
PERSONAL EMERGENCY PREPAREDNESS

HANDBOOK FOR WORKSHOP PARTICIPANTS





FOREWORD

We are overdue for a major earthquake or other disaster. Are you prepared? As one who has significant responsibilities in an emergency, let me make it clear: it will be a disaster. We will have significant infrastructure failures, not everyone working for us will be available, and even high priority requests will be placed in a queue. Your government may not be able to meet your needs. You and your family need to be prepared to look after yourselves for at least 7 days. I hope blunt language might inspire more people to become better prepared.

The goal of this handbook is:

- to help you prepare for and respond effectively to a wide variety of emergencies and disasters,
- to help you understand what constitutes a disaster,
- to help you develop a sense of how to prepare, and
- to motivate you to move forward.

I hope both the presentation you attended and this Handbook will help prepare you and give you the confidence to face any disaster. May you have the good fortune never to be required to use these newly-found skills.

Frank Leonard
Mayor - District of Saanich

Acknowledgement: *The Saanich Emergency Program sincerely thanks The Cowichan Valley Regional District Emergency Program (CVRDEP) for sharing the Cowichan Valley Emergency Preparedness Workbook. The spirit of cooperation ensures that many more people will benefit.*

Disclaimer: *Every reasonable effort has been made to ensure the accuracy of this Handbook. Saanich Emergency Program assumes no responsibility and disclaims any liability for any injury or damage resulting from the use or effect of the information in the Handbook.*

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INTRODUCTION

When disaster strikes, the most important person is **you**. If you are well prepared, you will be in a better position to help your family, friends and neighbours. The first priority is personal safety, surviving the disaster and reducing the risk of injury. Most people survive most disasters, but survivors commonly face many challenges afterwards; therefore, the second priority is self-sufficiency for 7 days following a disaster. During that time, your family's safety, health, comfort and general well-being may be entirely in your own hands, for these reasons:

1. **Major disasters disrupt the normal functions of society and seriously affect infrastructure and public services.** Shops may be closed or quickly run out of supplies; businesses, schools and public offices may shut down; hospitals may be overwhelmed; transportation and communications may be very difficult; hydro, water and gas services may be completely disrupted or intermittent and unpredictable.

2. **Emergency officials, first responders and community agencies can handle several small, simultaneous disasters, but will likely be overwhelmed if the disaster is widespread or long-lasting.** Immediate priorities will be:

- life-saving (first aid, search & rescue, evacuations, medical care);
- damage control (fighting fires, preventing the spread of disease, dealing with hazardous materials); and
- restoring or maintaining critical services needed for emergency response (transportation, hospitals and emergency shelters, communications and basic utilities, for example).

It could be a week or more before emergency personnel can begin to prioritize and attend to the less critical needs of families and neighbourhoods.

3. **Vancouver Island has few options for rapid, large-scale evacuation; and it could take some time for outside help and supplies to arrive.** We accept these added challenges in exchange for living on such a beautiful island, but we must go the extra mile to be prepared.

You have taken the first step toward preparedness by attending the Personal Emergency Preparedness presentation. This Handbook can be your guide as you improve your family's preparedness.

- Follow the Handbook from front to back or in whatever order makes sense to your family.
- Involve all family members in preparedness tasks and plans. This will help them feel more confident, knowledgeable and resilient if disaster strikes.
- Track your progress on the checklists, and reward your family each time you complete a major step: watch a movie, go for ice cream, or visit a beach or park.
- Keep this Handbook near your main phone or in your home emergency kit.

Personal preparedness is a gradual process, so don't be discouraged. Start with an easy task, and keep going. ***Every small step makes a difference!***

PART 1: PERSONAL AND FAMILY PREPAREDNESS

These pages take you through general preparedness in order of priority: 'grab & go' bags, food and water, and other personal and family preparedness measures.

★ Top 5 Recommendations

1. Pack a small grab & go kit for each family member, tailored to their needs.
2. Store 7 days of drinking water and emergency foods in your home.
3. Ask an out-of-province friend or relative to act as contact for family members who may become separated during a disaster.
4. Decide in advance, as a family, where to meet and where to shelter in case you are separated and / or unable to remain in your home in a disaster.
5. Back up / scan and save important photos and documents and store them offsite, on line or on a password protected USB drive on your key chain; or place them in a safe deposit box.

✓ GRAB & GO BAG

A disaster could force you to spend an extended time away from home. You will want to have personal supplies with you so that you can be as comfortable as possible, or keep the supplies near the door in case you must evacuate quickly. Every person and pet in your family should have a kit with basic survival supplies and other items that meet their own needs. The suggested contents should fit in an average-sized knapsack. You may prefer to add or omit items. Large Ziploc bags help keep things organized.

Basic survival

- ☐ 2 small bottles of water, 2 energy bars, chewing gum
- ☐ 1 week's worth of prescription medication & copy of prescriptions
- ☐ extra pair of eye glasses, batteries for hearing aids, etc.
- ☐ emergency blanket (Mylar "space blanket")
- ☐ emergency rain poncho or green plastic garbage bag
- ☐ whistle & dust mask (earthquakes can stir up thick clouds of dust)
- ☐ small emergency radio/ flashlight; extra batteries
- ☐ multi-tool / Swiss army knife
- ☐ mini first aid kit -- compact purchased kits may have extra room for small items such as pain tablets, eye drops, ointment, disposable nitrile gloves, foil pack of water, etc.

Security, peace of mind

- ☐ photocopies of ID cards and insurance policies
- ☐ key contacts list, cell phone & phone card
- ☐ notebook and pen or retractable pencil
- ☐ supply of cash in small bills and coins
- ☐ spare keys
- ☐ recent photos of family and pets
- ☐ book, cards or puzzles

Warmth

- ☐ hand and foot warmers (chemical packets, 2 of each)
- ☐ pair of socks (wool is warmest even when wet)
- ☐ toque / knitted hat
- ☐ gloves / mitts
- ☐ neck scarf (silk is lightweight and effective)
- ☐ lightweight warm sweater or vest

Comfort & sanitation

- ☐ basic toiletries including hand sanitizer
- ☐ change of underwear
- ☐ toilet paper; packet of baby wipes; Ziploc bags
- ☐ flip flops (for use in public showers)
- ☐ small, rapid-dry camping towel

For young children, include

- ☐ Ziploc bag of important documents
 - full name, address, date of birth and recent photo of child
 - names and current photo ID of adults authorized to accompany child (including family members and legal guardians)
 - name and address of school, family doctor and dentist
 - immunization history; allergies, current medications and instructions
- ☐ small stuffed toy or other favourite item

Tip

Knapsacks, duffle bags or rolling suitcases work well. Hands-free knapsacks and fanny packs are very helpful for people who walk with canes, or who must accompany pets, small children or family members with limited mobility. People who use electric carts or walkers should store their grab & go bags with their mobility equipment.

✓ CAR / MOBILE KIT

If you spend a lot of time in your car, boat or RV, you should have an emergency kit to supplement your grab & go bag. Regularly maintain your vehicles, and keep the fuel tanks at least half full so you're ready to leave in a hurry. Even if you do not have to evacuate, your car can be a place to shelter, recharge your cell phone, warm up, or listen to radio reports.

If your grab & go bag is small, or is normally left at home, your mobile kit might include some of the items listed under Grab & Go Kit as well as these suggested items:

- ☐ extra water (bottled or foil packs)
- ☐ extra packets of nutritious foods (dried fruits, granola bars, unsalted nuts or beef jerky) or emergency rations (compact dry cubes supplying essential nutrients)
- ☐ automobile first aid kit and manual
- ☐ comfortable, sturdy walking shoes
- ☐ change of clothing
- ☐ warm blanket or sleeping bag
- ☐ candle-in-a can, butane lighter
- ☐ toilet tissue & Ziploc bags
- ☐ deck of cards, good book
- ☐ large, sturdy backpack, in case you have to leave your vehicle
- ☐ road map and compass
- ☐ shovel, traction aids (sand or kitty litter)
- ☐ duct tape and garbage bags
- ☐ heavy-duty work gloves (leather)
- ☐ axe, crowbar and fire extinguisher
- ☐ flares, flashlight (extra batteries), reflective vest or arm bands
- ☐ hardhat, eye goggles and coveralls
- ☐ ice scraper and brush
- ☐ booster cables

Tips

- Plastic water bottles will absorb vehicle fuel vapours, so foil packs are a good option for mobile kits; or place plastic water bottles in a sealed plastic container.
- A plastic storage bucket for car / mobile supplies can be converted to a toilet if needed. Small, portable toilet seats can be purchased for some types of buckets.

✓ HOME KIT

After a disaster, it's best to remain in your own home if you can do so safely. You will need supplies for cooking, making temporary repairs and providing comfort for your family. The emergency supplies should be kept separate from the things you normally use, to ensure they are available and in working order. Here is what you'll need.

Details and storage tips for some items (**) are provided on following pages.

- ☐ Potable (drinkable) water, clean utility water**.
- ☐ Food, emergency stove and cooking equipment**: a variety of long-storing healthy foods which do not need refrigeration and which are easy to prepare and eat under difficult conditions.
- ☐ Health and safety: home first aid kit** and first aid manual; power failure lights for halls / stairwells; fire extinguishers. For safety, candles should be in tins, holders or jars that are heavier, wider and higher than the candles themselves.
- ☐ Communications**: a corded land-line phone that works on a phone jack (no electrical power or batteries needed); an emergency radio (wind up, solar powered, or battery).
- ☐ Heat, light and warmth: sleeping bags (much warmer than regular bedding; Mylar blankets, ground sheets or air mattresses, newspaper (for insulation); camping tent or tarpaulin and ropes (in case house is unsafe and there are no other alternatives); flashlights with lots of batteries, light sticks, 36-hour candles, battery-operated or solar lanterns.
- ☐ Sanitation & hand-washing: duct tape, aluminum pie plate, lots of green plastic garbage bags, emergency toilet kit**, disposable gloves, outside garbage can for disposal of waste bags; toilet paper, baby wipes, liquid soap, potable water, paper towels, kitchen waste bags.
- ☐ Rescue, repair and clean up: tarpaulins, nylon ropes, duct tape, plastic sheeting and / or large garbage bags; axe, crowbar, hacksaw; aluminum shut-off wrench for gas meter; head lamp, work gloves, dust masks, coveralls, sturdy shoes, goggles, dust masks; rags, non-permeable disposable gloves, clean utility water (non drinkable), detergents, garbage bags.
- ☐ Household generator (www.bchydro.com) and fuel - especially for needs such as refrigerated medication, medical appliances and equipment, *etc.* Generators must never be operated in the house or other enclosed space. Generators may be a target for theft if left unattended.

Storage Tips for Home Kits

- Finding extra space to store emergency supplies is a challenge. They will do you little good if they are damaged, or if you cannot get to them after an earthquake.
- If you have a camper or trailer, you may already have all the emergency supplies you need. Remember to **restock** so that your home-away-from-home is ready for emergencies.
- Perishable supplies will remain stable longer if they are stored in a cool, dark place.
- Place supplies in a large, covered container -- preferably plastic or rubber and on wheels. Put the contents inside a tightly closed plastic bag before placing them in the container. Place desiccant sachets in your containers to keep things dry.
- In a shed or other outbuildings, keep supplies off concrete floors (condensation will rust cans and concrete will leach into plastics). Store food and water away from gasoline and other chemicals.
- Food and water containers may be kept on a closet floor, behind a sofa, or under a bed, preferably close to an exit.
- Food or supply bins may be stored in closets, tucked under racks of shirts and jackets.
- Clean out the kitchen junk drawer to make room for a first aid kit, emergency radio and flashlights or light sticks. Store some batteries there and some in the refrigerator.
- A decorative trunk or chest in your family room or entrance hall may be used to store basic cooking equipment and emergency foods.

First Aid and Home Nursing

- Consider taking a first aid course. Some are available for children.
- Store prescribed medications and copies of critical medical information in your grab & go bag or in watertight bags in the refrigerator.
- Buy a first aid kit and supplement it with other supplies, or assemble your own using suggestions from the list below. Storing supplies in a case with a handle (e.g., fishing tackle box or tool box) makes them easier to carry. Tape a list of contents inside the lid. When the clocks change, replace expired items.

Bandages

- | | |
|--|---|
| <input type="checkbox"/> band aids | <input type="checkbox"/> bandage, sterile rolls (2", 4" widths) |
| <input type="checkbox"/> pressure bandages | <input type="checkbox"/> splinting materials |
| <input type="checkbox"/> butterfly bandages | <input type="checkbox"/> adhesive tape |
| <input type="checkbox"/> 3-6 triangular bandages | <input type="checkbox"/> tensor bandages |
| <input type="checkbox"/> rolled gauze (1", 2", 3" widths) | <input type="checkbox"/> cotton tipped swabs |

Medications & remedies *(include remedies appropriate for your children)*

- | | |
|--|--|
| <input type="checkbox"/> pain relievers, anti-itch powder / lotion | <input type="checkbox"/> diarrhea control, anti-nausea |
| <input type="checkbox"/> antibiotic ointment | <input type="checkbox"/> antacid, laxative |
| <input type="checkbox"/> sunscreen, insect repellent | <input type="checkbox"/> eye drops, ear drops, |
| <input type="checkbox"/> lip balm, cold sore cream | <input type="checkbox"/> antihistamines |

Additional supplies

- | | |
|---|---|
| <input type="checkbox"/> first aid manual | <input type="checkbox"/> thermometer |
| <input type="checkbox"/> pen and notebook | <input type="checkbox"/> tissue |
| <input type="checkbox"/> scissors, safety pins | <input type="checkbox"/> pre-moistened towelettes |
| <input type="checkbox"/> tweezers and magnifying glass | <input type="checkbox"/> hot water bottle and small towel |
| <input type="checkbox"/> individually wrapped alcohol swabs | <input type="checkbox"/> instant cold packs |
| <input type="checkbox"/> plastic bags | <input type="checkbox"/> Mylar / space blankets |
| <input type="checkbox"/> needle and thread | <input type="checkbox"/> disposable nitrile gloves |

Potable (drinkable) Water

Only potable water is safe for drinking, cooking, brushing teeth, hand washing, first aid, and washing cooking equipment / surfaces. Storing adequate potable water is essential for survival. You can live for some time without food, but only a few days without drinking water. You may need to drink more in a disaster. Most canned emergency foods contain high levels of salt and / or sugar, so thirst is a major concern. Earthquake dust also adds to thirst.

You will need 4 litres of potable water per person per day, plus water for pets, for a minimum of 7 days. A family of four without pets will need about 30 US gallons, or 112 litres. Water based foods such as pop, juice, beer and clear soups help keep you hydrated but have limited use compared with clear water.

- **Commercially packaged water** is usually safest, as it has been prepared in controlled, sterile conditions and is in food-safe containers. At time of bottling, it must be good for 2 years. Water 'on sale' may be close to its expiry date, so always check. Most 4-oz foil packs of water are good for 5 years and are impervious to hydrocarbon vapours and concrete leachates. They are more expensive per unit. Even if you choose to bottle your own water, it is wise to have a flat of smaller commercially packaged bottles of water to take with you if evacuating.
- **Home prepared water reserves** (prepared in advance): Ensure clean handling, surfaces, utensils and containers. Use only non-contaminated water sources (safe wells, municipal water supply) and clean, food-grade containers.
- **Water heaters and household pipes:** Know how to isolate the home water supply as soon as possible after disaster strikes, to minimize this risk that contaminated municipal or well water can enter the system. If there is any doubt, the water must be purified before consumption. Water containing chemical softeners is not potable.
- **Toilet flush tanks** (but not if there are chemical pucks in the toilet tank). Both the water and a container must first be purified.
- **Water from freshwater rivers, lakes and ponds** should be filtered and must be purified before consumption to eliminate risks from wildlife carcasses, rotting vegetation, and feces / sewage, etc.

Don't consume salt water. There are no practical, affordable emergency desalination systems for home use.

Don't consume water you know or suspect to be chemically polluted / chemically treated (including water from water beds, swimming pools and water softening systems.) Municipal water treatment chemicals and home water purification treatments are the exceptions to this rule. Water treatment systems to remove chemical pollutants are available, but are unaffordable for most households.

Use only clean, potable water for drinking, cooking, hand washing, brushing teeth, first aid, making baby formula, making ice, washing food and food containers, first aid, dish washing / kitchen cleaning, or in pets' water bowls.

Preparing & storing drinking water reserves

- Use sturdy, non-rusting food-grade containers made of opaque plastic or metal. These are usually available at camping / outdoor and hardware stores. Don't re-use plastic milk jugs or plastic beverage bottles.
- Thoroughly rinse the inside of the container. Add a few drops of chlorine bleach* OR vinegar* OR baking soda* to the second rinse water and shake well. Empty the bottle and fill with fresh water to the very top. (*Do not use these additives in any combination together. They will generate dangerous gases.)
- Date the bottle ("Use before ____ ") and label it "Drinking Water". Replace bottled water every six months.
- Store containers / bottles in cool, dark locations. Store water in areas where fuel and pesticides are not stored, as vapours can penetrate the plastic over time. Store water containers on wood rather than directly on concrete floors. If storing in freezer, use only plastic containers and leave room in the container for expansion due to freezing.

Purifying utility water for drinking

If you run out of potable emergency water you can purify utility water or water from other suitable sources. Also, if there is any doubt that your potable water supply is safe to drink — or if bottled water has expired — you must purify it before consuming.

There are three purification options: (1) boil, (2) chlorinate, and (3) use purification tablets. If water is cloudy, before purifying it you should strain it through several layers of paper towels, cheesecloth or coffee filters, or use charcoal filters designed for drinking water.

1. **Boil** - This is the safest method but you will use a lot of hydro, gas or emergency fuel to boil enough water for daily consumption. Boil for 10 minutes.
2. Add **unscented liquid** household bleach (must contain 5.25% sodium hypochlorite and be less than one year old) in these amounts:

WATER AMOUNT	FOR CLEAR WATER	FOR CLOUDY WATER
1 litre (quart)	2 drops	4 drops
5 litres (~1 gallon)	5 - 8 drops	16 drops
25 litres (~5 gallons)	$\frac{1}{2}$ teaspoon	1 teaspoon

- 3. Purification tablets** - This is an acceptable method if you cannot boil or chlorinate. Follow directions on the package. Purification tablets have a short shelf life. Note the expiry date and replace them regularly.

Tip

Water is very heavy. During prolonged water shortages, you may have to walk to a water tanker truck. Keep a food-grade water container in your home kit.

Clean Utility Water

Water that is not pure enough for consumption may still be clean enough for sponge-bathing (but not hand-washing or first aid), and for essential laundry and house cleaning (but not for washing dishes).

Sources

- expired drinking water; hot water tank (if not pure enough to drink)
- water from toilet tank (if not chemically treated)
- dehumidifiers
- water beds, swimming pools
- garden ponds, garden hoses and irrigation rain barrels

Emergency Food

You will need food for 7 days, and possibly longer after a major earthquake.

Cooking and meal times can be very challenging in disasters. You may be without power, light and refrigeration; cooking outside in bad weather; and / or experiencing frequent aftershocks which make the use of stoves dangerous. Emergency food should be quick and easy to prepare and serve, and palatable enough to be eaten cold from the can.

Look for:

- food needing little or no cooking or refrigeration
- unopened food with a shelf life of at least 6 months
- food needing little or no water for preparation (*e.g.*, food canned with juices or water)
- low-sodium snacks (to reduce thirst)
- healthy snacks
- portions that can be consumed by your family in one meal (in case there is no refrigeration or storage for leftovers)
- foods familiar to your family (comfort foods)
- food for special diets, infants and pets

Suggestions

- ready-to-eat canned meats, fish, beans, fruits and vegetables
- instant meals that don't need cooking or water (*e.g.*, canned tuna stew, chilli)
- packaged juices, milk and soups
- peanut butter, jelly, crackers, granola bars, trail mix
- unsalted nuts and dried fruits (healthy snacks)
- comfort foods, such as hard candy and cookies
- salt and pepper, sugar, powdered coffee creamer
- for infants, ready-to-use baby formula

You may wish to add small quantities of the following to your emergency supplies:

- **Fats** — We need fats to absorb certain vitamins, regulate body heat and energy, improve the texture of some foods, diminish food cravings, and improve morale. Given the low fat levels in most tinned and dried foods, consider including olive oil, in a small can, to drizzle over foods.
- **Grains, beans and lentils** — These provide fibre and essential nutrients, sustain energy and help us feel full. Peas and lentils also add protein. Use chickpeas and beans canned in liquid. Instant oatmeal, fine cornmeal (polenta) and fine couscous have less nutritional value than whole grains, but cook quickly and absorb all the water, contributing to hydration. Instant potatoes and instant rice have even less nutritional value but also cook quickly and absorb all water. **Note:** Dry pasta requires a lot of water, time and fuel to cook, and instant noodle meals are salty, with lots of additives and little nutritional value. These are not good choices for emergency supplies.

Tips

- While returning to a routine is important after a disaster, be flexible about meals. Traditional breakfast and supper foods can be eaten at any meal. You might have 'breakfast' three times in one day to use foods that are still fresh, or your family might want smaller, more frequent meals and snacks.
- Canned foods with a long shelf life are low in fat, and high in sodium or sugar (or both), because these are the best ways to preserve them. They are good choices for emergency food supplies; however, also include some foods that have reduced salt and sugar, even though their shelf life will be shorter.
- Check the expiry dates of your emergency food when the clocks change in spring and fall. Rotate foods out of your emergency supply before they expire, and use in regular meals or donate to a food bank.

- Protect food from pests and debris by storing in metal containers or large sealable plastic containers on wheels. Keeping foods in containers makes it easier to pack them if you have to evacuate and feed yourself away from home.
- Store containers in a cool, dark place on the floor or a low shelf to minimize shaking and packaging ruptures. Keep food away from gasoline and chemicals.



Shopping List for Emergency Foods

Make and photocopy a master shopping list and use it to build up a 7-day supply of emergency foods. To manage costs, buy a few items from each category, and add items weekly. Consider going in with neighbours to buy bulk quantities of some items.

canned meats, fish, stews	Qty	canned soups, vegetables, beans / lentils, fruits	Qty	beverages, snacks, spreads, cereals/ grains	Qty
condiments & other	Qty				

Food Safety

- First: use fresh foods and perishable refrigerated foods.
- Next: use frozen foods in your freezer. Thawed food usually can be eaten if it has been kept constantly 'refrigerator cold' (4 °C / 40 °F or colder). It can be re-frozen if it still contains ice crystals.
- Last: use canned and dried foods.
- Keep kitchen equipment and surfaces clean.
- Wash hands frequently with soap and potable water. Scrub hands for at least 20 seconds each time.
- Keep garbage in closed containers and dispose outside, burying garbage in plastic bags if necessary so it can be dug up and properly disposed of later.

Do not use foods contaminated by flooding, chemicals, snow and ice, pests / rodents, or debris such as dust and glass.

Discard items in the refrigerator that have come into contact with raw meat juices.

Discard food in containers that are **not** waterproof and could have come into contact with floodwater. Note: These include containers with pull tops, screw-caps and snap lids.

Discard food in damaged cans and containers. Damage is shown by:

- crushing/denting that prevents normal stacking or opening
- deep rusting
- holes / punctures
- leakage or swelling

Discard the following items if they have come into contact with floodwater or hazardous material, because they cannot be sanitized properly:

- baby formula containers
- cardboard juice containers
- home-canned foods
- milk containers

Refrigerated Food and Power Outages

1. Plan for emergencies

- Keep refrigerators at or below 4°C (40°F). Keep freezers at or below -18°C (0°F).
- Keep freezer and refrigerator thermometers inside the refrigerator. If there is a power outage, these thermometers will indicate the internal temperature of the appliances to help you determine if the stored food is safe.

- If you know in advance that the power will be out for more than 4 hours, prepare a cooler with ice to keep refrigerated food cold.

2. During a power failure

- Open the refrigerator or freezer door as little as possible.
- A full freezer will keep food frozen for about 48 hours. A half-full freezer will keep food frozen for about 24 hours. An unopened refrigerator will keep food cold for about 4 hours.
- Do not place frozen food outside, even in winter. The sun's rays could thaw frozen food even when the outdoor temperature is very cold, and animals could contaminate your food.

3. After a power failure

- For refrigerated foods, follow the guidelines on the chart (*see next two pages*).
- Thawed food that still contains ice crystals or feels refrigerator-cold can be re-frozen.
- If raw meat has leaked during thawing, clean and disinfect the areas the food has touched, then disinfect the cloths with bleach water.
- If buying food at the grocery store, or eating out, ask retailers and restaurateurs to explain how food has been kept safe during a power failure.

Refrigerated Foods: What to Save and What to Throw Out

Adapted from *Keeping Food Safe During an Emergency* (USDA web site)

Discard any food that has an unusual colour or bad odour. But remember: you can't rely on taste, appearance or odour to determine whether food is safe. Food contaminated with dangerous bacteria does not necessarily smell bad, taste bad or appear spoiled. **Never taste food to determine its safety.** Some foods we keep in the refrigerator are safe to eat even without refrigeration until they become dry or moldy, or go "off" in flavor. Use the chart to evaluate each item separately. Remember: **when in doubt, throw it out.**

		Held above 4°C (40°F) for 2+ hrs
MEAT, POULTRY, SEAFOOD	Raw or leftover cooked meat, poultry, fish, or seafood; soy meat substitutes	Discard
	Thawing meat or poultry	Discard
	Salads: Meat, tuna, shrimp, chicken, or egg salad	Discard
	Gravy, stuffing, broth	Discard
	Lunchmeats, hot dogs, bacon, sausage, dried beef	Discard
	Pizza - with any topping	Discard
	Canned hams labeled "Keep Refrigerated"	Discard
	Canned meats and fish, opened	Discard
CHEESE	Soft Cheeses: blue/bleu, Roquefort, Brie, Camembert, cottage, cream, Edam, Monterey Jack, ricotta, mozzarella, Muenster, Neufchatel, queso blanco, queso fresco	Discard
	Hard Cheeses: Cheddar, Colby, Swiss, Parmesan, Provolone, Romano; commercially grated Parmesan / Romano (in can or jar)	Safe (eat a.s.a.p.)
	Processed Cheeses	Safe (eat a.s.a.p.)
	Shredded Cheeses	Discard
	Low-fat Cheeses	Discard
OTHER DAIRY	Milk, cream, sour cream, buttermilk, evaporated milk (if opened), yogurt, eggnog, soy milk	Discard
	Butter, margarine	Safe
	Baby formula, opened	Discard
EGGS	Fresh eggs, hard-cooked in shell, egg dishes, egg products	Discard
	Custards and puddings, quiche, cheesecakes	Discard
FRUITS	Fresh fruits, cut / peeled	Discard
	Canned fruits and fruit juices, opened	Safe (eat a.s.a.p.)

		Held above 4°C (40°F) for 2+ hrs
	Canned fruits, opened	Safe (eat a.s.a.p.)
	Fresh fruits, uncut and unskinned	Safe
	Dried and candied fruits; coconut	Safe
SAUCES, SPREADS, JAMS	Opened mayonnaise, tartar sauce, horseradish	Discard if held above 10°C (50°F) over 8 hrs.
	Peanut butter; Nutella	Safe
	Commercially prepared jams, jellies, relish, taco sauce, mustard, catsup, olives, pickles, honey	Safe
	Worcestershire, soy, barbecue, hoisin sauces, olive oils and vinegars	Safe
	Fish sauces, oyster sauce	Discard
	Opened vinegar-based dressings	Safe
	Opened creamy-based dressings	Discard
	Spaghetti sauce, opened jar	Discard
BREAD, DOUGH, PASTA, GRAINS	Bread, rolls, cakes, muffins, quick breads, tortillas, waffles, pancakes, bagels	Safe
	Refrigerator biscuits, rolls, cookie dough	Discard
	Cooked pasta, rice, potatoes	Discard
	Pasta salads with mayonnaise or vinaigrette	Discard
	Fresh pasta	Discard
PIES, PASTRY, DESSERTS	Pastries, cream filled	Discard
	Pies - custard, cheese filled, or chiffon; quiche; cheesecakes	Discard
	Pies - fruit	Safe (eat a.s.a.p.)
VEGETABLES	Fresh mushrooms, raw vegetables	Safe
	Greens, pre-cut, pre-washed, packaged	Discard
	herbs, spices	Safe
	Vegetables, cooked	Discard
	Tofu	Discard
	Canned vegetables / juice, opened	Discard
	Commercial garlic in oil	Discard
	Potato salad	Discard
OTHER	Casseroles, soups, stews	Discard

✓ Home Kit: 'KISS' Cooking Equipment (Keep It Super-Simple)

- ☐ manual can opener (invest in a good one that always works)
- ☐ utility knife
- ☐ bottle opener
- ☐ emergency stove & fuel supply
- ☐ waterproof matches
- ☐ pot & pan (with lids)
- ☐ ladle, spatula, serving spoon, BBQ tongs
- ☐ oven mitts or pot holders
- ☐ paper towels (lots)
- ☐ heavy-duty aluminum foil
- ☐ heavy duty plastic garbage bags
- ☐ disposable cutlery, dishes and cups (to reduce potable water consumption)
- ☐ dish detergent, pot scrubber & unscented chlorine bleach

Tips

- Pressure cookers reduce cooking time and emergency fuel consumption during a simple power outage, but in more complex and disruptive disasters such as floods and earthquakes, prepare food that can be quickly heated or eaten cold.
- Have at least one alternative to your kitchen stove (for example: kerosene camp stove; sterno stove; compact emergency stove with fuel pellets; buffet burner with butane cartridges (*a.k.a.* 'storm buster'); charcoal / propane / natural gas barbecue, hibachi).
- Be aware: Small butane cartridge stoves are generally safe for indoor use, but barbecues, camp stoves and most other types of emergency stoves and fuels emit deadly amounts of carbon monoxide and are not safe for indoor use. Store extra propane, charcoal, lighter fluid, and matches **outside**.
- Know how and where to operate the emergency stove safely. In all situations, ensure that the stove is on a stable, non-flammable surface and away from combustibles such as drapery, furnishings, dry grasses, chemicals, etc. Do not try to cook over a live flame if aftershocks occur frequently.
- Fireplaces - inspect chimney and flue for cracks before using.
- Small portable stoves and compact fuels are easy to carry if you are evacuated and must provide your own cooking equipment.
- Heavy-duty aluminum foil saves having to clean a pan, thus saving potable water.

COMMUNICATING IN EMERGENCIES

It is hard to predict how a disaster will affect communications. Communication lines may be overwhelmed by the volume of users. The infrastructure may be damaged and work only part of the time. Some systems may not work at all while others will be fine. Calls within the disaster zone may be difficult while out of area calling may be normal. **Expect all communication systems to behave erratically.**

- Call 911 only when life is at risk. Do not call 911 to inquire about the disaster. Tune in to the media. Use your emergency radio to learn about the event.
- Have more than one option available for contacting family and friends: land line, internet, cell phones. Know how to use these options to their best advantage.
- Keep communications brief to reduce strain on the system. Write down your message first, and keep a flashlight by the phone.
- Ask an out-of-province friend or family member to be the emergency contact in case your family members are separated during a disaster. Ideally, the contact should have voice mail, e-mail and a cell phone. This person will pass messages among the family members until they are reunited. This person may also notify family and friends living outside the disaster area, to update them on your situation.

911 Emergency Services

Contact a 911 dispatcher when you need immediate emergency assistance from Police, Ambulance or Fire Departments. Never call 911 unless life is at risk. You may endanger someone else's life by tying up emergency dispatchers.

- These departments are dispatched separately, so the first question you need to answer is: "Police, Ambulance or Fire?"
- Once connected to the right dispatch centre:
 - give the address or location and phone number from which you are calling;
 - speak clearly and describe the problem (e.g., there has been a hazardous spill, or someone is injured, or a power line is down);
 - follow instructions from dispatch or emergency personnel;
 - stay with the injured person and give comfort if you can do so without risking your own safety; and
 - ask bystanders to stay back and clear the way for responders.

Broadcast Media

- Emergency officials will rely partly on broadcast media and the internet to get information to the public, using cable TV, radio and the internet to help communicate evacuation alerts and bulletins about impending dangers such as severe storms, wildfires and tsunamis.
- After a disaster officials will provide updates via the media as facts and information are confirmed.
- Most local broadcasters (TV and radio) do not have broadcast staff on duty 24/7; therefore, if a disaster occurs during the night, only the stations with staff on duty will be able to broadcast during the first few hours of the disaster. Other stations might bring in staff to provide 24/7 news during the disaster, but that could take hours or days.
- Become familiar with your local broadcasters, and **check periodically which stations have 24/7 live broadcasts**. In Greater Victoria, local broadcast media include
 - SUN FM - 89.7
 - The Q - 100.3 FM (*in Fall 2013, the only local broadcaster with 24/7 broadcast staff*)
 - The WAVE - 102.3 FM
 - CKEG - 1570 AM
 - CFAV - 1070 AM
 - SHAW Cable (Channel 3)
 - A Channel (Channel 53 - Cable 12)

During a disaster, tune in to local media for news updates via your emergency radio.

There will be lots of rumour, opinion and speculation, especially on the internet. When making decisions for yourself and your family, rely on news that clearly comes from official sources such as government officials, first responders, utilities and Environment Canada.

Ham Radio Operators

Amateur radio operators use ham radios and other stand-alone systems when communication utilities fail. Disaster officials may send public announcements to the ham radio community for wider distribution, and may monitor the system for news about dire situations or developments of which they are unaware.

Phones and Internet

Land Line Phones

You have land line service if your phone is activated by phone jacks in the wall. If land lines are working, there is enough power to operate a simple phone even during a power failure. Cordless phones will not work during power failures. Buy an inexpensive corded land line phone for your emergency kit.

- After an earthquake, when there may be aftershocks, choose one land line phone and make sure the receiver stays on the hook, or unplug it when the phone is not in use. Use masking tape to secure the receivers on other phones, or unplug them.
- When you place a call, wait on the line for up to two minutes until you hear a dial tone, then dial quickly and state your message. If there is no dial tone, hang up and try again later. If you are able to dial but hear no ring at the other end, wait on the line for a minute or two. Your call may be queued because of heavy volume.
- After a major disaster, home phone service might be the last lines restored. Land lines for emergency officials, public services and businesses will have higher priority.

Tip

Pay telephones (where still available) are emergency telephones. When you pick up the phone it may seem dead. Hold it and wait for the dial tone.

Internet Devices (*computers, smart phones, VoIP phones and tablets*)

- When the internet is operating, use social networking sites to keep people up to date on your situation.
- Send brief e-mail messages to people, but avoid large attachments. Compose and save your message in a word processing program first, then copy to e-mail and send. If the send fails, you don't have to re-enter the message.
- Follow local officials on Twitter. They may tweet brief updates on the situation, time allowing. Do not tweet them or expect personal replies.

Tip

Scan and save your most important documents (*e.g.*, PDF files) and photos (*e.g.*, jpeg files). Forward the scanned files via e-mail to a web-based e-mail account, or upload them to a secure "cloud" (an internet electronic filing cabinet) such as Dropbox or Canada Post's E-Post Vault or place your valuable documents in a bank safe deposit box. These documents help establish proof of identity, insurance coverage etc. if your originals and paper copies are destroyed.

Cell Phones

If infrastructure is damaged, cell phone towers can often be restored to service more quickly than phone and cable lines.

- Keep your cell phone charged and keep a charger in each vehicle. Even if you have no pre-paid minutes or service plan for your cell phone, it can be used for 911 calls if the battery is charged.
- Even if you are an infrequent cell phone user, be sure your cellular service plan includes texting, and learn how to use this feature. Texting uses far fewer data than a voice call and can be sent in an instant. If you leave your phone on, the text message will be held in queue until it can be delivered. You won't have to re-dial and re-text, and you can send the same message to several destinations.
- For 911 calls, land lines display the building address so 911 operators can dispatch emergency responders even if the caller cannot speak. Cell phone locations do not display an address, even if the call comes from within the subscriber's home. Technology may eventually overcome these limitations. Meanwhile, if using a cell phone for 911 calls, provide an exact location.
- Don't allow children to play with old cell phones. If they dial 911, they can tie up operators and emergency responders for quite some time, putting lives at risk.

Tips

- Enter a contact name or next of kin under "ICE" (in case of emergency) in your cell phone directory. First responders can contact this person via your cell phone if you are unable to.
- Most cell phones emit a GPS signal. Cell phone companies can "ping" or contact your cell phone to discover the nearest tower the signal is coming from at the time of the "ping". Police use this method to find missing persons so, if you are lost, stay in one place.

EVACUATIONS

This section gives general information only. During an evacuation, emergency personnel will contact you and give specific instructions.

Evacuations can be chaotic and nerve wracking. Understand how they work, and be prepared to comply. Fire fighters and other emergency personnel cannot work on the fire or other problems until life and safety issues are under control. Resisting evacuation orders wastes rescuers' precious time and puts others' lives at risk.

BC has several laws which authorize evacuations. Regardless which legal authority orders an evacuation, warning and implementation should follow the provincial standard of a three-staged process. You can help by tuning into local media, remaining aware of the situation, and getting organized to leave.

If you hear a media bulletin about an evacuation, be sure to note whether it is an Alert or an Order. The response is different for each stage. Following these guidelines helps first responders protect you.

Stage 1 - Evacuation Alert

Officials will alert the population at risk of an impending danger. At this point, the priority could be the movement of people with disabilities, hospital patients, transient populations (including tourists), school populations and any voluntary evacuees. Others should quickly prepare for evacuation in case ordered to do so. People with farm animals may wish to be voluntary evacuees at this stage, because they cannot quickly evacuate their animals later.

Stage 2 - Evacuation Order

Officials will order everyone who is at risk to leave the area immediately. There is no discretion allowed in the Order, which clearly indicates immediate evacuation and relocation. The RCMP will enforce this Evacuation Order. If you delay, you risk having your evacuation route blocked by smoke, hazardous materials, debris or rescue vehicles, and you may also put others at risk. Listen to emergency broadcasts and follow the directions of emergency personnel. Usually, reception centres will be opened to register and provide assistance to evacuees.

Alerts (Stage 1) and **Orders** (Stage 2) may be communicated in one or more ways:

- news media bulletins and program broadcast interruptions
- door to door, or street to street
- warning sirens or horns
- public address systems
- automated telephone dialing and messages

Stage 3 - Rescind

When the emergency is under control and the area is declared safe, the Evacuation Order will be rescinded and information will be broadcast to advise evacuees that they may return home. Remember, if the emergency reoccurs, another evacuation may be necessary starting at stage 1 if danger is imminent, or may go directly to stage 2 if the danger is immediate.

Responding to Evacuation Alerts and Orders

If an evacuation alert is issued – prepare!

1. Find your grab & go bag or, if you do not have one, gather essential items such as bottled water and energy bars, medications, eyeglasses, valuable papers, immediate care needs for dependants, and valuable keepsakes. If leaving by motor vehicle, include a couple of blankets and pillows. Be practical about what to take with you. Place items by the door or load them in the vehicle.
2. Determine the location of all family members and agree on one of your planned meeting places should an evacuation be ordered while you are separated.
3. Immediately relocate large pets and livestock to an area outside of the evacuation alert zone. Keep small pets with you in their carrying cages, and put their emergency kit with yours.
4. Arrange accommodation for your family in the event of an evacuation. Should you be unable to find any, Emergency Social Services will be available at reception centres. Emergency relief can be provided for up to 72 hours.
5. Turn off utilities if ordered to do so. If not, turn off major appliances and prepare to secure your home. If wildfire is a risk, water vegetation adjacent to structures if time allows and enough water is available.

If an evacuation order is issued – comply!

1. You must leave the area immediately. Gather your family and small pets, your grab & go bags, etc. If you need transportation to evacuate, advise the individual providing the notice of evacuation.
2. Time permitting, do the following:
 - Turn off major appliances such as stoves, washers and dryers. Close doors and windows. Leave a radio on if possible, preferably a "talk radio" station. This gives the impression of an occupied home and may deter criminals.
 - Turn off utilities if ordered to do so. Once they are off, do not turn them on until you check with the proper utility.
3. Lock your house. Leave gates unlocked and, time allowing, clear driveways for fire fighter access.

4. Keep a flashlight and portable radio with you. They should be in grab & go bags.
5. Follow the directions of emergency personnel and obey traffic control. Travel will be one-way only out of your area to allow emergency vehicles access. Do not use roads or highways designated as Disaster Response Routes unless specifically directed to do so. During disasters, these are normally reserved for emergency response vehicles only. Re-admission is not permitted until the Order is lifted.
6. As information is received from the operational front lines, the public will be notified of developments, location of reception centres and other important information. Listen for news on your emergency radio.
7. It is important to report to the Reception Centre indicated. This helps with communication among emergency officials and first responders. Reporting to the reception centre also facilitates contact with friends or relatives, and helps reunite family members. Bulletins at the Reception Centre are a reliable source of information about when you can return home. Do not act on rumours.

Disaster Reception Centres: What to Expect

Reception centres are set up to help evacuees. Public facilities such as recreation centres, schools, places of worship and shopping malls may be converted for this purpose. In Saanich, reception centres are staffed by trained volunteers on a call-out basis. After a major disaster it may take a day or more before a centre can be opened. Officials will decide when and where reception centres will open and evacuees will be informed. On arrival, evacuees will be greeted at the door, and directed to a seating area where they will wait in turn to be registered. The centre will have a notice board for official updates about the disaster, and officials may give updates on the status of evacuation areas.

When you meet with an ESS volunteer, you will be given as much time as you need:

- You will register all your family members living at your address and whom you know to be safe. Tenants will register separately. Registrations are confidential.
- If a family member is missing, the volunteer will help you complete an inquiry request, to learn whether he or she has registered elsewhere and to help with reunification. (Registrations cannot be disclosed to others without the registrant's permission.)
- As needed, you may receive vouchers for food, lodging (hotel room or group lodging), and basic necessities for up to 72 hours after the disaster occurs.

Accessible washrooms, a children's play area (but not child care), light refreshments, basic first aid and basic emotional care will *usually* be available. Animals other than service dogs are not allowed inside. To protect evacuees' privacy, media are not allowed inside the reception centre, and no one may use any kind of camera inside.

FAMILY EVACUATION & REUNIFICATION PLAN

A family plan will enhance safety and peace of mind if disaster strikes. Include your children in planning. Work sheets are provided at the end of this section.

Before the Emergency

- Assess your own needs, capabilities, and limitations and write them down. Be sure to include your requirements for special equipment and medications. Prepare your grab & go bags, first aid kit and home emergency kit accordingly.
- Consider those who will rely on you for assistance: children, family members with special needs, and pets.
- If you have farm animals, arrange for their care or evacuation if you are away when disaster strikes.
- For each room, determine the safest place to be during an emergency. Consider places of refuge, exits, hallways, and alternate escape routes. Note obstacles that might make a safe exit difficult and plan to remove them if possible.
- Decide on a communications plan in case you and your family members are separated.
- Decide on meeting places where your family can reunite if you can't all get home.
- Decide on sheltering options if you are evacuated or if your home is not safe for occupancy.
- Create a mutual support network of neighbours, relatives, friends, and coworkers. Discuss needs and ensure everyone knows what their duties would be: care of children, pets or vulnerable people; providing temporary shelter; contacting your family and friends outside the disaster area on your behalf; securing your home in case you are away when an evacuation occurs, etc. Everyone should know where to find the supplies and information they will need to carry out their respective tasks.
- List important contacts, as well as vital documents and small valuables to take with you if you are evacuated.

Planning with Children

- Talk about your own experiences and / or read aloud about emergencies. Local libraries have some good books. Be sensitive to your children's needs. The point is not to frighten but to increase their awareness of what may happen.
- Reassure your children that your family and your home are prepared for emergencies.
 - Show children where emergency food and water are kept. Give them a light stick and sturdy shoes to keep near the bed.

- Walk through your house with them and point out each room's safe places. Teach them how to take shelter and exit safely. Hold frequent earthquake and fire drills to reinforce this.
- Show children the safest places in their favourite outdoor play areas.
- Give your children the name of a relative or friend who will care for them if you should get stuck at work, etc. Preferably this will be a person whom the children know and like. Review this with them from time to time.
- Ask the school about its emergency response plan. The plan may include holding children until parents arrive. Explain this to your children.

Planning for Special Needs

Hearing impaired	May need to make special arrangements to receive warnings
Mobility impaired	May need to make special arrangements to get to a shelter
Working parents	May need to make alternate child care arrangements
Non-English speaking	May need help planning for and responding to emergencies
No vehicle	May need to make arrangements for transportation
Special dietary needs	Plan to have an adequate emergency food supply
Daily medication needs	Ensure you have an adequate supply

- Find out about special assistance that may be available in your community.
- Discuss your needs with your employer.
- If you are mobility impaired, and live or work in a multi-story building, have a stairway escape chair.
- If you live in an apartment building, ask the management to mark accessible exits clearly and to make arrangements to help you leave the building.
- Keep specialized items ready, including extra wheelchair batteries, oxygen, catheters, medication, food for service animals, and any other items you might need.
- Be sure to make provisions for medications that require refrigeration.
- Keep a list of the types and model numbers of your medical devices.

Planning for Pets

Plans for pets can save precious time and maybe even your pet's life.

- Designate someone to care for or evacuate your pet if you are not home when disaster strikes.
- A recent photo and description of your pet will help rescue workers find it. It is also advisable to have your pet micro-chipped. Provide the microchip service with an alternate contact in case you are away.
- Your pet will be easier to handle during an evacuation if it does not fear cages and cars. Before disaster strikes, use the carrier and car rides for pleasurable, safe experiences, rather than just for trips to the kennel or vet.

Emergency kit for pets

Don't expect pet rescue centres to have supplies for pets. This is your responsibility.

- | | |
|---|--|
| <input type="checkbox"/> food/water (7-day supply) | <input type="checkbox"/> manual can opener |
| <input type="checkbox"/> ID tag and collar | <input type="checkbox"/> recent photos of your pet |
| <input type="checkbox"/> sturdy crate / carrier | <input type="checkbox"/> copy of pet's current vaccination history |
| <input type="checkbox"/> pet first-aid kit | <input type="checkbox"/> medications & instructions |
| <input type="checkbox"/> dog leash / harness and muzzle | <input type="checkbox"/> phone numbers & addresses (pet friendly hotels, emergency vet clinic, local animal shelter, boarding kennels, etc.) |
| <input type="checkbox"/> non-spill bowls | |
| <input type="checkbox"/> litter & box for cats & small critters | |

During a Disaster

If possible, take your pet with you. Note, however, that pets are not allowed inside disaster reception centres. (Service dogs are an exception to this policy.) Evacuees with pets may be registered and assisted in a nearby designated area. If your family is referred to a hotel, ask for one that accepts pets but be aware they are few.

If you must leave your pet at home:

- Keep an up-to-date poster of your pets with pictures and descriptions. Post this in a window so rescue workers know how many pets were left behind.
- Leave plenty of water in large tip-proof containers inside and outside your home.
- Leave dry food in timed feeders (check local pet stores) to prevent your pet from eating a week's worth of food in one day.

- Do not tether or cage pets. Their chances of survival are greater if they can escape easily.

Finding lost pets after a disaster

Distribute "lost pet" posters. Ask neighbours, mail and newspaper carriers, joggers and others to look out for your pet. Check with local animal shelters to report your pet missing. They may have already rescued your pet. Don't give up! Sometimes lost pets turn up months after they have gone missing.

Planning for Farm Animals

Plan for situations where you are not at home when disaster strikes and your animals are alone. Talk with neighbours whom you know and trust. If they also have animals, discuss what you could do to help one another. Get to know one another's animals. A neighbourhood pet sitter or dog walker might be another alternative. Here are some points to discuss:

- Times of the day and week are you most often away from home.
- Your animals' names and any behavioural problems.
- Where food, medications, carriers, gloves, leashes, halters and lead ropes are kept.
- Contact information including your designated emergency contact person.
- Keys and any security codes.
- A rendezvous point outside a likely evacuation area.
- What should be done if animals cannot be evacuated — the most likely alternative is to turn them loose.

Evacuating farm animals

- Don't plan to leave animals behind, even if you are not sure where to take them. Once you evacuate, it is unlikely you will be allowed to return to retrieve them. Outside the evacuation area, organizations may be able to help care for your animals.
- Don't wait until the last minute to start evacuating. The more animals you have and the larger they are, the sooner you should prepare to evacuate them at the first sign of danger. If you wait too long, you may not be able to move the animals.
- Panicked animals may try to escape to a place where they feel safe. Transport them safely and securely to minimize the risk of losing them.

Family Reunification Plan

You may not be with your loved ones when a disaster occurs. To find your family members as quickly as possible, agree on at least 3 reunion sites and an emergency contact person to help you find each other and get back together. **Remember: phone services may not be available.** To help with searches, keep family photos (including pets' photos) up to date.

- Your family's first reunion site should be your home.
- Identify two other places to go if your home is not accessible or if your area has been evacuated. Examples: neighbours, friends, nearby relatives' homes, neighbourhood cafes and shopping centres, or designated reception centres. Ensure everyone knows two routes to the reunion sites from where they live, work and play.
- If you leave your reunion site, leave a note telling others where you have gone.
- If you are separated from family during an evacuation, it is wise to register at a Reception Centre so other family members can inquire about your status.

Sheltering Plan

If you cannot shelter in your home or in a camping tent on your property, can you reach one of these locations without using the Disaster Response Routes?

- RV, boat, cottage
- family or friends
- hotel - will your home insurance policy cover hotel accommodation in various types of disasters? If so, for how many days? At what rate? During a disaster, hotels may be full.

If you have no other option, there may be group shelters for evacuees (*e.g.*, a gymnasium). Your family must register at a disaster reception centre to be eligible for this option.

Out-of-Province Emergency Contact

Choose a relative or friend whom your family members can contact if they cannot reach one another within the disaster area. Choose someone living beyond your potential disaster area — ideally in another province. Communication within a disaster area is usually less reliable than calling from a disaster zone to an area not affected. The contact should have voice mail (or answering machine), plus cell phone and /or internet. Make sure the person agrees in advance to play this role and understands what to do.

- Fill out wallet cards with the contact's information, and provide one to each member of your family. Everyone should have the same information on the wallet card.

- Instruct all family members to contact this person as soon as possible, to report how and where they are and their plans for the next few days. Keep messages short as communications systems will be overloaded.

Tip

If you are the designated emergency contact for family or a friend, change your voice mail / answering machine message as soon as you become aware of the disaster, to assure them that you are available to coordinate communications. For example:

"You have reached _____. I am the emergency contact for the _____ family. Please leave your message after the tone."

Home Insurance

Purchasing home / tenant insurance is an important step toward emergency preparedness and disaster recovery. Insurance provides some peace of mind and covers out-of-pocket expenses in the stressful days immediately following the event. Longer term, it helps fund the cost of repairing or replacing your home and contents, thus reducing the disaster's impact on your family's financial security.

- Keep your insurance up -to-date. Find out how to reduce the cost of your insurance; for example, many insurers offer discounts if you have a monitored security system with fire detection and alarms built in.
- Inform your insurance company of any changes that might alter your coverage or the value of your dwelling and possessions.
- Find out if your insurance policy includes replacement value.
- Ask what out -of-pocket expenses are covered if you must evacuate your home.
- Find out what perils are not insured: for example, most insurers do not cover damage from overland flooding from any cause, and earthquake coverage in Greater Victoria is a costly but important option.
- Understand the deductibles in your policy: for example, the deductible for fire damage may be much smaller than the deductible for earthquake damages.
- Find out what benefits and services your insurer will provide after an insured loss.
- Document your belongings. Take videos or snapshots of your home's exterior, interior, and the contents of closets, cupboards and drawers. Photograph artwork, jewelry, electronics and other valuables. Store photos, digital images and receipts / evaluations for valuables in a bank safe deposit box or store images digitally at a secure internet site.

WORKSHEETS: FAMILY REUNIFICATION AND SHELTERING PLAN

1. Collect the information you will need to fill out the forms.
2. Develop your rough draft separately and then write the final details onto the pages in this workbook as a handy reference tool.
3. Give each family member a photocopy of the sheets in a waterproof / Ziploc bag for the grab & go bag.
4. Update the information as needed.
5. Keep this Handbook easily accessible (for example, by the main phone).

Reunification Plan (Rendezvous Sites)

Enter this information on the wallet cards (next page).

1. Meet at home
2. Meet at friend's / neighbour's house *(name, address, phone)*

3. Location outside our immediate area *(details)*

Sheltering Options

1. Home
2.

3.

Below are four wallet cards to clip and fold. Photocopy this page, complete the information, and make enough completed copies so that each family member has a card to carry in a wallet or grab & go bag.

Out-of-Province Emergency Contact	Rendezvous Points
Name _____	1. HOME
Home phone_____	2. _____
Work phone_____	_____
Cell / pager _____	3. _____
E-mail _____	_____

Out-of-Province Emergency Contact	Rendezvous Points
Name _____	1. HOME
Home phone_____	2. _____
Work phone_____	_____
Cell / pager _____	3. _____
E-mail _____	_____

Out-of-Province Emergency Contact	Rendezvous Points
Name _____	1. HOME
Home phone_____	2. _____
Work phone_____	_____
Cell / pager _____	3. _____
E-mail _____	_____

Out-of-Province Emergency Contact	Rendezvous Points
Name _____	1. HOME
Home phone_____	2. _____
Work phone_____	_____
Cell / pager _____	3. _____
E-mail _____	_____

Family Members' Information

Home Address _____

Home Telephone _____

1) Name _____

Work/School Address _____

Phone _____

MSP Medical # _____

Medications / Allergies _____

2) Name _____

Work/School Address _____

Phone _____

MSP Medical # _____

Medications / Allergies _____

3) Name _____

Work/School Address _____

Phone _____

MSP Medical # _____

Medications / Allergies _____

4) Name _____

Work/School Address _____

Phone _____

MSP Medical # _____

Medications / Allergies _____

5) Name _____

Work/School Address _____

Phone _____

MSP Medical # _____

Medications / Allergies _____

Local Contacts *(neighbours, insurers, doctor, etc.)*

Name _____

Address _____

Phone _____

E-mail _____

Name _____

Address _____

Phone _____

E-mail _____

Name _____

Address _____

Phone _____

E-mail _____

Name _____

Address _____

Phone _____

E-mail _____

Name _____

Address _____

Phone Number _____

E-mail _____

Pets & Farm Animals - Emergency Contacts

Animal Control	
Boarding Kennel	
Emergency Clinic	
Poison Centre	
Humane Society	
Micro Chip Registry	
Missing Pet Registry	
Out of Town Contact	
Pet Sitter	
Alt. Pet Sitter	

Primary Veterinarian

Name:
Address:
Directions:
Hours:

Alternate Veterinarian

Name:
Address:
Directions:
Hours:

Important Family Documents and Small Valuables

(For evacuations -- items not already in your grab & go bags)

At the top of the list, place items that can be carried on foot along with (or inside) the grab & go bag. Be realistic about how much you can gather in the time available, and how much weight and bulk you can carry. Consider that you might need hands free to accompany pets, small children or people with disabilities. Also, consider where you can store the valuables when you reach your destination.

List by priority, and note location:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
Other / notes

UTILITIES: SERVICE INTERRUPTIONS AND DISASTERS

Human error, aging infrastructure, technical failures and natural disasters can lead to complete utility service disruptions or cause unpredictable, intermittent service. In several types of disasters, you may have to shut off one or more of your utilities if they are obviously damaged, if you are evacuating, or if emergency officials / the utility companies order you to do so.

★ Top 5 recommendations

1. Prepare for service disruptions by purchasing basic, affordable emergency equipment and supplies to substitute for lost services.
2. Learn how to stay safe while using emergency equipment, and how to minimize the impact of service disruptions.
3. Learn how and when to shut off utilities. Don't wait until disaster strikes to figure it out.
4. If you live in a multi-residential complex, find out who has 24/7 emergency access to, and responsibility for, centrally controlled utilities.
5. Follow instructions and advice from utility companies. Consult them if you have questions.

Power Outages and Power Line Dangers

Prepare

- People who rely on life-sustaining equipment should contact their local health provider and consider purchasing or renting a small generator on a priority basis.
- Home power failure lights are an inexpensive way to provide immediate emergency lighting.
- Consider installing a non-electric back-up heating system for warmth during winter storms if power is off; (*e.g.*, energy efficient wood-burning stove or gas fireplace).
- Stock fuel for barbeques and camp stoves. Store safely and use only outside. BC does not permit the storage or use of propane and natural gas tanks inside or in an enclosed space.
- If you rely on power to pump water into your dwelling, the pumps will not work during a power failure. You will need to store emergency drinking water.
- For your home emergency kit, choose manual equipment (basic can openers; non-electric phones, battery, wind-up or solar powered radios; manual hack saws).
- If you have an electric garage door opener, learn how to open the garage door manually. Follow the instructions supplied by the manufacturer.

- Stock your emergency kit with safe, stable sources of light. Candles should be in cans or jars with a wide, heavy base, and the holder should be taller than the candle in case the candle tips. If there is a gas leak, use light sticks instead of candles or lanterns.
- Camping lanterns - store extra fuel, wicks, mantles, and matches - use only outdoors.

When power fails

- Don't assume the hydro company is aware of it. Check first to see if power is off only in your house, or throughout your neighbourhood.
- If only your home is affected, check your electrical panel.
- If the neighbourhood is affected, call BC Hydro at 1 888 POWERON (1-888-769-3766) on a land line phone or *HYDRO (*49376) on a cell phone and tell Hydro where the blackout has occurred. If you know what has caused the blackout provide this information as well. Please call only once per outage.
- Using an emergency radio or your car radio, tune into your local radio station for storm and power outage updates.
- Turn off all appliances, including home computers and peripherals, especially those that generate heat. This helps prevent hazards or damage when service is restored.
- Turn off all lights except one inside your home and one outside. The inside light lets you know, and the outside light lets BC Hydro crews know when the power is back on.

During a Power Outage

- Unplug all appliances and tools with electronic controls (microchips) such as a stereo, television, VCR, microwave oven, stove, refrigerator, computers and light control systems. This will reduce the risk from damaging power surges when power is restored.
- Before you leave your home or go to bed, be sure all heat-producing appliances, such as your range and iron, are unplugged to minimize the risk of fire while you are away or asleep.
- If you leave your home, visually scan the neighbourhood to look for trouble indicators such as flashes of light and downed wires, and keep away from these dangerous areas.
- Conserve water, and keep doors, windows and drapes closed to retain heat.
- Do not open freezers or refrigerators unless necessary.

- Use a shiny aluminum pan behind a candle to reflect more light or place a candle near a large mirror. Be very careful of fire hazards caused by candles and other open-flame light sources. Never leave candles or fuel-powered equipment unattended.
- **Non-electrical heating system safety** (wood-burning stoves or fireplaces, gas fireplaces, portable kerosene heaters)
 - Do not use a kerosene heater in an unattended room. Open a window slightly to provide combustion air and ventilation.
 - If you have a wood-burning stove or fireplace, you may use it for both warmth and cooking but keep a window slightly open in the room to provide combustion air and ventilation. After a strong earthquake, or if the equipment has not been used for some time, be sure flues, chimneys and stove pipes are in working order.
 - Do not use the gas burners or ovens to heat the kitchen. A draft could blow out the oven pilot light, resulting in carbon monoxide build-up which is poisonous. Maintaining too high an oven temperature over time could cause a fire.
- If an extended outage occurs during very cold weather, drain water systems or leave taps dripping very slowly to prevent pipes from freezing and bursting.
- **Home Generators**

Never connect portable generators to the house wiring. This can cause dangerous feedback into the utility system. Operate out of doors only, and follow the manufacturer's instructions. Connect lights, tools or appliances directly to the generator with standard CSA-approved extension cords.

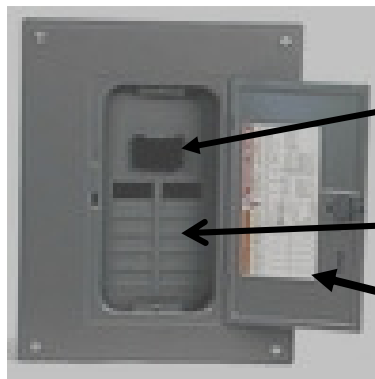
After a power outage

- When power is restored, turn on the master switch (if it is off) and then turn on individual circuits one by one over a few hours to avoid strain on the grid and damage to appliances. Turn on only the most essential appliances and wait 10 to 15 minutes before reconnecting others.
- If the outage lasts more than four hours in cold weather, it is helpful to reconnect the heating system and appliances gradually. For example, reconnect appliances over a 45-minute period after a 6-hour outage, reconnect over 2 hours after a 12-hour outage, and reconnect over 4 hours following a 24+ hour outage.
- Make sure the refrigerator and freezer are back on. Check whether food can be refrozen.
- Plug in appliances. Reset clocks and check automatic timers, alarms and smoke detectors. Restock emergency supplies.

Shutting off electricity

- If power is disrupted during a disaster, turn off the main circuit breaker as well as individual circuits / fuses to lessen the risk of fire damage if no one is home when the power system is restored.

NOTE: If you are ordered to evacuate, do not turn off power unless advised to do so.



master switch

individual
circuit breakers

circuit labels



If you have fuses
rather than circuit
breakers, turn fuses
to the left to unscrew.

When turning off your circuits or master switch, stand to one side in case of arcing.

Power Lines Down

If power lines are down, or buried cables are exposed, assess the scene before trying to help. Always assume the line is live until emergency crews give the all-clear.

- Stay back at least 10 metres (33 feet) from a fallen power line or exposed underground cable. If there is water on the ground, stay much further away.



If you are on foot within the danger zone, move away by shuffling **backward**, keeping both feet on the ground at all times, and keeping your feet in contact with one another (heel to toe) to prevent arcing, which can cause severe shock.

- If your vehicle makes contact with an energized line, remain inside until help arrives and do not allow anyone inside the vehicle to touch metal. Warn bystanders not to touch the car. If you must get out because of fire, jump out with your feet together, and without touching the vehicle on the way out. Then shuffle away.
- Don't become another victim – Do not try to help victims. Warn other bystanders to stay away. Call 911 and wait for crews to arrive to cut power to the line. Only then can you assist victims until an ambulance arrives.

- Where there is construction, excavation, heavy machinery or maintenance work, power lines could be at risk, so stay safe: Don't hang around operating equipment. Stay at least 10 meters (33 feet) away in case it contacts an energized line or exposes a live cable.

Interruptions in Water Supply

Besides stocking emergency water, and storing emergency food that needs little water to prepare, you will need to take other measures before and during a water service interruption.

Prepare

- Learn how to shut-off the water line that enters your home.
- Learn how to convert your toilet for dry (non-flushing) use.
- Develop the habit of conserving water whenever you can.
- Install rain collection barrels to supply emergency utility water.
- Flush your hot water tank annually to flush out sediments.

Respond: Shut Off Water

Water is a precious commodity following disasters, and especially after floods and major earthquakes. All family members should learn how to shut off the water immediately after disaster strikes, for three reasons:

- The normal supply of water to your home could be disrupted or perhaps polluted because of broken or cracked lines, or failures in the water treatment system. Shut off the water supply until you hear from local authorities that it is safe for drinking.
- Shutting off the water will retain the water in the hot water heater and toilet tanks for your use. Otherwise, the water could flow back out to the municipal main. (If you suspect the water has already been contaminated, you must purify it.)
- Shutting off the water supply will prevent water damage to your house if the pipes inside your home are broken during an earthquake or aftershocks.

Locate the shut-off valve for the water line that enters your home. Make sure this valve can be completely shut off. Your valve may be rusted open, or it may only partially close. Check it periodically and replace it if necessary.

Make sure all household members know where the shut-off valve is located (often hidden in a crawl space or in a closet). Your main water shut off valve may look like one of these:



➔ Tips

Turning off the water at the meter, usually located in a concrete box, is not recommended because it is difficult to turn this valve. The exception would be if there is a break in the water line between this valve and the main valve to your home, causing water to flood the area. If you cannot turn off this valve, contact a plumber who offers 24/7 emergency service.

If you have an electric hot water tank: when you turn off your main water supply, turn off the electric circuit for the hot water tank so that the unit will not burn out as emergency water is drawn from the tank.

During water emergencies

If the water supply or distribution system is contaminated for any reason, municipal authorities will normally issue a 'boil water' advisory. Follow the instructions of local officials regarding water usage and **purification methods** (which may be different from methods outlined in the earlier section on emergency drinking water).

Boiling water may not be possible in a disaster, so it is important to have emergency water.

Conserve water

- Keep a jug of water in the refrigerator for drinking.
- When using big containers for small jobs like washing hands or brushing teeth, pour some water into a cup or glass and only use that amount.
- Wash essential clothing by hand using clean utility water.
- Turn off garden sprinkler systems and hand water only food plants as necessary. Use mulch and compost to reduce evaporation, promote plant growth and control weeds.
- Capture rainwater from the roof for use in your garden and for sponge bathing.

Sewerage System Disruptions

In a disaster the lack of sewerage service can quickly create community health risks. It is not feasible for most households to store enough emergency water for toilet flushing, even if it is safe to flush.

Solid waste (feces) is a serious health risk. When toilets cannot be flushed because water is lacking or pipes / sewer mains are broken, solid waste must be stored safely until officials arrange collection and permanent disposal.

Urine is not a serious health risk. Urinate in a separate container and then dispose of the urine on a lawn or other green space.

Options for solid waste disposal

Whatever option you choose, it is important to keep solid waste separate from liquid waste. You will need to purchase supplies before disaster strikes, and determine where you would store solid waste temporarily. Feces / feces bags must be stored in dedicated containers until municipal pick-up.

- Adapt a home toilet for dry operation using inexpensive emergency supplies and simple procedures. For most families this will be the least expensive and most comfortable choice. (*See instructions next page.*)
 - Purchase a large supply of heavy-duty non-biodegradable (!) plastic bags, twist ties, a desiccant / deodorizer, toilet paper and disposable gloves.
 - Purchase hydrated lime (not dolomite / 'garden' lime) to dry and deodorize waste, and to discourage insects. Hydrated lime can be purchased in large sacks very inexpensively. One sack could supply a few households. It is caustic, so care must be taken in storage and use. Less effective alternatives are powdered cleansers (*e.g.*, Comet) which are also caustic; or kitty litter with baking soda, which adds more weight to the disposal bag.
- Use a chemical or camp toilet — viable as long as chemical supplies and containment capacity hold out.
- Use a bucket for urine and "Brief Relief" bags for feces. "Brief Relief" bags gel the waste and start to biodegrade it instantly. A solution of 1 part liquid bleach to 10 parts utility water can be used to disinfect the urine bucket.
- Keep large zip lock plastic bags (or Brief Relief bags) and toilet paper at work and in the car for use if you are away from home.

Feces bags must be stored safely until permanent disposal is available. If you do not have a private yard, garden space or dedicated container where solid waste can be stored, ask your strata council or building manager what plans, if any, are in place to store solid waste temporarily.

Adapting a home toilet for dry use during a disaster

1. Put duct tape on all toilet handles so toilets cannot be accidentally flushed.
2. Designate one toilet for emergency use.
3. Lift the seat and scoop water from the bowl into a container, leaving just enough water to cover the flush hole so that sewer gases cannot seep through. Place an aluminum pie plate over the hole to support the liner bags. Line the bowl with a heavy-duty plastic bag. This will be a permanent liner. Add a second heavy duty garbage bag, which will be removed for disposal. Put the seat down. Dispose of the bowl water outside.
4. Use the toilet only for solid waste. After using the toilet, cover the feces with toilet paper and then with hydrated lime.
5. Use the bag several times then remove it for disposal, leaving the liner bag in place. Wear disposable gloves, or use rubber gloves that can be disinfected with mild bleach water (1:10). Tie the bag loosely so that air can continue to work with the lime. Place the bag outside, in a lined, dedicated garbage can with lid. Spread more lime on top of bags as they are added, to control odours. When the can is full, dig a shallow trench in the ground, line it with heavy duty plastic bags, place the bags of feces in the trench and sprinkle with more hydrated lime. Do NOT cover the bags with earth.
6. When emergency officials organize solid waste collection and disposal, follow their instructions.

Set up hand-washing stations for bathroom and food preparation areas

During a disaster, it is very hard to control cleanliness, but it is important to guard health when people are stressed and vulnerable so, when at all possible, make extra efforts. You will need plain liquid soap in a dispenser, bottles of potable water, lots of paper towels, lots of inexpensive disposable gloves, lots of garbage bags, and a mild chlorine bleach solution in a spray bottle, for disinfecting.

- With clean hands, tear, fold and stack lots of paper towels so the roll is not being handled by people with unclean hands.
- Cough and sneeze into elbows rather than hands. Wash hands after using tissue, after using the toilet/ urine bucket, after changing diapers, after handling pets or their litter boxes, before handling any food or cooking utensils, and before and after administering first aid.
- To wash hands: moisten with about $\frac{1}{4}$ cup of bottled water. Lather soap and rub hands thoroughly, all over and under nails, for about 20 seconds. Rinse with more bottled water. Dry hands and dispose of the paper towel. Liquid hand sanitizers are

not nearly as effective as proper hand washing with soap and water but they are better than nothing if proper hand washing is not possible.

- Wearing disposable gloves, regularly wipe down toilet, floor area and counters with mild bleach water, and safely dispose of garbage bags.

Tip

When showering is limited or impossible, baby wipes or similar products are a good supplement to dry toilet paper. If the pack dries out, rehydrate it with a little water.

Natural Gas and Propane

Natural gas is one of the safest fuels. A pressure regulator at the natural gas meter ensures a safe flow of gas from the main supply into your home. Gas appliances (stoves, fireplaces, barbeques and clothes dryers) also have pressure regulators and shut-off valves. A sulphur (rotten egg) odour is added to natural gas for leak detection. If leaked outdoors, natural gas will rise and dissipate into the atmosphere; however, if leaked in a confined space, such as inside your home, it mixes with air and can cause a fire or explosion if ignited. Unburned natural gas (gas that leaks indoors and / or is not burned efficiently) also emits deadly carbon monoxide.

Propane gas is safe when handled properly. A sulphur odour is added for leak detection. Propane is heavier than air, so when checking for leaks, be aware that it gathers in low-lying areas. A spark or flame can cause a powerful explosion and fire. A propane leak also emits deadly carbon monoxide.

If you use natural gas or propane cylinders for your barbeque, remember that these cylinders must never be stored or operated indoors or in a confined space.

Prepare

- Ask your propane or natural gas supplier for a 'scratch and sniff' card so you will know what a gas leak smells like. Read safety advice about what to do if you think there is a leak.
- Leaking gas cannot always be detected by smell alone. If your home is supplied by natural gas or propane for heating and cooking, you should have a plug-in carbon monoxide detector /alarm outside each bedroom area. (They should not be placed near gas appliances). Like smoke detectors, they can save your life.
- Learn how to shut off your **natural gas supply** at the meter, but do not shut it off for practice, as only a technician is permitted to turn it back on. Keep a dedicated

aluminum shut-off wrench in an easily accessible and safe location known to all family members.

- Learn how to shut off your **home propane tank** at the outdoor valve. Follow the manufacturer's instructions.

Tip

Paint your propane tank white, and repaint regularly to maintain its reflective properties. An unpainted or dark-coloured tank does not reflect sunlight and may absorb heat. This may cause an increase in pressure, leading to a possible discharge from the pressure-relief valve.

How to respond to gas leaks

If there is a strong smell of gas indoors, or outside, or if you hear the flow of escaping gas, or if gas is leaking from a broken or disconnected gas pipe:

- Do not smoke, light matches, start engines, use any phone, turn on a flashlight or operate electrical switches. Emergency light sticks are safe to use.
- Extinguish open flames. Leave the premise, leaving doors and windows open.
- Shut off your natural gas meter or propane tank only if you judge that you can safely do so.
- Warn others in the area.
- **Do not start your car!** Run from the area on foot until you cannot smell gas, then double that distance.
- Call 911 or the gas utility / propane supplier from a safe distance.

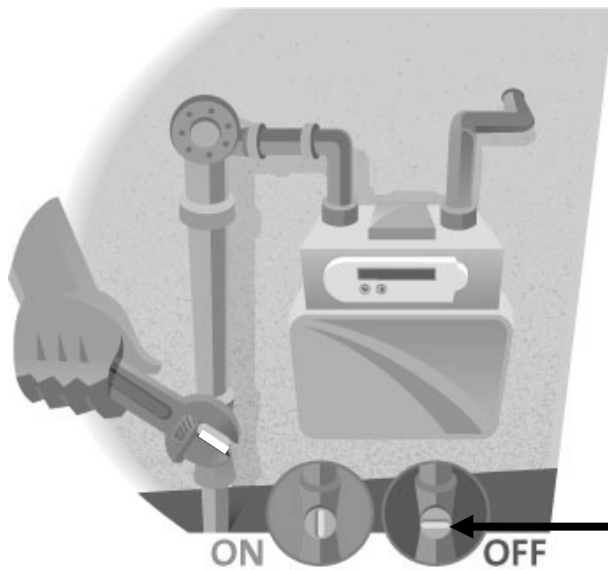
Shutting off propane tank

If your home gas supply is propane tank, you may turn the propane valve off and on again at any time without help from a technician. This is because your gas supply comes from a stand-alone tank rather than from a pressurized community pipeline.

Note: Turning off the propane tank (as explained above) is a minor procedure, whereas disconnecting the tank from household appliances is a major procedure. There are specific instructions in Part II, under 'Floods', outlining how to *disconnect* your propane tank from home appliances if flooding is imminent. In that scenario, you'll need a technician to safely *reconnect* the tank to home appliances after the emergency is over.

Shutting off natural gas at the meter

With the wrench, give the valve $\frac{1}{4}$ turn left or right.



Do **not** practise shutting off your natural gas meter. If you do, only a qualified technician is permitted to turn it back on.

If there is a minor leak in the line for a specific appliance, you can turn off the individual gas valve for that line, and turn it back on yourself once the leak is repaired.

When the bar on the valve is across the pipe, the gas supply is OFF.

After an earthquake

After an earthquake, you do **not** have to turn off natural gas at the meter unless ordered to do so or you detect a leak. If your gas supply is shut off at the meter, only a technician is permitted to turn it back, because it is part of a pressurized community distribution system. After a major disaster, you may have to wait days or weeks for a technician to turn on the gas.

PART 2: NINE DISASTERS

This section offers specific advice about each of nine disasters we may face in Saanich. It includes:

- how to stay as safe as possible during each type of disaster;
- home modifications to minimize the risk of personal injury and property damage;
- how to shelter in place (remain at home) safely after certain disasters; and
- checklists to assess overall home safety and preparedness.

Decide which disasters are most likely to affect you where you live, work, play and commute, and focus on those sections first.

- ☐ Dwelling Fires
- ☐ Forest Fires / Urban Interface Fires
- ☐ Earthquakes
- ☐ Tsunami
- ☐ Pandemics
- ☐ Winter Storms
- ☐ Hazardous Spills
- ☐ Floods
- ☐ Landslides



Top 5 Recommendations: Personal Safety

Practise safe responses *before* disaster strikes. Training your body to respond automatically will free your mind to think more clearly during the event.

1. In an earthquake, DROP to the ground, take COVER under a sturdy table, or cover yourself with anything available, and HOLD your position / hold onto the table. When the shaking stops, COUNT to 60 and assess your escape route before moving.
2. To extinguish fire on your clothing STOP, DROP and ROLL.
3. Plan and review escape routes with your whole family. Practice escaping from each room in daylight and in the dark.

4. Before taking action at a disaster scene, always check for hazards around you and in your intended path. Don't leave a safe place for one that is more dangerous.
5. Be aware of the destructive power and dangers of water. Learn how to protect yourself during earthquakes, storm surges, tsunamis and floods.



★ Top 5 Recommendations:

Home Preparedness

1. Install smoke alarms to save lives. If you use propane or natural gas for indoor heating and appliances, install carbon monoxide detectors. These are just as important as smoke alarms.
2. Buy an ABC type fire extinguisher for each floor of your home, plus kitchen and workshop.
3. Secure your hot water tank to the studs with steel strapping.
4. Secure furniture and contents. Use Velcro strips or putty to secure art and mirrors.
5. Understand your homeowner's / tenant's insurance policy in detail: what disasters and damages are covered, your responsibility after a disaster occurs, *etc.* Home insurance can mean the difference between eventual disaster recovery and deep financial loss.

DWELLING FIRES

Did you know...?

- Fire doubles in size every 30 seconds.
- Fire can fill an average-sized room with deadly fumes within 20-45 seconds. Fumes kill before flames reach most victims.
- Fire can consume an average-sized room within 3 minutes.

Prepare

1. Plan and practise home fire drills

Statistics show families that practise fire drills at home have a much higher chance of surviving a dwelling fire. With your family, make a step-by-step plan for escaping a fire.

- Draw a floor plan of your home, marking two ways out of every room - especially sleeping areas. Discuss the escape routes with every member of your household.
- Make sure everyone in the household can unlock all doors and windows quickly, even in the dark. Windows or doors with security bars should be equipped with quick-release devices. Everyone in the household should know how to use them.
- If you live in a multi-storey building and you must escape from an upper story window, be sure there is a safe way to reach the ground, such as a fire-resistant escape ladder. Some high-rise buildings may have evacuation plans that require you to stay where you are and wait for the fire department. Know what to do in your building.
- Make special arrangements for children, older adults and people with disabilities. People with mobility challenges should have a phone and, if possible, sleep on the ground floor.
- Agree on a meeting place, where every member of the household will gather outside your home after escaping a fire, to wait for the fire department. This allows you to count heads and inform the fire department if anyone is missing or trapped inside the burning building.
- Practice your escape plan at least twice a year. Have a fire drill in your home. Appoint a monitor, and have everyone participate. This is not a race. Get out quickly, but carefully.
- Make your exit drill realistic. Pretend that some exits are blocked by fire, and practice alternative escape routes. Pretend that the lights are out and that some escape routes are filling with smoke.

2. ✓ HOME FIRE SAFETY CHECKLIST (simple steps that can save your life)

- ☐ Install smoke detectors on every level of your home. Place them on the ceiling outside bedrooms, in stairways, and near (but not in) the kitchen.
- ☐ Install high quality carbon monoxide (CO) detectors if your home heating or cooking is supplied by natural gas or propane. Place the CO detectors near bedrooms, and away from gas appliances.
- ☐ Test and vacuum the smoke and CO detectors once a month and replace any batteries every six months when the clocks change. Replace detectors

immediately if they fail to test properly; otherwise, follow the manufacturer's recommendations for maximum operating life before replacement is needed (even if the detectors appear to be operating properly). If you can't find the life span recommendation, replace your smoke detectors after 10 years and your CO detectors after 5 years.

- ☐ Purchase ABC type fire extinguishers for each floor of your home, plus extras for the kitchen and hobby room / workshop. (See details on following pages.)
- ☐ If you work with flammable metals, oils or solvents in your hobby room / workshop, you should consider purchasing a D type extinguisher as well as a proper oily-waste container* for rags that are oil- or solvent-soaked. (*These are metal receptacles with lids and ventilated bottoms). Do not clean oily or solvent soaked rags in your washer and clothes dryer.
- ☐ Clean out storage areas. Do not let trash and recycling materials stack up.
- ☐ Plan and review escape routes with your family. Practice escaping from each room in the day time and in the dark. Teach family members to avoid elevators, and to stay low to the floor to avoid deadly fumes when escaping from a fire.
- ☐ Designate a safe meeting place outside the home where family can assemble, count heads and wait for the fire department.
- ☐ Make sure windows can open and are not nailed or painted shut. Make sure security gratings on windows have a safety feature allowing the window to be easily opened from the inside.
- ☐ Consider escape ladders on the upper floors if your home has more than one level.

Choosing & Maintaining Fire Extinguishers

Combustible materials are divided into four classes:

Class A -- Ordinary Combustibles (wood, paper, cloth, rubber *etc...*)

Class B -- Flammable Liquids (fuel oil, gasoline, cooking grease, solvents *etc...*)

Class C -- Electrical Equipment (wiring, fuse box, motors, electronics, *etc...*)

Class D -- Combustible Metals (magnesium, sodium, zirconium *etc...*)

An ABC extinguisher will handle most types of home fires. Type D is needed in hobby shops / garages if the homeowner works with combustible metals such as magnesium, sodium, zirconium etc...). Buy extinguishers which have been UL or CSA approved.

Place extinguishers where they are readily accessible. When used correctly, they can keep small fires from becoming big ones. It is better to have several smaller extinguishers located throughout the house and on each level than to have one large one that may be difficult to find quickly.

Regularly review their operating instructions so you'll know what to do when a fire occurs.

At least once a year turn your fire extinguisher upside-down, give the bottom a good smack and shake it to keep the chemical powder from caking. Some manufacturers recommend shaking your dry chemical extinguishers once a month to prevent the powder from settling / packing.

Check the extinguisher's gauge to ensure the pressure is at the recommended level. (*i.e.*, in the green zone - not too high and not too low). Fire extinguishers should be pressure tested (a process called hydrostatic testing) after a number of years to ensure that the cylinder is safe to use. Consult your owner's manual, extinguisher label or the manufacturer to see when yours may need such testing.

How to Respond To a Dwelling Fire

- **Get out fast.** Do not try to rescue possessions or pets. Go directly to your assembly point then call 911 from a neighbour's phone or a cell phone. If you live in a multi-storey building, pull the fire alarm switch on your way out if possible. Everyone in your family should know how to call 911 and inform the dispatcher of the fire.
 - If you are at the spot where the fire has started and can quickly put it out with a fire extinguisher, try to do so. If you cannot control the fire, get everyone out immediately and call 911 from outside the building.
- If your clothing is on fire, do NOT run: **stop, drop and roll** to smother the flames.
- If you are in a closed room and there is fire elsewhere in the building, check closed doors for heat before you open them. Use the back of your hand* to feel the top

of the door, the doorknob and the crack between the door and doorframe before you open it. (*This will protect your palms from burns so you can more easily climb down ladders or crawl to safety.)

Hot Door	Cool Door
Do not open. Escape through a window or other exit. Do not re-enter the building. Call 911.	Open slowly and ensure fire and/or smoke is not blocking your escape route. If clear, <u>crawl low under the smoke</u> to exit, keeping your head 30 - 60 centimeters (1-2 feet) above the floor. Close doors behind you to delay the spread of the fire. Do not use elevators. Do not re-enter the building. Call 911.
<p>If you cannot escape, or your escape route is blocked, close all doors between yourself and the fire. Place cloths at the bottom of the door to keep out fumes. Call 911 and tell the dispatcher your location within the building. Stay by the window, alerting fire fighters to your presence. If there is no phone, use a whistle to draw attention to your plight.</p>	

Kitchen Fires (oil and grease)

Smother the pan fire by putting a lid on the fire. If that doesn't work immediately use an "ABC" type fire extinguisher (which contains dry chemical, not water).

Never use water to extinguish oil or grease fires. When oil mixes with water, the mixture superheats, vaporizing into a huge ball of flaming steam.

Never carry a flaming pan outside - the draft will fan the flames.

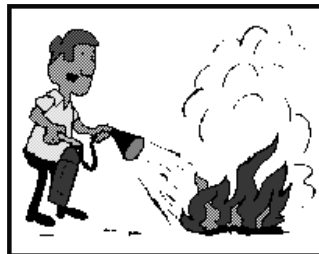
How to Use a Fire Extinguisher

Only fight a fire if:

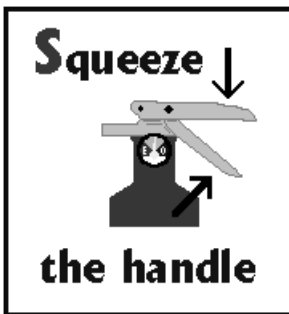
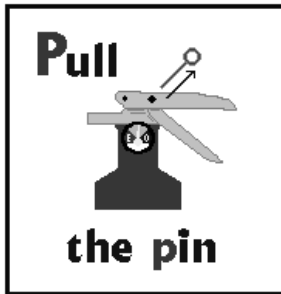
1. the fire is small and contained and you are safe from toxic smoke and
2. you have a means of escape if the fire spreads, and your instincts tell you it's okay.

Place yourself between the exit and the fire so you can withdraw if the fire does not go out. Fight the fire using the **PASS** method.

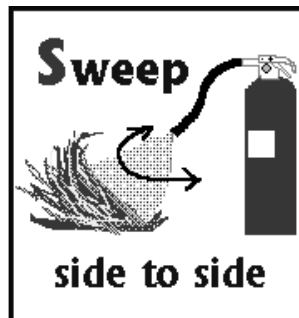
1. **PULL** the pin to unlock the lever.



2. **AIM** at the base of the fire



3. **SQUEEZE** the lever slowly to release the extinguishing agent. Release the handle to stop the discharge.



4. **SWEEP** from side to side, moving carefully toward the fire. Aim the extinguisher at the base of the fire and sweep back and forth until the flames appear to be out.

Watch the fire area. If the fire re-ignites, repeat the process.

Extinguishers will work for approximately 30 seconds. If you have not put the fire out in that time, or if the smoke becomes hazardous, leave the area immediately. Once you leave a burning room, do not re-enter. Close the door to a room with a fire. Evacuate your home. In a multi-unit residential building, activate the fire alarm. Once outside, call 911.

After a Fire

Call 911 anytime there is a fire in your home, even if you've put the fire out yourself. The fire department will ensure there are no lingering embers or hot spots that might erupt later, and will let you know about any necessary further precautions.

- Cool and cover burns to reduce chance of further injury or infection.
- Stay out of damaged buildings.
- If you are a tenant, contact the landlord.
- Do not open safes or strong boxes until they have cooled for several hours.

- If you must leave your home because an inspector says the building is unsafe, contact your insurance company about your obligations: for example, you may have to board up windows or hire a security guard to prevent further loss and liability (to protect from vandalism, and to prevent others from entering or playing in an unsafe house).

Fires Following Earthquakes

Earthquakes frequently cause fires: candles may tip over, downed power lines may spark, flammable materials may spill, and gas lines may be ruptured. Having a fire extinguisher handy and **knowing how** to use it may save your home, your possessions and even your life. This is especially true following a major earthquake when the fire department will be overwhelmed. However, be smart. Knowing when the fire is too big to handle is equally important. Do not endanger yourself or your family by trying to save your home.

- Natural gas fires - If you can safely do so, shut off the gas and then put out the fire using an ABC type extinguisher.
- Electrical fires - First, shut off the electricity. Second, if it is safe to do so, put out the fire using an ABC extinguisher.

Home Fire Prevention

Flammable liquids (gasoline, diesel, oil, benzene, naptha, kerosene etc.)

- Never use flammable liquids indoors. Exception: kerosene can be used indoors if great care is taken. The room should be well-ventilated and the appliance should be clean and in good repair. When operating, the kerosene appliance should not be left unattended, should be at least 1 metre away from all combustibles including furnishings, and should be secured on a stable non-flammable surface so that it cannot easily tip over while in use.
- Never smoke near flammable liquids.
- Store fuels in approved containers in well-ventilated storage areas.
- Safely discard all rags or materials that have been soaked in flammable liquids. Place outdoors in a metal container stored away from structures. Do not clean such rags in home washers and dryers.

Clothes Dryers

- Read the manufacturer warnings in the user manual and on the inside of the dryer door.
- Clean the lint screen/filter before or after drying each load of clothes. Clean the dryer vent and exhaust duct periodically.

- Have a certified service technician clean and inspect the dryer and venting system regularly.
- Replace plastic or vinyl exhaust hoses with rigid or flexible metal venting, which provides maximum airflow.
- Keep the area around the dryer clean and free from clutter.
- **Don't** place clothing or fabric stained with a flammable substance, such as alcohol, cooking oils, gasoline, spot removers or motor oil, in the dryer. Flammable substances give off vapors that could ignite or explode. Instead, dry the fabrics outdoors.
- **Don't** dry any item containing foam, rubber or plastic, such as bathroom and non-slip rugs and athletic shoes in the dryer.
- **Don't** dry any item that contains glass fiber materials, such as a blouse or sweater with glass buttons or decorations in the dryer.
- **Don't** overload the dryer with wet clothes.

Heating Equipment

- Insulate chimneys and place spark arresters on top. The chimney should be at least 1 metre (~3 feet) higher than the roof. Remove tree branches hanging near the chimney.
- Fill kerosene heaters outside, and be sure they have cooled before filling.
- Keep portable and space heaters at least 1 metre (~3 feet) away from anything that can burn. Never leave heaters on when you leave home or go to bed. Use only the proper fuel and follow manufacturer's instructions.
- Store ashes in a metal container outside and away from your residence.
- Keep a screen in front of wood-burning fireplaces. There are also safety screens available to keep children away from the glass front of gas-burning fireplaces.
- Have heating units inspected and cleaned annually by a certified specialist.

Hydro Electricity

- Inspect extension cords for frayed or exposed wires or loose plugs. Do not overload extension cords or outlets. If you need to plug in two or three appliances, use a UL-approved unit with built-in circuit breakers to prevent sparks and short circuits.
- Have the electrical wiring in your residence checked by an electrician. Make sure outlets and switches have cover plates, accessible junction boxes and no exposed wiring. Also ensure insulation does not touch bare electrical wiring.
- Do not run wiring and cables under rugs, over nails, or across high-traffic areas.
- Consider installing an automatic fire sprinkler system in your residence.
- Ask your local fire department to inspect your residence for fire safety and prevention.

FOREST FIRES & URBAN INTERFACE FIRES

In British Columbia, forest fires threaten or destroy many homes every year. Homes and lives are at risk not only from the path of the flames but also from wind-borne embers which can travel many kilometers. Saanich subdivisions, farms, acreage and cottages are potentially at risk from forest fires in nearby wooded areas. Taking some basic steps will help reduce risks to your home and family.



Prepare: Make your home less vulnerable to wild fires

Mark your property entrance with address signs that are clearly visible from roads and back alleys.

- Keep lawns trimmed, leaves raked, and the roof and rain gutters free from debris.
- Stack firewood at least 10 metres (33 feet) away from your residence and outbuildings.
- Store flammable materials, liquids, and solvents in metal containers outside your residence at least 10 metres (33 feet) away from structures and wooden fences.
- Create defensible space by thinning trees and brush within 10 metres (33 feet) around your residence. Beyond 10 metres (33 feet), remove dead wood, debris, and low tree branches.
- Landscape your property with fire resistant plants and vegetation to prevent fire from spreading quickly. For example, hardwood trees are more fire-resistant than conifers (pine, fir, spruce, etc) and eucalyptus which contain resins that fuel flames.
- Make sure water sources such as hydrants, ponds, swimming pools and wells are accessible to the fire department.
- Use fire resistant, protective roofing (slate or tile rather than cedar shakes) and materials like stone, brick, and stucco to protect your residence. Wood materials offer the least fire protection. BC building codes require that all new roofing have good fire resistance but over time it can deteriorate, especially if there is combustible debris on the roof.
- Cover all exterior vents, attics, and eaves with metal mesh screens no larger than 6 millimeters or 1/4 inch to prevent debris from collecting and to help keep sparks out.
- Install multi-pane windows, tempered safety glass, or fireproof shutters to protect large windows from radiant heat. Use fire-resistant draperies for added window protection.

- Have chimneys, wood stoves, and all home heating systems inspected and cleaned annually by a certified specialist.
- Insulate chimneys and install spark arresters in chimneys and stovepipes. The chimney should extend at least 1 metre (~3 feet) above the roof.
- Remove branches hanging above and around the chimney.
- Before burning debris in a wooded area, check with local authorities whether burning is allowed, obtain a burning permit if applicable, and follow these guidelines:
 - Use an approved incinerator with a safety lid or covering with holes no larger than $\frac{3}{4}$ "
 - Create at least a 3 metre (~10-foot) clearing around the incinerator before burning debris.
 - Have a fire extinguisher or garden hose on hand when burning debris.

How to respond

If you receive an evacuation order:

- Assemble your family and pets, and leave immediately. If you wait, your escape may be blocked by flames or smoke, or you may hamper emergency responders who are trying to save lives and properties.
- Follow the instructions provided and use the route specified in the evacuation order. Watch for changes in the speed and direction of the fire and smoke.

If you receive an evacuation warning:

- Evacuate your pets and all family members who are not essential to preparing your home. Anyone with medical or physical limitations, the young and the elderly should be evacuated immediately.
- Face your car in the direction of escape. Shut the car doors and roll up windows.
- Disconnect automatic garage door openers so doors can be opened manually.
- Place important papers, mementos and anything "you can't live without" inside your car, ready for departure.
- Time allowing, remain behind to prepare your home inside and out:

Inside your home:

- Remove flammable drapes and curtains. Close all shutters, blinds or heavy non-combustible window coverings to reduce radiant heat.

- Close windows and all interior doors to prevent drafts.
- Open fireplace dampers. Close fireplace screens.
- Move flammable furniture into the centre of rooms, away from windows and sliding-glass doors.
- Turn on outside and inside lights to make house more visible in heavy smoke.

Outside your home:

- Gather fire tools such as a ladder, rake, axe, handsaw or chainsaw, bucket, and shovel.
- Close or cover vents to attic, eaves and fireplace; close basement windows, doors, pet doors, etc.
- Shut off natural gas at the meter. Only a qualified professional may turn the gas back on.
- Disconnect propane tanks and move them at least 10 metres (33 feet) from your home if possible.
- Connect garden hose to outside taps. Place lawn sprinklers on the roof and near above-ground fuel tanks. Wet the roof.
- Remove from around / against your house any items that will burn including wood piles, lawn furniture, barbeque grills, tarp coverings, etc.
- Fill pools, hot tubs, garbage cans, tubs or large containers with water, and unlock security fences so fire fighters have access to pools, decks, etc.
- Wet down, or cut down and remove shrubs within 5 metres (~15 feet) of your residence.

After a Forest Fire

- Follow the instructions provided by local officials. Do not try to re-enter the evacuation zone until officials rescind the evacuation order.
- When you return home, officials may advise you to watch for lingering dangers such as hot spots from smoldering tree roots.

EARTHQUAKES

The Pacific Northwest is prone to many different types of earthquakes. We have ample geological evidence and historical accounts of major quakes in our region's past. It is not possible to predict when an earthquake will occur, how large or what type it will be, or where the epicentre will be.



You may have a few seconds warning:

- a sound and vibration like a train rumbling down a track
- a sound like small stones or sand hitting a window
- a loud jolt, like a large truck hitting a building
- a brief interruption in hydro power (flickering of lights)

If the earthquake is small and short, this may be all you will experience. On the other hand, these are warning signs that can occur at the beginning of a major shock. Major earthquakes are usually followed by aftershocks, which may occur for many days or months after the main shock. Some aftershocks may be large. Both the main shock and aftershocks are earthquakes, and your response to all should be the same.

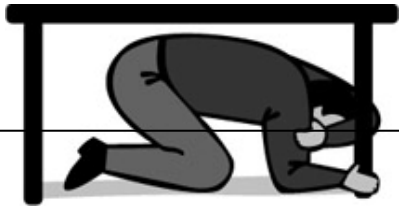
Prepare to Stay Safe

- Ensure family members know the safe spots in each room— against inside walls and corners, in narrow hallways, under sturdy tables or desks, and in closets.
- Search for potential hazards in your home using the Home Safety Checklist at the end of Part 1. Make recommended modifications to your home and furniture.
- Conduct earthquake drills. Call out "Earthquake!" Give family members time to react. After the drill, discuss what each did to be safe, and what each could have done.

How to Respond

1. Don't run. If you are outside, stay outside. If you are inside, stay inside. Do not shelter in doorways. Doors could slam on you and injure you. Brick chimneys, roof tiles and building facades could fall on you as you enter or leave a building.
2. Move to the safest place you can find, and **DROP, COVER and HOLD ON!** Ground movement is seldom the actual cause of death or injury. Most casualties result from falling objects and debris, like toppling chimneys, ceiling plaster, building facades, light fixtures and tall furniture, so protect your head and the back of your neck as much as possible.

A sturdy table or desk offers good protection from flying and falling objects. Hold on to a table leg with one hand, as the furniture may move around during an earthquake.



Safe locations

- If you are in bed curl into a fetal position, cover your head with a pillow and hold on.
- Take shelter under a sturdy desk or table, if possible. Hold onto a table leg and try to move with the furniture if it is sliding, so that you remain covered. If you are unable to take cover, grab whatever you can to protect your head and face: sofa cushions, pillows, blankets, coats, etc.
- Inside corners, interior hallways and closets are much stronger than outer walls. In a narrow hallway, brace your back against one wall, your feet against the other, and cover your head and neck with your arms.
 - If you are in a wheelchair, face an inside wall or corner, and lock the wheels. Cover your head and body with pillows or blankets to protect your head from falling objects.
 - If outdoors, get into an open area away from trees, buildings, walls and power lines.
 - In a moving vehicle, stop as quickly as safety permits and stay in the vehicle until the movement stops. Avoid stopping near or under buildings, trees, overpasses and utility wires. Proceed cautiously once the earthquake has stopped, watching for road and bridge damage.

Risky locations

- In kitchens, garages and workshops, heavy, sharp or breakable objects may fly off shelves or out of cupboards. Appliances may move. Pots of hot liquid or containers of chemicals may fall and splash. Move from the kitchen to a safer room if you can. In a workshop or garage, keep space clear under a workbench or counter so you can take refuge there rather than trying to exit through a door.
- Move away from anything that may fall, topple over or break (*e.g.*, glass objects, picture frames, free-standing tall bookcases / wall units, etc.)
- Teach your children to immediately move away from TVs, which may topple onto them. This is a common cause of injury to young children.
- In a high-rise building, move away from large windows and do not use the elevators.

- In a crowded public place, do not rush for the doors. Move away from display shelves containing objects that may fall.
- During aftershocks, which may quickly follow the main shock: squat, cover and hold on, but watch for debris before kneeling down.

Immediately After an Earthquake

- Stay in your safe location and count to at least 60 seconds, to give things time to settle.
- Before you move, check your immediate area for hazards: broken glass, spilled chemicals, or items that have shifted and may easily fall in an aftershock.
- If you are trapped under debris, do not light a match, move about or kick up dust. Cover your mouth with a handkerchief or clothing. Tap on a pipe or wall so rescuers can locate you. Use a whistle or flashlight if one is available. Shout only as a last resort (to avoid inhaling dangerous amounts of dust).
- Evacuate your family to an outside location free of potential hazards (trees, power lines, etc.). Do not enter your home until you know it is safe.
- Check your home for gas leaks, chemical spills, damaged electrical wiring and broken water pipes.
- Monitor local radio or television reports about where to get emergency housing, food, first aid, clothing and financial assistance.
- Check on your neighbors, especially seniors or the disabled.
- Damage to home and contents resulting from an earthquake is an insurable loss. If you have earthquake insurance, contact your insurance agent or company right away to begin your claims process. Keep records of any repair or cleaning costs. Take pictures of damage to your property or home.

Tip

Many earthquake survivors are seriously injured by stepping on broken glass and other debris. Wear firm-soled shoes indoors, and keep a pair by the bed at night.

Sheltering in Place (at Home) After an Earthquake

After a strong earthquake, accommodations may be in very short supply. Whenever possible, it is best to remain at home. Even if your home is damaged or littered with debris, all or part of the dwelling may still be safe to occupy.

If your home has not moved off its foundation, if gas and water leaks are stopped, and if you judge (or are told by officials) that your dwelling can withstand strong aftershocks and is safe to occupy, follow these suggestions for sheltering in place:

1. Rope off hazards in and around the home: damaged trees, cracked chimneys, unstable raised decks, unstable stairwells, *etc.*
2. Tape cracked windows, and tape plastic sheeting or heavy plastic bags over broken windows, damaged entrances and cracks in walls. Be wary of using ladders, which may tip in an aftershock.
3. Clean up chemical spills. (See Hazardous Spills section for advice.)
4. It could take many days to clean up the house, so start with a limited area. Choose a safe home entrance / exit door and clear it of objects, spills and debris. Choose a nearby room that will be safe to live and sleep in for a few days. Clear a path from that room to the home entrance / exit door.
5. Remove all debris from the room, and any furniture and objects that could cause injury during a strong aftershock.
6. Keep grab & go kits, emergency supplies & equipment, sleeping bags, and books / toys in the room with you. Young children may feel more secure in a small pup tent set up inside the room. Lightweight, inexpensive pup tents fold small for storage and are widely available.
7. Set up a stable, fireproof cooking surface away from flammable materials. Most camping / portable stoves and fuels must be used outdoors. Small burners using sterno fuel or butane cartridges may be safe for use indoors in a ventilated space.
8. If there is no water or sewerage, adapt a toilet for dry use and set up a sanitation station.

Tip

If there is no electricity to run a vacuum cleaner, use duct tape or wet paper towels to pick up fine particles of broken glass.

Make Your Home and Contents More Quake Resistant

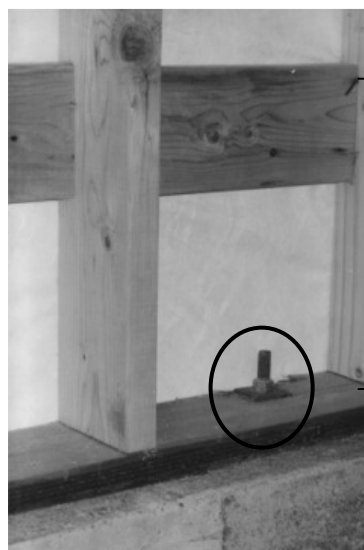
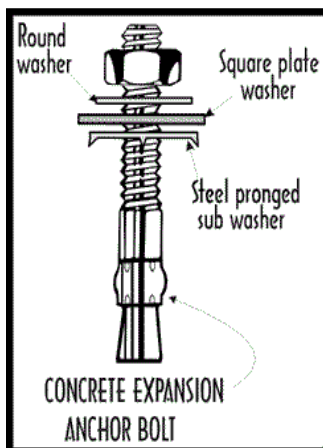
Homes framed in wood are generally quite resistant to earthquake damage. It is unlikely that conventionally framed houses will collapse if the home remains on its foundation and the roof, ceiling and walls remain connected. Here are some steps you can take to improve your home's stability in an earthquake. The cost of most changes is modest. Other changes are more expensive, but the cost could be far less than the insurance deductible for losses in a major quake. To make your home more quake resistant:

- Ensure the home is properly bolted to its foundation.
- Inspect and, if necessary, reinforce cripple walls (*a.k.a.* 'pony walls').
- Consult an engineer on how to secure brick, stone and masonry.
- Reinforce windows.
- Protect interiors from falling chimney bricks.
- Secure and arrange objects in your home to prevent injuries:
 - Strap the water heater to wall studs.
 - Secure tall, free standing furniture to wall studs.
 - Secure microwave ovens, TVs, computers and other electronics so they do not fly off the shelf.
 - Use 'earthquake' hooks for heavy and framed, glass-covered pictures
 - Install earthquake-proof latches on cupboards.
 - Ensure hanging lamps are securely affixed to the ceilings.

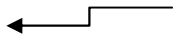
Foundations

Most residential structural damage is caused by homes sliding off their foundations during major earthquakes. If a home is off its foundation, it is usually condemned and demolished. This can be prevented by properly bolting the home to its foundation.

- Check your house and garage for foundation bolts. Have your home inspected to ensure anchor bolts have been properly installed. These bolts secure the wood structure to the concrete foundation. They are placed approximately 2 metres (~6 feet) apart along the sill plate and should look like the one illustrated on the next page.
- Using a hammer drill and carbide bit, drill a hole through the sill plate into the foundation. Place these holes every 2 metres (~6 feet).
- Drop a $\frac{1}{2}$ " x 8" expansion bolt into the hole and finish by tightening the nut and washer.



Cripple wall
above concrete
foundation

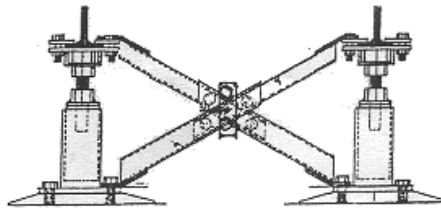


Anchor bolt
through sill plate

mobile home foundations

A mobile home can be thrown off its supports during even minor shaking.

- Leave the wheels on the coach to limit its fall.
- Check the undercarriage to make sure that it has been securely tied to the foundation.
- Tie doublewide mobiles together. The two halves generally are of different weights. Because of this, they move differently in an earthquake and can easily pull apart.



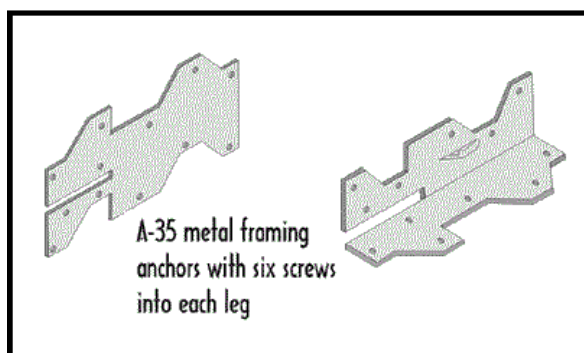
Cripple walls / pony walls

- Inspect the vertical studs that extend from the foundation to the first floor of your home. These are called cripple walls or pony walls. If they are exposed on the inside, they could buckle with severe ground motion.
- Strengthen the cripple walls by nailing plywood sheeting to the vertical studs.
- Inspect the garage for exposed cripple walls. This is particularly important if the garage is supporting living quarters.

Framing

For a building to stay together in an earthquake, all of its parts must be fastened together. Metal connectors (brackets) are used to strengthen places where the posts and beams of the walls, and the floor and ceiling join.

- Strengthen the connection between ceilings, walls and floors using the appropriate hardware, including exposed framing in garages, basements, porches and patio covers. Strengthen this where necessary.



Framing hardware

Brick and masonry façades

Brick, masonry and stone façades are very susceptible to earthquake damage. During an earthquake, family members need to keep away from such facades. If you have a large amount of brick or stone in your home you may want to consult a structural engineer for advice on how to secure it.

Windows

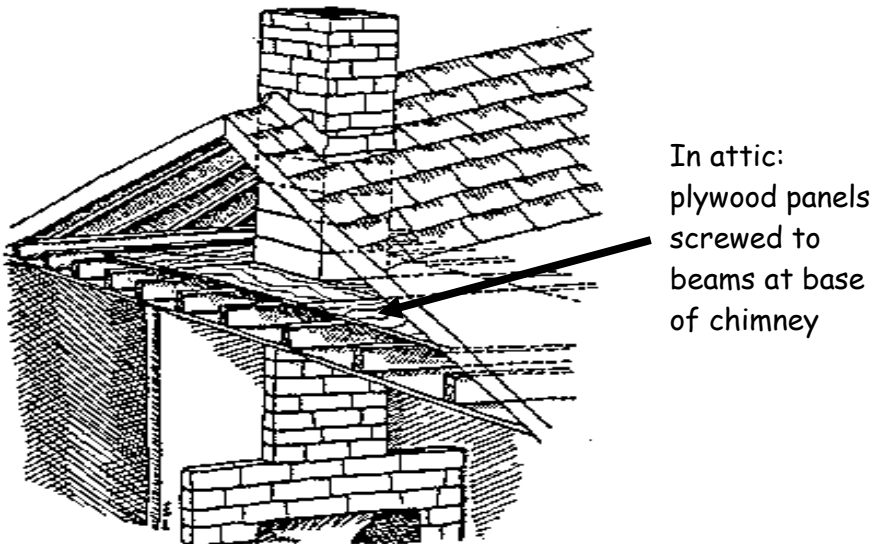
Windows are a major hazard in an earthquake. As the building moves, pressure on the windows may cause them to shatter.

- Consider adding a safety film to the inside of all windows greater than 60 square centimetres (2 square feet) in size. This does not prevent the window from cracking, but it does keep the glass from falling and injuring loved ones.
- Closing heavy drapes at night can prevent glass from flying into seating and sleeping areas.

Chimneys

Toppled chimneys are one of the most common types of earthquake damage. This becomes extremely dangerous when bricks penetrate the roof and fall to the rooms below.

- Check the chimney for loose tiles and bricks. Have it repaired and re-pointed if necessary.
- In the attic, reinforce the floor surrounding the chimney with 5/8" (5-ply) plywood screwed to the beams. This will protect the rooms below from falling bricks.



Wood-burning appliances

A typical wood-burning stove or heater weighs between 100 and 150 kilograms. It can easily topple over from the rolling action of in an earthquake. This movement can cause a fire or let smoke and other gases to leak into the house. Have a professional secure your wood-burning appliance so it will not move or topple over. If you do the work yourself have it inspected. Do not compromise your safety.

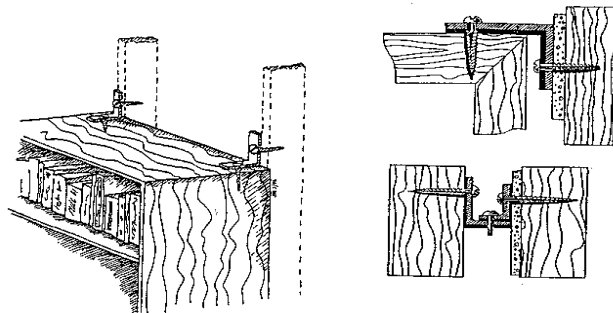
Furniture and contents

A major earthquake can cause substantial damage to your possessions. Approximately one-third of the cost of earthquake damage is from non-structural losses like furniture, equipment, heirlooms, etc.

How you secure your furniture depends upon its value, location and your imagination. There are many ways to protect each piece:

- Secure all tall free-standing furniture, such as bookcases, china cabinets and shelving units to the wall studs using "L" brackets, corner brackets or anodized aluminum moulding. Examples are illustrated.
- Attach a wooden or metal guardrail to open shelves to keep items from sliding off. This is especially important wherever there are a lot of glass items.
- Place heavy and/or large items on lower shelves.

Fastening hardware for furniture and contents



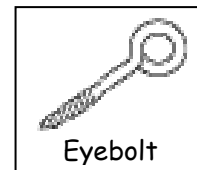


Securing items to shelves and countertops

- Secure items such as televisions, stereos, computers and microwaves. Children who sit close to TVs are frequently injured when TVs fly off the shelf.
- Use Velcro, putty, museum wax, dental wax or double-sided tape to secure breakable collectibles to shelves.
- Lay a rubber strip across the front of bookcases to help keep books and files from sliding forward. Or install decorative removable wooden or wrought iron library rods.
- Rubbery shelf liner helps keep items from sliding off shelves.

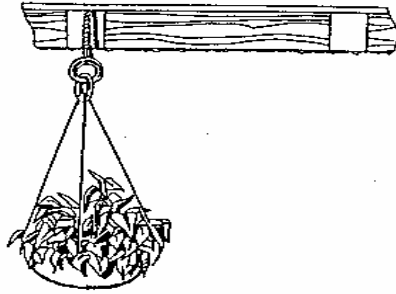
Pictures and mirrors

- Consider moving all framed pictures and mirrors away from beds, couches and chairs.
- Place angle screws at the top and bottom or secure frames to an eyebolt with wire. Screw the eyebolt directly into wall studs if possible.
- Poster Putty or Velcro may also be used in diagonal corners to secure pictures, mirrors, wall clocks, *etc.* to the wall.
- Window safety film can be applied to mirrors to prevent injury from breakage.



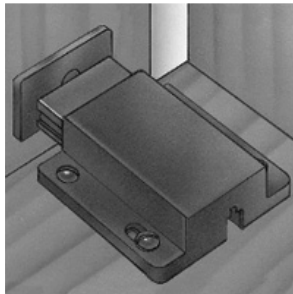
Hanging objects

- Check the location of hanging plants and other hanging objects. Determine if they could strike windows in the motion of an earthquake. If so, consider moving them.
- Secure these objects by closing the gap in the hook. Make sure the hook is screwed directly into a ceiling stud.



Kitchen cabinets

To prevent cabinet doors from flying open, install one of the latches shown below, or consider seismically tested “passive” latches that engage only when shaking starts.



Cabinet Push Latch

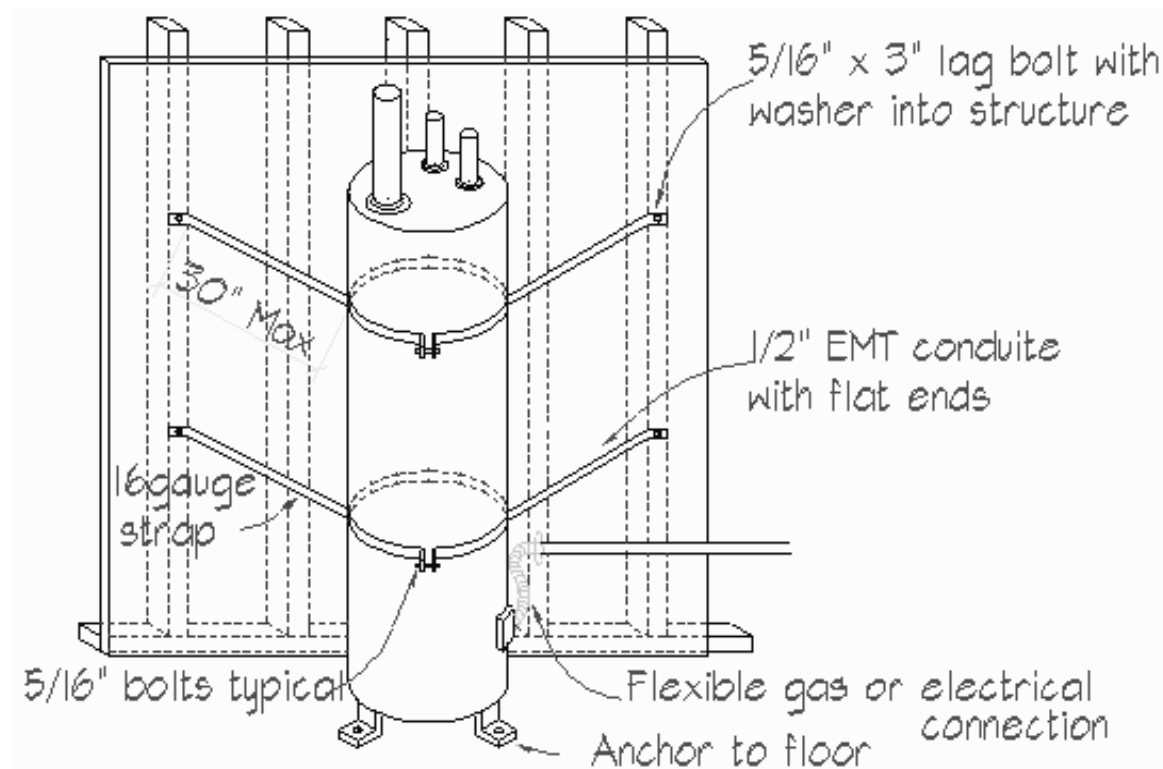


Cabinet Pull Latch

Water heaters

A typical water heater weighs between 200 to 400 kilograms when full. The jolts and motions that accompany most earthquakes can cause them to topple over. This movement can also cause the natural gas and water line connectors to break.

- Wrap a 1 $\frac{1}{2}$ " wide, 16 gauge thick metal strap around the top of the water heater and about 1/3 of the way up from the bottom. Bolt the ends together.
- Take four lengths of EMT electrical conduit, each no longer than 30 inches. Flatten the ends. Bolt one end to the metal strap as shown. Screw the other end to a 2" by 4" stud in the wall using a 5/16" by 3" lag screw.
- For natural gas hot water heaters, a flexible pipe may be installed to connect the gas supply. The installation should be carried out by a licensed gas fitter.



TsunamiS



A tsunami is a natural hazard consisting of a series of long, surge-like waves generated when a large volume of ocean water is rapidly displaced by a coastal landslide, an undersea earthquake or an undersea volcano. There is no way to predict when these types of tsunami-generating events will occur.

- Most tsunamis are caused by a major undersea or coastal earthquake where there is significant displacement of the ocean floor. These "subduction zone" earthquakes cause strong shaking on land, and also cause some of the biggest tsunamis, in terms of wave height at shore and the size of the area that will be subject to flooding (the *inundation* area). Tsunamis quickly affect coastal areas nearest the earthquake site, but over many hours they can also cross the Pacific to affect foreign coastal communities.
- Coastal landslides, undersea landslides and volcanic eruptions can occasionally cause tsunamis too, but they affect a much smaller length of coast and are infrequent. Some landslides and eruptions are not associated with trembling of the earth, so be aware of other warning signs of a tsunami. Always evacuate if the ocean recedes from the shore, or if the ocean roar sounds like a jet engine.

How Tsunamis Behave

Tsunamis are known for their capacity to violently flood coastlines, causing devastating property damage as well as injuries or death to those who do not evacuate to high ground.

A tsunami is a series of waves. The first wave to arrive is often not the largest, and each wave may be separated by up to an hour or more. Waves may continue for many hours. Stay away from the shore until local government officials tell you it is safe to return.

Tsunami waves differ from ordinary coastal waves in that the entire column of water from the ocean floor to the surface is affected. Tsunami waves contain considerable energy and travel further inland compared to ordinary coastal waves. A tsunami may not look like a wave at all, but will have very strong currents under the surface.

Distant vs. Local Tsunamis

- A **distant tsunami** is the result of an earthquake in a distant area of the Pacific Ocean. Saanich Emergency Program and Emergency Management British Columbia (EMBC) monitor a number of channels including the West Coast Alaska Tsunami

Warning Centre (WCATWC). WCATWC will issue one of three alerts - a Watch, an Advisory, or a Warning, and EMBC will do the same. Emergency management personnel will issue alerts via local TV and radio channels, and social media.

- **A local tsunami** will be associated with a “felt” earthquake in our own region. There will likely be no time for official warnings because the tsunami has originated so near the coast. As well, communications networks may be disrupted by the quake. Strong shaking IS the warning to move to higher ground.

Official Tsunami Alerts

- **Warning** — the highest level of tsunami alert. Warnings are issued when there is the imminent threat from a large tsunami after large undersea earthquake, or following confirmation that a potentially destructive tsunami is underway. Warnings may initially be based only on seismic information as a means of providing the earliest possible alert. Warnings advise that appropriate actions be taken in response to the tsunami threat. Such actions could include the evacuation of low-lying coastal areas.
- **Advisory** — the second highest level of tsunami alert. Advisories are issued when a tsunami has the potential to produce strong currents dangerous to those in or near the water. Significant inundation is not expected for areas under an Advisory but coastal zones may be at risk due to strong currents. Appropriate actions by local emergency management personnel may include closing beaches and evacuating harbours and marinas.
- **Watch** — the lowest level of tsunami alert. Watches are based on seismic information, without confirmation that a destructive tsunami is underway. There is a potential threat to a zone under a tsunami Watch, but communities have time to prepare. Emergency management personnel and coastal residents should prepare to take action in case the Watch is upgraded.

Other tsunami advisories:

- **Information Statement** — issued when an earthquake has occurred locally and there is no threat of a destructive tsunami affecting coastal BC. Information Statements prevent unnecessary concern when an earthquake has occurred but there is no tsunami threat.
- **Cancellation** — cancels any previously issued tsunami messages. It is issued when there is no longer observed evidence of tsunami waves at tide gauge stations. Once a cancellation has been issued for a tsunami event, Emergency Management BC will no longer issue tsunami messages; however, local conditions may differ from those at tide gauge stations and local authorities should determine the safety of coastlines.

How to Respond to Natural and Official Tsunami Warnings

Do not remain on the shore to watch a tsunami arrive. A few inches of tsunami floodwater can sweep you off your feet and pull you under.

- If you feel strong shaking from an earthquake, **drop, cover and hold**. When the shaking stops move to higher ground if you are near the coast, on a beach, or near a river or stream that leads to the ocean. If you cannot reach higher ground take the stairs to upper floors (3rd storey or higher) of a concrete building, or move inland as far as possible.
- If you notice a sudden very low tide, or hear the ocean roar like a jet engine, move inland immediately.
- If you receive an official warning, leave quickly and comply with all instructions. **There is nothing you can do to defend your home against a tsunami.**

After a Tsunami

- Stay out of flooded and damaged areas until officials announce it is safe to return.
- Watch for debris in the water. It may pose a safety hazard to boats and people.
- If your property has been flooded by a tsunami, consult the section on **Floods**, which offers detailed advice on post-flood hazards and clean-up.

Local Tsunami: Arrival Times and Wave Height on Vancouver Island

Vancouver Island is in the Cascadia Subduction Zone. Undersea earthquakes in this zone would occur about 100 km off the West Coast of the Island, and a major shake of this type ("The Big One") would generate a local tsunami affecting all coastal areas of the Island to varying degrees.

The chart on the next page is based on scientific data gathered from recent tsunami around the world. The estimates take into account maximum earthquake magnitude, normal high tide levels and the possibility that areas of the coast will sink (subside) during the earthquake, making them more prone to flooding. A further margin of safety is added to the calculations. Therefore, if you evacuate to land that is higher than the maximum water level shown for each area listed, you will likely be safe from the tsunami. Note that the first wave will not be the largest wave.

Local Tsunami: Arrival Times and Wave Height

CRD / Greater Victoria	First wave arrival time	Time to maximum water level*	Maximum Water level (m) / (ft)
<i>From a 2012-2013 CRD-commissioned scientific study.</i>			
Port Renfrew (entrance)**	35 min	50 min	3.5 / 11.5

Sooke Harbour (entrance)**	60 min	75 min	2.5 / 8.2
Esquimalt Harbour (entrance)**	77 min	96 min	2.7 / 8.9
Victoria Harbour & Gorge Waterway (entrance) **	76 min	95 min	2.5 / 8.2
Cadboro Bay	90 min	160 min	2.0 / 6.6
Sidney	110 min	150 min	2.0 / 6.6

**** Important Note:**

- The tsunami could build in height after passing the entrance and reaching the more confined inner areas of harbours and waterways. At the head of the Gorge, for example, the maximum wave height could be 4.2 metres (14 feet), not 2.5 metres.

Tip

In the event of a tsunami, the easiest way to be safe throughout Greater Victoria is to seek high ground that is more than 4 metres (14 feet) above the highest tide level. Or, 'evacuate up': take the stairs to the third floor of a concrete building.

PANDEMICS (INFECTIOUS DISEASE OUTBREAKS)

Pandemics happen when a new virus strain, which can spread easily from person to person, spreads quickly around the world. If it causes serious illness or death, a pandemic can disrupt the normal functioning of society. No one can predict exactly when a pandemic will happen.



Influenza ("flu") viruses are the most common cause of pandemics. Since people have no protection against a new virus, it can cause more illnesses and more deaths than seasonal flu.

Flu pandemics have happened every ten to forty years for at least the last 500 years. Three occurred in the 20th century, the last in 1968. The most severe, often

called the "Spanish Flu", was in 1918.

The flu can be spread easily by an infected person from about one day before symptoms start to appear until as many as five days after symptoms appear, and possibly longer in children and some adults. You can catch the flu by:

- breathing tiny droplets that are in the air after an infected person coughs or sneezes;
- sharing food, cosmetics or utensils with an infected person;
- touching tiny droplets of nose or eye secretions from an infected person and then touching your eyes, nose or mouth; or
- touching dirty tissues or objects that have been handled by an infected person and then touching your eyes, nose or mouth. The flu virus can be picked up from hard surfaces like doorknobs for up to twelve hours, and from softer/porous surfaces, like hands and tissues, for several minutes.

During Flu Season: Prepare!

- Ask your doctor whether you should have a flu shot each year.
- Follow good health practices:
 - Eat well, get enough sleep and exercise regularly.
 - Wash your hands often and for at least 20 seconds with ordinary soap and warm water, and always after you cough or sneeze. This is one of the best and easiest ways to protect yourself from the flu!
 - Practice good cough manners. Cover your mouth and nose with a tissue when you cough or sneeze, or cough into your upper sleeve if you don't have a tissue. Throw the used tissue into the garbage right away and wash your hands.
 - Stay home if you are sick, to get the rest you need and so that you don't spread your germs.
- Stay away from people who are sick. You should especially try to stay at least 1 metre (~3 feet) away from people sick with the flu. Avoid public gatherings and crowds. *If you must be in a crowded place or travel by plane, bus or train*, note that some pharmacies carry nasal sprays and salves designed to help you resist airborne infections.
- Avoid touching your eyes, nose and mouth.
- Stock up on food, clear fluids (soups and juices), tissue, and over-the-counter remedies to deal with the discomforts of flu. Ask your pharmacist for advice on remedies, and tell him / her of any conditions you may have.
- If you live alone, arrange mutual aid with a neighbour or nearby friend. If one gets the flu, the other may stay in touch by phone, deliver medicine and food to the doorstep, etc.
- Keep a list of contacts by the phone: your doctor, drugstore, friends / family.

- Keep your grab & go bag ready in case you must go to the hospital.
- Visit <http://www.healthlinkbc.ca> for up-to-date information about influenza.

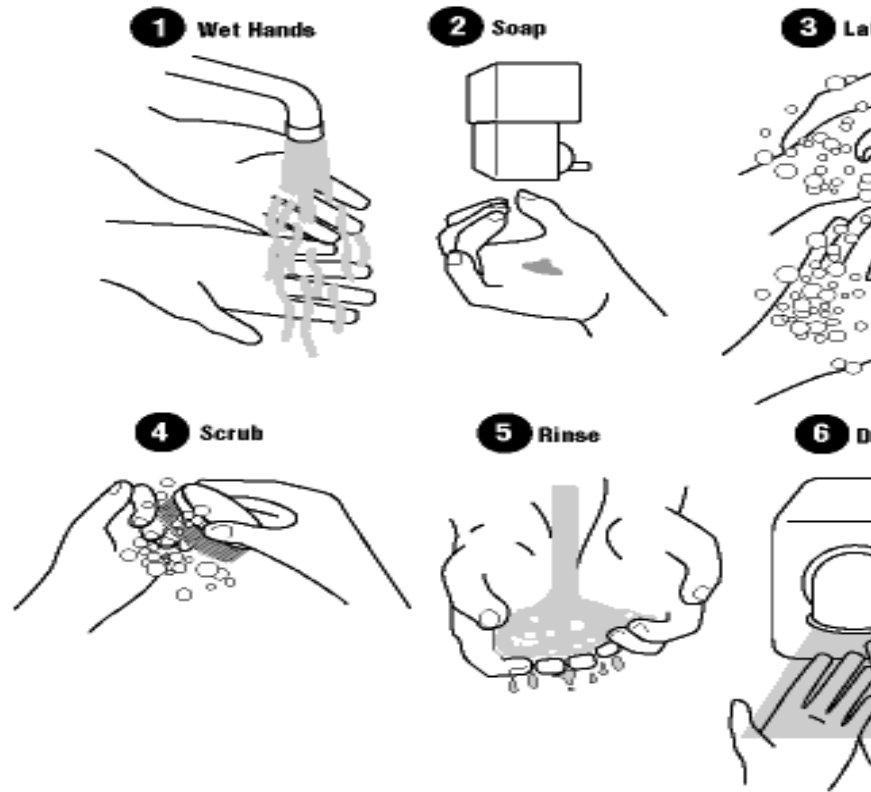
If You Have the Flu

- If many people are sick, it may be difficult to get medical care. Be prepared to take care of yourself and others at home as much as possible.
- If you are feeling unwell, contact the BC Nurses Hotline from anywhere in BC at 811 (711 for people with hearing impairments). Translation services are available in more than 130 languages. A health service representative can also connect you with:
 - a registered nurse any time, every day of the year;
 - a registered dietician every weekday;
 - a pharmacist after hours (from 5pm to 9am) every day of the year.
- Call your doctor about your symptoms before visiting so that you don't infect other people at the office. If special clinics for people with the flu or flu-like symptoms have been set up, your doctor's office may ask you to go there instead.
- Make sure a neighbour, friend or relative knows you are ill and can check on you by phone frequently to ensure you're coping. This is especially important if you are alone, a single parent or responsible for the care of someone who is frail or disabled.
- Home treatment and self care may relieve most symptoms and reduce the risk of further problems.
 - Drink lots of fluids including water, real juice and herbal teas. It is best to have drinks without caffeine, because caffeine makes you lose fluid from your body.
 - Use a hot water bottle or heating pad for short periods of time to help reduce muscle pain. Watch for burns and blisters.
 - Get lots of rest.
 - Take a warm bath with Epsom salts.
 - Gargle with warm water and/or suck on sugarless hard candy or lozenges to ease a sore throat.
 - Avoid alcohol and tobacco. Smoking especially irritates damaged airways.
 - Avoid sharing anything that may carry germs such as towels, lipstick, cigarettes, drinks, or toys.
- Wash your hands often. Use soap and warm water for at least 20 seconds each time. This will help you avoid spreading the flu to others.
- **For children, seek medical care right away if you notice any of the following:**
 - fast or troubled breathing,

- bluish or dark coloured lips or skin color,
- drowsiness to the point that you cannot wake your child,
- severe crankiness, not wanting to be held,
- not drinking enough fluids and / or not urinating regularly (about every 6 hours when awake), or
- symptoms improve and then suddenly become worse.
- **For adults, seek medical care right away if you have any of the following:**
 - difficulty breathing or shortness of breath,
 - pain or pressure in the chest or stomach,
 - confusion or disorientation,
 - coughing up bloody sputum,
 - severe vomiting or vomiting that does not go away, or
 - symptoms improve and then suddenly become worse.

Proper Hand-washing

- Wash hands thoroughly:
 - after using the bathroom,
 - after handling pets,
 - before handling or preparing food, and
 - before and after administering first aid.
- Wash hands frequently during flu season to protect yourself from infection.
- Plain (non-antibacterial) soap and potable water are sufficient.
- Scrub your hands, wrists, and between your fingers for as long as it takes to sing "Happy Birthday" twice.



WINTER STORMS

Though Southern Vancouver Island has relatively mild winters, occasional winter storms can wreak havoc with strong winds, heavy rains, black ice or unexpected snow. As well, we may need to drive in areas where road conditions may change suddenly.

Prepare

- Stock up on rock salt to melt ice on walkways and steps. Keep snow shovels and other snow removal equipment on hand. Stock enough heating fuel. Prepare alternate sources of heat such as your fireplace or wood-burning stove.

- Winterize your home by insulating walls and attics, caulking and weather-stripping doors and windows, and installing storm windows or covering windows with plastic. This reduces the demand on emergency heating fuel.
- Winterize your car before the season begins. Consider purchasing winter tires. Keep sand or non-clumping kitty litter in your car trunk and at home to improve traction.
- Trim branches and dead trees to reduce the threat of trees falling onto your home, vehicle or power lines.
- Check the drainage around your house to reduce flooding risk after a heavy rain.
- When you go out, take along mitts, a hat and a warm jacket in case you are surprised by the weather.

How to Respond

- Check on your neighbours, especially elderly and vulnerable people.
- Listen to local weather reports and stay tuned for emergency information.
- Eat regularly and drink ample fluids; avoid caffeine and alcohol that dehydrate.
- Conserve fuel, if necessary, by keeping your residence cooler than normal or closing off heat to some rooms temporarily.
- Avoid overexertion when shoveling snow. Stretch before going outside and again afterwards to keep from getting stiff and sore.
- When using kerosene heaters or lanterns, keep a window open slightly to avoid a build-up of toxic fumes. Refuel kerosene appliances outside and keep them at least 1 metre (~3 feet) from flammable objects.
- Watch for signs of hypothermia: uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness, and apparent exhaustion. Move the person to a warm location, remove wet clothing and warm the centre of the body first. Give warm, non-alcoholic, non-caffeine beverages if conscious. Get medical help as soon as possible.
- Watch for signs of frostbite - loss of feeling and white or pale skin in extremities such as fingers, toes, ear lobes, and the tip of the nose. Get medical help immediately.
- Sleeping bags are usually warmer than sheets and blankets.

Clothing Tips

- Wear several layers of loose-fitting, lightweight, warm clothing rather than one layer of heavy clothing. The outer garments should be tightly woven and water repellent.

- Mittens are warmer than gloves; wool stays warm even when wet; silk neck scarves help keep body heat inside jackets.
- If your house is very cold wear a hat even while sleeping, to avoid hypothermia.
- Cover your mouth with a scarf to protect your lungs.

Driving in Winter Storms

Drive only if it is absolutely necessary. Travel during the day, travel with someone, and keep others informed of your schedule. Stay on main roads and avoid back road shortcuts.

If a blizzard traps you in the car:

- Pull to the side of the road. Turn on hazard lights and hang a distress flag from the radio antenna or window.
- Remain in your vehicle where rescuers are most likely to find you. Do not set out on foot unless you can see a building close by where you know you can take shelter. Be careful. Distances are distorted by blowing snow. A building may seem close, but be too far to reach in deep snow.
- Use lights, heat, and radio sparingly to conserve battery power. Run the engine and heater about 10 minutes every half hour to keep warm. In addition to your hazard flashers, turn on the inside light at night periodically so work crews or rescuers can see you.
- Periodically clear snow from the exhaust pipe to prevent carbon monoxide poisoning. Remember, you can't smell carbon monoxide fumes. Keep a window open slightly on the side away from the wind, to allow fresh air into your car.
- Exercise to maintain body heat, but avoid overexertion. In extreme cold, use foil emergency blankets, road maps, seat covers, and floor mats for insulation. Huddle with passengers and use your coat for a blanket. A burning candle can provide much needed heat to keep you from freezing -- use a canned safety candle to reduce fire risk.
- Take turns sleeping. One person should be awake at all times to look for rescue crews.
- Drink fluids to avoid dehydration.
- If stranded in a remote area, stomp large block letters in an open area spelling out HELP or SOS and line with rocks or tree limbs to attract the attention of rescue airplanes.

After a Winter Storm

- Check your home for storm damage.
- Make repairs. Restock emergency supplies.

HAZARDOUS MATERIALS SPILLS

Spills of chemicals and other contaminants may occur in transportation, industry, businesses, medical centres and even our homes. Hazardous spills can create a secondary disaster following an event such as an earthquake or flood.

After a large spill, evacuation is common but in some cases, officials may judge that evacuation would pose a greater risk than having people remain indoors. Be prepared for either scenario.



Prepare

- Learn how to turn off all intakes and exhaust fans for air conditioning and heating systems, in case evacuation is too dangerous and you are required to shelter at home.

- Be sure your home emergency kit contains supplies to repair or seal off a broken window or other damage to the building envelope where contamination could enter.
- Store household chemicals properly:
 - Keep only chemicals you need and use. Dispose of old or unwanted chemicals at a designated collection depot.
 - Place pesticides, gasoline, paint thinners, and other chemicals on the floor, on a low shelf or in a cabinet with earthquake-proof latches. **Note:** Store ammonia and bleach in separate locations. If mixed through breakage, they create toxic fumes.
 - Store chemicals away from children's play areas and food / water storage.
 - Keep chemical container lids tightly closed.

How to Respond

- Call 911 to report a hazardous spill.
- Stay away from the site to minimize the risk of contamination. Listen to the radio for instructions and information about a possible evacuation.
- If outside during an incident, try to stay upstream, uphill and upwind. Hazardous materials can quickly be transported by water and wind. Never move through a gas cloud. Travel cross-wind to avoid fumes.
- If in a vehicle, close windows and shut off ventilation. This will reduce the risk of contamination.
- If evacuation is necessary, comply with instructions and follow the recommended route. If leaving animals at home, make sure all the doors and windows are closed.
- If you are ordered to shelter inside ("shelter in place"), comply, even if you can smell fumes inside the building. The fumes will be even stronger outside.

Sheltering in Place

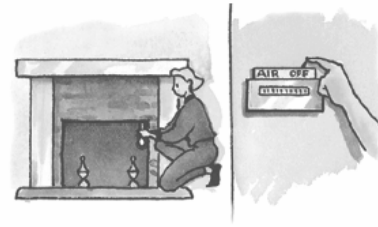
- Do not risk your safety to look for pets. If they are not inside, shelter in place without them.
- While inside, stay tuned to local television or radio for information updates and use telephones only to call 911 for emergencies.



■ Go inside.



■ Close all windows and doors.



■ Turn off ventilation systems (heating and air-conditioning, and fireplace dampers).



■ Go into a room with the fewest doors and windows and seal the room.



■ Stay in the room until told by the authorities that it is safe to come out.

After a Spill

- If you have been exposed to a hazardous material, follow official decontamination instructions.
 - You may be advised to take a thorough shower or follow another procedure.
 - Place exposed clothing and shoes in tightly sealed containers. Ask local authorities about proper disposal.
 - Seek treatment for unusual symptoms as soon as possible.
- If evacuated, do not return home until local authorities say it is safe. Upon returning home, open windows and vents and turn on fans to provide ventilation. Find out from local authorities how to clean up your land and property.

Cleaning Up Spills After an Earthquake

Though not an immediate priority, check your stored chemicals as soon as possible.

- Wear disposable gloves.

- Clean up spilled chemicals with rags or paper towels that can be discarded. Do not use your water supply to rinse out rags.
- If several bottles have broken, try to clean up each chemical separately. Then place rags in individual plastic garbage bags. (Mixing the chemicals may cause a reaction.) The individual plastic bags may be put in a larger trash bag.
- To avoid spontaneous combustion fires, rags and paper that have been used to mop up oils should be placed in a separate bag and kept well away from vehicles, buildings and any other combustibles.

FLOODS

Prepare

- Be aware of your property's susceptibility to flooding, and of flood height forecasts for your area.
- Take steps to minimize loss and damage:
 - store valuable items on upper floors;
 - keep all chemicals out of the basement;
 - install check-valves in sewer traps so flood water cannot back up in sewer drains.
- Find out what kinds of flooding are covered by your home insurance policy.
- Make an inventory of your possessions, valuables, papers and property.



- Learn the safest route from your home or business to high, safe ground. Be aware that high waters can cut off your return route.

If You Must Evacuate

- Lock all doors and windows. Ensure gas and other heating fuel sources are turned off and that electricity and the water are shut off at the main valve or breaker leading to the house.
- Remove insecticides and toxic chemicals from the house to prevent contamination.
- In your grab & go bags, ensure all personal documents and family papers are sealed in plastic. In addition to the grab & go bags, take a blanket, warm clothing, and waterproof outer wear and footwear for each person.
- Ensure each family member has identification, especially the young children. Name tags on the inside of clothing, wallet cards or wrist bands are all useful.
- Review your family reunification and sheltering plan. Choose a destination and alternate before leaving and make sure each family member knows where it is. Ensure children's grab & go bags contain a note, sealed in plastic, stating the family's destination and a few key contacts.

Staying Safe During a Flood

- Avoid floodwaters. They may be contaminated by oil, gasoline, or raw sewage. Water may also be electrically charged from underground or downed power lines.
- Do not walk through moving water. Six inches of moving water can make you fall. If you have to walk in water, walk where the water is not moving. Use a stick to check the firmness of the ground in front of you.
- Stay out of any building surrounded by floodwaters. Be careful when entering buildings. There may be hidden damage, particularly in foundations.

Driving in Flood Conditions

15 cm (6 inches) of water will reach the bottom of most passenger cars, causing loss of control and possible stalling.

30 cm (1 foot) of water will float many vehicles.

60 cm (2 feet) of rushing water can carry away most vehicles including sport utility vehicles (SUVs) and pick-ups.

Do not drive into flooded areas. If you are caught in a flood while driving, or must drive through a flood zone to evacuate, follow these safety precautions:

- If floodwaters rise around your car, you and the vehicle can quickly be swept away. Leave the car and move to higher ground if you can do so safely.
- Familiar roads will appear drastically different when covered by flood waters. Take extra care when driving.
- Be on the lookout for damaged bridges, slides and washouts and be particularly alert for downed power lines. Report these to the power company.
- Be alert for emergency personnel and signs providing evacuation directions. Obey officials who are directing traffic or involved in rescue or flood control operations.
- Be aware of areas where floodwaters have receded. Roads may have weakened and could collapse under the weight of a car.

Returning Home

- Do not return home until local officials announce that it is safe to do so in your area. Some areas will become safe sooner than others. Many flood hazards are not obvious. While lengthy evacuations can be frustrating, remember that if your return is delayed, it is because officials know that your area is still too hazardous to enter.
- You may not be permitted to return to your neighbourhood until officials have made arrangements for:
 - a safe water supply,
 - utilities inspections / service restoration, and
 - sewerage (solid waste disposal).
- Your house may be inspected for health and safety hazards before it is declared safe for occupancy.
- Use extreme caution when entering buildings: there may be hidden damage, particularly in foundations. Wear rubber boots and gloves to avoid contamination. If you smell natural gas or propane, do not enter. Call your local gas company immediately.
- Air out the building before you spend time inside.

Restoring Your Home

- Keep heat at or below 4 °C to reduce mould and bacteria growth. Add 2 litres of bleach to flood water every 3 days to retard the growth of bacteria and mould.

- If there is water inside, pump out a third of the flood water each day. Further damages to the structure can occur by pumping water out too quickly.
- After flooding, natural gas lines, equipment and appliances must be checked, and all leaks repaired and pressure tested by a licensed gas fitter.
- Do not handle live electrical equipment in wet areas. Do not use electrical equipment that was exposed to floodwaters until it has been professionally checked and serviced.
- Repair damaged septic tanks, cesspools, pits, and leaching systems as soon as possible. Damaged sewage systems are serious health hazards.
- Clean and disinfect everything that got wet. Mud left from floodwater may contain sewage and chemicals.

Food and Kitchen Clean-up After a Flood

- Never eat food that was submerged in flood waters. Health officials recommend disposal of the following food items:
 - fresh and dried foods,
 - canned goods, if damaged and showing signs of leakage,
 - home-canned foods and bottled foods (contamination can gather under caps),
- Only undamaged, commercially-prepared foods in sealed, unopened, airtight, waterproof cans, jars or pouches are entirely safe to use. However, these cans and/or pouches must be carefully inspected, cleaned and disinfected before use by following these procedures:
 1. If possible, remove the labels since they could have come into contact with dirt or bacteria. Re-label each can or pouch, including the expiry date, with a permanent marker that will not wash off or bleach out.
 2. After labels are removed, clean cans by washing them for two minutes with a mild bleach solution: 5 ml (or 1 tsp) of bleach per 750 ml (or 3 cups) of water.
 3. Air-dry all cleaned food cans, jars and pouches to prevent potential contamination when the containers are opened.
- Food preparation equipment, surfaces, dishes and utensils should be properly sanitized with a mild bleach solution: 1 part chlorine bleach to 4 parts water.
- It is important to allow equipment, surfaces, dishes and utensils to air dry thoroughly before storage / use. Do not stack wet cutting boards. Bacteria can multiply in trapped water.

Protecting Your Home When Flooding is Imminent

1. Wrap the exterior lower levels of your home with polyethylene sheeting to provide extra protection to your home's structure. Use sandbags to secure the base of the

sheeting and brace the structure with 2" by 4"s and sandbags. (Officials will announce where sandbags and sand can be obtained.)

2. Shut off the main power breaker to your house and outbuildings. In suburban or rural areas the yard switch must be opened.
3. Shut off the gas supply valve to all appliances. These valves are usually in the gas line near the bottom of the appliance.
4. Turn off the propane valve at the tank. Disconnect tubing to tank and securely plug it. Fasten a cable, heavy rope or chain around the tank and secure the other end to a pole, building or substantial structure to prevent the tank from floating away.
Note: Once the flood waters have receded, have a qualified technician safely re-connect the tank to appliances. Do not attempt this yourself.
5. Move chemicals such as weed killer, insecticides and corrosives to a dry area to reduce the likelihood of contamination, fires, explosions and personal injuries.
6. Time allowing, move valuables to upper floors.

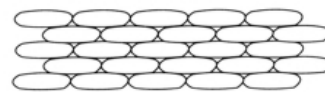
Sandbag Dykes

To resist the forces of flood water, a dyke must be 3 times as wide at its base as it is high. For example, a dyke 1 metre (~3 feet) high needs to be 3 metres (~10 feet) wide at the base. If you choose to construct a sandbag dyke to protect your property, follow these steps to ensure that it is effective:

1. Dig a trench one sack deep and two sacks wide as a foundation for the dyke structure.
2. Fill sandbags only half-full. Individual bags need not be tied shut. Overlapping the bags will hold the sand in place.
3. Lay bags in layers, in alternating crisscross directions. Tamp each bag firmly into place, to ensure that the finished dyke will stand.
 - The base level should be laid in the same direction as the water flow
 - The second level should be laid perpendicular to the direction of the water flow.
 - Continue alternating directions for subsequent layers.
4. Each layer must be set back one-half sandbag width on both sides from the previous layer so that the cross-section looks like a triangle.

RECOMMENDED METHOD FOR SANDBAG DYKING

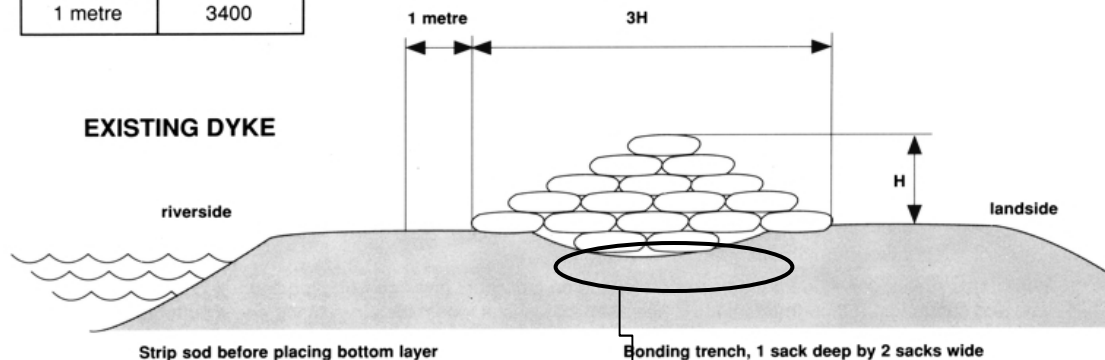
Bags Required for 100 Linear Feet of Dyke	
Height Above Dyke	Bags Required
1/3 metre	600
2/3 metre	2000
1 metre	3400



PLAN OF BOTTOM LAYER



METHOD OF LAPPING SACKS



1. Alternate direction of sacks with bottom layer, i.e. bottom layer lengthwise with dyke, next layer crosswise.
2. Lap unfilled portion under next sack.
3. Tying or sewing of sacks not necessary.

4. Sacks should be approximately one-half full of clay, silt or sand.
5. Tamp thoroughly in place.

LANDSLIDES



Some landslides are triggered by storms, earthquakes, volcanic eruptions, fires, erosion, and human modification to slopes. Others are mudflows which develop when heavy rain or rapidly melting snow saturates and destabilizes the ground.

Masses of rock, earth or debris move down a slope. These flows can develop rapidly, striking with little or no warning

and travelling at avalanche speeds. They can travel several miles from their source, growing in size as they pick up trees, boulders, cars, *etc.* The longer and higher the slope, the greater the risk.

Be Aware

- Consult a qualified expert on corrective measures if you notice:
 - changes in your landscape such as patterns of storm-water drainage on slopes (especially where runoff water converges), land movement, small slides, flows, or progressively leaning trees;

- new cracks appearing in plaster, tile, brick, or foundations;
- outside walls, walks, or stairs pulling away from the building;
- cracks developing over time on the ground or on paved areas;
- tilting or movement in fences, retaining walls, utility poles, or trees.

How to Respond

- Move away from the path of a landslide as quickly as possible. Curl into a tight ball and protect your head if escape is not possible.

After a Landslide

- Stay away from the slide area. There may be a danger of additional slides.
- Watch for hazards: broken electrical, water, natural gas and sewage lines; and damaged roadways, bridges and railways.
- On damaged ground, plant vegetation with good root systems as soon as possible to prevent erosion and further slides.
- Hire a geotechnical expert to evaluate remaining hazards and design corrective measures to reduce risk.

✓ HOME SAFETY HUNT

Involve your whole family in the home safety hunt. Identify what needs to be done and then make a plan to do it one step at a time. Every change you make helps a little, and some changes help a lot.

Yes	No		Fixed
		Cooking areas are clean, and clear of combustibles.	
		Electrical outlets near water are Ground Fault Interrupt (GFI) equipped.	
		Hot water heater is secured to wall studs.	
		Tall furniture is secured to walls (ideally, to wall studs).	
		Heavy objects are on lower shelves or in lower cupboards.	
		Electronic equipment and small appliances are secured to shelves.	
		Mirrors and framed pictures are secured with earthquake hangers and are not placed above beds.	

		Hanging plants and lights are securely attached to ceilings and will not hit windows if they swing.	
		Cupboards and storage cabinet doors have earthquake-resistant latches.	
		Chemicals are stored safely.	
		House is bolted to its foundation.	
		Cripple walls have been strengthened.	
		Chimneys are stable, and plywood sheathing is affixed to the attic floor around the chimneys.	
		There are smoke detectors and carbon monoxide detectors in good working order on each floor of the house and near bedrooms.	
		A qualified professional has installed flexible pipe fittings to minimize line ruptures, natural gas leaks and water leaks.	
		ABC fire extinguishers are easily accessible on each floor of the house, especially in kitchen, garage and workshop.	

Congratulations on your efforts to make your home safer!

PART 3: DISASTER RECOVERY



Top 5 Recommendations

1. Remember that unfamiliar **emotional responses** are normal reactions to disasters.
2. **Recovery** can take a long time (even years) so be kind to yourself and others as you work your way through this process.
3. **Help your children and pets** cope with their fears.
4. Follow **health and safety guidelines** throughout the recovery process.
5. **Attend** community meetings or information sessions to find out what resources are available and how community members can help each other.

Recovery goals and resources

Disasters have a definite beginning and end, but recovery continues long after the emergency response and immediate danger have passed.

The goals are to restore infrastructure and public services, help meet short and long term housing needs, restart the local economy and rebuild the capacity of the community to help its own members.

Saanich emergency officials can call upon the following agencies:

- **Saanich Emergency Social Services** volunteers are trained to operate Disaster Reception Centres which help evacuees immediately after the disaster. They also operate Emergency Group Lodging when other shelter options are not available. **Call 250-475-7140 to ask about volunteering.**
- **BC Housing** provides cots and blankets for Emergency Group Lodging, and facilitates the provision of short- and long-term housing for evacuees.
- **Canadian Red Cross** provides family reunification services and collects donations for disaster relief.
- **Salvation Army** provides disaster relief and emotional support services.

BC property and business owners may qualify for recovery assistance:

- **Province of BC Disaster Financial Assistance** may be offered to qualifying home owners, tenants, small businesses, farm operations and not-for-profit charitable organizations. The program helps with the cost of repairs and recovery from disaster-related property damage if losses could not have been insured or where other programs are not available.

Tips

- Emergency officials, first responders, agency staff and community volunteers commonly experience many of the same stress reactions as the survivors they are trying to help. Physical and emotional care is important for everyone involved.
- After a limited disaster (*e.g.*, a house fire, or flooding on one street), it is easier to get help with insurance claims, housing, counseling, *etc.* After a large disaster, service providers could be overwhelmed for weeks. Remember that everyone is in the same boat.
- For disaster relief, **the best donation is money**. Donations of food, clothing, furniture, toys, *etc.* become a secondary disaster for officials, who must receive, sort and store truckloads of such items. For safety reasons, donations of homemade food cannot be accepted.

Emotional Responses to Disasters

Typical First Reactions

- Disbelief, shock
- Disorientation, numbness

- Fear
- Problems with concentration or memory
- Need for help or information
- Reluctance to abandon property
- Difficulty in making decisions
- Helpfulness to others

Some Later Responses

- Frustration and anxiety
- Moodiness and irritability
- Unexplained crying
- Change in appetite
- Difficulty sleeping or sleeping too much
- Feelings of powerlessness
- Guilt for surviving or for not preventing disaster
- Anger, suspicion
- Apathy and depression
- Fatigue, low energy
- Digestive problems
- Headaches, body pain
- Feeling overwhelmed
- Isolation from family and friends

Responses by Children

- Return to past behaviour such as thumb-sucking or bed wetting
- Reluctance to go to bed
- Fantasies that the disaster didn't happen
- Inability to concentrate
- Clinging to parents, crying or screaming
- Nightmares
- Refusal to attend school
- Withdrawal, immobility

Responses by Pets

- Unusually nervous or fearful
- Increased aggression
- Sensitive to noise or storms
- Excessive protectiveness

Healing Emotionally

- Discuss what happened; however, you may want to limit your family's exposure to media coverage of the event.
- Recognize the losses you have suffered. Give yourself and your family permission to grieve and time to heal.

- Take time to appreciate what you still have.

Helping Children Cope with Fear

Don't ignore the emotional needs of your children once you have determined that everyone is physically okay.

- Give lots of hugs to your children and tell them everything will be fine. This provides physical and verbal reassurance.
- Encourage your children to express their feelings, especially through play and physical activities. Listen to them carefully when they share these things with you.

Include children in safe clean-up activities. It is comforting to the child to watch the household begin to resume its normal functions. It also gives them a job to do.

- Children may revert to immature behaviour for a few days. Do not focus on this behaviour; rather, praise them for their help in cleaning up, etc.
- Maintain or restore routines but reduce performance expectations. If fears, sleep, or unusual behaviours get worse for more than two weeks, seek professional help.
- After a disaster, pets may be too upset or unpredictable to offer comfort to children. Explain this to your children and teach them not to pat, hold or bother a pet until it is back to normal.
- Anxious children may feel more secure if they can play and sleep under a table draped with a blanket, or in a small pup tent. Lightweight emergency pup tents / tube tents are available for under \$10. They fold very small for storage.

Helping Pets Cope with Fear

Pets may show fear, be in physical pain or display unfriendly behaviours.

- Approach pets slowly and calmly, watching for injuries or unfriendly behaviours. Avoid direct eye contact. Speak to them in soft, reassuring voices.
- Familiar routine is comforting to animals. Provide food and fresh water on a regular schedule for caged or fostered animals.
- Isolate pets from children if pets display aggression or extreme fear.
- Time and patience are often the best medicines, but some pets will require the professional care of a board-certified veterinary behaviorist. Intense fear and anxiety should be considered forms of pain that deserve immediate treatment.

After Disaster Strikes: Get Back on Track
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1. Take care of yourself and your family first.

- Stay with family or friends for a few days if possible, as their support can be invaluable. Determine where you will live for the longer term during recovery.
- Promote physical health. Eat healthy meals, get lots of sleep, and exercise.
- Return to familiar routines. This is especially helpful for children and pets.
- Promote emotional health: learn to recognize symptoms of post-disaster stress in yourself and others. Talk about your experiences with understanding family and friends, or with a professional if you are struggling in any way.
- Attend debriefing sessions in your community. They provide opportunities to share experiences and get answers to questions. When support services are in great demand, insurance companies and support agencies may participate in these sessions so that many more people can be helped in one place.

2. Assess losses.

- Find out if special precautions must be taken before entering your home.
- Contact your insurance company to start a claim. Request security services from the insurance company if you cannot secure your home. This prevents trespassers and local children from causing further damage or being injured.
- If you can safely do so, look for salvageable items you wish to keep.
- List items and property you have lost. This may take considerably more time and effort if you have no photographic records to work with.

3. Determine what needs to be done.

- Have your home inspected to determine whether it can be repaired or must be demolished and rebuilt.
- Find out when it will be safe to begin rebuilding or repairing.

4. Determine recovery resources. A Recovery Centre may be set up to help.

Returning Home and Cleaning Up After a Disaster

Returning home and cleaning up after a disaster can be physically, emotionally and mentally challenging. Following a plan and safety guidelines will help.

Tips: General Health and Safety

- Avoid exhaustion. Don't try to do too much at once. Set priorities, make a plan and pace yourself. Take lots of breaks to rest, eat and rehydrate.
- Be aware of safety hazards created by the disaster; *e.g.*, contaminated buildings, contaminated water or air, gas leaks, broken glass, damaged wiring, slippery floors.

- Inform local authorities of chemical spills, downed power lines, washed-out roads, smoldering buildings, dead animals and other hazards. If the hazard presents an immediate danger to life call 911; otherwise use non-emergency contact numbers.
- Wear sturdy shoes and gloves. Depending on the hazards created by the disaster, you may need other protective gear.
- When working in debris wash your hands thoroughly and often with soap and clean water.

Returning to Your Neighbourhood

- Keep a battery-powered radio with you for emergency updates and news reports.
- Watch out for animals in and around your home.
 - Wildlife can be aggressive and unpredictable. Never approach, corner or attempt to help / rescue it.
 - Be cautious with pets that are obviously lost or abandoned. They too can be unpredictable if hungry or frightened. Provide food and water if possible.
 - Do not move or touch a dead animal. Carcasses can present serious health risks. Contact your local government or health department for help and instructions.
- Stay off the streets. If you must go out, watch for fallen objects, downed electrical wires, and weakened walls, bridges, roads, and sidewalks.

Before You Enter Your Home

- Walk around the outside and check for loose power lines, gas leaks, and structural damage. Look down as well as up: watch for sink holes, fissures and trip hazards on the ground.
- Do not enter the house if:
 - you smell gas;
 - floodwaters remain around the building;
 - your home has moved even partially off its foundation; or
 - your home was damaged by fire and the authorities have not declared it safe.
- If you have any doubts about its safety or structural integrity, have your home inspected by a qualified building inspector or structural engineer before entering.
- Review the Inspection Checklist below before entering your home.

✓ Entering Your Home: Inspection Checklist

If you are using a flashlight, turn it on before entering to avoid a spark that could ignite gas that may be leaking inside. Enter carefully, watching for loose boards and slippery floors.

1. Critical Safety Checks

- ☐ **Natural gas** — Do not smoke or use oil, gas lanterns, candles, or torches, or turn cameras / cell phones and switches on or off until you are sure there is no gas or other flammable materials present. If you detect natural gas, open a window and leave immediately. Turn off the gas at the meter if you can. Call the gas company from another location.
- ☐ **Sparks, broken or frayed wires** — Check the electrical system. If you are wet, standing in water, or unsure of your safety, do not enter. If possible, turn off the electricity at the circuit box. If unsafe, leave the building and call for help. Do not turn lights on until you are sure they are safe to use. Have an electrician inspect your wiring.
- ☐ **Roof, foundation, and chimney cracks** — If it looks as if the building may collapse, leave immediately and stay back twice the distance of the height of the house. If only the chimney is unstable, stay well back and rope off areas that may be hit by falling bricks or masonry.
- ☐ **Wild Animals** — If a wild animal is trapped in your house, open a door or window and stay back so it can escape. Call animal control or wildlife officials if the animal will not leave.

2. Damage Assessment and Clean-up

- ☐ **For insurance purposes, take pictures of damages. Keep good records of repair and cleaning costs**, including the hours your family and friends spend cleaning, *etc.*
- ☐ **Basement** — Basement walls may collapse and the floor may buckle if the basement is pumped out while the surrounding ground is still waterlogged. If your basement is flooded, pump it out gradually (about 1/3 of the water per day) to avoid damage.
- ☐ **Household chemical spills** — Clean up spills and safely dispose of used rags / paper towels to avoid spontaneous combustion. Disinfect items that may have been contaminated by raw sewage, bacteria, or chemicals. Also clean salvageable items.
- ☐ **Appliances** — If appliances are wet, turn off the electricity at the circuit box. Then unplug appliances and let them dry out. Have a professional check them before using them again.

- ☐ **Water and sewage systems** — If pipes are damaged, turn off the main water valve. Check with local authorities before using water as it could be contaminated. Pump out wells and have the water tested before drinking. Do not flush toilets until you know that sewage lines are intact.
- ☐ **Cabinets** — Open cabinets carefully and watch for falling objects.
- ☐ **Food and other supplies** — Throw out all food and other supplies that may be contaminated or that may have come into contact with floodwater.

PART 4: USEFUL INFORMATION & RESOURCE LINKS

EMERGENCY PREPAREDNESS & RESPONSE: GOVERNMENT AGENCIES	
SAANICH EMERGENCY PROGRAM	www.saanich.ca/sep/
CAPITAL REGION DISTRICT	www.prepareyourself.ca Preparing Southern Vancouver Island for emergencies
PROVINCIAL EMERGENCY PROGRAM	www.pep.bc.ca
FEDERAL EMERGENCY PREPAREDNESS	www.getprepared.gc.ca BC and Saanich recommend 7 days of emergency preparedness, not 3 days as recommended at this site.
PUBLIC SAFETY CANADA	www.ps-sp.gc.ca
BC CENTRE FOR DISEASE CONTROL	www.bccdc.ca
ISLAND HEALTH formerly Vancouver Island Health Authority (VIHA)	www.viha.ca Tip sheets on health, emergency preparedness, immunizations, seasonal influenza epidemics, etc.
NON-PROFIT AGENCIES AND RESPONDERS	
FIRST NATIONS' EMERGENCY SERVICES SOCIETY OF BC	www.fness.bc.ca
CANADIAN RED CROSS	www.redcross.ca
SALVATION ARMY	www.salvationarmy.ca
ST. JOHN AMBULANCE BC & YUKON	bc.sjatraining.ca Includes first aid course information
ANIMAL RESCUE	

BC SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS (SPCA)	www.sPCA.bc.ca
NOAH'S WISH	www.noahswish.org Emergency animal rescues & shelters

UTILITIES & INFORMATION SERVICES	
BC HYDRO	www.bchydro.com
FORTIS GAS	www.fortisbc.com
SAANICH WATER	www.saanich.ca/services/utilities/water.html
SAANICH SEWAGE	www.saanich.ca/services/utilities/wastewater.html
SAANICH GIS	www.saanich.ca/services/GIS/ Geographic Information System (GIS): Layers of maps showing streets, infrastructure & underground utilities, topography, <i>etc.</i>
SAANICH TSUNAMI HAZARD INFORMATION	www.saanich.ca/sep/emergencies/pdf/tsunami.pdf A web brochure including maps of neighbourhoods at risk of tsunami flooding. (Each CRD municipality has its own brochure.)
ROAD CONDITION REPORTS	www.drivebc.ca
US NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)	www.noaa.gov Issues weather information; tsunami alerts, <i>etc.</i>
OTHER ORGANIZATIONS	
INSURANCE BUREAU OF CANADA	www.ibc.ca/en/Home_Insurance/
EMERGENCY PREPAREDNESS FOR INDUSTRY & COMMERCE COUNCIL	www.epicc.org/

Add more contacts here:

ORGANIZATION	Web Site or Phone #

Free 90-minute Public Information Sessions: Personal Emergency Preparedness

Offered regularly during the Fall, Winter and Spring at Saanich Recreation Centres. If you have enjoyed this session, urge your friends, family and co-workers to register through the Saanich Recreation department for an upcoming session. To request the presentation for your workplace, association, club, society or neighbourhood group, contact the Saanich Emergency Program at 250-475-7140. The session must be held in a Saanich location.

Free Consultation for Leadership Groups: Neighbours Helping Neighbours

Designed for neighbourhood leadership groups interested in developing a collective disaster plan for the neighbourhood. The session is a private consultation for your group (*e.g.*, block watch committee, tenants' committee, strata committee). It suggests simple steps your committee can take in advance, even if most neighbours aren't willing to be involved. Participants will also learn how to quickly organize neighbours to help one another during and after a disaster when people are typically most willing to help. The planning tools allow leaders to create a simple disaster plan tailored to the needs and capacities of their own neighbourhood. Contact the Saanich Emergency Program at 250-475-7140.

Volunteer with the Saanich Emergency Program (SEP)

The Saanich Emergency Program is operated by the Saanich Fire Department. Volunteers receive excellent ongoing training, including Justice Institute of BC courses. For more information, call the Saanich Emergency Program at 250-475-7140.

- **Emergency Social Services (ESS)**
Offers temporary help to evacuees after dwelling fires, local emergencies and wide-area disasters. Operates Disaster Reception Centres and Emergency Group Lodging.
- **Communications Team (COMMS)**
Operates technical communications links between Reception Centres / Group Lodging and the Emergency Operations Centre (EOC) and, as needed, between the EOC and various response agencies.
- **Search and Rescue (SAR)**
Under the direction of the Saanich Police, helps search for and rescue missing, stranded and trapped people. May also help with evacuation notifications and police evidence searches.
- **Neighbourhood Emergency Preparedness Presentation Team (NEPP)**
Under the direction of the Saanich Emergency Program office, presents free emergency preparedness workshops throughout the Saanich community.

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