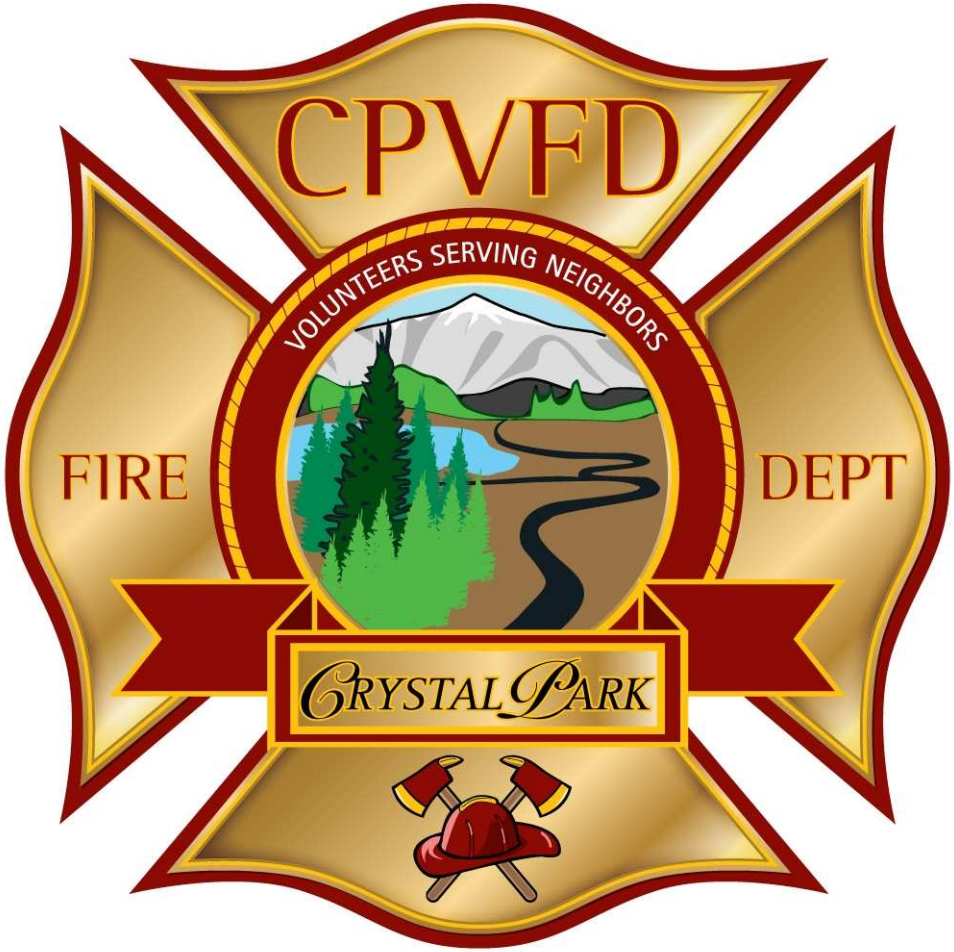
Crystal Park VFD – Emergency Management Planning



January 2008

Comprehensive Emergency Management (CEM)

Comprehensive Emergency Management, as defined in various laws throughout the United States, is the preparation for and the carrying out of all emergency functions, other than functions for which the military forces are primarily responsible, to mitigate, prepare for, respond to, and recover from emergencies and disasters, and to aid victims suffering from injury or damage, resulting from disasters caused by all hazards, whether natural, technological, or human caused, and to provide support for search and rescue operations for persons and property in distress. Under Comprehensive Emergency Management, attention is given to the full range of emergencies from small weather incidents to the "ultimate emergency" of war. It's an "all-hazards" philosophy.

Four Phases to CEM

1. Mitigation: The action of lessening in severity or intensity
2. Preparedness: The state of having been made ready or prepared for use or action
3. Response: A reaction to a specific stimulus
4. Recover: To restore to a normal state

Step 1: Hazard Identification

Step 2: Vulnerability analysis

Comprehensive Emergency Management (CEM)

Effective emergency management planning lays its foundation on *hazard identification* and *risk assessment*.

- Risk from natural hazards is the result of a combination of hazard, vulnerability, and exposure. Past occurrences of hazard events are one indicator of possible future events. A review of the hazard history of counties helps provide a better understanding of susceptibility.

- A survey was conducted by the Colorado Office of Emergency Management in 2003-4 to determine the natural hazards prevalent and of concern to counties. In 2007, another survey was conducted to solicit changes. The survey identified 13 hazards that present risk to one or more communities.

- ***7 of 13 have direct applicability to Crystal Park and form the basis for the CPVFD CEM hazard identification and analysis***

Avalanche

Drought

Earthquake

Flood

Hail

Extreme heat

Landslide

Land subsidence

Lightning

Tornado

Windstorm

Winter weather

Wildfire

Red hazards are CP hazards.

Ratings Application Definitions

- **High Vulnerability:** **A risk that is recognized and/or calculated as highly likely to cause harm. This risk is not a daily occurrence; but if it occurs, it is an unusually dangerous situation involving life and death, and/or catastrophic damage on a wide-scale to the community.**

- **Medium Vulnerability:** **A risk that is focused at a single point in time/place. To the victim the incident may be very risky, with a high probability of injury. But the incident is localized and is not likely to cause additional incidents in the populace/community at large.**

- **Low Vulnerability:** **A risk that, if an event should occur, does not threaten life or limb, and has minimal impact on the community. This type of risk can occur frequently, and the community has developed regular procedures to deal with the impact of the occurrence.**

- **Compounding Factors:** **Those factors that, if present, may lead to an increased level of emergency response.**

Crystal Park CEM Hazards (1 of 2)

Step 1: Hazard Identification

Hazard	Rating	Compounding Factors
Lightning Strikes	**High**	- Power Outages of critical infrastructure - Downed Trees blockings roads/access - Wildland Fire - Structure Fire
Motor Vehicle Accident (MVA)	**High**	- Trapped/Injured motorist - Steep Terrain - Hazard to downhill structures - HAZMAT Spill
Wildland Fire	**High**	- Threatened homes/lives (structure fire) - Escape routes cut-off - Loss of power/communications - Risk to structures - Limited shelter
Structure Fire (Lightning) (Chimney Fire) (Kitchen Fire) (LP Gas Smell)	**High**	- Exceeds CPVFD capabilities - Longer MSFD response times - Unfamiliar roads – roads to narrow - Limited Water Supply - Possible spread to Wildland
Heavy Snowfall/Blizzard (2 feet or more)	**High**	- Exceeds CPHOA snow removal capabilities - Impassable roads - Downed power lines or trees - Snow-load damage to structures - Restricted access by 1st Responders

Crystal Park Hazards (2 of 2)

Step 1: Hazard Identification

Hazard	Rating	Compounding Factors
Medical Emergency	**Medium**	- Exceeds CPVFD Capabilities - Unknown “special population” - Limited evacuation options - Must wait for EMS - Unfamiliar roads
Technical Rescue	**Medium**	- Single access Mtn Road - Sole point of access into Nat’l Forest - Lake used for winter recreation - Slopes in excess of 40 deg
Heavy Rains	**Low**	- Flash Flood Erosion - Road Washouts - Water over Dam - Damage to downhill property
Wind Storm/Hail Storm	**Low**	- Downed trees & Blocked roads - Damage to roof structures - Toppled power lines
Rock Slide	**Low**	- Blocked roads - Trapped motorist - Possible MVA - Restricted access by 1st Responders

Hazards & Mitigation/Prep Efforts (1 of 2)

Step 2: Vulnerability Analysis

Hazard	Historical Frequency	Past Mitigation	2008	Mitigation 2009
Lightning Strikes	2-3 per Summer *June Investigation – RR Grade*	- CPVFD – 8 trained WLFFs - CPVFD – Response plan	- Lightning Detectors	
Motor Vehicle Accident	1 per Quarter *May - Larson Jeep* *Sept - Hennessey Truck* *Nov MVA at 6235 CP Road*	- Extremely limited CPVFD capability - Limited evacuation options - Helo landings at both LZ's	- Acquire winch for 940 - See Technical Rescue	Train 2FFs in HAR
Wildland Fire	1-2 per Season/adjacent community *Waldo Canyon* *Incline Fire*	- Homemade Type 6 brush truck - Purchased 2000gl Tender in 2007 - CPVFD – 8 trained WLFFs - PPE & Hand tools for CPVFD - 30 buried cisterns - Forestry Committee fuels mitigation - CP CWPP on hand - (t) Evacuation plan written	- Purchase fire Shelters ☑.Hi-cap pump - Fix Tender Trailer - Install Dry Hydrant ☑ Stand-up Auxillary Prg - Apply for Grant - Porta-tank Mount - Porta-tank in-series clamp - Make CP response Map - Build SIP - Conduct Firewise Assmt	-Install 2nd D.H.
Structure Fire (Lightning) (Chimney Fire) (Kitchen Fire) (LP Gas Smell)	3/4 Investigations per season *Jan – Chimney fire in adjacent community* *Nov – LP Gas investigation* 1 Investigation per season	- Exceeds CPVFD capabilities - Purchased 2000gl Tender in 2007 - Purchased 2500gl Porta-Tank in 2007 - 30+ buried cisterns - 2 Sets CPVFD Bunker Gear	- Install Dry Hydrant - Acquire Gas Detector - Train 2 FF's - Apply for Grant - Make CP response Map	-Acquire Vent fan(s) -Acquire Chimney Kit -Acquire 2 SCBA
Heavy Snowfall/Blizzard	Seasonal	- Road maintenance by road crew	- Same as for MVA	

Hazards & Mitigation/Prep Efforts (1 of 2)

Step 2: Vulnerability Analysis

Hazard	Historical Frequency	Past Mitigation	Mitigation 2008	Mitigation 2009
Medical Emergency	1-2 per Quarter *Jan – Buchanan Ladder incident*	- Two helipads in upper park - Aerial survey's in 2007 - Gate code for EMS personnel	☑ Acquire LZ lite kit - 1st Responder training	- PUD: Third helipad
Technical Rescue	Seasonal, associated w/ MVA	- 1 FF HAR trained - Personal ropes for 1 FF	- Acquire (2) Harness's - Acquire Hardware - Acquire PPE - Hang rescue ring	- Acquire H20 rescue Kit
Heavy Rains	Seasonal *Mar/Apr – mud slide into Hand house on Oak Ridge* *Dec – Ice storm on main road*	- Annual upgrade to existing culverts - Annual road maintenance by road crew - Manual overflow drain in Lake Dam	- Same as for MVA	
Wind Storm/Hail Storm	Seasonal *Dec/Jan Chinook Winds..down trees at maint shed.*	- CP maintenance crew w/chainsaws	- Train 1 FF as Sawyer	- Sawyer Train 2nd FF
Rock Slide	Seasonal *Jan Chinook Winds - slide at lake*	- Road maintenance by road crew	- Same as for MVA	

Mitigation efforts impaired by seasonal necessity to take 940 out of service

No apparatus….no ability to respond with equipment

Procurement Path for Preparedness & Response

FY 08

CP-MD
- FD Budget
  --- WL skid w/18HP Pump
  --- Lightening Detectors
- Cistern Budget
  --- Dry Hydrant
  --- Cistern Signs
  --- Floating pump
  --- Porta-Tank In-series Clamp
  --- Porta-Tank Mount

CP-HOA
Workman's Comp
FCC Fee's
Winch for 940
WL Shelters
Multi-Use Bldg

VFD Fund Raising
- Fund Sawyer Class

Grant money will accelerate procurement

FY 09

CP-MD
- FD Budget
  --- HAR Equipment
  --- Gas Detector
  --- Chimney Fire Kit
- Cistern Budget
  -- Dry Hydrant(s)
  -- 3 Add'l Cisterns

CP-HOA
- Workman's Comp
- FCC Fee's
- 2 SCBA's
- 1 Bunker Gear

VFD Fund Raising
- Fund Sawyer Class

2008 CPVFD GOALS & Hazards Relationships

1. Two (2) additionally trained Basic Firefighters
2. 100% Wildland Fire Shelters for all S130-190 Trained Firefighters
3. 100% Recertification of WL Firefighters (Recert Training & Pack test)
4. Successfully submit Assistance to Firefighters Grant
5. Successfully launch the CPVFD "Auxiliary"

(all)

- Lightning Strikes
- MVA
- Wildfire
- Structure Fire
- Heavy Snow/Blizzard
- Medical Emergency
- Technical Rescue
- Heavy Rains
- Wind Storm/Hail
- Rock Slide

6. Dry Hydrant installation at the Lake
7. Two (2) additional Active or Associate volunteers
8. Mission Ready "Blue Trailer" functional as "941"
9. Mount the Port-a-Tank on Tender 960
10. Gridded Crystal Park Map with Street Addresses and Cistern Numbers

= Actions that are currently on-going.