

NO: **R009** COUNCIL DATE: **January 11, 2010**

REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **January 11, 2010**

FROM: **Fire Chief**

FILE: **0675-00**

SUBJECT: **2009 Fire Underwriters Survey Results**

RECOMMENDATION

The Fire Services Department recommends that Council receive this report as information.

INTENT

The purpose of this report is to inform Council of the 2009 Fire Underwriters Survey results and of the improved fire protection grading for the City of Surrey, which should provide decreased fire insurance premiums for all general commercial properties in Surrey and potentially reduced premiums for commercial and residential properties in areas of Surrey not serviced with City fire hydrants.

BACKGROUND

The Fire Underwriters Survey (FUS) program is administered by Risk Management Services (RMS), an independent company that is contracted by the insurance industry, all levels of government, private industry and others to provide fire protection assessments through the FUS program. The FUS provides data on public fire protection for insurance and underwriting purposes on behalf of the member companies of the Insurance Bureau of Canada (IBC).

As part of the FUS, field surveys are undertaken of the fire defenses maintained in municipalities across Canada. The results of the surveys are then used to establish the Public Fire Protection Classification (PFPC) for each municipality. The PFPC is also used by underwriters to assist in establishing the commercial insurance premiums that will be charged in a given community or section of a community. The FUS also uses PFPC information to develop the IBC Dwelling Protection Grade (DPG), which applies to single-family residences, in each municipality and that is used in setting residential insurance premiums.

The FUS follows these steps:

- A survey is undertaken of the municipality, examining the water supply facilities, water storage and distribution system, and hydrant flows;
- The local Fire Service Department is assessed including its administration, training programs and facilities, fire stations, firefighting equipment (including testing and maintenance programs), personal communications, and fire prevention programs;
- Fire-flow calculations throughout the municipality are calculated to determine the amount of water necessary to combat a major fire in each area of the municipality, as well as the number of fire fighting companies, personnel and types of apparatus required; and
- Tanker shuttle tests are conducted in designated areas of the municipality that are not serviced by fire hydrants to establish a hydrant-protected equivalency status for detached dwellings.

The objective of the grading system is to provide a measure of the ability of the fire protection facilities/resources of a community to prevent and control fires that may be expected to occur in the community. The grading system is based on an evaluation of the adequacy, reliability, strength and efficiency of the municipality's fire protection facilities/resources.\

DISCUSSION

The City of Surrey has been graded through the Fire Underwriters Survey program several times over the years, with the most recent survey in 1990. Since that time, the City has made significant improvements to its fire protective services that would have a positive effect on the City's fire insurance grading. These improvements include, but are not limited to; additional water supply mains from the GVRD; increases in Fire Service staffing; improvements to the building pre-incident planning program; acquisition of additional fire fighting apparatus; and introduction of new fire prevention programs.

The FUS Public Fire Protection Classification (PFPC) information plays an important role in the decisions insurers make regarding the availability of and rates charged for property insurance. The methodology each insurance company uses to calculate premiums for property insurance differ and depend on the individual company's fire-loss experience, underwriting guidelines, and marketing strategy.

The Public Fire Protection Classification (PFPC) is a numerical grading system scaled from 1 to 10 that is used by Commercial Line insurers. Class 1 represents the highest grading possible and Class 10 indicates that little or no fire protection is in place. As the PFPC scale for Commercial insurance premiums is generally set to groups from 1-3 (or 1-4), 5-7, 8 and up, we were advised there is very little cost savings as the PFPC number decreases in any given group. This means that the improved rating from PFPC 4 to PFPC 3 will provide Commercial properties with the maximum potential decrease in premiums within this group, with very little financial benefit from further improving this rating to a PFPC 2 or PFPC 1.

Fire Underwriters Survey also assigns a second grade for community fire protection. The second grading system produces a Dwelling Protection Grade (DPG) that is based on an assessment of the adequacy of fire protection available for small buildings such as detached dwellings. It is used by Personal Lines insurers (residential). The DPG is a numerical grading system scaled from 1 to 5. One (1) is the highest grading possible and 5 indicates little or no fire protection is present.

The following table indicates the previous and updated fire insurance grades for the City of Surrey and the areas serviced by the Surrey Fire Service.

COMMERCIAL PROPERTIES		
PFPC-1990	PFPC-2009	Details for 2009 Values
4	3	Applies to Commercial properties -within 5 road km of a Surrey Fire Station -and within 150m of a fire hydrant connected to Surrey system
9	9	Applies to Commercial properties -within 5 km of Surrey Fire Station NOT Superior Tanker accredited -and NOT within 150m of a fire hydrant connected to Surrey system
-	7	Applies to Commercial properties -within 5 km of Surrey Fire Station that IS Superior Tanker accredited -and NOT within 150m of a fire hydrant connected to Surrey system
RESIDENTIAL PROPERTIES		
DPG-1990	DPG-2009	Details for 2009 Values
1	1	Applies to Personal Line (residential) properties -within 8 km of Surrey Fire Station with first response by career members -and within 300m of fire hydrant connected to Surrey system
3B	3B	Applies to Personal Line (residential) properties -within 8 km of Surrey Fire Station that is NOT Superior Tanker accredited -and NOT within 300m of fire hydrant connected to Surrey system
-	3A	Applies to Personal Line (residential) properties -within 8km of Surrey Fire Station with first response by auxiliary members -and within 300m of fire hydrant connected to Surrey system
-	3B(S)	Applies to Personal Line (residential) properties -within 8 km of Surrey Fire Station that IS Superior Tanker accredited -but are NOT within 300m of fire hydrant connected to Surrey system

The FUS analysis indicates that the fire protective services in the City of Surrey are better in 2009 in comparison to the 1990 assessment.

The Surrey Fire Services Department also passed all testing and evaluation for Superior Tanker Shuttle accreditation in areas of Surrey not serviced by fire hydrants. The requirements related to this accreditation are stringent and verify that the Surrey Fire Services Department is capable of delivering acceptable fire flows by way of water tankers to detached dwellings throughout the City in areas not serviced by hydrants. As an accredited agency, owners of detached dwellings within a qualifying road distance of the responding fire station (8km) are eligible to receive a significant reduction in their fire insurance premiums. Insurers are advised that Superior Tanker Shuttle Accredited fire protection districts qualify for hydrant protected equivalency status and may be rated as protected. This equivalency applies only to detached dwellings.

It should be noted that insurers and/or brokers are under no obligation to accept this equivalency; however, the Fire Underwriters Survey recommends that they do so.

It is important to stress that insurance rates/premiums are determined by each insurance company's underwriting plans and take into consideration a number of factors such as claims history, type of construction, type of occupancy, and insurance market conditions, to name a few.

The following table compares fire insurance premiums for commercial and residential properties in areas of Surrey classified as fully protected with fire hydrants and fire stations. Research and values were provided by Aviva Insurance and Intact Insurance (formerly ING Insurance).

AREA FULLY PROTECTED BY FIRE HYDRANTS & FIRE STATIONS

COMMERCIAL FIRE INSURANCE (for \$500,000 building value)			
	FUS Rating (PFPC)	Rate/\$1000 of bldg. value	Premium
	4 (1990)	.215	\$1,075.00
	3 (2009)	.198	\$999.75
RESIDENTIAL FIRE INSURANCE (for \$250,000 building value)			
	FUS Rating (DPG)	Rate/\$1000 of bldg. value	Premium
	1 (1990)	.240	\$600.00
	1 (2009)	.240	\$600.00

There is a potential savings of between 5% and 7% on *fire* insurance premiums for all commercial properties in the fully protected areas of Surrey. Fire insurance represents approximately 50% of the costs of Commercial building insurance and, as such, the new Surrey rating should provide a net saving of 2.5% to 3.5% to the overall insurance premiums for most commercial buildings in Surrey.

As is documented in the above table Surrey had already attained the best possible FUS rating (DPG) for residential insurance in areas of the City serviced by fire hydrants and as such the fire insurance premiums for residential properties across the City will not be affected by the new FUS results.

The following table compares fire insurance premiums for commercial and residential properties **NOT** serviced by fire hydrants but within the Superior Tanker Shuttle Accredited district. Research and values were provided by Mutual Fire Insurance Company of B.C. (commercial insurance underwriters) and Westland Insurance (residential insurance underwriters).

AREA NOT SERVICED BY FIRE HYDRANTS (EQUIVALENCY STATUS)

COMMERCIAL FIRE INSURANCE (for \$500,000 building value)			
	FUS Rating (PFPC)	Rate/\$1000 of bldg. value	Premium
	9 (1990)	.235	\$1,175.00
	7 (2009)	.176	\$880.00
RESIDENTIAL FIRE INSURANCE (for \$250,000 building value)			
	FUS Rating (DPG)	Rate/\$1000 of bldg. value	Premium
	3B (1990)	.388	\$969.00
	3B(S) (2009)	.280	\$700.00

There is a potential savings of between 25% and 27% on fire insurance premiums for both commercial and residential properties in areas of Surrey **not serviced** by fire hydrants but within the Superior Tanker Shuttle Accredited district. As noted above, fire insurance represents approximately 50% of the costs of a typical **commercial** insurance policy. The new Surrey rating could result in net savings of insurance premiums to the owners of commercial properties not serviced with hydrants of between 12.5% and 13.5%.

There is potential saving of 25% to 27% of overall insurance premiums on residential properties in areas of Surrey not serviced by fire hydrants but within the Superior Tanker Shuttle Accredited district.

CONCLUSION

The Fire Underwriter Survey (FUS) of Surrey was completed in November 2009 with the City of Surrey receiving improved gradings for fire protection services in several areas in comparison to the previous survey in 1990. The improved gradings should result in reduced insurance premiums for owners of general commercial properties in areas serviced by City fire hydrants and for owners of both commercial and residential properties in areas not serviced by City fire hydrants.

A handwritten signature in black ink that reads "Len Garis". The signature is written in a cursive, flowing style.

Len Garis
Fire Chief