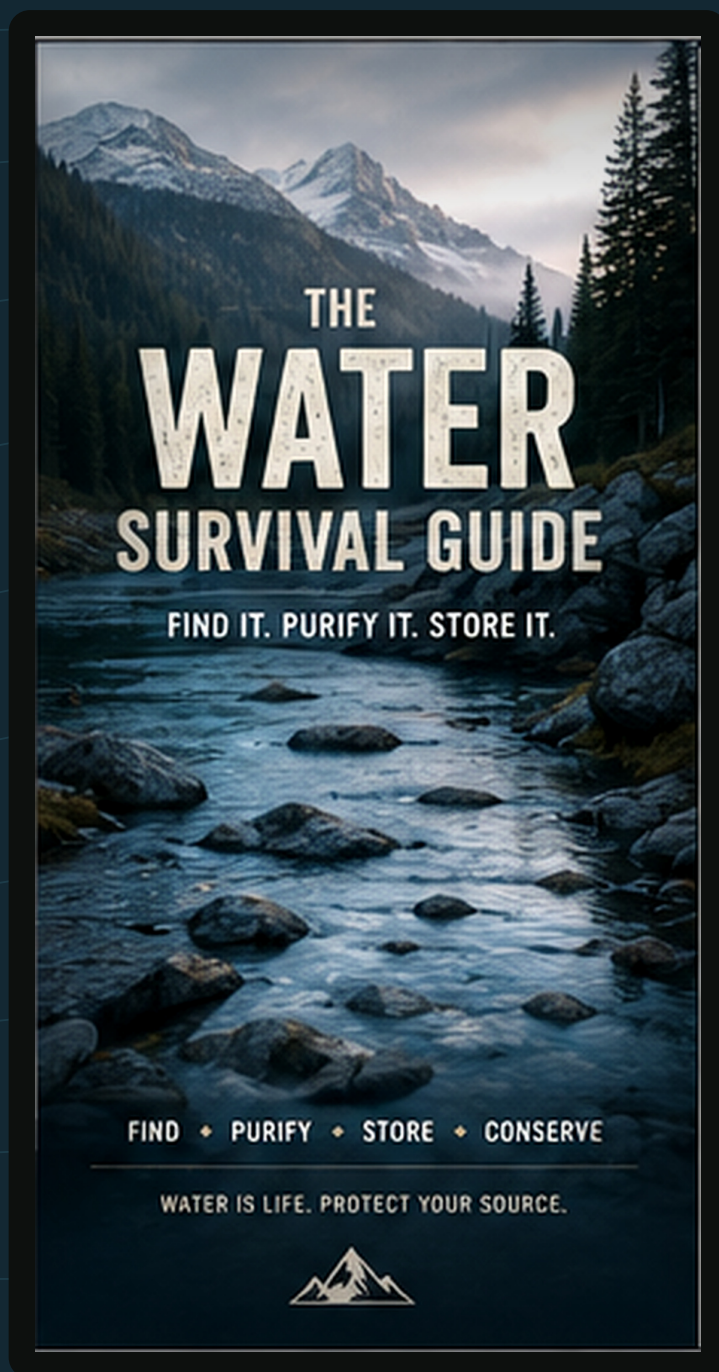




READ THE RISK, THEN CHOOSE THE LEAST COSTLY SAFE MOVE

How to Use This Guide

Survival work is a sequence, not a shopping list. Stabilize exposure, establish a clean water routine, protect fire and sleep, then spend energy on upgrades that reduce future work. Adapt every method to local terrain, law, weather, wildfire restrictions, wildlife rules, and your actual training.

1 STOP
Check injury, weather, daylight, and exit.

2 STAY DRY
Rain and sweat defeat insulation quickly.

3 BUILD SYSTEMS
Water, wood, sleep, repair, and sanitation reset daily.

4 SAVE CALORIES
Short lanes and boring routines beat heroic chores.

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3	Water Priority, Hazards, and Source Choice	Clear is a visual description, not a laboratory result
4	Collection and Dirty/Clean Separation	Most recontamination is a workflow problem
5	Treatment Options and Redundancy	Match the method to the hazard and product rating
6	Boiling and Chemical Disinfection	Use official directions, not camp mythology
7	Turbid Water, Settling, and Prefiltration	Remove particles before disinfection
8	Snow, Ice, Rainwater, and Freezing Conditions	Cold water still requires a complete system
9	Coastal Water, Salt, and Distillation	Standard filters and boiling do not remove salt
10	Storage, Sanitation, and the Daily Reserve	Treatment is wasted if storage recontaminates the water
11	Water Myths and Troubleshooting	Improvisation can support treatment, but should not impersonate it

IMPORTANT SAFETY NOTE
This material is educational. It does not replace hands-on instruction, emergency medical care, official water-treatment directions, local fire orders, or site-specific avalanche, flood, tree-fall, wildlife, and weather guidance.

FIELD CARD
SURVIVAL PRIORITY

1

Stabilize exposure before spending calories on upgrades.

2

Build repeatable water, fire, sleep, repair, and sanitation systems.

3

Check current local rules and verify every high-risk method.



RESET: clean reserve • lids • treatment • raw side

CLEAR IS A VISUAL DESCRIPTION, NOT A LABORATORY RESULT

Water Priority, Hazards, and Source Choice

Water can carry bacteria, viruses, parasites, chemicals, sediment, and toxins without obvious smell or color. Treat uncertain water, protect a clean reserve, and select the least contaminated source before asking treatment to solve the rest.

SOURCE LADDER • Best: a known treated supply or genuinely protected spring. • Good starting point: rain collected from a clean surface into a clean container. • Next: moving surface water upstream of camps, livestock, roads, and activity. • Higher concern: ponds, slow streams, floodwater, and water near dense animal use. • Avoid when possible: chemical spills, fuel sheen, mine or industrial runoff, harmful algal blooms, seawater, and downstream sewage.	READ THE WATERSHED • Look uphill and upstream for roads, grazing, waste, logging, mining, wildfire debris, dead animals, and stagnant side pools. • After storms, runoff can carry fecal matter, fuel, soil, and chemicals into familiar sources. • Fast, cold, remote, and clear water can still contain pathogens. • Boiling and disinfection do not reliably remove salt, fuel, pesticides, heavy metals, or many toxins. • If chemical contamination is plausible, find another source rather than trying to boil confidence into it.
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SOURCE TEST

Ask what enters this water before it reaches you. Source selection is the first treatment step and sometimes the only defense against chemical contamination.

FIELD CARD

WATER PRIORITY, HAZARDS, AND SOURCE CHOICE

1

Best: a known treated supply or genuinely protected spring.

2

Good starting point: rain collected from a clean surface into a clean container.

3

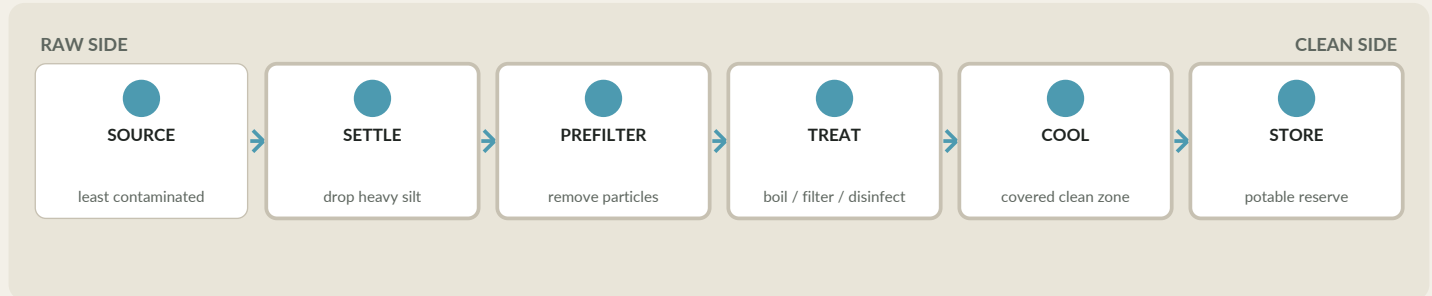
Next: moving surface water upstream of camps, livestock, roads, and activity.

RESET: clean reserve • lids • treatment • raw side

MOST RECONTAMINATION IS A WORKFLOW PROBLEM

Collection and Dirty/Clean Separation

Create a one-way line from raw source to clean storage. Hands, scoops, lids, threads, towels, and wet work surfaces can carry contamination backward in seconds.



RAW SIDE

- Use a dedicated pickup container or scoop.
- Collect upstream of bathing, laundry, food processing, latrines, and camp traffic whenever terrain allows.
- Keep raw lids, cloths, funnels, and bottle exteriors off the clean shelf.
- Carry raw water with a secure lid to prevent splash onto clean vessels.
- Let silty batches settle before they approach the treatment pot or filter.

CLEAN SIDE

- Use a covered container that has not touched raw water or dirty tools.
- Pour treated water rather than dipping hands or cups.
- Protect bottle threads and the inside of caps.
- Physically separate raw and potable containers so darkness does not create a guessing game.
- Maintain a working supply and a protected reserve.

ONE-WAY FLOW

Source -> settle -> prefilter -> treat -> covered cooling -> clean storage. Never send a clean cup backward into the raw bucket.

FIELD CARD

COLLECTION AND DIRTY/CLEAN SEPARATION

- 1 Use a dedicated pickup container or scoop.
- 2 Collect upstream of bathing, laundry, food processing, latrines, and camp traffic whenever te...
- 3 Keep raw lids, cloths, funnels, and bottle exteriors off the clean shelf.



RESET: clean reserve • lids • treatment • raw side

MATCH THE METHOD TO THE HAZARD AND PRODUCT RATING

Treatment Options and Redundancy

No method is universal. Boiling is highly reliable for disease-causing microorganisms when performed correctly. Filters vary by pore size and certification. Chemicals depend on dose, clarity, temperature, and contact time. UV requires clear water, power, and proper exposure.

METHOD	STRENGTHS	LIMITS / WATCH FOR
Boiling	Reliable against microorganisms; visually verifiable	Requires fuel and cooling; does not remove chemicals, salt, or sediment
Microfilter	Fast; removes particles and organisms according to rating	Many do not remove viruses; can freeze, clog, or crack
Chemical disinfectant	Lightweight backup; useful after filtration	Product-specific dose and contact time; weaker in cold or cloudy water
UV treatment	Fast and low taste when water is clear	Needs power, intact device, clear water, and correct exposure
Purifier device	Some target bacteria, protozoa, and viruses	Verify certification, capacity, replacement parts, and freezing risk
Improvised sand/charcoal	May improve clarity and taste as a prefilter	Not dependable disinfection; output remains raw until proven treatment

USE REDUNDANCY

- Carry at least two independent methods for critical travel.
- A filter plus chemical backup covers breakage and freezing.
- A metal pot plus ignition covers device failure where fire is legal and safe.
- Use the clearest available water to reduce fuel, clogging, and chemical demand.

READ THE RATING

- Follow manufacturer instructions for flow, backflushing, storage, chemical contact time, and freezing.
- A taste filter is not automatically a pathogen purifier.
- Many backpacking filters do not remove viruses.
- Replace a hollow-fiber filter after suspected freezing unless the manufacturer can confirm integrity.

FIELD CARD

TREATMENT OPTIONS AND REDUNDANCY

1

Carry at least two independent methods for critical travel.

2

A filter plus chemical backup covers breakage and freezing.

3

A metal pot plus ignition covers device failure where fire is legal and safe.





RESET: clean reserve • lids • treatment • raw side

USE OFFICIAL DIRECTIONS, NOT CAMP MYTHOLOGY

Boiling and Chemical Disinfection

CDC emergency guidance: bring clear water to a rolling boil for 1 minute; above 6,500 feet (about 1,981 meters), boil for 3 minutes. Let it cool in a clean, covered container. If water is cloudy, filter it through a clean cloth, paper towel, or coffee filter, or let sediment settle and draw off the clearer water first.

BOILING ROUTINE - Start with the clearest available water. - Use a lid when practical to reduce fuel and contamination. - Time begins after a rolling boil is reached, not at the first bubble. - Cool covered and never add untreated water or dirty utensils afterward. - Store above the floor, away from raw tools, food processing, ash, and animal access.	CHEMICAL PRODUCTS - Use only products intended or officially recommended for drinking-water disinfection. - Household bleach concentration varies widely. Follow the current CDC chart and product label rather than memorizing one dose. - Do not use scented, color-safe, splashless, or cleaner-added bleach for drinking water. - Cold or cloudy water may require different preparation and contact time. - Boiling and disinfectants do not make chemically polluted or salty water safe.
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OFFICIAL RULE

Public-health directions outrank remembered campsite advice. Product concentrations and hazards change; the label and current guidance control.

FIELD CARD

BOILING AND CHEMICAL DISINFECTION

1

Start with the clearest available water.

2

Use a lid when practical to reduce fuel and contamination.

3

Time begins after a rolling boil is reached, not at the first bubble.

RESET: clean reserve • lids • treatment • raw side

REMOVE PARTICLES BEFORE DISINFECTION

Turbid Water, Settling, and Prefiltration

Mud and organic matter interfere with treatment, consume chemicals, clog filters, and hide microorganisms. Prefiltration improves clarity but is not complete microbiological treatment.

SETTLE AND DECANT

- Fill a raw container and let heavy sediment drop without disturbance.
- Decant the clearer upper water into the prefilter stage.
- Use multiple vessels so one batch can settle while another is treated.
- Remove sediment from pots and raw containers away from the clean shelf.
- Repeat if water remains visibly loaded.

PREFILTER AND PROTECT

- Use a clean tightly woven cloth, paper towel, or coffee filter where official guidance permits.
- Fold layers for finer sediment, but expect slower flow.
- Keep the cloth on the raw side and clean or replace it regularly.
- Sand, gravel, and charcoal may improve appearance but can also add contamination.
- Treat every improvised-filter output as raw water and follow with proven treatment.

PREFILTER RULE

Better-looking water is easier to treat. It is not automatically safe to drink.

FIELD CARD

TURBID WATER, SETTLING, AND PREFILTRATION

- 1 Fill a raw container and let heavy sediment drop without disturbance.
- 2 Decant the clearer upper water into the prefilter stage.
- 3 Use multiple vessels so one batch can settle while another is treated.



RESET: clean reserve • lids • treatment • raw side

COLD WATER STILL REQUIRES A COMPLETE SYSTEM

Snow, Ice, Rainwater, and Freezing Conditions

Snow is mostly air and can consume substantial fuel. Ice and rainwater can carry soot, salt, animal waste, roof contamination, and windblown debris. Melt, clarify, and treat uncertain water just as you would liquid surface water.

SNOW AND ICE - Begin snowmelt with a small amount of liquid water to prevent scorching. - Add clean snow gradually and compress it as it melts. - Choose upper clean layers away from roads, camps, roofs, trails, and obvious contamination. - Clear blue ice usually yields more water per volume than fresh snow, but source risk still matters. - Do not eat large amounts of snow as a hydration method; it cools the body and provides little liquid.	RAIN AND FREEZE CONTROL - Use the cleanest catchment surface and discard the first dirty runoff when practical. - Cover storage immediately and treat when contamination is possible. - Keep a working bottle insulated and inverted so ice forms away from the cap. - Fill reserves before dark and protect freeze-sensitive filters according to manufacturer directions. - Never let the only clean reserve freeze into a solid block overnight.
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WINTER RULE

Water planning belongs to the evening, not to the coldest minute before dawn.

FIELD CARD

SNOW, ICE, RAINWATER, AND FREEZING CONDITIONS

1

Begin snowmelt with a small amount of liquid water to prevent scorching.

2

Add clean snow gradually and compress it as it melts.

3

Choose upper clean layers away from roads, camps, roofs, trails, and obvious contamination.

RESET: clean reserve • lids • treatment • raw side

STANDARD FILTERS AND BOILING DO NOT REMOVE SALT

Coastal Water, Salt, and Distillation

Do not drink seawater. It worsens dehydration. Boiling seawater without capturing and condensing vapor leaves salt behind and can concentrate it. Coastal routes need a deliberate desalination plan before the emergency.

DESALINATION REALITY

- Use a properly rated reverse-osmosis/desalination device or a correctly built distillation system.
- A distiller needs a safe heat source, clean vapor path, condenser, and clean collection vessel.
- Standard microfilters do not remove dissolved salt.
- Boiling alone does not create freshwater from the ocean.
- Improvised solar stills often produce little water for the labor and should not be the primary plan.

CHEMICAL LIMITS

- Some volatile chemicals can travel with steam; distillation is not a universal chemical-removal guarantee.
- Avoid water exposed to fuel, solvents, industrial runoff, harmful algal blooms, or unknown spills.
- In tidal areas, account for salt intrusion and changing current direction.
- Carry spare seals, maintenance parts, and prefiltration for desalination equipment.
- Practice the actual device before the route.

COASTAL RULE

A metal pot and fire do not automatically create drinking water from the ocean. Desalination is a separate process.

FIELD CARD

COASTAL WATER, SALT, AND DISTILLATION

- 1 Use a properly rated reverse-osmosis/desalination device or a correctly built distillation sy...
- 2 A distiller needs a safe heat source, clean vapor path, condenser, and clean collection vessel.
- 3 Standard microfilters do not remove dissolved salt.



RESET: clean reserve • lids • treatment • raw side

TREATMENT IS WASTED IF STORAGE RECONTAMINATES THE WATER

Storage, Sanitation, and the Daily Reserve

A useful camp carries water in stages: raw reserve, water being treated, clean working supply, and a protected emergency reserve. Covered containers reduce ash, insects, debris, and accidental dipping.

CONTAINER ROLES

- Raw bucket: collection and settling only.
- Treatment pot: boiling and hot-water production.
- Clean working bottle: daily drinking and cooking.
- Emergency reserve: sealed, protected, and left alone unless needed.
- Utility water: washing tools and dirty work, clearly separate from potable storage.

SANITATION AND RESERVE

- Wash hands after toileting, handling raw meat or fish, touching animals, and before managing clean water.
- Do not wash dishes, clothing, bodies, or fish directly in the source.
- Pour rather than dip; protect lids, threads, and clean cups.
- Treat water while the fire or device is already active instead of waiting for the reserve to vanish.
- Increase the reserve before storms, freezing nights, travel, and heavy work.

RESERVE RULE

One clean bottle in the hand is a supply. A protected second container is a system.

FIELD CARD

STORAGE, SANITATION, AND THE DAILY RESERVE

- 1 Raw bucket: collection and settling only.
- 2 Treatment pot: boiling and hot-water production.
- 3 Clean working bottle: daily drinking and cooking.



RESET: clean reserve • lids • treatment • raw side

IMPROVISATION CAN SUPPORT TREATMENT, BUT SHOULD NOT IMPERSONATE IT

Water Myths and Troubleshooting

Many popular methods improve clarity or produce small amounts of water but do not reliably make contaminated water safe. Use this matrix to correct failures before the clean reserve disappears.

PROBLEM	LIKELY CAUSE	CORRECTION
Water remains cloudy	Insufficient settling or coarse prefilter	Settle longer; decant; use finer clean cloth; then treat
Filter flow slows	Sediment load, poor cleaning, or freeze damage	Prefilter; clean/backflush; replace if integrity is doubtful
Treated water tastes smoky	Open cooling near fire, dirty pot, ash contamination	Cool covered in clean zone; clean pot; move away from smoke
Reserve keeps running out	No batch rhythm, too few containers, route too long	Add vessels; treat during existing heat; shorten route; set minimum reserve
Bottle freezes at cap	Stored upright and exposed	Insulate and invert; keep working bottle warm without leakage
Repeated stomach illness	Cross-contamination, inadequate treatment, unsafe source	Stop using source; review workflow; seek medical care

DO NOT TRUST ALONE

- Charcoal, sand, moss, and cloth: particle prefilters, not dependable disinfection.
- Solar disinfection: dependent on clear water, bottle, sun, temperature, and exact guidance.
- Dew and plant bags: low yield and possible plant toxins.
- Drinking urine: adds salts and waste and can worsen dehydration.
- Eating snow: cools the body and bypasses treatment.
- A clear fast stream: still uncertain until treated or officially confirmed safe.

SERIOUS RED FLAGS

- Chemical spill, fuel sheen, algal bloom, floodwater, saltwater, or dead animal at source.
- Bloody diarrhea, high fever, confusion, fainting, very little urination, or inability to keep fluids down.
- No reliable treatment method or container integrity.
- Find another source, reduce exertion, signal, navigate to help, or seek rescue/medical care.

MYTH FILTER

A method is not reliable because it is old, natural, dramatic, or repeated online. Ask what hazard it removes, how that was verified, and what it leaves behind.

FIELD CARD

WATER MYTHS AND TROUBLESHOOTING

1

Charcoal, sand, moss, and cloth: particle prefilters, not dependable disinfection.

2

Solar disinfection: dependent on clear water, bottle, sun, temperature, and exact guidance.

3

Dew and plant bags: low yield and possible plant toxins.



RESET: clean reserve • lids • treatment • raw side

USE, INSPECT, RESET, AND VERIFY

Field Checklist and Sources

This guide consolidates the project’s long-duration ALONE-style field-manual iterations and updates high-risk claims with current public-health, fire-safety, cold-stress, and Leave No Trace guidance. Practice before relying on any skill and check current local orders at the point of use.

FINAL CHECK □ Safest practical source selected and upstream hazards assessed □ Raw and clean containers, lids, cloths, and work surfaces separated □ Sediment settled or prefiltered before treatment □ Boil time, chemical contact time, or device procedure completed correctly	FINAL CHECK □ Treated water cooled and stored covered in the clean zone □ Working supply and protected reserve filled before dark or weather □ Filter protected from freezing, cracking, clogging, and cross-contamination
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AUTHORITATIVE REFERENCES

Centers for Disease Control and Prevention: [Make Water Safe During an Emergency](#)

Centers for Disease Control and Prevention: [Prevent Diarrheal Illness After a Disaster](#)

USE WITH JUDGMENT

Independent educational fieldcraft reference. Not affiliated with or endorsed by the television series ALONE, its producers, broadcasters, or participants. Local rules and emergency guidance always control.

FIELD CARD

PRACTICE BEFORE DEPENDENCE

1

Safest practical source selected and upstream hazards assessed

2

Raw and clean containers, lids, cloths, and work surfaces separated

3

Sediment settled or prefiltered before treatment



RESET: clean reserve • lids • treatment • raw side