

# NEIGHBOR HELPING NEIGHBOR

## Preparing for Disaster



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## **Introduction: NEIGHBOR HELPING NEIGHBOR**

“Disasters are overwhelming. Trying to plan for every possibility is impossible.”

Unfortunately, that’s the point where many people *stop* their disaster preparedness.

The reality is that there are some very simple things that ***anyone can do*** to improve the situation for themselves and their family in a disaster or emergency.

Neighbor Helping Neighbor is a program to help increase personal disaster preparedness and to encourage greater neighborhood planning and cooperation in the event of a disaster or emergency.

### **NEIGHBOR HELPING NEIGHBOR OBJECTIVES:**

Learn how to prepare and take care of yourself and your family until help arrives following a disaster. This includes:

1. Creating a family disaster plan.
2. Assembling a disaster kit.
3. Working with neighbors.



# CREATE THE PLAN

## **Hazards and Threats**

### *What's the threat?*

The first step in developing a plan is figuring out what the threats are for your area.

The following natural hazards are identified for the Puget Sound area overall:

- Earthquake
- Fire
- Flood
- Lahar<sup>1</sup>
- Landslide
- Severe Storms
- Tsunami and Seiche<sup>2</sup>
- Volcanic Eruption

Other parts of the state and country may also be vulnerable to:

- Avalanche
- Tornado
- Hurricane

Additional problems may be associated with damages from these natural hazards or as stand-alone, man-made problems. These include:

- Hazardous materials spills
- Power outages
- Contaminated drinking water
- Broken water mains and/or sewer lines

### *What do these threats have in common?*

Each of these threats may cause death or injuries and disrupt vital services. Some of the potential impacts include:

- Damaged or destroyed homes
- Phone systems down (cell and landlines)
- 9-1-1 overwhelmed
- Roads, bridges and over/ underpasses impassable, damaged or destroyed
- Utilities not functioning (water, gas, electricity, and/or sewer)
- Schools and hospitals closed
- Ferry terminals out of order
- Banks and ATMs closed
- Retailers closed and/or out of goods

#### **Fast Fact**

**Number of bridges in area:**  
Snohomish County: 331  
King County: 909

All of these possibilities may be overwhelming.

Fortunately, by identifying the hazards that are most likely to occur and preparing for them, you are prepared for most hazards.

**Worksheet 1** is designed to help you identify the risks and hazards that you and your family may experience. Simply read the brief descriptions provided in Attachment 1. This will help you identify the natural hazards that you and your neighbors may be vulnerable to.

<sup>1</sup> **Lahar:** Large mudflow, frequently associated with volcanic activity.

<sup>2</sup> **Seiche:** "Standing waves" in a contained body of water such as a lake or bay. Among other things, may be caused by earthquake or large landslides.

## ***Plan Participants***

*Now it's time to identify who needs to participate in the plan.* List everyone by name, and contact phone numbers (work, school, cell phones, etc.).

See **Worksheet 2** for ideas on people you might want to include in the Plan. This includes your emergency contact information, and an out-of-area contact.

Once you identify everyone, make sure you have current telephone numbers (home, work and/or cell phones) as well as other contact information such as email addresses. (Sometimes the Internet is operational even if the phone lines are down.) Then:

- Make a master list of this information and distribute to Plan Participants (including children in the household).
- Place a printed copy in disaster kits.
- Keep an electronic copy on a thumb drive or CD-ROM as back-up and keep this with the primary disaster kit.

## **Plan Components**

As you work on your family plan, there are some questions that you'll want to ask.

- How do you get out of your house quickly and safely?
- Where will the family meet if separated?
- Who do I need to call?

### **Evacuation:** *How do you get out of your house quickly and safely?*

You may need to leave quickly because of a house fire, an earthquake, or some other unexpected situation.

1. Using **Worksheet 3**, draw a map of your house or apartment and:
  - Identify at least two escape routes from all rooms.
  - Identify ways to safely get down from windows that are above the first floor. (A variety of fire escape ladders are available for purchase.)
2. Identify a safe meeting place for the family and household members.
3. *Practice* evacuating your house. Try to improve the time it takes to get out.

### **Meeting Place(s):** *Where do you want your family or household to meet if:*

- You're at home but have to leave the building due to fire, earthquake, etc.

Meet at: \_\_\_\_\_  
(neighbor's house, parking lot, etc.)

- You're not at home when the event happens, and the house is not safe to stay in when you arrive. Where will you and your family go?

Meet at: \_\_\_\_\_  
(person / location name and address)

### **Emergency Contact(s):** *Who do we need to call?*

You've already identified who needs to participate in the Plan, and who the emergency contact person is. Now:

- Make sure everyone knows who and where to call.
- Train younger children how to use the phone appropriately.

## ***Planning and Preparedness Activities***

While planning is a critical piece of disaster preparedness, that is not the end of the preparedness cycle. The next step is to identify actions that can be taken during a disaster as well as those things that may be done before a disaster to minimize the impacts.

### **Utility Turn-off**

Learn where the turn-offs are for all utilities.

Utilities may need to be turned off because of broken pipes (water and/or gas), or to protect your property against power surges when the electricity has been out and is restored.

Do not turn off utilities if it's not necessary. In particular, do not turn off natural gas or propane unless you smell or hear a gas leak. Once the gas is turned off, it must be restored by professionals. Depending on the size and scope of the disaster, restoration could take several weeks.

*Appendix A* provides information on how to shut off utilities. All adults and any responsible teenagers should know this information.

### **Mitigation**

Mitigation is taking actions to minimize or stop damage from occurring. The actions can be very simple, such as moving heavy objects from overhead locations, to structural work that requires engineering professionals.

*Appendix B* has a list of some of the activities that home owners can do to protect their house and property again

## BUILD DISASTER KITS

Disaster kits should be personalized according to the needs of the individuals. The following list is a suggested starting point for a home disaster kit.

<input checked="" type="checkbox"/>	<b>NECESSARY ITEMS</b>	<input checked="" type="checkbox"/>	<b>Suggested or Helpful ITEMS</b>
	Water <small>(min. of 1 gal. per person / per day)</small>		Tent
	Non-perishable food <small>(min. of 2 cans per person / per day)</small>		Sleeping bag
	Manual can opener		Camping stove & fuel
	First aid supplies		Cooking utensils
	Prescription medicines		Eating utensils
	Personal hygiene items <small>(toothbrush, toothpaste, shampoo, deodorant, feminine hygiene)</small>		Bucket
	Toilet paper		Zip-lock bags
	Garbage bags (plastic)		Extra eye glasses
	Clothing		Rope
	Sturdy shoes		Tools
	Crank- or battery powered flashlight		Info regarding medical devices <small>(model, serial #, etc.)</small>
	Crank- or battery powered radio		Duct tape
	Batteries		Generator and fuel
	Money (small bills)		Other:
	Special toy for child		
	Pet supplies <small>(water, food, collar with ID tags, leash, crate, toys, papers, shot records, recent photo)</small>		
	Unscented bleach		
	Important papers		
	Emergency contact info list		

As you look this list over, you'll probably notice that you already have many of these items. It may just be a matter of reorganizing a bit, and you'll have a fairly complete disaster kit.

At the same time, try to get in the habit of adding one thing (a can of soup or replacing batteries) each paycheck. That way you know what you have; you know where it is; and you know what condition it's in.

Additional kits may be developed or purchased for work, school, and/or the car. These will be less extensive and should be reviewed regularly as well.

<input checked="" type="checkbox"/>	<b>NECESSARY ITEMS</b>		<input checked="" type="checkbox"/>	<b>Suggested or Helpful ITEMS</b>
	Water (min. of 1 gal. per person / per day)			Crank- or battery powered radio (or use your car radio)
	Non-perishable food (granola or power bars?)			Crank- or battery powered flashlight
	First aid supplies			Sleeping bag or blanket
	Prescription medicines			Emergency contact info list
	Toilet paper			Other:
	Personal hygiene items (toothbrush, toothpaste, shampoo, deodorant, feminine hygiene)			
	Garbage bags (plastic)			
	Clothing			
	Sturdy shoes			

## WORKING WITH NEIGHBORS

### *The Neighborhood Plan*

#### HAZARDS:

As part of your personal plan, you've already identified the hazards in your neighborhood. Use this information to identify the houses or buildings that are at greater risk.

For example: If you live in a flood zone, houses closer to the river or creek are usually at more risk than those farther away. Similarly, houses located at a lower elevation are at greater risk of flooding than those located up a hill.

Take this information into account as you are identifying meeting sites. Factor it in, too, as you plan how to evacuate during a flood.

#### NEIGHBORS and RESOURCES:

If you don't already, get to know your neighbors. Find out what skills everyone has and what they are willing to do in a disaster.

**Worksheet 4** is a form to capture information about neighbors' disaster skills. At a minimum, get the address, the first name for the adult(s) living there, and the skills and abilities that the adults are willing to utilize in a disaster.

Drawing a map of the neighborhood, and marking streets, house numbers and the residents' first names may also be helpful. (Use the graph on **Worksheet 5** to sketch your neighborhood.)

Neighbors may want to share additional information such as:

- Contact information (phone and/or email)
- Children's names
- Types, names and descriptions of pets
- Special needs or concerns for the mobility impaired, elderly or chronically ill

Make agreements to "partner" with two or three neighbors. Check in with each other to confirm that the household members are safe and don't require immediate assistance.

With neighbors that you're especially close to and trust, you may wish to share information regarding supplies and equipment you have available to you, including where they're located.

*It should be clearly agreed among all neighbors that none of the information shared is to be distributed or shared.*

### MEETING PLACES:

Decide on a meeting place that is likely to be safe in a disaster.

Then, because disasters aren't cooperative, choose a second place as a back-up.

Make sure all the neighbors know which places have been designated as meeting places.

This is where people will go to report in on the status of their situation and to find out who needs help and what needs to be done in a disaster. This is also the place where teams and people will return when they have completed an assignment.

Mark these locations on the map you've drawn on **Worksheet 5**.

### COORDINATION AND ORGANIZATION:

Disasters generate a lot of work. In the first few hours, there may be damage assessment, search and rescue, and medical treatment among other activities.

Later, it is likely that there will be cleaning, restoring and/or rebuilding to be done.

As you can imagine, there is plenty to do in response to a disaster. To allow for safe and effective response, it is suggested that the neighborhood organize functional teams to allow a "division of labor."

Working in functional teams encourages effective use of individuals' skills and abilities.

As an example: Setting up a child care team allows the parent or guardian to participate in activities that would not be possible if they were also trying to watch and care for a child. The children, at the same time, are kept safe within adult supervision.

Teams should be organized to assist with:

- Child care
- Elder care
- Damage assessment
- Search and rescue
- Medical and first aid
- Victim transport
- Fire suppression and utility control
- Mass care (group feeding and sheltering)

These do not have to be separate teams. Teams may have more than one function, and probably will unless you have a very large neighborhood with a lot of people available to help.

If possible, **Worksheet 4** should also capture preferred team assignments.

### Then “It” Happens

You’ve done your personal preparedness. You’ve developed a Plan and built a kit. You’ve practiced the Plan with family members and kept everything up-to-date.

You and your neighbors have gotten to know each other a little better and developed the Neighborhood Plan.

Then “It” happens...whether an earthquake, a storm, or some other disaster.

*What do you do now?*

## TAKING ACTION

### PERSONAL / FAMILY RESPONSE:

1. Take care of yourself and your loved ones
  - a. Make sure everyone is safe.
  - b. Check for and treat any injuries
  - c. If responding to an earthquake, evacuate the building until a damage check is completed
  - d. Call/email your out-of-area contact
2. Protect your head, feet and hands
  - a. Hardhat
  - b. Sturdy shoes
  - c. Gloves
3. Look for damage
  - a. Walls and ceiling intact
  - b. House on foundation; not leaning
  - c. Chimney intact
4. Deal with immediate dangers
  - a. Extinguish small fires
  - b. Check natural gas or propane pipes
    - i. Turn off if hissing sound or noticeable odor
  - c. Check for broken water pipes
    - i. Shut off at the street for major breaks
    - ii. Shut off under or behind sinks and/or toilets for "in-house" breaks
    - iii. Shut off sinks and water heater if water main is broken

### NEIGHBORHOOD ACTION:

Once your family and home are secure:

1. Check on vulnerable neighbors and neighborhood "partners"
2. Report to meeting place
  - a. Provide information on observed damage
  - b. Organize into teams
3. In teams and as assigned
  - a. Conduct damage assessments
  - b. Deal with immediate dangers
  - c. Conduct search and rescue operations
  - d. Provide first aid and medical treatment as needed
  - e. Transport victims
  - f. Provide support functions
    - i. Child care
    - ii. Elder care
    - iii. "Mass care"
4. When current assignment ends:
  - a. Report back to meeting place
  - b. Provide status report of activities and needs

## WORKSHEET 1: HAZARD IDENTIFICATION

Check the appropriate box in the questionnaire below to identify the hazards you should consider as you plan and prepare. (This may be repeated for the area where you work, attend school, etc.)

**Earthquake:** The fact that you live in the Puget Sound area means that you are vulnerable to earthquake.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	Was your house built after 1979?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	If built before 1979, do you know if your house has been retrofitted? (E.g., has your house been bolted to the foundation?)
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Have you done non-structural mitigation in your house for earthquake? (See page 10 for examples.)

*(If you answered “no” to these questions, you may experience greater damage or injuries during an earthquake.)*

**Fire:** In this case, “fire” refers to “Wildland-Urban Interface Fire,” where homes are in or near areas vulnerable to “forest fires.” While the north King County and south Snohomish County area is primarily urban in nature, there are greenbelts and pockets of undeveloped land where this may apply.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	Do you live in or next to a forested area or greenbelt?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Do you live next to a park or a large, undeveloped lot?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Do you have brush, trees or tall grasses growing next to your house?

*(If you answered “yes” to these questions, fire may be an increased hazard for you.)*

**Flood:** Flood is most common near rivers, but people living near creeks and beaches may also experience flooding events.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	Do you live near a river, creek or beach?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Do you live in a 100-year flood zone?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	If near a river or creek: Has the river or creek flooded, or come close to flooding, within the last ten years?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	If near the beach: Has the water topped the bulkhead or otherwise approached houses within the last ten years?

*(If you answered “yes” to these questions, flood may be an increased hazard for you.)*

**Lahar:** Lahar is most commonly associated with volcanic activity. In the north King County and south Snohomish County area, we are not directly vulnerable to this threat. However, if you live, visit or travel near one of Washington’s five volcanoes, you are urged to learn more about lahar and pay attention to localized evacuation plans.

**Landslide:** Landslide may be caused when the ground is over-saturated by rain; when the area has experienced rain followed by rapid freezing and thawing; in association with an earthquake or other activity that disturbs the soil. (Note: Earthquakes may also trigger landslides.)

<input type="checkbox"/> Yes	<input type="checkbox"/> No	Do you live at or near the top of a bank or steep slope?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Do you live at or the near the bottom of a bank or steep slope?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Does the bank or slope have little or no vegetation?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Has there been a landslide, even a minor one, on this bank in the last ten years?

*(If you answered “yes” to these questions, landslides may be a hazard.)*

**Severe Storm:** The Puget Sound area experiences severe storms on an annual basis. We regularly experience windstorms and excessive rain as well as an occasional snowstorm. Any or all of these events may cause power outages and other disruptions in services.

In addition, severe storms may be associated with – and may even trigger – other hazards that we have discussed here. This includes potential threats of flooding and landslide.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	Did you check “yes” to flood and/or landslide as a potential threat?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Have you experienced one or more power outages in the last ten years (even if only of short duration)?

*(If you answered “yes” to these questions, severe storm events may cause significant disruption to power service.)*

**Tsunami / Seiche:** Severe tsunamis and seiches are fairly rare. However, if you live – or otherwise spend a large portion of your time – near a large body of water, pay attention to unusual water movements. This is especially true after a large earthquake.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	Do you live on – or very near to – a beach or large lake?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Is the area between your house and the beach very flat and without much rise from the water level?

*(If you answered “yes” to these questions, your home may be vulnerable during a tsunami or seiche event..)*

**Volcanic Eruption:** None of Washington State’s five volcanoes are located in the north King County and south Snohomish County area. The most likely problems that this area will experience in a volcanic eruption are from ash fall and the influx of displaced evacuees.

As with lahar, if you live, visit or travel near one of Washington’s five volcanoes, you are urged to learn more about local alert systems and pay attention to evacuation plans.

**WORKSHEET 2: IDENTIFY PLAN PARTICIPANTS**

**HOME ADDRESS:** \_\_\_\_\_  
\_\_\_\_\_

**Spouse/Partner:** \_\_\_\_\_

Home Phone:	
Cell Phone:	
Personal Email:	
<i>Employer Name:</i>	
<i>Work Address:</i>	
<i>Work Phone:</i>	
<i>Work Email:</i>	

**Spouse/Partner:** \_\_\_\_\_

Home Phone:	
Cell Phone:	
Personal Email:	
<i>Employer Name:</i>	
<i>Work Address:</i>	
<i>Work Phone:</i>	
<i>Work Email:</i>	

**Children: (Complete entries for each child)**

**Child's Name:** \_\_\_\_\_

Home Phone:	
Cell Phone:	
Personal Email:	
<i>School Name:</i>	
<i>School Address:</i>	
<i>School Phone:</i>	
*Other Name:	
Other Address:	
Other Phone:	
Other Address:	
Other Email:	

*Depending on the child's age, this may be an employer or a sitter, etc.*

Child's Name: \_\_\_\_\_

Home Phone:	
Cell Phone:	
Personal Email:	
<i>School Name:</i>	
<i>School Address:</i>	
<i>School Phone:</i>	
*Other Name:	
Other Address:	
Other Phone:	
Other Address:	
Other Email:	

*Depending on the child's age, this may be an employer or a sitter, etc.*

**Other Household Members: (Complete entries for each household member)**

Name: \_\_\_\_\_

Home Phone:	
Cell Phone:	
Personal Email:	
<i>School Name:</i>	
<i>School Address:</i>	
<i>School Phone:</i>	
*Other Name:	
Other Address:	
Other Phone:	
Other Address:	
Other Email:	

Next identify who your out-of-area contact will be. In identifying this contact, it is useful to coordinate the contact among the wider family – to have one or two information “hubs.”

Name: \_\_\_\_\_

Home Phone:	
Cell Phone:	
Personal Email:	
<i>Employer Name:</i>	
<i>Work Address:</i>	
<i>Work Phone:</i>	
<i>Work Email:</i>	

Back-up: \_\_\_\_\_

Home Phone:	
Cell Phone:	
Personal Email:	
<i>Employer Name:</i>	
<i>Work Address:</i>	
<i>Work Phone:</i>	
<i>Work Email:</i>	

In addition to household members, other family and friends may need to know who your out-of-area contact is and how to reach that person. Do you need to coordinate this information with:

- Grandparents
- Parents
- Adult Children
- Adult Grandchildren
- Other extended family members
- Other: \_\_\_\_\_
- Other: \_\_\_\_\_
- Other: \_\_\_\_\_

**NOTES:**

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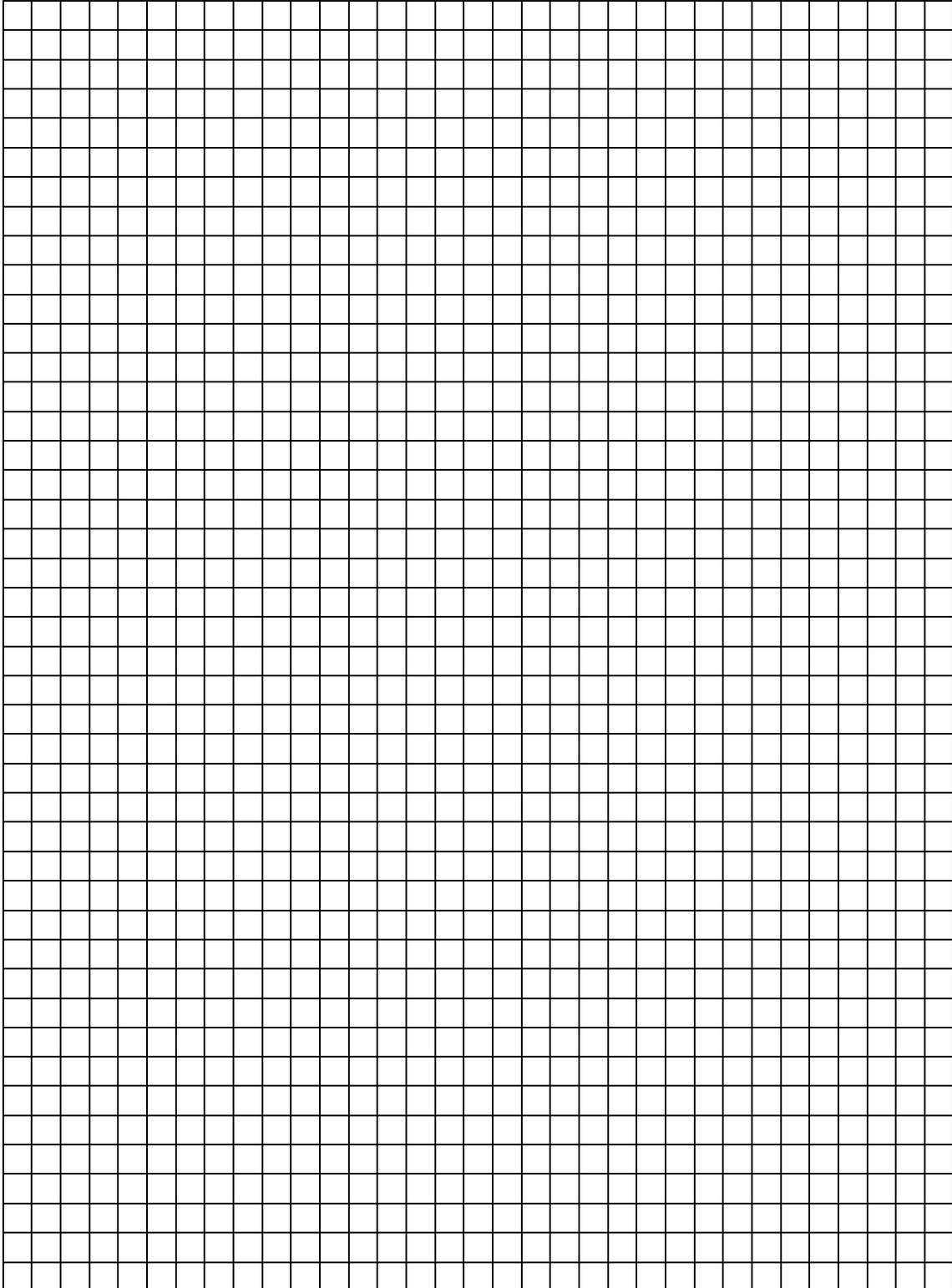
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### WORKSHEET 3: EVACUATION ROUTE(S)

Use the graph below to draw a floor plan of your house. Then identify at least two routes to get out of each room in the house.





## WORKSHEET 4: NEIGHBORHOOD INFORMATION

(duplicate as necessary)

<p><b>Address:</b></p> <p>Adult name(s):</p> <p><b>Skills/training:</b></p> <p>Phone:</p> <p>Email:</p> <p>Children:</p> <p>Pets: (#s, types and names)</p> <p>Special Needs or issues:</p>
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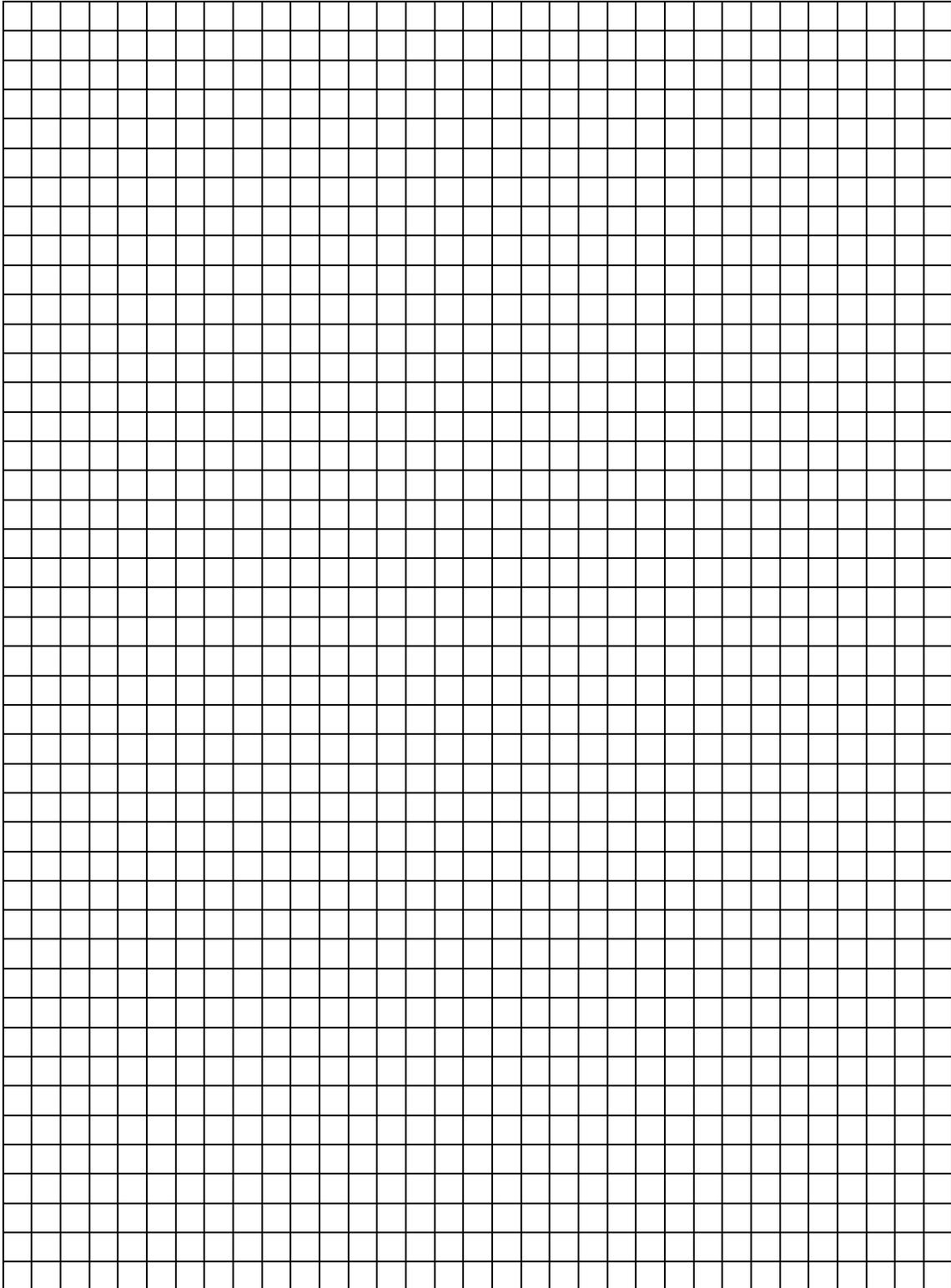
<p><b>Address:</b></p> <p>Adult name(s):</p> <p><b>Skills/training:</b></p> <p>Phone:</p> <p>Email:</p> <p>Children:</p> <p>Pets: (#s, types and names)</p> <p>Special Needs or issues:</p>
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<p><b>Address:</b></p> <p>Adult name(s):</p> <p><b>Skills/training:</b></p> <p>Phone:</p> <p>Email:</p> <p>Children:</p> <p>Pets: (#s, types and names)</p> <p>Special Needs or issues:</p>
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## WORKSHEET 5: OUR NEIGHBORHOOD

Use the graph below to draw a plan of your neighborhood. Sketch the street layout, where the houses are located, and identified by house number. It is also a good idea to mark where water and gas meters (turn-offs) are located.





## APPENDIX A: UTILITY TURN-OFF INFORMATION

### Water:

Water can be turned off in multiple places, depending on the level of damage and whether or not *all* water flow must be turned off, or just limited due to localized pipe breakage.

For breaks in one or more pipes leading to, or inside the house, the water may be turned off at the main out by the street.

If a sink or toilet is leaking, turn off the control that is usually found behind and/or below the sink or toilet. The handle should be turned clockwise to turn the water off.

*[Picture above is a faucet turn-off valve located beneath a sink.]*



If the water main out on the street is broken (water is visible in the street), turn off water faucets. (The water coming from the main may be contaminated.)

Turning off water faucets limits the accidental or unthinking ingestion of contaminated water. At the same time, the toilet is still able to be flushed, and – depending on the severity of the contamination – water may still be drawn and purified.

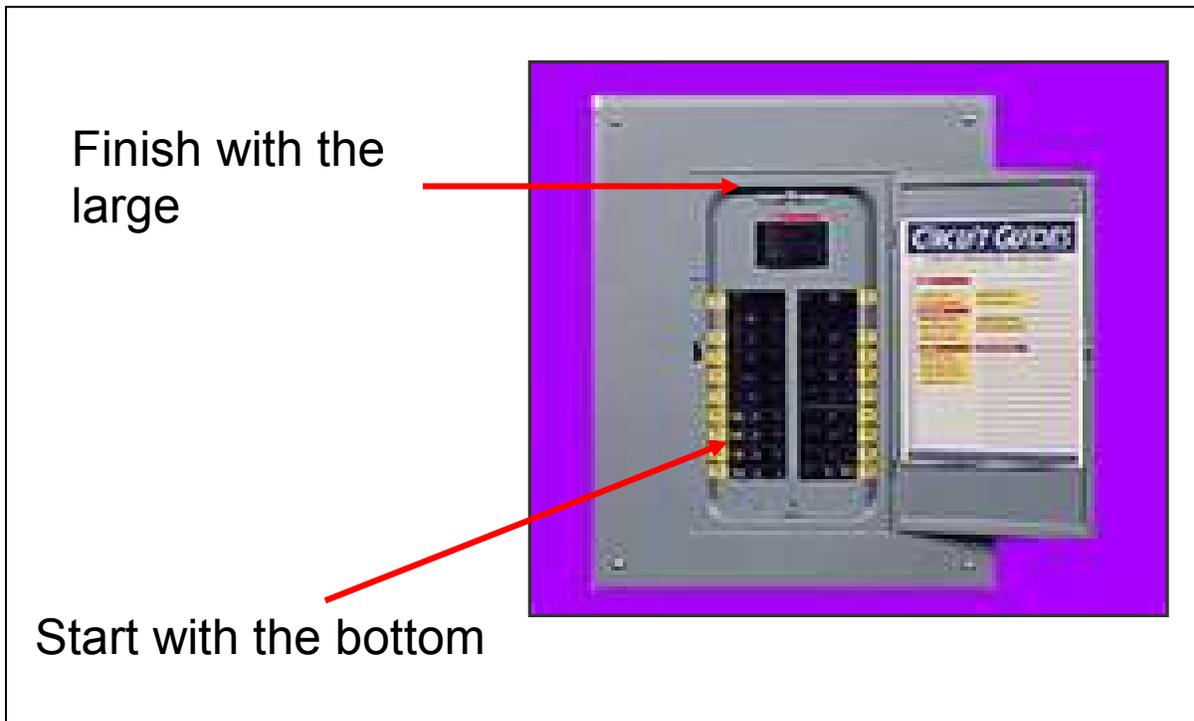
In addition, close the valves on the water heater. This is a source of potable water, as long as it is protected from the contaminated water source.



## Electricity:

In a wide-scale power outage, it may take several days – or longer – to get the power back on. When the power *does* come back on, it may cause power surges and damage household electronics and appliances.

To protect against this situation, it is best to turn off the electricity at the breaker box.



Turn off breakers from the bottom toward the top. Finish with the large breaker at the top center of the box.

To turn the power back on, flip the switches in the reverse order: Start with the large, center switch, and move down.

Alternately, majority of the breaker switches may be turned off *except* for the main breaker, plus one, pre-identified breaker that controls a night-light or the light in the hood over the stove. In this case, the night-light or hood light is left on to signal when the power has been restored. (All other lights and appliances should be turned off and/or unplugged.)

When the signal light comes on, appliances can be plugged in again, and the breakers can be turned on, one by one.

**Natural Gas:**

If you have natural gas, know where the gas meter is. It looks something like this:

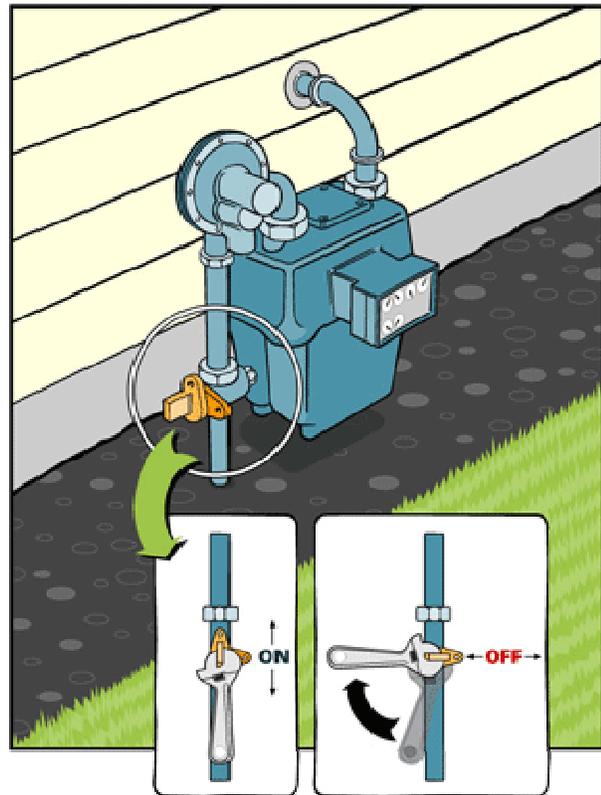


To turn the gas off, you'll need a wrench or a similar tool. Grasp the handle firmly with the wrench and turn it one-quarter turn in a clockwise direction.

You will know that it is turned off when the hole on the handle is aligned with a similar one on the side. This allows for a lock to be placed to keep the gas from being turned back on.

**IMPORTANT:** If the gas is turned off, it *must* be turned on again by a professional from the gas company.

**Improper restoration of natural gas may cause asphyxiation or explosions.**





## **APPENDIX B: MITIGATION**

### Structural Mitigation (for property owners)

Structural mitigation is often difficult and may require very specialized knowledge. Make sure that qualified people are evaluating or carrying out the work.

- Earthquake
  - Prior to 1979: Many buildings were not bolted to the foundation. Have this checked and consider retrofitting if necessary.
  - After 1979: Buildings were required to be bolted to the foundation. This should not be an issue.
- Flood: If located on a flood plain, consider protection options such as:
  - Drainage solutions
  - Water retaining ponds
  - Raising or relocating the building
- Landslide: If near the top or bottom of a steep hillside or bank, consider:
  - Planting the hillside or bank with good groundcover to stabilize the soil
  - Building retaining walls (may require an engineer)

### Non-Structural Mitigation (for property owners)

- Fire
  - Remove or cut back brush and other vegetation
  - Remove unnecessary items that could be fuel for a fire
- Storms
  - Remove or trim dangerous trees and branches
  - Secure items that might become airborne during strong winds
- Earthquake
  - Secure tall shelves, china cabinets, etc., to the wall
  - Strap TVs, computers, and other heavy appliances in place
  - Use “child proof” latches on cabinets (keep glassware inside)
  - Use Velcro or other securing devices to stabilize large pictures or mirrors hung on walls
  - Strap down the water heater
  - Use “museum wax” or “quake wax” on the bottom of knick-knacks
  - Move heavy items to lower shelves

### For renters:

- Non-structural mitigation:
  - Secure knick-knacks with museum wax
  - Move heavy items to lower shelves
  - Use child-proof latches on cupboards
  - Strap TVs, computers and other appliances to personal furniture
- Non-structural mitigation actions that should be discussed with owner include:
  - Securing furniture to wall
  - Vegetation removal
  - Strapping down water heater
- Any structural mitigation must be carried out by the building owner



## **APPENDIX C: “CHEAT SHEET” FOR DAMAGE ASSESSMENT**

Begin assessing the building from a distance of 1 ½ times the building height away from the building. Ask yourself: Does this look like the building is *supposed* to look?

Do not assume that the building is “safe” just because one side looks fine. Walk around the building, completing a visual inspection of all sides if possible.

### Light Damage (Should be safe to enter)

- Superficial damage
- Broken windows
- Fallen or cracked plaster
- Minor damage to interior contents
- *May have broken chimney*

### Medium Damage (Use caution if entering)

- All or most of the above, plus
- Visible signs of damage
- Decorative work damaged or fallen
- Visible cracks in plaster
- Major damage to interior content
- *Building is still attached to the foundation*

### Heavy Damage (Do not enter)

- Partial or total collapse
- Tilting
- Obvious structural instability
- Heavy smoke or fire<sup>3</sup>
- Hazardous materials inside
- Gas leaks
- Rising or moving water

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<sup>3</sup> If you can see fire from the outside of the building, *it is too big* for you to deal with. Stay out.

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## **APPENDIX D: “CHEAT SHEET” SEARCH AND RESCUE**

1. Search activities should never be conducted alone. Always work with at least one partner.
2. Size up the building for safety. Continue to watch for safety hazards throughout all disaster response activities.
3. Mark the building to identify when the team entered the building to conduct search and rescue. (See **Appendix E**.)
4. Before entering a building, decide on the search pattern. (E.g., “We will enter this door and go to the right. We will continue following the wall in the same direction until we have completed the entire floor and return to this entrance.”)
5. As you enter, conduct a “voice triage.”
  - Call out: “If you can walk, come to the sound of my voice.”
  - Wait for responses.
  - Escort any walking-wounded out of building.
6. Continue search pattern. May repeat voice triage as you enter new rooms or areas.
7. As you find wounded individuals, treat them for the “three killers” as identified in **Appendix F**. Once the three killers are dealt with, continue the search pattern.
8. Once the entire floor or building has been searched, go back and remove the lightly-trapped individuals first.
9. Once the lightly-trapped victims are outside and safe, evaluate the more heavily trapped victims. If you are not sure that you can safely remove them, mark the building as shown in **Appendix E** and wait for trained rescuers.

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## APPENDIX E: SEARCH AND RESCUE MARKINGS

### Search Marking

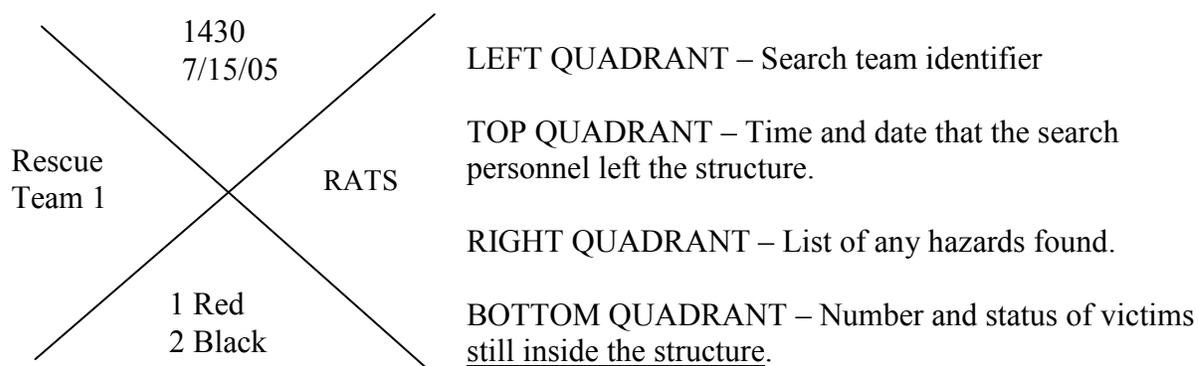
A separate and distinct marking system is necessary to conspicuously denote information relating to the victim location and condition in the areas search.

The personnel performing the search function will draw an X that is 2' x 2' in size with spray paint or construction crayon. This X will be constructed in two operations. One slash will be drawn upon entry into the structure or room, and a second crossing slash will be drawn upon the team's exit.

 A single slash drawn upon entry to a structure or area indicates search operations are currently in progress.

 A crossing slash is drawn upon the searcher's exit from the structure or room.

Distinct Markings will be made inside the four quadrants of the X to clearly denote the search status and findings at the time of this assessment. The following illustrations define the search assessment marks:



Search personnel should mark the area of any possible victim location with ribbon or spray paint in addition to the entry markings.

If the information needs to be updated, simply cross out the earlier information and write in the new information. For example, when all live victims are removed by rescue efforts, the information should be changed to read "0 Red".

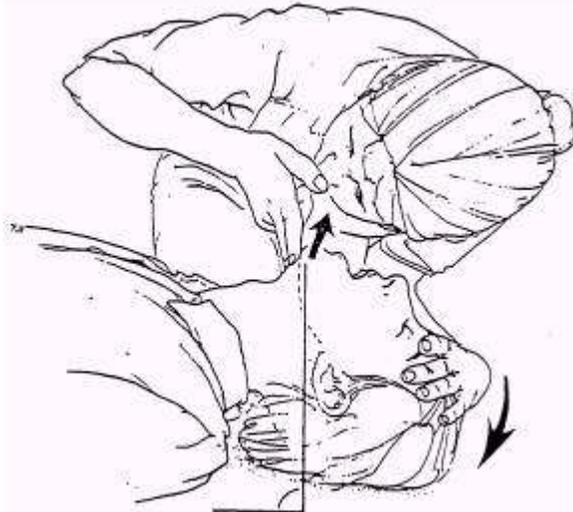
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## APPENDIX F: “CHEAT SHEET” FOR FIRST AID

Treat for the three killers:

### 1. Breathing

- Check for breathing: Look, listen and feel:
  - Put your face near theirs and look toward their feet. LOOK to see if their chest is rising and falling.
  - LISTEN for the sound of their breathing.
  - FEEL for the movement of air on your face from their breath. Or, lightly rest your hand on their chest/abdomen and FEEL for movement.
- If person is not breathing, do “Head Tilt, Chin Lift.”



- Check for breathing once more.
  - Repeat “Head Tilt, Chin Lift” if necessary. (After 2 tries, move on to help the next person.)
- ### 2. Excessive Bleeding
- Apply a bandage and direct pressure to the bleeding area.
  - Raise the affected area above heart level.<sup>4</sup>
  - If these don't work, use pressure points to slow down the rate of bleeding.
  - Do not remove the bandage. If bleeding continues, add bandages over the top of the one(s) already in place.
- ### 3. Shock
- Check for:
    - Respiration
      - Breathing is rapid (more than 30 breaths per minute) and shallow
      - Treat for shock
    - Pulse or Perfusion (also known as Capillary Refill)
      - Check for pulse; or
      - Check “perfusion”
        - Gently squeeze finger tip or press on fingernail bed
        - Press hard enough for color (blood) to be pushed out of way

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<sup>4</sup> It may take 15 minutes, or more for direct pressure and raising the affected area above heart level to work in slowing or stopping bleeding.

- Release finger tip or fingernail bed.
    - Treat for shock if it takes more than 2 seconds for the color (blood to) return to the area,
  - Mental State
    - Give a simple command (such as “squeeze my hand”)
    - If non-responsive, treat for shock
- Treatment:
  - Lay person on his or her back
  - Elevate the feet 6 – 10 inches above heart level
  - Maintain open airway
  - Maintain normal body temperature (blankets for cold; shade for hot)
  - Do not give food or water