

West Virginia: Overview

Everything in the main manual and the skill guides applies in West Virginia exactly as written. What's different here is the specific hazard profile and the state, local, and legal context around it. This page is the starting point; the other three pages under West Virginia go deeper on laws, local resources, and the data behind the risks named here.

The June 2016 flood: a thousand-year rainfall in under 12 hours

On June 23, 2016, torrential rain dropped 8 to 10 inches across Greenbrier County in less than half a day, a rainfall total meteorologists later classified as a once-in-1,000-year event. The town of White Sulphur Springs took the worst of it, where Howard's Creek turned into a torrent that swept homes off their foundations. The flood killed 23 people statewide, most in Greenbrier County, and destroyed more than 1,500 homes and businesses. See the Risks page for the full data.

The 2014 Elk River chemical spill: a contamination disaster, not a storm

On January 9, 2014, up to 10,000 gallons of an industrial coal-cleaning chemical leaked from a storage tank into the Elk River in Charleston, just 1.5 miles upstream of the drinking-water intake serving 300,000 people. The contamination overwhelmed the water treatment plant's ability to filter it out, and residents across the region were told not to use their tap water for any purpose, drinking, cooking, or bathing, for five days. This is a genuinely different kind of disaster from a flood or storm: no property was physically destroyed, but an entire metro area's water supply became unusable with almost no warning. See the Risks page for the full data.

What this means for how you use the rest of this manual

The manual's Tier structure and the skill guides apply without modification. What's different in West Virginia: this manual's stored-water guidance isn't just for after a storm knocks out utilities, the Elk River spill shows that a water supply can become unsafe to use even while the taps keep running, and flash-flood risk in narrow Appalachian valleys like Greenbrier County's can produce rainfall totals well beyond what most households plan around.

Sources

- June 2016 West Virginia flood data: NOAA Climate.gov; e-WV: The West Virginia Encyclopedia
- 2014 Elk River chemical spill data: Wikipedia; West Virginia Watch

West Virginia: Laws & Legal Considerations

Rainwater harvesting: encouraged with state incentive programs

West Virginia doesn’t just permit rainwater harvesting, it offers incentives and assistance programs for using alternative water sources like rain barrels and cisterns.

Rule	West Virginia
Source water	Rooftop or other catchment
Permit required	No, at the state level
Permitted uses	Non-potable: irrigation and similar uses
State posture	Active incentive and assistance programs for alternative water sources, not just tolerance

Where to find it: the West Virginia Department of Environmental Protection (dep.wv.gov) publishes water use guidance.

Water rights: riparian reasonable-use, with real state regulation layered on top

West Virginia courts have long applied the reasonable-use version of riparian doctrine: each landowner along a water source may make reasonable use of it to meet natural needs, with disputes resolved case by case rather than by strict priority dates.

Concept	How it works in West Virginia
Basic rule	Riparian landowners may make reasonable use of adjacent water for natural needs; conflicts are resolved under the reasonable-use standard
Not purely unregulated	West Virginia layers specific state regulations on particular water uses, administered by the Department of Environmental Protection, rather than leaving riparian rights entirely to case law

Where to find it: the West Virginia Department of Environmental Protection administers water use regulation.

Permitless carry from age 18, as of June 2026

West Virginia has recognized constitutional carry since May 2016, but the minimum age changed very recently.

Requirement	Detail
Standard	Permitless carry, concealed, for anyone 18+ who is a U.S. citizen or legal resident and not otherwise prohibited from possessing a firearm
Original 2016 standard	Permitless carry for adults 21+; 18-20 year olds needed a provisional license and a handgun safety course
2026 change	HB 4106, signed April 1, 2026, took effect June 12, 2026, dropping the age to 18 and eliminating the separate provisional-license track entirely

A change only months old at time of writing

West Virginia’s 18+ permitless standard took effect June 12, 2026, just weeks before this page was written. If reading this well after that date, it’s worth confirming the law hasn’t been amended further, since a change this recent is still fresh enough that follow-up legislative activity is plausible.

Sources

- West Virginia rainwater harvesting incentives: State Regs Today
- West Virginia riparian reasonable-use water law: Texas Real Food; WVU Law Review
- West Virginia permitless carry age change (HB 4106, 2026): Concealed Carry Inc.; USA Carry

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West Virginia: Local Resources

West Virginia Emergency Management (WV EMD)

WV EMD's Preparedness and Response Section coordinates statewide emergency planning and training, working alongside county-level Departments of Homeland Security and Emergency Management (DHSEM).

Where to find it: emd.wv.gov.

WVU Extension: Master Gardener Program

West Virginia University Extension runs the same category of program as every other state covered on this site, with a notably structured online format.

- **WVU Extension Master Gardener Program:** an 18-session online training program covering 54 hours of instruction (botany, plant propagation, entomology, pesticides and pest management, plant disease, soil science), followed by 40 hours of volunteer service for initial certification.

Where to find it: extension.wvu.edu/lawn-gardening-pests/master-gardener-program.

CERT: county-run under DHSEM, statewide standard curriculum

West Virginia's CERT program operates through county-level DHSEM offices under WV EMD's umbrella and FEMA's national CERT curriculum, covering disaster preparedness, fire safety, disaster medical operations, light search and rescue, and related skills. The course is free and open to the public age 18 and older.

Where to find it: emd.wv.gov/Preparedness/Training, or your county's DHSEM office directly.

Sources

- WV EMD structure and preparedness programs: West Virginia Emergency Management
- WVU Extension Master Gardener Program requirements: West Virginia University

- West Virginia CERT program structure: Jefferson County Commission

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West Virginia: Risks & Trends

Same standard as every other page on this site: every figure below is independently sourced, and figures that vary across sources, or measure genuinely different things, are flagged as such rather than collapsed into one number that looks more precise than the underlying data actually supports.

The June 2016 flood

Metric	Figure
Date	June 23, 2016
Rainfall, Greenbrier County	8-10 in in under 12 hours, classified as a once-in-1,000-year event
Deaths	23 statewide, 15 in Greenbrier County alone
Hardest-hit community	White Sulphur Springs, where Howard's Creek destroyed entire neighborhoods
Homes/businesses destroyed	1,500+
Homes/businesses significantly damaged	2,500+
Highway/bridge losses	~\$53 million

What 'once-in-1,000-year' actually means

A 1,000-year rainfall event doesn't mean it happens once every thousand years on a schedule; it means the recorded rainfall total had roughly a 0.1% chance of occurring in any given year based on historical data. That statistical framing doesn't make the flood less real, but it does explain why so much of Greenbrier County's infrastructure wasn't built to handle it.

The 2014 Elk River chemical spill

Metric	Figure
Date	January 9, 2014
Chemical released	Crude MCHM (4-methylcyclohexanemethanol), a coal-cleaning flotation reagent
Volume	Up to 10,000 gallons
Distance to drinking-water intake	1.5 mi upstream of Charleston's intake
People affected	~300,000, across the greater Charleston area
'Do Not Use' order duration	5 days
Health complaints reported over 2 weeks	584 cases of nausea/diarrhea/skin irritation, 369 directly attributed to MCHM

A different disaster shape entirely

Nothing was destroyed in the Elk River spill the way a flood or tornado destroys property. The disaster was that an entire metro area’s tap water became unsafe with almost no advance warning, for reasons invisible to anyone just turning on a faucet. It’s the clearest example on this site of why stored water matters even when the power stays on and the roof stays intact.

Sources

- June 2016 West Virginia flood data: NOAA Climate.gov; e-WV: The West Virginia Encyclopedia
- 2014 Elk River chemical spill data: Wikipedia; West Virginia Watch