

# Office of the Fire Marshal ANNUAL STATISTICS REPORT





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16 August 2022

The Honourable John Lohr Minister of Municipal Affairs and Housing Province of Nova Scotia Department of Municipal Affairs and Housing P.O. Box 216 Halifax, NS B3J 2M4

#### RE: Office of the Fire Marshal 2020-2021 Annual Statistics Report

The Annual Report attached, is a compilation of the activities and data collected from our records for the fiscal year April 1, 2020 through March 31, 2021. During this period, Mr. Fred Jeffers was the appointed Fire Marshal. Today, on his behalf, I have the privilege to submit the report as required by the *Fire Safety Act. 2002, c.6, s.1.* 

As the honourable member is apprised, the Department of Municipal Affairs and Housing provides programs, grants and funding to municipalities and community groups. The department provides services and guidance to municipalities, towns and villages in many areas including safety and security, budget planning and finance, and policy and program development. We also help municipalities across the province govern and provide municipal services in times of emergency and are responsible for the Emergency Management Office and the Office of the Fire Marshal.

The Minister of Municipal Affairs and Housing, was the Honourable Chuck Porter from the period of 1 April 2020 to 23 February 2021.

The Minister of Municipal Affairs from February 2021 to 31 March 2021 was the Honourable Brendan Maguire.

Over this period, the dedicated staff from the Office of the Fire Marshal have continued to develop and promote the principles of fire prevention for the protection of Nova Scotians against fire.

Sincerely, Doug MacKenzie Fire Marshal

Nova Scotia Government web site <u>http://novascotia.ca</u>



# SUMMARY

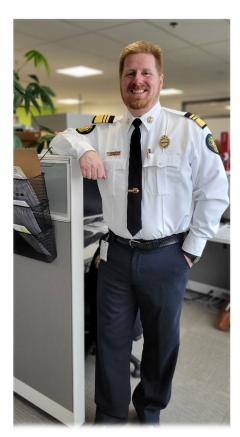
The Office of the Fire Marshal's (OFM) authorities and responsibilities are contained in the *Fire Safety Act*. The OFM has a mission to promote, coordinate, and facilitate fire and building safety in Nova Scotia. Our vision is that all Nova Scotians will accept their personal responsibility for building and fire safety.

One of the many strengths within the functions of the OFM is fostering successful partnerships. The Office continues to build strong relationships with our key stakeholders, including the fire service, our municipal partners, and other provincial departments. The OFM provides advice and recommendations to persons and/or organizations regarding the principles and practices of fire suppression, fire prevention, fire safety education, safe building code practices, emergency services and related

communications systems.

This Annual Report is a compilation of the activities and data collected from our records for the fiscal year April 1, 2020 through March 31, 2021.

Doug MacKenzie Fire Marshal



# INTRODUCTION

# MUNICIPAL AFFAIRS AND HOUSING

The Minister of Municipal Affairs and Housing, was the Honourable Chuck Porter from the period of 1 April 2020 to 23 February 2021. The Minister of Municipal Affairs from February 2021 to 31 March 2021 was the Honourable Brendan Maguire.

Strategically situated within this department, the OFM is well positioned to work closely with the Emergency Management Office, Municipal Services, and other key members of the Municipal Affairs team. Our mandate is closely linked with municipalities, and this connection continues to prove invaluable.

### RESOURCES

In 2020-2021, the OFM consisted of nineteen (19) staff located throughout the province:

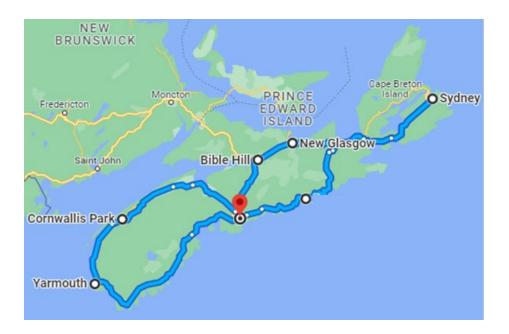
- Fire Marshal, Doug MacKenzie. Director responsible for the overall direction and management of the OFM.
- Assistant Fire Marshal, Jamie Young. Manages the Operations team.
  A total of ten (10) Deputy Fire Marshals, conduct inspections, investigations & education activities:
  - Arden Weagle
  - Martyn Payge
  - Rick Smith
  - Lynelle Vetsch
  - Ryan Thibeau
- Derwin Swinemar
- Ronald Thibeau
- Andrew Wentzell
- \_·
- Manager of Corporate Policy, Kirk Janes. Manages two groups. Administration:
  - Fire Service Coordinator, Sheila Harvey. Provides certification and awards support to fire services.
  - Administrative Assistant, Becky Wilson. Provides administrative support for the OFM.
  - Research & Statistics Officer, Jonathan Gilles. Maintains databases, provides statistical reporting. Codes Team:
    - Fire Code Coordinator, Lorelei Atkinson. Leads policy and administration related to fire code. Conducts plan reviews, provides technical support.
    - Building Code Coordinator, Joe Rogers. Leads policy and administration related to building codes. Provides technical support.
    - Assistant Code Coordinator, Lisa Cadger. Building and Fire Code Coordinator support.

### FINANCE

For the fiscal period 2020-2021, the Office of the Fire Marshal has an annual budget of approximately \$3.513 M.

# LOCATION

For much of the fiscal year, the OFM head office was centrally located in Halifax in the Maritime Centre on Barrington Street. In early March 2021, head office is relocated to Baker Drive in Dartmouth. Field offices are located throughout Nova Scotia, in Yarmouth, Cornwallis, Bible Hill, New Glasgow and Sydney.



### INTEGRATION

From within DMAH, and through other branches of government, the OFM is well supported with regards to Human Resources, Information Technology, Payroll, Financial, Procurement, Legal and Information Access. These key services play an important role in the success of the Office of the Fire Marshal.

# OFM ACTIVITIES

## ΟVERVIEW

Over the course of 2020-2021, the Office of the Fire Marshal (OFM):

- conducted fire inspections;
- performed fire investigations;
- maintained a database of activities, including fire incident statistics & trends;
- provided advice and support to stakeholders;
- promoted building safety;
- reviewed building plans;
- provided resources to support fire services;
- licensed portable extinguisher service providers; and
- provided fire safety education and training to the general public, government and industry throughout the province.

Previously, Office of the Fire Marshal administered the Emergency Services Provider Fund. However, in 2021 the Department of Municipal Affairs and Housing consolidated all grant programs within one division. The \$1M ESPF budget was moved to the Municipal Sustainability Group.

## COVID-19 PANDEMIC

As Nova Scotia entered the spring of 2020, the COVID-19 pandemic was well upon the province. All schools and licensed daycares were ordered to close. The first Covid-19 related death was recorded April 7, 2020. Masking, physical distancing and gathering limits were established. By summer, some restrictions had eased with visits permitted to resume outside at long-term care homes and homes for people with disabilities.

The onset of fall brought the start of the second wave. New restrictions were put in place and the new year saw tighter borders and self-isolation requirements for entering Nova Scotia from New Brunswick. Vaccine rollout began with focus on healthcare workers and long-term care and residential facilities. In February, a new variant entered the province causing a third wave. By March 2021, the general public was given the opportunity to book a vaccination appointment.

The Office of the Fire Marshal continued inspections and support of stakeholders with many precautions and modifications, some of which included:

• Working from home as required to ensure reporting was kept up to date. This time was also utilized to enhance training using online training sessions.

• Staff adapted and developed new and unique ways of ensuring safety in the buildings for which they are responsible. This included the use of live video for inspection of facilities so they would not have to make entry into the buildings and put the occupants at risk. When having to enter facilities to verify deficiencies, Deputies carefully adhered to the facilities and provincial requirements for proper PPE.

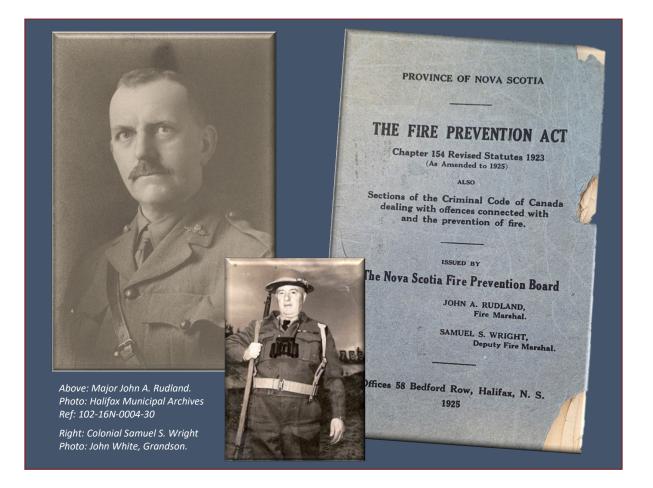


- Providing daily support to facilities management to approve or deny changes that would affect fire and life safety while working with our stakeholders to provide the best possible medical care.
- Working closely with our partners in Health, Corrections, Small Options & Housing to answer their concerns around fire safety, as new equipment and protocols were put into place.
- Assist the fire service of Nova Scotia in obtaining supplies and navigating the changing policies on fire/medical responses and training.
- Assisted in fulfilling the National Fire Protection Agency (NFPA) requirement that fire apparatus must be driven from the manufacture to the fire department of purchaser by coordinating the in-person delivery of fire trucks at the provincial border.

# CENTENNIAL YEAR

This year the Office of the Fire Marshal was pleased to be able to celebrate over 100 years of partnerships in fire and building safety. Despite the delay and limitations with the pandemic, the office brought to light the provincial fire prevention foundation and contributions of fire prevention and investigation work in the province. In part, our research findings determined:

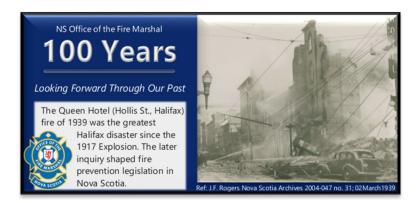
- Nova Scotia's first Fire Prevention Board was established in 1919.
- The board appointed the first Fire Marshal Major John Alexander Rudland. Soon after, Colonial Samuel S. Wright was appointed as Deputy Fire Marshal.
- In 1921, the OFM's first annual report for the year ending was published. Fire losses for the whole Dominion was described as appalling with consideration that at least 75% of fires were preventable.



"In **1921** Nova Scotia had the unenviable distinction of holding the second highest position among the provinces for fire loss per capita.... Success depends upon the co-operation of the public and the first effort of a campaign must be to arouse the public conscience."

Source: F.W.W. Doane, Chairman, Nova Scotia Fire Prevention Board, Halifax, NS, November 9, 1931.

- On 11 March 2021, during the Third Session of the 63<sup>rd</sup> General Assembly of the House of Assembly for Nova Scotia, the Honourable Brendan Maguire, Minister of Municipal Affairs, moved the adoption of Resolution No. 15. That all members of the House Assembly recognize the 100<sup>th</sup> anniversary of the establishment of the Office of the Fire Marshal of Nova Scotia, and the important work they do in promoting fire, building, and life safety.
- Numerous social media posts were created to bring awareness to the history and why it is so important to recognize the partnerships with stakeholders in fire and building safety and to highlight the significance and contributions.



The Office of the Fire Marshal extends sincere appreciation to contributors, including but not limited to: Council of Canadian Fire Marshalls and Fire Commissioners, numerous historical groups, fire departments, Nova Scotia Legislative Library, Halifax Army Museum, Nova Scotia Archives, Halifax Municipal Archives, National Fire Protection Association, the family of Colonial Samuel S. Wright and other historical enthusiasts.

 Published in the national Canadian Association of Fire Investigators Journal (CAFI), an article titled, "East Coast Original – Provincial Fire Prevention Foundations" was written by Lisa Cadger, Assistant Code Coordinator for the OFM. The article highlighted the provincial history and expanded role the OFM serves the province today. The issue featured Deputy Fire Marshal Lynelle Vetsch on the front cover being the first female Deputy Fire Marshal in Nova Scotia. Deputy Vetsch, is the CAFI Eastern Canada Director for the Executive Board 2020-2021.



- Photos were taken of all OFM staff across the province to document and celebrate the growth and contributions in the centennial anniversary year.
- In honour of the 70<sup>th</sup> birthday of NFPA's spokes-dog Sparky, of all animals involved in fire safety and to those lost to fire over the past 100 years, OFM staff were encouraged to submit photos of their pets for National Pet Day. Tweets and email tags were created to share fire safety messaging.



Be sure to include pets in your home fire safety and evacuation plans. See these tips: <u>PetSafetyTips.ashx (nfpa.org)</u> #FireSafety

- A list was compiled and published of Fire Marshals and their years of service over the last 100 years recognizing all contributions over the anniversary period.
- Email tags were created introducing the faces of OFM staff today and promoting fire safety for distribution. Fire promotion links were provided for additional education and resources.

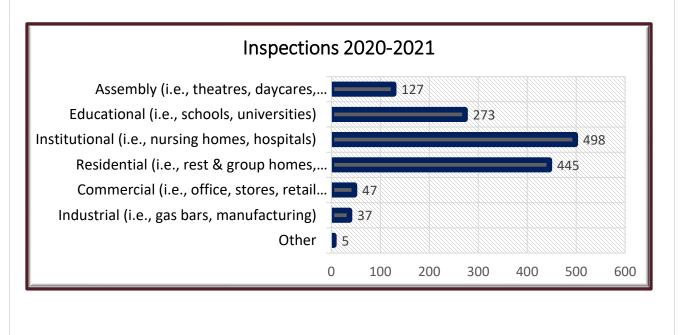


# ΙΝ S P E C T I O N S

Throughout the fiscal year, the OFM conducted a total of 1383 activities at various buildings and properties which generated 798 inspection reports, 51 orders to take action, 8 appeals, 41 training events and 575 other-event correspondence.

Many of the inspections undertaken were in concert with our provincial partners in the Departments of Health & Wellness, Community Services, Education & Early Childhood Development and the Department of Service Nova Scotia and Internal Services.

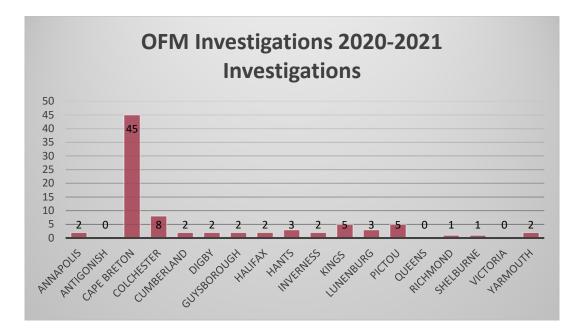
During the year, we visited numerous nursing homes, group and small option homes, schools, hospitals, and public venues. The numbers and types of inspections undertaken are illustrated below:



# INVESTIGATIONS

The Office of the Fire Marshal provided support to Local Assistants (Fire Chiefs) in determining the cause and origin of fires. An on-call Duty Deputy Fire Marshal monitored a 24-hour call in number available to fire services. Deputy Fire Marshals are available to respond throughout the province around the clock when requested to conduct fire investigations.

During the investigation process, the OFM collaborates closely with Fire Services, Provincial Police Services, NS Medical Examiners Service and the Insurance Industry. The OFM hold responsibility for inspections of all licensed care facilities, group homes, hospitals including nursing homes, provincial buildings and all community colleges and universities. For service to the residents of Halifax Regional Municipality, a formal agreement for prevention of a duplication of service and definition of jurisdictional boundaries was established in 2010. Halifax Fire Prevention Division carry out their own system of investigations, with assistance provided by the OFM if requested. In 2020-2021, the OFM received 230 requests from local assistants and policing services. Through consultations with our on-duty Deputy Fire Marshals, the Local Assistants were guided through the process to determine the cause of the fire or to make the determination if it was safe for Deputy Fire Marshals to attend the scene, resulting in 85 investigations being performed by the OFM.



# STATISTICS

The Office of the Fire Marshal maintains a fire incident database from information submitted by the fire service, OFM staff and the insurance industry. This data forms the basis of the analysis of statistics and trends of fires in Nova Scotia which assists in the development of fire safety education programming.

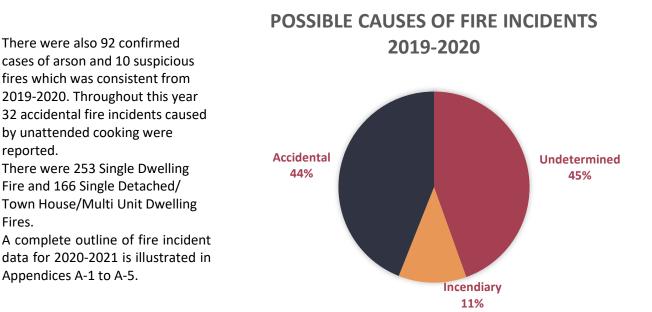
In 2020-2021, there were 1489 fire service response events reported to the OFM of which 1180 were fire related incidents. There was a reported structure loss of \$16,993,924; a reported contents loss of \$5,549,191; for a total fire loss of \$22,543,115.

Fire Causes are divided into four categories:

- Accidental fires are those for which the proven cause does not involve an intentional human act and include mechanical/electrical misuse and failure, construction/design deficiency and misuse of ignition sources or materials.
- Incendiary fires are fires that are deliberately set with the intent to cause a fire to occur in an area where the fire should not be.
- Natural fires are those fires caused without direct human intervention or action and include fires resulting from lightning, earthquake, wind and flood.

Undetermined fires are those fires where the cause cannot be proven to an acceptable level of certainty and include fires that are under investigation, where additional evidence may change the cause determination.

A total of 413 of the reported fires were found to be Accidental. There were 108 Incendiary fires reported. Of all reported fires, a total of 418 were deemed to be undetermined. In 2020-2021, there were 13 reported fire related fatalities and 27 fire related injuries reported, including 5 cases of firefighter injury.



## CONSULTING WITH STAKEHOLDERS

reported.

Fires.

One of the key activities for staff from the Office of the Fire Marshal is to act as a resource for the many partners and stakeholders with whom we interact. OFM staff at all levels provide information, advice and recommendations regarding numerous aspects of building & fire safety as well as fire service delivery. This includes support for municipal building and fire inspectors, architects, engineers, and other consultants as well as private citizens.

The OFM collaborates regularly with many provincial counterparts from the Departments of Justice, Health & Wellness, Education & Early Childhood Development, Community Services, Natural Resources, Labour & Advanced Education, and Transportation & Infrastructure Renewal. Office of the Fire Marshal staff conduct numerous inspections for provincial licensing and provide advice and recommendations relating to fire and building safety for all provincially owned properties.

The Office of the Fire Marshal continues to foster and develop relationships with fire services in Nova Scotia. The OFM provides information and often works closely with fire services as a bridge to other Provincial departments, the Association of Municipal Administrators, and the Nova Scotia Federation of Municipalities (NSFM) for a variety of subjects such as: dispatching; wildfire management; motor vehicle concerns; training standards; occupational health & safety; procedure advice on bylaws; authority under the Municipal Government Act and the Fire Safety Act.

# BUILDING SAFETY

With regard to Building Safety, the OFM establishes policies, regulations and programs for the regulation of construction for all buildings in Nova Scotia. OFM staff develop education materials, deliver training, and provide stakeholders with sound technical advice on construction codes.

In 2020-2021, the OFM Building Safety team supported our partners, the Nova Scotia Building Officials Association, in their delivery of 9 Building Code Courses provided to Municipal Building Officials and others.

Normally, code presentations would be given to stakeholders such as the Nova Scotia Architects Association, Nova Scotia Building Officials Association, Bright Business Conference and Nova Scotia Community Colleges. However, with the pandemic most of this activity was required to be suspended.



Heather Corrigan continued to act as the Chair of the Nova Scotia Building Advisory Committee (NSBAC). The Committee is currently comprised of 12 members who represent building construction stakeholders and include members from the design, construction, and regulatory fields. Throughout the year, this committee scheduled and held 6 virtual meetings. The NSBAC also received, reviewed, and actioned 7 appeals regarding the application of the Nova Scotia Building Code. Code changes related to accessibility of restaurants became effective on 31 October 2020.



Codes Canada publishes five national model codes: the National Building Code of Canada (NBC), National Fire Code of Canada (NFC), National Plumbing Code of Canada (NPC) and National Energy Code of Canada for Buildings (NECB). They also include the National Farm Building Code (last published in 1995). The Codes are developed and maintained by the Canadian Commission on Building and Fire Codes (CCBFC) and published by the National Research Council of Canada (NRC) as models and must be adopted to come into effect.

The OFM is responsible for amendments to suit Nova Scotia's needs. Together with acts and regulations, they become Nova Scotia's building and fire codes.

In the spring of 2019, Codes Canada offered free online access to codes. The OFM continues to also maintain a library of past and current codes along with standards, historical and reference material.

# **BUILDING PLAN REVIEW PROCESS**

The Office of the Fire Marshal is required by the Fire Safety Act to carry out plan reviews for certain occupancies before the commencement of construction, in order to provide the opportunity to advise an owner and building official of apparent contraventions to the Act, the regulations and Fire Code. These occupancies include:

- Assembly occupancy (Group A) that are more than 3 stories high including the stories below grade, or have an area greater than 600 m<sup>2</sup>, or non-residential buildings used for a school, college or university and that has an occupant load of more than 40 persons;
- Care or Detention occupancy (Group B);
- Residential occupancy (Group C) that is licensed or regulated under the Homes for Special Care Act; and
- High hazard Industrial occupancies (Group F1) more than 2 stories high or has an area greater than 600 m2.
- The OFM also conducts fire and life safety plan reviews for Nova Scotia Government projects that do not fall within the scope of the occupancies noted in the Fire Safety Regulations when requested.



The Office of the Fire Marshal employs a full-time Fire Code Coordinator to lead policy and administration related to fire code and to fill the need for full time plans review. Construction ready plans submitted to the OFM are reviewed to ensure conformance to the Fire Code for fire and life safety requirements, to ensure safety to occupants. The OFM responds to all plans received with recognition of receipt of plans. If a plan review is required, once it is complete correspondence is sent out identifying compliance or deficiencies and advising if, or when, inspections by a Deputy Fire Marshal are required.

## BUILDING PLANS REVIEW SUMMARY

In this fiscal period, the average time for plans review was two weeks; including from when plans were received by the OFM, the review carried out and comments sent to the owner. The time required to review a set of plans is dependent on several factors and whether the submission contains all the necessary information. The size and complexity of the building affects the amount of time it takes to complete a review. In some cases, the time of year can also affect the timeline due to multiple projects ready to go at one time. In all cases, this is communicated to those submitting plans.

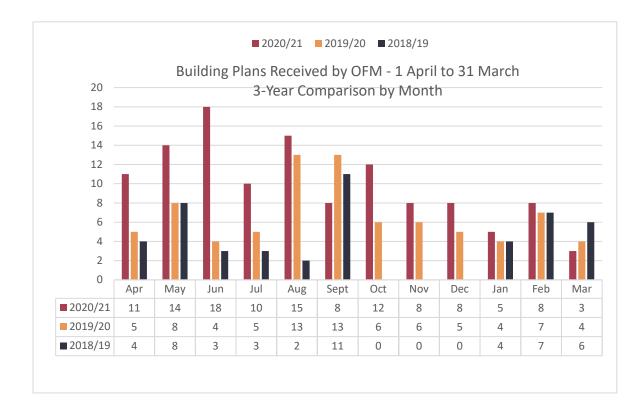
There were 11 plans accompanied by alternative solution proposals. These proposals are submitted as part of the plan review process and involve hours of careful review time to ensure compliance with the Code. Compliance with the Codes can be achieved using alternative solutions provided the solution will achieve at least the minimum level of performance required by Division B of the Code, in the areas defined by the objectives and functional statements attributed to the applicable code requirement. An alternative solution is a method of compliance with the Code, such as an innovative idea. It is not a method to avoid compliance with requirement(s) of the Code. Proposals are required to include adequate technical analysis and sufficient evidence to justify and validate achievement of the minimum level of performance required by the Code.

In addition to numerous other teleconferences, phone calls, and correspondence via email; 157 formal responses relating to plan reviews were mailed out (not including emails) from April 1, 2020 to March 31, 2021.

■ 2020/21 ■ 2019/20 ■ 2018/19 Building Plans Received sorted by Major Occupancy Classification 60 3-Year Comparison 50 40 30 20 10 0 A1 Β1 F1 A2 A4 R2 **B**3 С D Е F2 F3 2020/21 53 1 2 19 15 2 5 1 14 6 1 1 2019/20 7 5 2 39 11 1 1 14 2 3 ■ 2018/19 19 12 5 7

A complete summary of Building Plans Submitted to the OFM for Review for 2020-2021 is illustrated in Appendix B.

- A1 Assembly occupancies intended for the production and viewing of the performing arts
- A2 Assembly occupancies not elsewhere classified in Group A (schools, churches, clubs, etc.)
- A2 Assembly occupancies of the arena type (Indoor swimming pools, rinks, etc.)
- B1 Detention occupancies (jails, police stations with detention quarters, etc.)
- B2- Treatment occupancies (hospitals, long term care homes with treatment, etc.)
- B3- Care occupancies (day cares with infants, long term care homes without treatment, group homes, etc.)
- C Residential occupancies (apartments, boarding houses, hotels, etc.)
- D Business and personal services occupancies (offices, banks, beauty parlours, etc.)
- E Mercantile occupancies (shops, malls, supermarkets, etc.)
- F1 High hazard industrial occupancies (bulk fuel plants, distilleries, spray paint operations, etc.)
- F2 Medium hazard industrial occupancies (repair garage, cold storage plants, etc.)
- F3 Low hazard industrial occupancies (warehouse, storage garage, etc.)



# SUPPORT TO NOVA SCOTIA FIRE SERVICES

As part of our continuing commitment to the fire services in Nova Scotia, the Office of the Fire Marshal employs a full-time Fire Service Coordinator to administer several programs to support these first responders.

#### Nova Scotia Fire Services Long Service Medal

First awarded in 1980, "The Fire Services Long Service Medal" is an expression of public appreciation for the dedication and hard work of Nova Scotia firefighters. It is officially recognized by the province and is included in the *Fire Safety Act, 2003*. Both career and volunteer firefighters can qualify for the medal.

The long service medal is available to those who have achieved a minimum of 25-years in the fire service. In 2015, 35-year, and 45-year service bars were made available. Service bars are only available to recipients who achieved their 35-years of service on or after 31 December 2007 and 45-years of service on or after 31 December 2017.

The OFM provides support to the Nova Scotia Fire Service as the administrator of long Service Medal review and approval process. During the fiscal year 2020-2021, the Fire Marshal recommended to the Minister of Municipal Affairs and Housing the awarding of 29 Nova Scotia Long Service Medals (25 years of Service) and 31 Nova Scotia Long Service Bars (35 years of service) and 25 Nova Scotia Long Service Bars (45 years of service).

#### **Governor General's Fire Services Exemplary Service Medal**

The Governor General presents honours and awards on behalf of all Canadians to recognize those people who have demonstrated excellence, courage or exceptional dedication to service in ways that bring special credit to this country.

The Fire Services Exemplary Service Medal, created on August 29, 1985, honours members of a recognized Canadian fire service who have completed 20 years of service, ten years of which have been served in the performance of duties involving potential risks, and were employed on or after the date of creation of the Medal. Recognized fire services include Canadian fire departments, fire marshals' offices, fire commissioners' offices and the Canadian Forces fire services. Exemplary service is characterized by good conduct, industry and efficiency.

The Office of the Fire Marshal has been established as the provincial awards committee whose primary function is to make recommendations to the Governor General for the medal or bar.

During the fiscal year 2020-2021, the OFM recommended to the Governor General the awarding of: 32 Fire Services Exemplary Service Medals (20 years of service); 30 Fire Services Exemplary Service Bar ( 30 years of service); 12 Fire Services Exemplary Service Bar (40 years of service); 9 Fire Services Exemplary Service Bar (50 years of service).

#### Nova Scotia Fire Service Professional Qualifications Board

The Nova Scotia Fire Service Professional Qualifications Board (NSFSPQB) was formed in 1997 under the auspices of the Registry of Joint Stocks and is governed by and reports to the Office of the Fire Marshal. The Board consists of members from stakeholder groups that are involved in fire service training. The OFM has a permanent seat on the Board which is held by the Fire Marshal.

It is the objective of the NSFSPQB to provide a forum for firefighters to access a provincial firefighter certification program. It is the goal of the NSFSPQB that the combined efforts of the member entities will provide for an effective, efficient and cost-effective

certification program.

The NSFSPQB provides a mechanism for the establishment of uniformity in fire service training and testing and promotes safety for firefighters and civilians through certification. The certification process offered by the NSFSPQB is accredited through both the ProBoard Fire Service Professional Qualifications System and the International Fire Service Accreditation Congress and is accepted worldwide in the fire service community.

The OFM Fire Service Coordinator provides support for the NSFSPQB through the preparation and grading of examinations and by providing certifications, which are distributed by the partners of the Nova Scotia Fire Service Professional Qualifications Board.

In Support of the NS Professional Fire Services Qualifications Board, the OFM processed 299 fire service certifications during the fiscal year 2020-2021.



# LICENSING OF PORTABLE EXTINGUISHER SERVICE PROVIDERS

Under the Fire Safety Act, agencies that sell and service portable extinguishers are required to be licensed by the Province of Nova Scotia on an annual basis. The OFM administers this licensing process and during the 2020-2021 fiscal year, 34 licenses were issued.

A current list of licensed service providers is maintained on the OFM webpage as a resource for the general public and other regulatory authorities: <u>https://beta.novascotia.ca/documents/licensed-fire-extinguisher-maintenance-companies-and-individuals</u>

### PUBLIC EDUCATION

As part of the OFM's continued commitment to Fire Prevention and Public Education, one Deputy Fire Marshal coordinates fire prevention and education programming. Due to the Covid-19 pandemic, all trade shows and conferences were cancelled. This is reflected in the reporting numbers during this period.

The Office of the Fire Marshal completed a total of 41 sessions with 498 people trained in fire and life safety programs. We are pleased to continue the fire and life safety education initiatives during 2020-2021, including the following:

#### Fire and Life Safety Program – Long Term Care

The OFM completed 34 sessions of the 6-hour Fire and Life Safety program that is facilitated to all longterm care facilities including nursing homes, residential care facilities, group homes, and others who provide or teach care to the residents of these facilities. These seminars provide caregivers with information on how to select and use a portable fire extinguisher, their duties when the fire alarm sounds, and how they can control a fire until the fire department arrives.

#### Fire Equipment and Evacuation Training (FEET)

The OFM conducted 1 Fire Equipment and Evacuation Training (FEET) session throughout the year. This two-day program is directed toward correctional officers within secure facilities, facility management personnel and focusses on a more in depth look at fire protection systems and evacuation planning.

#### **Roles and Responsibilities of the Local Assistants**

Due to the pandemic, the OFM was unable to hold any Roles and Responsibilities of the Local Assistants Course for local fire chiefs or other local assistants to the Fire Marshal. The program outlines the expectations for this position, legislative responsibilities and provides insight on how the role can be better fulfilled.

#### **Remembering When**

Remembering The When program is an internationally acclaimed fire safety and falls prevention program provided to local fire service, caregivers, and other stakeholders interested in seniors' safety. The intent of this program is to provide local individuals with the training and skills to take the Remembering When program out to seniors within their own communities. year, This the pandemic prevented seminars from being conducted.



#### Arson Prevention Program for Children: TAPP-C

The Arson Prevention Program for Children, known as TAPP-C, is aimed at children and youth with some potential interest or risk for fire setting. The program provides participants with information on the consequences of fires to themselves, family, friends, and property. TAPP-C consists of three one-hour sessions, for all age groups. The first session begins at the family home or place of residence. The other two are held at the local fire station. It has been very successful and those who participate have learned that fire is good when used in an acceptable manner. This year, 7 separate youth programs of 3 sessions each were conducted with the Program Administrator for a total of 21 sessions. There was 1 two-day Tapp-C Train the Trainer T3 Program conducted.

#### Portable Fire Extinguishers / Floor Warden / Fire Warden

A total of 11 fire extinguisher training programs with the Bullex digital system were held. Fire Warden / Floor Warden training involved 1 session.

#### **Fire Prevention Week**

National Fire Prevention Week is observed in the United States and Canada, during the week (from Sunday to Saturday) in which October 9 falls. The National Fire Protection Association (NFPA) continues to be the international sponsor of the week. In 2021, the Fire Prevention Week theme was:

#### "Learn the Sounds of Fire Safety!"<sup>TM</sup>

From October 3-9, 2021, the campaign, "Learn the Sounds of Fire Safety" TM worked to educate everyone about the simple but important actions they can take to keep themselves, and those around them, safe. From our partners at the National Fire Protection Association:



This year's theme grew out of the increased attention received of alarm notifications being heard in the background of people's homes during remote learning and work. Recognizing the different sounds alarms make, and the action needed based on that sound, is critical to preventing injury and death from fire. This year's theme also pays particular attention to smoke and carbon monoxide (CO) alarms and alert devices that meet the needs of people who are deaf or hard of hearing. These includes strobe lights, low frequency alarms, and bed/pillow shakers which activate at the sound of the alarm.

https://www.nfpa.org/News-and-Research/Publications-and-media/Blogs-Landing-Page/Safety-Source/Blog-Posts/2021/06/11/Planning-for-2021-Fire-Prevention-Week

#### Key messages for "Learn the Sounds of Fire Safety" include:

- When a smoke alarm or carbon monoxide (CO) alarm sounds, respond immediately by exiting the home as quickly as possible.
- If your alarm begins to chirp, it may mean that the batteries are running low and need to be replaced. If the alarm continues to chirp after the batteries are replaced, or the alarm is more than 10 years old, it is time to replace the alarm.
- Test all smoke and CO alarms monthly. Press the test button to make sure the alarm is working.
- If there is someone in your household who is deaf or hard of hearing, install bed shaker and strobe light alarms that will alert that person to fire.
- Know the difference between the sound of a smoke alarm and a carbon monoxide alarm three beeps for smoke alarms; four beeps for carbon monoxide alarms.

#### **Conferences, Displays and Tradeshows**

Due to the Covid-19 pandemic during this time period, all conferences and tradeshows were cancelled.

### COMMUNICATIONS

Several communication programs with new public education materials and methods were explored and went into development:

#### <u>Social Media</u>

The OFM team worked to create and highlight many public education messages encouraging fire and building safety to be shared through the Municipal Affairs & Housing Twitter account.



Presentations

Several presentations were created utilizing Power Point and others were refurbished with current information as they are used throughout OFM presentations, training, education and other activities.

<u>Banners</u>

Work on completion of the final two banners of a complimentary series for "Education" and "Communication" was met with delay due to COVID-19. The banners can be used all together as one large display unit or they may be separated for various setting purposes, depending upon the needs and location of the OFM offices. The remaining two banners ("Inspection & Enforcement" and "Codes and Construction Practices") are anticipated to be completed once access to long term care facilities is permitted.

### EMERGENCY SERVICES PROVIDER FUND

The Emergency Services Provider Fund (ESPF) is intended to assist first responder organizations in Nova Scotia with the purchase of equipment used directly in response to fire or emergency situations. Fire departments, hazardous materials (HazMat) organizations, and ground search & rescue groups may apply for funding for personal protective equipment (PPE) AND Self-Contained Breathing Apparatus (SCBA), Communications, Miscellaneous Fire Fighting Equipment, Rescue Equipment, HazMat Equipment, and Water Supply Suppression Equipment. In 2020-2021, after feedback from stakeholders, an additional equipment category was added to better support the operations of our first responders and the role that their facilities play in keeping our communities safe. The new category *Emergency Power for Building* allowed for the purchase and installation of emergency back-up generators. The Program pays 75% of the total eligible costs, up to a maximum grant of \$20,000. Priority was given to those organizations that received low percentage of ESPF funding in the past and in the most need of financial help. As financial statements are required to be provided for this purpose; if not provided, the application is not evaluated. in 2020-2021, the OFM supported applications totaling \$1,254,000.

# PARTNERSHIPS

In 2020-2021 the Office of the Fire Marshal continued to build on its positive working relationships with many partners, including in part:

- Federal Staff from the OFM participate in many Federal Provincial/Territorial Advisory Councils and Committees on behalf of the Province of Nova Scotia;
- Provincial As part of our ongoing responsibility to provide advice to the Minister of Municipal Affairs, staff from the OFM participate in many Provincial Agencies, Boards, and Commissions;
- OFM staff also support a number of other key stakeholder organizations which support municipalities.

# LOOKING FORWARD

# COVID-19 PANDEMIC

Since 2019, the world has been ravaged with the spread of the viral pandemic of the Coronavirus disease 2019 (COVID-19). To date, a provincial state of emergency continues. To reduce the spread of the highly infectious COVID-19, residents and workplaces continue to take precautions to ensure the health and safety of their employees and clients. Everyone was advised to take protective measures and asked to work together to help prevent the spread of COVID-19 and keep each other safe.

Restricted visitation and operation or closure continued for hospitals, long-term care facilities, public schools, day cares, correctional facilities, stores, offices, bars and restaurants. As they did in the beginning, the Office of the Fire Marshal continued to provide support and information to many stakeholders. Despite the uncertainty, the Office of the Fire Marshal continued with their responsibilities to promote and enforce building and fire safety and advise various levels of government on building and fire-related matters, including fire protection. The OFM continued working with fire services partners throughout the province and continued leading, coordinating, and providing government departments, municipalities, and the public with effective approaches for building and fire safety.

Despite the continued high-level protocols to be met, the Office of the Fire Marshal continued to work with municipal and provincial partners to support their efforts in achieving building and fire safety. Members of the OFM across the province worked within a mixture of home, office, and field. Meetings were held virtually, and technology utilized as much as possible. The Office of the Fire Marshal's dedicated staff maintained a high level of professionalism as they worked with our partners to support the many initiatives and programs that we undertake.

# UPGRADES TO DATABASE SYSTEM

Significant upgrades to the main database system have been ongoing. The OFM looks forward to greatly enhancing information gathering capabilities and opportunities to acquire information in areas not previously captured.

It is projected that the new fire incident reporting system will reach testing completion and will be fully operational by the start of 2022. We anticipate seeing a significant increase to the data points we collect, which will enhance our future planning for fire prevention programing in the years to come. We should be able to identify specific risks to Nova Scotians and respond accordingly. We also plan to participate in the National Fire Incident Data Base and the National Indigenous Fire Safety Council with national reporting and fire safety programing.

## IN CLOSING

The Office of the Fire Marshal continues to promote and develop building and fire safety in Nova Scotia. As we carry out our daily tasks and activities, we will take advantage of opportunities to improve upon our effectiveness and efficiency. We have learned a great deal from the perspective the past year has provided. We have gained knowledge and focus, despite the intense challenges. The OFM continues to work hard and consistently adapt to continue our work and carry on enhancing the safety of all Nova Scotians.

Sincerely, Doug MacKenzie Fire Marshal



### APPENDIX A: 2020-2021 FIRE INCIDENT STATISTICS

### Appendix A-1

Property Classification	Igniting Object	Possible Cause	Male Adult Fatality (18 years+)	Male Child Fatality	Male Firefighter Fatality	Female Adult Fatality (18 years+)	Female Child Fatality	Female Firefighter Fatality
301 Detached Dwelling	28 Cord/Cable for Appliances	52 Electrical Failure	1					
301 Detached Dwelling	71 Smokers Articles (cigars, pipes etc)	31 Improperly Discarded	1					
902 Small Truck/Pickup/Van	99 Undetermined	68 Undetermined	1					
301 Detached Dwelling	75 Matches (open flame)	33 Used/Placed Too Close/Combust	1					
999 Other Vehicle			1					
301 Detached Dwelling	79 Other Open Flame Tools/Smoker	01 Arson				1		
301 Detached Dwelling	99 Undetermined	68 Undetermined	1					
301 Detached Dwelling	24 Circuit Wiring - Copper	29 Other Deficiency	1					
301 Detached Dwelling	12 Oven	52 Electrical Failure				1		
301 Detached Dwelling	12 Oven	52 Electrical Failure	1					
323 Multi-Unit Dwelling 13 plus*	71 Smokers Articles (cigars, pipes etc)	31 Improperly Discarded	2					
301 Detached Dwelling	95 Lightning	21 Design Deficiency	1					
		Total	11			2		

### Appendix A-2 Injuries From Fire 2020--2021

Adult = 18 years+ FF = Firefighter Female Male Male Male Female Female **Property Classification Igniting Object Possible Cause** Child FF Adult Child FF Adult 23 Distribution 301 Detached Dwelling 52 Electrical Failure Equipment/Panels 1 301 Detached Dwelling 22 Meter 52 Electrical Failure 1 301 Detached Dwelling 99 Undetermined 68 Undetermined 1 301 Detached Dwelling 28 Cord/Cable for Appliances 52 Electrical Failure 1 23 Distribution 302 Semi-Detached Dwelling 52 Electrical Failure Equipment/Panels 1 337 Semi Detach Dwl/Apt above grd 76 Lighters (open flame) 01 Arson 1 301 Detached Dwelling 55 Candle 42 Improper Handling 1 301 Detached Dwelling 32 Unattended 11 Stove Range-top Burner 1 843 Shed, Children's Playhouse 75 Matches (open flame) 04 Youth Vandalism (Age 12-17) 1 321 Multi-Unit Dwelling 2-6 Unit 29 Extension Cord/Temp Wiring 52 Electrical Failure 1 323 Multi-Unit Dwelling 13 plus 77 Matches/Lighter (not known) 01 Arson 1 301 Detached Dwelling 99 Undetermined 68 Undetermined 1 68 Undetermined 301 Detached Dwelling 99 Undetermined 1 301 Detached Dwelling 42 Improper Handling 11 Stove Range-top Burner 1 11 Stove Range-top Burner 301 Detached Dwelling 42 Improper Handling 1 899 Other Misc Structure/Property 99 Undetermined 68 Undetermined 1 603 Motor Vehicle Repair Garage 99 Undetermined 39 Other Misuse 1 53 Short Circuit 321 Multi-Unit Dwelling 2-6 Unit 24 Circuit Wiring - Copper 1 334 Attached Dwelling with Busine 99 Undetermined 68 Undetermined 1 99 Undetermined 342 Mobile Home 68 Undetermined 1 12 Oven 32 Unattended 342 Mobile Home 1 323 Multi-Unit Dwelling 13 plus 34 Space Heater - Portable 42 Improper Handling 1 79 Other Open Flame 301 Detached Dwelling 31 Improperly Discarded Tools/Smoker 1 29 Extension Cord/Temp Wiring 302 Semi-Detached Dwelling 53 Short Circuit 1 153 Church, Other Place of Worship 76 Lighters (open flame) 01 Arson 1 153 Church, Other Place of Worship 76 Lighters (open flame) 01 Arson 1 399 Other Residential 99 Undetermined 68 Undetermined 1 16 1 3 5 0 2

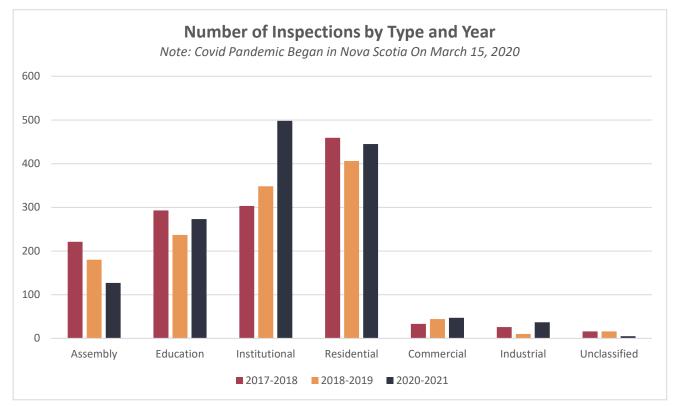
### Response Type 2020-2021

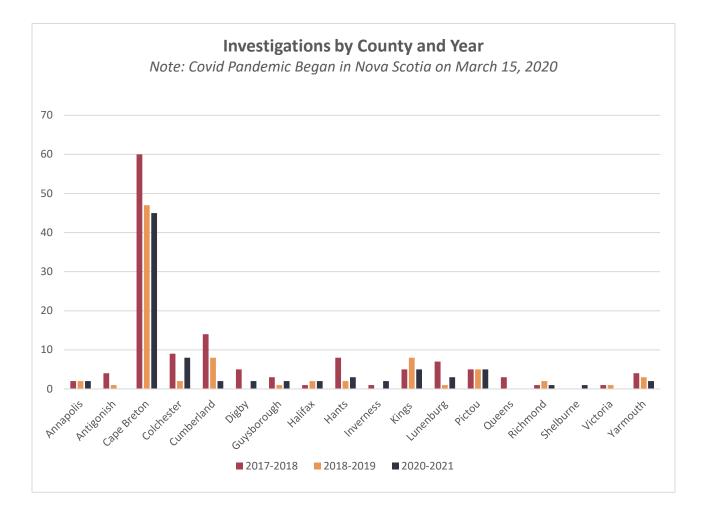
Property Fires/Explosions			
Fire	1180		
Combustion Explosion (No Fire)	1		
Alarm Equipment-Malfunction	22		
Alarm Equipment - Accidental	74		
Human - Malicious	14		
Human - Perceived Emergency	7		
Human - Accidental	1		
Other False Fire Call	8		
Public Hazard			
Gas Leak - Miscellaneous	3		
Spill, Toxic or Chemical	1		
Ruptured Water, Steam Pipe	2		
Other Public Hazard	1		
Power Lines Down - Arcing	16		
Rescue			
Vehicle Extraction	3		
Water Rescue	9		
Persons Trapped in Elevator	1		
Vehicle Accident	117		
Water Ice Rescue	2		
Other Rescue	0		
Medical/Resuscitator Call			
Medical Call	12		
Other Calls			
Other Public Service	5		
Other Calls	10		
Total	1489		

Incendiary	
Arson	92
Vandalism	2
Youth Vandalism (Age 12-17)	4
Suspicious Fire	10
Accidental	
Children Playing	3
Vehicle Accident/Collision	5
Construction / Design Deficiency	
Design Deficiency	5
Construction Deficiency	4
Installation Deficiency	9
Maintenance Deficiency	25
Other Deficiency	8
Misuse of Source Of Ignition	
Improperly Discarded	64
Unattended	65
Used/Placed too close to Combustibles	21
Creosote Buildup	35
Other Misuse of Source Ignition	9
Misuse of Material Ignited	
Improper Storage	7
Improper Handling	24
Used for Purpose not Intended	3
Mechanical/Electrical Failure	
Mechanical Failure	30
Electrical Failure	90
Short Circuit	28
Other Undetermined	
Other	178
Undetermined	289
Under Investigation	41
Not Reported	129
Total	1180

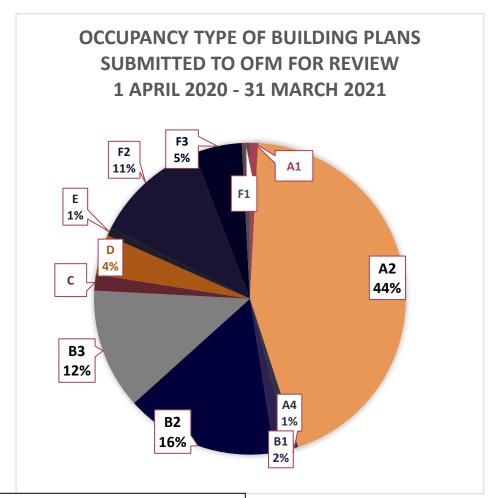
### Possible Causes of Fire Incidents 2020-2021

### **Appendix A-5**



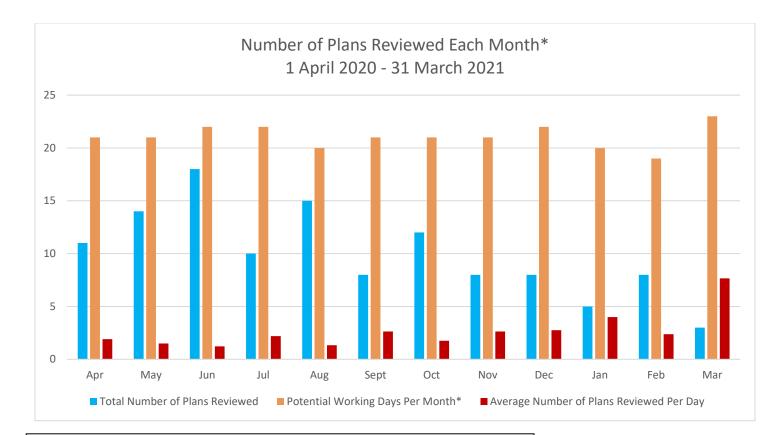


### Appendix B-1: SUMMARY OF BUILDING PLANS SUBMITTED TO OFM FOR REVIEW



Annual Summary of Building Plans Submitted to the OFM for Review April 1, 2020 - March 31, 2021					
OCCUPANCY TYPE	2020/21	2019/20	2018/19		
A1	1				
A2	53	39	19		
A4	1				
B1	2				
B2	19	11	12		
B3	15	7	5		
С	2	5	3		
D	5	1	2		
E	1	1			
F2	14	14	7		
F3	6	2			
F1	1				
TOTA	L 120	80	48		

### Appendix B-2: SUMMARY OF BUILDING PLANS REVIEWED



Number of Plans Completed by Month – Three Year Analysis:				
MONTH	2020/21	2019/20	2018/19	
Apr	11	5	4	
May	14	8	8	
Jun	18	4	3	
Jul	10	5	3	
Aug	15	13	2	
Sept	8	13	11	
Oct	12	6	0	
Nov	8	6	0	
Dec	8	5	0	
Jan	5	4	4	
Feb	8	7	7	
Mar	3	4	6	
тотя	L 120	80	48	

Submissions received but not requiring review (not within scope of FSR): 21



