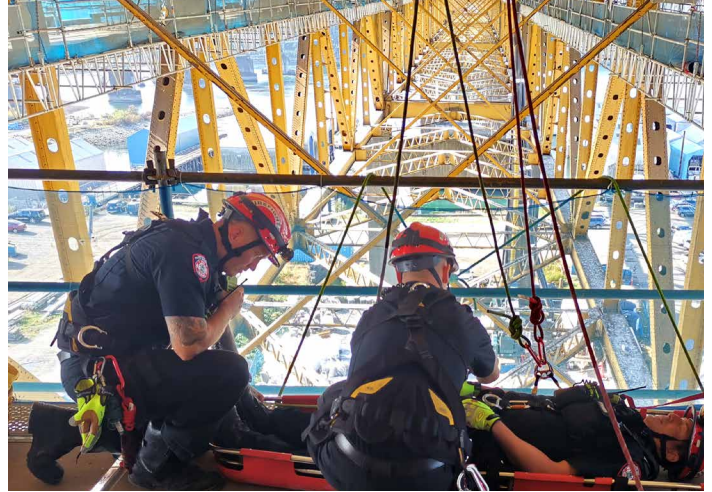
Through a collaborative process with the International Association of Fire Fighters (Local 1183), we continue to support and develop our Chief Officer Development Program (CODP) for our Company Officers. In 2021, we had nine (9) Captains who were trained and provided opportunities to fill temporary Assistant Fire Chief positions.

Developing tomorrow's leaders today is the key to progressive organizational behaviour. The CODP provides an opportunity to prepare the next generation of leaders through professional development, mentoring, and practicum experience.

The DNVFRS is pleased with this program's progress and is excited by the opportunity to further develop these members into the future leaders of our organization.

TRAINING

To deliver the excellence of service our community deserves, we provide comprehensive ongoing training to our members. In 2021, we had a training budget of \$415,820, which allowed us to provide 10,843 hours of specialized training to 126 firefighters.



In 2021, we provided 10,843 hours of specialized training to 126 firefighters.

SPECIALIZED TRAINING (OVERVIEW)

Each year, we provide specialized training in multiple fire and rescue disciplines, including fire behaviour, swift-water rescue, high-angle rope rescue, vehicle extrication, fire ground operations, wildland firefighting, emergency vehicle operator and emergency medical responder.

Our professionally certified instructors deliver these sessions that typically take place either at our dedicated training centre or at various offsite training locations within our response area.

To expand our operational capacity and effectiveness when responding to emergencies, we have provided our firefighters with training in several new and expanding areas in 2021, including structural collapse operations and chainsaw safety.

Here is an overview of the specialized training we provided to our firefighters in 2021.

TRAINING HOURS BY DISCIPLINE

10,843

HOURS
TOTAL



86

HOURS PER
PERSON

BUDGET

\$415,820

TRAINING BUDGET



RESULTS

487

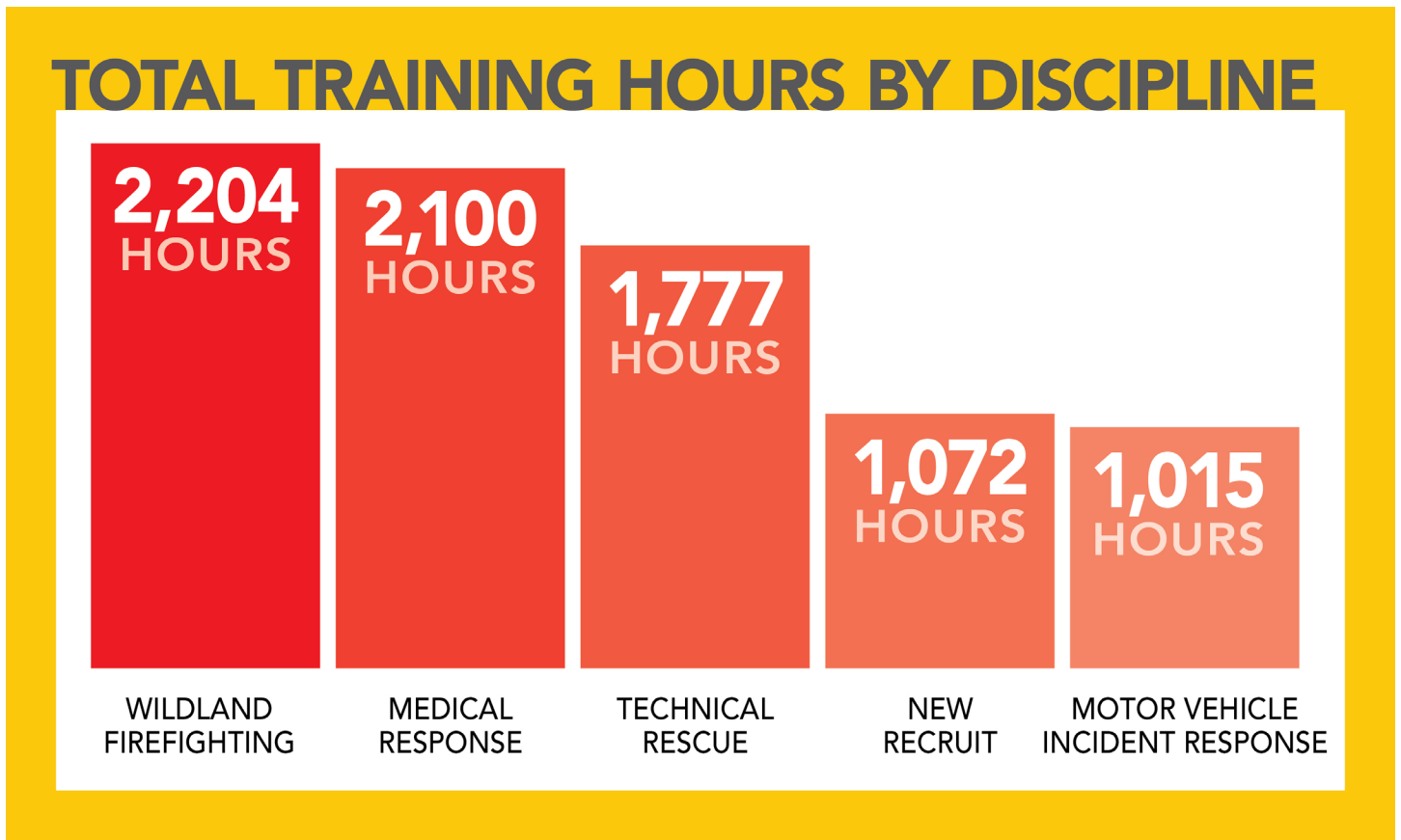
TRAINING
SESSIONS

126

STAFF
TRAINED



SPECIALIZED TRAINING BY DISCIPLINE (TOP 5 DISCIPLINES)



FOUNDATIONAL SKILLS TRAINING (OVERVIEW)

In addition to specialized training, our firefighters receive a significant amount of regular, on-the-job training that supports and maintains their foundational skills. This training includes ladder operations, incident command training, traffic safety, radio communications, hose deployment, gas and electrical safety, and building construction.

This training ensures our firefighters maintain the required competency standards for full-service firefighters, as outlined by the BC Office of the Fire Commissioner in the BC Fire Service Structure Firefighters Competency and Training Playbook.

Here is an overview of the foundational skills training we provided in 2021.

TRAINING HOURS BY FOUNDATIONAL SKILL

26,250

HOURS
TOTAL



208

HOURS PER
PERSON

RESULTS

17,628

TRAINING
SESSIONS

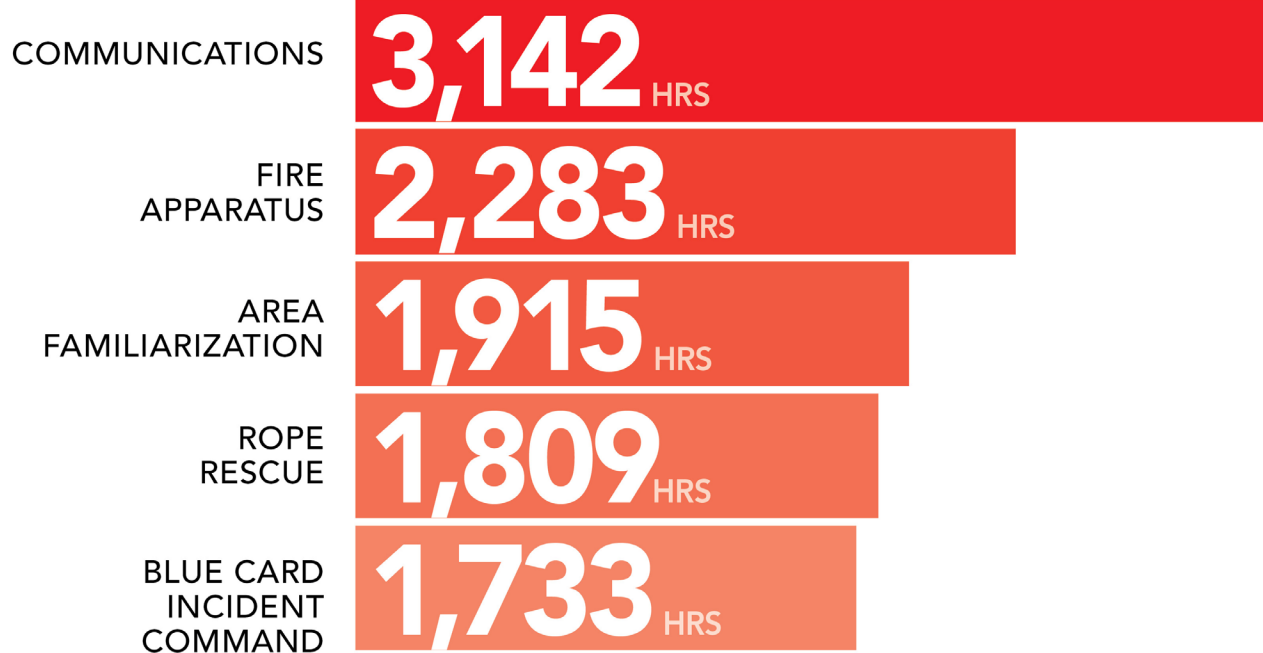


126

STAFF
TRAINED

FOUNDATIONAL SKILLS TRAINING BY SUBJECT (TOP 5 SUBJECTS)

TOTAL TRAINING HOURS BY SUBJECT



JUSTICE INSTITUTE OF BC (JIBC) PARTNERSHIP

The JIBC is a provincially recognized and industry leader of emergency service educational programs and training.

In 2020, we initiated a fire training partnership agreement with the JIBC that recognizes DNVFRS as an authorized provider of accredited training courses for the JIBC. This partnership will enable us to work together with the JIBC to enhance and improve the quality of fire training programs available to our region's fire service agencies.

INTERAGENCY TRAINING HIGHLIGHTS

We participate in training events with many of our regional emergency partners and regular training initiatives with our fellow North Shore fire departments. Some examples of this training include:

- **Canada Task Force 1 (CANTF1)** — Monthly training with Vancouver Fire and Rescue Services, Vancouver Police Department, British Columbia Ambulance Services, and North Shore fire departments
- **Municipal and Metro Vancouver park staff training** — Includes radio communications, fall restraint, swift-water awareness, wildland firefighting, and emergency medical first aid
- **JIBC Shipboard Firefighting for Land Based Firefighters** — training involving all three North Shore fire departments, Seaspan Vancouver Ship Yards, Vancouver Fire Department, North Vancouver RCMP, Vancouver Police and RCM Search and Rescue



NEW MAPLEWOOD FIRE & RESCUE TRAINING FACILITY

In early 2018, we began planning for the new Maplewood Fire and Rescue Centre to consolidate our current Fire Station #2 (Lynnmour) and Training Center on St. Denis Avenue and centrally locate management and administrative staff from Fire Station #1 in Lynn Valley.

Combining a fire station, training centre, and administrative functions into one new facility will improve fire response times, create operational efficiencies, and optimize the capital investment over the long term.

The sustainable, energy-efficient 45,000-sq.ft-facility will be made to post-disaster standards in order to maintain services in emergencies such as power outages and earthquakes. The new building is anticipated to have a 71% reduction in energy use and a 92% reduction in greenhouse gas (GHG) emissions compared to the existing buildings being replaced.

The construction of Maplewood Fire and Rescue Centre began in February 2022 and will take approximately 18 to 24 months. The anticipated completion date is fall 2023.

To see the latest project updates please visit [DNV.org/your-home-property/maplewood-fire-and-rescue-centre](https://www.dnv.org/your-home-property/maplewood-fire-and-rescue-centre).



Rendering of new Maplewood Fire & Rescue Training Centre

MENTAL HEALTH

Stress management and mental health care are at the forefront of our efforts to ensure staff are happy and healthy in their service to our community.

Our firefighters are trained to build psychological strength by taking part in the Resilient Minds program developed by the Canadian Mental Health Association, which teaches our members how to mitigate the impact of injuries related to occupational stress through early recognition and intervention.

Members receive the tools they need to improve their psychological health and enhance their quality of life. The program also provides our members with peer support when exposed to distressing situations such as violence, trauma, or death through post-incident defusing and debriefing. Looking ahead, in 2022, we will be developing a comprehensive 5-Year Well-Being Plan to improve and support the mental, physical and behavioural health of all personnel.

DIVERSITY AND INCLUSION

Women and visible minorities represent a small percentage of the total DNVFRS staff. We continue to reach out to the community and encourage everyone to consider the benefits of a career in the fire service. Recently, we developed a recruitment and outreach program with a goal to attract potential future firefighters from our local high school and post-secondary student populations.

Here are select events we held or attended in 2021:

- **Camp Ignite** — An annual camp for young women between 16-18 who want to learn firefighting skills and techniques, which we were honored to host at our training centre
- **JIBC Informational Workshop** — We participated in workshops this year with our Training Division and students currently enrolled in the Justice Institute of BC's Career firefighter technologies program
- **School visits** — North Vancouver School District



A Camp Ignite student practises using a fire extinguisher.

WORK EXPERIENCE

We enjoy giving local young people an inside look at the challenges and rewards of a firefighting career.

In 2022, we plan to continue to offer a “behind the scenes” look at a day in the life of DNVFRS through the following programs:

- **Bring Our Kids to Work Day** — students spend a day participating in firefighting demonstrations and activities
- **Work experience program** — Local high school students get the opportunity to experience a day in the life of a fire service member

Unfortunately, we had to cancel some of these programs in 2021 due to COVID-19. We value these programs and look forward to offering and expanding on these programs once again in 2022.

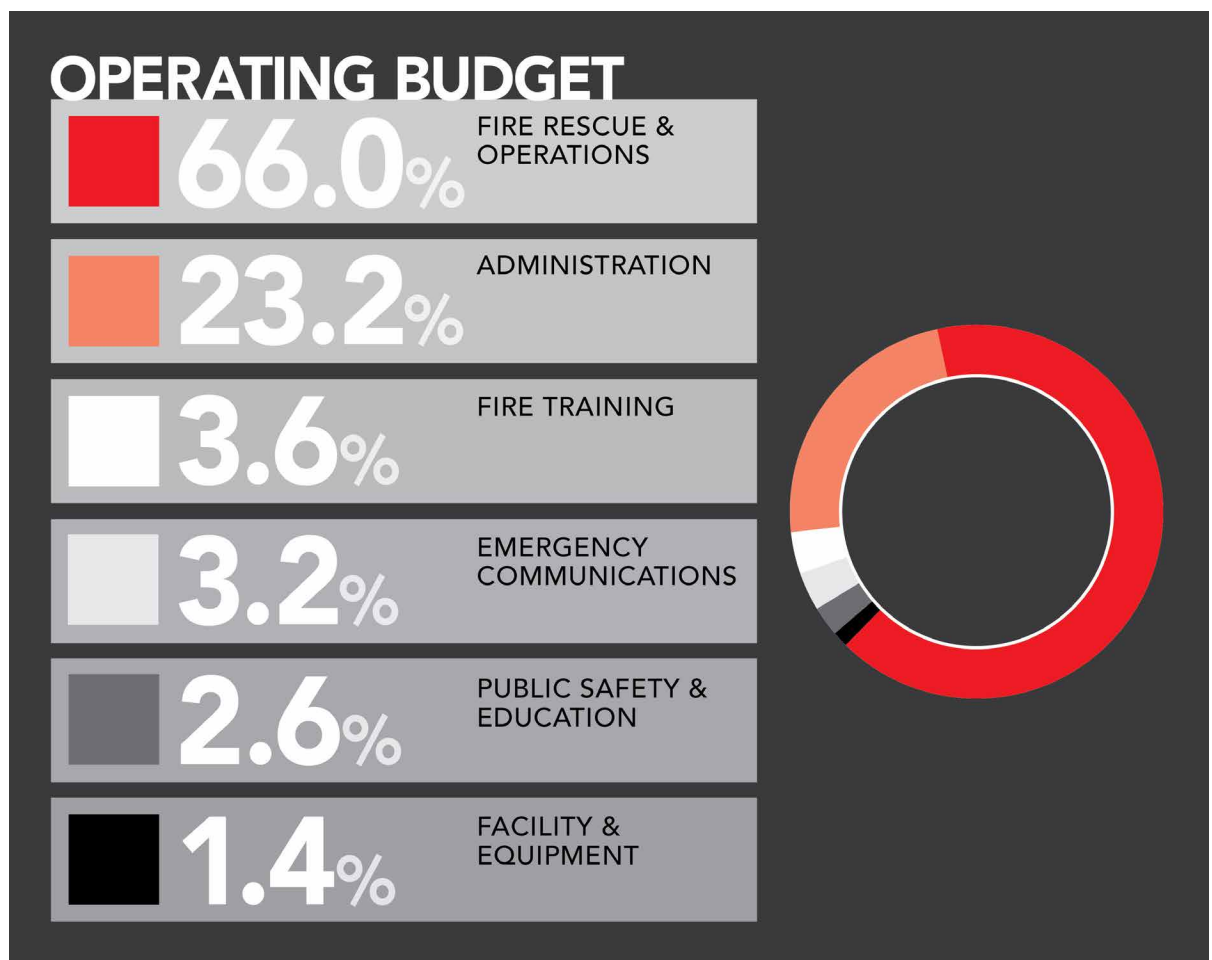


10. FINANCIAL HIGHLIGHTS



Our 2021 operating budget was \$21,496,349.

Fire rescue and operations accounted for the largest piece, at 66% of the total budget.



WHAT THE NUMBERS INCLUDE

FIRE RESCUE & OPERATIONS (66%)

- Fire suppression and rescue operations (includes marine firefighting and rescue)
- Prompt emergency and non-emergency response to all incidents
- Other rescue functions such as hazmat response, motor vehicle incidents, and technical rescues (high angle, swift water)

ADMINISTRATION (23.2%) & FACILITY & EQUIPMENT (1.4%)

- Maintenance (painting, plumbing, electrical, renovations, seismic upgrades, repairs, lawns and gardens, heating and lighting) of all fire facilities (stations, and training/maintenance centres)
- Maintenance, inspection, and repair of firefighting equipment such as turnout gear, forestry equipment, and fire response vehicles
- Equipment procurement process

PUBLIC SAFETY & EDUCATION (2.6%)

- Community risk reduction and pre-incident fire planning
- Fire prevention activities such as risk-based fire inspections, fire incident and arson investigations, fire code and bylaw enforcement, and plan reviews
- Targeted public education for purposes of fire prevention, reducing risks to life and property

EMERGENCY COMMUNICATIONS (3.2%)

- All aspects of fire and emergency response communications, including dispatch services and wide-area radio equipment
- Includes the maintenance of all other communications equipment (pagers, cellphones)

FIRE TRAINING (3.6%)

- Fire training facility operations and training programs, which range from internal recruit and special operations training to training for external customers such as the ProBoard Certification program

11. LOOKING TO 2022



The ongoing COVID-19 global pandemic and new Variants of Concern such as Delta and Omicron continue to impact our community and our work.

Maintaining the highest level of service to our citizens has required flexibility, adaptability, and a commitment to stay ahead of best practices in the field from our entire organization during these challenging times. With that approach, we witnessed positive results from our efforts, and we continue to look for more opportunities to improve the tools and strategies we use to care for our community. Regardless of the challenges ahead, we remain committed to using our expertise and experience to serve our community.

CHALLENGES AND OPPORTUNITIES

When looking to the future, we are paying close attention to the changes facing our community.

With an aging population, we must continue to ensure that pre-hospital care meets the needs of this important demographic.

At the same time, as climate change impacts our region through heat domes, flooding, winter storms, and wildfires, we will continue to increase the work we do around emergency preparedness, response and recovery.

STRATEGIC PLANNING

Our Strategic Plan 2020-2025 consists of four key priorities that are long-term aspirations. Each priority identifies several strategic objectives that define what DNVFRS must do over the next five years to support our priorities, fulfill our mission and move towards our vision, and measure the actions that we will take in the short term.

This is an evergreen document for us, meaning that it remains flexible and adaptable as situations and conditions continue to evolve.

In 2022, we will develop and track our strategic directions and progress towards completing our goals, including priorities and timelines.

To view the Strategic plan please visit [DNV.org/sites/default/files/edocs/fire-strategic-plan-2020.pdf](https://www.dnv.org/sites/default/files/edocs/fire-strategic-plan-2020.pdf).





DNV.org/FireAnnualReport