BEYOND GRID LIFE KNOWLEDGE COMMONS

BEYOND GRID LIFE

A PRACTICAL SURVIVAL & RECOVERY MANUAL

From the first 10 minutes to rebuilding a resilient community

Water · Shelter · First aid · Heat & cold · Floods · Food · Energy · Communications · Community

In an emergency, contact emergency services first.

Edition 1.0 · November 2026

Contents

	How to use this manual
Chapter 01	The first 10 minutes and first 72 hours
Chapter 02	Threat assessment: stay or leave
Chapter 03	Water: source, treat, store
Chapter 04	Sanitation, hygiene and waste
Chapter 05	Shelter, heat, cold and fire
Chapter 06	Food: ration, preserve and produce
Chapter 07	Health, first aid and medicines
Chapter 08	Energy, tools and useful technology
Chapter 09	Communications, navigation and information
Chapter 10	Security without becoming the threat
Chapter 11	Households, animals and vulnerable people
Chapter 12	Community organisation and governance
Chapter 13	Rebuilding essential systems
Chapter 14	Hazard-specific actions
Part 2	Field guides (29)
	Appendix A — Household emergency plan
	Appendix B — Supply checklists
	Appendix C — Daily operations sheets
	Appendix D — Quick reference
	Sources and further reading

About this edition

Edition 1.0, November 2026. Published by Beyond Grid Life Knowledge Commons. General preparedness information only—not medical, legal or professional advice, and not a substitute for first-aid training or official instructions. Guides show their source basis; independent specialist review has not yet been completed. Offline copies do not update themselves: check the website for the latest edition. Free to print and share for personal, household, community and educational use with attribution and safety notices intact.

How to use this manual

This manual is for prolonged disruption: a grid failure, severe weather, bushfire, flood, pandemic, cyber incident, supply-chain failure or another event that makes ordinary services unreliable. It assumes help may be delayed, information incomplete, and fuel, water, power and communications scarce.

In an emergency, contact emergency services first.
Official instructions always take priority over this manual.

Priority order: immediate danger → air and shelter → lifesaving first aid → safe water → sanitation → temperature control → food → information → security → recovery.

Use the shortest relevant time horizon. Do not begin long-term projects while an immediate hazard remains. At every stage, favour low-risk, proven methods; conserve specialist supplies; document decisions; and cooperate with trustworthy neighbours.

Part 1 sets out the all-hazards approach chapter by chapter. **Part 2** contains every field guide from the website as a step-by-step procedure. The **appendices** are forms and checklists you can photocopy and fill in.

Limits: this is general preparedness information, not a replacement for official warnings, first-aid training, licensed medical care, engineering advice or local law. Never enter damaged structures, contaminated zones, floodwater, fire fronts or conflict areas to retrieve supplies.

The survival rule of three — useful, not literal

Time frame	What can kill first	First response
Seconds to minutes	Violence, fire, toxic air, drowning and catastrophic bleeding.	Move, isolate the hazard, stop severe bleeding, call or signal for help.
Hours	Heat or cold exposure, unsafe shelter and dehydration.	Stabilise shelter, clothing, shade, warmth and drinking water.
Days	Unsafe water, poor sanitation, untreated illness and lack of food.	Build clean and dirty zones, treat water, control waste, ration by plan.
Weeks onward	Isolation, malnutrition, conflict and loss of systems.	Organise work, food production, maintenance, records and fair governance.

A note on historical survival

Pre-industrial societies survived through local knowledge, stored staples, shared labour, repairable tools, seasonal planning, animal power, seed saving and strong social networks. They also endured high infant mortality, infection, famine, smoke exposure, unsafe childbirth and dangerous water. The goal is not to recreate the past. It is to combine its durable, low-energy systems with germ theory, vaccination, modern first aid, weather forecasting, solar power, radio, efficient lighting, insulation, water testing and better governance.

CHAPTER 01

The first 10 minutes and first 72 hours

Stabilise the situation before spending scarce resources.

The first 10 minutes

☐ Stop. Take one slow breath. Look, listen and smell before moving.

☐ Identify the active hazard: fire, smoke, structural collapse, violence, flood, chemical release, radiation warning, extreme heat or cold, or a medical emergency.

☐ Move people away from immediate danger. Do not create a second casualty.

☐ Call emergency services if they are working, and follow the call-taker's instructions.

☐ If someone is unresponsive and not breathing normally, start CPR (DRSABCD) and send for a defibrillator.

☐ Control catastrophic bleeding with firm direct pressure; use a commercial tourniquet for life-threatening limb bleeding when trained or when pressure fails.

☐ Extinguish small fires only if you have a clear exit and the correct extinguisher.

☐ Account for household members and animals.

☐ If safe, put on sturdy shoes, long clothing, gloves, eye protection and a particulate respirator.

☐ Collect your grab bag, essential medicines, water, radio, phone, power bank and documents.

The first hour

Action	Why it matters
Fill clean containers while water pressure remains	Mains water may stop or become contaminated. Never use containers that held chemicals.
Isolate utilities if damaged	Shut off electricity, gas or water only when there is evidence of damage and you know how. A professional may be needed to restore gas.
Gather information	Use a battery radio, official emergency apps and direct observation. Record time and source.
Choose shelter or evacuation	Decide before roads, smoke, floodwater or panic remove your options.
Create clean and dirty zones	Keep outdoor footwear, waste, fuel and contaminated items away from sleeping and food areas.
Write a status board	People, injuries, medicines, water, food, hazards, tasks and the next review time.

The first 72 hours

☐ Inventory water in litres; separate treated, untreated and non-drinking supplies.

☐ Check everyone twice daily for injury, fever, dehydration, heat or cold stress, confusion and medication needs.

☐ Begin a written log: date and time, weather, decisions, radio messages, supplies used and work completed.

☐ Set two-person rules for hazardous tasks and travel.

☐ Establish handwashing and a toilet before preparing communal food.

☐ Eat refrigerated food first only if it has stayed safely cold; when in doubt, throw it out.

☐ Use daylight for work; save batteries for information and medical needs.

☐ Check on neighbours, prioritising people who live alone, use powered medical equipment or have limited mobility.

☐ Hold a short morning and evening briefing with named owners and deadlines.

Do not ration drinking water dangerously. Reduce exertion and waste before restricting essential drinking water. Children, pregnant and breastfeeding people, older adults, sick people and anyone working in heat may need more.

CHAPTER 02

Threat assessment: stay or leave

Evacuation is a risk trade-off, not an instinctive default. When authorities say leave, leave.

Leave immediately when

- Authorities order or advise evacuation and the route is open.
- The building is on fire, structurally unstable, flooding, filling with smoke or in the path of a fire.
- A hazardous-material release is moving toward you and you have not been told to shelter in place.
- Essential medical care cannot be provided where you are.
- Violence is targeted at you and a safer destination and route exist.

Shelter in place when

- Authorities direct it, or outside air is temporarily more dangerous than indoor air.
- Roads are flooded, burning, blocked, violent or unknown.
- Your shelter is sound, can be defended without confrontation, and has water and sanitation.
- Travel would expose medically fragile people to greater risk.
- You do not have a specific safer destination.

Decision matrix

Question	Stay favoured	Leave favoured
Hazard trajectory	Stable or moving away	Approaching, escalating or structure failing
Water	Treatable supply for days	No safe source obtainable
Health	Needs manageable	Time-critical care unavailable
Route	Unknown or dangerous	Confirmed open, with alternatives
Destination	No better option	Known safer site that has agreed and has capacity
Timing	Night, storm or peak congestion	Daylight and early departure possible

Evacuation load order

Carry for mobility, not fantasy. A practical order is: people and animals; medicines and mobility aids; water and treatment; weather protection; first aid; communications; calorie-dense food; identification and records; lighting and tools; sanitation. Spread critical items across bags so one lost bag does not remove a whole capability.

Route card

Destination	
Primary and alternate route	
Decision departure time	
Turn-back triggers	
Meeting points	
People informed	

CHAPTER 03

Water: source, treat, store

Safe water is a system: source protection, clarification, disinfection and clean storage.

How much to store

Queensland's Get Ready program advises at least 10 litres of drinking water per person for a three-day kit. CDC advises at least one US gallon (about 3.8 litres) per person per day for at least three days. Treat these as minimums: heat, smoke, illness, pregnancy, breastfeeding and physical work all increase need. Humanitarian planning (the Sphere standards) uses about 15 litres per person per day for all basic needs where feasible.

Use	Low-water planning range	Notes
Drinking and food	3–4 L per person per day	More in heat, illness or heavy work.
Personal hygiene	2–6 L per person per day	Prioritise hands, teeth, wounds and skin folds.
Cooking and cleaning	2–4 L per person per day	Use low-water meals; scrape before washing.
Animals	Depends on species and size	Heat and dry food sharply increase demand.

Source hierarchy

1. Sealed commercial water.
2. Known-safe stored tap water in clean food-grade containers.
3. Rainwater from a clean roof after the dirty first flush is diverted, then treated.
4. Protected groundwater from a tested well or spring, treated if uncertain.
5. Clear flowing surface water collected upstream of human activity, then treated.
6. Stagnant surface water only as a last resort after clarification and disinfection.

> **Never use** water contaminated by fuel, pesticides, heavy metals, salt, industrial waste, toxic algal blooms or radioactive fallout. Boiling and household filters cannot reliably make it safe.

Treatment train

Step	Method	Purpose and caution
1. Settle	Let cloudy water stand; pour off the clearer water.	Reduces sediment, not germs or chemicals.
2. Pre-filter	Clean cloth, paper towel, coffee filter or sediment filter.	Protects later filters; does not disinfect.
3. Filter	Certified filter suited to the organisms of concern.	Many portable filters do not remove viruses or dissolved chemicals.
4. Disinfect	Boil, a correctly dosed chemical, or a validated UV device.	Follow the device or product directions exactly.
5. Store	Clean, covered, narrow-neck container.	Label source, date and treatment; pour rather than dip.

Boiling

Bring clear water to a rolling boil for 1 minute. CDC advises 3 minutes at elevations above 6,500 ft (about 2,000 m). Cool naturally in the covered pot. Boiling kills germs but does not remove salt, fuel, metals or most chemicals—and can concentrate them.

Disinfecting with household bleach

Use only when you cannot boil. CDC's method is for plain, unscented household bleach containing 5–9% sodium hypochlorite: add 8 drops per US gallon (roughly 2 drops per litre), double it for cloudy, coloured or very cold water, stir, and wait at least 30 minutes before drinking. Bleach strength varies by country and brand. If yours is a different strength, follow the label's drinking-water directions or your health authority's advice. Never use scented, "splash-less" or colour-safe bleach, and never mix bleach with acids, ammonia or other cleaners.

Solar disinfection

Clear PET bottles in strong sunlight can reduce germs under specific conditions, but results depend on water clarity, bottle condition, weather and exposure time. Treat it as a last-resort fallback and follow local health guidance.

Storage discipline

☐ Keep treated and untreated containers physically separate and clearly marked.

☐ Rotate stored water; inspect for leaks, algae, odour and damaged caps.

☐ Use a dedicated clean scoop or tap—never hands or shared cups.

☐ Keep containers shaded, cool and away from fuel and chemicals.

☐ Every evening, calculate days remaining: usable litres ÷ current daily use.

CHAPTER 04

Sanitation, hygiene and waste

Long emergencies are more often lost to contamination than to hunger.

Lay out sanitation first

Place drinking-water storage and kitchens uphill and upstream of toilets, animal areas, fuel and rubbish. Separate raw-food, washing and waste tools. Mark handwashing stations. Use barriers and lighting to prevent falls and protect privacy.

Zone	Minimum rule
Clean	Treated water, dry food, dishes, sleeping gear and medical supplies only.
Transition	Handwashing, shoe change and cleaning station.
Dirty	Toilet, waste, laundry prewash, animal waste and fuel handling.
Isolation	Separate sleeping and utensils for contagious illness where possible.

Emergency toilet

- If the sewer is working and authorities allow it, flush with collected greywater that contains no harsh chemicals.
- If the sewer has failed, stop flushing. Line a sturdy bucket or toilet bowl with a heavy bag; add dry absorbent material after each use; close and store away from food and animals.
- Where lawful and suitable, a latrine must be well away from water sources, flood paths and gardens; local soil, groundwater and health rules decide safe design.
- Put soap and water or alcohol hand rub right beside the toilet.
- Manage menstrual products, nappies, sharps and medical waste separately.

> **Hand hygiene:** wash with soap and safe water before preparing or eating food and after the toilet, waste handling, animal care or wound care. Alcohol hand rub helps when hands are not visibly dirty, but it does not replace washing.

Waste ladder

1. Refuse unnecessary packaging and single-use items.
2. Reuse containers only for compatible purposes—never fuel or chemical containers for food or water.
3. Separate organics, recyclables, hazardous waste, sharps and sanitary waste.
4. Compost only suitable plant matter in a managed, pest-resistant system.
5. Store remaining waste sealed, shaded and protected from animals until it can be disposed of safely.

Vector control

Drain standing water, cover food and water, screen sleeping areas, control rodents without contaminating food, remove rubbish, check for lice and ticks, and protect skin at dawn and dusk. Tracking who is ill, when symptoms began and who shared water or food is a core community function.

CHAPTER 05

Shelter, heat, cold and fire

The best shelter is dry, ventilated, insulated, structurally sound and boringly safe.

Shelter sequence

1. Escape the active hazard and assess the structure from outside.
2. Choose the smallest safe living area that can be kept at a safe temperature.
3. Stop rain and wind; keep bedding off cold or wet floors.
4. Protect people first: layers, hats, dry socks, shade and drinking water.
5. Ventilate without letting combustion exhaust or smoke inside.
6. Establish two exits, lighting, and a night-time fire watch if any flame is used.

Cold

Wear several loose, dry layers including wind and rain protection. Share a small insulated room, use sleeping mats, eat regularly and keep moving without sweating. Watch for “fumble, mumble, grumble and stumble”. If hypothermia is suspected: move the person out of the cold, handle them gently, keep them lying flat, replace wet clothing, wrap them in blankets and rewarm *slowly*. Do not use direct heat such as a hot bath, shower or heat packs. Call emergency services for confusion, drowsiness or worsening signs.

Heat

Shift work to early morning and evening, create shade with airflow, drink regularly and check on people at higher risk twice a day. Heatstroke is an emergency: a temperature of 40°C or more with confusion, strange behaviour, collapse, seizures or hot, dry skin. Call emergency services and cool the person fast—cold-water immersion from the neck down if possible, otherwise cool water, wet skin, fanning and ice packs to the groin, armpits, cheeks, palms and soles. Do not give fever medicines.

Combustion and carbon monoxide

> **Never burn fuel indoors.** Generators, charcoal, camp stoves, barbecues and unflued heaters can produce fatal carbon monoxide in homes, garages, sheds, tents and caravans. Run generators outdoors well away from doors, windows and vents, following the manufacturer’s distances. Keep battery CO alarms working.

Fire discipline

☐ One designated cooking or fire area on a stable, non-combustible base.
☐ Water or an extinguisher and a fire blanket within reach; exits kept clear.
☐ No refuelling hot equipment; fuel stored outside living areas.
☐ No candles left unattended or near fabric.
☐ Children supervised; a night watch for any necessary open flame.
☐ Observe all fire bans and fire-danger ratings.

CHAPTER 06

Food: ration, preserve and produce

Calories buy time; variety, micronutrients and reliable harvests buy recovery.

First, stop food loss

Keep fridge and freezer doors shut. CDC advises that an unopened fridge keeps food cold for about 4 hours, a full freezer about 48 hours and a half-full freezer about 24 hours. After 4 hours without power, move perishables to a cooler with ice only if it can keep them at 4°C (40°F) or below.

Time	Use first	Action
0–4 hours without power	Refrigerated high-risk food	Keep doors shut; use a thermometer if available.
First 1–2 days	Freezer food still safely cold	Cook only what can be eaten or preserved safely.
First week	Fresh produce, bread, opened packages	Inspect, cook, dry or ferment using tested methods.
Ongoing	Dry staples and sealed goods	Inventory, pest-proof, rotate and ration by plan.

Food safety: smell and appearance cannot prove food is safe. When the cold history is uncertain—especially for meat, dairy, cooked rice or pasta, seafood and prepared food—throw it out. Never taste-test suspect food. Discard anything that touched floodwater.

Resilient pantry

Group	Examples	Why
Staple energy	Rice, oats, pasta, flour, potatoes	Efficient calories; choose what your household cooks.
Protein	Beans, lentils, tinned fish or meat, nut pastes	Shelf-stable protein and minerals.
Fats	Cooking oil, ghee, nuts, seeds	Dense energy; rotate because fats go rancid.
Micronutrients	Tinned vegetables and fruit, dried fruit, iodised salt	Reduces deficiency; balance salt and sugar.
No-cook	Ready meals, crackers, long-life foods	For when fuel, water or health is limited.
Morale	Tea, coffee, spices, familiar treats	Routine and appetite matter under stress.

Ration by need, transparently

Children, pregnant or breastfeeding people, sick or injured people and heavy workers have different needs. Do not allocate by status. Track stock, planned meals and actual use; adjust work to available food rather than forcing dangerous output.

Preservation methods

Method	Best use	Critical control
Drying	Herbs, fruit, some vegetables, properly prepared meat	Thin pieces, airflow, pest protection, fully dry before storage.

Method	Best use	Critical control
Fermentation	Vegetables, dairy or grains where familiar	Tested salt ratios, clean vessels, correct temperature; discard abnormal mould or odour.
Pickling	High-acid recipes	Tested recipes and correct acidity; do not improvise.
Water-bath canning	High-acid foods only	Correct acidity, jar preparation and processing time.
Pressure canning	Low-acid vegetables, meat, legumes	A proper pressure canner, a tested recipe and sound jars.
Cool store	Suitable roots, apples, pumpkins	Cool, dark, ventilated, pest-free; inspect regularly.

Botulism risk: low-acid canning errors can be fatal, and the toxin may not change taste or smell. Use current tested recipes from a recognised food-safety authority. Never eat from bulging, leaking, spurting or unsealed containers.

Food production: the first year

Start with calories, reliability and local suitability, not novelty. Protect existing fruit trees and soil. Plant fast crops for nutrition and morale alongside staple crops. Use succession planting, mulch, composted plant matter, rain capture, shade and seed saving. Record variety, planting date, weather, yield, pests and seed source.

Livestock reality

Keep only animals the group can feed, house and treat humanely. Quarantine new or sick animals, protect drinking water, manage manure and keep health records. Slaughter and veterinary care require skill, hygiene and knowledge of local law.

CHAPTER 07

Health, first aid and medicines

Prevention, triage and clean technique save more lives than improvised heroics.

> **Get real care:** use any working emergency, poisons, telehealth, radio-medical or clinical service. Improvised invasive procedures, prescription substitutions and unverified remedies can kill. Do not exceed your training.

Triage priorities

Immediate	Urgent	Routine / observe
Not breathing normally; catastrophic bleeding; shock; severe burns; heatstroke; poisoning; major trauma; stroke or heart-attack signs	Deep wounds; fractures; dehydration; persistent fever; infected wound; severe pain; pregnancy concerns; worsening chronic illness	Minor cuts, mild sprains, stable symptoms, medication review, preventive care

DRSABCD — basic life support

1. **Danger:** make sure the scene is safe.
2. **Response:** talk and touch—do they respond?
3. **Send for help:** call the emergency number; send someone for an AED.
4. **Airway:** open and clear the airway.
5. **Breathing:** check for normal breathing. Gasping is not normal breathing.
6. **CPR:** if not breathing normally, give 30 compressions to 2 breaths at 100–120 compressions a minute (continuous compressions if you cannot give breaths).
7. **Defibrillation:** attach an AED as soon as possible and follow its prompts.

This sequence follows Australian Resuscitation Council guidance. Do a practical course and refresh it regularly.

Clean wound care

Wash hands, control bleeding, irrigate with plenty of safe water or sterile saline, remove only loose visible debris, cover with a clean non-stick dressing and review daily. Do not pour caustic antiseptics deep into tissue or close contaminated puncture wounds. Spreading redness, swelling, warmth, pus, red streaks, fever, numbness or loss of function needs clinical assessment.

Medication continuity

☐ Keep a printed medicine list: generic name, dose, timing, purpose, allergies, prescriber and pharmacy.

☐ Keep an authorised reserve where legal and medically appropriate; rotate by expiry.

☐ Protect temperature-sensitive medicines with monitored cooling, not direct contact with ice.

☐ Never share prescriptions or abruptly stop steroids, anticonvulsants, insulin, psychiatric or other critical medicines without clinical advice.

☐ Keep vaccination, implant or device and emergency-contact records offline.

☐ Plan power or alternatives for CPAP, oxygen concentrators, pumps, powered wheelchairs and medicine refrigeration.

Infection control

Separate sick people early when feasible. Improve ventilation, use well-fitting respirators for airborne risk, clean high-touch surfaces, avoid shared utensils and record contacts and symptom onset. Assign dedicated carers when possible, and protect them with rest, water, hand hygiene and correctly used protective equipment.

Oral rehydration

Use a commercial oral rehydration product exactly as directed whenever available. If none exists, follow a current health-authority recipe measured accurately with safe water; the wrong salt concentration is dangerous, especially for children. Persistent vomiting, blood in stool, drowsiness, very little urine or severe weakness needs urgent care.

Mental health under prolonged stress

Predictability is protective. Keep a daily rhythm, give everyone useful age-appropriate work, share verified information at set times, protect privacy, sleep and cultural practices, and rotate distressing duties. Watch for withdrawal, reckless behaviour, panic, aggression, inability to sleep, hallucinations or suicidal thinking; stay with the person, reduce access to means and seek help.

CHAPTER 08

Energy, tools and useful technology

Use modern technology as a bridge to durable, low-energy systems.

Energy hierarchy

1. Avoid the demand: daylight, insulation, manual tools, shared spaces.
2. Reduce it: LEDs, low-voltage devices, efficient cooking, power-saving modes.
3. Match source to task: solar for charging, thermal mass for heat, human power for intermittent mechanical work.
4. Store energy safely: certified batteries, correct chargers, fuses and ventilation.
5. Reserve fuel for medical, water, communications, transport and seasonal food production.

A small electrical system

Component	Role	Rule
Solar panel	Daytime generation	Secure against wind; keep clean; avoid damaged wiring.
Charge controller	Protects battery charging	Correct type and ratings for panel and battery.
Battery	Stores energy	Compatible chemistry and charger; protect terminals and temperature.
DC loads	Lighting, radio, USB charging	More efficient than running an inverter unnecessarily.
Inverter	Mains-voltage equipment	Use only when required; size for surge.
Fuses and breakers	Fault protection	Place near the source; never bypass.

Electricity kills. Never backfeed a building through a power point, work on live conductors, improvise mains connections or use wet or damaged equipment. In Australia, fixed electrical work must be done by a licensed electrician.

Fuel

Label and separate fuels, stabilisers and lubricants. Store only permitted quantities in approved containers, outside living spaces and away from ignition sources, drains and food. Track date, volume and planned use. Run and service engines periodically; an untested generator is not a capability.

Tools that compound capability

Category	High-value examples
Water	Food-grade containers, buckets, taps, filters, hose, repair clamps, test strips.
Shelter	Tarps, rope, fasteners, saw, hammer, hand drill, shovel, sharpening stones.
Food	Manual can opener, pressure cooker, knives, fermentation vessels, thermometers.
Repair	Pliers, spanners, screwdrivers, multimeter, wire, adhesives, sewing kit.
Land	Spade, fork, hoe, rake, pruning saw, wheelbarrow, watering cans.
Records	Waterproof notebooks, pencils, printed manuals, maps, labels.

Technology preservation

Download offline maps, medical references, repair manuals, seed information and identity documents. Keep several digital copies (encrypted where they contain personal data) plus essential paper copies. Store spare electronics disconnected, dry and protected from heat, moisture and shock. A simple AM/FM radio, handheld radios, headlamps, an e-reader and a low-power computer deliver outsized value.

CHAPTER 09

Communications, navigation and information

Information is a rationed resource: verify it before acting on it.

Communication ladder

Range	Method	Use
Same site	Bell, whistle, flags, runners, notice board	Reliable and low-energy.
Neighbourhood	Licence-free UHF CB / FRS / PMR radios where legal; bicycle messenger	Agree channels and check-in times.
Regional	Broadcast radio; amateur radio through licensed operators	Warnings and welfare traffic.
Long distance	Satellite messenger or phone, HF radio, internet when available	Short, high-value messages only.

Message format

TO / FROM / DATE-TIME-TIMEZONE / LOCATION / PRIORITY / MESSAGE / ACTION REQUESTED / NEXT CONTACT. Read back names, numbers and coordinates. Log every important message and separate direct observation from report, inference and rumour.

PACE plan

Layer	Your method
Primary	
Alternate	
Contingency	
Emergency	

Distress beacons

Use a 406 MHz GPS personal locator beacon only in grave and imminent danger, after trying two-way communication. Beacons are coded for the country where they are registered: register with AMSA in Australia, NOAA in the US, the UK beacon registry, the Canadian Beacon Registry, or your national authority. Keep registration and battery expiry current.

Rumour control

☐ Record the original source and exact time.

☐ Seek two independent, credible confirmations for consequential claims.

☐ Prefer direct official or local observation over screenshots without provenance.

☐ Mark confidence: confirmed / probable / unverified / false.

☐ Publish corrections visibly; do not quietly edit the log.

☐ Delay non-urgent action when information quality is poor.

Navigation

Keep paper topographic and street maps in waterproof sleeves. Mark water, clinics, bridges, high ground, fire risks, fuel, community sites and alternate routes. Learn compass bearings, pacing and terrain association

before you lose GPS. Leave a written route, destination, party, turnaround time and overdue plan whenever travelling.

CHAPTER 10

Security without becoming the threat

Visibility, relationships, routines and de-escalation outperform bravado.

Layered protective measures

Layer	Examples
Community	Know neighbours, share alerts, resolve disputes, support vulnerable households.
Site	Lighting, trimmed sightlines, repaired doors and windows, controlled keys, visible occupancy.
Operations	Visitor log, buddy system, check-ins, inventory controls, two-person cash and fuel handling.
Personal	Awareness, distance, calm speech, exit routes.
Information	Do not advertise stocks, routines, medical vulnerability or vacant homes.

De-escalation

- Keep distance, open hands and a route out.
- Use a calm voice and short sentences; acknowledge emotion without agreeing to threats.
- Offer limited face-saving choices when safe.
- Do not crowd, insult, make sudden movements or argue over pride.
- Bring a neutral witness or mediator.
- Leave early when escalation cues rise; call police when available.

> **Ethical boundary:** never use deprivation, collective punishment, forced labour or denial of essential medical care as a means of control. Security measures must be lawful, proportionate, documented and accountable.

Inventory and fairness

Scarcity creates conflict when rules are secret or inconsistent. Count critical goods with two people present; publish totals and allocation criteria; record distributions; investigate discrepancies without public accusation; and provide an appeal process. Keep medical details private.

CHAPTER 11

Households, animals and vulnerable people

Plans fail when they assume every person can walk, lift, hear, see, remember or eat the same food.

Individual support plan

Need	Questions
Mobility	Can the person use stairs, transfer, evacuate and use the toilet without power?
Communication	Are instructions available in plain language, large print, sign, symbols or translation?
Medication	What cannot be interrupted? What needs refrigeration, needles or monitoring?
Diet	Allergies, texture needs, infant feeding, kidney or diabetic needs, cultural requirements?
Cognition and senses	What routines, carers, quiet spaces or identification help?
Power	Which devices are life-sustaining? What is their wattage and backup duration?

Children

Give honest, age-appropriate explanations and predictable routines. Keep children away from water-treatment chemicals, tools, damaged buildings, fires, floodwater and waste. Use identification cards and agreed reunification contacts. Never assign a child to hazardous guard, medical or scavenging work.

Older adults and chronic illness

Prioritise temperature control, fluids, medication continuity, skin care, mobility, hearing and vision aids and social contact. Small deterioration can become a crisis quickly. Pair each high-risk person with a primary and a backup helper.

Animals

☐ Identification, current photos, vaccination and medicine records.

☐ Leads, harnesses, carriers, muzzles where appropriate, bedding and waste bags.

☐ Several days of familiar food and water; a manual can opener.

☐ Separate frightened or unfamiliar animals; disaster stress changes behaviour.

☐ Keep animals away from floodwater, ash, contaminated water, carcasses and rodent poison.

☐ Plan evacuation transport and a named temporary carer.

CHAPTER 12

Community organisation and governance

A capable group needs legitimacy, not merely a strong leader.

First community meeting

Agenda	Output
Who is here?	Register (with consent) skills, needs, dependants and emergency contacts.
What is dangerous now?	Shared hazard map and immediate controls.
What do we have?	Water, food, medical, shelter, energy, tools and transport inventory.
What must happen today?	Named tasks, pairs, resources and deadlines.
How will decisions be made?	Temporary roles, review time, appeal and replacement process.
When do we meet again?	A short fixed cadence, normally morning and evening.

Functional teams

Function	Responsibilities
Coordination	Priorities, meetings, liaison with authorities, records.
Water and sanitation	Source, treatment, storage, toilets, hygiene and waste.
Health	Triage, medication register, illness tracking and referrals.
Food and land	Inventory, kitchens, rationing, preservation and production.
Shelter and energy	Structural checks, weatherproofing, fire safety, power and fuel.
Communications	Radio watch, notices, message log, maps and runners.
Welfare and protection	Safeguarding, mediation, missing persons and vulnerable people.
Maintenance	Tools, spares, transport, repair queue and training.

Good emergency governance

- Time-limited authority with scheduled review.
- Two-person control over scarce, high-value supplies.
- Written decisions and stock movements.
- Conflicts of interest declared.
- A private complaints and safeguarding channel.
- No discrimination in lifesaving aid.
- Proportionate rules with known consequences and an appeal.
- Regular rotation and training of deputies.

Work rhythm

Use daylight, weather and food intelligently. A sustainable day includes a briefing, two focused work blocks, meals, rest, maintenance, training and an evening review. Rotate unpleasant or risky jobs. Fatigue is a hazard, not a badge of commitment.

CHAPTER 13

Rebuilding essential systems

Recovery begins when the group can maintain, reproduce and teach its capabilities.

The resilience ladder

Level	Goal	Evidence
1. Survive	No preventable deaths today	Hazards controlled; water and shelter stable.
2. Stabilise	Meet basic needs for weeks	Sanitation, rationing, health monitoring and communications work.
3. Sustain	Replace what is used up	Food production, repair, seed, fuel substitutes and training.
4. Connect	Trade and coordinate safely	Routes, standards, records and dispute processes.
5. Recover	Restore wider services	Clinics, schools, workshops, grids, markets and civic institutions.

Water works

Move from carried water to protected catchments, gravity flow, covered storage, simple pumps and routine testing. Separate drinking, irrigation and firefighting reserves. Set source-protection rules, maintenance schedules and spare seals, pipe and fittings, and train operators.

Agriculture and soil

Map soil, slope, water, frost, wind and contamination. Protect topsoil with cover crops, mulch and contour planting. Compost safely; never spread untreated human waste on food crops. Keep genetic diversity by growing several varieties and exchanging seed with records. Plan for the “hunger gap” between stored food and first harvest.

Workshops and repair

Centralise specialist tools without removing household capability. Tag broken items with fault, owner, date and parts needed. Salvage only from authorised sources; do not strip infrastructure others still need. Standardise fasteners, voltages, containers and maintenance intervals where possible.

Education and knowledge

Teach literacy, numeracy, hygiene, first aid, local ecology, food production, tool use and conflict resolution. Pair experts with apprentices and require written or illustrated procedures. Record failures as well as successes. A skill held by one person is a single point of failure.

Trade, measures and records

Reliable weights, volumes and quality standards reduce conflict. Keep ledgers for shared assets, loans, harvests, births, deaths, medical events, land use and decisions. Protect personal data. Back up critical records on paper and digital media stored in different places.

Public health before prestige

Invest first in clean water, toilets, drainage, vaccination, maternal care, ventilation, safe housing, nutrition, waste control and trained health workers. The healthiest settlement is usually the one that makes contamination difficult and maintenance routine.

CHAPTER 14

Hazard-specific actions

The all-hazards plan is the base; these are overlays, not substitutes. Always follow official warnings.

Bushfire / wildfire

- Know your fire-danger rating and your plan. Leaving early is the safest option; late evacuation through smoke and flame is deadly.
- Track warnings, wind and multiple escape routes.
- Wear natural-fibre long clothing, sturdy boots, eye protection and suitable respiratory protection.
- Do not rely on garden hoses, roof sprinklers or a vehicle as a guaranteed refuge.
- After the fire front passes, watch for embers and structural hazards; avoid ash exposure.

Flood and tsunami

- Move to high ground early. Never drive, walk, ride or swim through floodwater—15 cm of fast water can knock an adult over and about 30 cm can float a small car.
- Treat all floodwater as contaminated and possibly electrified.
- Keep away from drains, creeks, causeways, beaches and river mouths until authorities say it is safe.
- After a flood, dry buildings quickly when safe, wear protective equipment and discard contaminated porous material, food and medicines.

Earthquake

- During shaking: Drop, Cover and Hold On; stay away from glass and unsecured furniture.
- After shaking: expect aftershocks, check injuries and fire or gas hazards, and leave damaged structures.
- Near a coast, strong or long shaking can be a natural tsunami warning—move to high ground or inland immediately.

Extreme heat

- Plan the coolest place to be, including if the power fails.
- Drink regularly, avoid exertion in the hottest hours and check on people at higher risk twice a day.
- Heatstroke is an emergency: call for help and cool the person fast.

Pandemic or severe outbreak

- Reduce close contact early; move gatherings outdoors or improve ventilation.
- Use well-fitting respirators appropriate to the hazard and maintain hand hygiene.
- Separate people with symptoms and protect carers.
- Keep up routine medicines, vaccination and care for other conditions.
- Follow health-authority advice as it changes.

Nuclear detonation or radioactive fallout

- If you see a flash, do not look at it; drop behind cover and wait for the blast wave to pass.
- Get inside the nearest substantial building, ideally a basement or central room, and put dense material between people and outdoors.
- At the entrance, remove outer clothing carefully, bag it away from people, and gently wash exposed skin and hair.

- Stay sheltered and monitor official information. Fallout radiation falls substantially over time, but local instructions decide when and how to move.
- Take potassium iodide only when public-health authorities tell you to; it protects only the thyroid and has risks.

Chemical release

If outdoors, move crosswind or upwind and away from the release when safe, or shelter and seal a room if directed. Turn off ventilation that draws in outside air. Remove contaminated clothing without pulling it over the face if possible, bag it, and flush exposed skin with water unless chemical-specific advice says otherwise. Never enter a vapour cloud to rescue someone without proper equipment.

Grid, cyber or communications collapse

- Unplug sensitive equipment; keep one monitored information device.
- Switch to your PACE plan and scheduled check-ins.
- Use cash and paper records; prevent duplicate distributions with simple receipts.
- Arrange manual operation of pumps, locks, refrigeration and medical systems.
- Expect knock-on failures in water, sewer, fuel and payments; conserve before shortages are visible.

Conflict and civil disorder

Avoid strategic sites, crowds, checkpoints and visible affiliation where possible. Keep documents, neutral clothing, a low profile, family reunification arrangements and several routes. Do not touch weapons, unexploded ordnance or abandoned military equipment. Record abuses only when doing so does not endanger victims or the recorder; use recognised humanitarian channels.

PART 2

Field guides

Every guide from the website, in the same order. Critical guides deal with immediate threats to life.

01	The first 10 minutes CRITICAL	Immediate survival
02	Control the first five minutes CRITICAL	Immediate survival
03	DRSABCD: someone has collapsed CRITICAL	Health & medicines
04	Evacuate early with a grab bag CRITICAL	Immediate survival
05	Floodwater: stay out CRITICAL	Immediate survival
06	Treating uncertain water CRITICAL	Water & sanitation
07	Emergency toilet and hygiene CRITICAL	Water & sanitation
08	Choosing and stabilising shelter CRITICAL	Shelter & climate
09	Carbon monoxide prevention CRITICAL	Shelter & climate
10	Extreme heat and heatstroke CRITICAL	Shelter & climate
11	Cold exposure and hypothermia CRITICAL	Shelter & climate
12	Managing food after power loss CRITICAL	Food & agriculture
13	Clean wound care CRITICAL	Health & medicines
14	Make yourself findable CRITICAL	Communication
15	Medication continuity plan	Health & medicines
16	Navigate without phone service	Communication
17	Use fire without creating a second disaster CRITICAL	Shelter & climate
18	Plan food for 30 days	Food & agriculture
19	Preserve food safely CRITICAL	Food & agriculture
20	Starting a resilient food garden	Food & agriculture
21	Small solar power system	Energy & tools
22	Build a repairable hand-tool system	Energy & tools
23	Plan a rainwater system	Water & sanitation
24	Animals in evacuation and shelter	People & animals
25	PACE communications plan	Communication
26	Rumour and information control	Communication
27	De-escalation and site security	Community
28	Emergency community governance	Community
29	Preserving knowledge and skills	Recovery & rebuilding

The first 10 minutes

A calm sequence for active danger, severe bleeding, fire, utilities and accounting for people.

> **Critical caution:** Do not enter damaged structures, floodwater, fire fronts or contaminated zones to retrieve supplies.

Time	Difficulty	Outcome
10 minutes	Moderate	Prevent the first emergency causing more casualties

Before you begin

- ☐ Do not enter a hazard to retrieve gear
- ☐ Keep a clear exit behind you
- ☐ Call emergency services if functioning

What you need

- ☐ Sturdy shoes and gloves
- ☐ First-aid kit
- ☐ Torch or headlamp
- ☐ Phone, radio and whistle
- ☐ Essential medicines

Procedure

1. **Scan before moving.** Look for fire, smoke direction, falling material, live wires, gas smell, floodwater, violence and traffic. Listen for alarms and structural movement.
2. **Move to relative safety.** Use the shortest route away from the active hazard. Take people, animals and critical mobility aids only if immediately accessible.
3. **Check response and breathing.** Check whether each person responds and breathes normally. If someone is unresponsive and not breathing normally, start CPR (see the DRSABCD guide) and follow the emergency call-taker.
4. **Stop life-threatening bleeding.** Use firm direct pressure. Use a commercial tourniquet for life-threatening limb bleeding when trained or when direct pressure cannot control it. Note the application time.
5. **Account and communicate.** Use names. Mark each person safe, missing, injured or away. Send one concise message: location, hazard, people, injuries and action required.
6. **Stabilise the site.** Only when safe, isolate damaged utilities you understand, extinguish a small fire with a clear exit, and fill clean water containers while supply remains.

Check it is working

- ☐ All people and animals accounted for
- ☐ No active fire, gas or electrical hazard in the occupied zone
- ☐ Severe bleeding controlled
- ☐ A shelter-or-evacuate decision has a review time

Common mistakes

- Creating a second casualty
- Re-entering for possessions
- Turning utilities off without knowing how they can be restored
- Moving an injured person when no hazard requires it

Official-source aligned: Aligned with Australian Red Cross preparedness and ANZCOR first-aid principles. Independent specialist review: not yet completed. **Sources:** Australian Red Cross: Prepare for emergencies — get packing (redcross.org.au/emergencies/prepare/packing); Australian Resuscitation Council (ANZCOR guidelines) (resus.org.au).

Control the first five minutes

Use a repeatable mental reset to interrupt panic, find the real threat and set the next achievable goal.

> **Critical caution:** A mental reset must not delay immediate escape from fire, flood, violence, structural collapse or toxic air.

Time	Difficulty	Outcome
5–15 minutes	Low	Restore deliberate decision-making

Before you begin

- ☐ Move out of immediate danger
- ☐ Check for catastrophic bleeding and breathing problems
- ☐ Put on footwear and protective clothing

What you need

- ☐ Watch or timer
- ☐ Notebook and pencil
- ☐ Whistle
- ☐ Weather protection

Procedure

1. **Create a safe pause.** If there is no immediate need to run, take one controlled breath with a longer exhale. Physically lower your shoulders and unclench your hands.
2. **Name the facts.** Say or write: what happened, what is still dangerous, who is present, what time it is and what will worsen in the next hour. Separate facts from guesses.
3. **Protect the essentials.** Check air, shelter, severe bleeding, temperature and water before property or comfort.
4. **Set a ten-minute goal.** Choose one observable result: move everyone to the safe room, stop the leak, fill clean containers or send one complete message.
5. **Use people deliberately.** Give each capable person one task, one limit and a report-back time. Avoid everyone "helping" with the same problem.
6. **Repeat the loop.** After the goal, reassess hazards, record progress and choose the next short goal. Increase the planning horizon only when the situation is stable.

Check it is working

- ☐ Everyone can state the immediate hazard
- ☐ A named person owns each urgent task
- ☐ The next review time is written
- ☐ No one is working alone on a hazardous task

Common mistakes

- Trying to solve the entire catastrophe at once
- Confusing activity with priority
- Making major travel decisions from rumour
- Letting the most confident voice replace evidence

Editorial synthesis: Editorial synthesis of published survival-psychology frameworks. Independent specialist review: not yet completed.
Sources: Australian Red Cross: preparedness resources (incl. RediPlan) (redcross.org.au/emergencies/prepare/resources); John Hudson, How to Survive (Pan Macmillan) (panmacmillan.com/authors/john-hudson/how-to-survive/9781509833580); Ollie Ollerton, How to Survive (Almost) Anything (Blink / Bonnier) (bonnierbooks.co.uk/news-and-media/blink-to-publish-the-essential-survival-guide-from-ex-special-forces-soldier-ollie-ollerton).

DRSABCD: someone has collapsed

The basic life-support sequence for an unresponsive person: Danger, Response, Send for help, Airway, Breathing, CPR, Defibrillation.

> **Critical caution:** This summary does not replace a first-aid course. Follow the instructions of the emergency call-taker, who can coach you through CPR.

Time	Difficulty	Outcome
Seconds to start	Moderate	Keep blood flowing to the brain until help or a defibrillator arrives

Before you begin

☐ Know your emergency number

☐ Know where the nearest AED (defibrillator) is at home, work and in your area

☐ Do a recognised CPR course and refresh it regularly

What you need

☐ Phone on speaker

☐ Gloves and CPR face shield if available

☐ AED (defibrillator) if available

☐ Someone to send for help

Procedure

1. **Danger.** Check for traffic, fire, electricity, gas, water or violence. Do not become a second casualty.
2. **Response.** Talk and touch: speak loudly, squeeze their shoulders. If they respond, keep them comfortable, monitor them and get help as needed.
3. **Send for help.** Call the emergency number, or get someone else to call, and put the phone on speaker. Send someone to find an AED.
4. **Airway.** Open the mouth and check for anything blocking it. If there is, roll them onto their side and clear it. Then lay them on their back and tilt the head back to open the airway.
5. **Breathing.** Look, listen and feel for normal breathing. Gasping or irregular breathing is not normal breathing.
6. **CPR.** If they are unresponsive and not breathing normally, start CPR: 30 chest compressions to 2 breaths, at a rate of 100–120 compressions a minute, pressing down about one-third of the depth of the chest in the centre. If you cannot or will not give breaths, do continuous compressions. Swap rescuers every two minutes if you can.
7. **Defibrillation.** Turn on an AED as soon as it arrives and follow its voice prompts. Continue CPR until the person recovers, help arrives and takes over, or you are physically unable to continue.

Check it is working

☐ Emergency services have been called

☐ Compressions are hard, fast and in the centre of the chest

☐ Interruptions to compressions are short

☐ The AED is attached as soon as it arrives

Common mistakes

- Waiting to be sure before starting CPR
- Mistaking gasping for normal breathing
- Stopping compressions for long checks
- Delaying the AED

Official-source aligned: Aligned with the Australian Resuscitation Council (ANZCOR) basic life support sequence. Independent specialist review: not yet completed. **Sources:** Australian Resuscitation Council (ANZCOR guidelines) (resus.org.au); Australian Red Cross: first aid training (redcross.org.au/firstaid).

Evacuate early with a grab bag

Decide your triggers, pack a grab bag before you need it, and leave while roads are still open.

> **Critical caution:** Late evacuation through smoke, fire or floodwater is one of the most dangerous things you can do. If authorities tell you to leave, leave. Never drive into floodwater.

Time	Difficulty	Outcome
1–2 hours to prepare	Low	Leave early, safely and with what you need for three days

Before you begin

☐ Find your local emergency-warning app, radio station and website

☐ Identify at least two routes away from likely hazards

☐ Choose a destination outside the risk area: friends, family or an official evacuation centre

☐ Record medicines, devices and needs for each person and animal

What you need

☐ At least 10 litres of water per person

☐ Non-perishable food and a can opener

☐ Medicines (a week's supply) and printed medicine list

☐ First-aid kit and manual

☐ Torch, spare batteries and battery radio

☐ Phone, charger and power bank

☐ Copies of documents on paper and USB

☐ Cash, spare clothes, sturdy shoes and gloves

☐ Toiletries, hand sanitiser and face masks

☐ Pet food, leads and carriers

Procedure

1. **Set your leave triggers now.** Write down the conditions that mean you go: an official "leave" or "evacuate" warning, a forecast of catastrophic fire danger, rising water at a marker you can see, loss of a critical medical service. Put the list where everyone can read it.
2. **Pack one grab bag per person.** Use a backpack each person can carry. Pack water, food, medicines, a printed contact and medicine list, clothing, a torch and phone charging. Keep documents in a waterproof bag. Store bags by the exit and check them each season.
3. **Plan people and animals first.** Decide who collects children, older relatives and neighbours who need help. Have carriers, leads and transport ready for animals. Large animals need moving much earlier than people.
4. **Leave early.** When a trigger is met, go. Shut windows and doors, turn off gas and electricity if it is safe and you know how, take grab bags, and use your planned route. Avoid smoke, flooded roads and fallen power lines.
5. **Tell someone and register.** Tell your out-of-area contact where you are going. If you go to an evacuation centre, register so family can find you (in Australia, the Red Cross Register.Find.Reunite service may be activated).
6. **Stay away until it is safe.** Return only when authorities say the area is safe. Expect damaged roads, contaminated water and hazards in and around the home.

Check it is working

☐ Every person knows the triggers and the destination

☐ Grab bags are packed, dated and by the exit

☐ There are two routes and a meeting point

Common mistakes

- Waiting to see the hazard before leaving
- Driving through floodwater or smoke
- Packing more than you can carry

☐ Animals have carriers or leads ready

☐ An out-of-area contact knows the plan

- Forgetting medicines, glasses or hearing aids
- Going back for possessions

Official-source aligned: Aligned with Queensland Get Ready, Australian Red Cross and CFA leave-early guidance. Independent specialist review: not yet completed. **Sources:** Queensland Government Get Ready: emergency kit (getready.qld.gov.au/emergencykit); Australian Red Cross: Prepare for emergencies — get packing (redcross.org.au/emergencies/prepare/packing); CFA: Leave-early bushfire survival plan template (PDF) (cfa.vic.gov.au/ArticleDocuments/336/CFA%20Bushfire%20Plan%20Leave%20Early%20(2022).pdf); CFA (Victoria): Your bushfire plan (cfa.vic.gov.au/plan-prepare/before-and-during-a-fire/your-bushfire-plan).

Floodwater: stay out

The most common cause of flood deaths is entering floodwater. Leave early, stay out of water and stay safe afterwards.

> **Critical caution:** Never drive, walk, ride or swim through floodwater. It can be deeper and faster than it looks, hide debris and open drains, and be contaminated or electrified.

Time	Difficulty	Outcome
Before and during floods	Low	Keep everyone out of floodwater

Before you begin

☐ Check whether your home, work and routes are flood-prone

☐ Know which local roads close first

☐ Save your State Emergency Service number and the emergency number

What you need

☐ Grab bag

☐ Battery radio

☐ Torch

☐ Gloves and sturdy boots for clean-up

☐ Plastic bags for documents

Procedure

1. **Know the warnings.** Find the flood warnings for your area and what each level means. Flash flooding can happen with little warning after heavy rain.
2. **Act early.** Move people, animals, vehicles and important items to higher ground before water rises. Follow evacuation advice when it is given.
3. **Stay out of floodwater.** Do not drive, walk, ride or swim through it. Just 15 cm of fast water can knock an adult over, and a small car can float in about 30 cm. If you are trapped, go to the highest safe point and call for help.
4. **Keep children away.** Keep children and animals away from creeks, drains, culverts and stormwater channels during and after rain.
5. **Stay safe afterwards.** Do not return until authorities say it is safe. Wear gloves and boots, avoid fallen power lines, have electrical and gas systems checked before use, and discard food and medicines that touched floodwater.
6. **Water and hygiene after floods.** Assume tap and tank water may be contaminated until authorities advise otherwise. Treat or use stored water. Wash hands after clean-up and cover cuts.

Check it is working

☐ Everyone knows not to enter floodwater

☐ Routes avoid known flood points

☐ Children are supervised near water

☐ Food and medicines touched by floodwater are discarded

Common mistakes

- Driving across a flooded causeway
- Letting children play in floodwater
- Returning home before it is declared safe
- Using electrical appliances that were wet

Official-source aligned: Aligned with NSW SES flood-safety guidance. Independent specialist review: not yet completed. **Sources:** NSW SES: Make safe decisions during a flood (PDF) (ses.nsw.gov.au/sites/default/files/document/flood-make-safe-decisions-during-a-flood_infographics_v7.pdf); NSW SES: Flash flood safety guide (PDF) (ses.nsw.gov.au/sites/default/files/2024-02/guide-flash-floodsafe.pdf); NSW SES: Stay safe after floods (PDF) (ses.nsw.gov.au/sites/default/files/document/flood-stay-safe-after-floods_infographics_v9.pdf).

FIELD GUIDE 06 · AFTER THE GRID · RESPOND · WATER & SANITATION · CRITICAL

Treating uncertain water

A treatment train covering how much to store, source choice, settling, filtering, disinfection and clean storage.

> **Critical caution:** Boiling does not remove fuel, salt, pesticides, metals or radioactive contamination.

Time	Difficulty	Outcome
30–90 minutes	Moderate	Produce microbiologically safer drinking water

Before you begin

- ☐ Reject water exposed to fuel, pesticides, saltwater, industrial chemicals or radioactive fallout
- ☐ Choose bottled water first
- ☐ Keep raw and treated containers separate

What you need

- ☐ Clean covered containers (food-grade)
- ☐ Pot and heat source
- ☐ Cloth or sediment pre-filter
- ☐ Validated water filter if available
- ☐ Plain unscented bleach and a dropper
- ☐ Labels and marker

Procedure

1. **Plan the quantity.** Queensland Get Ready advises packing at least 10 litres of drinking water per person for a three-day kit; CDC advises at least one US gallon (about 3.8 litres) per person per day for at least three days. Heat, illness, pregnancy, breastfeeding and heavy work increase need. Add water for animals, hygiene and cooking.
2. **Choose the least contaminated source.** Commercially sealed water is safest. Next consider known-safe stored tap water, then protected rain or groundwater. Surface water requires treatment and may still contain chemicals.
3. **Clarify cloudy water.** Let sediment settle, pour the clearer water off carefully and pass it through a clean cloth, paper towel or coffee filter. This improves later treatment but does not disinfect.
4. **Filter for the right hazard.** Use a certified filter according to its instructions. Many portable filters remove bacteria and protozoa but not viruses, salt or dissolved chemicals.
5. **Boil when possible.** Bring clear water to a rolling boil for 1 minute. CDC advises 3 minutes at elevations above 6,500 ft (about 2,000 m). Cool naturally while covered.
6. **Disinfect with bleach only when you cannot boil.** CDC's dose is for plain, unscented household bleach containing 5–9% sodium hypochlorite: 8 drops per US gallon (roughly 2 drops per litre). Double the dose for cloudy, coloured or very cold water, then wait at least 30 minutes before drinking. Bleach strength varies by country and brand—check the label and use the product's own drinking-water directions or local health-authority advice if the strength differs.
7. **Store without recontamination.** Use a clean, covered, narrow-neck container or tap. Pour rather than dip cups or hands. Mark treatment method and date.
8. **Keep a water ledger.** Record litres collected, treated, used and reserved. Recalculate days remaining every evening.

Check it is working

- ☐ No chemical, fuel or salt contamination suspected

Common mistakes

- Assuming clear water is safe
- Believing boiling removes chemicals or salt

☐ A full rolling boil was achieved, or the bleach dose matched the label strength and waited 30 minutes

☐ Treated water never contacted raw-water tools

☐ Container is covered, labelled and shaded

☐ Days of water remaining is calculated

- Using scented, splash-less or “colour-safe” bleach
- Guessing a bleach dose without knowing its strength
- Letting clean hoses, taps or ladles touch raw water

Official-source aligned: Aligned with CDC emergency drinking-water guidance and WHO emergency WASH guidance. Independent specialist review: not yet completed. **Sources:** CDC: How to make water safe in an emergency (cdc.gov/water-emergency/about/index.html); CDC: How to create an emergency water supply (cdc.gov/water-emergency/about/how-to-create-and-store-an-emergency-water-supply.html); Queensland Government Get Ready: emergency kit (getready.qld.gov.au/emergencykit); WHO: Water, sanitation and health in humanitarian emergencies (who.int/teams/environment-climate-change-and-health/water-sanitation-and-health/environmental-health-in-emergencies/humanitarian-emergencies).

Emergency toilet and hygiene

Prevent sewage failure from becoming a disease outbreak.

Critical caution: Keep waste downhill and away from water, kitchens, gardens, animals and flood paths.

Time	Difficulty	Outcome
30–60 minutes	Moderate	Separate human waste from hands, food, water and living areas

Before you begin

- ☐ Confirm whether sewer authorities permit flushing
- ☐ Select a site away from food and water
- ☐ Create privacy, lighting and safe access

What you need

- ☐ Sturdy bucket or disabled toilet
- ☐ Heavy-duty bags
- ☐ Dry absorbent carbon material
- ☐ Soap and safe water
- ☐ Lidded waste container
- ☐ Gloves

Procedure

1. **Stop unsafe flushing.** If the sewer has failed or is backing up, stop adding water. Block access to affected toilets.
2. **Create the toilet.** Line a stable bucket or toilet bowl with a strong bag. Add a base layer of dry absorbent material. Provide a secure seat and lid.
3. **Separate liquid where practical.** Reducing liquid in the solids container can limit volume and odour, but keep all collection systems stable, labelled and inaccessible to children.
4. **Cover after every use.** Add enough dry carbon material to cover the surface. Close the lid. Do not add disinfectants that create fumes or complicate disposal.
5. **Install handwashing at the exit.** Provide soap and treated water. Make it impossible to leave the toilet zone without passing the station.
6. **Seal and stage waste.** Close bags before they become heavy or prone to rupture. Store in a lidded, shaded, animal-proof dirty zone pending lawful disposal.

Check it is working

- ☐ No waste pathway crosses the kitchen or treated-water area
- ☐ Handwashing supplies are present
- ☐ Children and animals cannot access waste
- ☐ Sharps and medical waste are separate

Common mistakes

- Continuing to flush into a failed sewer
- Placing a latrine near groundwater or flood paths
- Overfilling bags
- Using the same gloves or tools in the kitchen

Official-source aligned: Aligned with CDC emergency hygiene and WHO emergency sanitation guidance. Independent specialist review: not yet completed. **Sources:** CDC: Personal hygiene during an emergency (cdc.gov/water-emergency/safety/guidelines-for-personal-hygiene-during-an-emergency.html); WHO: Water, sanitation and health in humanitarian emergencies (who.int/teams/environment-climate-change-and-health/water-sanitation-and-health/environmental-health-in-emergencies/humanitarian-emergencies); Sphere Handbook: humanitarian minimum standards (spherestandards.org/handbook).

Choosing and stabilising shelter

A six-step sequence for dry, ventilated, insulated and structurally safe shelter.

> **Critical caution:** Never use a structurally damaged building merely because it is nearby.

Time	Difficulty	Outcome
1–3 hours	Moderate	Create a dry, ventilated and temperature-controlled safe zone

Before you begin

- ☐ Assess the structure from outside
- ☐ Avoid flood, fire, landslide and falling-tree paths
- ☐ Choose two exits

What you need

- ☐ Tarpaulin and cordage
- ☐ Sleeping mats
- ☐ Blankets and layered clothing
- ☐ Torch
- ☐ Smoke and CO alarms
- ☐ Basic hand tools

Procedure

1. **Select the safest zone.** Choose sound structure, high ground, drainage and distance from unstable trees, glass and damaged masonry.
2. **Make it weather-tight.** Stop rain above first, then wind at the sides. Tension tarps so water sheds away from entrances and sleeping areas.
3. **Insulate below.** Place cardboard, mats, dry vegetation in a contained layer, or spare textiles beneath bedding. Ground conduction can remove heat quickly.
4. **Control the occupied volume.** Use the smallest area that safely fits the group. Hang blankets to reduce unused volume without blocking exits or ventilation.
5. **Ventilate deliberately.** Keep air moving and moisture escaping. Never use generators, charcoal, barbecues or unflued heaters inside.
6. **Set night rules.** Mark exits, keep footwear and torches beside each sleeper, assign fire checks and keep paths clear.

Check it is working

- ☐ Roof runoff moves away from shelter
- ☐ Bedding remains dry and off bare ground
- ☐ Two exits are usable in darkness
- ☐ CO and smoke alarms work where relevant

Common mistakes

- Choosing convenience over structural safety
- Sealing a room around combustion
- Sleeping directly on cold ground
- Allowing wet clothing to remain in the sleep zone

Editorial synthesis: Editorial synthesis of field shelter practice and Red Cross preparedness guidance. Independent specialist review: not yet completed. **Sources:** Australian Red Cross: preparedness resources (incl. RediPlan) (redcross.org.au/emergencies/prepare/resources); CDC: Carbon monoxide poisoning basics (cdc.gov/carbon-monoxide/about/index.html).

Carbon monoxide prevention

Safe operation of generators, stoves, heaters and other combustion devices.

> **Critical caution:** Never run a generator, barbecue, charcoal burner or unflued combustion device inside a home, garage, tent or enclosed area.

Time	Difficulty	Outcome
15 minutes setup	Low	Prevent invisible carbon-monoxide poisoning

Before you begin

- ☐ Read the manufacturer instructions
- ☐ Check wind and nearby openings
- ☐ Keep children away from equipment

What you need

- ☐ Battery CO alarms
- ☐ Outdoor-rated extension equipment
- ☐ Approved fuel containers
- ☐ Weather cover designed for the appliance

Procedure

1. **Place combustion equipment outdoors.** Use the manufacturer's minimum clearance and keep it well away from windows, doors, vents, eaves and enclosed courtyards.
2. **Direct exhaust away.** Check wind and prevent exhaust from entering neighbouring buildings or shelters.
3. **Keep it dry without enclosing it.** Use only a purpose-designed weather cover that preserves cooling and exhaust clearances.
4. **Install alarms.** Place functioning CO alarms in occupied and sleeping areas according to their instructions.
5. **Refuel cold.** Turn equipment off, allow it to cool and move fuel carefully. Store fuel outside living areas.
6. **Respond to symptoms.** Headache, dizziness, nausea, weakness or confusion can indicate exposure. Move everyone to fresh air and seek emergency help.

Check it is working

- ☐ Equipment is outside—not in a garage, shed, tent or veranda enclosure
- ☐ No exhaust points toward an opening
- ☐ CO alarms test correctly
- ☐ Fuel is separated from ignition and food

Common mistakes

- Assuming an open garage door makes operation safe
- Using a barbecue or charcoal for indoor heat
- Ignoring mild shared symptoms
- Refuelling a hot generator

Official-source aligned: Aligned with CDC carbon-monoxide and power-outage guidance. Independent specialist review: not yet completed. **Sources:** CDC: Carbon monoxide poisoning basics (cdc.gov/carbon-monoxide/about/index.html); CDC: Protect yourself during a power outage (cdc.gov/natural-disasters/response/what-to-do-protect-yourself-during-a-power-outage.html).

Extreme heat and heatstroke

Keep people cool through a heatwave and know the signs that make heatstroke a medical emergency.

> **Critical caution:** Heatstroke is a medical emergency. Call the emergency number, start cooling immediately, and do not give fever medicines—they do not lower temperature in heatstroke.

Time	Difficulty	Outcome
Ongoing in a heatwave	Low	Prevent heat illness and respond fast to heatstroke

Before you begin

☐ Identify the coolest room, or a cool public place if power fails

☐ Check who in your household or street is at higher risk

☐ Have water, a spray bottle, damp cloths and a way to shade windows

What you need

☐ Drinking water

☐ Spray bottle and damp cloths

☐ Fan (battery fans if power may fail)

☐ Window shading

☐ Ice packs or cold water

☐ Thermometer

Procedure

1. **Plan the day around the heat.** Shift physical work to early morning or evening. Stay in the coolest part of the house, close curtains on sun-facing windows, and use cooler public places if power fails.
2. **Drink and dress for heat.** Drink water regularly, even before you feel thirsty. Wear loose, light-coloured clothing. Avoid alcohol and heavy meals. People with fluid restrictions should ask their doctor what to do in heat.
3. **Check on people at higher risk.** Older adults, babies and young children, pregnant people, people with heart, kidney or mental illness, and people who live alone are at higher risk. Check them at least twice a day.
4. **Spot heatstroke.** Signs include a body temperature of 40°C or more, red, hot or dry skin, confusion, strange or aggressive behaviour, poor coordination, seizures or loss of consciousness.
5. **Call for help and cool fast.** Call the emergency number. Move the person to shade, remove extra clothing, and cool them quickly: cold water immersion from the neck down, or a cool shower or hose, ice packs to the groin, armpits, cheeks, palms and soles, and wet skin with continuous fanning.
6. **Support and monitor.** Give cool drinks only if they are fully conscious and can swallow. If they stop breathing normally, start CPR.

Check it is working

☐ Everyone has water within reach

☐ High-risk people have been checked today

☐ There is a cool place to go if power fails

☐ Everyone knows the heatstroke warning signs

Common mistakes

- Leaving children or animals in vehicles
- Working through the hottest part of the day
- Giving paracetamol or aspirin for heatstroke
- Assuming a fan alone is enough in extreme heat

Official-source aligned: Aligned with healthdirect and WA Health heat-illness guidance. Independent specialist review: not yet completed.
Sources: healthdirect: Heatstroke (healthdirect.gov.au/amp/article/heatstroke); healthdirect: How to handle the heatwave (healthdirect.gov.au/blog/how-to-handle-the-heatwave); HealthyWA: Health impacts of heatwaves (healthywa.wa.gov.au/Articles/F_I/Heatwave-be-prepared-for-extreme-heat/Health-impacts).

Cold exposure and hypothermia

Prevent dangerous heat loss and recognise and manage hypothermia safely.

> **Critical caution:** Severe hypothermia is life-threatening. Call the emergency number. Handle the person gently and do not rewarm with direct heat such as a hot bath, shower or heat packs.

Time	Difficulty	Outcome
Minutes to hours	Moderate	Stop heat loss and rewarm slowly and safely

Before you begin

☐ Pack layers, a hat, gloves, dry socks and an emergency bivvy or blanket

☐ Keep sleeping mats to insulate from the ground

☐ Watch older people, babies and anyone wet, injured or exhausted

What you need

☐ Dry layers, hat and gloves

☐ Woollen blankets or sleeping bag

☐ Emergency bivvy or survival blanket

☐ Insulating mat

☐ Warm sweet drinks (for alert people only)

Procedure

1. **Stop the heat loss.** Move out of wind and rain if it is safe to do so. Insulate from the ground. Wind and wet clothing remove heat far faster than still, dry air.
2. **Know the signs.** Mild hypothermia: shivering, cool skin, slurred speech, clumsiness—"fumble, mumble, grumble and stumble". Moderate: shivering decreases, drowsiness and confusion, slow breathing and pulse. Severe: unconsciousness.
3. **Call for help.** Call the emergency number for suspected severe hypothermia, or if the person is confused, drowsy or worsening. If they are not breathing normally, start CPR.
4. **Handle gently and keep them flat.** Move the person as little as possible. Have them lie flat for at least 30 minutes. Rough handling can trigger a dangerous heart rhythm.
5. **Remove wet clothing and rewarm slowly.** Replace wet clothing with dry layers and wrap in woollen blankets or an emergency bivvy. Do not use direct heat such as a bath, shower or heat packs.
6. **Warm drinks only if alert.** If they are awake and responding, offer warm, sugary drinks and food. Avoid alcohol, caffeine and smoking.

Check it is working

☐ The person is out of wind and wet

☐ Wet clothing has been replaced

☐ They are insulated from the ground

☐ Emergency services are called if signs are moderate or severe

Common mistakes

- Rewarming with a hot bath or shower
- Rubbing the limbs vigorously
- Giving alcohol to "warm up"
- Letting a confused person walk on alone

Official-source aligned: Aligned with healthdirect hypothermia guidance. Independent specialist review: not yet completed. **Sources:** healthdirect: Hypothermia (healthdirect.gov.au/healthy-living/weather-and-environment/hypothermia); Australian Resuscitation Council (ANZCOR guidelines) (resus.org.au).

Managing food after power loss

Which food to use first, preserve or discard when refrigeration stops.

Critical caution: Smell and appearance cannot prove that food is safe. Never taste-test suspect food.

Time	Difficulty	Outcome
Immediate–48 hours	Low	Use safe perishables without wasting cold air or risking illness

Before you begin

- ☐ Record the time power failed
- ☐ Keep appliance doors closed
- ☐ Separate flood-exposed food

What you need

- ☐ Fridge/freezer thermometers
- ☐ Cooler and ice packs
- ☐ Permanent marker
- ☐ Waste bags

Procedure

1. **Preserve the cold.** Keep doors shut. An unopened refrigerator keeps food cold for about four hours; CDC notes about 48 hours for a full freezer and 24 hours for a half-full freezer.
2. **Measure, do not guess.** Use appliance and food thermometers where available. Do not rely on room temperature, smell or appearance.
3. **Move high-risk food once.** After four hours, transfer refrigerated perishables to a cooler only if ice can keep them at 4°C/40°F or below.
4. **Prioritise meals.** Use safely cold refrigerated food, then partially thawed frozen food that still has ice crystals, then shelf-stable food.
5. **Discard decisively.** Throw out perishable refrigerated food above safe temperature for too long and anything touched by floodwater. Never taste-test.
6. **Clean and record.** Bag waste securely, clean contaminated surfaces and note what remains for meal planning.

Check it is working

- ☐ Temperature or time history is known
- ☐ Raw and ready-to-eat foods are separated
- ☐ No food touched floodwater
- ☐ Discard decisions are recorded once—not repeatedly debated

Common mistakes

- Opening doors to “check” repeatedly
- Eating food because it smells normal
- Refreezing food without temperature evidence
- Saving questionable food for animals

Official-source aligned: Aligned with CDC food-safety-after-emergency guidance. Independent specialist review: not yet completed.
Sources: CDC: Keep food safe after a disaster or emergency (cdc.gov/food-safety/foods/keep-food-safe-after-emergency.html).

Clean wound care

Low-risk wound cleaning, covering and infection monitoring.

Critical caution: Deep, contaminated, puncture, bite or heavily bleeding wounds—and worsening infection—need professional assessment.

Time	Difficulty	Outcome
15–30 minutes	Moderate	Clean and protect a wound while recognising escalation signs

Before you begin

- ☐ Control life-threatening bleeding first
- ☐ Seek emergency care for major injury
- ☐ Check tetanus status when care is available
- ☐ For major injury call your local emergency number.

What you need

- ☐ Gloves
- ☐ Safe water or sterile saline
- ☐ Gauze and non-stick dressing
- ☐ Tape or bandage
- ☐ Waste bag

Procedure

1. **Protect both people.** Wash hands and put on gloves. Use eye protection if splash is possible.
2. **Control bleeding.** Apply firm direct pressure with clean material. Add dressings rather than repeatedly lifting the first layer to check.
3. **Irrigate generously.** Use sterile saline or safe running water. Let fluid carry contamination away from clean supplies and people.
4. **Remove only loose debris.** Do not dig for embedded material or probe deep wounds. Avoid pouring caustic antiseptics into tissue.
5. **Cover and support.** Apply a clean non-stick dressing. Immobilise or elevate when appropriate and comfortable.
6. **Review and escalate.** Check pain, warmth, swelling, redness, discharge, fever, sensation and function. Mark spreading redness with time and seek care.

Check it is working

- ☐ Bleeding remains controlled
- ☐ Fingers or toes beyond a bandage remain warm and normally coloured
- ☐ Dressing is clean and not constrictive
- ☐ Review time is written

Common mistakes

- Closing a dirty puncture wound
- Using river water for irrigation
- Removing embedded objects
- Ignoring loss of sensation or movement

Official-source aligned: Aligned with first-aid organisation principles; not a substitute for training. Independent specialist review: not yet completed. **Sources:** Australian Red Cross: first aid training (redcross.org.au/firstaid); Australian Resuscitation Council (ANZCOR guidelines) (resus.org.au).

Make yourself findable

Build a signalling plan using registered beacons, two-way communication, contrast, repetition and written movement records.

> **Critical caution:** Activate a distress beacon only for grave and imminent danger. Do not leave the activation area unless remaining there is more dangerous.

Time	Difficulty	Outcome
15–30 minutes	Moderate	Transmit location and distress while conserving energy

Before you begin

☐ Tell someone your route before travel

☐ Register the beacon with the authority for the country it is coded to, and check battery expiry

☐ Carry it on your person, not buried in a pack

What you need

☐ Registered GPS 406 MHz PLB where appropriate

☐ Whistle

☐ Torch or mirror

☐ High-contrast panel

☐ Notebook

Procedure

1. **Use two-way communication first.** Call or radio with your location, nature of distress, number of people, injuries and immediate hazards. Confirm the message was received.
2. **Activate the beacon for grave danger.** If two-way communication is unavailable and life is threatened, activate the registered beacon and follow its deployment instructions. Beacons are coded for one country: in Australia register with AMSA; in the US with NOAA; in the UK with the UK beacon registry; in Canada with the Canadian Beacon Registry; elsewhere with your national authority.
3. **Improve satellite view.** Move to a safe open area if possible. Keep the antenna vertical and away from metal or obstructions. Do not switch off until rescue authorities advise.
4. **Add visual contrast.** Lay out a large, unnatural shape or bright panel visible from above without destroying essential shelter.
5. **Use repeatable audible signals.** Use a whistle rather than shouting. Signal in deliberate groups, then listen.
6. **Document any forced movement.** Leave time, names, direction, destination and reason in a protected visible note.

Check it is working

☐ Beacon registration is current

☐ Battery expiry is known

☐ Signal location is safer than surrounding terrain

☐ Someone maintains a listening watch

Common mistakes

- Relying on a phone with no tested backup
- Carrying an obsolete 121.5 MHz-only beacon
- Using a beacon coded or registered for another country
- Activating multiple beacons unnecessarily
- Moving after activation without leaving information

Official-source aligned: Aligned with AMSA distress-beacon guidance (Australia) and national registries. Independent specialist review: not yet completed. **Sources:** AMSA: Using your beacon (beacons.amsa.gov.au/activation); AMSA: Correct beacon deployment (beacons.amsa.gov.au/activation/deployment.asp); AMSA: Buying a beacon (beacons.amsa.gov.au/purchasing); NOAA SARSAT (US): beacon registration brochure (sarsat.noaa.gov/wp-content/uploads/Registration-Brochure.pdf); UK Government: Register a UK 406 MHz

beacon (gov.uk/register-406-beacons); Government of Canada: Canadian Beacon Registry (canada.ca/en/air-force/services/search-rescue/beacon-registry.html).

Medication continuity plan

Prepare for prescriptions, cold-chain medicines and powered medical devices.

Critical caution: Do not share prescriptions or abruptly stop critical medicines without clinical advice.

Time	Difficulty	Outcome
1 hour setup	Moderate	Keep essential treatment and powered care functioning through disruption

Before you begin

☐ Ask clinicians about emergency reserves before a crisis

☐ Do not change doses independently

☐ Identify which items are time- or temperature-critical

What you need

☐ Printed medicine list

☐ Insulated medicine container

☐ Thermometer/data logger

☐ Power-use labels

☐ Copies of prescriptions

Procedure

1. **Create the master list.** Record generic and brand name, dose, timing, purpose, prescriber, pharmacy, allergies and what happens if a dose is missed.
2. **Rank criticality.** Mark medicines and devices that cannot be interrupted, those needing refrigeration and those requiring monitoring or needles.
3. **Build authorised reserve.** Work with clinicians and pharmacists. Rotate stock so the oldest appropriate supply is used first.
4. **Plan cold chain.** Know the permitted temperature range and excursion rules for each product. Monitor temperature; do not place medicine directly against ice.
5. **Calculate power.** Record watts and hours for each device. Identify battery runtime, compatible backup and safe recharging method.
6. **Cross-train carers.** Two people should know schedules, alarms, storage and escalation contacts. Keep a paper copy with the patient.

Check it is working

☐ List matches current prescriptions

☐ Temperature limits are product-specific

☐ Backup power has been tested under load

☐ A second person can operate critical equipment

Common mistakes

- Sharing prescriptions
- Freezing refrigerated medicines
- Stopping steroids, insulin or anticonvulsants abruptly
- Assuming a power bank can run a medical appliance

Official-source aligned: Aligned with Red Cross preparedness guidance; confirm specifics with your clinician. Independent specialist review: not yet completed. **Sources:** Australian Red Cross: get your household prepared (redcross.org.au/act/action-catalogue/preparedness/get-your-household-prepared-for-emergencies); Australian Red Cross: Prepare for emergencies — get packing (redcross.org.au/emergencies/prepare/packing).

Navigate without phone service

Use paper maps, compass, terrain, pacing and conservative turn-back rules instead of following a failing blue dot.

> **Critical caution:** Do not travel merely to search for better reception. In poor visibility, injury, heat or approaching darkness, shelter may be safer than movement.

Time	Difficulty	Outcome
Plan 15 minutes	Moderate	Move only when the route is safer than staying

Before you begin

- ☐ Tell a responsible person the route and overdue action
- ☐ Check weather, daylight and fire/flood information
- ☐ Set a firm turnaround time

What you need

- ☐ Topographic and street maps
- ☐ Baseplate compass
- ☐ Pencil and waterproof notebook
- ☐ Watch
- ☐ Whistle and torch

Procedure

1. **Orient the map.** Align map north with compass north, correcting for local magnetic variation when precision matters. Match major terrain features.
2. **Fix the start point.** Use at least two known features. If position is uncertain, widen the uncertainty area instead of choosing a convenient guess.
3. **Choose handrails and backstops.** Prefer routes beside unmistakable features. Select a feature beyond the destination that will tell you if you have gone too far.
4. **Break the route into legs.** For each leg record bearing, distance, expected time, ascent/descent and a catching feature.
5. **Navigate continuously.** Keep the map accessible. Compare slope, water, vegetation and junctions as you move. Count pace only as one input.
6. **Stop on mismatch.** Return to the last confirmed point if safe. Do not continue hoping the route will make sense later.

Check it is working

- ☐ Current location is confirmed, not assumed
- ☐ A turnaround time is written
- ☐ The route avoids known hazard zones
- ☐ Another person has the movement plan

Common mistakes

- Following a compass bearing through unsafe terrain
- Using a phone map with no offline copy or power plan
- Continuing after terrain stops matching
- Separating the group to search

Editorial synthesis: Editorial synthesis of field-navigation principles. Independent specialist review: not yet completed. **Sources:** Geoscience Australia: topographic maps (ga.gov.au/scientific-topics/national-location-information/topographic-maps-data/topographic-maps).

Use fire without creating a second disaster

Decide whether fire is necessary, select a safe site, control fuel and extinguish completely.

> **Critical caution:** Observe all fire bans. Never use open flame or combustion appliances in enclosed spaces, during extreme fire danger or where embers can escape.

Time	Difficulty	Outcome
20 minutes setup	Moderate	Obtain heat or cooking with controlled ignition and complete extinguishment

Before you begin

- ☐ Check fire bans and local warnings
- ☐ Choose a non-combustible location
- ☐ Prepare extinguishing resources first

What you need

- ☐ Water supply
- ☐ Shovel or extinguishing tool
- ☐ Stable cooking support
- ☐ Dry fuel in small quantities
- ☐ Fire blanket or extinguisher where appropriate

Procedure

1. **Question the need.** Use insulation, daylight, cold meals or an approved appliance if they meet the goal with less risk.
2. **Clear the site.** Use mineral earth or a purpose-built hearth. Remove leaves, bark and overhead fuel well beyond the ember zone.
3. **Control the fuel.** Bring only what is needed. Keep the remaining supply and liquid fuel far away. Never add flammable liquid to an established fire.
4. **Build small.** A small fire is easier to feed, shield, cook over and extinguish. Maintain stable cookware and a clear working side.
5. **Supervise continuously.** One responsible adult remains within reach of suppression equipment. Watch wind and airborne embers.
6. **Extinguish completely.** Apply water, stir, expose hidden heat and repeat until cold. Follow local rules for ash disposal.

Check it is working

- ☐ No ban or extreme fire condition applies
- ☐ Water and tool are within reach
- ☐ Nothing combustible is above or downwind
- ☐ All remains are cold before leaving

Common mistakes

- Lighting before suppression is ready
- Building a large “comfort” fire
- Using petrol or accelerants
- Burying hot coals instead of cooling them

Editorial synthesis: Editorial synthesis; always follow local fire-danger rules. Independent specialist review: not yet completed. **Sources:** CFA (Victoria): Your bushfire plan (cfa.vic.gov.au/plan-prepare/before-and-during-a-fire/your-bushfire-plan); CDC: Carbon monoxide poisoning basics (cdc.gov/carbon-monoxide/about/index.html).

Plan food for 30 days

Convert pantry stock into a transparent meal and work plan that protects nutrition, fuel and morale.

Critical caution: Do not impose severe calorie restriction on children, pregnant people, sick or injured people, or those doing essential heavy work.

Time	Difficulty	Outcome
1–2 hours planning	Moderate	Turn food stock into a sustainable, fair plan

Before you begin

- ☐ Identify allergies and therapeutic diets
- ☐ Separate unsafe or spoiled food
- ☐ Record people, animals and expected duration

What you need

- ☐ Kitchen scales and measuring cup
- ☐ Inventory sheets
- ☐ Marker and labels
- ☐ Menu board
- ☐ Calculator

Procedure

1. **Inventory in usable units.** Record grams, litres and serves. Note water, fuel and preparation requirements. Do not count food that cannot be safely prepared.
2. **Map nutritional roles.** Group staple energy, protein, fats, vegetables/fruit, salt and morale foods. Identify the limiting group.
3. **Use the perishability ladder.** Plan safely refrigerated food first, then fresh produce and opened goods, then dry and canned staples.
4. **Build a seven-day menu.** Use familiar meals, repeat ingredients and batch cooking. Include no-cook options for illness or fuel shortage.
5. **Allocate transparently.** Account for age, pregnancy, illness and workload. Publish the method without exposing private diagnoses.
6. **Measure actual use.** Record daily opening and closing stock. Adjust menu, work and procurement before emergency reserves are reached.

Check it is working

- ☐ Menu fits available water and fuel
- ☐ Vulnerable needs are recorded
- ☐ Seven-day use matches stock forecast
- ☐ A reserve is isolated and release criteria are known

Common mistakes

- Dividing every item equally regardless of need
- Rationing water dangerously
- Planning recipes that consume too much fuel
- Ignoring animal food requirements

Editorial synthesis: Editorial synthesis of food-security planning. Independent specialist review: not yet completed. **Sources:** Australian Red Cross: Prepare for emergencies — get packing (redcross.org.au/emergencies/prepare/packing); Sphere Handbook: humanitarian minimum standards (spherestandards.org/handbook).

Preserve food safely

Choose drying, freezing, fermentation or canning by food type—and know when not to improvise.

> **Critical caution:** Low-acid canning errors can cause botulism without obvious smell or taste. Use only current tested recipes and correct equipment.

Time	Difficulty	Outcome
Method dependent	High	Extend food life without introducing botulism or other contamination

Before you begin

- ☐ Reject spoiled or flood-exposed food
- ☐ Confirm the recipe and equipment match the food
- ☐ Clean hands, surfaces and vessels

What you need

- ☐ Current tested recipe
- ☐ Food thermometer
- ☐ Accurate scales and measures
- ☐ Correct jars, lids or drying equipment
- ☐ Labels

Procedure

1. **Match method to food.** Drying, freezing, fermentation, water-bath canning and pressure canning are not interchangeable. Low-acid foods require an approved pressure process.
2. **Use an exact tested recipe.** Do not change jar size, ingredient proportions, acidity, processing time or pressure unless the authority explicitly permits it.
3. **Prepare equipment.** Inspect jars and lids, calibrate thermometers or pressure gauges as required, and keep the work area organised.
4. **Control the critical variable.** Maintain the specified temperature, acidity, salt concentration, pressure and time. Adjust for altitude where the tested process directs.
5. **Cool and inspect.** Follow the specified cooling method. Check seals without disturbing them prematurely. Label every batch.
6. **Store and discard safely.** Keep cool, dark and dry. Discard leaking, bulging, spurting, unsealed or otherwise suspect containers without tasting.

Check it is working

- ☐ Recipe is from a recognised current authority
- ☐ Correct canner and jar size were used
- ☐ Critical processing values were recorded
- ☐ Every container is labelled and inspected

Common mistakes

- Open-kettle, oven, microwave or dishwasher canning
- Adding extra starch or low-acid ingredients
- Using antique closures for canning
- Tasting to assess botulism risk

Official-source aligned: Aligned with USDA / NCHFP tested-process guidance. Independent specialist review: not yet completed.
Sources: USDA / NCHFP: Complete Guide to Home Canning (PDF) (nchfp.uga.edu/papers/guide/INTRO_HomeCanrev0715.pdf); NCHFP: Equipment and methods not recommended (nchfp.uga.edu/how/can/general-information/equipment-and-methods-not-recommended); NCHFP: Recommended canners (nchfp.uga.edu/how/can/general-information/recommended-canners).

Starting a resilient food garden

Balance fast nutrition with staple calories, soil protection and seed saving.

> **Critical caution:** Local climate, soil contamination, water availability and poisonous look-alikes must be assessed.

Time	Difficulty	Outcome
Seasonal	Moderate	Produce food while improving soil and preserving seed

Before you begin

- ☐ Test or investigate soil contamination
- ☐ Map sun, drainage and frost
- ☐ Secure a realistic water supply

What you need

- ☐ Spade, fork and hoe
- ☐ Watering equipment
- ☐ Mulch and compost
- ☐ Locally suitable seed
- ☐ Labels and notebook

Procedure

1. **Map the site.** Record daily sun, wet areas, wind, frost pockets, existing perennials and safe water access.
2. **Protect soil first.** Keep soil covered with mulch or crops, minimise compaction and direct runoff along contours rather than down bare slopes.
3. **Plant two horizons.** Combine fast greens and herbs with locally suitable calorie or protein crops. Avoid betting the season on one variety.
4. **Use water precisely.** Water roots deeply at cooler times. Repair leaks, group plants by need and record consumption.
5. **Observe weekly.** Record emergence, pests, disease, weather and harvest weight. Intervene early with the least hazardous method.
6. **Save seed selectively.** Save from healthy, correctly identified open-pollinated plants. Dry, label and store cool, dark and dry.

Check it is working

- ☐ Water demand fits supply
- ☐ Food beds are isolated from waste and chemical contamination
- ☐ At least two crop types reduce failure risk
- ☐ Seed records include variety and year

Common mistakes

- Planting only salad crops with few calories
- Expanding beyond watering capacity
- Using unknown compost on ready-to-eat crops
- Saving seed from diseased or hybrid plants without understanding outcomes

---

Editorial synthesis: Editorial synthesis; local horticultural review recommended. Independent specialist review: not yet completed.
Sources: Abigail Gehring, Back to Basics (Open Library record) (openlibrary.org/books/OL35940689M).

Small solar power system

Match panels, controller, battery and loads without wasting scarce energy.

Critical caution: Do not improvise mains connections, bypass fuses, backfeed a building or work on live conductors.

Time	Difficulty	Outcome
Several hours	High	Supply small essential loads safely and predictably

Before you begin

- ☐ Use qualified electrical help where available
- ☐ Keep the system low-voltage and purpose-built
- ☐ Never connect to household wiring by improvisation

What you need

- ☐ Load meter or device specifications
- ☐ Solar panel
- ☐ Compatible controller and battery
- ☐ Correct fuses and cable
- ☐ Multimeter used by a competent person

Procedure

1. **Measure demand.** For each load multiply watts by hours used per day. Add conversion losses and startup surge where relevant.
2. **Reduce before sizing.** Replace lighting with LEDs, use DC charging, schedule loads for daylight and eliminate standby use.
3. **Match components.** Panel voltage/current, controller, battery chemistry, charger, inverter and cable must be compatible and correctly rated.
4. **Protect every circuit.** Place correctly sized fuses or breakers near energy sources. Protect cables from abrasion, water and heat.
5. **Set an energy budget.** Reserve power for medical equipment, communications, water and lighting. Publish daily watt-hour limits.
6. **Inspect and maintain.** Check connections, corrosion, battery temperature, panel shading and actual yield. Keep a fault and maintenance log.

Check it is working

- ☐ Daily generation exceeds essential demand in poor expected conditions
- ☐ Fuses protect the cable—not just the appliance
- ☐ Battery charging profile is correct
- ☐ No exposed conductors or improvised mains connections

Common mistakes

- Sizing from panel watts alone
- Running an inverter continuously for small DC loads
- Mixing battery chemistries or chargers
- Backfeeding a house through an outlet

Editorial synthesis: Editorial synthesis; electrical work must follow local law. Independent specialist review: not yet completed. **Sources:** Clean Energy Council: buying solar (cleanenergycouncil.org.au/consumers/buying-solar); Clean Energy Council: battery storage safety checklist (PDF) (assets.cleanenergycouncil.org.au/documents/consumer-solar-battery-storage-checklist.pdf).

Build a repairable hand-tool system

Create a compact workshop that still functions when batteries, suppliers and specialist parts disappear.

> **Critical caution:** Wear task-appropriate eye, hearing, hand and respiratory protection. Do not use damaged striking tools, cracked handles or improvised electrical repairs.

Time	Difficulty	Outcome
Ongoing	Moderate	Maintain essential capability without power tools or supply chains

Before you begin

- ☐ Inspect handles and cutting edges
- ☐ Create a safe work area
- ☐ Assign storage locations

What you need

- ☐ Measuring and marking tools
- ☐ Saws, files and sharpening stones
- ☐ Pliers, spanners and screwdrivers
- ☐ Hammer and hand drill
- ☐ Sewing and fastening supplies

Procedure

1. **Map essential jobs.** List the recurring work: water repairs, shelter, food production, clothing, cooking, transport and electrical diagnosis by competent people.
2. **Choose manual equivalents.** For each critical powered tool, identify a hand tool that can complete the minimum task.
3. **Standardise.** Prefer common fasteners, blade sizes, hose fittings and measurement systems. Label non-obvious sizes.
4. **Maintain after use.** Clean, dry, lightly protect metal where appropriate, sharpen correctly and repair handles before storage.
5. **Manage consumables.** Set minimum stock for blades, files, drill bits, cordage, thread, wire, tape, lubricants and fasteners.
6. **Train safely.** Demonstrate stance, work holding, cutting direction and PPE. Supervise until competence is shown.

Check it is working

- ☐ Every critical tool has a storage location
- ☐ Cutting tools are sharp and protected
- ☐ Consumable minimums are recorded
- ☐ At least two people can perform each essential repair

Common mistakes

- Using a dull tool with more force
- Striking hardened tools together
- Repairing live electrical systems
- Cannibalising equipment before documenting it

Open for contribution: Open for trade review. Independent specialist review: not yet completed. **Sources:** Abigail Gehring, Back to Basics (Open Library record) (openlibrary.org/books/OL35940689M).

Plan a rainwater system

Estimate capture, protect the catchment, separate dirty first runoff and maintain covered storage.

Critical caution: Rainwater can contain pathogens, ash, lead, chemicals and animal waste. Collection does not make it potable; assess and treat it for the intended use.

Time	Difficulty	Outcome
1 day planning	High	Create a protected supplementary water source

Before you begin

- ☐ Check local law and building requirements
- ☐ Assess roof and tank materials
- ☐ Plan overflow away from foundations

What you need

- ☐ Roof-area measurements
- ☐ Gutter screens
- ☐ First-flush device
- ☐ Covered tank
- ☐ Separate labelled pipework
- ☐ Treatment equipment appropriate to use

Procedure

1. **Estimate yield.** For each millimetre of rain, one square metre of roof yields roughly one litre before losses. Apply a conservative loss factor and seasonal rainfall, not annual average alone.
2. **Protect the catchment.** Remove lead, asbestos, treated timber, toxic coatings, overhanging contamination and unsafe access. Keep gutters clean.
3. **Exclude the first runoff.** Use a maintainable first-flush system sized to local debris and roof area. Divert contaminated water away safely.
4. **Screen and cover.** Exclude leaves, mosquitoes, rodents, light and surface runoff. Fit a calming inlet and accessible inspection point where appropriate.
5. **Separate uses.** Label non-potable outlets. Prevent cross-connection with drinking-water plumbing. Treat drinking water based on assessed microbial and chemical risk.
6. **Inspect after events.** After bushfire ash, chemical release, bird/animal contamination or roof work, isolate collection and reassess before use.

Check it is working

- ☐ Tank is opaque, covered and insect-proof
- ☐ Overflow cannot undermine structures
- ☐ First-flush device is emptied and maintained
- ☐ Potable and non-potable systems cannot cross-connect

Common mistakes

- Assuming rainwater is automatically clean
- Collecting from contaminated roofing
- Letting tank overflow pool at foundations
- Using one treatment method for every hazard

Editorial synthesis: Editorial synthesis aligned with enHealth rainwater-tank guidance; treatment still required. Independent specialist review: not yet completed. **Sources:** enHealth (Australian Government): guidance on the use of rainwater tanks (health.gov.au/resources/publications/enhealth-guidance-guidance-on-the-use-of-rainwater-tanks); CDC: How to make water safe in an emergency (cdc.gov/water-emergency/about/index.html); WHO: Guidelines for drinking-water quality (who.int/teams/environment-climate-change-and-health/water-sanitation-and-health/water-safety-and-quality/drinking-water-quality-guidelines).

Animals in evacuation and shelter

Identification, restraint, food, medication, transport and stress management.

Critical caution: Disaster stress can change behaviour. Separate frightened or unfamiliar animals safely.

Time	Difficulty	Outcome
1–2 hours setup	Moderate	Keep animals controlled, hydrated and included in evacuation

Before you begin

- ☐ Photograph each animal
- ☐ Update identification
- ☐ Practise loading and restraint before an emergency

What you need

- ☐ Leads, harnesses and carriers
- ☐ Muzzles where appropriate
- ☐ Food and water
- ☐ Medicines and records
- ☐ Waste bags and bedding

Procedure

1. **Build the animal record.** Keep photo, microchip, registration, vaccination, medicine, feeding and handling information in paper and offline digital form.
2. **Pack species-specific essentials.** Include familiar food, water, bowls, manual can opener, bedding, medication, waste supplies and restraint.
3. **Control exits.** Attach leads or place animals in carriers before opening doors during evacuation. Separate unfamiliar or frightened animals.
4. **Transport safely.** Secure carriers and prevent heat exposure. Do not leave animals in vehicles. Plan for two large animals rather than assuming one person can manage both.
5. **Create a shelter zone.** Separate food and waste from human kitchen and water. Provide shade, airflow, quiet and escape-proof containment.
6. **Monitor daily.** Record eating, drinking, urination, stools, injury, coughing, vomiting and behaviour. Seek veterinary advice when available.

Check it is working

- ☐ Each animal has two restraint options
- ☐ Food and water quantities are calculated
- ☐ A backup carer and destination are known
- ☐ Medicines are labelled with dose and animal

Common mistakes

- Releasing animals because they are normally reliable
- Changing food abruptly
- Using human medicines without veterinary direction
- Keeping frightened animals together

Editorial synthesis: Editorial synthesis of animal-evacuation practice. Independent specialist review: not yet completed. **Sources:** Australian Red Cross: Prepare for emergencies — get packing (redcross.org.au/emergencies/prepare/packing); Queensland Government Get Ready: emergency kit (getready.qld.gov.au/emergencykit).

PACE communications plan

Primary, alternate, contingency and emergency methods for staying connected.

Critical caution: Radio frequencies, licences and permitted power vary by jurisdiction.

Time	Difficulty	Outcome
30 minutes	Moderate	Maintain contact using planned alternatives and disciplined messages

Before you begin

- ☐ Confirm local licensing rules
- ☐ Program and label channels before the emergency
- ☐ Agree check-in times

What you need

- ☐ Battery radio
- ☐ Legal two-way radios
- ☐ Spare power
- ☐ Frequency/contact card
- ☐ Message log

Procedure

1. **Define the layers.** Write one method for each PACE level. Include a no-technology option such as a notice board or runner.
2. **Set the schedule.** Use short listening windows at agreed times to conserve batteries. Define how long to wait and what a missed check-in triggers.
3. **Format every message.** State to, from, date/time/timezone, location, priority, facts, action requested and next contact.
4. **Use plain language.** Avoid unexplained codes. Spell names, read back numbers and distinguish observation from rumour.
5. **Control the net.** One station coordinates busy group traffic. Life safety outranks logistics and routine welfare.
6. **Log and preserve.** Write messages, source and action. Keep the radio dry and power it down between scheduled watches when appropriate.

Check it is working

- ☐ Everyone has the same channel card
- ☐ Times include timezone
- ☐ Backup methods do not share the same failure
- ☐ Important messages are read back

Common mistakes

- Transmitting continuously
- Using invented codes no one remembers
- Failing to identify location
- Publishing sensitive stock or medical details

Editorial synthesis: Editorial synthesis of communications practice. Independent specialist review: not yet completed. **Sources:** Australian Red Cross: preparedness resources (incl. RediPlan) (redcross.org.au/emergencies/prepare/resources).

Rumour and information control

Verify reports before scarce resources or people are put at risk.

Critical caution: Urgent action may still be necessary when evidence is incomplete; record assumptions and review them.

Time	Difficulty	Outcome
5–20 minutes	Low	Prevent unverified information driving dangerous action

Before you begin

- ☐ Identify the decision the information might change
- ☐ Record the exact claim before paraphrasing
- ☐ Protect names of vulnerable people

What you need

- ☐ Message log
- ☐ Clock with timezone
- ☐ Radio/source list
- ☐ Public correction board

Procedure

1. **Capture the claim.** Write the exact words, original source, time, location and how the information reached you.
2. **Classify the source.** Mark direct observation, official instruction, named report, anonymous report, inference or opinion.
3. **Seek independent confirmation.** Use a different channel or observer. Repetition from the same original post is not independent evidence.
4. **Rate confidence and consequence.** Use confirmed, probable, unverified or false. Apply a higher evidence threshold to evacuation, medical, security and resource decisions.
5. **Take reversible action first.** When delay also carries risk, choose steps that protect people without committing all resources to an uncertain claim.
6. **Correct visibly.** Keep the original entry, add the correction and time, and tell the same audience that received the false or outdated information.

Check it is working

- ☐ Source and time are recorded
- ☐ Facts are separated from interpretation
- ☐ Consequential claims have independent confirmation
- ☐ Corrections reach the original audience

Common mistakes

- Treating screenshots as provenance
- Counting repeated rumours as multiple sources
- Deleting the original record
- Waiting for certainty when a reversible safety action is available

Editorial synthesis: Editorial standard for handling information. Independent specialist review: not yet completed. **Sources:** Australian Red Cross: preparedness resources (incl. RediPlan) (redcross.org.au/emergencies/prepare/resources).

De-escalation and site security

Relationships, routines, distance and accountability before confrontation.

Critical caution: Protection measures must remain lawful, proportionate, documented and accountable.

Time	Difficulty	Outcome
Ongoing	Moderate	Reduce conflict through visibility, fairness and early de-escalation

Before you begin

- ☐ Agree lawful roles and limits
- ☐ Map exits and safe rooms
- ☐ Protect private medical information

What you need

- ☐ Visitor and incident log
- ☐ Lighting
- ☐ Locks and key register
- ☐ Whistle or alarm
- ☐ Private reporting channel

Procedure

1. **Strengthen relationships.** Know neighbours, establish welfare checks and make rules with the people affected by them.
2. **Remove easy opportunities.** Repair doors and lighting, control keys, trim sightlines and avoid advertising stocks or routines.
3. **Use calm contact.** Maintain distance, open hands and an exit. Use short sentences, acknowledge emotion and offer limited safe choices.
4. **Bring accountability.** Use witnesses, incident logs and two-person handling for fuel, cash or critical inventory.
5. **Leave before pride takes over.** Disengage when weapons, intoxication, fixation, crowding or escalating threats appear. Seek official help when available.
6. **Review fairly.** Investigate without public accusation. Provide an appeal and change ineffective rules.

Check it is working

- ☐ People know who to call and where to withdraw
- ☐ Critical stock counts require two people
- ☐ Complaints can be made privately
- ☐ No rule denies lifesaving aid as punishment

Common mistakes

- Confronting alone
- Displaying weapons to win ordinary disputes
- Secret ration rules
- Confusing rumour with intent

Editorial synthesis: Editorial synthesis of community-safety practice. Independent specialist review: not yet completed. **Sources:** Australian Red Cross: get your household prepared (redcross.org.au/act/action-catalogue/preparedness/get-your-household-prepared-for-emergencies).

Emergency community governance

Roles, transparent decisions, stock controls and reviewable authority.

Critical caution: Never use deprivation, collective punishment, forced labour or denial of medical care as control.

Time	Difficulty	Outcome
60-minute setup	Moderate	Create temporary authority that is useful, transparent and replaceable

Before you begin

- ☐ Invite affected households
- ☐ Identify urgent safeguarding concerns
- ☐ State that roles are temporary

What you need

- ☐ Whiteboard or paper
- ☐ Registers and stock sheets
- ☐ Task board
- ☐ Private complaint forms
- ☐ Meeting schedule

Procedure

1. **Build a common picture.** Record people, urgent needs, hazards, water, food, shelter, skills and missing information. Obtain consent for personal details.
2. **Set the next operational period.** Choose no more than five outcomes for the next 12 or 24 hours. Assign owner, support, resources and deadline.
3. **Create functional roles.** Coordinate water/sanitation, health, food, shelter/energy, communications, welfare/protection and maintenance. Name deputies.
4. **Control scarce resources.** Count with two people, publish totals and allocation criteria, and record every distribution.
5. **Protect legitimacy.** Set meeting times, role expiry, conflict declarations, complaint route and appeal. Do not allow emergency authority to become permanent by default.
6. **Learn every day.** Hold a short review: what happened, what failed, what changed and what needs escalation. Archive the record.

Check it is working

- ☐ Each priority has one accountable owner
- ☐ Roles and review dates are visible
- ☐ Stock movement is recorded
- ☐ Vulnerable people have named support

Common mistakes

- Creating committees before toilets and water
- Letting expertise become unchecked authority
- Holding long meetings during urgent work
- Publishing private diagnoses

Editorial synthesis: Editorial synthesis drawing on humanitarian standards. Independent specialist review: not yet completed. **Sources:** Sphere Handbook: humanitarian minimum standards (spherestandards.org/handbook); Australian Red Cross: get your household prepared (redcross.org.au/act/action-catalogue/preparedness/get-your-household-prepared-for-emergencies).

Preserving knowledge and skills

Keep records, manuals and apprenticeship alive across generations and outages.

Critical caution: Do not rely on a single device, location, file format or expert.

Time	Difficulty	Outcome
Half day setup	Moderate	Make critical knowledge portable, searchable, printable and teachable

Before you begin

- ☐ Identify essential procedures
- ☐ Remove secrets and personal data from public packs
- ☐ Choose named custodians

What you need

- ☐ Paper and pencils
- ☐ USB and durable storage
- ☐ Printer
- ☐ Open file formats
- ☐ Version register

Procedure

1. **Choose the minimum library.** Prioritise water, sanitation, first aid, shelter, food safety, local maps, tools, agriculture and governance.
2. **Use durable formats.** Keep plain text or Markdown, PDF for printing, common image formats and a complete offline website. Avoid dependence on one proprietary app.
3. **Version visibly.** Every article needs title, edition, date, reviewer, sources and superseded version. Never silently overwrite safety guidance.
4. **Distribute physically.** Maintain copies on separate devices and locations. Include printed quick guides and a complete USB/SD package.
5. **Test offline.** Disconnect from the internet and use an ordinary phone or laptop to find a procedure. Repair broken links and missing assets.
6. **Teach and rehearse.** Pair each specialist with an apprentice. Run practical drills and update instructions from observed failures.

Check it is working

- ☐ A disconnected device can search the library
- ☐ Critical pages can be printed independently
- ☐ At least three locations hold current copies
- ☐ Every high-risk article shows reviewer and sources

Common mistakes

- Backing up only to cloud storage
- Saving screenshots instead of editable source
- Keeping knowledge in one expert's head
- Publishing unreviewed medical or water advice as fact

Open for contribution: Open for contribution. Independent specialist review: not yet completed. **Sources:** Kiwix offline knowledge project (kiwix.org/en); Internet-in-a-Box (internet-in-a-box.org).

Appendix A — Household emergency plan

People and reunification

Household members	
Out-of-area contact	
Home meeting point	
Neighbourhood meeting point	
Evacuation destination 1	
Evacuation destination 2	
School / work collection plan	
Local warnings app, radio station and website	

Critical needs

Person or animal	Medication, device, diet, mobility or care need	Backup

Utilities and controls

System	Location / procedure	Who knows how
Electricity		
Gas / fuel		
Water		
Solar / battery		
Fire equipment		

Emergency numbers

Emergency services	
State Emergency Service (Australia)	
Poisons Information (Australia)	
Doctor / pharmacy	
Vet	
Neighbours	

Appendix B — Supply checklists

The website has printable, tick-off versions of these and other starter checklists.

Grab bag (3 days, per person)

☐ At least 10 litres of drinking water and a treatment method

☐ Non-perishable food and a manual can opener

☐ A week of medicines and a printed health summary

☐ Weather layers, sturdy footwear, gloves and spare socks

☐ First-aid kit and personal protective equipment

☐ Headlamp, spare batteries, power bank and cables

☐ Battery radio and written contact list

☐ Copies of identification, cash and a waterproof notebook

☐ Map, compass, whistle and multitool

☐ Hygiene kit, toilet paper, rubbish bags and menstrual supplies

☐ Sleep system or emergency bivvy for the climate

☐ Items for infants, disability needs or animals

Home: 30-day capability

☐ Water storage plus two independent treatment methods

☐ Shelf-stable foods the household normally eats

☐ A safe outdoor cooking method and correctly stored fuel

☐ Toilet and waste system, soap, disinfectant and heavy bags

☐ First aid, prescriptions, thermometers and respirators

☐ Fire extinguisher, fire blanket, smoke and CO alarms

☐ Tarps, cordage, repair fasteners, hand tools and PPE

☐ Lighting, solar charging, batteries and a tested radio

☐ Seeds, garden tools and food-preservation supplies

☐ Paper maps, manuals, records and stationery

☐ Animal food, medicines, restraints and carriers

☐ Mutual-aid contacts and scheduled practice drills

Appendix C — Daily operations sheets

Morning status

Area	Status / quantity	Owner / action
People and health		
Weather and hazards		
Treated water / days left		
Food / days left		
Sanitation and waste		
Energy and fuel		
Communications		
Welfare and security		

Water log

Date/time	Source	Litres	Clarity / filter	Disinfection	Container	Operator

Medical observation log

Date/time	Person	Symptoms / injury	Observations	Care given	Escalation / review

Message log

Date/time	From / to	Source / channel	Message	Confidence	Action

Appendix D — Quick reference

If you can do only ten things

1. Escape immediate danger and call for help.
2. Account for people and animals.
3. Stop catastrophic bleeding; start CPR if someone is not breathing normally.
4. Choose shelter or evacuate before options close.
5. Protect and treat water.
6. Set up a toilet and handwashing.
7. Control heat, cold, fire and carbon monoxide.
8. Inventory medicines, food, fuel and power.
9. Verify information and set check-ins.
10. Organise neighbours with clear roles and written records.

Five causes of preventable collapse

Failure	Countermeasure
Contaminated water	Source protection + treatment + clean storage.
Waste near living areas	Zoning, toilets, handwashing and managed disposal.
Indoor combustion	Outdoor operation, ventilation and CO alarms.
Secret or unfair allocation	Published criteria, two-person counts and appeals.
Single points of failure	Backups, cross-training, spares and written procedures.

Sources and further reading

Use the latest local guidance whenever communications are available. These sources underpin the manual's core health and preparedness content. Each field guide in Part 2 lists its own sources.

Organisation	Resource	Web address
Australian Red Cross	Preparedness resources, including RediPlan	redcross.org.au/emergencies/prepare/resources/
Queensland Government	Get Ready: emergency kit	getready.qld.gov.au/emergencykit
Bureau of Meteorology	Warnings and weather	bom.gov.au
Australian Resuscitation Council	ANZCOR resuscitation guidelines	resus.org.au
healthdirect Australia	Heatstroke; hypothermia	healthdirect.gov.au
NSW State Emergency Service	Flood safety	ses.nsw.gov.au
Australian Maritime Safety Authority	Distress beacons: registration and use	beacons.amsa.gov.au
enHealth (Australian Government)	Guidance on the use of rainwater tanks	health.gov.au
US Centers for Disease Control and Prevention	Make water safe in an emergency; food safety; carbon monoxide	cdc.gov/water-emergency/
US National Center for Home Food Preservation	Tested home-canning processes	nchfp.uga.edu
Sphere Association	The Sphere Handbook: humanitarian minimum standards	spherestandards.org/handbook/
World Health Organization	Guidelines for drinking-water quality	who.int/publications/i/item/9789241549950
World Health Organization	Mental health in emergencies	who.int/news-room/fact-sheets/detail/mental-health-in-emergencies

Food preservation should follow current tested recipes from a national food-safety authority or agricultural extension service. First aid and CPR skills should be learned and refreshed through recognised practical training.

Civilisation is not the grid.

It is the habit of people protecting water, sharing knowledge, keeping records, repairing tools, caring for the vulnerable and resolving conflict without destroying one another.