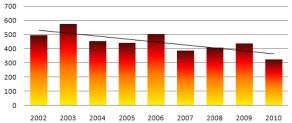
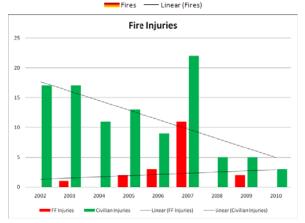
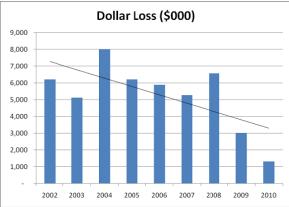


### A Year in Review









Once again the Fire Prevention staff demonstrated their ability to be flexible while remaining focused on completing our core services: Fire Investigations, Plan Review, New Construction Inspections, Annual Inspections and Public Education efforts.

Ken Carlson, Travis Allen, Adrian Jones and Ted Erb all worked for over four months in new roles



(City Manager Fellow, Fire Marshal, Assistant Fire Marshal – Plan Review and Fire Plan Review respectively).

As with staff throughout the city it seems like a good deal of our energy and time was consumed with the Budget One process. Travis Allen, Kathy Barker, Sean Nichols and Kathy Barker were authors of the Fire Prevention budget offer (Non-DS).

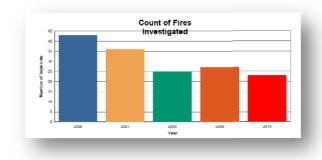
A lot of hard work was also expended on implementing the 2009 International Codes. The process included extensive customer outreach; work with Building Division staff, training and updating of our public information documents and Development Standards.

How do you measure something that doesn't happen? Preventing fires is what we do and frankly it can be hard to measure. Each of the charts on the left

suggest that we are making a difference as the number of fire incidents, fire injuries and dollar loss from fire are all trending downward despite the population increase, increase in square footage of buildings and the poor economy all factors that could easily result in an increase in fire incidents.

### 2010 Fire Prevention Annual Report Fire Investigation





The Fire Investigation Team, led by Lead Investigator Scott Gerard investigated 23 fires in 2010 continuing the downward trend over the last 5 years. Some highlights for the year:

We took over origin and cause responsibility in Newcastle from King County; leaving only Fire District 14 and Beaux Arts Village as areas we do not provide this service.

Scott Gerard submitted his

will a paper copy be produced. This will result in more efficient processing of the report, more timely retrieval of the records as well as a more efficient

After evaluation of the cost/benefit of maintaining the Fire Investigation Unit,

resignation from the Fire Investigation Team effective 12/31/2011, a position he has held for the last 17 years providing an opportunity to re-evaluate the way we staff and respond to request for fire investigators.

Fire Investigation reports have gone completely

destruction of the files when that time comes.

electronic! Only when a public records request is made





it was de-commissioned.

#### Notable Fires in 2010

2/16/2010 Incendiary fire originated around the engine compartment area of the vehicle, which was parked in a covered carport



7/10/2010 - An individual set himself on fire. Cause - incendiary.

8/15/2010 - Self-ignition of stain soaked rags in the bed of a pick-up truck. This was a bit unique, but related to a large staining operation. The rags were not disposed of according to the manufacturer's instructions.



9/14/2010 – Incendiary fire in a vacant gas station / car wash building. The fire originated in the car wash area. The car wash brushes (made of felt material) were the primary fuel load and first material ignited which contributed to the fire spread.



11/5/2010 – A vehicle fire outside, but under a wood framed carport structure. The fire extended to the carport and 10 other vehicles at the apartment complex.





11/23/2010 – Discarded fireplace ashes were placed in a trash container in a detached garage. Most notable because of the steep access (22%) combined with snow and ice covered roads made the response more challenge than usual.

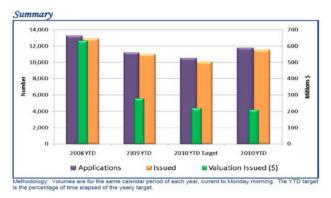
#### **Plan Review**

The City experienced a reduction in development in 2010 from the previous year. In 2009 a Fire Prevention Officer was assigned to plan review for the duration of the year, and outside contractors were utilized for review. Both the Fire Prevention Officer and the use of outside contractors was eliminated in 2010 (with the exception of a relocated Fire Prevention Officer during the Fire Marshal's time in the City Manager's Office). A significant reduction (50% in fire suppression plan reviews) in major project activity was experienced in 2010. However, the number of permits for commercial alterations and residential alterations experienced <5% decrease over the previous year; with new residences increasing from 58 to 66 applications issued. A substantial improvement in permit review turnaround was also achieved in 2010.

One of the key measurements of development activity is the valuation of permits issued. The valuation of permits issued in 2010 was \$219,300,000 compared to \$277,400,000 in 209. Major projects accounted for \$97,400,000 in as compared to 2010, \$146,300,000 in 2009. As seen in the graph summary below,

the actual number of permit applications, and permits issued increased from 2009 to 2010, and exceeded the projections for the year. Total associated review hours for Fire Review dropped from 3960hrs to 2440hrs.

The number of Fire Department new construction permits dropped from 481 to 443. The median number of days to review permits not associated with major projects dropped from 11 days to 6, and the targeted turnaround of all fire permits was met 81% of the time.



### 2010 Fire Prevention Annual Report Things to Watch in 2011





As we look ahead, there are a number issues worth noting, watching, contemplating and planning for:

The **Highway 520** project is currently funded from the west high rise through Bellevue. A number of meetings with WSDOT, Seattle and Bellevue Fire have already occurred to discuss

While the very public debate continues regarding the **Sound Transit** alignment through Bellevue, Sound Transit is moving forward with preliminary station

design plans. We have met on a number of occasions to review and discuss code issues as well as Emergency Access issues. We have



also met with Tukwila Fire Department to understand code issues that arose during construction and workload impacts. They reported that as soon as the project reached the 65% design threshold that it required 30 - 35 hours per week of their staff time.

<u>Paperless Permitting</u> is another transformational project that will consume a lot of staff time. The project is not just a city wide project but region wide as well. When fully implemented, this project will impact all of the development services departments and members of <u>MyBuildingPermit.com</u>. Phase I (simple mechanical, electrical and plumbing permits) is expected to launch in June 2011 and anticipated to take up to 3 hours/week of both our Fire Plan Reviewer (Adrian Jones) and our Data Analyst (Kieron Gillmore) time.



Discussions with King County DDES and the King County Chief's are ongoing and may lead to conducting **annual inspections in the Eastgate** area in 2011, something that the County Fire Marshal's office has not done for at least 4 years for "permitted occupancies" and much longer for other occupancies. According to records provided by King County there are 14 "permitted occupancies."

Because King County does not inspect occupancies that do not require a permit there is no definitive way to know how many occupancies that exist in District 14 that do not require a permit, but our estimate is approximately 80. If we begin inspection in District 14 in 2011, the plan is to have Fire Prevention Staff do all of the inspection this year and then assign inspections in the same manner that we do in the balance of our service area which will result in an increase of inspection workload for Station 4 in 2012.





With the adoption of the 2009 International Fire Code a requirement that all high rise buildings (except apartments and condominiums) be retrofitted with **luminous markings in the stairwells**. Building owners were given until 12/31/2011 to complete the installations. There will be a workload impact as we respond to questions, inspect the installations and in some cases move forward with enforcement actions.

**Training** is something we will focus on this year. The goal is to provide relevant, cost effective and timely training.

Ron Tuininga, Lead Fire Prevention Officer and our most tenured employee (30 years) & Dwight Altenburg, Assistant Fire Marshal – Inspections have both expressed a desire to retire in 2011.

2011 will be an interesting year!

#### New Construction

There was a significant decline in new construction activity this year. The notable presence of tower cranes in the Bellevue skyline diminished from a high of over twenty to just two. Although there are a significant number unsold and vacant condominium units in the city there are no holes in the ground as there were in the last significant economic downturn, in fact only one notable construction project aborted mid stream (Summit III) but caped off at street level.





There are a significant number of vacant and unsold condominium units in the Central Business District which will put an indefinite hold on condominium construction for the foreseeable future.

We changed the way we manage new construction inspections mid-year in an attempt to provide a more efficient way to accomplish both annual inspections and new construction inspections. The change assigned three Fire Prevention Officers to New Construction and the balance to Annual Inspections. Inspectors move back and forth as needed and both areas appear to have benefitted from the change.

#### 2009 Fire Prevention & Safety Grant

We were awarded a \$31,356.00 grant to retrofit stove top cooking elements in two buildings (Wildwood Court & Ashwood Court) containing 87 apartment units.

These buildings are owned by DASH (Downtown Action to Save Housing) and are occupied by lowincome seniors and families. These buildings were specifically targeted because they represent a high risk population and have experienced a high incidence of responses related to stovetop fires.

<u>Safe-T-Elements</u> are made by Pioneering Technologies and are designed to prevent cooking fires. The elements limit the temperature to 662°F. Ignition temperature for oil and most common fibers starts at 728°F (without the *Safe-T-Element* electric stoves on high go well above 1292°F). The retrofitting was conducted by a technician trained and certified by Pioneering Technologies.

Another component of the grant allowed for a firefighter to conduct a hazard assessment of each unit including verification that smoke detectors were present, correctly located and operating.

Wildwood Court has a high percentage of Russian immigrants which would have been a challenge, but fortunately Carol Dunn from our Office of Emergency Management Division is fluent in Russian and was invaluable as a translator!





The leading cause of fires in the kitchen is unattended cooking<sup>1</sup>

The entire process has been documented and the video and a report will be ready in January.

#### Annual Inspections

#### By the numbers

8,364 Annual Inspections Performed

- 3,029 by Fire Prevention
- 5,335 by Operations
- Violations written - 83% of occupancies –
- Fire Prevention
  17% of occupancies –
- Operations

Attempts to gain compliance:

2 <sup>nd</sup>	- 536
3rd	- 103
4 <sup>th</sup>	- 49
5 <sup>th</sup>	- 28
б or more	- 18

For the 5<sup>th</sup> consecutive year, the department has completed 100% of our annual inspections something that very few departments in the country can claim. This achievement really underscores the commitment the department has made and the dedication of both Fire Prevention and Operations Division personnel,

There are countless anecdotal examples that reinforce the importance of these inspections, here are just a few:

**The Hunan Garden Restaurant** had an inoperable suppression system coupled with significant amount of grease in the hood and duct. The grease has subsequently been cleaned and the suppression system repaired. This was a fire just waiting to happen.

Even after our significant outreach efforts to multi-family buildings throughout our service area in 2009, we continue to encounter entire complexes that have somehow not gotten the word that they must have **smoke detectors** in every bedroom, on every level and

in hallways providing access to the bedrooms. During the Safe-T-Element grant installation we discovered an entire complex of inoperable smoke detectors that were over 10 years old, requiring replacement.



A severely rusted beam with a structural bolt that basically disintegrated in the inspectors hands

**Deteriorating Structures** The picture on the right is a severely rusted and compromised steel beam in a Lake Hills apartment complex identified during an engine company inspection.



#### Public Education & Outreach

The entire department is responsible for public education every time we interact with the public. We are provided the opportunity on every emergency response, annual inspection, press release, station visit or program that we deliver. The department's public educator has focused primarily on managing annual

Stats worth sharing

45 high rise drills 24 Floor Captain training 21 Other fire/safety drills 50 Fire safety classes

Total events: 140

Number of people contacted: 51,212

high rise evacuation drills and responding to request for assistance with other evacuation drills and fire prevention presentations.

High rise evacuation drills are required by the International Fire Code (IFC) to be done on an annual basis and we take very hands on approach with the drills (45 such drills occurred in 2010):



We review of the building's *Fire*Safety & Evacuation Plan Public and request modifications as

necessary. The plan is required by International Fire Code Section 404.3.2

- The building's floor captains are provided training on the buildings fire protection systems, evacuation procedures, and fire prevention.
- Coordination with the Operations Division occurs to provide a sense of realism for the building occupants and a training opportunity for the firefighters. The firefighters participated in 22 of these evacuation drills in 2010

During the high-rise fire drills the evacuation of the tenants is observed and critiqued, and the building systems are checked to verify audibility, pressurization of stair and elevator shafts and other life/safety systems.



We also assisted with evacuation drills in 21 other non high rise commercial and residential buildings, some examples: Silver Glen Senior Living, 12 Urban Renaissance commercial buildings, 3 buildings managed by Sterling Realty, and the McKee apartments.

We provided 74 fire prevention presentations given during the year to

diverse audiences, some examples: Circle of Friends (a daycare for Russian senior citizens), The Department of Ecology, The Garden Club (A retirement living center), and HDR engineering, Aiphone, Wagner Egstrom and DSHS for new home daycare providers.

Kathy Barker our Fire Education Coordinator participated in 6 table top drills with high rise managers in Bellevue to improve disaster readiness and communications between the fire department and high rise management companies. The division also hosted a meeting for the downtown high rise managers to discuss fire safety issues and provide information on new codes pertaining to high rises.

