

File No.: 04-1000-20-2018-224

May 29, 2018

s.22(1)

Dear s.22(1)

Re: Request for Access to Records under the Freedom of Information and Protection of Privacy Act (the "Act")

I am responding to your request of April 16, 2018 for:

A copy of the City of Vancouver's 2017 Fire Underwriter's Survey, or the latest copy.

Date Range: January 1, 2016 to April 16, 2018

All responsive records are attached.

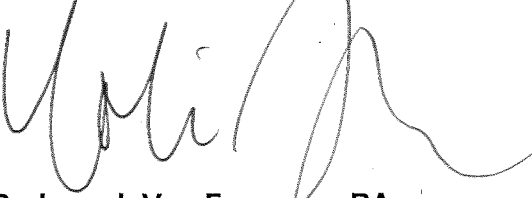
Please note: attached is the latest completed survey which is from 2002.

Under section 52 of the Act, and within 30 business days of receipt of this letter, you may ask the Information & Privacy Commissioner to review any matter related to the City's response to your FOI request by writing to: Office of the Information & Privacy Commissioner, info@oipc.bc.ca or by phoning 250-387-5629.

If you request a review, please provide the Commissioner's office with: 1) the request number (#04-1000-20-2018-224); 2) a copy of this letter; 3) a copy of your original request; and 4) detailed reasons why you are seeking the review.

Yours truly,

Cobi Falconer, FOI Case Manager, for

A handwritten signature in black ink, appearing to read 'Cobi Falconer', written over the typed name of the signatory.

Barbara J. Van Fraassen, BA
Director, Access to Information & Privacy

*Barbara.vanfraassen@vancouver.ca
453 W. 12th Avenue Vancouver BC V5Y 1V4*

*If you have any questions, please email us at foi@vancouver.ca and we will respond to you as soon as possible. Or you can call the FOI Case Manager at 604.871.6584.

Encl.

:ag



Insurers' Advisory Organization Inc.

Workload in Mechanic's Shop

British Columbia and Yukon Division

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April 30, 2002

Mr. Ray Holdgate,
General Manager / Fire Chief
Vancouver Fire & Rescue Services
900 Heatley Street
Vancouver, B.C.
V6A 3S7

Re: Fire Underwriters Survey - City of Vancouver

A Fire Underwriters Survey (FUS) of the City of Vancouver was conducted between November 2000 and February 2001. The results of the Survey have been completed and offered for your information. The purpose of a FUS community fire defence assessment is for fire insurance grading and classification purposes.

The Fire Underwriters Survey of the City of Vancouver's fire protection programs, relative to fire and life safety hazard and risks that are present, warrants a change in FUS classifications. As a result of the Survey, the City of Vancouver has been assigned the following FUS fire insurance grading classifications:

1. Public Fire Protection Classification (P.F.P.C.)

P.F.P.C. Class 2 (formally Class 1)

2. Dwelling Protection Grade (D.P.G.)

D.P.G. 1 (formally D.P.G. 1)

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The Public Fire Protection Classification (P.F.P.C.) is based on a numerical grading system scaled from 1 to 10. One (1) is the highest grading possible and 10 indicates little or no fire protection. This grading system evaluates the ability of a community's fire protection services to prevent and control major fires that may occur in multi-family residential, commercial, industrial, institutional buildings and course of construction developments.

The Dwelling Protection Grade (D.P.G.) is based on a numerical grading system scaled from 1 to 5. One (1) is the highest grading class possible and Grade 5 indicates little or no fire protection is in place. This grading system reflects a community's resources to respond to fires in small buildings, typically single family residential buildings.

In the FUS grading system, the ability of a community's fire defences are measured against recognized standards of fire protection for the fire and life safety hazards and risks that are present throughout the community. The following broad areas of fire protection are reviewed and have the following weight within the FUS grading system:

➤ Emergency Water Supplies	30%
➤ Fire Department Operations	40%
➤ Fire Service Communications	10%
➤ Fire Safety Control	20%

Grading classifications are conveyed to subscribing companies of Fire Underwriters Survey (FUS). FUS subscribers represent approximately 85% of the fire insurance underwriters in Canada. Typically, subscribers use this information as a basis in their fire insurance underwriting programs to sets limits in the amount of risk they are willing to assume within a given community or portion of a community, and to set fire insurance rates for commercial properties. Improved fire protection classes may result in increased competition for insurance underwriting companies when placing their business.

A summary of the Fire Protection Grades assigned to Canadian cities is presented in the following Table.

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P.F.P.C. Protection Grades - Canadian Cities

(As modified as a result of this Survey)

Class/ Population	1	2	3	4	5	6-8	9-10
Over 100,000	-	13	15	4	-	-	-
50,000 - 100,000	-	5	18	24	5	2	-
25,000 - 50,000	-	-	13	28	21	13	-
Under 25,000	-	2	7	75	304	1493	1138
Total	1	19	53	131	330	1508	1138

*Source: Fire Underwriters Survey Bulletin 00-01

The P.F.P.C. Class 2 assignment for the City of Vancouver represents a slight drop from their former grading placement, however the new class designation should not be construed to indicate there are significant deficiencies with City of Vancouver's fire suppression and prevention programs. The Survey has noted that many improvements have occurred in fire protection programs since the former Survey conducted in 1979. Similarly, fire hazard and risk levels have been reduced throughout the City by:

- Substantial building structure regeneration typically constructed of greater fire resistive properties,
- Strengthened building and fire codes for new construction,
- Proactive fire prevention programs and legislation, and
- Progressive automatic sprinkler bylaws and other factors.

Vancouver's revised FUS class is mainly a result of subtle changes that have been made in fire service delivery, changes and tightening of the FUS grading schedule and greater requirements in fire protection prevention procedures and standards.

The relative classification of the four major categories that were evaluated during the Survey is as follows:

- Fire department operations Class 2
- Water supplies Class 1
- Fire service communications Class 2
- Fire safety control Class 3

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For information purposes, areas within the grading schedule where improvement could be made have been noted below. It is not a complete list, but highlights some areas where it is felt would be of interest to Vancouver Fire & Rescue Service (VFRS). It is important to recognize that while some negative aspects in fire protective services have been highlighted within this report, there are substantially more positive aspects to the fire protection programs in the City of Vancouver, which has been recognised by the Class 2 designation assigned to the City.

Fire Department Operations

Fire Apparatus, Adequacy, Distribution and Capacity

The number of Pumper and Ladder Companies responding on 1st and subsequent alarms is only slightly deficient when compared to the Grading Schedule. Full credit has been given to Quints when responding as 1st due Pumpers, as well as being credited as ½ an aerial Ladder unit. When responding as a 2nd due fire apparatus, Quints are credited as full aerial ladder units and as ½ a Pumper. Credit has also been given to mutual-aid Pumper companies for the value they would return. Similarly, multiple alarm reserve apparatus have also been credited. Reserve apparatus credit is limited due to equipment deficiencies on these units.

Other factors of note considered in this item include:

- High frequency of alarms, concurrent fires and areas left under-protected during multiple alarms,
- Full credit has been given to the new aerial scheduled for service in Spring 2001,
- It was noted that there are no Quints kept in reserve.
- No deficiency was applied to pumping capacity.

Design, Maintenance & Condition of Apparatus

This item evaluates fire apparatus maintenance and service programs administered by the fire department, as well as age, condition, reliability and design of in-service emergency vehicles. The assessment found that the mechanical service department has a very good apparatus preventative maintenance program but lacks the ability to adequately carry out

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its preventative maintenance service schedules due to facilities, equipment and staffing deficiencies.

The assessment found that:

- Apparatus replacement policies are good
- Vehicles in use meet the service needs they respond to
- Mechanics are EVO certified
- Mobile repair service in place

The assessment also found that:

- VFRS's apparatus repair facilities is congested being two repair bays short. In addition the existing facility lacks many features and the layout normally found in a modern truck repair facility.
- Additional service mechanics are needed to keep up to normal apparatus service demands.
- The current maintenance program is well behind the Department's maintenance schedules.
- Pumper Test Pit is not fully utilized.
- The mechanical service record management system is cumbersome and lacks features needed by the Mechanical Service Department to accurately and efficiently manage service and repair of the apparatus fleet.

Fire Suppression Officers

No deficiency was applied to the number of company officers available to VFRS. Credit was given to Rescue Company officers and the Captains Pool in satisfying this item.

Total Fire Force Available

This item credits the minimum number of fire fighters per shift compared to a recommended benchmark. Credit is given to outside-aid fire fighters and multiple alarm off-shift fire fighters for the value they would return. The assessment found that there is an 18% deficiency in the number of needed fire fighters after credits were applied. This

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assessment also applies to and evaluates the actual number of fire fighters assigned to individual fire apparatus.

Ancillary Fire Fighting Equipment

The Survey could not identify any weaknesses in the number and types of fire equipment available including hose and ladders. Improvements to the hose and ladder testing program is recommended.

Training & Qualifications

VFRS training programs including the recruit-training program rated very highly in the FUS grading system. Improvements could be made in:

- The frequency of multi-company drills
- Establishing a drill maintenance curriculum
- Improving personnel drill records
- Pre-incident planning and fire prevention training
- Mutual-aid training
- Ongoing instructor evaluation

Officers, instructors and specialists are generally highly qualified in VFRS. Qualification standards are in place.

VFRS training facilities meet the needs of the Training Department. There is concern that the spatial needs of the training centre will no longer be in place should VFRS lose some of its training facility land. It was also noted that:

- The facility does not have a flammable liquid training site.
- There is limited alternate training facilities, and
- The low number of excess companies and apparatus in service make it difficult to schedule and maintain training facility training program.

Response to Alarms & Fire Ground Operations

The units and companies responding to alarms were found to be adequate compared to the Grading Schedule. Alternatively, the ability to back-up and cover-in for multiple alarm simultaneous fire calls is limited.

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Fire ground operations are suitably trained for and well defined by operating guidelines.

Special Protection Requirements

This item assesses a community's need for special protection programs and whether they have been adequately addressed.

Fire Boat

The current fireboats are credited for their manoeuvrability and versatility in protecting Vancouver Harbour and False Creek. VFRS's ability to assemble several units is recognized factoring in the muster and response time of Hall Two and mutual-aid fireboat operators.

The Survey also concluded that waterside fire suppression is also needed along the North Arm of the Fraser River, but is not suitably provided for.

Other considerations were also reviewed for their importance, including:

- Bush truck requirements for Stanley Park
- Upgrading of Hall 5 Bush truck
- Hazmat team placement
- Earthquake susceptibility. Vancouver's dedicated water and hose wagon system was reviewed and credited for addressing earthquake perils in the Vancouver downtown area. Other emergency water supplies were credited.
- Emergency Response Plan

Other Factors

Records

Suitable record keeping is generally in place within the Department. Electronic record management systems are generally not coordinated between departments.

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Fire Stations

Fire stations were assessed for their suitability. The Survey has noted the earthquake susceptibility of several fire halls, and that earthquake upgrading / building replacement program is ongoing.

Traffic Control

Traffic control units are not in place in Vancouver with the exception of the University of British Columbia. The comments regarding traffic control that are contained within the TriData report have been noted.

Pre-fire Planning

Approximately 90% of all commercial occupancies have had a pre-fire plan created and stored in EMT's and books located at firehalls. Most plans contain limited information due to the storage and display limitations of the EMT system. Detailed plans are in place for all highrise and other large buildings and are noted to be of good quality. Fire fighters update plans during company inspections. There was little evidence that pre-fire plans are used in company training sessions.

Fire companies perform familiarization inspections of commercial occupancies. Prior to year 2000, only buildings three stories or less were inspected by fire fighters. The number of buildings and or occupancies being inspected by fire crews has been substantially decreased in recent years.

The EMT system works in isolation of other record management systems within the Fire Department.

Administration

VFRS is noted to be well organized and managed fire department with exceptional short & long range planning programs. The Fire Department offers good career development to all officers and staff. The selection process for career advancement is effective. No significant labour relation difficulties were noted.

VFRS should ensure that sufficient emphasis is placed on fire prevention when compared to fire suppression, in meeting community fire protection needs. Reporting relationships

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and organizational structure improvements are needed within some areas the Fire Department.

Fire Safety Control

Fire Safety Control consists of an assessment of a community's programs of:

- Building, fire and electrical codes, and their enforcement
- Public fire safety education and outreach programs
- Building occupancy fire safety inspections
- Fire cause and arson investigation

VFRS and the City of Vancouver operate a comprehensive fire prevention program that includes the areas listed above.

VFRS's *public outreach programs*, which are in addition to their public education programs, result in a well-rounded approach to address the fire safety needs of the City of Vancouver. These public safety initiatives reach out to special interest groups and to fire safety problem susceptible segments within the City. While a community may never be able to do all that is needed or reach all community segments needing fire safety education intervention, the City of Vancouver and VFRS's initiatives in their public outreach and education programs go along way towards meeting the fire safety challenges in Vancouver.

Public Outreach Programs

Since fire safety initiatives are limited in terms of available personnel and budget VFRS's Fire Prevention Division (FPD) has targeted specific problem areas within the City where fire safety intervention is strongly needed. This target hazard priority programming, which should be and continue to be in place, is in addition to FPD's standard fire safety education programs. Targeted fire safety initiatives include:

- Integrated Service Teams
- Home Programs
- Specific Task Force & Liquor Flying Squads
- Floor Warden Training
- Problem Building Program
- Special Event Permit and Attendance
- Building fire safety plans

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(The reference to these specialized programs is not intended to minimize the importance of standard public education programs delivered by the public educator.)

Survey Findings

Fire prevention programs play a significant role in the FUS grading system, being a proactive means to reduce the number of fires that occur and as a means to mitigate the severity of injury and the amount of damage from fires that do occur.

The Survey found that while the FPD has implemented targeted fire safety initiatives within the community, that the overall fire prevention program is limited in its ability to carry out its core duties of fire prevention inspections and delivery of standard public education programs. The Survey found that FPD is understaffed to carry out traditional and non-traditional FPD functions. In addition, organization structural improvements should be considered, with the intent to tie the FPD together including lines of authority and lines of responsibilities.

These limitations and others, such as the fire prevention record management system, reflect in the relative FUS classification for the VFRS Fire Prevention Division.

Continued support and expansion of VFRS's fire prevention programs is encouraged. It has been noted that over the years VFRS and the City of Vancouver's fire protection programs have become more evenly balanced between reactive and proactive measures in dealing with the City's fire issues. Moving forward, the FUS assessment would recommend additional emphasis on proactive measures, (however not at the expense of the existing level and ability of reactive measures).

This summary report is intended to provide an overview of findings only and is not intended to address specific issues where improvements would be recommended. Therefore, the following list represents some of the conclusions of the Survey's findings:

- The FPD is considered to be understaffed to carry out the day-to-day functions and duties required of the Division.
- The FPD is administered by an effective manager, whom makes the most of the resources at the Division's disposal.

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- At the time of the Survey, the Division was in the state of semi-transition – fire inspector duties and roles were and had changed, educational / career development upgrading was occurring and ‘community fire prevention offices’ were proposed but not finalized.
- A management succession crisis appears to be looming within the division.
- The number of existing fire inspectors cannot maintain existing inspection levels for the types of occupancies they are intended to inspect. High hazard occupancies may not be receiving regular inspections or are not inspected on a recommended frequency basis.
- Company inspections have been reduced significantly for the types of occupancies they are required to inspect. The frequency cycles of Company inspections are not being maintained.

Company inspectors receive little educational, maintenance and upgrade training in conducting fire inspection duties.

At the time of the Survey, there was a proposal to expand the Company inspection program to include all occupancies and all building types. (Proposed but not acted upon.)

- The current fire inspection electronic data record system contains details of current and past inspections, however it is limited in its ability as record management tool that would aid the efficiency and effectiveness of the Division. The system is also incapable of interaction with other existing VFRS data collection systems, which ultimately limits its usefulness. Except for limited use search functions, the record management system does not provide management report tools. The number of inspectable occupancies and the number of inspected properties cannot be readily obtained from the system. The systems lack of functionality has caused duplication to occur between VFRS Divisions for the same or related occupancy file information.
- The VFRS Public Education Division (PED) provides superior educational content to a wide range of community interest groups. However, the PED is understaffed to maintain an effective revolving wide-ranging program. Core responsibilities are also affected by ancillary duties. Administration, management and program evaluation functions with the Division are limited because of workload.
- There is limited interaction and coordination between company inspections, fire officer inspections and night inspections by the Investigation Division.

- The FPD should consider office consolidation of all or many of its divisions to improve lines of communication and management.

Codes and Standards

Vancouver has been credited for its expertise in fire code plan review, regulation interpretation and administration. The Fire Department's presence in the development and permitting process should be continued and enhanced. The FPD should continue its interaction with the public through its planned neighbourhood offices and City Hall public access points.

The Survey acknowledges and credits the City of Vancouver as a leader in proactive sprinkler bylaws, retroactive fire detector upgrade programs and emergency preparedness of its City workers and other special interest groups.

Fire Service Communications

Vancouver Fire & Rescue Services (VFRS) emergency communication systems rated very highly in the FUS grading system – very little grading deficiency was applied. The ECOMM Centre, for receipt of alarms from the public 911 system and transmission to the VFRS Dispatch Centre, graded very well.

Credits were reduced in the following areas:

- Age & condition of VFRS Dispatch Centre communication equipment
- Earthquake susceptibility of Firehall No. 1 and Main Street Police Station
- Potential delays in receipt of alarms from the ECOMM Centre (labour relations & cross jurisdiction issues)
- Back-up procedures for CAD
- Other minor areas

Emergency Water Supplies

The City of Vancouver's emergency water supplies (domestic water distribution system) graded very highly compared to the FUS Grading Schedule. The relative classification

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for emergency water supplies has remained a Class 1 from the previous assessment in 1979.

No deficiencies were noted in the following items of the Grading Schedule:

- Adequacy of supply works
- Reliability of pumps & drivers
- Reliability of power supply
- Fire flow delivery
- Reliability of principle mains
- Distribution and installation of fire hydrants

Credits were reduced in the following areas:

- Reliability of supply (earthquake, drought, and contamination susceptibility),
- Water main type (remaining lengths of non-standard and aged pipe materials and small diameter pipe),
- Hydrants, valves, PRV's etc. inspection & maintenance record management collection, retrieval and archiving systems, and
- Other minor areas.

The Vancouver water distribution system is also noted and credited for:

- Management and administration controls
- Short & long term planning
- Installation requirements and standard documents
- Service & maintenance
- Dedicated emergency water supply system
- Water distribution system emergency response plan

In carrying out the Fire Underwriters Survey of the City of Vancouver, Vancouver Fire & Rescue Service and Vancouver Engineering Services (VES) (Waterworks Design Branch and Works Yard) provided substantial information and documentation that was essential in order to analyse, determine and support the conclusions of the Survey's findings. Managers, department heads and staff also generously made available their time for personal interview, to provide supporting information, for arrangement of inspections and tours as well as to provide Survey coordination services. This Survey could not have been completed without this assistance. We would like to thank the City of Vancouver VFRS and VES for their courteous and invaluable assistance in conducting this

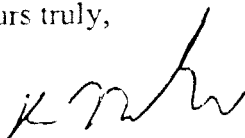
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assessment. We would also like to express our thanks to Greater Vancouver Regional District for their assistance and documentation. Please also see Addendum 1.

Our congratulations are extended to VFRS and the City of Vancouver for their efforts to maintain a high level of fire protection services and fire prevention programs in the City of Vancouver.

If you have any questions or comments regarding the FUS assessment please do not hesitate to call.

Yours truly,



Robert J. Nelson
Public Fire Protection Specialist
Fire Underwriters Survey

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Addendum 1

In carry out this assignment the following interviews, inspections and or tours took place with VFRS and VWW.

Vancouver Fire & Rescue Services

Interviews

VFRS Chief Officers:

R. Holdgate
F. Bird
T. Easterbrook
D. McRae
R. Richie

Department Heads:

Communications	P. Hays
Training	B. Chapman
Special Teams	B. Mechenzie
EMS / CPR	S. Nordin
USAR	B. Inglis
Fire Prevention	R. Richie
Fire Prevention UEL/UBC	S. Affleck
Community Services	W. Oudijn
Pre-fire Planning	T. Evans
Public Education & Media Liaison	R. Jones Cook
Emergency Preparedness	J. Pie
Salt Water Pumping	F. Delgiglio
Mechanical	L. Mutter

Other Interviews

Fire Prevention Captains
Fire Prevention Engineering Staff

Other Contacts

Communications	J. Perrie
Facilities Maintenance	G. Lanyon
Support Services	W. Ferguson

Inspected and/or Toured

ECOMM Centre
VFRS Dispatch Centre
Service Garages
Training Centre & classrooms
Vancouver Harbour via Fire Boat
False Creek Saltwater Pumping Station
Most Fire Stations
Fire Apparatus, Hose Wagons & Rescue Units

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Emergency Water Supplies

Interview

Waterworks Design Branch	N. Whiteside
Waterworks Operations Branch	K. Ramsey

Inspection / Tours

Waterworks Design Offices
Manitoba Works Yard

Other Contacts

GVRD Water Works:	Mike Boss & Support Staff
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