PrepE’s Disaster Preparedness Workbook

For Ages 12 and Older

Prepared by The Emergency Planning Department
The City of Vaughan is committed to the safety of its citizens. The purpose of this work book is to educate youth on disasters and disaster preparedness.

It is everyone’s responsibility to be prepared for disasters. It is important to Take Action, Tune In and Know the Risks!

This work book allows youth to work at their own pace to learn about disasters, mitigation, preparedness, response and recovery, which are considered the fundamental principles of emergency management.

**Who is PrepE?**

PrepE is the mascot for the Vaughan Emergency Planning Program. A penguin was selected because they are resilient birds that can survive in different climates; from the warm waters of the Galapagos Islands down to the extreme cold weather of Antarctica. PrepE’s mission is to be prepared for every emergency; everywhere; every time and to help you be ready too!!

PrepE’s key messages are:

1. Take Action: Implement the necessary steps to be prepared including making a family emergency plan, making a home escape plan, identify meeting locations and putting together a 72 hour kit.
2. Tune in: Monitor news and weather reports

PrepE will help guide you with knowledgeable facts and tips to better prepare your for the different kinds of disasters that could occur in the City of Vaughan.

**PROGRAM OBJECTIVES**

To educate citizens about:

- Disasters that could happen in Vaughan
- Actions to take before a disaster occurs in order to be prepared
- Actions to take during an emergency to protect your safety
- Actions to take after an emergency to recover; and
- Emergency responders and the City’s response procedures
The Types of Disasters

To be prepared in case of a disaster it is important understand the different types of disasters that can occur within our city.

The following information is organized by disaster categories. As PrepE says: Take Action, Tune In, and Know the Risks!

What are Disasters and Emergencies?

A Disaster is defined by Webster’s dictionary as any happening that causes great harm or damage.

The Emergency Management and Civil Protection Act in Ontario defines an emergency as:

“A situation or impending situation that constitutes a danger of major proportions that could result in serious harm to persons or substantial damage to property and that is caused by the forces of nature, a disease or other health risk, an accident or an act whether intentional or otherwise; (situation d’urgence)”

The words disaster and emergency are used interchangeably. Emergencies can result from an existing danger or it can be a threat of an impending danger; which by its nature and magnitude necessitates a controlled and coordinated response by a number of government, private and community agencies. Emergencies are categorized as natural, technological or human-caused in origin. Emergencies vary in scale from local, regional, provincial, national and even international.

Disasters Categories

1. Natural
2. Technological
3. Human-Caused
Natural Disaster is:

A natural disaster results from the forces of nature.

Some examples of Natural Disasters are: climate based (tornado), geological (earthquake), and hydrological (floods). Sometimes a natural disaster can cause a secondary technological disaster such as when a severe storm damages hydro lines and causes a power outage, or destruction of roadways and buildings.

Technological Disaster is:

A technological disaster is a result of the failure of manufacturing, transportation, or in the use of technology or certain substances.

Some examples include chemical spills, power failures, or natural gas leaks.

Human-Caused Emergency is:

A human-caused disaster is an emergency that is the direct result of human actions.

Some examples of human-caused disasters include terrorism and sabotage

Stages of an Emergency

Warning – This phase of an emergency represents the time before the disaster takes place. It is during this stage that we are able to prepare for it, and notification about the incident is released. The time of this stage varies as disasters can be spontaneous or develop over time. Different Mitigation and Preparedness techniques are key to decreasing the impact that a disaster can have on our community.

Impact – This is when the emergency takes place, and ranges from the initial impact through all rescue efforts. It is also know as the Response phase; when all available resources are being used to help those who need it and restore the city’s functions.

Recovery – This is done as all rescue efforts are being completed and includes assessments of the damage, repair and rebuilding the community. The recovery portion, after an emergency can sometimes take years to resolve depending on the severity of impact and amount of damage caused.

PrepE Facts!

Hazards: a product, situation or location which contains an inherent danger that has associated with it a threat or threats to life, property or the environment.

Threat: is the way in which the danger inherent in the hazard could manifest itself given certain conditions, creating an emergency or disaster.
Disasters in the City Of Vaughan

How do we determine the different types of emergencies that may occur in the City of Vaughan? The city conducts a Hazard Identification Risk Assessment.

What is a Hazard Identification and Risk Assessments (HIRA)?

A HIRA is a tool that is used to assess which hazards pose the greatest risk in terms of how likely they are to occur, and how great their potential impact may be based on historical events. It is NOT intended to be used as a prediction tool to determine when or which hazard will cause the next emergency. A HIRA is used to help prevent, mitigate, prepare, respond and recover to different types of hazards in your community.

The following will help guide you to better understand how a HIRA works.

A HIRA:
- Helps the city to prepare for the worst and/or most likely hazards.
- Saves time by identifying any hazards that will not affect the community.
- Allows for the creation of emergency plans, exercises, training and public education based on the most likely and/or highest risk scenarios.
- Helps the city be proactive rather than just reactive.

There are four steps to create and maintain a HIRA:

1) Hazard Identification: In this step the hazards that could potentially impact our community are separated from those that cannot. This requires a review of all hazards and their specific causes to determine whether they may be a threat. This may require consultation with the scientific community, government agencies, and review of historical records.

2) Risk Assessment: In this step the level of risk for each hazard is examined. This may involve speaking with experts, researching past occurrences and possible developing disaster scenarios. The likelihood of the hazard occurring and the potential impacts of the hazard on people, property, the environment, business and finance and critical infrastructure are examined.

3) Risk Analysis: The information collected in the risk assessment step is analyzed to determine the degree of threat and ranked. The hazard rankings establish the program operating and planning priorities.

4) Monitor and Review: It is important to remember that a HIRA is an ongoing process and hazards and their associated risks must be monitored and reviewed annually and revises as necessary. These changes are based on new information and research, as well as what we are able to learn from other affected communities.
Word Search

Find the types of disasters by shading in the squares. The letters left over spell out a disaster related phrase.

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The Canadian Disaster Database

The Canadian Disaster Database (CDD), allows Canadians to look up past disasters that have affected different regions throughout Canada since 1900. It provides information on the history of over 1000 different types of the disasters. The CDD provides information on the impacted area, the date of the event, the people that were impacted as well as the cost of recovery from the disaster.

You are able to search for disasters through a map system looking at different regions as a whole and the history of disasters to that region, or you can look for specific types of disasters and their impact nationally.

By cataloguing information like this it allows emergency services to plan and enhance the prevention, warning systems, decrease the impacted area, and allow for a more efficient recovery process.

You can find information on disasters that may have affected Vaughan and Ontario on the CDD website http://www.publicsafety.gc.ca/prg/em/cdd/index-eng.aspx

Natural Disasters in the City of Vaughan

One of the most important ways we can decrease the impact from a disaster is to be prepared for them; one way we can do this is to be more informed about the potential disasters that can occur in our city.

The natural disasters that can occur in The City of Vaughan include:

1. Severe Summer Storms - Lightning
2. Wild fires
3. Severe Winter storms
4. Sustained heavy rainfall
5. Tornado
6. Earthquake
7. Health Emergencies

Environment Canada will inform people of different environmental emergencies, through a three stage process, which includes:

PrepE Facts!

The earliest entry on the CDD website is from April 26, 1900. It was a Non-residential fire that forced the evacuation of 15,000 people in and around Ottawa Ontario / Hull, Quebec area.
• **Special Weather Statement** – This is the least severe and is issued to let people know that conditions are unusual and could potentially cause concern. However, it is not serious enough at this time to issue a watch or warning.

• **Weather Watch** – This is the second stage of the warning system. A weather watch is used to alert you about weather conditions that could result in a storm or severe weather, and could lead to concerns for public safety.

• **Weather Warning** – This is the most urgent announcement and means that severe weather is either occurring or will occur in the affected area. Warnings are usually issued 6 to 24 hours in advance of the event, although some emergencies can occur rapidly, with less than a half hour’s notice.

A weather watch is used to alert you about weather conditions that could result in a storm or severe weather, and could lead to concerns for public safety.

The following will provide information about weather and natural emergencies and their possible effects in the City of Vaughan.

**(1) Severe Summer Storms:**

Severe storm systems occur throughout the summer months generally, occurring in localized areas. These thunderstorms can be considered quite dangerous due to the production and intensity of lightning. The lightning from thunderstorms is considered harmful and life threatening to people and property.

• **PrepE says “When thunder roars go indoors!”**
  - Stay in a safe area for a full 30 minutes after the last rumble of thunder or flash of lightning; lightning can travel up to 16 km out the sides and back of a storm system.
  - Thunder is the sound that the lightning makes, so even if you didn’t see it; it is in the area.
  - The energy from one lightning flash could light a 100 watt light bulb for more than 3 months.
  - The channel of air through which lightning passes can be heated to 50,000 degrees F.

**PrepE’s Tips!**

If you are outside during a summer storm you should get inside a solid brick building as quickly as possible:

- Do NOT take shelter under a tree or in a tent.
- Stay away from objects that conduct electricity.
- Avoid being the highest point in an area.
- Avoid riding a bicycle or any other form of transportation as you increase the risk of conducting electricity.
- If you are in a car, stay inside, but move the car away from trees or other structures that might fall on you.
- Avoid lakes, pools or any other bodies of water.

**PrepE’s Facts!**

Fafroskies is a short form word for “fall from the sky”. Falling creatures such as frogs, lizards, jellyfish, and other unfortunate animals have been reported around the world, with whirlwinds passing over water bodies and picking them up before dumping them back on earth.

Phillips, David. *The Canadian Weather Trivia Calendar*
(2) Wild Fires:
Wildfires can be best described as a fire burning out of control on a remote geographical range. There are many factors that can contribute to the generation and spread of wildfires, the most common are weather related. Wildfires can cause threats to life and extensive damage to the environment, as well as everything it is in its path.

PrepE’s Tips!
Be aware of the following weather conditions and human actions as they may cause ignition and rapidly spread wildfires:
- low humidity
- high winds
- dry thunderstorm
- campfires
- cigarette butts
- unstable air
- open fires

Check for bans and fire conditions within the City and for the surrounding area.

(3) Severe Winter Storms
Winter storms can produce heavy snow, rain, ice, cold temperatures and strong winds. Winter storms can happen anywhere in Ontario and can last a few hours or for a few days. Winter storms are dangerous for many reasons; roads and sidewalks can become slippery from ice or become hard to travel on because of heavy snow. The wind and snow together can make it very difficult to see (whiteout conditions) when walking or driving.

PrepE’s Tips!
Before or during a winter storm tune into your local media to access more information! Environment Canada will let people know when a winter storm could develop by issuing a winter storm watch or warning. If a winter storm watch or warning has been issued, you should be prepared to change travel plans and bring your pets indoors. Listen for updates in case the storm gets worse.

1. Stay inside. This is the safest place to be in a winter storm.
2. Check with your parents/guardian before you go out and play in the snow after a winter storm. It might be too dangerous to play outside because of the ice and extra snow.

(4) Sustained Heavy Rainfall
Sustained heavy rainfall can cause great damage to property and threats to human life in the form of flooding. During heavy rainfall or flooding, it is important to tune into your local television, radio or online resources for updated information. You may be advised to evacuate by authorities. Keep your 72-hour emergency kit close by and evacuate the area immediately, following the direction of Emergency Services!

PrepE’s Facts!
Did you know: In 1998, parts of Eastern Ontario and Western Quebec were hit by 3 successive storm fronts that have been called the greatest natural disaster in Canadian history. The total precipitation, which fell as freezing rain, ice pellets and snow exceeded 100 mm south of Montreal. Canada’s previous largest recorded ice storm was in Montreal in February of 1961 which left 40mm of ice. The damage from the 1998 storm was so severe that major rebuilding, and repair, of the electrical grid had to be undertaken. What took human beings a half century to construct took Mother Nature a matter of hours to destroy.

Phillips, David. The Canadian Weather Trivia Calendar
**PrepE’s Tips!**

Every year thousands of families are affected by floods in Ontario. To better protect yourself and your family against the effects of floods, make sure you are prepared in your own home.

- Have a 72-hour Emergency kit on hand, full of food, water, medical supplies, etc.
- Move furniture, electrical appliances, livestock, equipment and other belongings to higher levels.
- Remove or seal hazardous products like household cleaners or insecticides.
- Remove toilet bowl water and plug basement sewer drains and toilet connection.
- Evacuate if your home is at risk of flooding.
- If evacuating DON’T travel through bodies of water – Turn around don’t drown at flooded roads and walkways.

**PrepE’s Tips!**

Taking the following precautions will help prevent and lessen the effects of flooding. It is best to have an adult or professional to do the following checks.

- Check the sump pump to see if its working; have a back-up pump ready just in case.
- Check to see that your eaves troughs, culverts and drainage ditches are clear.
- Review your insurance policy to ensure you are adequately covered. Make sure you have coverage for sewer back-up.
- Assemble a 72-hour Emergency kit in case of a flood.

**(5) Tornado**

A severe thunderstorm is a driving force behind a tornado. Hot, humid weather combined with a cold front could be a sign that a tornado is forming, a funnel cloud hanging from a dark cloud may be visible before the tornado actually occurs. A tornado may be accompanied by lightning, high winds and hail. A tornado may be wrapped in a band of heavy rain making it difficult to see. There could be little to no warning that a tornado is happening in your area, be alert! The strength and power from a tornado cannot be determined until the area is surveyed, and the ratings are based on the damage produced.

**PrepE’s Facts!**

**Did you know:** Tornadoes occur in many parts of Canada between the months of April and October! Tornadoes can even cause tremendous destruction with wind speeds of up to 500km/hour or more!
PrepE’s Tips!
Stay tuned to your local television, radio or online resources for up-to-date storm information especially when weather conditions are right for generating a tornado.

PrepE’s Tips!
The most important step to take before a tornado hits is to seek shelter immediately. If you are at home:
- Go to the basement or take shelter in a small interior ground floor room such as a bathroom, closet or hallway.
- Stay away from windows, outside walls and doors.
- If you are driving and spot a tornado in the distance, try to get to a nearby shelter.
- If the tornado is too close, get out of your car and take cover in a low-lying area, such as a ditch or culvert.
- It is important to lay flat and facedown on the ground, covering your head with your arms.
- Avoid bridges and overpasses as the wind can be accelerated through them; small objects such as sticks can become lethal weapons in a tornado’s wind.

The force of a Tornado cannot be established until after the Tornado has passed. The determination of the strength is based on the amount and type of damage caused. Tornados can travel extremely quickly reaching speeds of up to 100km/hr. If it looks like it is standing still; it is traveling directly at you—Take rapid action!

(6) Earthquake
Earthquakes are caused by a shifting of the Earth’s plates at different depths. As the plates move they release a huge amount of pressure and energy which results in shaking of the surface of the Earth.

There is no way to predict an earthquake so rapid action to stay safe is extremely important. When and Earthquake occurs, act quickly by:
- Drop down to the floor
- Take cover under a heavy piece of furniture, such as a desk
- Hold on the furniture
- Remain where you are for 60 seconds after the ground stops shaking
- Note any structural damage and exit the building if its unsafe

PrepE’s Facts!
Moonquakes (“earthquakes” on the moon) do occur, but they happen less frequently and have smaller magnitudes than earthquakes on the Earth. It appears they are related to the tidal stresses associated with the varying distance between the Earth and Moon. They also occur at great depth, about halfway between the surface and the center of the moon.

http://www.usgs.gov/

It Happened! On June 22 2007, Canada’s first F5 tornado touched down just north of the trans-Canada Highway near Elie, MB, about 40km west of Winnipeg, MB. Its top wind speed was estimated between 420 and 510 km/h. Miraculously, there were no fatalities or serious injuries.

Phillips, David. The Canadian Weather Trivia Calendar
Emergency Action Match Up

Different emergencies require different actions. Match the correct action to take in the event of an Emergency.

- Earthquake: Cover, Stop, Clean
- Fire: Look Up, Look Down, Look Down
- Downed Power Lines: Drop, Cover, Hold On
- Flood: PASS
**Mini-Tornado in a Bottle!**

The purpose of this activity is to create and observe the actions of a Mini-Tornado inside of a bottle. This Mini-Tornado experiment offers an up-close look at how a tornado operates. This project can be constructed with readily available materials, and will only take a few minutes to construct.

**Method**

1. Fill one of the bottles with water until it is approximately half full. Add a few drops of food coloring to make the water more visible.
2. Cut a piece of duct tape which is 5 centimeters long and cover the mouth of the bottle which contains the water.
3. With the pencil, make a hole in the center of the duct tape. Make sure that the hole is a little bigger than the pencil.
4. Take the second bottle and turn it upside down on top of the bottle containing the water, so that the mouths of the bottle line up. With the cloth or paper towel, wipe any moisture from the necks of the 2 bottles.
5. Cut more duct tape and wrap it around the necks of the bottles so they are firmly attached.
6. Hold the 2 bottles by the neck; invert them so that the bottle containing the water is on top, and immediately start spinning them in circles.
7. Put the bottles on the table, with the empty on the bottom.
8. Watch what happens

**Observations**

The water takes on the shape of a funnel and looks like a tornado.

**Conclusions**

Tornadoes are fast, violent swirling winds. In this experiment, the spinning of the bottles caused the water to take the shape of a tornado. The hole in the bottle allowed for the appearance of the tornado's tail - the most dangerous part of the tornado.

Experiment designed by Environment Canada

**Materials**

- Two, 2 litre plastic soft drink bottles
- Water
- Food coloring (optional)
- Duct tape
- Scissors
- Pencil
- Ruler
- Cloth or paper towels

**It Happened!** 1926: Afternoon rains fell in Dundas, ON. An hour or two later, residents were astonished to see hundreds of small fish on the ground. The majority were the size of small fry and resembled pickerel or whitefish fry. Eyewitnesses said the creatures did not come from the sewers, nor were they washed from the town’s creek because it was frozen. Most were satisfied the fish fell with the rain from the sky.

Phillips, David. *The Canadian Weather Trivia Calendar*
Technological Emergencies in The City of Vaughan

Most technological disasters occur without warning. The technological emergencies that can occur in The City of Vaughan include:

(1) Transportation Incidents
(2) Industrial Installations
(3) Cyber Risk
(4) Major airport in and near the area

(1) Transportation Incidents
A hazardous materials incident may occur on any transportation route. This is the unintentional release of materials that are considered to be hazardous to humans, animals, plants or the environment due to their explosive, flammable, combustible, corrosive, oxidizing, toxic, infectious or radioactive properties. This type of incident can be caused by a human error or a technological malfunction. Traffic accidents can result in hazardous materials transportation incidents if one or both of the vehicles is carrying a hazardous material collide.

(2) Industrial Installations
Many potentially hazardous materials are used daily for a variety of purposes! When properly contained and stored, hazardous materials are stable and safe. Every community has at least one facility that stores, produces or utilizes hazardous materials. These facilities include: water treatment plants, textile manufactures, dry cleaners, chemical manufactures and even schools. Depending on the type of hazardous material, it can become a threat when the container is ruptured, exposed to extreme heat/cold, exposed to fire, water or other substances that when combined produce a reaction.

PrepE's Response Actions—Shelter in Place!
Stay indoors. Close all windows, fire place dampeners and vents, and shut off heating and air condition fans to minimize contamination. Move to the upper floors of your home to an interior room, seal vents with plastic sheets or garbage bags and duct tape, close blinds, latch windows, and place a damp towel at the base of the door.

PrepE's Tips:
Stay calm and to tune into your local television, radio or online resources for updated information. You may be instructed by local authorities to evacuate the area. Keep your 72-hour Emergency kit close by and evacuate the area immediately!

It Happened! On December 11, 1990 just after 9am, on a stretch of the I-75 in Tennessee, dense fog blanketed the highway and lead to a 70 car pile-up. The wreckage stretched for a half mile and caused 13 fatalities. The car fires added to the chaos and 33 different fire companies responded to the call. Survivors say that it sounded like endless bombs and gunshots going off as one car after another plowed into the mess.

Israel, D K. MentalFloss.com
(3) Cyber Risk:
Cyber attacks are a growing threat. As society’s dependence on technology and computer systems have increased, so have the risk of cyber attacks and hacking. Computer technology is used for a variety of important functions, such as water treatment plants, business transactions and the energy supply grid.

PrepE says to tell an adult if you are being harassed or bullied online.

(4) Garbage Fire
The City of Vaughan provides waste collection services to eligible residential properties within the region. However, sometimes residents will burn garbage in the open air. Open burning refers to burning garbage in barrels, open pits, outdoor furnaces, woodstoves, or fireplaces. Open burning of garbage is much more harmful to your health and the environment than you may think, as it causes the release of different chemicals and toxins into the air. Fires at waste transfer stations can also cause an issue locally with the release of different odors and chemicals during combustion. These may also prove difficult to extinguish due to the different items and density of the waste.

PrepE’s Facts!

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<th>Did you know: When you burn materials like paper, cardboard, yard waste, and construction debris you are potentially releasing a hazardous mixture of cancer-causing compounds and other toxic substances into the air! Open burning of garbage poses health risks to those exposed directly to the smoke. This can be especially harmful to people with sensitive respiratory systems, as well as children and the elderly.</th>
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(5) Major Airports in and Near the Area
Serious air transportation incidents involving large numbers of people are rare. However, when they do occur, they can result in a large number of injuries and even fatalities. The number of people affected depends on the size of the aircraft, the number of passengers and crew, the speed at which it is travelling and the area (and the population density) in which the incident occurs. This can result in serious property damage if the incident occurs in an area with many buildings. Critical infrastructure may also be damaged. However, because of the size of aircraft and the amount of fuel aboard, air transportation incidents are usually localized.

PrepE’s Tips!
During any emergency’s, PrepE says to stay away from the affected area.
Human-Caused Emergencies in The City of Vaughan

Human caused emergencies can be unintentional or deliberate. Some different Human caused emergencies include:

(1) Fire
(2) Public Order
(3) Terrorism

(1) Fire
Fire is caused by the rapid oxidation of a combustible material in a chemical reaction. This results in the release of heat, light, and gas products. The flame is the visible portion of the fire. Depending on the object on fire and the gas being released the colour of the flame may vary.

There are 3 basic components required for a fire: Heat, Fuel, and Oxygen. Elimination of one or more of these components will either suppress a fire, or not allow it to develop. These three components are referred to as the fire triangle.

Some common fire hazards include:
- Unattended cooking, such as frying, broiling, and simmering
- Electrical systems that are overloaded
- Combustible material near equipment that generates heat
- Candles and open flames
- Cigarettes and Cigar ashes

PrepE’s Tips!
Smoke Detectors and Carbon Monoxide Detectors (CO)
- Have a smoke detector on each floor of your home
- Change the batteries twice a year (When the time changes, change your batteries)
- Replace your smoke detector every 10 years
- Check your smoke alarm every month

Carbon Monoxide (CO) is a colorless, tasteless and odorless gas that is produced due to incomplete combustion. It is because of these traits, its referred to as the “silent killer”. CO detectors are not the same as smoke detectors, and are designed to detect different gases. The reason CO is so deadly, is that it does not allow oxygen to be used as efficiently in the body.

PrepE’s Facts!

Did you know: In the short term, exposure to smoke can cause headaches, nausea, and rashes! Over time, it can increase the risk of developing heart disease and cancers. Some of the pollutants contained in the smoke from open burning of garbage can include:
- Dioxins
- Furans
- Arsenic
- Mercury
- PCBs
- Lead
- Carbon monoxide
- Nitrogen oxides
- Sulphur oxides
- Hydrochloric acid
PrepE Tips!
Fire Extinguishers come in a variety of different shapes and sizes and are to be used in the event of an emergency. The safest thing to do is to leave the area quickly and safely, making sure you keep your back towards the exit.

Fire extinguishers are divided into different classes depending on the type of fire they are effective against. There is also a number associated with the class and this represents the amount of fire retardant in the extinguisher. Some fire extinguishers contain more than one class and can be used on multiple types of fire.

Class A— Used on ordinary combustible materials such as paper, wood, cardboard, etc..
Class B— Fires involve flammable liquids such as gasoline, kerosene, etc...
Class C— Fires that involve electrically charged equipment.
Class K— Are fires that involve cooking oils, and are typically found in restaurants.

(2) Public Order
Public order is a form of civil disorder and is also known as “rioting”. Typically it is a disorganized group of people acting out in rapid and intense violence against authority, property or people. This is usually attributed to “herd behavior”, that means people act the same as others in the surrounding area. Riots typically involve vandalism and the destruction of private and public property with no direct target or regard.

PrepE’s Tips!
Riots don’t just occur. Generally, there may be signs of public anger and violence days in advance before the riot. Reading the newspapers and following the news may give you a warning about impending protests, rallies, and marches. Being informed and avoiding the area is the best way to stay safe.

(3) Terrorism
Terrorism is becoming more and more common throughout the world; however there has not been many incidents of terrorism in Canada. Terrorism is considered to be any act of violence with the goal of instilling terror, and directly negatively impacting a population. The overall objective of terrorism is to influence fear among people to achieve the groups goals and objectives. If you see something suspicious such as an unattended back pack or a person trying to access a restricted area call 9-1-1 and report it!

PrepE’s Tips!
- Be aware of your surroundings
- Move or leave if you feel uncomfortable or if something does not seem right
- Take precautions when traveling. Be aware of conspicuous or unusual behavior. Do not accept packages from strangers. Do not leave luggage unattended. You should promptly report unusual behavior, suspicious or unattended packages, and strange devices to the police or security person nel
- Learn where emergency exits are located in buildings you frequent. Plan how to get out in the event of an emergency
- Be prepared to do without services you normally depend on—electricity, telephone, natural gas, gasoline pumps, cash registers, ATMs, and Internet transactions
Strange But True Disasters!

The Tunguska Event
On June 30th, 1908, a huge explosion occurred near the Podkamennaya Tunguska River in Russia, thought to have been caused by a meteor or comet fragment about 20 meters across. The blast energy was estimated to be between 10 to 20 megatons of TNT—1,000 times more powerful than the Hiroshima bomb. The explosion felled approximately 80 million trees over 2,150 square kilometres. The devastation is still visible today in satellite images of the area.

Poisonous Gas Cloud
For many years Lake Nyos that occupied the crater of a dormant volcano in north-western Cameroon was slowly absorbing carbon dioxide emitted by the magma. On August 21, 1986, the water reached its saturation point and expelled the toxic gas all at once. The toxic cloud moved at a speed of 125 miles/hour and spread over 16 miles killing 1,700 people and 3,500 animals.

The Pittsburg Gasometer Explosion
On November 14 1927, the largest cylindrical gasometer of its time, located in the industrial centre of Pittsburg developed a leak. Repairmen attempted to locate the leak with an open flame blow lamp. The tank, holding 5 million cubic feet of natural gas rose in the air like a balloon and exploded. Chunks of metal, some weighing more than 100 pounds were scattered over a great distance. The combined effects of air pressure and fire left a square mile of devastation killing 28 people and injuring hundreds.

The Gates of Hell
In 1971, in the Karakum desert in Turkmenistan, a drilling rig accidentally hit a massive underground natural gas pocket causing the ground to collapse, opening a 328 foot wide poisonous gas cavern. Local engineers and townspeople decided to set the crater on fire and it has been burning ever since.

Hail Deluge
Winter and summer storms with hail are common to everyone, but not hail that weighs 2.25 pounds like in the giant balls of ice that fell from the sky in the Gopalganj district of Bangladesh in 1986. The hail was considered the heaviest on record, and 92 people were killed when it pummeled the area.
St. Pierre Snake Invasion
In 1902 a volcano on Martinique spewed ash continuously and sulphur filled the air. Over 100 highly venomous fer-de-lance snakes invaded St. Pierre to escape the volcano, killing 50 people and many animals before being destroyed by giant street cats. A landslide of boiling mud then spilled into the sea causing a tsunami. The volcano, Mt. Pelee finally exploded a few days later. An avalanche of lava hit the town. Only two people of a population of 30,000 survived.

Underground Coal Fire
An underground coal fire has been burning in Centralia Pennsylvania since 1962, the fire is believed to have been started by the Fire Department, tasked with cleaning up a local landfill. The landfill was set on fire, but may not have been completely extinguished, thus heating up the coal veins under the landfill and smoldering over time. Eventually the reaction ignited the underground fire. In 1981 a 150 foot sinkhole occurred in a backyard in which a child fell. The government condemned the town and moved all the residents out. The fire is expected to continue to burning for approximately 150 years.

The Great Boston Molasses Flood
On January 15, 1919, a huge cast iron tank of raw black molasses burst and a two storey high wave of molasses poured down the street into the waterfront. Neither people nor animal could out run the wave and they were engulfed in two million gallons of molasses. Buildings crumbled, an elevated train track collapsed, 21 people died and 150 were injured.

The Chandka Elephant Stampede
In 1972 the Chandka Forest area of India was suffering drought and was hit by a heat wave. Local elephants became so crazed by the high temperatures and lack of water they went berserk and stampeded through five villages. They left a trail of devastation and 24 people died.

Flaming Tornado
A fire tornado, or fire whirl, is perhaps one of the Earth’s rarest and most terrifying natural events. Fire whirls form when the rising heat of a fire is spun by wind into a conical shape, creating a column of spinning fire that can become as strong as a tornado. After the Great Kanto earthquake of 1923, which devastated Tokyo, a firestorm that included fire whirls killed 38,000 people in just 15 minutes.

Source: Internet—Google "bizarre disasters"
How to stay Prepared for an Disaster

A disaster can affect a large number of people and overwhelm the normal emergency services of a city. In the event of a disaster, local government and non-government disaster-relief organization will be there to assist you, but it is important to remember that the local responders may not be able to reach you immediately or in the initial stages of the event as they may need to focus their efforts elsewhere. It is every citizen’s responsibility to be prepared and self-sufficient for at least 72 hours.

Activity 3: Make a plan!

Part of being prepared for a disaster involves creating a plan for your family. A family emergency plan includes where to get information, Emergency contact numbers, a home escape plan, a 72 hour emergency kit (grab and go bag) and a meeting spot.

The questions provided below will help you and your family prepare in case of an emergency. Use the space provided to fill out your answers.

(1) List the different sources where you can get information from in the event of an emergency in the City of Vaughan?

Radio Stations - ________________________________  TV - ________________________________

Internet Sites - ______________________________________________________________________

Social Media - ______________________________________________________________________

(2) What are your emergency contact numbers?

Parents - Cell Phones - Work -

Aunt/Uncles -
Grandparents -
Neighbours -

PowerStream - 1-877-777-3810
Enbridge - 1-866-763-5427
Poison Control - 1-800-268-9017
Vet -

Police/Fire/EMS - 9-1-1

If phone lines are not operating emergencies and requests can be made by going to any City of Vaughan Fire Station, community centre, City Hall or the Joint Operations Centre.
**Activity 4: Plan your Escape!**

In an emergency you may need to evacuate on a moments notice. It is important to take action and to be prepared. Using the grid below, draw a floor plan of our home.

Make sure to include:

- Two escape routes for each room
- Show the location of doors, windows, stairways, and large furniture
- Indicate the location of emergency supplies (72 hour- Emergency Kit)
- Mark a place outside of your home where households members will meet in case of a emergency

Be sure to include any other floors of your home on a separate sheet of paper.

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**PrepE’s Tips!**

Here is a list of additional considerations to make for you and your family to be better prepared in case of an emergency:

- Make sure you know how to turn off the water, gas and electricity at main switches in your home. Never attempt to restore gas services in your home by yourself. Always call your local gas utility to restore service.
- If any member of your household has a disability or a special health condition, make sure to take additional steps to ensure their comfort and safety in an emergency.
- Make sure to have arrangements for all pets and preparedness pack for pets

Knowing what to do when a disaster strikes will help you better control the situation and put you in a position to recover more quickly!
Emergency Survival Kit

Emergency’s can sometimes make it unsafe for people to leave their homes for extended periods of time. Severe weather or long-term power outages may make it necessary for each household to take care of their own needs until the situation has cleared, or until local officials and/or relief workers are able to help. Being prepared for an emergency also includes the creation of a 72-hour Emergency kit. That kit contains all of the items that you need to remain comfortable for at least three days (72 hours).

It is important that the contents of your Emergency kit are kept all together in an easy to carry container or bag in the event you have to leave your home suddenly. This will ensure you have all of your basic supplies with you. Your emergency kit should also be kept in an easy-to-reach location (preferably on the main floor) and everyone in your family knows exactly where it is stored.

Activity 5: Make a 72 hour Emergency Kit

Next, take action and be prepared! Ensure your home is fully equipped with a 72-hours Emergency kit and Emergency plan.

In the space below test your knowledge by listing the key items that you and your family would need to include in your 72-hour Emergency kit. List the items that are essential and your reasons why. Try and list as many essential items that you can.

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PrepE Facts!

Earthquakes are most common near large cracks in the Earth’s crust, known as “faults”. Earthquakes are the deadliest of all natural disasters. But most injuries happen as a cause of building collapse and fires.  
European Space Agency: www.esa.int
Pet Survival Kit

Making sure every member of your household is prepared in the event of an emergency is very important. As PrepE say’s; take action, tune in and know the risks! If you have pets at home, be sure to include them in your family Emergency plan. Just as you would prepare an Emergency kit for your family, you should prepare another Emergency kit for your pet! This kit should be kept in an easy to carry bag and stored next to your family’s 72-hour emergency kit.

Your pet emergency kit should have the following:
- Food, water, bowls, and a can opener
- Blanket and a small toy
- Sturdy leash/harness
- Cat litter/pan (if required) and plastic bags
- Carrier for transporting your pet
- Medications and medical records (including vaccinations)
- Recent photo of your pet in case your pet gets lost
- Up-to-date ID tag with your phone number and the name/phone number of your veterinarian
- Copy of license (if required)

What you need in your pet’s emergency kit depends on the type of pet you have. Ask your veterinarian if you have questions about what should go into your pet kit.

Remember, your pets are counting on you to keep them safe and comfortable.

For more information visit the Vaughan Emergency Planning website https://www.vaughan.ca/PrepE or email: PrepE@vaughan.ca
Your home 72 hour Emergency Kit should include:

**Water:** Store up to four liters of water per person per day (two liters for drinking, two liters for food preparation/sanitation). Keep at least a three-day supply of water for each person in your household. Store purification tablets or chlorine bleach and an eyedropper to disinfect water.

**Food:** Select foods that require no refrigeration preparation or cooking and little or no water. Store at least a three-day supply of non-perishable foods. If you must heat food, pack canned fuel or other heat sources rated for indoor use. Select food items that are compact and lightweight. Include foods such as:
- Ready-to-eat canned meats, fruits and vegetables
- Canned juices, milk, soup (if powdered, store extra water)
- Staples: sugar, salt, pepper and spices
- High energy foods: peanut butter, jelly, crackers, granola bars, trail mix, etc.
- Foods for infants, elderly persons or persons on special diets
- Comfort foods: cookies, hard candy, sweetened cereals, instant coffee, tea bags, hot chocolate, etc. (if powdered, store extra water)

**First Aid supplies:** Your family’s 72-hour Emergency kit should include a first aid kit. It can be helpful if someone gets hurt. This may include a number of different items. Suggested items include:
- First Aid Manual
- Sterile adhesive bandages in assorted sizes
- two-inch sterile gauze pads (4 to 6)
- four-inch sterile gauze pads (4 to 6)
- Hypoallergenic adhesive tape
- Triangular bandages (3)
- Two-inch sterile roller bandages (3 rolls)
- Three-inch sterile roller bandages (3 rolls)
- Scissors
- Small (hand) clean towels sealed
- Tweezers
- Heat packs
- Rubbing Alcohol
- Antiseptic or antiseptic towelettes
- Thermometer
- Tongue Depressor
- Tube of petroleum jelly or other lubricant
- Assorted size of safety pins
- Cleaning agent/soap
- Vinyl gloves (2 pair) in a plastic bag

**Tools and Supplies:** crucial supplies maybe required during an emergency. This is why it is important to care of your family and ensure they are prepared.
- Flashlight, crank or battery powered
- Battery powered radio or crank radio
- Spare batteries
- Candles, matches, lighter
- Manual can opener
- Important documents: insurance, identification
- Extra car keys and cash
- Backpack, duffel bad or plastic tote to store kit
- Whistle
- Games, toys, puzzles

**PrepE Tip!**
Scan important documents and photos onto a flash drive/memory stick and store it off site.
Special Items: Remember family members with special needs, such as infants, elderly, and/or persons with disabilities or chronic illnesses.

As well, if you or someone in your family needs to take medicine everyday, you need to make sure that you have a supply of that medicine in your emergency survival kit and/or talk to a doctor about what to do in an emergency. Make sure that you keep a list of the medicines that each person in the family takes and why they take the medicine.

For a Baby
- Baby Food
- Diapers
- Diaper Wipers
- Hand sanitizer
- Baby cloths and extra layers for warmth
- Medication

For Children and Adults
- prescription and non-prescription medication (7day supply)
- Contact lenses and supplies
- Denture needs
- Extra eye glasses
- Hearing aids and batteries

PrepE’s Tips!
In an emergency, include clothing and bedding, personal care items, in addition to special items. Depending on the duration of an emergency, these items may become useful.

Clothing and Bedding: The clothing/shoes you put in the Emergency kit should be appropriate for the different seasons. Clothing and bedding may become necessary during a prolonged emergency.
- Include at least one complete change of clothing and footwear per person
- Sturdy shoes or work boots
- Rain gear
- Blankets or sleeping bags
- Hat, gloves and scarves
- Underwear
- Sweaters

Personal Care items: In an emergency, you may not be able to go outside or get to the store. Make sure that you have enough personal items. The following are a list of personal care items that may be necessary during an emergency.
- Feminine products
- Soap and shampoo
- Cotton swabs
- Deodorant
- Toilet paper, towelettes
- Razor
- Shaving cream
- Lip balm
- Dental floss
- Toothpaste and brushes

It Happened! 1900: Fire swept through Ottawa-Hull, ON, driving 15,000 people from their homes. Four died in the wild fires, that spread quickly in a strong gale. Northeast winds blew flames out of control in the direction of lumber piles and mills on both shores of the Ottawa River. People feared that the centre of Ottawa might even catch fire if winds changed.

Phillips, David. The Canadian Weather Trivia Calendar
Part 2: What to do during an Emergency

During an Emergency
Now that you have taken the necessary steps to be prepared for an emergency, the next step is to become more familiar with different procedures to take during an emergency. As PrepE says, it is important to: Take action, tune in, and to know the risks!

When an emergency occurs, you may be required to stay indoors or to evacuate. The following sections will provide more information of emergency procedures and recommended steps to take.

(1) Shelter in Place
Shelter in place may be a short or long period of time depending on the nature of the emergency. Sheltering in place is when you are required to stay indoors because of an emergency. This may include staying in your home, school, or other building depending on your whereabouts when an emergency occurs.

PrepE’s shelter in place actions:
- Make sure your family and pets are inside
- Lock doors, close windows, air vents and fireplace dampers
- Tape all cracks around windows, air ducts, and vent systems. Close the fireplace damper.
- Turn off fans, air conditioning and forced air heating systems (adults only). Turn off gas, water and electricity if directed to and only if you know how. Gas must be turned on by a professional.
- Take your emergency supply kit with you, to your shelter room.
- Go into an interior room with few windows, if possible
- Seal all windows, doors and air vents with plastic sheeting and duct tape. Consider measuring and cutting the sheeting in advance to save time.
- Stay away from windows and outside walls.
- Be prepared to improvise and use what you have on hand to seal gaps so that you create a barrier between yourself and any contamination.
- Local authorities may not immediately be able to provide information on what is happening and what you should do. However, you should listen to the radio or check the internet often for official news and instructions as they become available.
- Do not go outside unless authorities tell you to evacuate.

During the time you are advised to evacuate you will also be told of the possible locations of emergency shelters nearest you, and means of transportation as the city may utilize buses to transport people to the shelters. Local media is a good tool to access information from law enforcement officers, fire department personnel or other local officials. Information can be accessed through different channels. It is important to stay tuned to a radio or check the internet for information on evacuation routes, emergency shelters, and procedures.
Code Breaker

Using the clues below find the corresponding letter to complete the public safety phrase.

Example, Y $\leftarrow \uparrow \uparrow = J$

1 W $\downarrow \leftarrow \downarrow = ___$
2 F $\leftarrow \downarrow \leftarrow = ___$
3 T $\downarrow \rightarrow \rightarrow = ___$
4 S $\uparrow \rightarrow \rightarrow = ___$
5 V $\downarrow \leftarrow \leftarrow = ___$
6 H $\rightarrow \rightarrow \rightarrow = ___$
7 P $\uparrow \rightarrow \rightarrow = ___$ 11 L $\leftarrow \rightarrow \rightarrow = ___$
8 Z $\rightarrow \uparrow \rightarrow = ___$ 12 X $\downarrow \rightarrow \rightarrow = ___$
9 J $\downarrow \rightarrow \rightarrow = ___$ 13 N $\leftarrow \rightarrow \rightarrow = ___$
10 B $\leftarrow \leftarrow \rightarrow = ___$ 14 K $\downarrow \rightarrow \downarrow = ___$

A L L
1 2 3 3 4 5 6 7 8
1 9 5 7 10 9 11

I N V A U G H A N

D E S I G N A T E D A S

A R E

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During an emergency it may become necessary to evacuate a school. Should this happen, a plan is in place to bus students and staff to alternate locations. Parents and guardians will be contacted by the School Board once the children are safe and in an alternate location. If the parent or guardian cannot be reached the emergency contact will be called. Should the school be unable to reach the parent or the emergency contacted, the children will be supervised at the “alternate location” until the parents or guardians are notified and arrive.

**During an Evacuation**

During an evacuation you may have little time to react depending on the emergency or disaster. The following are steps to take when evacuating:

- **LEAVE YOUR HOME IMMEDIATELY!** Do not use up valuable time packing, take only your 72-hour emergency survival kit with you.
- Avoid using the phone or cell phones unless it is an emergency. Depending on the severity of the incident and where it takes place you may have difficulty finding service.
- Take your pet(s) with you and remember to bring your pet emergency kit.
- Keep listening to the radio and follow the instructions given by the authorities.
- Do not attempt to pick up children at daycare or schools, these facilities will activate their emergency plans to care for the children.
- Do not post a sign on your front door indicating where you have gone.
- Lock your house and shut off your power and water if instructed.
- Follow the specified evacuation route, do not take shortcuts.
- If time permits, leave a note in your home to inform loved ones of your location.
- Register with the Red Cross at the emergency shelter, they will help reunite you with family and loved ones.

**Tune In!**

The next step in preparedness is to know where to get information. As PrepE says, it is important to (1) Take action, (2) Tune In, and (3) know the risks! The following are channels the city uses to provide information about an emergency or disaster and the recommended actions to take:

- **Radio**
- **Television**
- **E-Newsletter**
- **Door-to-Door**
- **Loud Speaker**
- **Newspaper**
- **Recorded Messages on Phone Lines**
- **City Websites**
- **Mobile Apps**

**PrepE recommends to be informed of the possible evacuation procedures and locations in your city. For more information, visit the Vaughan Emergency Planning website at www.vaughan.ca/PrepE or email us at PrepE@Vaughan.ca**

**Can you be Prepared?**

Here are two online games to see if you can prepare yourself and your family for different disasters. Good Luck!!

www.stopdisastersgame.org

www.disasterhero.com
Public Safety Puzzler

Find The Phrase

Place the letters in the boxes below to find the public safety phrase, you may only use each letter in the column once.
Emergency Shelters

The purpose of an emergency shelter is to provide as quickly as possible, safe, temporary lodging for people evacuated during an emergency. The shelter provides a one-stop shop where evacuees can access food, shelter, clothing, registration and inquiry and personal services.

The City, where possible, uses the community centre located closest to the incident site as long as it is safe and in operating condition. This means that the community centre must have electricity, water supply and not be damaged by the incident. Most rooms in the community centres are converted to dormitory style sleeping areas to house large numbers of people. Areas such as mechanical rooms, pool decks and fitness centres that have exercise equipment are not used as shelter space for safety reasons. Arena ice pads are only used during the summer when the ice is out.

It takes a lot of staff and volunteers from the City, York Region Community and Health Services, Red Cross, Salvation Army and St. John Ambulance to completely convert a community centre into an emergency shelter. Frequently evacuees will be arriving and checking in while we are still setting up the facility.

Pets are welcome at the emergency shelter, but because of health and safety requirements, can not stay in the same area as their owners unless they are a service animal. Specific areas at each shelter facility have been designated for housing pets or they will be transported to another location to be sheltered and cared for.

What is registration and inquiry? The registration and inquiry process is conducted by the Red Cross for the purposes of reuniting families separated by the incident.

What are personal services? Personal services include; hygiene kits temporary care of unattended children and dependent adults, assistance with temporary care of residents from special care facilities, financial and/or material assistance and immediate and long term emotional support.

Emergency shelters are designed for temporary use only, our goal is to return the evacuees home or to other residential housing options as quickly as possible.

PrepE Facts!

Floods are the worlds most expensive type of natural disaster. The cost of global flood damage is hundreds of billions of dollars. Floods can occur in coastal areas or close to any river. When huge sheets of water cover low-lying areas, they can cause immense damage to property and threaten lives.

European Space Agency. www.esa.int
EMERGENCY SHELTER SCRAMBLE

Unscramble the letters below to find the community centres that are designated as emergency shelters in the City of Vaughan.

LLNOIHRTHTRON

TRONSUEOM

TAWGASENRMIALL

RINARKEFDLCUF

LMPAE

GELLEVOLRLIVAE

DALPALIPAIN

GOWBIDOERD

TUFFNREAONNOLHERMB

RCOHLALNCE
There are a variety of different video resources that have been made that offer helpful tips and ideas for you and your family’s emergency preparedness.

**PrepE** has created a number of video’s on safety and emergency preparedness. Check them out at

http://www.youtube.com/user/thecityofvaughan

Or by searching “VaughanPrepE” on YouTube

You can also access your favorite PrepE videos through her Twitter and Facebook accounts:

@PrepEVaughan

PrepE@vaughan.ca

Or www.vaughan.ca/PrepE

**Other preparedness video’s include:**

**Preparedness Piggy** is the mascot of Johnson County, KS. Information and his messages can be found at www.jocoem.org/

http://www.youtube.com/user/JoCoEmergencyMgmt

**Disaster Place Theater** is from Kansas, USA and can be found at www.preparemetrokc.org/

Or on YouTube through
http://www.youtube.com/user/PrepareMetroKC

Each of these videos will be able to offer you helpful tips and ideas to prepare yourself in the event of a disaster. Like **PrepE says take action, tune in and know the risks!**
Part 3: What Happens After The Emergency?

How to recover from an Emergency
After the danger has passed there are many factors to consider when returning back to your normal routine and activities. The following will provide more insight to the various steps to take after an emergency or disaster.

After an Emergency
After sheltering in place or evacuation the following actions should be considered regarding the physical aspects after an emergency:

- Keep tuned to local radio, television stations and internet sites for advice and instructions from municipal officials about medical help, emergency housing, clothing and food assistance.
- Drive only when necessary and where authorities direct. Streets maybe filled with debris and downed power lines.
- Stay clear of loose or dangling power wires and report them immediately to the local power company.
- Report broken gas, sewer or water mains to the municipality. An adult should check for gas leaks in your home. If you smell gas: Immediately open windows and doors, turn off the main gas valve, leave the house, and go to another location and notify the gas company and fire department.
- Prevent fires! Don’t use candles. Municipal water pressure and availability of personnel may be low, which will make fire fighting even more difficult.
- Check refrigerated food for spoilage, don’t risk eating spoiled food.
- Stay away from flooded areas. Debris, broken glass, boards and nails will be everywhere. It is important to watch your step.
- Report any emergency situation to 911.
- Notify you insurance agent or broker if your property is damaged.
- Building Inspections by the City may be required – follow inspection orders.

Coping with a Emergency
After an emergency you may experience different emotional reactions as a result of the traumatic event that can also lead to physical effects. It is not unusual to have different physical and emotional reactions in people who may have been affected by an emergency. It is important to recognize symptoms of critical incident stress that may arise after an emergency along with coping mechanisms to help a friend or family member in need.

Emotional reactions may arise after a disaster may be brought on by:

- Dealing with the emotional reactions of family members.
- Family and marital problems including domestic violence.
- Uncertainty about insurance coverage or the need to borrow money because of insurance shortfalls.
- Reconstruction strains and delays.
- The discomfort and lack of privacy of having to live in shelters, damaged homes, motels or with relatives.
Critical Incident Stress

Symptoms of critical incident stress fall into the categories of emotional, physical, cognitive and behavioral. These reactions by individuals can vary in terms of severity and duration. It is important to remember these are normal reactions to an abnormal situation that have occurred. Symptoms may occur immediately after an event or even hours, days, weeks or months later. The following will provide common signs and symptoms associated with Critical Incident Stress.

Emotional Effects
- Fear or panic, confusion or poor concentration
- Anger, guilt, suspicion
- Denial, disbelief, grief
- Anxiety, agitation
- Withdrawn from family and/or friends
- Reoccurring thoughts, flashbacks, nightmares
- Difficulty making decision
- Need for information
- Reluctance to abandon property
- Rejection of outside help
- Depression
- Intense anger

Cognitive Effects
The following are commonly experienced cognitive reactions that may be experienced by individuals after an emergency:
- Confusion
- Nightmares
- Uncertainty
- Hyper vigilance
- Suspiciousness
- Intrusive images
- Blaming
- Poor problem solving
- Poor attention/decision
- Poor concentration/memory
- Disorientation of time, place
- Difficulty identifying objects or people

Behavioral Effects
The following are commonly experienced behavioral reactions that may be experienced by individuals after an emergency:
- Withdrawal
- Antisocial acts
- Inability to rest
- Intensified pacing
- Erratic movements
- Change in social activity
- Change in speech patterns
- Loss or increase in appetite
- Hyper alert to environment
- Increased alcohol consumption
- Change in usual communications

Physical Effects
Individuals may also have different physical reactions after a traumatic event. The following are commonly experienced physical reactions that may be experienced by individuals after an emergency:
- Rapid heart beating
- Difficulty breathing*
- Chills or sweating
- Nausea or vomiting
- Wakefulness or fatigue
- Profuse sweating
- Change in appetite
- Increased sensory perception, hyper vigilance
- Difficulty in sleeping
- Headache
- Shaky hands
- Visual difficulties
- Grinding of Teeth
- Chest pain*
- Headaches
- Muscle tremors
- Vomiting*
- Twitches
- Fainting*
- Thirst

** These symptoms require medical attention
Coping methods
There are various coping methods to use to manage stress after an emergency.

- Recognize the way you react to the event is not unusual
- Try not to make big life changes
- Talk to family members and friends
- Listen to one another, help each other with daily tasks
- Do things that make you happy
- Get plenty of rest
- Keep a journal
- Eat well-balanced and regular meals
- Avoid caffeine and alcohol
- Alternate physical exercise and relaxation

After an emergency or disaster, check with your local government for counseling information to help cope with the trauma associated with disasters.

Emergency/Disaster responders and city response procedures
During an emergency there are many tasks that City officials and departments are responsible for managing that you might not be aware of. During an emergency it may become necessary to activate the City’s Emergency Plan to achieve the response goals. The City’s Emergency Plan is a guideline of the roles and responsibilities, establishes authority and operating procedures for city personnel to manage an emergency. The City of Vaughan responds with the following actions:

- Notification of the Emergency Management Team
- Opening the Emergency Operations Centre
- Assessing the situation
- Containing and resolving the situation
- Supporting the scene responders
- Procuring equipment, human resources and services needed
- Determining what, where and how resources will be deployed
- Identifying and establishing emergency shelters
- Coordinating with the Region, Province, and Community Agencies
- Providing information to the public
- Maintaining critical services (food, water, electricity, transportation)

During an emergency or disaster the main response goals of the City are to:

- Provide for the health and safety of first responders
- Save lives
- Reduce suffering
- Protect public health
- Protect government infrastructure
- Protect property
- Protect the environment
- Reduce social and economic loss

During the City’s response to an emergency, officials will provide instructions and information regarding the incidents and actions of the public. It is important to be prepared and know the individual steps you and your family can take in the event of an emergency should take.

PrepE tips:
After a disaster or emergency it is important to learn from your experiences! Keep a record of your experiences including actions you would do differently. Making improvements to your safety plan or 72-hour Emergency kit helps to ensure your safety. It is important to review your actions after an incident, to be better able to tackle any future emergencies that might affect the City of Vaughan!

After a declared emergency, City staff and partnering agencies evaluate our response and create an After Action Report that includes what went well and recommendations to enhance of our emergency response capabilities.

PrepE says “A lesson isn’t learned until it is applied.”
CLUES

Across
3 What the public needs to know about the disaster
5 What needs to be done before the disaster occurs
9 They are the official spokesperson and head of council for the City
12 They ensure funds are available and bills paid for the response
13 They schedule staff and ensure health and safety of staff at the disaster scene
15 They provide on scene medical care and transport victims to the hospital
17 They fight fires, rescue people and initiate evacuation of the disaster area
19 They ensure integrity of city owned infrastructure
20 They are responsible for the care of animals during a disaster
22 They are responsible for managing contagious diseases and food safety
24 They ensure water, waste water, roads and garbage pickup are available
25 They assist with caring for and providing activities for evacuees
26 They broadcast the response and safety measures to take during a disaster
28 They assess damaged buildings
30 They manage all records created during the disaster
31 They provide assistance during the disaster for no pay
32 Facility that provides care to the injured
33 They ensure buildings are available to support the response
34 They ensure electricity system is operating

Down
1 The person in charge of all city staff
2 They provide advanced medical care
4 The area that receives phone calls
6 They remove downed trees
7 They buy supplies and services to aid the disaster response
8 They provide vehicles and equipment
10 They coordinate with external agencies
11 They provide food, clothing and spiritual support to evacuees
14 They map the disaster
15 They establish the perimeter, initiate the evacuation and maintain law and order
16 They maintain the natural gas supply
18 They care for evacuees at shelters and reunite families separated by the disaster
19 They provide security at shelters and enforce by-laws
21 They provide care to victims in the hospital
23 They coordinate the provision of food, shelter clothing, registration and inquiry, and personal services to evacuees
25 They deliver to and pickup messages from staff responding to the emergency to the Clerk
27 They provide buses
29 They document the response
DISASTER RESPONDERS

Using the clues on the next page, identify the departments, functions, agencies and professionals who respond to disasters in our community.
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Activity Answer Keys

Code Breaker
Phrase
"All Community Centres in Vaughan Are Designated as Emergency Shelters"

Public Safety Puzzler
Phrase
"When thunder roars get indoors. Wait thirty minutes after the storm has passed before going out."

Emergency Shelter Scramble
Phrase
"The name of the town to which you will be evacuated when your community shelter is full."

Crossword
Across
1. City Manager
2. Doctors
3. Information
4. Call Centre
5. Planning
6. Forestry
7. Purchasing
8. Transportation
9. Mayor
10. Liaison
11. Salvation Army
12. Finance
13. Human Resources
14. GIS
15. Paramedics
16. Enbridge
17. Firefighters
18. Red Cross
19. Engineers
20. Animal Control
21. Nurses
22. Health
23. Social Services
24. Public Works
25. Recreation
26. Media
27. Transit
28. Inspectors
29. Scribe
30. Clerks
31. Volunteers
32. Hospital
33. Facilities
34. PowerStream

Down
1. City Manager
2. Doctors
3. Information
4. Call Centre
5. Planning
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33. Facilities
34. PowerStream
Check These Out!!

There are a variety of different resources online that can help you and your family be prepared in the event of an emergency; some of those include:

**Vaughan Emergency Planning**
https://www.vaughan.ca/PrepE

**Vaughan Fire and Rescue**
http://www.vaughan.ca/Fire

**York Preparedness Website**
http://www.york.ca/Services/Emergency+Management+NEW/About+Us/default.htm

**York Regional Police**
http://www.yrp.ca/

**York Region Paramedics**
http://www.york.ca/services/emergency+medical+services/ems+operations/ems_operations.htm

**Power Stream**
http://www.powerstream.ca

**Enbridge**
http://www.enbridge.com

**Weather Network**
http://www.theweathernetwork.com/

**Environment Canada**
http://weather.gc.ca/

**EMO (Emergency Management Ontario)**
http://www.emergencymanagementontario.ca/english/home.html

**Toronto and Region Conservation Authority**
http://trca.on.ca/

**FEMA (Federal Emergency Management Agency)**
http://www.fema.gov/

**NOAA (National Oceanic and Atmospheric Administration)**
http://www.noaa.gov/
Will You Be Ready??