



**Kelowna**  
Fire Department

# 2015 Annual Report

Kelowna Fire Department

For the year ended December 31, 2015

City of Kelowna  
2255 Enterprise Way  
Kelowna, BC V1Y 1J4  
TEL 250 469-8801

[kelowna.ca](http://kelowna.ca)

# ORGANIZATION PROFILE

The Kelowna Fire Department (KFD) operates under the direction of the Fire Chief who is responsible to the Mayor and Council through the Deputy City Manager of Strategic Services and the City Manager.

In order to deliver the services needed to accomplish our mission, KFD is organized into three branches: **Administration**, **Operations**, and **Communications & Emergency Management**.



**Fire Chief**  
Jeff Carlisle



## Goals and Objectives

### **Performance Excellence:**

We are a high-performing, accountable organization that delivers on its plan.

### **Passionate Public Service:**

By retaining and attracting the best, our workforce remains committed to our vision and adaptable to new challenges.

### **Responsive Customer Service:**

We understand evolving needs and ensure services are appropriate and accessible.

### **Engaged Communities:**

We listen and encourage full participation from the community to clarify needs and build neighbourhood identities.

### **Pioneering Leadership:**

We find better ways to deliver services to our community.

### **Strong Financial Management:**

We deliver on a multiple bottom line, balancing community priorities with resource realities to create a safe, vibrant and sustainable city.

KFD endeavors to provide the highest quality emergency and public safety services with a number of operational projects completed in 2015.

## Highlights from 2015 include:

- Contract negotiations between the City of Kelowna (City) and the IAFF Local 953 were successfully completed and a long term contract is now in place until December 31, 2019.
- Established a meeting schedule with the British Columbia Ambulance Service to enhance interoperability and increase response efficiencies.
- KFD and Turner Volkswagen continued their public education partnership. Turner Volkswagen provides KFD with a VW Beetle that is decaled and used for public education events and promotions.
- Emergency Operations Centre orientation sessions for key staff and local politicians were conducted. KFD staff delivered a presentation regarding “the First 15 Minutes” to refresh staff and local politicians on Emergency Management.
- The EOC was activated five times over the past summer to support residents and responders within the region who were impacted by wildfire.
- Emergency Support Service (ESS) opened a reception centre for residents impacted by the Rock Creek Fire. Although not in our area, residents impacted by the Rock Creek Fire evacuated to Kelowna and were supported by our ESS volunteers.
- KFD hosted the Minister of State for Emergency Preparedness - Naomi Yamamoto at the EOC. The Minister of State for Emergency Preparedness was joined by the Minister of Forests, Lands and Natural Resource Operations - Steve Thompson, the Minister of Public Safety and Solicitor General - Mike Morris, Regional District of Central Okanagan (RDCO) Chair - Gail Given and the City of Kelowna Mayor - Colin Basran.

## Operations Branch

The Operations Branch is responsible for the delivery of emergency services for fire and rescue, first medical response, hazardous materials and the day to day operations of the fire department. In 2015, the KFD had 10,736 emergency responses, ranging from structure and grass fires to rescues and auto extrications to medical emergencies.

### Station Locations

Station 1 -	2255 Enterprise Way
Station 2 -	1616 Water St
Station 3 -	310 Rutland Rd N
Station 4 -	619 DeHart Rd
Station 7 -	3275 Gulley Rd
Station 8 -	550 Valley Rd N
Station 9 -	2186 Bennett Rd



File Photo - Castanet

### Career Firefighters

KFD has ninety six (96) Career firefighters working out of Stations 1, 2, 3 and 4. These individuals not only respond while on duty, but on occasion are called back to work throughout the year when additional resources are required.

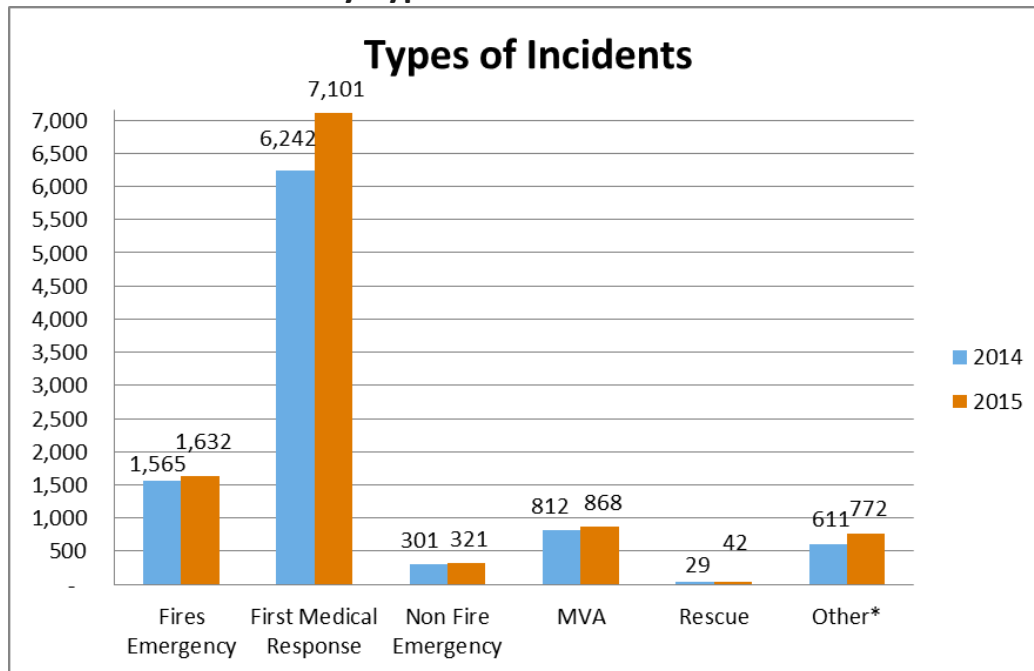
### Paid on Call Firefighters (POC)

KFD has forty-five (45) POC members based out of Stations 7, 8, and 9 who respond from home or work 24 hours a day/seven days a week to fire incidents and other emergency related calls. Service as a POC in our community requires a serious commitment as members attend weekly training and are on call to attend emergencies throughout the year.



## Emergency Responses

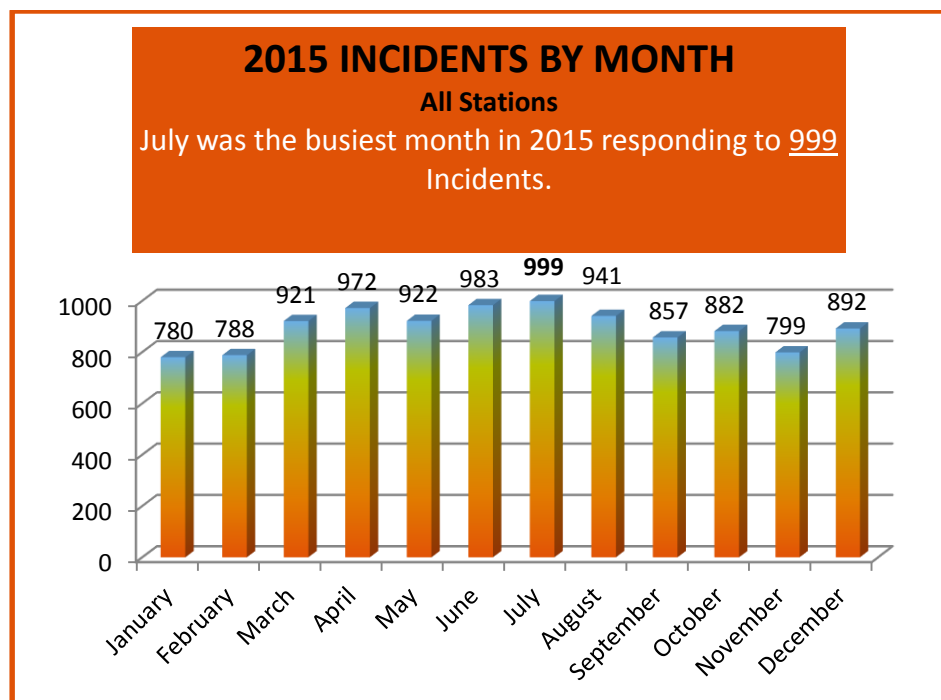
### Kelowna Incidents – By Type



\*Other includes: Assist Other Agency, Public Service, Burning Pile Inspection, Carbon Monoxide Alarm, etc.

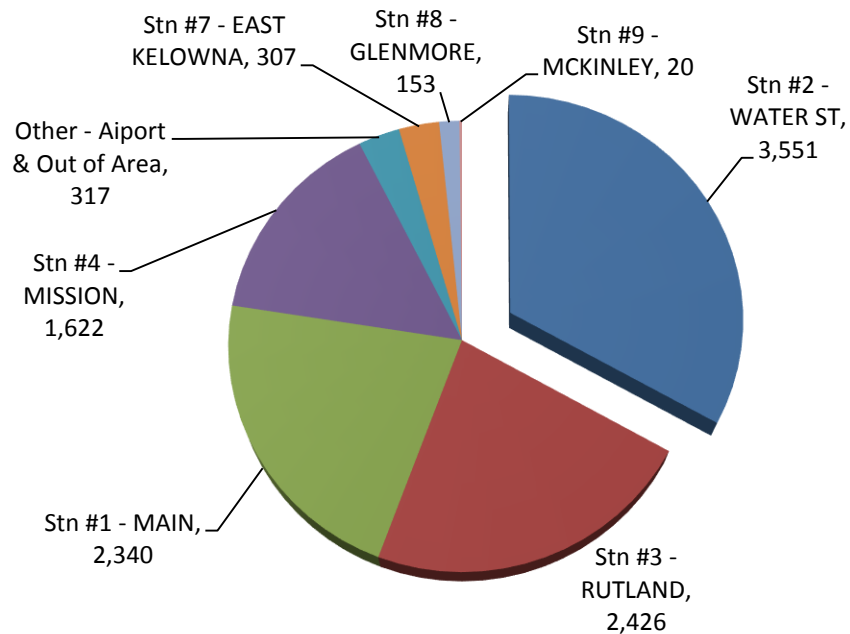
**Total Incidents for Kelowna 2015: 10,736**

### Kelowna Incidents – By Month



## Response Comparative - By Response Zone

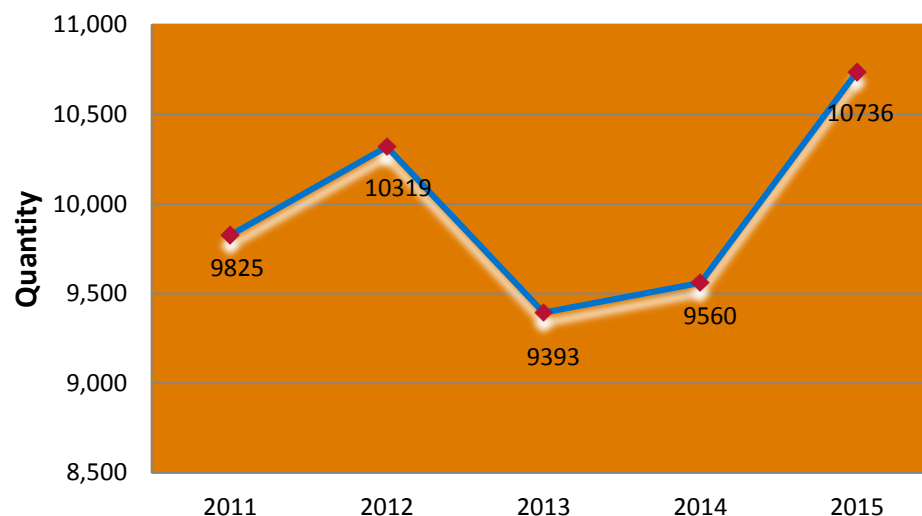
## Incidents By Station - 2015



Note: Stats do not include 2nd & 3rd engine responses.

## Response Comparative - By Year

## CALLS FOR SERVICE



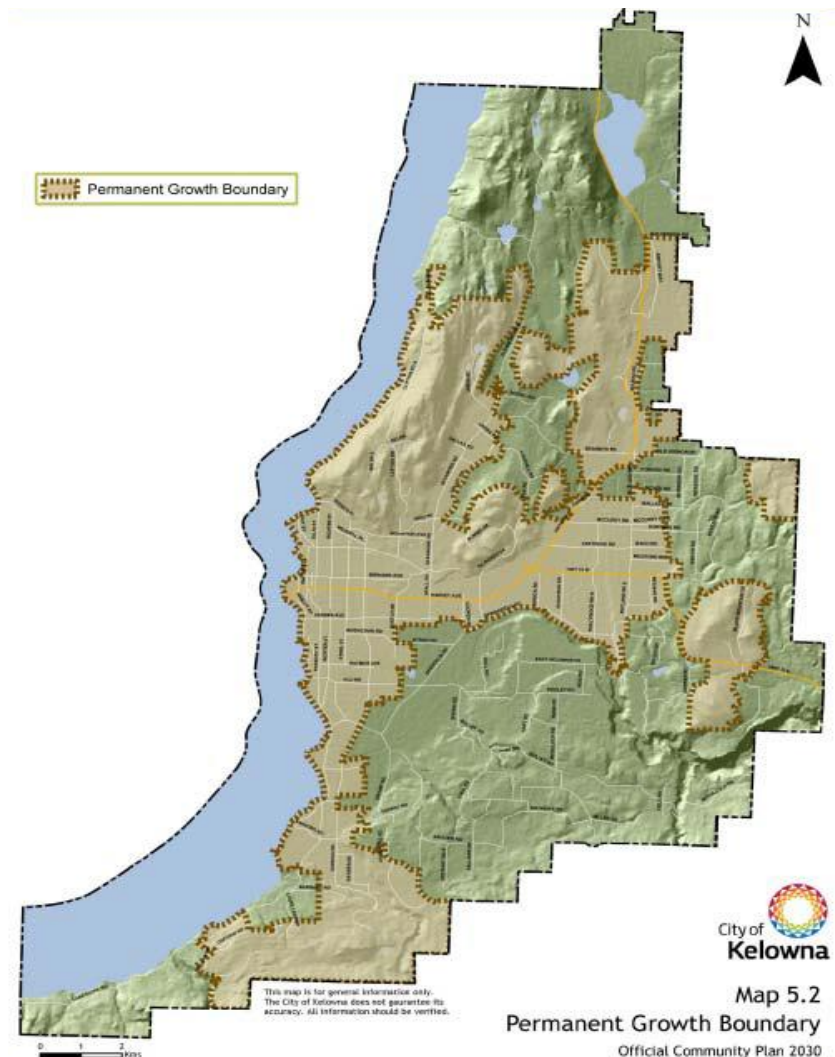
In 2015, the total number of emergency responses increased by 12% from 2014. Over a 5 year period there has been an increase of 9%. The decrease in 2013 was due to two significant changes:

- 1) A policy change in burn pile inspections resulted in a decrease of required inspections.
- 2) A change in the BC Ambulance Service's Resource Allocation Program (RAP) reducing the request for assistance by fire departments.

## Response Times

The National Fire Protection Association (NFPA) standards are used as a guideline by most Canadian Fire Services. They provide timeline standards, apparatus deployment and staffing recommendations on various emergency calls. KFD has considered NFPA standards along with other risk factors and administratively adopted specific goals for response times and resource allocation depending upon the type and severity of the event. Within the Permanent Growth Boundary (PGB) the goal is to have the first fire truck arriving within 7:40 minutes 90% of the time of being dispatched for all emergency types. For areas outside of the PGB, the target is to have the first fire truck arriving within 11:40 minutes 90% of the time of being dispatched.

The map below depicts the City boundaries for the PGB. It is important to note that the 5 year average indicates that 93% of all calls for service KFD receives are within the PGB.





In 2014, the KFD implemented risk based deployment software to validate and plan for future use of department resources for improving our response capabilities and to maximize our current resources. In 2015 this system was instrumental in the development of the 2016-2030 KFD Strategic Plan. This plan recommends a number of enhancements based upon dynamic and risk based responses.

## Apparatus Maintenance Support

KFD has a fleet of 23 emergency response vehicles and 10 general purpose vehicles that are maintained by a Fleet Services Emergency Vehicle Technician. The Deputy Chief of Operations serves as the department liaison to Fleet Services at City Yards.



## Operational Highlights

KFD had many significant operational achievements in 2015. Here are some highlights:

- Early 2015 saw the addition of the Fire Department's first UTV Gator. The Gator was outfitted with a fast attack suppression pack and a patient skid for transportation. Within the first year of operation the gator was put to the test and deployed to the Knox Mountain Fire, performed multiple rescues and did winter snow removal for Station 9 in McKinley.



- 2015 saw the life cycle replacement for 3 vehicles. In February, a preconstruction meeting was held to begin the construction of a new Rescue/Engine. Months later, a preconstruction meeting was completed for two new Engines for Station 3 (Rutland) and Station 4 (Mission).
- In February of 2015, KFD did a city wide recruitment of POC members for Station 7, 8 & 9. Eight new members were successful and completed basic fire training in the early summer months.

## LARGE SCALE EMERGENCIES

In 2015, KFD responded to a number of large scale emergencies including:

- Apple Auto
- Maple Lanes
- Pooley Rd Wildfire
- Harvey Ave House Fire



## Fire Prevention and Public Education

Fire Prevention, Public Education and Training initiatives have been ongoing throughout 2015 with the following highlights:

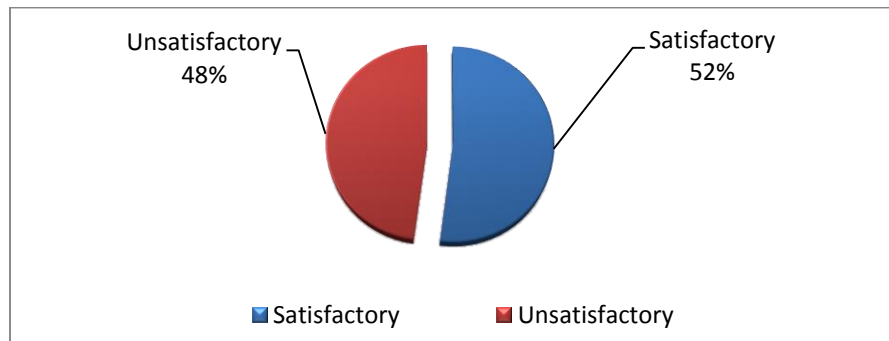
- 524 Burn Permits were issued (an increase of 19% over 2014).
- Wildland fuel mitigation work was conducted on a public beach in McKinley Landing in a cooperative effort between KFD and City Parks Department. KFD POC members from McKinley Landing burned wood debris on the beach because the steep inaccessible terrain made it too difficult to chip or remove the debris.
- A report from the Forest Practices Board of BC highlighted the cooperative FireSmart work that KFD and City Parks Department did with public education in the higher risk interface neighbourhoods (Quail, Clifton, McKinley and Gallagher's Canyon). The report also recognized the Knox Mountain Caretaker's home as a living example that demonstrates FireSmart initiatives.
- KFD's Public Educator was recognized as the Educator of the Year by the BC Fire Prevention Officer's Association.

## Inspections

KFD continues to strive to meet fire inspection frequencies in the City with 4,654 inspections completed in 2015. Over 48,157 Life Safety systems such as sprinklers and alarm systems were inspected. The table below indicates a steady decrease in unsatisfactory inspections from 67.29% in 2011 to 47.85% in 2015.

Fire Inspections:	2011	%	2012	%	2013	%	2014	%	2015	%
Total Inspections Due	4,583	100.00%	4,802	100.00%	4,444	100.00%	3,990	100.00%	4,009	100.00%
Inspections Completed	4,085	89.13%	4,549	94.73%	3,424	77.05%	3,778	94.69%	4,654	116.09%
By Inspectors	3,220	78.82%	3,349	73.62%	2,411	70.41%	2,299	60.85%	3,106	66.74%
By Company	865	21.18%	1,200	26.38%	1,013	29.59%	1,479	39.15%	1,548	33.26%
Satisfactory	1,336	32.71%	1,879	41.31%	1,689	49.33%	1,913	50.64%	2,427	52.15%
Unsatisfactory	2,749	67.29%	2,670	58.69%	1,735	50.67%	1,865	49.36%	2,227	47.85%

## Fire Inspection Status



**Satisfactory** – no code deficiencies identified; **Unsatisfactory** - code deficiencies identified

Completed Inspections:

**4,654**

Satisfactory Status:

**2,427 (52%)**

Unsatisfactory Status:

**2,227 (48%)**

**Code Violations: 6,218 code violations were reported in the 2,227 Unsatisfactory Inspections.**

## Unsatisfactory Fire Inspections by Occupancy Classification

*A: Assembly Occupancies: 895 inspections conducted with 51% unsatisfactory*

- Example: Schools, Restaurants, Community Halls, Churches

*B: Care or Detention Occupancies: 77 inspections conducted with 51% unsatisfactory (minor deficiencies)*

- Example: Hospitals/Nursing Homes

*C: Multi- Residential Occupancies: 706 inspections conducted with 45% unsatisfactory*

- Example: Apartments, Hotels, Motels, Dormitories

*D: Business and Personal Services Occupancies: 1,140 inspections conducted with 37% unsatisfactory*

- Example: Offices, Beauty Parlors, Banks

*E: Mercantile Occupancies: 858 inspections conducted with 50% unsatisfactory*

- Example: Department Stores, Shops, Supermarkets

*F-1: High Hazard Industrial Occupancies: 36 inspections conducted with 47% unsatisfactory*

- Example: Distilleries, Bulk Plants, Chemical Manufacturing

*F-2: Medium Hazard Industrial Occupancies: 782 inspections conducted with 59% unsatisfactory*

- Example: Service Stations, Factories, Storage Facilities

*F-3: Low Hazard Industrial Occupancies: 120 inspections conducted with 53% unsatisfactory*

- Example: Warehouses, workshops, Parking Garages



The vast majority of unsatisfactory inspections are the result of minor code violations that are identified during routine fire inspections. In such cases, there is opportunity to educate the owner/occupant on the importance of compliance and they are typically given 48 hours to rectify the issue(s). For the fewer more significant life safety violations, action may be required immediately. In the most critical violations or repeat violations, a Bylaw Offence Notice may be issued by a Fire Inspector or a Provincial Order may be issued by the Office of the British Columbia Fire Commissioner.

## Fire Investigations

KFD endeavours to determine the cause and origin of all fires, however at times it is necessary to refer the incident to one of KFD's fire investigation specialists who conducted 27 formal fire investigations in 2015. They consisted of 25 structure fires and 2 vehicle fires.



Fire Investigation:	2011	%	2012	%	2013	%	2014	%	2015	%
YTD Investigations	40	100.00%	35	100.00%	22	100.00%	16	100.00%	27	100.00%
Structures	30	75.00%	31	88.57%	19	86.36%	16	100.00%	25	92.59%
Vehicle	3	7.50%	1	2.86%	2	9.09%	0	0.00%	2	7.41%
Outdoor	7	17.50%	3	8.57%	1	4.55%	0	0.00%	0	0.00%

## Dollar Loss Estimates

Dollar Loss YTD	2011	%	2012	%	2013	%	2014	%	2015	%
Total Dollar Loss	\$17,800,000	100.00%	\$5,900,000	100.00%	\$19,100,000	100.00%	\$4,300,000	100.00%	\$2,387,100	100.00%
Assembly	\$38,800	0.22%	\$338,200	5.78%	\$66,860	0.35%	\$0	0.00%	\$20,200	0.85%
Institutional	\$3,100	0.02%	\$4,200	0.07%	\$1,000	0.01%	\$0	0.00%	\$5,000	0.21%
Multi - Residential	\$11,279,740	63.40%	\$1,045,150	17.85%	\$15,225,200	79.32%	\$437,550	10.18%	\$60,350	2.53%
Single Family Residential*	\$2,214,680	12.45%	\$3,920,120	66.97%	\$3,034,420	15.81%	\$1,713,900	39.86%	\$1,715,550	71.87%
Commercial	\$1,816,100	10.21%	\$5,000	0.09%	\$15,000	0.08%	\$500	0.01%	\$10,000	0.42%
Mercantile	\$2,139,500	12.03%	\$157,550	2.69%	\$3,600	0.02%	\$0	0.00%	\$11,000	0.46%
Industry (High Hazard)	\$0	0.00%	\$0	0.00%	\$704,000	3.67%	\$5,000	0.12%	\$0	0.00%
Industry (Medium Hazard)	\$291,500	1.64%	\$383,700	6.55%	\$69,220	0.36%	\$2,132,000	49.58%	\$564,500	23.65%
Industry (Low Hazard)	\$8,000	0.04%	\$0	0.00%	\$75,000	0.39%	\$0	0.00%	\$500	0.02%

\*Includes Vehicle & Outdoor Fires

Note: The total dollar loss from 2015 as compared to 2014 decreased by 44%. 2014 and 2015 were far below the five year average of \$9.9 million/ year. This is primarily due to the absence of large multi-residential fires that occurred in previous years.



**Dollar loss by occupancy classification illustrated that the highest dollar loss occurs in Single Family Residential and Medium Hazard Industrial Occupancies.**

## Public Education

In 2015, public education opportunities continued on a request basis. Visiting the fire station for fire and life safety education continues to be the most popular amongst day cares, pre-school and regular school classes.

KFD participated in over 209 public events, reaching 11,753 adults/children. Below are just a few:

- Fire Safety House Tour
- Grade 5 Community Safety Net
- Fire Extinguisher Training
- Kids Combat Challenge
- Safety Talk
- Firesmart
- Fire Station Tour
- Pumper Visit



# FIRE PREVENTION

Public Education:	2015 Total	Attendees
FIRE SAFETY HOUSE TOUR	30	4891
GRADE 5 COMMUNITY SAFETY NET	29	1243
PARADE/STATIC DISPLAY	3	1200
FIRE EXTINGUISHER TRAINING	45	734
KIDS COMBAT CHALLENGE	1	650
SAFETY TALK	11	641
SMOKE ALARM CHECK/INSTALLATION	21	380
FIRE STATION TOUR	12	344
CAREER PRESENTATION	7	281
P.A.R.T.Y. Program (GRADE 12 STUDENTS)	4	257
FIRESMART	11	227
PUMPER VISIT	7	209
MIDDLE SCHOOL KITCHEN SAFETY TALK	8	197
TOO HOT FOR TOTS	7	165
FIRE DRILL	5	113
JUVENILE FIRE SETTER	3	74
FIRE CHIEF FOR A DAY	1	64
REMEMBERING WHEN (FIRE & FALL AWARENESS	3	63
HIGH SCHOOL EXTINGUISHER TRAIN	1	20
<b>Total Attendees</b>	<b>209</b>	<b>11,753</b>

## FireSmart Program

In 2015, KFD helped the communities of Gallagher's Canyon, Quail Ridge, McKinley Landing and Clifton Rd/Magic Estates to prepare and take responsibility for the threat of wildfire. Many meetings and work parties were organized by the communities of Quail Ridge, Gallagher's Canyon and McKinley Landing. The residents of Quail Ridge and the Okanagan Golf Club created a partnership and achieved the designation of a FireSmart Canada Community on December 14, 2015. The community of Gallagher's Canyon has created a partnership between the residents and the Gallagher's Canyon Golf Club. They are working toward the FireSmart Canada Community designation in 2016. KFD also attended the AGM for McKinley Landing and encouraged residents to cleanup beaches in their neighborhood.

## Modular Home Smoke Alarm Campaign Statistics

2015	2013 – 2015 Campaign Total	
2	13	Parks visited.
389	1,324	Homes in the parks.
258	935	Homes visited for smoke alarm testing.
24	67	Home owners refused entry to KFD staff.
4	29	Homes without smoke alarms.
21	93	Homes without working smoke alarms.
170	499	Homes with smoke alarms older than 10 years.
31	246	New smoke alarms installed by KFD.
6	37	New batteries installed by KFD in operating smoke alarms.
111	222	Hardwired units that the owners will be replacing themselves.

## Public Relations

Kelowna Firefighters took part in a number of community fundraising programs such as:

- Christmas Tree Chipping for Charity
- Falcon's Charity Baseball Game
- Run Like the Irish
- Fat Cat Parade
- May Days Parade
- Healthy Kids Day
- P.A.R.T.Y Program
- Fire Prevention Week
- Fire Chief for a Day
- Burn Awareness Week
- MS Walk
- MD Walk
- Cystic Fibrosis Fundraiser
- Tim Horton's Camp Day
- Vaisahki Parade
- MD Boot Drive
- BC Professional Fire Fighters Burn Fund/Open House
- Dreamlift Day
- Variety Club Boat for Hope
- Relay for Life
- Terry Fox Run Fire Prevention Week



## Prevention and Public Education 2016 Focus

- KFD will continue the smoke alarm campaign in the remaining mobile home parks.
- Strive to visit all Kelowna elementary schools with the Fire Safety House teaching home fire safety.
- KFD will continue to provide fire safety education classes to industrial arts and cooking classes for Kelowna middle schools.
- A Firefighter Career Orientation Boot Camp will be created for senior students in School District 23.
- KFD will continue to educate Strata Management companies on how to support residents following a major fire in a condo or apartment building complex.
- KFD will promote Community Safety Net booklets for all grade 5 students educating them on general home safety.
- KFD intends to conduct a burn demonstration for new students attending the University of British Columbia Okanagan.



# TRAINING

## Training

In 2015, KFD dedicated over 11,500 person hours to training on a multitude of disciplines ranging from first medical response, auto extrication, fire, hazardous materials and rope rescue as well as training in public education and fire inspection.



### Highlights for training in 2015:

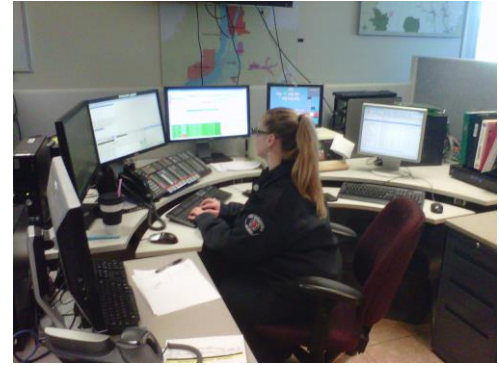
- 4 members were qualified in advanced Incident Command.
- 9 members were qualified as Hazardous Materials Technicians.
- 28 members were trained/ recertified in Ice Rescue.
- 1,344 staff hours of Technical Rescue training completed by 24 technicians.
- 2,061 staff hours of training for POC Firefighters.
- 10 career members were trained and form part of the Critical Incident Stress Team.
- The Live Fire Training Building was activated at the Glenmore landfill with training for all career and POC members.

### Fire Communications:

The Fire Dispatch Centre provided dispatch service for 28 Fire Departments consisting of 42 fire stations within the City of Kelowna, Regional District of Central Okanagan (RDCO) and the Regional District of Okanagan Similkameen (RDOS) boundaries. The dispatch center handled 30,336 incident reports during 2015.

The Fire Dispatch Centre is staffed by 10 Fire Dispatchers. Overall, 90,154 emergency and non-emergency telephone calls took place. 255,422 radio transmissions were processed in the dispatch centre.

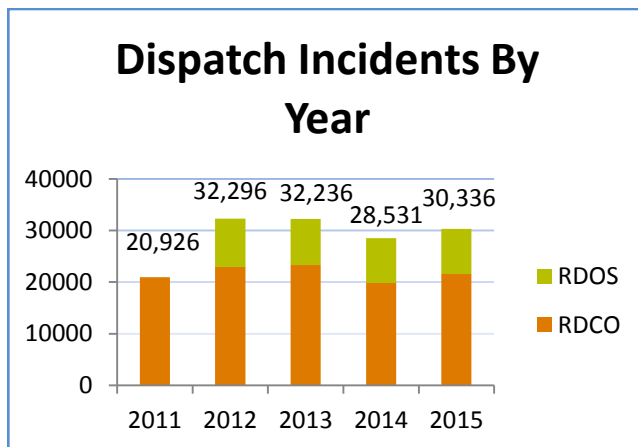
92% of emergency calls were dispatched within 60 seconds of the telephone ringing within the dispatch centre, beating the industry standard of 90%.



This includes the time to interview the caller and advise the responding fire department via radio, pager or telephone.

The Fire Dispatch Centre monitors various fire alarms throughout the City, the RDCO and the RDOS. The dispatch centre also handles the City's after hour's telephone service, lone workers, call outs when City facilities are closed and Bylaw Officer monitoring for Kelowna and Westbank First Nation.

In 2015, 7,427 9-1-1 calls were processed. 99% of 9-1-1 calls were answered in less than 15 seconds. 100% were answered in less than 40 seconds, exceeding the industry standard. 83.1% of 9-1-1 calls were answered in less than 5 seconds.



### Additional highlights include:

- KFD Dispatch worked with fire departments in the RDOS on the implementation of their new regional radio system.
- During a very busy wildfire season, the dispatchers received recognition and appreciation from first responders. Both RDCO and RDOS remarked on the dispatcher's dedication and support to their communities by enhancing communication throughout major events.

## Regional Rescue Program Highlights

- The KFD oversees the Regional Rescue Program on behalf of the RDCO. The program is managed by the Deputy Chief of Regional Services and supported by KFD Staff including the Deputy Chief of Operations and Team Leaders on each shift. Equipment, plus the costs for response and training is funded by the Regional Rescue Program through RDCO.
- Operationally, service delivery is broken into 3 areas within the KFD: Road Rescue, Technical Rescue and Hazardous Materials Response.
- Technical Rescue includes: high angle, tower crane, confined space, ice rescue and swift water rescue.
- KFD worked with West Kelowna Fire Rescue on cross training and best practices to provide a coordinated and collaborative response to technical rescue across the region.
- The Regional Marine Rescue continued with another busy year on Okanagan Lake with 34 calls for service.



## Regional Emergency Program

- KFD manages the Regional Emergency Management (EM) Program.
- The EM Program provides support to emergency responders and residents within the RDCO, City of Kelowna, City of West Kelowna, Westbank First Nation, District of Lake Country and District of Peachland when emergency events or incidents such as flooding or wildfire are beyond the capacity of a community's resources.
- Operated by the KFD on behalf of the RDCO, the program has an established Emergency Operations Centre (EOC) at the KFD Station 1 which is used during times of emergency or disaster.
- Staffing for the EOC comes from all local governments in the region. Regardless of the location of the event, staff from across the region work together to support residents and responders.
- The EOC coordinates response and recovery actions and resources, acting in a support role to emergency response personnel in the field. It is in the EOC where coordination and management decisions are facilitated, and where all official communications regarding the emergency originate.
- The EM Program is also responsible for the region's Emergency Support Services (ESS). This highly experienced volunteer organization provides support such as food, shelter and

clothing to residents displaced due to an emergency or disaster, ranging from a single house fire to a major community evacuation.

## EOC Activations

The EOC was staffed a number of times during the summer of 2015 for wildfire events:

### Knox Mountain Fire – June 21

- This was the first fire where KFD deployed its new Gator. This smaller, more mobile piece of equipment allowed firefighters and equipment to quickly reach the area. The speed and mobility played a large role in containing this fire before any significant loss was put at risk.



### Joe Rich – July 3

- The fire in Joe Rich started along Highway 33 and quickly spread up the hillside. This fire was a great example of cooperation among responding agencies including fire departments from throughout the RDCO and the Provincial Wildfire Branch.
- A quick response by Joe Rich Fire, supported by many partnering agencies resulted in no loss of homes.

### Bear Creek – July 19

- Evacuation alert put in place for 80 homes along Bear Creek and neighbouring roads.
- EOC was open in anticipation of supporting residents

### Shelter Cove – July 20

- EOC operated for a week to support residents impacted by this fire
- High visibility during peak tourism season, with national attention by news outlets

## EOC Visit by Minister of State, Naomi Yamamoto

- The EOC hosted the newly appointed Minister of State for Emergency Preparedness - Naomi Yamamoto to review the role of the EOC and to showcase the effectiveness of the Regional Emergency Program.
- Kelowna was chosen because of the program's positive reputation. This reputation is based on many years of experience and the vast





knowledge Kelowna gained supporting residents during wildfire or freshet seasons.

- This positive feedback is a result of the dedication of staff and volunteers involved.



## Emergency Support Services

The Regional ESS program was very active in 2015, showcasing the passion and professionalism that the RDCO is fortunate to have during times when our residents are displaced. The team was activated over 20 times. They assisted with events ranging from single family home fires to major wildfire events. This included an activation to support the residents from Rock Creek, who were displaced by a wildfire and cut off from other local communities. Our team continues to show leadership and best practices to other teams within BC.

