

[BY STATE › VIRGINIA](#)

Virginia: Overview

Everything in the main manual and the skill guides applies in 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 Virginia go deeper on laws, local resources, and the data behind the risks named here.

Hampton Roads: the fastest-rising coastline on the East Coast

The Hampton Roads region in southeast Virginia, home to Norfolk, Virginia Beach, and the world's largest naval base, has the highest relative sea level rise rate anywhere on the U.S. East Coast. Norfolk's own flood-day count has risen 325% since 1960, from 1.7 days of tidal flooding a year to 7.3, and the city now ranks as the second most vulnerable community to coastal flooding in the entire country, behind only New Orleans. See the Risks page for the full projections.

The 2012 derecho: a hazard type new to this site

A derecho is a long-lived, fast-moving line of severe thunderstorms capable of hurricane-force winds over a huge area, and Virginia took a direct hit from one of the most destructive on record on June 29, 2012. The storm traveled roughly 700 miles in 12 hours, and Dominion Energy still ranks it as the third-worst storm to hit Virginia, causing the largest non-hurricane power outage in the state's history. This is a genuinely different hazard mechanism from the hurricanes, earthquakes, and tornadoes covered elsewhere on this site, a severe wind event that arrives with far less warning than a hurricane and covers far more ground than a tornado. 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 Virginia: coastal and Hampton Roads-area households need real, standing flood planning that accounts for a rising baseline, not just occasional storm surge, and this manual's backup-power guidance (Chapter on Fire/Generator Safety) carries extra weight here given how long derecho-related outages have already lasted in Virginia.

Sources

- Hampton Roads and Norfolk sea level rise and flood-day data: ASCE Journal of Infrastructure Systems; Union of Concerned Scientists
- 2012 derecho path, deaths, and Virginia power outage impact: NWS Heritage; NOAA Service Assessment

BY STATE › VIRGINIA

Virginia: Laws & Legal Considerations

Rainwater harvesting: the most developed regulatory framework covered on this site

Virginia is the only state covered here with a full, dedicated administrative code chapter specifically governing rainwater harvesting systems, including potable use, effective October 2024.

Rule	Virginia
Source water	Rooftop or other catchment
Non-potable use	No permit required for rain barrels up to 100 gallons; larger non-potable systems generally unregulated by the state
Approved non-potable uses	Toilets, urinals, mechanical equipment, hose connections, vehicle washing, lawn maintenance, service sinks
Potable use ("Tier 4 end use")	Requires a written construction permit from the Virginia Department of Health commissioner before installation, alteration, or rehabilitation
Underlying framework	Code of Virginia §32.1-248.2; 12VAC5-635 Rainwater Harvesting System Regulations, effective October 21, 2024

Why Virginia's system stands out

Ohio was the first state covered on this site to allow potable rainwater use at all; Virginia goes further, with an actual tiered permit system and a dedicated regulatory chapter specifically for it, rather than folding rainwater into a general private-water-system rule. This reflects a more deliberate state-level effort to make potable harvesting a real, regulated option rather than an edge case.

Where to find it: the Virginia Department of Health (vdh.virginia.gov) administers the permit program.

Water rights: riparian, with a specific numeric diversion cap

Virginia’s riparian law is the ordinary reasonable-use doctrine, but it’s paired with an explicit percentage limit that most other states covered on this site don’t state as a hard number.

Concept	How it works in Virginia
Surface water	Riparian owners may withdraw water for use on their own riparian property; water can't be exported to non-riparian land
Diversion cap	No more than 50% of streamflow may be diverted for a single property without a state permit
Groundwater	Governed separately under the Virginia Ground Water Management Act (1992); no permit required for withdrawals under 300,000 gallons/month in a designated groundwater management area

Where to find it: the Virginia Department of Environmental Quality administers surface water and groundwater withdrawal permits.

Concealed carry: shall-issue, with a notably flexible competency option

Virginia requires a Concealed Handgun Permit (CHP), issued through the circuit court in the applicant’s county, with a competency requirement that can be satisfied in an unusually flexible way.

Requirement	Detail
Standard	Shall-issue: the circuit court of the applicant's county or city issues the CHP
Minimum age	21
Competency demonstration	Can be satisfied by a hunter education/safety course, an NRA Basic Pistol course, or several other approved methods, not just a dedicated concealed-carry class
Cost and validity	~\$50 state fee, valid 5 years, \$50 renewal
Processing time	Up to 45 days after a complete application

An unusual competency pathway

Letting a hunter education or hunter safety course satisfy the concealed carry competency requirement is a genuinely different approach from the dedicated firearms-training courses required in most other states covered on this site, useful to know if you already hold a hunter safety certification from Virginia or another state.

Sources

- Virginia rainwater harvesting regulations and permit tiers: Virginia Department of Health; 12VAC5-635
- Virginia riparian rights, diversion caps, and groundwater law: University of Richmond Law Review; Waterfront Property Law
- Virginia CHP requirements and competency options: Alien Gear Holsters; Giffords Law Center

Virginia: Local Resources

VDEM: no single branded consumer campaign, but real operational tools

Unlike most other states covered on this site, the Virginia Department of Emergency Management doesn't run one single named public-facing campaign like "Ready Ohio" or "ReadyNJ." Instead, VDEM operates 24/7 and provides direct tools, most notably the Virginia Flood Monitoring System, alongside its Partners in Preparedness program, which works with local governments and community organizations on outreach.

Where the branded campaigns actually live

Local jurisdictions fill the branding gap: Virginia Beach runs its own "ReadyVB" public education campaign, for instance. If you're looking for consumer-facing preparedness content, check both VDEM's statewide "Prepare" portal and your specific city or county's own emergency management page.

Where to find it: vaemergency.gov/prepare.

Virginia Cooperative Extension: Virginia's version of the other states' land-grant Extension programs

Virginia Tech's Cooperative Extension runs the same category of program as every other state covered on this site, with one of the larger volunteer bases seen so far.

- **Virginia Master Gardener Program:** more than 5,000 active volunteers statewide; typically 50 hours of initial training and 50 hours of volunteer service to certify (some counties, like Prince William, require 70+ training hours), then 20 volunteer hours and 8 continuing-education hours annually to maintain it.

Where to find it: ext.vt.edu/lawn-garden/master-gardener.html lists the program by county.

CERT: county-run across the state

Virginia's CERT programs are organized at the county level, similar to Texas's and Florida's decentralized model, with active chapters in Arlington, Fairfax, Chesterfield, and many other counties.

What's typical

Chesterfield County's program is representative: a free 24-hour course open to residents 18 and older, covering the standard FEMA curriculum, with a certificate and volunteer opportunities on completion.

Where to find it: search “[your county] CERT” or check VDEM’s Communities page (vdem.virginia.gov/prepare/communities) for a local program.

Sources

- VDEM operations, Partners in Preparedness, and flood monitoring tools: VDEM
- Virginia Beach’s ReadyVB campaign: City of Virginia Beach
- Virginia Master Gardener Program scale and requirements: Virginia Cooperative Extension
- Virginia county CERT program examples: Chesterfield County; Fairfax County

BY STATE › VIRGINIA

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.

Hampton Roads sea level rise: the fastest on the East Coast

Metric	Figure
Sea level rise, past century	~1.5 ft
Recent rate (past 5 years)	~5.6 mm/year
Norfolk flood-day increase since 1960	325% (1.7 days/year to 7.3 days/year)
National vulnerability ranking (coastal flooding)	2nd most vulnerable U.S. community, behind only New Orleans
Projected major roadway flooding at high tide by 2100 (intermediate scenario)	~10%
Projected major roadway flooding at 99% tide by 2100	~15%
Projected roadway flooding under a 100-year storm surge by 2100	65%+

Why this region specifically

Hampton Roads combines several compounding factors beyond global sea level rise alone: land subsidence, the coastline’s specific geometry, and the interaction of rainfall, river flow, and tidal and groundwater levels all push water higher here than a simple ocean-rise number alone would predict. This is the same kind of “standing condition, not a single event” risk covered for California’s water stress and Florida’s own sea level rise section, but Hampton Roads currently has the highest measured rate on the entire East Coast.

The 2012 derecho: a fast-moving wind event, not a hurricane or tornado

Metric	Figure
Date	June 29, 2012
Path	~700 mi, Indiana to the Mid-Atlantic in ~12 hours
Forward speed	~60 mph
Peak winds	Common gusts over 60 mph; numerous reports over 80 mph; isolated pockets over 100 mph
Virginia deaths	6 (of 13 total direct deaths across all affected states)
Customers without power (Dominion Energy service area)	1 million+
Regional customers without power (all affected states)	4 million+
Longest outages	Over a week for some Virginia customers
Ranking	Third-worst storm in Virginia history, per Dominion Energy; largest non-hurricane power outage in state history

A regional heat toll on top of the direct deaths

An additional 34 deaths across the broader affected region were attributed to extreme heat in the days after the derecho, a consequence of the storm knocking out power and air conditioning during a summer heat wave. That figure covers the full multi-state affected area, not Virginia alone, so it’s reported here as regional context rather than a Virginia-specific count.

What these two have in common

Hampton Roads’s flooding and the 2012 derecho sit at opposite ends of the same spectrum this site keeps returning to: one is a slow-building, statistically certain trend with no single date attached, the other was a specific storm that arrived with almost no warning and reshaped the state’s power-outage record in a single night. Both argue for the same practical response: real backup power planning and a flood plan that doesn’t wait for an official “climate emergency” declaration to start mattering.

Sources

- Hampton Roads and Norfolk sea level rise and flood projections: ASCE Journal of Infrastructure Systems; Union of Concerned Scientists
- 2012 derecho path, deaths, and Virginia-specific power outage data: NWS Heritage; NOAA Service Assessment