

Flood Recovery

Everything you need to know



NBEMO
New Brunswick
Emergency Measures
Organization



OMUNB
Organisation des
mesures d'urgence du
Nouveau-Brunswick

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New Brunswick Emergency Measures Organization (NB EMO)

Protecting people, property and the environment

New Brunswick Emergency Measures Organization (NB EMO) is a branch within the Department of Public Safety. NB EMO co-ordinates preparedness for emergencies. At the federal, provincial and municipal levels, planning is the key to emergency preparedness. A well established and tested emergency plan helps to ensure a prompt and co-ordinated response by responsible departments and agencies in a time of crisis. NB EMO also co-ordinates provincial response operations during emergencies and administers the disaster financial assistance program.

Flood Recovery – Everything you need to know!

Your property

As the owner of the affected property it is your responsibility to ensure that it is a safe and healthy environment for you and those who occupy it. You must therefore take appropriate steps to ensure that clean up and recovery begins as soon and as safely as possible. Do not wait for GNB assistance.

After a flood, it's important to restore your home to good order as soon as possible to protect your health and prevent further damage to property and belongings. Whether you do the work yourself or hire a contractor, this handy checklist will help you organize the clean up. Immediate action is important. Your house and furnishings are less likely to grow mould if contents are dried within the first 48 hours.

Before you begin

- Put your own safety first. Avoid electrical shock. Wear rubber boots. Keep extension cords out of the water.
- If you are experiencing flooding and need to be disconnected or reconnected, call NB Power at 1-800-663-6272.
- Record details of damage, with photos or video if possible. Contact your insurance agent immediately.
- Set up a step-by-step action plan to remove all water, mud and other debris; dispose of contaminated household goods and rinse away contamination inside the home. Detailed information is available online from the NB Department of Health www.gnb.ca/health
- Be prepared to make difficult decisions about what to keep and what to throw out. Make sure the building is structurally safe. Look for buckled walls or floors. Watch for holes in the floor, broken glass and other potentially dangerous debris. If in doubt, contact a professional.
- Register your flood damages with Service New Brunswick at 1-888-298-8555 or online at <https://www2.gnb.ca/content/gnb/en/departments/emo.html>.

Protect yourself when cleaning your home

For personal protection during clean-up, wear rubber gloves and other protective clothing. Avoid direct skin contact with contaminated material. Practice good personal hygiene (i.e. wash hands before eating or smoking) and change outer clothing before entering a “clean” residence.

Equipment

Assemble equipment and supplies which should include:

- Gloves, masks and other protective gear
- Pails, mops, squeegees and plastic garbage bags
- Chlorine bleach and non-ammonia dishwashing detergent (Note: Never mix bleach with ammonia because the fumes produced when they are combined are toxic.)
- Large containers for soaking bedding and clothing and lines to hang them until they are dry.

You may also need to rent extension cords, submersible pumps, wet/dry shop vacuums, a carbon-monoxide sensor and dehumidifiers, fans or heaters.

Store all valuable papers that have been water-damaged in a freezer until they are needed.

Flood water

Flood water can be heavily contaminated with sewage and other pollutants that can pose a serious health hazard.

- Wear gloves, rubber boots, eye protection and a face mask when cleaning and disinfecting. Rinse and wash your waders, boots, and gloves used during clean-up.
- Always wash hands with soap and clean water after cleanup activities or after handling articles contaminated by sewage, even if you were wearing gloves. If soap and water are not available for hand washing, use a hand sanitizer.
- If you have any open cuts or sores that are exposed to floodwater, keep them as clean as possible by washing them with soap and applying an antibiotic ointment to discourage infection.

Household items that have been flood-damaged will have to be bagged, tagged and discarded according to local garbage disposal regulations.

Water damage

Immediately add about two litres of chlorine bleach to standing water. Do not occupy a house that still contains standing water. Remove water from your flooded home slowly. Drain it in stages, about a third of the volume daily. If the ground is still saturated and water is removed too quickly, it could cause the walls or the floor to buckle. Use pumps or pails to remove standing water, then a wet/dry shop vacuum to mop up the rest.

Heating

Do not heat your home to more than four degrees Celsius (about 40 degrees Fahrenheit) until all water is removed.

If you use pumps or heaters powered by gasoline, kerosene or propane, buy and install a carbon monoxide sensor. Combustion devices can produce large amounts of lethal carbon monoxide when they are not tuned-up or are improperly ventilated.

Mould and mildew

To avoid the health hazards of mildew and mould, water soaked walls and insulation should be removed, and the space and studding allowed to dry thoroughly. Walls constructed of gyproc, plaster or wood will dry out in time

but insulation in these walls is no longer effective. As insulation becomes water soaked the weight causes it to settle and compact at the bottom, leaving a large portion of the wall no longer insulated.

**Caution:**

Obtain approval from assessors, insurance agents and other relevant agencies before discarding or destroying any furniture or equipment.

Food affected by flooding

Practicing safe food-handling is an important part of everyday life, but is especially important in emergency situations. Be sure to carefully inspect all food items and do not eat any food you think may not be safe. Spoiled food may not look contaminated. Remember, when in doubt, throw it out.

When handling refrigerated and frozen food after a power failure discard any thawed food that has been at room temperature for two or more hours, and any food that has an obvious unusual colour or odour.

- A full freezer will keep food frozen for about 48 hours. Similarly, a half-full freezer will keep food frozen for about 24 hours.
- An unopened refrigerator will keep food cool for approximately 4 to 6 hours.
- Perishable foods that have been above 4 °C (40 °F) for less than 2 hours may be eaten immediately, or cooked and eaten immediately.
- Blocks of ice can be used to help keep the temperature of refrigerators and freezers to a safe level. Ensure ice is from a safe source.
- Partial thawing and refreezing may reduce the quality of some food, but it will remain safe to eat. Do not refreeze food unless the food still contains ice crystals or feels 'refrigerator cold' (4 °C or 40 °F).
- If you know the power will be out for longer than 48 hours, you may move perishable food to another location that has a properly functioning refrigerator and/or freezer.
- Do not put frozen (or any) food outside, even during winter, unless protected in a cooler with ice. If it's a sunny day, find a shaded spot if necessary.

Foods that have damaged packaging, such as packages that are crushed, dented or have deep rusting, as well as packages that have holes, leakage, punctures or swelling, should be discarded.

- Only undamaged, commercially-prepared foods in sealed, unopened, airtight, waterproof cans, jars or pouches are entirely safe to use. Be sure to carefully inspect, and clean and disinfect before use by following these procedures:
 - If possible, remove the labels on cans or pouches since they could have come into contact with dirt or bacteria. Be sure to re-label your cans or pouches, including the "best before" date, with a permanent marker.
 - After labels are removed, cans can be washed, rinsed and then disinfected by emerging in a mild bleach solution for 2 minutes - 5 ml (or 1 tsp) of bleach per 750 ml (or 3 cups) of water.
 - Air-dry all cleaned food cans, jars and pouches to prevent potential contamination when the containers are opened.
 - Do not eat any food that may have come into contact with animal waste, chemicals, floodwater, snow and ice, and soil and dirt. Baby formula containers, cardboard juice containers, home- canned foods and milk containers that have come into contact with floodwater or hazardous material, should be thrown away.
 - Food preparation equipment, surfaces, dishes and utensils should be washed, rinsed, and then disinfected with a mild bleach solution. It is important to allow equipment, surfaces, dishes and utensils to air dry thoroughly before storing. After following these steps, utensils used for infant feeding must be boiled for 2 minutes before use.

Refrigerators, freezers, stoves and other appliances

Appliances (that have **not** been partially and entirely immersed in flood water) and food contact surfaces should be cleaned as follows:

- Ensure electrical power is turned off.
- Clean the unit thoroughly with a detergent solution, rinse with clean water that has been previously boiled, and then wash with a solution containing one-half cup of bleach in nine litres (two gallons) of water.
- Allow to dry with door kept open.



Caution: Any appliance that has been partially or fully immersed in water is no longer insulated. It cannot be dried without removal. A qualified service technician should be contacted before the appliance is put into service or thrown out.

Hazardous products

Household hazardous products can also cause problems. Contaminated items and surfaces should also be cleaned in accordance with product safety guides. Small amounts of Household Hazardous Waste can be disposed of during collection days at applicable Regional Landfills. Significant quantities should be handled differently, under the advice of the Department of Environment and Local Government.

Basements and rooms

Water and wastes can be removed by pumping, pails, shovels, etc. After cleaning, open doors and windows to air thoroughly and help the drying process. Disposal of solid wastes that are not hazardous can be disposed of at Regional Landfills. Disposal of wastes on property must have approval through the Department of Environment and Local Government.

After cleaning, open doors and windows to air thoroughly and help the drying process.

Oil clean-up

An oil spill must be reported to the Department of Environment and Local Government. Oil spills could create a contamination problem that can be difficult to correct. If only finished basement walls have been affected, the odour may be eliminated by removing and discarding the wall covering, studding, insulation and any other permeable material in accordance with disposal criteria established by the Department of Environment and Local Government. Caution should be taken in using electrical equipment during cleaning since the fumes could ignite and cause an explosion.

Household furnishings

Solid wood or metal furniture can be cleaned with a household detergent solution, wiping clean and then wiping dry. Furniture should be left to dry outside before furniture polish may be applied where needed. Upholstered furniture and mattresses affected by flooding should not be used.



Reminder: Anything that stays wet long enough will grow mould; mould can make people sick. Dry everything quickly to avoid future health problems.

Electrical Safety

Returning home after a flood:

As you begin to clean up after a flood, there may be hidden electrical hazards. This is not a do-it-yourself project so do not attempt any electrical repairs or connection of temporary supplies yourself. Before beginning, have a qualified electrician check the wiring, assess other damages and proceed with repair work. Extreme precautions must be observed to protect the health and safety of you and your family when returning home to a flood damaged area.

Turn off the Electricity:

Electricity and water don't mix. Turn the power off at your home! Floodwater can turn a house into a live wire. Before entering a flooded building or before any equipment is tested or worked on, all power should be disconnected. If the main switch was left in the "on" position, contact your Local Electric Utility to ensure power to the building is off before attempting to access the electrical panel. Even if the power company has turned off electricity to the area, you must still make certain your home's power supply is disconnected. Power could be restored to the area and to your property before the wiring is properly inspected. You don't want the power company to turn it on without warning while it is being worked on it.

No part of a flooded installation can be assumed to be safe. Never cross damp floors to shut off the electrical power at the main switch. Even if your basement did not suffer water damage, the interior structure may be soaked and can still be a good conductor of electricity. Do not enter flooded basements or buildings that may contain energized electrical wiring or electrical appliances or when water covers outlets, extension cords or powerbars as flood water could be energized.



Caution: Call a licensed electrical contractor to assess the damages and inspect all wiring before turning power on to ensure your safety.

Safety tips for cleaning up damp or wet locations:

To help reduce the risks associated with using electrical appliances in wet locations, use a ground fault circuit interrupter (GFCI) to help prevent shocks. These devices are inexpensive and can help protect you when operating appliances such as dry/wet vacuum or other equipment.

In many cases the water has been contaminated with soil, debris, chemicals, sewage, oil, or other substances. Reduced performance of electrical equipment and wiring and the integrity of electrical insulations due to contamination by moisture and pollutants may lead to fire and shock hazards. Even with professional cleaning and drying, sediments and toxins are difficult to remove. Remember, water and electricity don't mix.

Practice these important safety recommendations during initial electrical cleanup:

- Watch out for live electrical wires that may have broken off outside. Electricity can travel through water. You should immediately report any downed wires to the Local Electric Utility.
- Check to make sure you have a battery powered smoke detector and that it is functioning.
- Do not touch a circuit breaker or replace a fuse with wet hands or while standing on a wet surface.
- If electrical devices, such as circuit breakers, fuses, GFCIs, receptacles, plugs and switches have been submerged, have them removed and destroyed as they may pose a serious safety risk.
- Do not allow power cord connections to become wet. Do not remove or bypass the ground pin on a three-prong plug.
- Do not plug a portable generator into an outlet, patch it into electrical wiring or connect it directly to a main electrical panel. Doing so could damage equipment, cause fires or cause power to flow into an electrical line, endangering persons in the home, neighbours and possibly utility crews working in the area.
- Portable generators emit carbon monoxide (CO), a poisonous gas that is colorless and odourless. For this reason, portable generators should never be used indoors or outdoors near open doors, windows or vents.
- Do not turn on any lights or appliances until an electrician has checked your system.
- If your furnace was flooded, have it inspected by a qualified electrician. Before operating, the system may need to be cleaned, dried, and reconditioned.
- When using sprayers, wet vacs, vacuum cleaners and other cleaning equipment, use an extension cord with a ground fault circuit interrupter or install a GFCI in the electrical circuits in damp environments. Follow manufacturer's instructions to avoid electric shock.
- Be aware that certain kinds of cleaning agents, especially petroleum-based cleaners, can be hazardous when applied to the current-carrying

portions of electrical equipment to remove debris or residues.

- All breaker panel boards, breakers, fuses, disconnect switches, controllers, receptacles, switches, light fixtures and electric heaters that have been submerged must be replaced.
- All electrical equipment, switchgear, motor control centers, boilers and boiler controls, electric motors, transformers and other similar equipment that have been submerged need to be reconditioned by the original manufacturer or its approved representative or be replaced.
- Electrical wiring may require replacement depending on the type of wire or cable and what application it was listed for. Splices and terminations on wiring must be replaced.
- **Do not use any** appliance, heating, pressure, or sewage system that has been subjected to flood water until the electrical components of the appliance or system have been thoroughly cleaned, dried, and inspected by a qualified electrician. Electrical parts can pose an electric shock hazard or overheat and cause a fire.

Before turning on the power, have a qualified electrician inspect all wiring that has been subjected to flood water to assure that the electrical system will be safe to energize.

Water contamination

- If your well is currently under water, **do not use** your well water.
- If your well water has a persistent odour or discolouration even after letting the water run, and/or you think that your well may be affected by chemicals such as furnace oil, gasoline or agricultural chemicals, **do not use** your well water for any purpose whatsoever – even if it has been boiled.
 - If this is the case, you should contact the nearest Regional office of the Department of Environment and Local Government for further information or visit their website.
- When flood waters have receded away from your well, and chemical contamination is not suspected, all water destined for drinking, making juices and ice cubes, washing fruits and vegetables, cooking, or dental hygiene should be held at a rolling boil for one (1) minute. For infant formula, continue to boil the water for two (2) minutes as per the manufacturer's instructions or use single serve ready-to-feed formula.
 - Water can be boiled ahead of time, cooled and then stored in clean covered containers.
 - Water should be boiled until the well is chlorinated and test results show the water is free from harmful bacteria.

How to chlorinate your well water

Ten days after floodwater has receded in your area, disinfect your well using the Department of Environment and Local Government's guide entitled: *How to Chlorinate Your Well Water*. This document is available at all Regional Department of Environment and Local Government offices.

After chlorinating your water system, wait until the odour of chlorine is no longer present. This could take from three hours to three days. Then wait seven days prior to sampling your water from an existing tap.

If you rely on a well for your water, you may have to chlorinate it from time to time. Chlorination refers to the process of flushing your well and water system with a chlorine solution.

This process is usually applied to accomplish one of the following:

- Disinfecting to "neutralize" bacteria
- Disinfecting after making repairs to your well or following extended period of non-use
- Temporary elimination of hydrogen sulphide (or "rotten egg") odours
- Temporary removal of iron and manganese build-up
- Removal of bacteria that create slime

Read all the instructions before proceeding!

1. Before you begin the chlorination process, store enough water to meet your household needs for a minimum of 24 hours.
2. Next, remove any filter, water conditioners, or any type of water treatment system, or find a way to by-pass them during chlorination.
3. Use the chart below to determine the amount of chlorine solution that is recommended for your water system. For dug wells use approximately 1 litre of chlorine solution for every 100 litres of water.



Note: The chlorine solution is simply common unscented household bleach, containing 3-5% sodium hypochlorite.

Volume of chlorine solution chart

Vol. of chlorine solution (litres) per diameter of well

Well depth (ft)	4 inch	5 inch	6 inch
less than 50	1	2	3.5
50-100	2	4	7
101-150	3.5	7	10
151-200	4.5	9	13.5
201-250	5.5	11	17
251-300	7	13.5	20.5
301-350	8	16	24
351-400	9	18	27

4. Pour the chlorine solution into your well. If your well head is buried, excavation is probably required. An alternative is to apply the chlorine solution through an air line, if there is one leading from the well to your home.

There are two methods for using the air line: you can either insert the air line into the container of chlorine solution and pump your well until all the solution is consumed, or simply pour the solution into the air line (If you use either of these methods, flush the air line out with clean water after chlorinating your well).

5. Attach a garden hose to an outside faucet and place the other end into the well. Turn on the outside faucet and allow the water to circulate for approximately 1 hour.



Note: If your well head is buried and you choose not to excavate, or the garden hose cannot be connected to the air line, disregard this step.

6. Open each faucet in your water distribution system, (including inside and outside faucets, cold and hot water faucets, dishwashers, toilets, baths and showers), one at a time, until the smell of chlorine is apparent, then quickly shut them off. This will thoroughly chlorinate your water distribution system.



Note: During this procedure, chlorinated water that is permitted to enter your sewage system should be kept to a minimum, as an excess amount of chlorine may affect the biological activity of a septic tank system.

7. Do not operate your water system for a minimum of 8 hours (overnight, for example) or longer if possible. A 24-hour period is recommended, but may not always be practical.
8. Place the end of your garden hose in an outside location where the chlorinated water will not run into a natural waterway (such as a stream, brook, lake, etc.) or damage any desired vegetation (like your vegetable garden). Allow the water to flow until a strong chlorine odour is no longer apparent (generally 2 to 3 hours). If you have a low yield well, be careful not to pump the well dry.



Note: During this procedure, the water may have the colour of tea, but the colour will improve after a short period of time. Aeration screens in faucets and the cold-water inlet of washing machines may become plugged with sediment. For water systems equipped with jet pumps, there is also a possibility that the jet may become clogged with sediment. It is important to keep this in mind, especially if the jet is located in the well column, which may require excavation of the well head.

9. Turn on each faucet in the house (one at a time), and run the water until the odour of chlorine is no longer present. It is recommended that you do not drink the water during this flushing period.
10. Once the flushing process is complete you may resume normal use of your water, keeping in mind that it may be two to three days before the chlorine odour and taste is completely gone.



Note: If you chlorinated your well to address a coliform bacteria problem, you should have your well water tested at an accredited lab before using it again. To do this, you will need to collect a water sample about one week after you have chlorinated your system and have it analyzed immediately after collecting it (within 24 hours).

11. If the chlorination process results in a noticeable improvement in your water quality, but the problem redevelops after two to three weeks, repeat steps 1 to 9, using two to three times the amount of chlorine solution recommended for your water system. In addition, you should increase the period of time in which you do not operate your water system (step 7) to a minimum of 24-hours.

Questions? Need more Information?

If you have any questions or require additional information, please contact the New Brunswick Department of Environment and Local Government calling our general number 506 453-2690 or by visiting our website at the following address: <https://www2.gnb.ca/content/gnb/en/departments/elg/environment.html>

You can contact any office of the New Brunswick Department of Health or visit their website at this address: www.gnb.ca/0051/index-e.asp

Self-care in high stress, traumatic events

Emergencies can cause emotional and physical reactions. People caught in an emergency situation can feel confused and may not act like themselves for a while. It is common to feel bewildered, shocked, and relieved to be alive. It's important for people dealing with an emergency to take good care of themselves and their families, and particularly to be aware of children's reactions.

If stress becomes overwhelming or residents have health related concerns, call Tele-Care at 811 for assistance.

More information is available online from the Department of Health:
<https://www.gnb.ca/0055/stress-e.asp>

If in crisis; 24-hour emergency numbers:

CHIMO helpline: 1-800-667-5005

Tele-Care: 811

Kids Help Phone: 1-800-668-6868

Recovery program

NB EMO, Recovery program helps people and communities get back on their feet after a disaster. This program provides assistance for damages and losses that threaten the health and safety of individuals and communities.

Through the recovery program, residents will be able to receive information and register their flood-related damage with a single telephone call and will put health and safety inspection teams in contact with residents in the flood-affected areas to allow them to return to their homes more quickly.

Registering with SNB at **1-888-298-8555** is the first step in the recovery process, which includes three elements:

- **Complementary assistance**, including water testing, electrical permits and debris cleanup to ensure safety.
- **Health and safety inspections**, to assess damage and determine what repairs are required for residents to safely return to their homes.
- **Disaster financial assistance**, which may be available to assist in covering eligible costs of repairs.

Disaster Financial Assistance

When a Disaster Financial Assistance program is approved by government, local radio and newspapers will carry information on the program and deadlines for application. If you registered your damage you will receive all the necessary application forms and instructions in the mail.

What is Disaster Financial Assistance (DFA)?

The Disaster Financial Assistance program is managed by NB EMO. This program assists people and communities to get back on their feet after a disaster. There are three important steps to this program.

First Step: After any disaster, NB EMO assesses the damage that was done.

Second Step: You should contact your insurance provider immediately to find out if the damage you suffered is covered by your policy.

Third Step: Based on the information it receives, and the Disaster Financial Assistance Policy, NB EMO makes a recommendation to GNB.
**GNB then decides if a financial assistance program is needed.
No assistance can be given until GNB approves a Disaster Financial Assistance program.**

It is important to note that we all have a duty to safeguard ourselves, and our property, from damage. Therefore, the Disaster Financial Assistance program does not pay for any damage or loss that is, or could be covered by an insurance policy. Assistance, when provided, is only available after all other forms of disaster aid have been received.



Reminder: Record details of damage, with photos or video if possible. Keep receipts for any repairs or other items you may need.

For further information, please contact us at:

General Information: 1-800-561-4034

Recovery Toll Free Number: 1-888-553-8558

E-mail: emo.recovery@gnb.ca

Web Site: <https://www2.gnb.ca/content/gnb/en/departments/emo/after-an-emergency.html>