Agenda – Council – January 25, 2024

Report – Standing Policy Committee on Community Services – January 10, 2024

Item No. 2 Risk-based Fire Inspection Process

STANDING COMMITTEE RECOMMENDATION:

On January 16, 2024, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Community Services and submitted the following to Council:

1. That approval be granted to cease the current practice of inspecting Medium Hazard Industrial (F2) and Low Hazard Industrial (F3) occupancies at three and five-year intervals, respectively.

2. That the financial impact arising from a reduced revenue expectation given the change in focus for inspections, be referred to the 2025 budget process for consideration.

3. That approval be granted to implement a risk-based fire inspection process where high-risk residential occupancies will be inspected based on the following, in addition to existing provincial legislation and municipal bylaws:

    A. Generating inspections through the sharing of safety information with Community By-law Enforcement Services.

    B. Performing more frequent follow-up inspections at high-risk occupancies.

    C. Continuous re-evaluation of high-risk areas including encampments.

4. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

Report – Standing Policy Committee on Community Services – January 10, 2024

DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On January 16, 2024, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Community Services and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On January 10, 2024, the Standing Policy Committee on Community Services concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

ADMINISTRATIVE REPORT

Title: Risk-based Fire Inspection Process

Critical Path: Standing Policy Committee on Community Services – Executive Policy Committee – Council

AUTHORIZATION

Author	Department Head	CFO	CAO
L. Gilmour	C. Schmidt	C. Kloepfer	M. Jack

EXECUTIVE SUMMARY

Fire Prevention inspections play a critical role in ensuring Winnipeg buildings are safe. The Winnipeg Fire Paramedic Service (WFPS) conducts fire and life safety inspections in accordance with the Fires Prevention and Emergency Response Act (C.C.S.M. c. F80), Fire Safety Inspections (2014) Regulation, and applicable City by-laws. Inspections also happen, based on:

- Council direction.
- Complaints from the public.
- WFPS recommendation.
- Fire Prevention branch initiatives.

In 2014, Council approved a recommendation from the WFPS to move to a three-year inspection cycle for Medium Hazard Industrial (F2) buildings[1] and a five-year inspection cycle for Low Hazard Industrial (F3) buildings[2]. In 2017, the WFPS began the process of inspecting F2 buildings on the new cycle. Inspections of F3 buildings, based on a five-year schedule, began recently. This included Council approval to add three Full Time Equivalents (FTE) in 2017 and a further two in 2018. Revenue targets were also increased for these inspections in order to make the increased FTE cost neutral by 2019.

These inspection cycles consume a significant amount of Fire Prevention resources. Also, they have not changed injury or death rates. F2 and F3 buildings presented a statistically low fire risk both before and after the changes in 2017. The Province only mandates inspections for F1 industrial buildings. There is no evidence to suggest that inspecting these buildings more frequently has resulted in greater life safety for the public.

[1] Medium-hazard industrial occupancy (Group F, Division 2) means an industrial occupancy in which the combustible content is more than 50 kg/m^2 or 1200 MJ/m^2 of floor area and not classified as a high-hazard industrial occupancy.

[2] Low-hazard industrial occupancy (Group F, Division 3) means an industrial occupancy in which the combustible content is not more than 50 kg/m2 or 1200 MJ/m2 of floor area.

Multi-occupancy residential dwellings and encampments present a statistically higher fire risk than F2 and F3 buildings. They also account for the majority of fire related deaths and injuries in Winnipeg. Inspections of these properties are often complaint-generated. Many are not inspected on a scheduled basis (see Figure 2 in this report for details). Due to the risk for occupants, the focus on these properties should be increased in an effort to reduce harm and prevent damage.

The *Risk-based Fire Inspection Process Initiative* (Appendix A) defines how Fire Prevention services can be improved in a manner that is both efficient and effective. The WFPS recommends removing the commitment to inspect F2 and F3 buildings at three and five-year intervals. This allows the redirection of resources to higher-risk residential rental buildings and encampments. The change improves safety for residents living in the highest-risk buildings and sites across the City.

RECOMMENDATIONS

1. That approval be granted to cease the current practice of inspecting Medium Hazard Industrial (F2) and Low Hazard Industrial (F3) occupancies at three and five-year intervals, respectively.

2. That the financial impact arising from a reduced revenue expectation given the change in focus for inspections, be referred to the 2025 budget process for consideration.

3. That approval be granted to implement a risk-based fire inspection process where high-risk residential occupancies will be inspected based on the following, in addition to existing provincial legislation and municipal bylaws:

    A. Generating inspections through the sharing of safety information with Community By-law Enforcement Services.

    B. Performing more frequent follow-up inspections at high-risk occupancies.

    C. Continuous re-evaluation of high-risk areas including encampments.

4. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

REASON FOR THE REPORT

On April 30, 2014, Council approved a recommendation that included:

That the City establish the following new inspection schedule for hazardous occupancies:

- High Hazard (F1) Occupancies – Annual Inspection frequency as required by the Province
- Medium Hazard (F2) Occupancies – Three-year inspection frequency
- Low Hazard (F3) Occupancies – Five-year inspection frequency

A review of fire incident and Fire Prevention data has indicated that a change to the current inspection resource deployment is warranted to redirect resources to high-risk residential rental occupancies to improve safety for those residents residing in the highest risk buildings.

IMPLICATIONS OF THE RECOMMENDATIONS

Decreased revenue from F2 and F3 inspections
Based on data collected from years 2015 – 2022, WFPS has received an average revenue of a of $22,616[3] from F2 and F3 inspection fees. However, when it was first envisioned, revenue of $600,000 (from 2019) was anticipated with the F2 and F3 inspection cycle, but this has never been realized due to staffing constraints and the time requirements of the inspections. The $600,000 decrease may be partially offset with ticketing that has been implemented since January 2023 under the Municipal By-law Enforcement Act (MBEA) Enabling By-law no. 59/2016. Revenue options to address the shortfall, including potentially increasing other fees, will be examined by the WFPS and brought forward during the 2025 budget process.

Moving to the new risk-based approach will require a resetting of the budgeted revenue for these F2 and F3 inspections of $600,000 annually.

Increased inspection of high-risk occupancies
Based on data collected from years 2015 – 2022, 187[4] personnel hours annually will be available for re-assignment to statistically high-risk residential occupancies. If the outstanding positions are filled, this would allow for even more personnel hours to be devoted to these sites. This will permit a renewed focus on inspecting high-risk residential properties and locations resulting in a decrease in fires, injuries and deaths associated with fires at these sites.

HISTORY/DISCUSSION

Background on F2 and F3 Sites

On October 8, 2013, the Standing Policy Committee on Property and Development requested that the Winnipeg Public Service report back on the current enforcement practices and procedures of City by-laws, provincial acts, and federal railway regulations related to hazardous materials. This request was in response to concern arising from a large fire that occurred at 40 Nicolas Street (formerly Speedway International) which occurred on October 1, 2012.

On April 14, 2014, an administrative report entitled “Current Enforcement Practices and Procedures of City By-laws, Provincial Acts and Federal Railway Regulations Related to Hazardous Materials” was presented by the Winnipeg Fire Paramedic Service (WFPS) to the then Standing Policy Committee on Protection, Community Services and Parks. Two of several recommendations identified in the report called for the City to establish a three-year inspection cycle for Medium Hazard Industrial (F2) occupancies and a five-year inspection cycle for Low Hazard Industrial occupancies.

Council approved these recommendations on April 30, 2014.

[3] Estimated reduction in revenue from F2 and F3 inspections calculation: Means of F2 and F3 inspection fees collected from 2017 – 2022 (excluding 2020) minus means of F2 and F3 inspection fees collected per year prior to 2017, equals $22,616.

[4] Estimated increase in personnel hours available for inspecting high-risk residential occupancies calculation: Means of personnel hours assigned to F2 and F3 inspections from 2017 – 2022 (excluding 2020), minus means of personnel hours assigned to F2 and F3 inspections prior to 2017, equals 177 personnel hours.

In 2017, the WFPS began a phased implementation of inspecting F2 occupancies. Implementation of the F3 inspection cycle has recently been started.

The WFPS currently devotes a significant amount of resources to inspecting F2 and F3 occupancies. For example, in 2022, 1,179 F2 inspections were conducted, requiring 756 personnel hours. Despite allocating these resources, not all F2 occupancies have been inspected to date, and F3 inspections have only begun recently.

It should be noted that The Fires Prevention and Emergency Response Act (C.C.S.M. c. F80), Fire Safety Inspections (2014) Regulation mandates that High Hazard Industrial (F1) occupancies be inspected once per 24 months. The Act provides no mandate for inspection of F2 or F3 occupancies on defined cycles.

No other jurisdictions are known to perform F2 or F3 inspections in such a manner. For example, Kamloops, British Columbia inspects F2 occupancies based on risk, as opposed to occupancy classification. Risk is determined by examining response statistics, past violations, and potential threat to the community.

The current F2 and F3 inspection cycles are problematic because a significant amount of resources are devoted to inspecting occupancies that present a statistically low fire risk.

From 2015 - 2022 there were 306 fires in F2 and F3 occupancies (an average of 38 per year). There were 16 injuries and zero deaths associated with these fires.

High Risk Dwellings

In contrast to industrial fires, high-risk residential occupancies experienced 1,961 fire incidents (an average of 245 per year), resulting in 374 injuries and 22 deaths.

Winnipeg experiences the second highest rate (.008/1,000 people) of residential fire-related fatalities, and the highest rate of residential structure fires with losses (1.66/1,000 households) among comparator cities[5].

There is a growing need to preserve and protect affordable housing within the city. Many of the residential fires that occur in Winnipeg affect low-income residential rental occupancies and often result in temporary or permanent displacement of residents.

Fig. 1 - Fire Incident Comparison: F2 and F3 vs High-Risk Residential (2015 – 2022)

	F2 / F3	High-Risk Residential
Fires	306	1,961
Injuries	16	374
Deaths	0	22

Due to the current volume of inspection hours devoted to F2 and F3 occupancies, high-risk residential occupancies are not inspected at frequencies that match their risk. The chart below displays the highest risk residential occupancies and their current inspection frequencies.

[5] City of Winnipeg. Community Trends and Performance Report Volume 1, for 2023 Budget, p.175 and 179. July 29, 2022. Retrieved April 14, 2023 from https://legacy.winnipeg.ca/cao/pdfs/CommunityTrendsandPerformanceReportVolume1_2023.pdf

Fig. 2 - Comparison of Fire Occurrence vs. Inspection Frequency for Selected Residential Dwellings (2015 – 2022)

Type of Residential Dwelling	Fire Occurrences	Inspection Frequency
Multi-unit Apartment Buildings	1,256	No inspection mandate
Multi-family Dwellings	403	No inspection mandate
Rooming/Boarding/Lodging	239	CRD w/shared facilities - 12 months (WFPS administrative report Nov 16, 2016) CRD - 30 months (WFPS administrative report Nov 16, 2016)
Encampment or fires involving homeless	540[6]	No inspection mandate

*"CRD" refers to converted residential dwelling – commonly known as "rooming houses."

Fire Prevention does not collect fees for these Converted Residential Dwelling (CRD) inspections, but Community Services By-law Enforcement does require a fire inspection visit as part of the license requirements. These licensing fees total around $490,000 annually.

Encampments

In addition to the higher risk residential buildings, Fire Prevention Officers visit encampments across the City to work with residents and service providers on recognizing and addressing fire safety concerns. These visits are currently handled on a complaint basis as locations are received through public notification or from crews attending fires. When WFPS attends, Fire Prevention Officers work alongside the residents and service providers to address fire and life safety risks. In the rare occasions where this is not possible, WFPS may have to issue a vacate order for the site, however the current focus of the work is mitigation of the risks without displacement of the encampment. This is time consuming work and requires multiple visits and check-ins with the residents.

WFPS is also reviewing opportunities to increase training around trauma informed care and approaches to interactions with the public. Allowing for dedicated resources, with additional training and the timing to focus on encampments, should help identify risks and address them ahead of the fire occurrences.

The number of encampments and fires in encampments has increased steadily. The chart below represents fires suspected to be associated with homelessness including encampments, vacant buildings and other sites.

Month	Fires Suspected to be Associated with Homelessness (including encampments)
January 2023	28
February 2023	22
March 2023	36
April 2023	40

[6] Numbers are January 2023 to October 2023 and include any fire that involves homelessness.

May 2023	62
June 2023	48
July 2023	73
August 2023	78
September 2023	63
October 2023	90

A focus on these sites and a committed fire prevention resource would allow for more proactive approaches within encampments, and the ability to address fire risks before fires occur. Additionally, vacates of encampments create stress on the residents and first responders and often result in increased call volumes from displaced individuals. Early intervention in encampments would ideally work to limit vacate numbers per year.

Encampment Visits	**Year**
13	2021
453	2022
539	2023 (January till September 15)

Revenue

The initial revenue projections for F2 and F3 inspections undertaken by the additional five Full Time Equivalents was not achieved for the following reasons:

- High turnover of staff resulting in the volume of work achievable by inspectors not reached
- Initial estimate being overly optimistic and the volume of inspections not reached because of the time and complexity inherent in these types of inspections.

Moving to the new risk-based approach will require a resetting of the budgeted revenue for these F2 and F3 inspections of $600,000 annually.

Recommendations

F2 and F3 occupancies experience a statistically low number of fires, and have accounted for *no deaths* to date and few injuries in the recent past. Residential rental occupancies pose a much higher fire risk, and account for most fire related injuries and deaths. A redistribution of fire prevention resources, as defined in the *Risk-Based Fire Inspection Process Initiative* (Appendix A) will aid in improving life safety for residents, preserve valuable housing stock and increase public safety from fire risks without additional funding requirements.

There are approximately 150 CRDS requiring annual inspections and 475 requiring 30-month inspections, averaging around 350 CRD inspections a year. Apartment blocks do not require annual inspections and are responded to on a complaint only basis. Additionally, less than half of the CRDs pass the inspection and require a secondary visit.

The additional staffing provided for the F2 and F3 inspections will be redeployed to support the inspection of higher risk property and the improvement to citizen life and property safety.

Within updated safety protocols that have two fire prevention officers attending encampments, two dedicated officers could perform approximately 600 visits to encampment sites a year.

In addition to an increased focus on the type of buildings (CRDs and high-rise apartments) WFPS would look at targeted geographical areas. As per the map in Appendix E we find consistent overlap between the high poverty neighbourhoods and our structure fire numbers. The targeted and increased inspections would focus both on high-risk neighbourhoods and higher risk buildings.

Dedicated resources would allow Fire Prevention to proactively inspect high-risk sites and those with repeat fires or complaints. This in turn would increase safety of residents and responders and allow WFPS to address potential sites of concern before a fire suppression response is required.

The overall revenue reduction will be a maximum of $600,000 because the inspections related to higher risk properties are done on a complaint basis or licensing requirement and are not revenue generating. Some F2 and F3 inspections will continue as required based on risk as determined by examining response statistics, past violations, and potential threat to the community and will continue to generate some revenue.

Requested Changes

At a briefing on December 6, 2023, an earlier draft of this administrative report was reviewed by Mayor's Office staff and the following revisions were requested:

- Expand on the reasoning behind the Recommended change to focus on encampments, including any Key Performance Indicators the WFPS will be using.

FINANCIAL IMPACT

Financial Impact Statement

Date: December 11, 2023

Project Name:
Risk-based Fire Inspection Process

First Year of Program **2024**

	2024	2025	2026	2027	2028
Capital					
Capital Expenditures Required		$ -	$ -	$ -	$ -
Less: Existing Budgeted Costs		-	-	-	-
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants (Enter Description Here)	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other - Enter Description Here	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	(600,000)				
Less: Incremental Revenue/Recovery	(600,000)	(600,000)	(600,000)	(600,000)	(600,000)
Net Cost/(Benefit)	$ -	$ 600,000	$ 600,000	$ 600,000	$ 600,000
Less: Existing Budget Amounts					
Net Budget Adjustment Required	$ -	$ 600,000	$ 600,000	$ 600,000	$ 600,000

Additional Comments:

The change in inspection approach will result in a reduction of budgeted revenue that was expected from F2 and F3 inspections. However, this level of revenue has not been realized in any year since implementation. The change shown in this FIS sets Fire Preventions revenue targets at a more achievable level, one that is in step with the risk based focus of the proposed inspection program set out in the report. The recommendations include the referral of the longer term financial impact to the 2025 budget process for consideration. To resolve the funding shortfall in 2024, the department will seek to defer expenditure, where this does not affect responder saftety or front line service to citizens, in order to offset the reduction in revenue. This will place added pressure on future years and is not regarded as a sustainable financial solution going forward without affecting safety or service delivery.

John Hall FCMA, CGMA
Financial Controller
Fire Paramedic Service

CONSULTATION

This Report has been prepared in consultation with:

N/A

OURWINNIPEG POLICY ALIGNMENT

The recommendations in this report aid in fulfilling the following policies:

Policy 1.5 – Evidence Informed Decisions
Using fire occurrence data to justify a shift in prevention resource deployment will better serve the city's residents.

Policy 4.8 – Building Safety
Enforcing fire and building codes in the highest risk residential occupancies will help ensure housing quality and safety.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

Consideration was given as to whether this report connects to the Winnipeg Climate Action Plan (CAP), and it was determined that the CAP is not applicable to this specific report.

WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

The recommendations in this report aid in fulfilling the following goal:

Goal 2 – The city actively plans for and partners in affordable housing.
Objective D – Existing affordable rental housing stock is maintained and improved.
More frequently assigning prevention resources to rental properties that pose the highest fire risk will help ensure these properties remain safe for those who reside within them.

SUBMITTED BY

Department: Winnipeg Fire Paramedic Service
Division: Community Risk Reduction
Prepared by: L. Gilmour
Date: December 11, 2023
File No:

Attachments: Appendix A – Risk-based Fire Inspection Process Initiative
Appendix B – Definitions of F1, F2, F3
Appendix C – Current Inspection Cycles
Appendix D – F2 and F3 Occupancy Inspections 2015 – 2022
Appendix E – High Poverty Neighbourhood/Structure Fire Map - 2022

Appendix A – Risk-based Fire Inspection Process Initiative

Data obtained on February 8, 2023 indicated the following with regards to F2 and F3 occupancies and high-risk residential occupancies:

F2 and F3 Occupancy Fire Data 2015 – 2022

	2015	2016	2017	2018	2019	2020	2021	2022	Totals
Number of Fire Incidents	38	33	27	35	38	36	45	54	**306**
Number of Injuries	5	0	2	3	0	0	3	3	**16**
Number of Deaths	0	0	0	0	0	0	0	0	**0**

The three and five-year inspection cycles which began in 2017 do not appear to have reduced the already small number of F2 and F3 occupancy fire incidents. Removing the three and five-year inspection requirements are not anticipated to have a negative effect on community safety.

High-Risk Residential Occupancy Fire Data 2015 - 2022

	2015	2016	2017	2018	2019	2020	2021	2022	Totals
Number of Fire Incidents	190	171	232	257	269	255	281	306	**1961**
Number of Injuries	47	26	52	70	43	61	39	36	**374**
Number of Deaths	1	7	2	1	5	3	0	3	**22**

To address the findings of this data, the WFPS will implement the following changes to Fire Prevention resource assignment:

1. Cease the current practice of inspecting Medium Hazard Industrial (F2) and Low Hazard Industrial (F3) occupancies at three and five-year intervals. These occupancies will be inspected based on:
    - complaints received from the public
    - concerns raised by operational fire personnel stemming from incident attendance or pre-plan observations
    - historical incident data
    - elevated risk of specific properties

2. High-risk residential occupancies will be inspected based on the following, in additional to existing provincial legislation and municipal bylaws:
    - generating inspections through the sharing of safety information with Community By-law Enforcement Services
    - performing more frequent follow-up inspections at high-risk occupancies
    - continuous re-evaluation of high-risk areas based on incident and inspection data and directing prevention and education resources accordingly

Appendix B – Definitions of F1, F2, F3 Occupancies

High hazard industrial occupancy (Group F, Division 1)

- an industrial occupancy containing sufficient quantities of highly combustible and flammable or explosive materials which, because of their inherent characteristics, constitute a special fire hazard.

Medium hazard industrial occupancy (Group F, Division 2)

- an industrial occupancy in which the combustible content is more than 50 kg/m2 or 1200 MJ/m2 of floor area and not classified as a high hazard industrial occupancy.

Low hazard industrial occupancy (Group F, Division 3)

- an industrial occupancy in which the combustible content is not more than 50 kg/m2 or 1200 MJ/m2 of floor area.

Appendix C – Currently Mandated Inspection Cycles

Type of Occupancy	Inspection Frequency	Mandate
• Elderly persons' housing unit or hostel • Child care center – Licensed • Personal care home • Residential care occupancy • Hospital	12 months	Fire Safety Inspections (2014) Regulation
• Licensed premises • Public or private school • Recreation center, including without limitation, an arena, curling rink and community club • Hotel or motel • Restaurant located in a building that contains one or more dwelling units	36 months	Fire Safety Inspections (2014) Regulation
• Converted residential dwelling w/shared facilities	12 months (no provincial mandate)	WFPS administrative report November 7, 2016
• Converted residential dwelling	30 months (no provincial mandate)	WFPS administrative report November 7, 2016
• High hazard industrial occupancy (F1)	12 months (provincial regulation mandates 24 months)	WFPS administrative report April 14, 2014
• Medium hazard industrial occupancy (F2)	36 months (no provincial mandate)	WFPS administrative report April 14, 2014
• Low hazard industrial occupancy (F3)	60 months (no provincial mandate)	WFPS administrative report April 14, 2014

Appendix D – F2 and F3 Occupancy Inspections 2015 – 2022

	Number of Inspections	Personnel Hours Allocated	Inspection Fees Collected
F2 Occupancies			
2015	657	333	$2,912
2016	504	252	$2,275
2017	696	373	$18,715
2018	735	378	$19,735
2019	701	415	$20,224
2020	514	355	$5,812
2021	644	428	$20,629
2022	1179	756	$41,985
F3 Occupancies			
2015	136	66	$566
2016	100	51	$312
2017	107	52	$981
2018	126	72	$2,466
2019	122	74	$1,110
2020	57	38	$134
2021	102	76	$1,321
2022	98	69	$1,077

Appendix E – High Poverty Neighbourhood/Structure Fire Map - 2022

