

Township of
Langley



Est. 1873

REPORT TO MAYOR AND COUNCIL

PRESENTED: MAY 12, 2008 - SPECIAL MEETING
FROM: PROTECTIVE SERVICES DIVISION
SUBJECT: ANNUAL REPORT FOR THE FIRE DEPARTMENT FOR 2007

REPORT: 08-82
FILE: 7380-20

RECOMMENDATION(S):

That Council receive the Annual Report for the Fire Department for 2007 for information.

EXECUTIVE SUMMARY:

The Fire Department provides an annual report to Mayor and Council outlining and highlighting Fire Department activities and statistics. Included is information related to:

- Department staffing, both paid-call and career,
- Emergency response times,
- Comparative fire costs,
- Fire prevention statistics

PURPOSE:

The purpose of this report is to provide information to Mayor and Council on the activities of the Fire Department in 2007.

DISCUSSION/ANALYSIS:

Department Staffing, Both Paid-call and Career

The Township of Langley Fire Department is a composite paid-call/career firefighting/rescue service. At the end of 2007 there were 138 paid-call firefighters and 54 career personnel.

Paid-call firefighters continued to provide emergency response throughout the Township. Traditionally, the turnover in paid-call ranks has averaged 10-15%. This is influenced by family commitments, call volume, availability and our changing community demographics. In 2007, there was also continued hiring of our paid-call firefighters by other career Departments, and this is expected to continue in 2008. Paid-call firefighters are an important component of our service to the community and we will continue to examine ways to enhance and nurture our paid-call firefighter forces.

On October 1, 2007 the Fire Department placed in service its second group full time suppression firefighters. We are very proud of the fact that all 16 of the new full time firefighters were selected from within our paid-call ranks. These firefighters were assigned to Fire Hall #3 in Aldergrove.

Other Department services such as Public Fire and Life Safety Education, Fire Prevention Inspections, Training and Administration are provided by career staff, supported by paid-call members.

Emergency Response Times

Response times are an important measurement in the delivery of emergency services. They are influenced by many factors including the nature and the location of the emergency, the time of day and traffic volumes. An important component of response time is preparation time. It is the time from the receipt of a call for assistance from Dispatch until the first apparatus leaves the Hall. In 2007 this measurement averaged 4:43 minutes for our paid-call response and 1:45 minutes with the advantage of on duty full time firefighters.

Total response time is the time from the receipt of a call for assistance until the first apparatus arrives on scene. It depends upon both preparation time and the distance of the incident from the Hall. In this regard our paid-call response component averaged 10:31 minutes and the response from fulltime firefighters averaged 7:42 minutes. The Department in consultation with the Mayor and Council decided in 2005 that an appropriate response time target would be less than 8 minutes 90% of the time in areas served by a response utilizing full time firefighters. We are meeting that objective.

It is to be noted that the major component of total response time is that of travel distance. This is also the component of which we have the least influence. The Township has large expanses of rural properties which contribute to long run distances. Our average distance traveled was 4.2 kilometers but 24% of the calls were beyond 8 kilometers.

Analysis of Response Types and Call Volumes

The nature of the incidents to which the Department responds continues to change. In 2007 nearly 46% of requests for assistance were related to medical and/or motor vehicle accidents. Fires of all types were reduced by 19% from 2006 statistics.

Overall the Fire Department responded to 4074 requests for assistance. This was an increase of 4.5% from 2006 and a 22.5% increase from 2005. In the past 5 years since 2002 call volume has increased 64%.

It is expected that these trends will continue as our population grows and our demographics change. Motor vehicle accidents, rescues and calls for medical assistance are all in a long term up trend. As well, the Department continues to work with RCMP and the Emergency Health Services to provide effective, efficient and excellent service to our citizens. The continued addition of full time firefighters will lessen the burdens and time demands and the resultant stresses on the individual paid-call firefighter.

Comparative Fire Costs

One component of a cost-benefit analysis of the Department's activities is a comparison of the costs of delivering fire services in the Township of Langley with the costs in comparable communities. The attached chart shows that the Township of Langley Fire Department, in general, operates at a lower cost per capita than the Departments serving similar populations. In making comparisons, however, it should be realized that not all Departments allocate their budgets in identical manners, so that direct comparisons with specific Departments may not be valid. In the most recent analysis the Township is 10th in population but spends less on fire operating costs than all other communities excepting Chilliwack and Maple Ridge. The noted Township operating costs are exclusive of the expenses associated with the Bylaw Department and Public Safety Inspection Team.

Fire Inspection Statistics

One of the primary roles of the Fire Department is to prevent fires from happening through our Fire Prevention Inspection Division. Conducting fire inspections is a complex process which requires a thorough knowledge of fire cause and behaviour, building and fire codes and how buildings function under fire conditions. Fire Prevention Inspectors work diligently to correct hazards through a process of inspections and consultation with property owners to increase fire safety awareness.

Council policy requires inspections to be conducted between 6 – 18 months intervals depending on the nature of the occupancy and the risk involved. Currently there are approximately 4400 inspectable occupancies in the Township of Langley. Almost 4000 inspections were completed in 2007. This was down from 2006 due to inspection personnel being assigned to the Public Safety Inspection Team on a secondment basis.

Pre-incident Plan Statistics

In order to reduce the risk to firefighters and the community, the Fire Prevention Division also produces comprehensive pre-incident emergency plans that provide quick access to information on structures in the community and assist in providing a proactive deterrent to potential fires. The Department is approaching 1200 current pre-incident plans of sites in Langley. In addition to creation of new plans; the Department annually reviews about 20% of the existing plans and updates them as necessary to ensure that the information is current and accurate when it might be needed by firefighters.

In 2007, the Department continued installing computers in all first due fire apparatus. This will allow automatic updating by wireless technology to ensure the most up to date information is available to our responding firefighters.

The Department continues to place a major emphasis on both inspections and pre-incident plans as means to prevent fires from occurring, and hence help to reduce the need for emergency responses. The Department is a leader in this field in British Columbia.

Public Fire and Life Safety Education Statistics

The Fire Department also works to prevent fires from happening through public fire and life safety education. Educating the public about how to survive a fire and prevent fires from starting in the first place are important responsibilities. More and more, communities look to the Fire Department for information about how to keep their homes and families safe from fire and prevent injury.

The Township of Langley Fire Department reaches into the community and encourages positive change, through the delivery of an effective and comprehensive fire safety program to citizens of all ages. We believe that effective public fire and life safety education programs do not just happen. They are the result of knowing what to teach and how to teach it. The Fire Department's public education programs are designed to change attitudes and behaviours in order to create a safer community. The Township of Langley continues to lead in this field in British Columbia.

Fire Department Operations

Emergency response is a major focus of Department operations, and call volume was up in 2007 compared to the previous years. The major change in the call statistics continues to reflect the change in some BC Ambulance Service protocols in dispatching medicals and motor vehicle accidents. In 2007 we experienced a 30% increase in this category. In addition to standard medical protocols, the Department used Automatic External Defibrillators (AEDs) to assist in the treatment of cardiac patients. Our statistics indicate we continue to arrive first at the scene of a medical incident or motor vehicle accident in more than 57% of the responses.

The number of alarms has increased in the commercial occupancies but has been reduced in residences and schools. Hazardous materials response is up dramatically due to fuel spills and illegal dumping of meth lab and other drug waste. We saw a decrease in vehicle fires although many of them continued to be stolen vehicles that were intentionally set on fire. Additional calls are being experienced due to mischief and vandalism with dumpster fires and small nuisance fires occurring in some sections of our community.

Fire Department Training

In order to provide an effective response to emergency incidents, it is essential our firefighters be well-trained. To achieve this in 2007, the Department conducted over 19,400 hours of training, with each Hall averaging more than 2700 hours. Sixteen paid-call recruits were trained in two classes in 2007. Department firefighters are trained to the BC Firefighter Standard (NFPA) to certification. All members of the Department are certified or actively working towards this certification. Officer seminars are provided 8 times each year on the fourth Monday of each month to keep officers current in developments and procedures in the Department. The Department also has a number of active training teams, which focus on their specialty area. They review and revise instructional materials to keep the programs and Department's practices current.

The Department hosts and organizes a Fire Officer I program in conjunction with Maple Ridge. In 2007 there were 36 participants from Langley, Maple Ridge, Pitt Meadows, Mission, Abbotsford and Chilliwack. Langley had 14 candidates in the program. This program follows the Maryland Fire and Rescue Institute Fire Officer I curriculum facilitated through North Vancouver District Fire Department. The Department is also certified by the Fire and Safety Division of the Justice Institute to deliver and evaluate BC Firefighter Training, including the live fire components. Training was provided to numerous outside Fire Departments in 2007 both in Langley and at the other Department's facilities. The Department hosted a two day training

seminar in September. Twenty-five Fire Departments from around the Province sent 95 participants to the workshop featuring a presenter from the Ottawa Fire Services.

In addition, the training facility was used for training by White Rock, Langley City, North Vancouver City, Terasen Gas and the RCMP. Revenues from such training support the operations of the Department and the training grounds.

Emergency Planning and Preparedness

Emergency planning and preparedness is a joint venture between Langley City and the Township. The City and the Township entered into a new contractual agreement with a new provider in January 2007. Ginger Sherlock of Paratus Management Inc. is the emergency program coordinator for our emergency plan.

2007 was very busy with planning and preparation for the potential of flooding during the Fraser River spring freshet. Staff and other stakeholders including neighboring jurisdictions, federal and provincial agencies and a myriad of citizen and volunteer groups came together and spent hundreds of hours in efforts to lessen any impacts that may occur due to flooding. All emergency plans and resource lists were reviewed and updated as necessary and table top exercises were conducted to test our readiness. A very successful public meeting attended by more than 500 interested citizens was held at Trinity Western University.

As the Fraser River approached the six meter level response plans were activated. Groups of volunteers from the emergency social services component of the Emergency Program hand delivered notices and information packets to those areas of the community susceptible to the rising waters. Although a combination of favorable weather and community preparedness prevented any serious flooding, Township departments gained substantial experience from the planning and readiness activities which will be of benefit at any time of emergency.

The Emergency Program continued to recruit volunteers for its Personal Disaster Assistance Team, the Emergency Social Services component and the Emergency Communicators section. Additional training and workshops were provided for these dedicated citizens.

The Township, through the Emergency Program, also invested in upgrading some aspects of the Emergency Operations Centre (EOC) and the EOC radio room. Additionally radio antennas were located at four primary reception centers. This will ensure that communications can be maintained between reception centers, the EOC and the Provincial Regional Emergency Operations Center.

The Emergency Program also offered and provided several training opportunities to Township and City staff in effective and efficient operation and staffing of the EOC.

Respectfully submitted,

Doug Wade
FIRE CHIEF
for
PROTECTIVE SERVICES

ATTACHMENT A Department Staffing
ATTACHMENT B Preparation Time (First Apparatus)
ATTACHMENT C Response Time (First Apparatus)

ATTACHMENT D	Comparative Fire Costs
ATTACHMENT E	Fire Prevention

Attachment A – Department Staffing

Paid-call Suppression Staff

Year	Start of year	Left	Joined	End of year
1998	148	12	15	151
1999	151	12	9	148
2000	148	16	15	147
2001	147	15	18	150
2002	150	6	15	159
2003	156	19	8	145
2004	145	17	21	149
2005	149	18	15	146
2006	146	16	9	139
2007	139	17	16	138

Reasons for paid-call members leaving the Department

- Hired by career Department.
- Lack of time to commit to the Department.
- Leave of absence. Did not return.
- Moved out of area.
- Retired.

Career Staff

Year	Start of year	Retired	Joined	End of year
1998	15	1	4	18
1999	18	1	2	19
2000	19			19
2001	19		1	20
2002	20	1	2	21
2003	22		1	23
2004	23	1		22
2005	22	1	1	22
2006	22		16	38
2007	38	2	16	52

Attachment B – Preparation Time (First Apparatus)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Hall 2	5:00	4:12	4:33	4:05	4:00	3:31	3:25	3:36	3:58	3:59
Hall 3	5:45	5:00	4:54	5:43	4:55	4:58	4:55	5:07	5:18	5:36
Hall 4	5:52	5:14	5:15	4:35	4:03	4:05	4:42	4:05	3:56	3:02
Hall 5	6:59	6:00	6:04	5:16	4:38	4:43	5:15	5:29	5:02	5:08
Hall 6	5:59	5:20	5:11	5:02	4:22	4:49	4:44	4:55	4:34	5:07
Hall 7	5:53	4:54	5:13	5:20	5:18	5:31	5:51	5:58	5:52	6:31
Hall 8	5:14	4:50	5:03	4:46	4:33	4:56	4:31	4:21	4:11	3:53
Average	5:45	5:03	5:08	4:56	4:29	4:34	4:40	4:41	4:26	4:43
Fulltime									2:11	1:45

**Attachment C – Response (First Apparatus) –
 total of dispatch, preparation and travel times**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Hall 2	9:37	8:42	10:27	9:29	9:54	9:08	9:11	9:05	10:06	9:51
Hall 3	9:29	8:21	9:26	10:44	9:49	10:05	9:42	10:12	10:43	11:46
Hall 4	10:08	10:22	10:34	9:24	8:14	8:09	8:57	8:25	8:49	8:51
Hall 5	11:03	9:54	10:41	10:17	9:08	9:05	9:45	9:52	10:27	10:51
Hall 6	10:14	9:17	9:48	9:49	8:53	8:52	8:53	9:09	9:50	10:08
Hall 7	10:42	8:53	10:15	10:53	10:43	10:30	10:45	10:58	11:14	12:59
Hall 8	8:15	7:48	9:06	8:58	8:14	8:54	8:10	8:14	8:33	8:57
Average	9:45	8:59	9:58	9:50	9:09	9:07	9:14	9:17	9:41	10:31
Fulltime									7:16	7:42

**Attachment D - 2008 Comparative
 Fire Operating Budget Cost Analysis**

Department	Cost per Capita	Population (2007 Prov. Est.)	Rank by Pop.	Operating Budget/2008	Fire Halls	Year
Vancouver	\$129.97	611,869	1	\$79,529,200	20	2008
Surrey	\$104.70	423,935	2	\$44,389,000	17	2008
Burnaby	\$131.93	216,336	3	\$28,541,375	6	2008
Richmond	\$140.03	186,628	4	\$26,133,700	7	2008
Abbotsford	\$96.91	131,827	5	\$12,776,250	7	2008
Kelowna	\$86.71	116,479	8	\$10,100,000	7	2008
Coquitlam	\$133.20	120,512	6	\$16,053,127	4	2008
Saanich	\$102.96	114,000	7	\$11,737,500	3	2008
Delta	\$181.06	101,668	9	\$18,408,500	7	2008
Langley Township	\$77.64	100,049	10	\$7,768,156	7	2008
North Vancouver District	\$169.22	86,954	11	\$14,714,573	5	2008
Nanaimo	\$107.22	83,469	12	\$8,950,000	7	2008
Victoria	\$133.08	82,653	13	\$11,000,000	3	2008
Kamloops	\$143.83	80,376	14	\$11,560,762	6	2008
Prince George	\$147.83	75,375	15	\$11,143,175	4	2008
Chilliwack	\$52.79	74,819	16	\$3,950,000	7	2008
Maple Ridge	\$74.50	73,248	17	\$5,457,700	3	2008
New Westminster	\$180.34	62,207	18	\$11,219,025	4	2008
Port Coquitlam	\$120.55	55,735	19	\$6,719,409	2	2008
Langley City	\$123.33	25,134	22	\$3,100,000	1	2008

Attachment E – Fire Prevention

Fire Prevention Inspections:

Year	Group A Assembly	Group B Institutional	Group C Residential	Group D Office	Group E Retail	Group F Industrial	Group H Special	Totals
2003	897	52	202	676	606	1037	814	4284
2004	873	84	255	762	716	1153	739	4582
2005	1056	74	290	815	659	1485	46	4425
2006	1505	57	208	708	525	1162	761	4926
2007	726	47	115	563	375	688	1320	3834

Note: Group A Assembly includes assembly occupancies such as arenas, schools, churches, restaurants, pubs. Group B Institutional includes institutional occupancies such as hospitals, care homes. Group C Residential includes residential occupancies such as apartments, dormitories, townhouse complexes. Group D Office includes office occupancies such as banks, professional offices. Group E Retail includes retail occupancies such as malls, stores, supermarkets. Group F Industrial includes industrial occupancies such as woodworking, factories, repair premises, agricultural. Group H Special includes specialized inspections such as business license, sprinklers, fire safety plans, pre-fire plans and occupancy inspections.

Public Fire and Life Safety Education

Year	Preschool and Daycare	School Program	Youth Group Program	Teen Program	Adult and Business Program	Special Events	Total
2002	1607	9885	940	459	662	19	13553
2003	1792	9819	657	1120	297	28	13685
2004	1733	9876	914	1276	768	26	16983
2005	2118	13773	582	168	620	875	18136
2006	1466	8977	741	733	3555	17897	33499
2007	1312	7696	1081	655	2841	11385	24516

Note: Preschool and Daycare Programs are 3-5 year olds who normally come to scheduled programs at the Firehall. School Programs are at the elementary school level from Kindergarten to Grade 7 and include programs such as the Fire Safety House and the Firecracker Program. Youth Group Programs are targeted at Sparks, Brownies, Guides, Beavers, Cubs and Scouts. Teen Programs are provided for Secondary Schools, Cadets and visiting foreign students. Adult and Business Programs provide extinguisher training for industry and the public as well as services to Early Childhood Educators, institutional staff and a dormitory program at Trinity Western University. Special Events are community-based activities such as Canada Day at the Airport, Fire Safety Fair, Fort Langley May Day, Aldergrove Days and Christmas at Williams Park.