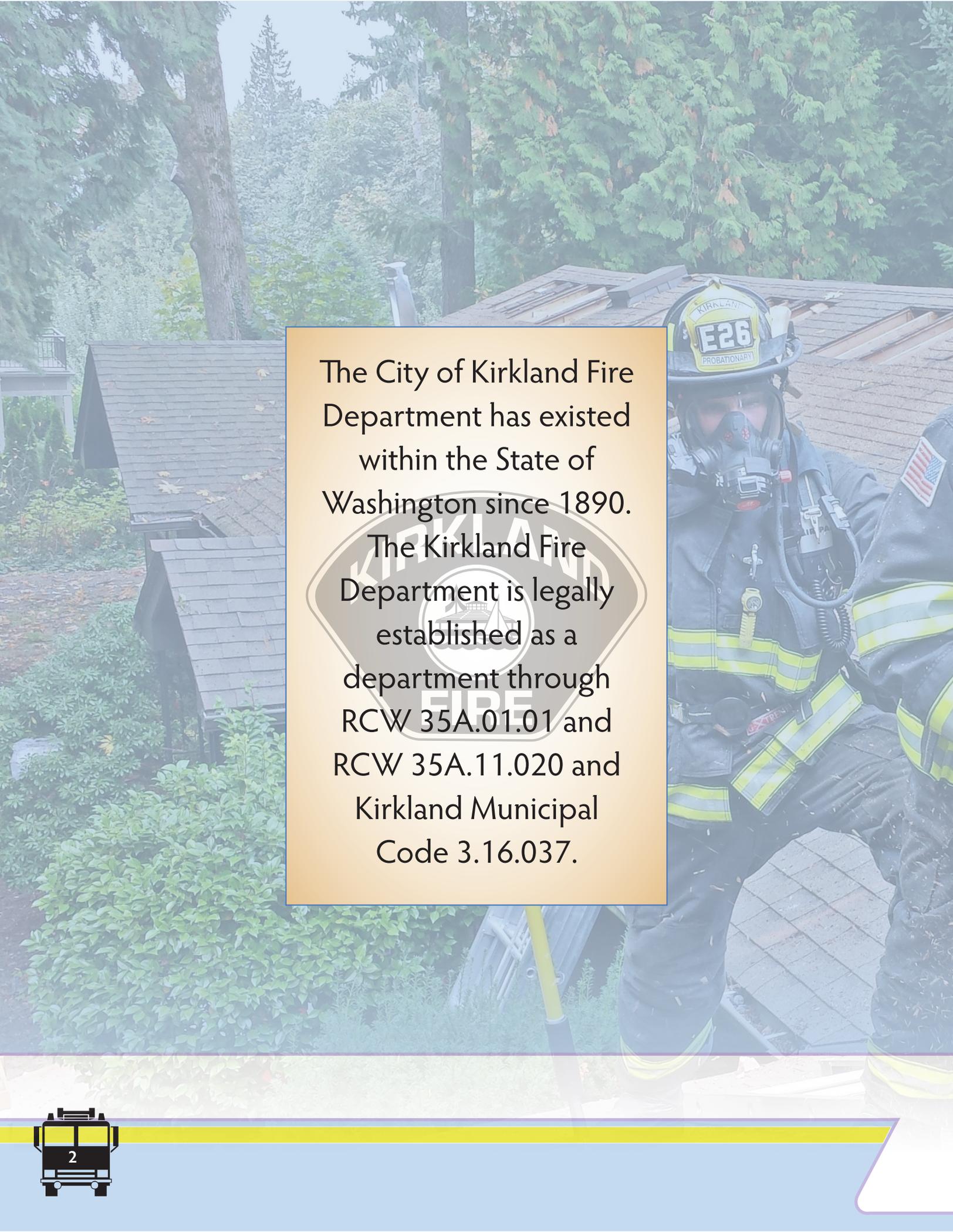


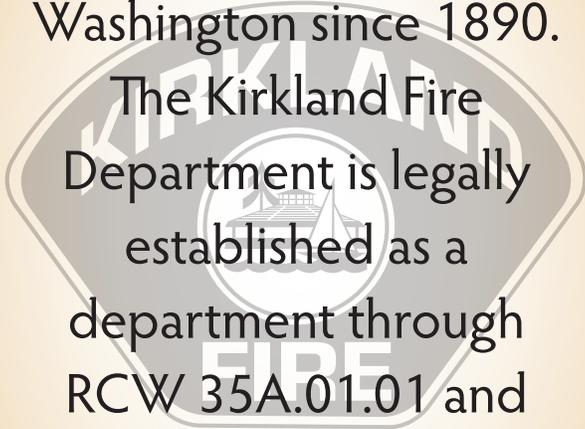


# KIRKLAND FIRE DEPARTMENT 2014 ANNUAL REPORT





The City of Kirkland Fire Department has existed within the State of Washington since 1890.



The Kirkland Fire Department is legally established as a department through RCW 35A.01.01 and RCW 35A.11.020 and Kirkland Municipal Code 3.16.037.



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# MESSAGE FROM THE CHIEF

I am proud to present the Kirkland Fire Department 2014 Annual Report. This report is an important way the Department demonstrates our commitment to community involvement.

The Kirkland Fire Department's value to our community is measured by the service we provide. Kirkland citizens receive the best fire, medical, and rescue service possible, twenty-four hours each day, by professional and committed men and women.

This annual report identifies actions taken in 2014 by the Department to improve services and outlines future goals, a few of which I highlight below. More details about these and other projects and programs are found in the body of the report. During the past year, the Department completed a Standards of Coverage and Deployment Study which evaluated the strengths and weaknesses of the current response capabilities and provided a template for improvement. Additionally, major progress was made toward agency accreditation by the Center for Public Safety Excellence, and the Department anticipates becoming accredited in 2015. Kirkland Fire Department also completed its first Fire Officer Academy. The Academy provides the organization's future leaders the tools necessary for success both during emergency response and daily management duties. And finally, Kirkland Fire received a generous donation from The City Church which, coupled with General Fund dollars, allowed the Department to expand our water rescue program capabilities from nearshore to open water rescue through the purchase of two rapid rescue watercraft.

I ask that you, too, get involved in reducing risk in our community. You can make a difference by preparing your family prior to the occurrence of an emergency or disaster: learn first aid and CPR; install smoke detectors; practice EDITH (exit drill in the home); become Community Emergency Response Team (CERT) certified; and facilitate a "Map Your Neighborhood" project. I also invite you to join our Fire Corps volunteer program to further assist in community risk reduction efforts.

Together, we can make our community a safer place to live and work.

J Kevin Nalder, Director Fire and Building Department



## VISION, MISSION, VALUES

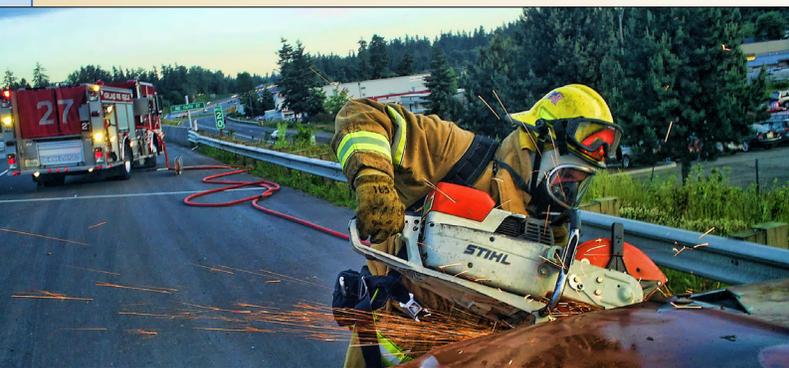
**VISION** The Kirkland Fire Department is Creating A Safer Community as a Respected Partner in Our Region and an Innovative Leader in the Nation.

### MISSION STATEMENT

OUR CITY \* OUR PEOPLE \* OUR DUTY  
OUR COMMITMENT TO SERVE

### VALUES

- **Supportive** – Working together as a team toward a common goal.
- **Professionalism** – Upholding industry standards and honoring the expectations of a professional firefighter both on and off the job.
- **Integrity** – Maintaining consistency between actions and words at all times.
- **Respect** – Treating others with understanding and compassion. Acknowledging there is strength in diversity.
- **Innovation** – Providing a supportive work environment that encourages and empowers improvement through creativity.
- **Trust** – Being fair, truthful, competent and honorable; Confident that the actions of others are fair, truthful, competent and honorable.



# DEPARTMENT INFORMATION

## OVERVIEW

### History:

The City of Kirkland Fire Department has existed within the State of Washington since 1890.

The first paid Fire Chief was hired in 1928 and the first paid firefighters for the City were hired in 1970. The current Fire Chief is J Kevin Nalder. He was appointed Director of the Fire and Building Department in May 2009.

As Director of the Fire and Building Department, Chief Nalder oversees the offices of the Deputy Chief of Administration, the City Emergency Manager, the City Building Official and the Deputy Chief of Operations.

The City of Kirkland Fire Department provided fire service to King County Fire Protection District #41 by a contract agreement (Kirkland Municipal Code 3.24.010) from November 1969 to June 2011. In 2011 the City of Kirkland annexed all of Fire District 41 and a small portion of Fire Districts 34 and 36.

### Services Provided:

The services provided to the community by the Fire Department include:

- Fire and emergency medical response (all response personnel are certified EMTs)
- Rescue operations including vehicle extrication and technical rescues including confined space, trench, structural collapse, and rope rescue
- Special operations including urban-wildland interface firefighting and near-shore water rescue
- Automatic response to surrounding jurisdictions
- Fire Prevention and permits
- Fire Investigation
- City Emergency Management

The Regional services provided to the community in partnership with neighboring Fire Departments include:

- Emergency dispatch and 911 services provided by North East King County Regional Public Safety Communication Agency (NORCOM)  
[www.norcom.org](http://www.norcom.org)
- Hazardous Materials Response provided to the community by the Eastside HazMat Team. The Kirkland Fire Department is a member of this team and has 8 response personnel trained to the technical response level
- Advanced life response + Medic response provided to Kirkland residents through a contract with the City of Redmond Fire Department. The medic program is part of the King County Medic One Program
- Training Division, part of the East Metro Training Group (EMTG). The EMTG is composed of the Bellevue, Kirkland, Northshore, Mercer Island and Redmond Fire Departments. Kirkland is one of the founding member agencies which make up this 500 plus member training group.



# DEPARTMENT INFORMATION

## OVERVIEW

### Staffing Profile (2014)

#### Work Schedule

Emergency response staffing is done on a three shift platoon rotation. The schedule is a 48/96 rotation. Employees work 48 hours then are off 96 hours, working a total of a 48 hour work week.

#### Personnel

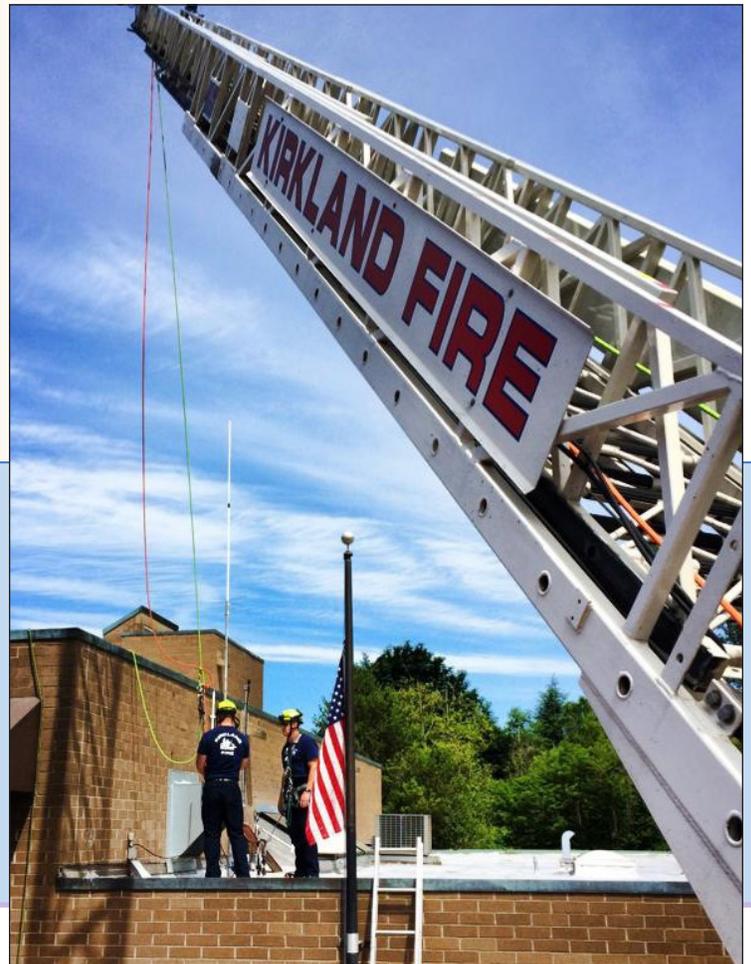
- Emergency response personnel – 90 Line personnel (not including Training, Admin or Prevention)
- Every day minimum on-duty strength – 19
- Prevention personnel – 4
- Training Officers – 2
- Emergency Medical Officer – 1
- Non-Uniformed (Civilian) Personnel – 5
- City Emergency Management – 2
- Command staff – 3

#### Minimum Staffing for Emergency Response

- Engine company = 3 crew members
- Aid car = 2 EMT crew members
- Ladder company = 3 crew members
- Battalion Chief = 1

#### Minimum Fire Station Staffing

- Forbes Creek Station 21 = 3 crew members; 1 aid car, 1 engine
- Houghton Station 22 = 3 crew members; 1 aid car, 1 engine
- Finn Hill Station 24 was closed on December 2014. Plans for relocating station 24 are in progress
- Juanita Station 25 = 3 crew members; 1 aid car, 1 engine, 1 temporary firefighter
- Rose Hill Station 26 = 3 crew members; 1 Battalion Chief, 1 Battalion Aide Captain; 1 aid car, 1 engine, 1 Battalion Chief car
- Totem Lake Station 27 = 6 crew members; 2 aid cars, 1 engine, 1 Ladder



# CITY OVERVIEW

## KIRKLAND

Founded	1888
Incorporated	1905
Consolidated with Town of Houghton	1968
Annexation of Finn Hill, North Juanita & Kingsgate	June 1, 2011
Population	
Pre-Annexation	48,787
Post-Annexation	81,730
Land Area	
Pre-Annexation	11 square miles
Post-Annexation	18.3 square miles
Fire Department Grading Class	4
Total City Budget (2013-2014 Final Budget)	\$543,708,911
City Operating Budget (2013-2014 Final Budget)	\$269,909,431
Full-Time City Employees	
Pre-Annexation	461.43 FTE
Post-Annexation	541.93 FTE



# City of Kirkland

## Fire Department Organizational Chart

Fire Chief, Director  
**J Kevin Nalder**

Deputy Fire Chief –  
Administration  
**Joe Sanford**

Administrative Services  
Supervisor  
**Audrey Martin**

Administrative  
Assistant  
**April Richardson**

Fire Marshal – BC  
**David Walker**

EMS Officer Captain  
**Seth Buchanan**

Office Specialist  
**Victoria Davies**

Asst. Fire Marshal  
**Grace Steuart**

Office Tech (Prev)  
**Teri Wallace**

Fire Inspector  
**Lt. Jason Chappell**

Office Tech (Trng)  
**Katharine Durish**

Fire Inspector  
**Brian Ferguson**

**Station 21**

Captain  
**Ivan Huld**

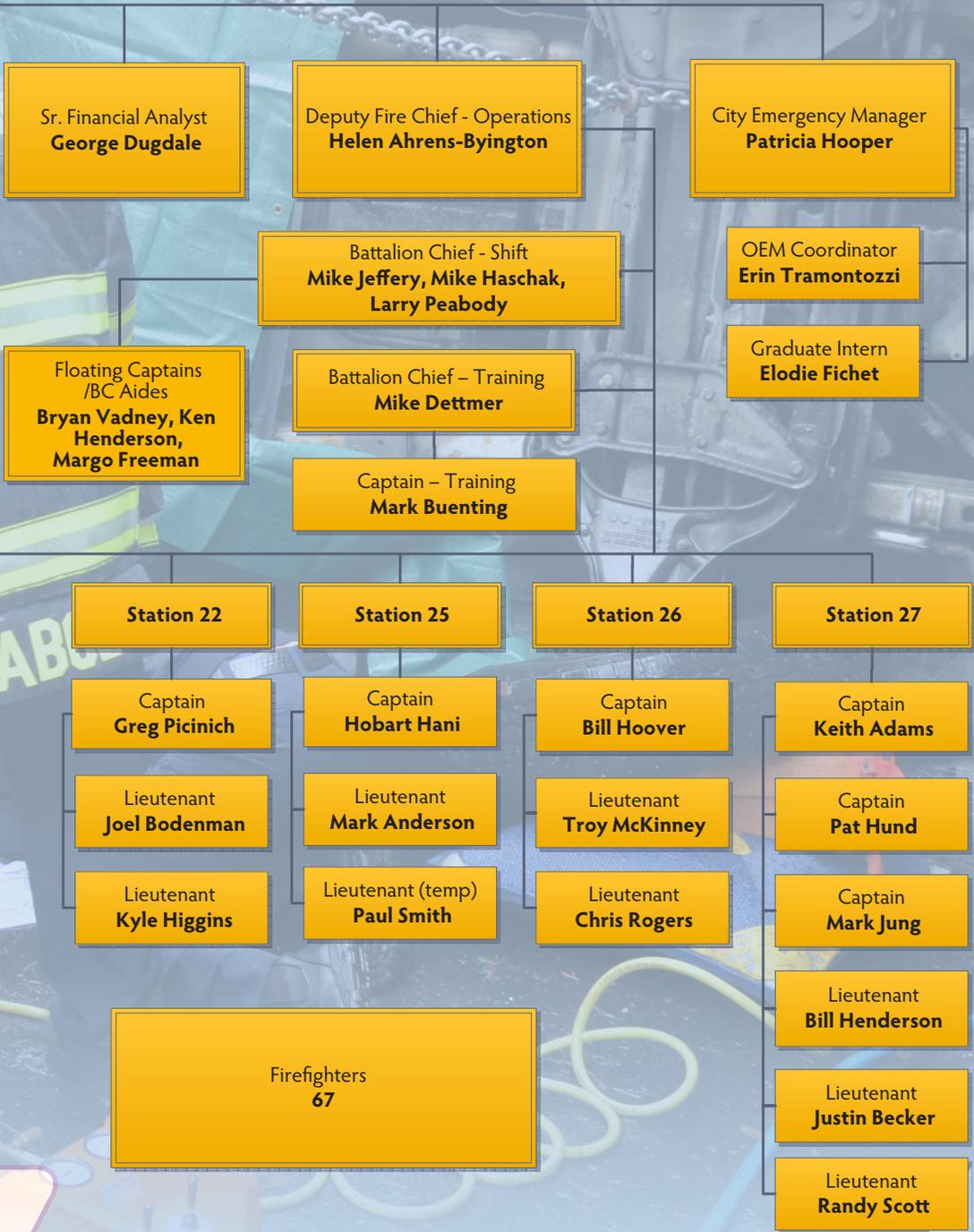
Lieutenant  
**Marc Hallen**

Lieutenant  
**Dick Hughes**

Fire Investigation Team  
**Lt. Jason Chappell**  
**Lt. Kyle Higgins**  
**Cory Caulk**  
**Brian Ferguson**  
**Tim Sears**  
**Paul Smith**



# DEPARTMENT INFORMATION



# DEPARTMENT INFORMATION

## STATION INFORMATION

### Fire Department Headquarters

Kirkland City Hall · 123 5th Avenue · Kirkland, WA 98033

(Mailing address) · 425-587-3650 (Department Main-line)

[http://www.kirklandwa.gov/depart/Fire\\_and\\_Building.htm](http://www.kirklandwa.gov/depart/Fire_and_Building.htm)

### STATION 21 – Forbes Creek..... 9816 Forbes Creek Drive

Date Built: 1997 (8,541 sq. ft.)

#### APPARATUS:

- Aid 21 2010 Ford Road Rescue Aid Vehicle 4x4 (front line)
- Engine 21 2005 Spartan / H&W Pumper (front line)
- Engine 28 1995 Seagrave Pumper (reserve)

### STATION 22 – Houghton .....6602 108th Ave. NE

Date Built: 1980 (9,071 sq. ft.)

#### APPARATUS:

- Aid 22 2006 Ford Road Rescue Aid Vehicle (front line)
- Engine 22 2003 Spartan / H&W Pumper (front line)
- Air Unit 21 2006 Spartan / H&W Special Ops Unit (front line)
- Engine 29 1992 Seagraves Pumper (reserve)
- 1926 American LaFrance Pumper (antique)

### STATION 24 – North Finn Hill

★ (Closed in December 2014)

### STATION 25 – Juanita .....12033 76th PL NE

Date Built: 1973 (6,488 sq. ft.)

#### APPARATUS:

- Aid 25 2008 Ford Road Rescue Aid Vehicle 4x4 (front line)
- Engine 25 2003 Spartan / H&W Pumper (front line)

### STATION 26 – North Rose Hill.....9930 124th Ave NE

Date Built: 1994 (9,795 sq. ft.)

#### APPARATUS

- Aid 26 2002 Ford Road Rescue Aid Vehicle (front line)
- Engine 26 2013 Spartan Pumper (front line)
- Battalion 21 2008 Chevrolet Suburban (front line)
- Battalion 21 2006 Chevrolet Suburban (front line)

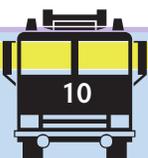
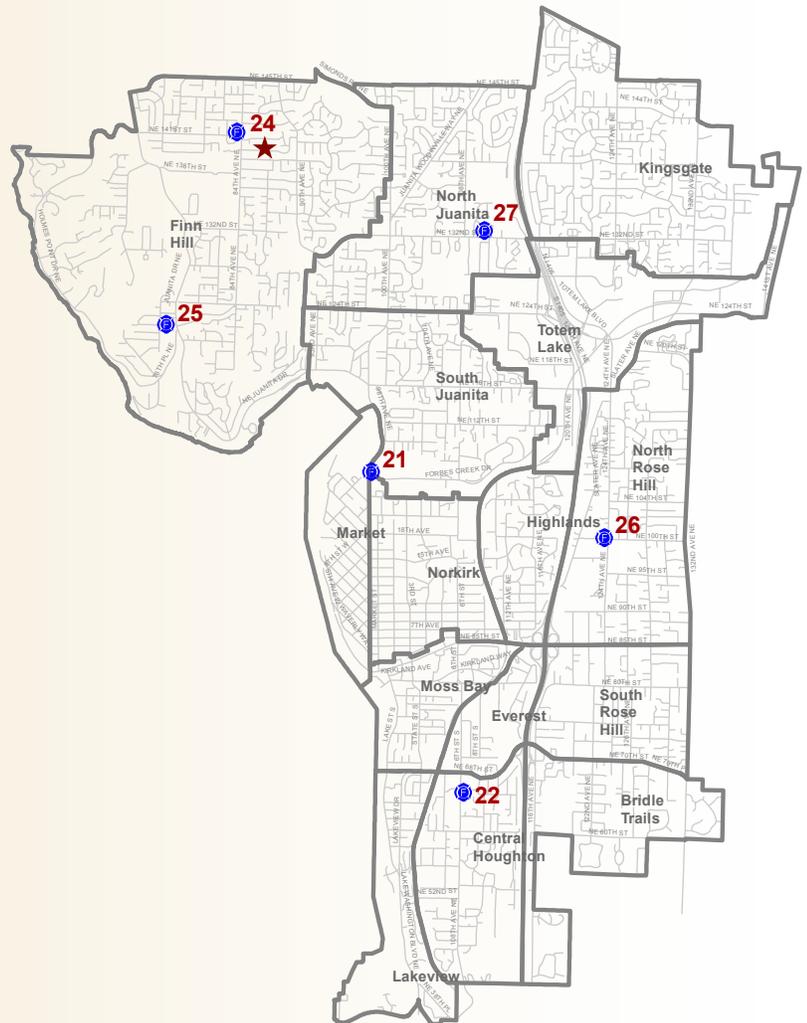
- Aid 28 2006 Ford Road Rescue Aid Vehicle (reserve)
- 2000 Ford Road Rescue Aid Vehicle (reserve)

### STATION 27 – Totem Lake ..... 11210 Ne 132nd St.

Date Built: 1974 (8,159 sq. ft.)

#### APPARATUS:

- Aid 27 2012 Ford Road Rescue Aid Vehicle 4x4 (front line);
- Aid 29 2007 Ford Road Rescue Aid Vehicle (front line)
- Engine 27 2010 Spartan / H&W Pumper (front line)
- Ladder 27 1997 Simon-LTI Tiller Aerial Ladder (front line)



# DEPARTMENT INFORMATION

## 2014 FIRE DEPARTMENT BUDGET

### Expenditures:

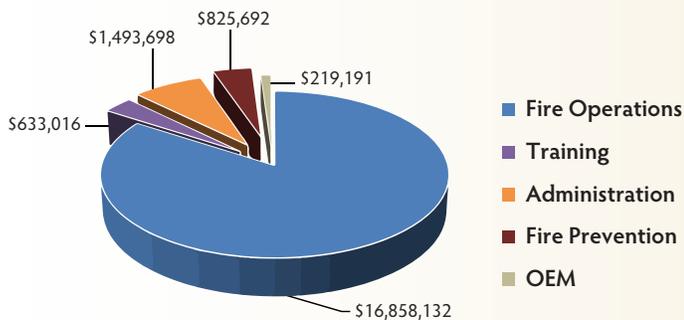
Department	Total	Personnel*	Internal Charges**	Other***
Fire Operations	\$16,858,132	\$13,972,336	\$2,185,440	\$700,356
Training	\$633,016	\$544,827	\$35,674	\$52,514
Administration	\$1,493,698	\$1,128,933	\$131,945	\$232,820
Fire Prevention	\$825,692	\$713,735	\$89,289	\$22,669
Office of Emergency Management (OEM)	\$219,191	\$172,969	\$16,803	\$29,419
<b>TOTAL</b>	<b>\$20,029,729</b>	<b>\$16,532,799</b>	<b>\$2,459,151</b>	<b>\$1,037,779</b>

\*Personnel includes: benefits, overtime, and hourly wages, uniforms, and protective equipment

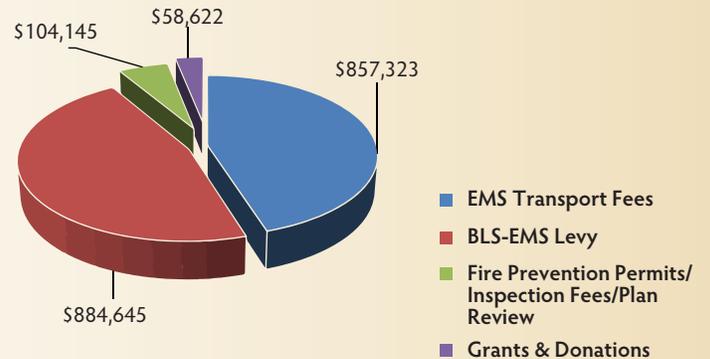
\*\*Internal Charges includes: Fleet, Information Technology, liability insurance and Facility charges

\*\*\*Other includes: safety gear, medical supplies, tools and supplies for fire stations and apparatus, office supplies, professional services/contracts, and all supplies in training, prevention, and administration

### 2014 Expenditures



### 2014 Actual Revenues



### 2014 Fire Department Revenues:

EMS Transport Fees	\$857,323
BLS-EMS Levy	\$884,645
Fire Prevention Permits/Inspection Fees/Plan Review	\$104,145
Grants & Donations	\$58,622
<b>TOTAL</b>	<b>\$1,904,735</b>



# DEPARTMENT INFORMATION

## 2014 FIRE DEPARTMENT BUDGET

### 2014 Active Capital Improvement Projects

- Disaster Supply Storage Units
- Disaster Care Response Vehicle
- Defibrillator Unit Replacement
- Disaster Response Portable Generators
- Dive Rescue Equipment
- Personal Protective Equipment Replacement
- Self-Contained Breathing Apparatus (SCBA) Replacement
- Hose Replacement

### Basic Life Support (BLS) Transport User Fee Program

On March 1, 2011 the Kirkland Fire Department began its Basic Life Support (BLS) Transport User Fee Program. The Program was established to create a sustainable revenue source to support essential emergency medical services. Revenue from the BLS transport user fee has helped cover the cost of providing emergency medical service to the Kirkland community. Without this new revenue the Fire Department would have had to reduce service levels. The user fees are currently used to maintain service levels; in the future, fees will be used to improve service, reduce response times, and provide greater EMS resources to the community.

### 2014 TRANSPORTS

Total Revenue = \$857,323

TRANSPORTS BILLED	2496	
Resident	1941	77.8%
Non-Resident	516	20.7%
Employee at Work	39	1.5%
	<u>2496</u>	
TRANSPORTS NOT BILLED	72	2.8%
<b>Total # of Transports</b>	<b>2568</b>	



# DEPARTMENT INFORMATION

## RECOGNITION AND SERVICE

The Kirkland Fire and Building Department recognizes those employees who have performed above the call of duty in an outstanding manner consistently, shown initiative and made significant contributions to our community and organization during the past year. Recipients are nominated by their peers based on the department's core values and operating principles.

### RECIPIENTS OF THE 2014 SERVICE RECOGNITION AWARDS:

Rookie of the Year ..... Erik 'Gus' Gustafson

Crew of the Year: ..... STATION 22 C SHIFT

Firefighter of the Year ..... Dustin Smith

Lt. Joel Bodenman

Officer of the Year ..... Randy Scott

Steve Brownlee

Chief of the Year ..... Joe Sanford

Jeff Childs

Civilian of the Year ..... Audrey Martin

Kent Moffitt

Jon Hernandez

### Retirements:

Dana Olson	38 years of service	Captain
Andy O'Keefe	30 years of service	Firefighter
Dave Young	22 years of service	Firefighter

### Promotions:

Marc Hallen	Lieutenant
Seth Buchanan	Captain

### Years of Service:

Mike Jeffery	30
Bob Holmes	30
Bryan Vadney	30
Mark Anderson	30
Pat Hund	25
Troy McKinney	25
Pat McManus	25
Cliff Oleszko	25
David Walker	25
Bill Henderson	25
Joe Ruljancich	25



# KIRKLAND FIRE DEPARTMENT



OUR CITY \* OUR PEOPLE \* OUR DUTY  
OUR COMMITMENT TO SERVE



# EMERGENCY RESPONSE

## OPERATIONS OVERVIEW

The Operations Division oversees the department's response to all emergency incidents. This division is also responsible for the training and safety of response personnel in order to provide an effective response to emergencies in the community.

In 2014 the operations division responded to 8,228 calls, the highest call volume in the history of the department. The responses include several significant motor vehicle collisions which required the use of the technical rescue equipment to safely extricate the patients and keep others from being injured during the rescue. There were 52 structure fires that crews responded to effectively with no civilian fatalities. The Department also responded to over 40 water related emergencies. Kirkland's near shore water rescue program received improved equipment this year to help in the immediate response to these incidents. The program also received rapid diver equipment that now allows emergency responders to dive to about 25 feet to make a rescue.

The City of Kirkland is invested in providing up-to date and well-maintained emergency response vehicles. Members of Public Works, the Fleet division, and a team of Firefighters design and scope-out the building of new fire vehicles. This process takes about 9 to 12 months for aid units and 18 to 24 months for engines and ladder trucks. In 2014, an order was placed for a new ladder truck, which will replace an 18 year-old vehicle. The Department also received two new aid cars which replaced the two oldest rigs. The Department is also part of a regional committee that is looking at best practices in purchasing models, partnerships, and the possibility of sharing and storage of rigs with regional fire departments in the future.

Being able to respond quickly takes a partnership with the community: individuals quickly identifying an emergency situation, notifying 911, and then taking any action they can to safely make a difference. The Department has been able to recognize some community members with Citizen Hero Awards for their quick actions in 2014: neighbors who called 911 and worked together to rescue a lady from

her balcony when her house was on fire; a 10 year-old girl who successfully performed CPR on her father, her 6 year-old brother who called 911, and the NORCOM Dispatcher who gave her CPR directions over the phone; and a team of high school students that witnessed a man collapse on a standup paddleboard, pulled him out of the water, and initiated CPR they learned in school.

Kirkland Fire is very involved in the community. The Department participates in Walk Your Child to School Day, school egg drops, neighborhood block parties, City special events, station tours for children, Touch a Truck, 4th of July, Summerfest, and many more.

In 2014 there were three retirements of long time firefighters, and two new firefighters successfully made it through the 12 week academy and the probationary year. The Department also went through a thorough hiring process to have five fire recruits ready to go for the January 2015 academy.

## TRAINING OVERVIEW

Kirkland Fire Training Division is responsible for the competency of the firefighters who serve the residents of Kirkland and the safety of the residents and firefighters. All actions taken by the Training Division relate directly to these responsibilities.

The training of Kirkland firefighters never stops; firefighters constantly participate in company level, shift level, and Chief Officer training. These training events are administered to the crews by the Training Division for completion on a quarterly basis.



# EMERGENCY RESPONSE

## TRAINING OVERVIEW

The East Metro Training Group (ETMG) is a 500 plus member training group made up of the fire departments of Bellevue, Redmond, Mercer Island and Northshore. In 2014, the Shoreline, Bothell and Woodinville Fire Departments joined the EMTG group as well. This training group had been functioning informally for three years. The formal signing of an Interlocal agreement solidifies the commitment to joint training between partner agencies.

The benefits of this cooperative effort are numerous and significant. Interoperability is increased and as a result the efficiency and the safety at the emergency scene is improved. When jurisdictions that respond together train together, skill levels improve, safety is increased and efficient scene management is obtained.

**Required areas of responsibility that are divided amongst the EMTG member agencies are:**

- Health and Safety
- Special Operations
- Fire Suppression
- Emergency Medical Services
- Career Development

### 2014 EMTG Training Division Highlights:

- Added Shoreline, Bothell and Woodinville to EMTG
- Provided Quarterly Command Post Training for the Battalion Chiefs and BC Aides
- Accomplished required live fire training using local training centers
- Provided simulated trench rescue training using wrecked cars in a trench with two simulated patients
- Provided required rapid intervention (RIT) firefighter rescue training
- Provided required Hazardous Materials (HM) Training for each HM Team member
- Provided water rescue technician and operations training for Kirkland and Redmond Firefighters

- Graduated two new recruits from an in-house certified recruit academy co-hosted by Bellevue, Kirkland, Redmond, and Northshore
- Provided Incident Safety Officer Training to our Captains and Battalion Chiefs
- Conducted our inaugural Fire Officer Academy fulfilling the Fire Officer I NFPA Recommendations. Four new acting officers emerged from that academy
- Provided leadership and communication training to acting officers and officers (Jack Lyons and Associates)
- Provided Competency Based EMT recertification training for all of our EMTs, many of whom recertified at the end of the year
- Approved approximately 135 training request for many different types of training
- The Training Captain received a national award for excellence and commitment to training and education
- Certified thirteen firefighters to the advanced Rapid Diver water rescue program
- Certified three people to be nationally Certified Scott self-contained breathing apparatus (SCBA) technicians at the train-the-trainer level
- In partnership with Lake Washington School District, provided better connectivity at Station 25 for online training activities
- Completed training and fit testing for all fire personnel prior to putting the new SCBAs in service
- Sent Battalion Chiefs and Captains to a Drug Abuse in the Work Place supervisor awareness class
- Prepared a biennium budget for 2015/16
- Scheduled Hearing tests, flu shots, and TB Quantiferon Gold Testing (Blood Draws)

**The following completed the Fire Officer Academy in 2014:** Todd Anderson, Megan Keyes, Chris Meter, Justin Becker, Doug Tomzacak and Kevin Martin.



# EMERGENCY RESPONSE

## TECHNICAL RESCUE 2014

Kirkland Fire is the lead agency in the region on Technical Rescue Operations. Kirkland continues to shape the response, training, and equipment policies of the partners in Northeast King County, known as Zone One. In 2014, Kirkland Fire Rescue Technicians conducted training for 63 Firefighters from King, Pierce, Snohomish and Jefferson Counties in Structural Collapse Rescue, Trench Rescue, Confined Space Rescue, and Rope Rescue.

There are 28 Kirkland Firefighters that are trained as Rescue Technicians. All other Firefighters are trained to the Operations (support) level in specialized rescue. The Rescue Technicians are assigned to Kirkland's Ladder Company and respond from Fire Station 27 in the Totem Lake area. Kirkland Rescue Technicians are trained in the following disciplines:

- Rope Rescue
- Confined Space Rescue
- Trench Rescue
- Structural Collapse Rescue
- Vehicle & Machinery Rescue

In 2013, Kirkland Fire placed in service a rescue trailer "Collapse 27" that was outfitted with equipment and supplies specifically for structural collapse incidents. This unit was funded by a Federal Grant. The trailer is equipped with Urban Search and Rescue (USAR) equipment for breaching, breaking and shoring of destabilized structures due to earthquakes, explosions, impact by vehicles, and construction defects.

In 2014, with Kirkland as the lead agency, the region moved forward with programs to better serve the community. One program is the development of Rescue Squads that mirror the FEMA Team Squads that are deployed in the event of a large scale/long duration incident. Five squads are slated to be located across Zone One. Kirkland and Redmond personnel and equipment are Squad 3. When a large scale structural collapse occurs whether due to earthquake, building malfunction or deliberate act, the Squads would be deployed and should FEMA join the response, the integration would be seamless.



Kirkland had several calls where structural collapse was involved.

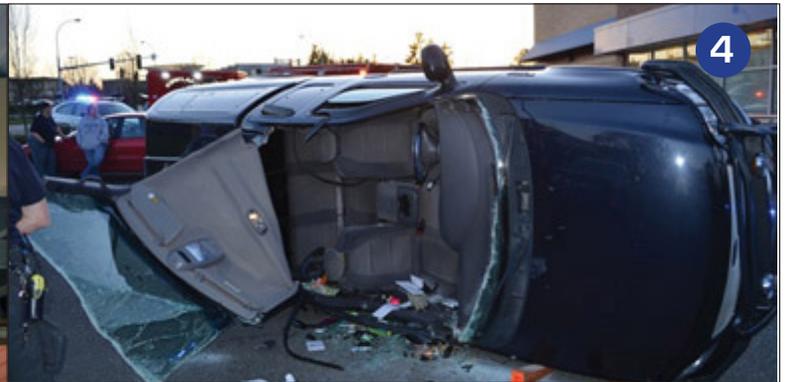
- 1 Vehicle into an apartment carport destabilized the carport.
- 2 Aftermath of vehicle into building

During 2014, Rescue personnel also responded to several incidents within the City of Kirkland and the region that required specialized rescue training and equipment. There were a number of vehicle collisions where stabilization of the vehicle was required to prevent further injury and to quickly remove the patients.

- 3 MVA/Rescue on I-405
- 4 Rollover MVA/Rescue

There were also rope rescue, industrial, machinery and trench incidents within Kirkland and across the Zone.

- 5 Structural Compromise Rescue – Kirkland
- 6 Trench Rescue Shoring



# EMERGENCY RESPONSE

## WATER RESCUE

In 2014 the Kirkland Fire Department implemented a Rapid Diver Technician program that provides for quick deployment of rescue divers who can respond to water related emergencies to a depth of 25 feet. This rapid deployment, sub-surface rescue capability is the first in the region. Water rescues lead all technical rescues with over 40 water related emergencies occurring in 2014. The Department has 62 trained Surface Water Technicians and has trained 32 of its personnel as Rapid Diver Technicians.

Also in 2014, the Department researched and acquired funding to purchase two water rescue crafts that will be ordered and deployed in 2015.

## PERSONAL PROTECTIVE EQUIPMENT PROGRAM:

The Kirkland Fire Department has become a leader in the nation in Personal Protective Equipment (PPE) cleaning, inspection, and repair. Kirkland became only the second fire department in the United States to achieve third party verification certifications for PPE. This allows KFD to do all annual inspections as well as repairs to PPE, a net cost savings to the City in excess of \$76,000 annually. Additionally this certification increases frontline PPE's serviceable life from five to ten years.

Four Fire Department members are certified to inspect and repair the 3,000+ pieces of individual protective gear. In 2014 over 2,700 inspections were performed and 3,751 advanced repairs made. The cost savings achieved by doing these repairs in house exceeded \$128,500.

A full service sewing/repair facility has been set up at one of the Kirkland fire stations that has facilitated the PPE team to expand beyond repairs to just firefighting gear. The shop is fully functional with four sewing/stitching machines,



a heat press, and specialized cutting tools for repair to technical rescue PPE as well as the manufacturing of patient lift assist belts for aid calls, hose load strapping for the engine companies, and custom bags to protect SCBA face pieces.



# EMERGENCY RESPONSE

## INTENT OF RCW CHAPTER 35A.92

The legislature intends for code cities to set standards for addressing the reporting and accountability of substantially career fire departments, and to specify performance measures applicable to response time objectives for certain major services. The legislature acknowledges the efforts of the International City/County Management Association, the International Association of Fire Chiefs, and the National Fire Protection Association for the organization and deployment of resources for fire departments. The arrival of first responders with automatic external defibrillator capability before the onset of brain death, and the arrival of adequate fire suppression resources before flash-over are critical events during the mitigation of an emergency and in the public's best interest.

For these reasons, this chapter contains performance measures relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations by substantially career fire departments. This chapter does not, and is not intended to, in any way modify or limit the authority of code cities to set levels of service.

## WHY RESPONSE TIMES?

The Commission on Fire Accreditation International (CFAI) has defined response time elements as a cascade of events. This cascade is similar to that used by the medical community to describe the events leading up to the initiation, mitigation and ultimate outcome of a cardiac arrest. It is directly influenced by the fire service via station locations and design, staffing levels, as well as local rules and procedures for response. Other factors, such as the alarm interval, can be influenced indirectly through public education and engineering initiatives. The fire service can also influence the call-processing interval through its ability to define standards and compel performance by its dispatch centers.



# EMERGENCY RESPONSE

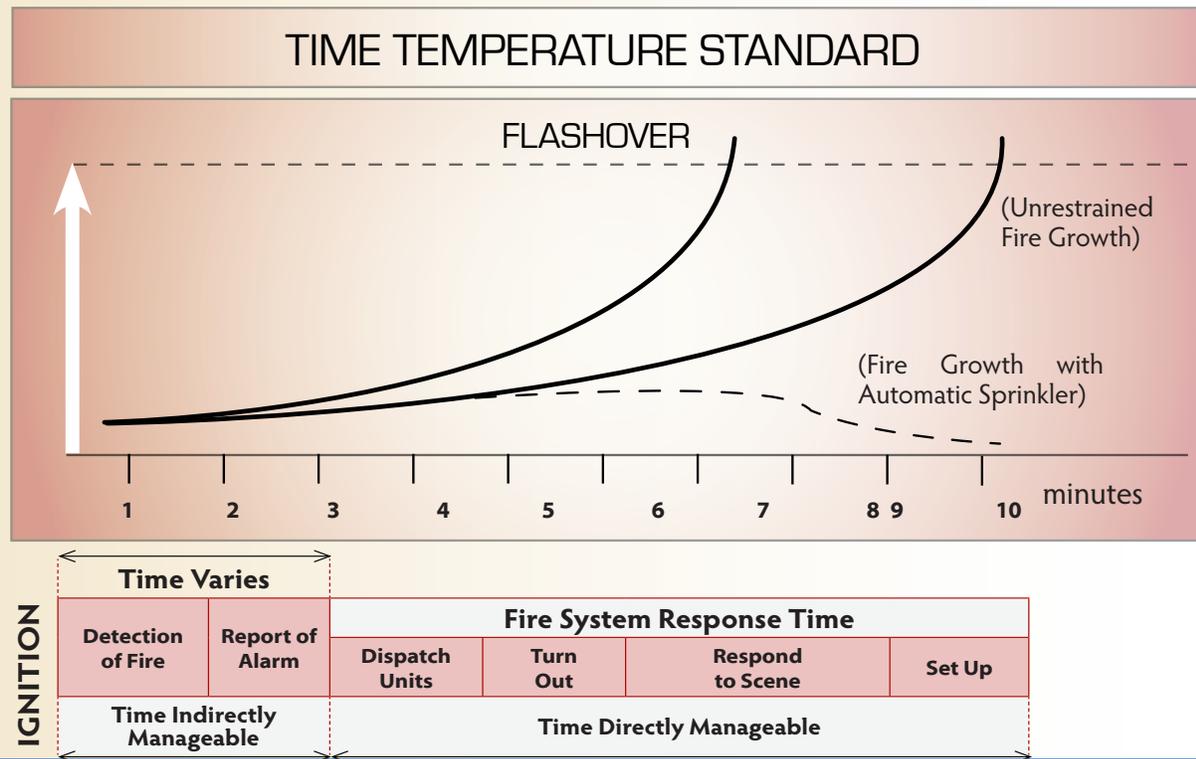
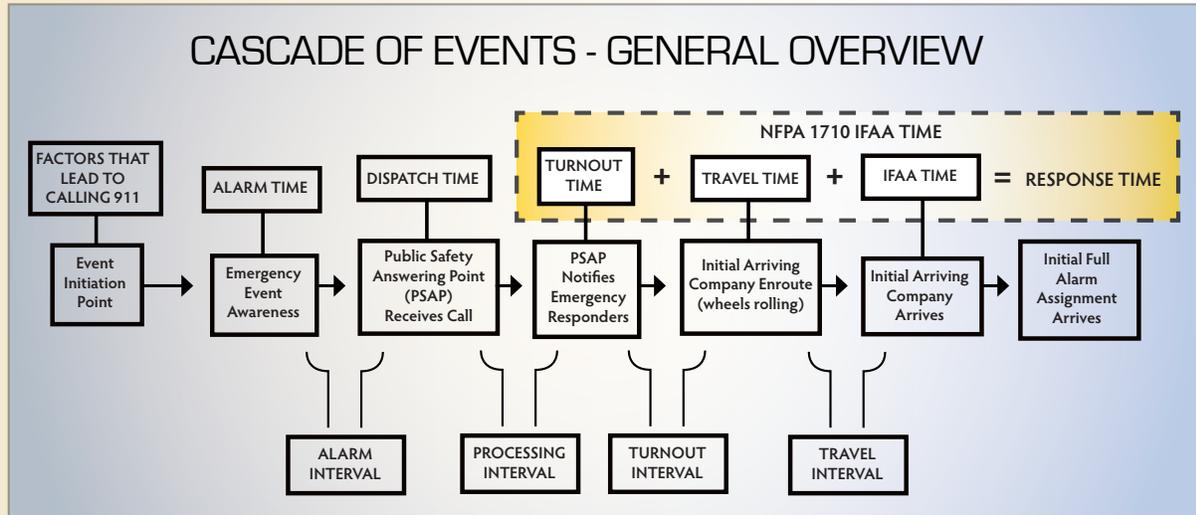
## Time Temperature Standard

The "time-temperature curve" standard in the figure below is based on data from the National Fire Protection Association (NFPA) and the Insurance Services Organization (ISO), which have established that a typical point source of ignition in a residential house will "flash over" at some time between 5 and 10 minutes after ignition, turning a typical "room and contents" fire into a structural fire of some magnitude.

## Time Temperature Curve

The utility of the time-temperature curve for fire station placement is contingent on a number of factors, including but not limited to the following:

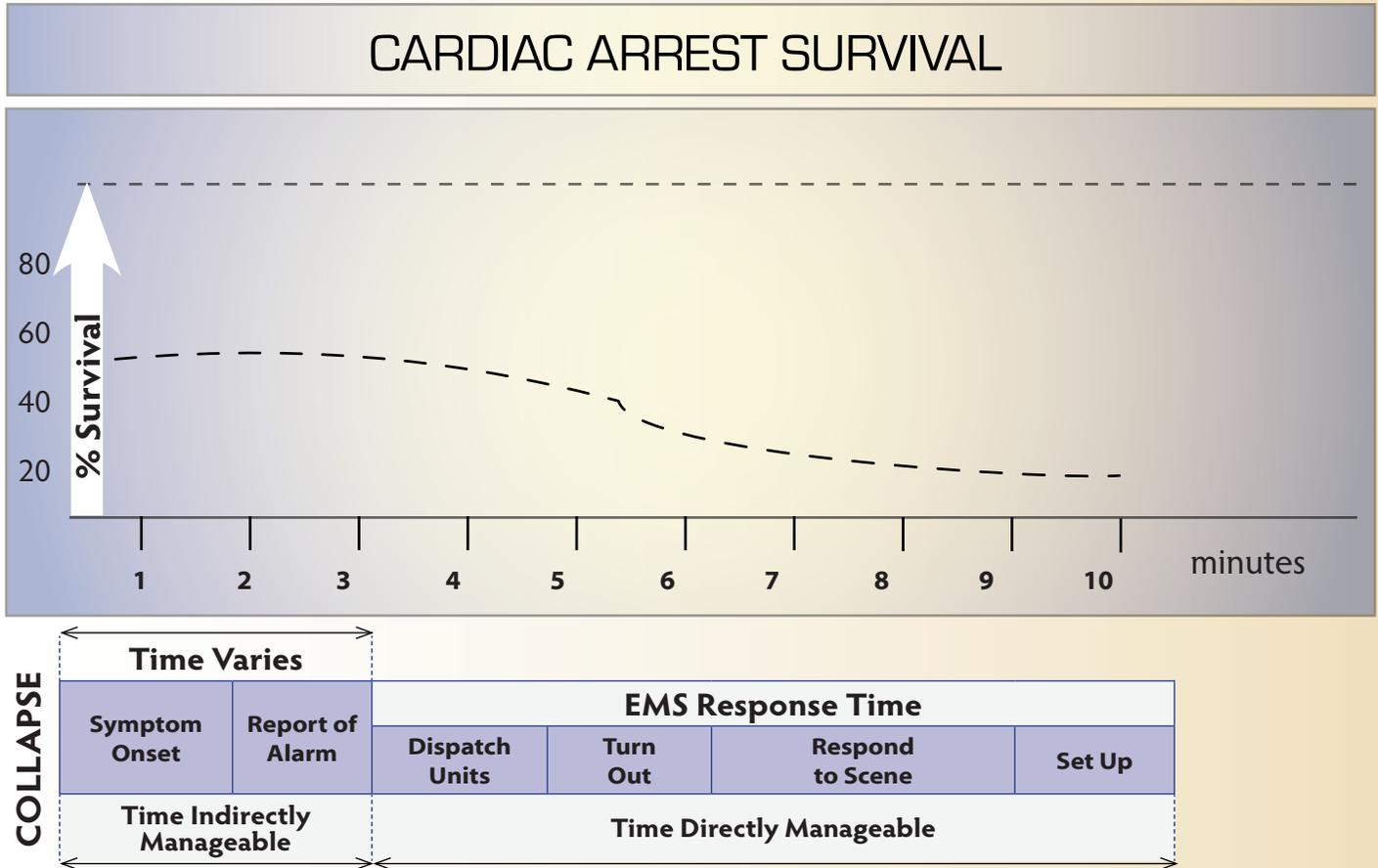
- It does not account for the time required for the existence of a fire to be "discovered" and reported to the fire department via the 911 system.
- The time from ignition to flashover varies widely (5-30 minutes depending on building characteristics)



# EMERGENCY RESPONSE

## Cardiac Arrest Survival Standard

In communities where the fire service is the principal provider of Emergency Medical Services (EMS) first response, the "chain of survival" standard shown in the figure below was developed by the American Heart Association and is often used to provide guidance for distribution of resources. The chain of survival suggests that basic life support (CPR and defibrillation) should be available to the victim of a cardiac arrest within 4 minutes of the event. Early notification, distribution and concentration of emergency response services are thus paramount to successful resuscitation efforts.



## The Golden Hour Standard

In trauma events, the golden hour is the historic benchmark applied to victims with significant critical traumatic injuries. The golden hour reflects the concept that survivability decreases significantly if the patient isn't in the operating room within one hour of receiving a critical traumatic injury.



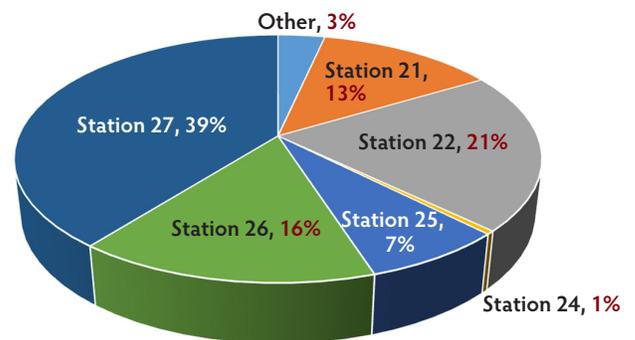
# EMERGENCY RESPONSE

## TOTAL CALL LOG

### 2013 Total Emergency Incidents

CALL TYPE	STATIONS							
	Other	21	22	24	25	26	27	Total
Fire	10	64	130	0	39	79	164	486
EMS	143	814	1135	34	424	871	2356	5777
Other	122	167	402	1	133	300	644	1769
<b>Total</b>	<b>275</b>	<b>1045</b>	<b>1667</b>	<b>35</b>	<b>596</b>	<b>1250</b>	<b>3164</b>	<b>8032</b>

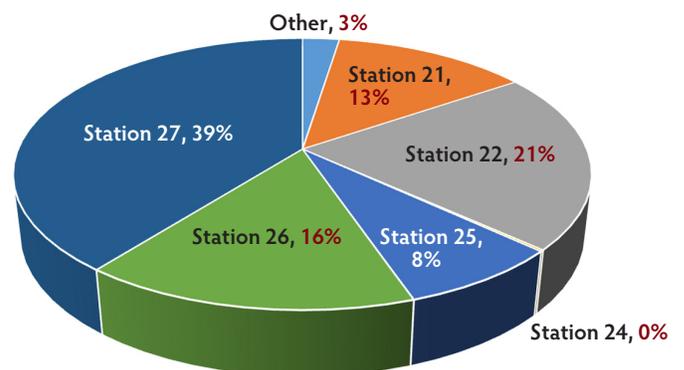
### 2013 Incidents by Station



### 2014 Total Emergency Incidents

CALL TYPE	STATIONS							
	Other	21	22	24	25	26	27	Total
Fire	7	60	126	0	52	70	148	463
EMS	105	823	1167	12	473	870	2445	5895
Other	90	188	458	3	120	363	648	1870
<b>Total</b>	<b>202</b>	<b>1071</b>	<b>1751</b>	<b>15</b>	<b>645</b>	<b>1303</b>	<b>3241</b>	<b>8228</b>

### 2014 Incidents by Station



## EMERGENCY RESPONSE TOTALS BY UNIT

	2010	2011	2012	2013	2014
Aid 21	806	849	891	905	892
Aid 22	1239	1171	1203	1181	1216
Aid 24	107	104	102	135	124
Aid 25	490	447	541	498	533
Aid 26	747	876	1005	936	959
Aid 27	*762	*1284	2037	2039	2033
Aid 29	*1235	*917	449	406	447
Engine 21	349	333	326	357	388
Engine 22	538	541	575	628	729
Engine 25	178	153	182	193	206
Engine 26	*	299	482	512	601
Engine 27	923	693	625	700	730
Engine 28	1	4	2	28	6
Ladder 26	574	209	*	*	*
Ladder 27	*	381	651	670	798
Battalion 21	464	444	486	478	570
Air Unit 21	30	32	45	37	55
<b>Totals</b>	<b>6446</b>	<b>6536</b>	<b>9602</b>	<b>9703</b>	<b>10287</b>

\*Ladder 26 was moved to Station 27 in June of 2011. This eliminated L26 and created L27. In addition, Station 27 went from one dedicated Aid Unit to two cross staffed Aid units.



# EMERGENCY RESPONSE

## 2014 RESPONSE TIME GOALS AND OBJECTIVES

### Kirkland Fire Department Response Goals

The Kirkland Fire Department has set extremely aggressive goals for response times, call processing and turnout times. These response goals are established to effectively and efficiently deliver fire suppression, special operations response, and emergency medical services to the citizens of Kirkland. Always striving to improve service to the community by meeting or exceeding these goals will insure that the Kirkland Fire Department continues to provide the best service possible to people it serves.

#### CALL PROCESSING TIME\*\*

(Phone pickup to first unit assigned)

Kirkland Fire Department's call processing time standard is 60 seconds, 90% of the time.

Year	Percentage of time call processing time goal was met
2014	88%
2013	88%
2012	86%
2011	85%
2010	*

\*Call processing time not available from NORCOM for these years

\*\*Call processing is handled through NORCOM 911 system.

#### TURNOUT TIME (FIRE)

(Time unit assigned to enroute)

Kirkland Fire Department's fire turnout time standard is 80 seconds, 90% of the time

Year	Percentage of time turnout objective met
2014	26%
2013	26%
2012	30%
2011	32%
2010	25%



#### TURNOUT TIME (EMS)

(Time unit assigned to enroute)

Kirkland Fire Department's EMS turnout time standard is 60 seconds, 90% of the time

Year	Percentage of time turnout objective met
2014	37%
2013	37%
2012	38%
2011	39%
2010	33%



# EMERGENCY RESPONSE

## 2014 RESPONSE TIME GOALS AND OBJECTIVES

### ARRIVAL OF FIRST ENGINE AT FIRE

(Enroute to on-scene)

Kirkland Fire Department's response time standard for the arrival of the first engine at a fire is 4 minutes, 90% of the time

Year	Percentage of time response objective met
2014	74%
2013	62%
2012	71%
2011	73%
2010	70%

### BASIC LIFE SUPPORT UNIT (AID CAR)

(Enroute to on-scene)

Kirkland Fire Department's response time standard for the arrival of the first emergency medical unit with 2 EMTs is 4 minutes, 90% of the time

Year	Percentage of time response objective met
2014	75%
2013	76%
2012	75%
2011	78%
2010	79%



### EFFECTIVE RESPONSE FORCE ARRIVAL AT FIRE (ERF)

Kirkland Fire's ERF includes 20 firefighters arriving on a minimum of 4 engine companies, two ladder trucks, 1 aid unit, and 2 Battalion Chiefs.

Kirkland Fire Department's ERF time standard is 10 minutes, 90% of the time (from time of 911 call to arrival of entire ERF)

Year	Percentage of time time objective met
2014	23%
2013	20%
2012	0%
2011	0%
2010	0%



# EMERGENCY RESPONSE

## ADVANCED LIFE SUPPORT RESPONSE

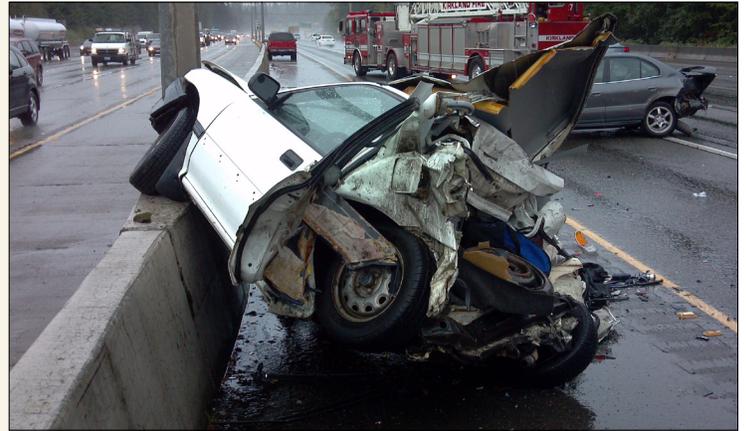
Advanced Life Support response is provided in Kirkland by King County EMS through a contract with the City of Redmond Fire Department.

Medic response time standards are established by King County Medic One.

### Medic Response Time Standard

The King County Medic response time objective is average unit response times less than 10 minutes, and 80% of calls in less than or equal to 14 minutes.

**Total 2014 Medic calls in Kirkland: 1,336**



### RESPONSE ANALYSIS\*

	INCIDENT YEAR				
	2010	2011	2012	2013	2014
Call Volume	1,774	1,581	1,613	1,565	1336
Total Response Time*	9.2	9.5	10.55	10.50	**7.02

\*Total Response Time = Dispatch Time + Unit Response Time

\*\*Excluding Responses Requested by BLS from Scene. 2014 response times do not include call processing time.

### ALS RESPONSES TO KIRKLAND FD

	2010	2011	2012	2013	2014
<b>Responses</b>	<b>1,774</b>	<b>1,581</b>	<b>1613</b>	<b>1565</b>	<b>1336</b>
Bellevue Medic 1	6.4%	5.3%			4.2%
Redmond Medic 19	8.4%	8.0%	8.3%	8.5%	7.9%
Redmond Medic 23	74.4%	77.7%	77%	74%	79%
Redmond Medic 35	1.4%	0.5%	.4%	.3%	.4%
Shoreline Medic 47	5.7%	5.0%			4.4%
Shoreline Medic 65	3.1%	3.3%			3.7%



# EMERGENCY RESPONSE

## MEDIC UNIT LOCATIONS

Bellevue Medic 1	Overlake Hospital Medical Center: 1035 116th Ave. NE, Bellevue, WA 98004
Redmond Medic 19	Housed at Redmond Fire Station 11: 8450 161 Ave NE, Redmond, WA 98052
Redmond Medic 23	Housed at Evergreen Hospital Medical Center: 12040 NE 128th Street, Kirkland, WA 98034
Redmond Medic 35	Housed at Woodinville Fire Station 35: 17825 Avondale Rd NE, Woodinville, WA 98077
Shoreline Medic 47	Housed at Station 42: 10726 Beardslee Boulevard, Bothell, WA 98011
Shoreline Medic 65	Housed at Station 57: 17020 Brookside Boulevard NE, Lake Forest Park, WA 98155

## NORCOM 2014 Data



The core mission of the North East King County Regional Public Safety Communication Agency (NORCOM) is to provide high quality emergency service communication to the public for emergency medical services, fire and police. We will carry out this mission by receiving calls for service; dispatching resources in response to such calls; tracking and coordinating information flow and resources to assist responders; initiating records for all emergency events; and enhancing effectiveness, efficiency, coordination and interoperability of emergency service providers.

[www.norcom.org](http://www.norcom.org)

- The City of Kirkland is represented on the executive board of NORCOM by the City Manager.
- Kirkland police and fire serve on the NORCOM operations board.
- In 2014 NORCOM received a total of 194,623 emergency 911 calls.

## NORCOM dispatch 2014 performance measures:

90% of 9-1-1 telephone calls will be answered within 10 seconds or less during each hour of a calendar quarter (barring major disasters or other extraordinary events)

- NORCOM answered 911 calls within 10 seconds or less 98.47% of the time in 2014

**GOAL: 90% of emergency fire/Medical (EMS) calls are dispatched within 60 seconds.**

NORCOM processes EMS calls in under 60 seconds 89% of the time.

NORCOM processes all other calls in under 60 seconds 85% of the time.

NORCOM processes all calls in under 60 seconds 88% of the time.



# EMERGENCY RESPONSE

## PREDICTABLE CONSEQUENCES

There are a sequence of events involved with a fire in a structure and with cardiac arrest, and a significant medical emergency. These explain the importance of response time in creating an effective outcome to an emergency and the predictable consequences if response is delayed.

### Response Performance and Outcomes

The ultimate goal of any emergency service delivery system is to provide sufficient resources (personnel, apparatus, and equipment) to the scene of an emergency in time to take effective action to minimize the impacts of the emergency. This applies to fires, medical emergencies, and any other emergency situation to which the fire department responds. A number of things must happen quickly to make it possible to mitigate the emergency.

### Factors - People, Tools and Time

Time matters a great deal in the achievement of an effective outcome to an emergency event. Time, however, isn't the only factor. Delivering sufficient numbers of properly trained and appropriately equipped personnel within the critical time period completes the equation.

For medical emergencies, this will vary based on the nature of the emergency. Most medical emergencies are not as time critical as structure fires. However, for serious trauma, cardiac arrest, or conditions that may lead to cardiac arrest, response time can be very critical. Equally critical is delivering a sufficient complement of personnel to the scene to perform all concurrent tasks required to deliver quality emergency care.

- **For example:** To effectively treat a cardiac arrest patient it can take up to 9 emergency response personnel: one crew of 2-3 perform CPR and operate the defibrillator, two medics to set up and operate advanced medical equipment, one to record the actions taken by emergency care workers, and another crew to assist in transporting the patient.

Thus, for a medical emergency the real test of performance is the time it takes to provide the personnel and equipment needed to deal effectively with the patient's condition, not just the time it takes for the crew to arrive. The first crew initiates treatment, preventing the situations from getting worse.

Fire emergencies are even more resource critical. Again, the true test of performance is the time it takes to deliver sufficient personnel to initiate rescue and apply water on the fire. Effective operations at the scene of fire emergencies depend on the arrival of sufficient trained and equipped personnel to perform all of the duties and tasks required to control a fire event. Tasks that must be performed can be broken down into two key components: life safety and fire control.

- Life safety tasks are based on the number of building occupants, their location, status, and ability to take self-preservation action. Life safety tasks involve the search, rescue, and evacuation of victims. These activities are also required to be safe for the rescuers, meaning that there must be a team in place to rescue the rescuers if they enter a structure.
- The fire control component involves delivering sufficient quantities of water to extinguish the fire and creating an environment within the building that allows entry by firefighters.

The number and types of tasks needing simultaneous action will dictate the minimum number of firefighters required to combat different types of fires. In the absence of adequate personnel to perform concurrent action, the command officer must prioritize the tasks, completing some in chronological order rather than at the same time, reducing overall fire emergency effectiveness.



# EMERGENCY RESPONSE

## 2015 PLAN OF ACTION:

To meet response time objectives the Kirkland Fire Department will continue to insure that all internal efficiencies are being identified and evaluated. Regularly evaluating response data to determine how to best improve reliability and efficiency in order to meet our response time goals will continue. One way of evaluating these goals is through a Standards of Coverage and Deployment Plan (SOC). This is an extremely detailed analysis to evaluate response times and how to improve them. In 2014 the Department completed this study and will be using the analysis in 2015 to, among other things, study possible fire station locations to better serve the citizens of North Kirkland.

Also in 2015, the Department is moving forward on gaining accreditation from the Commission on Fire Accreditation International. By submitting to an outside evaluation of Fire Services, the Department is committed to achieving excellence in order to provide continuous quality improvement and enhancements to service delivery to our community.

The Department's Water Rescue program will gain two water rescue crafts in 2015 capable of rapid intervention into water emergencies on Lake Washington. There are over 60 firefighters trained to respond to water rescue emergencies and they responded to over 40 water incidents in 2014.

The department hired two firefighters in 2014 to replace two retirees and will be hiring five firefighters in 2015 due to retirements.



# COMMUNITY RISK REDUCTION

## FIRE PREVENTION BUREAU HIGHLIGHTS

The Kirkland Bureau of Fire Prevention currently has 4 staff members: The Fire Marshal, one Assistant Fire Marshal and two Fire Inspector/Investigators. The Fire Investigation Team is also part of the Fire Prevention Bureau. Headed by the Fire Marshal, the Fire Investigation Team consists of 7 dual role investigators (5 from the Fire Department and 2 from the Police Department).

the bureau's mission is to create a safe environment for our residents and the business community. The bureau strives to prevent injury and loss of life and property through the following activities:

- Plan review and permit issuance for new construction and fire protection systems
- Inspections of new construction and fire protection systems
- Issuance of operational permits for activities regulated by the International Fire Code
- Annual fire safety inspections in existing buildings
- Investigation of fires to determine origin and cause
- Code and policy development and interpretation
- Publication of operating policies and fire safety information bulletins
- Adult Education - inactive
- Safe Child Education – inactive

In 2014 Battalion Chief David Walker was recognized for 25 years of service with the City of Kirkland. Chief Walker grew up in Kirkland and fulfilled his childhood dream to be a firefighter. He is currently serving as the City's Fire Marshal and is certified as both a Fire Marshal and Building Official.

### Fire Plan Review of New Construction

Fire Prevention personnel check plans to determine compliance with the International Fire and Building Codes as well as all local codes, ordinances, standards and regulations. This includes plan review of building sites for adequate fire department access, hydrant locations, and adequate fire flow, as well as fire protection systems such

as fire sprinkler and alarm systems. With Fire and Building in the same department, Fire Prevention personnel work closely with the Kirkland Building Services Division, as well as other City Departments, to ensure comprehensive and consistent enforcement of the International Codes and the Kirkland Municipal Code.

Year	Plan review SFR new and additions	Plan Review Commercial	Plan Review Grading (LSM)	Plan Review Short Plats
2011	150	36	33	15
2012	287	20	45	35
2013	371	43	60	40
2014	375	40	57	52
Year	Plan Review Zoning and Design	Plan Review Mechanical	Pre application conferences	Solar Review (PV)
2011	NA	NA	NA	NA
2012	15	4	110	NA
2013	17	4	160	NA
2014	15	2	150	17

### Fire Inspections of New Construction

Once permits are issued, fire prevention personnel perform inspections to ensure that the required fire protection features are installed correctly and as designed. Just as during the plan review process, work is done cooperatively with the Building Division and other City departments such as Public Works to ensure a seamless inspection process for the developers and contractors.

Year	Fire system Permits issued	Fire Protection System Inspections	(IFC) Permits issued	(IFC) Inspections
2011	200	350	25	50
2012	208	380	16	14
2013	375	748	32	31
2014	291	1157	26	28

### Issuance of Operational (IFC) Permits

Some activities have the potential to create a hazard to the public, and therefore require an Operational Permit to be issued. Typically, operational permits are required for fireworks displays, hazardous materials, tents, bonfires, hot work and a variety of other hazardous activities.

### Annual Fire Safety Inspection Program

Fire Prevention Bureau personnel are responsible for managing the annual fire safety inspections program for existing buildings. You will see firefighters in Kirkland conduct-



ing these inspections, in order to discover and correct any conditions liable to cause a fire or life safety hazard. The recognized standard for inspection frequency is annual inspection of all business and hazardous occupancies. Currently our goal is to meet a two year cycle. Alternate programs such as self inspection programs for low risk occupancies are being examined for applicability.

Year	Company Level Fire inspections	Company Officer Investigations reviewed	Investigator reports
2011	680	NA	26
2012	1380	104	16
2013	1594	103	47
2014	1551	90	57

### Fire Investigations

The Fire Prevention Bureau is mandated to conduct fire investigations to determine origin and cause of all fires which occur within the City of Kirkland. Fire Investigators work closely with the Kirkland Police Department in the event that a fire is suspicious or is determined to be arson.

All investigators are trained to national standards, attending the National Fire Academy in Emmitsburg MD, gaining certification through the Washington State Patrol and Accreditation from the International Association of Arson Investigators (IAAI)

Regional opportunities to improve Investigations have been recommended in the recent Fire Department Strategic plan. In 2014 the Zone 1 Fire Investigators work group was formed as an offshoot of the Zone 1 Chiefs and Zone 1 Fire Marshals. The group is currently working "To improve Communication, Coordination and Consistency related to fire investigations within the jurisdictions of Zone 1" In 2014 Kirkland Chaired the group, it will be chaired by Shoreline Fire Department in 2015.

### Code and Policy Development and Publication

The Fire Marshal is responsible for developing and publishing policies related to established fire prevention goals. These policies are technical in nature and geared towards assisting developers and contractors in site and system design. In addition, the Fire Marshal is responsible for code and policy interpretations. The Fire Marshal also

coordinates with Fire Marshals in neighboring jurisdictions so that, as much as possible, code interpretations and requirements are standardized throughout the region.

In 2014 efforts were made to bring Kirkland Fire's permit fee system more in line with surrounding jurisdictions. Fees and classifications were rewritten and adopted into local ordinance for 2015 implementation.

### Fire Safety Information Bulletins

Information bulletins consist of fire safety information which business owners or the general public may find helpful. These publications will be readily available online with the implementation of Kirkland's new webpage platform.

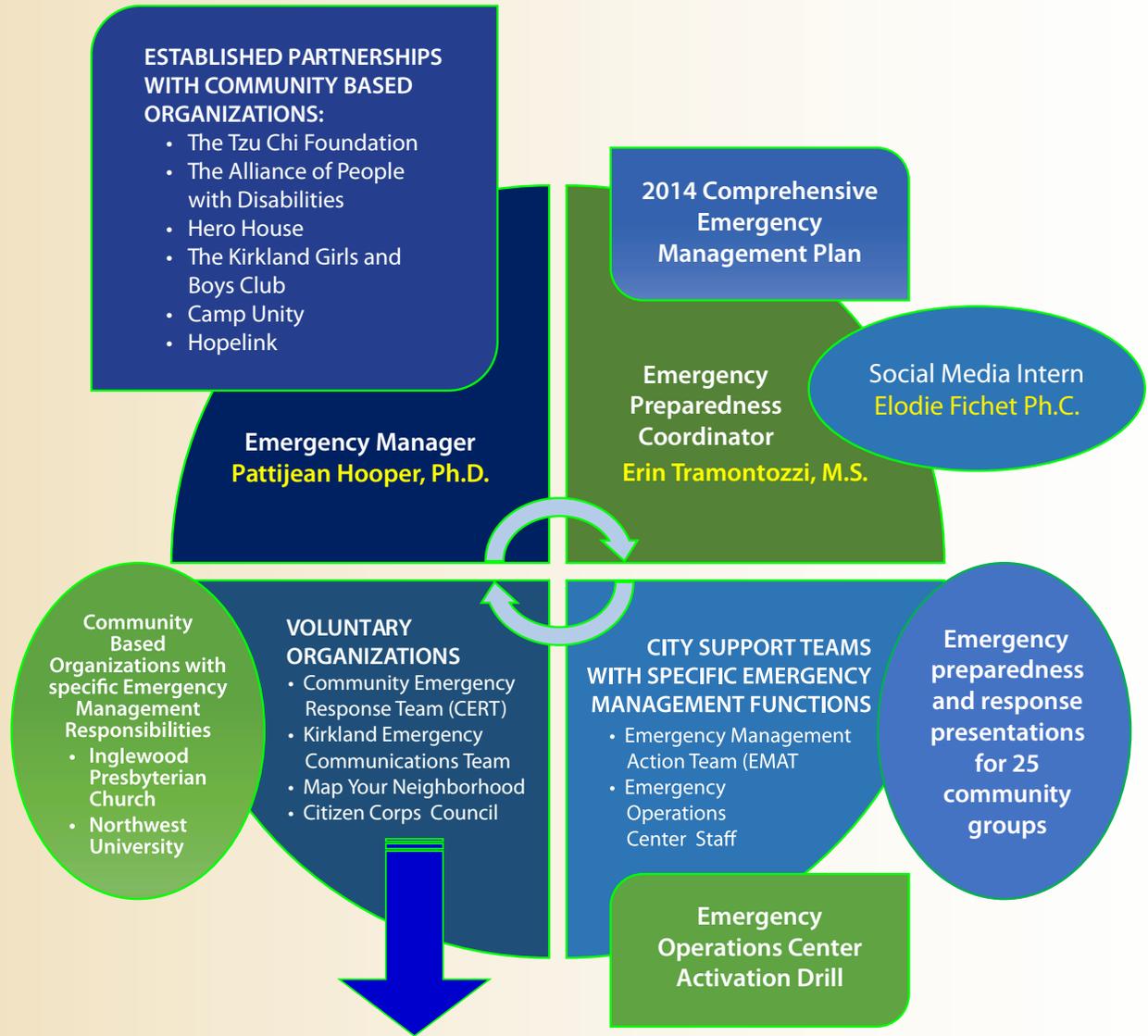
### GOALS for the Future

- Two recent evaluations of the department outline the value of routine fire and life safety inspections in businesses and hazardous occupancies. Goal: Meet recognized inspection frequency standards.
- Sprinklers in single family homes are found to save lives and reduce the tax and insurance burden on communities. The cost of these systems have consistently dropped year over year. Goal: Adopt an ordinance requiring residential fire sprinklers in all new single-family homes.
- In 2010, funding was cut to several educational programs. Goal: Find funding to re-establish child safety and education priorities.
- Staffing shortages have been identified within several department reports for Fire Inspector positions and for the function of a Fire Protection Engineer. Goal: With the assistance of Human Resources, complete the process of filling these positions.



# OFFICE OF EMERGENCY MANAGEMENT

2014 was a year of great progress for the Office of Emergency Management (OEM) with the hiring of a new Emergency Manager in February, a new Emergency Preparedness Coordinator in May, and a new Social Media Intern in July.



- KECT, CERT, MYN and CCC volunteers contributed 2020 hours to OEM this year – the equivalent of a full-time 40 hour-a-week employee!
- CERT instruction was for 52 participants, in 2 courses!
- KECT (formerly ARES) – held 6 drills, weekly statewide communications checks, and participated in the regional Medical Countermeasures drill!
- MYN conducted 4 program expansion workshops!

- Citizen Corps Council supports all OEM volunteer groups!
- CERT, KECT, MYN, and CC have rallied to organize the first Stone Soup Neighborhood Network, and undergone OEM Social Media training!
- Kirkland OEM volunteers worked in partnership with local, state, tribal, and federal response and recovery operations at the SR-530 mudslide!



Establishing a progressive professional emergency management program began with an inclusive mission statement, vision, and new logo.

### OEM Mission Statement

Kirkland's Office of Emergency Management works in partnership with the whole community to provide useful, and universally accessible means of readiness, response, and recovery from all hazards.

### OEM Vision

A Prepared and Resilient Community!

### Social Media

Social Media was implemented using two platforms, a Facebook page and Twitter account. In the 6 months since its inception the social media presence for Kirkland's OEM is nearing 400 users including major media outlets and national emergency management influencers.



Like us on [www.Facebook.com/KirklandOEM](http://www.Facebook.com/KirklandOEM)



Follow us [@OEMKirkland](https://twitter.com/OEMKirkland)

Office of Emergency Management staff serve on local, regional, and statewide committees to advance the profession, support the community, and enhance the mission of OEM. These include:

- The Washington State Emergency Management Advisory Group
- The Washington State Emergency Management Association's Legislative Committee
- Lake Washington School District Safety Advisory Committee
- Lake Washington School District Task force for the Comprehensive Emergency Management Plan
- Lake Washington School District Parent Teacher Student Emergency Preparedness Committee
- The King County Resource Management Workgroup
- Zone 1 Emergency Managers Group
- Region 6 King County Training and Exercises Committee
- Cascadia Rising 2016 Exercise
- Planning Team
- King County Public Health
- Vulnerable Populations Transportation Planning Work Group

**TO VOLUNTEER FOR OEM,**  
please contact 425-587-3630  
or [pjhooper@kirklandwa.gov](mailto:pjhooper@kirklandwa.gov)



# DEFINITIONS

**Alarm Interval** – Measured time between emergency event awareness and the alarm time.

**Alarm Time** – The point of receipt of the emergency event at the public safety answering point (PSAP) to the point where sufficient information is known to the dispatcher to deploy applicable units to the emergency. (Time-stamp)

**Advanced Life Support (ALS)** – Training is an intensive 3,000 hour program. Paramedic trainees receive training including, but not limited to: cardiology, pharmacology, general acute medicine, advanced airway and respiratory therapies, trauma including burns, orthopedic injuries, triage and extrication, and fluid resuscitation. Trainees acquire knowledge and skill through clinical rotations in local hospitals, primarily Harborview Medical Center, and while riding on Seattle Fire Department Medic Units under the direct supervision of Senior Seattle Paramedics.

**Basic Life Support (BLS)** – Certified Emergency Medical Technicians (EMT). EMT classes are 120 hours of classroom and practical work with 10 hours of hospital observation time.

**Call Processing Interval** – The first ring of the 911 telephones at the dispatch center and the time the Computer Aided Dispatch (CAD) operator activates station and/or company alerting devices. This can, if necessary, be broken down into two additional parameters: “call taker interval” (the interval from the first ring of the 911 telephone until the call taker transfers the call to the dispatcher) and “dispatcher interval” (the interval from the time when the call taker transfers the call to the dispatcher until the dispatcher (CAD operator) activates station and/or company alerting devices). Sixty (60) seconds is an industry standard. (Measured time between alarm time and dispatch time).

**Dispatch Time** – The time when the dispatcher, having selected appropriate units for response with assistance from the CAD system, initiates the notification of response units. (Time-stamp)

**Emergency Event Awareness** – The point at which a human being or technologic “sentinel” (i.e., smoke detector, infrared heat detector, etc.) becomes aware that conditions exist requiring an activation of the emergency response system. This is considered the emergency event awareness.

**EMT** – Emergency Medical Technician. Certification includes 120 hours of classroom and practical work with 10 hours of hospital observation time. In order to maintain EMT certifications, firefighters are required to attend monthly classes, pass written tests and demonstrate practical skills.



# DEFINITIONS

**Event Initiation Point** – The point at which factors occur that may ultimately result in an activation of the emergency response system. Precipitating factors can occur seconds, minutes, hours, or even days before emergency event awareness is reached. An example is the patient who ignores chest discomfort for days until it reaches a critical point at which he/she makes the decision to seek assistance (emergency event awareness). It is rarely possible to quantify the point at which event initiation occurs.

**Fractile** - The 90th fractile is the response interval for the call that falls on or above the point where 90 percent of the responses are less than or equal to it.

**Initial Company Time** – The time at which the initial company arrives on scene.

**Initial Full Alarm Assignment** – Time when all of the personnel, equipment, and resources ordinarily dispatched upon alarm arrives on the scene. Beginning in 2009, a full alarm assignment was four Engine companies, one Ladder company, one Aid car, one MSO (Medical Services Officer), and two Battalion Chiefs or firefighting staff equaling 20.

**Initial Full Alarm Assignment Interval** – Measured time between initial company on scene time and Initial Full Alarm Assignment is completed.

**Response Time** – The combined measured time from dispatch time and includes turnout and travel intervals to initial company arrival time.

**Total Response Time Objective** - The City of Kirkland Fire District has historically adopted the response time from the time of the 911 call to the time the first arriving unit was on the scene. Dispatch time + turnout time + Travel Interval = Total Response time.

**Travel Interval** – measured time between turnout time and on scene time of initial company. \*This is a measured component known as “Response Time” required by RCW Chapter 35A.92\*

**Turnout Interval** – Measured time between dispatch time and turnout time.

**Turnout Time** – When units acknowledge notification of the event to the beginning point of response time (wheels rolling). \*Measured component known as “Turnout Time” required by RCW Chapter 35A.92\*

**WSRB** – Washington State Survey and Ratings Bureau

\*Measured component required by RCW Chapter 35A.92 for fire suppression responses\*





