

# New York: Overview

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

## Coastal storm surge: Hurricane Sandy

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Hurricane Sandy, which made landfall near Atlantic City in October 2012 but drove its worst surge into New York Harbor and lower Manhattan, killed 48 people statewide and caused an estimated \$19 billion in damage to New York City alone. Subway tunnels flooded, the power grid in lower Manhattan went dark for days, and 90% of the direct deaths were drowning, most within three days of landfall. See the Risks page for the full breakdown.

## Inland flash flooding: the remnants of Hurricane Ida

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Not every major flood risk in New York comes from the coast. In September 2021, the post-tropical remnants of Hurricane Ida dropped a record 3.15 inches of rain in a single hour on New York City, overwhelming a sewer system built to handle roughly half that rate, and killed 13 people in the city, 11 of them in basement apartments, many of them unregulated units outside the 100-year floodplain entirely. This is a genuinely different hazard mechanism from Sandy's storm surge: sudden, inland, and concentrated in exactly the kind of housing this manual's Tier 1 shelter guidance assumes is safe.

## Lake-effect snow: the Buffalo blizzard

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Western New York carries a hazard the rest of the state doesn't: lake-effect blizzards driven by Lake Erie. Winter Storm Elliott, over Christmas weekend 2022, dropped more than 56 inches of snow on parts of the Buffalo area in five days, with wind gusts to 79 mph and snowdrifts up to 15 feet, killing 47 people statewide, most of them in Erie County, the deadliest storm in the region's recorded history, surpassing the infamous Blizzard of 1977.

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

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The manual's Tier structure and the skill guides apply without modification. What's different in New York: coastal and low-lying households need Sandy-style storm surge evacuation planning, urban and inland households, especially anyone in a basement-level unit, need to take flash flood warnings seriously regardless of official floodplain maps, and households in the western part of the state need a genuine plan for being snowed in for days at a time, not just an afternoon.

## Sources

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- Hurricane Sandy New York deaths and damage: CDC MMWR; Wikipedia, sourced to contemporary reporting
- Hurricane Ida NYC deaths, rainfall record, and basement apartment toll: ABC News; NYC Health Department
- Winter Storm Elliott New York death toll and snowfall totals: Wikipedia, sourced to contemporary reporting

# New York: Laws & Legal Considerations

## Rainwater harvesting: legal, encouraged, with a wrinkle none of the other states have

New York doesn’t just permit rainwater collection, state guidance actively teaches it. But it’s the first state covered on this site with a specific roof-material restriction written into the guidance itself.

| Rule                      | New York                                                                                                                                 |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Source water              | Rooftop catchment                                                                                                                        |
| Permit required           | No, for typical residential systems; check local plumbing code for anything plumbed indoors                                              |
| Roof material restriction | Cannot harvest from tar-and-gravel, asbestos shingle, or treated cedar shake roofs, or from any roof with lead-containing metal flashing |
| Permitted uses            | Non-potable: irrigation, toilet flushing                                                                                                 |

### Why the roof material matters here specifically

The restriction exists because those specific roofing materials can leach contaminants, including lead, directly into water that’s about to be stored and used, even for non-potable purposes. It’s a genuinely useful check to make before setting up a system: confirm what your own roof is actually made of, not just whether collecting from it is legal in the abstract.

*Where to find it:* the New York State Department of Environmental Conservation ([dec.ny.gov](http://dec.ny.gov)) publishes rainwater harvesting guidance; check with your local building department for any additional municipal rules.

## Water rights: riparian, the same family as Florida’s system

New York uses a regulated riparian system for its lakes, rivers, and streams, the same broad family as Florida’s, built around land ownership rather than who claimed the water first.

| Concept             | How it works in New York                                                                                                                                                |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Who holds the right | Owners of land bordering a watercourse (riparian) or lake (littoral)                                                                                                    |
| Governing principle | Reasonable use: a landowner's use can't unreasonably interfere with other riparian owners' use of the same shared water                                                 |
| DEC's role          | Article 15 of the Environmental Conservation Law requires a DEC permit to alter a watercourse or wetland, or for larger water withdrawals, beyond ordinary riparian use |

*Where to find it:* the DEC’s Division of Water ([dec.ny.gov/environmental-protection/water](https://dec.ny.gov/environmental-protection/water)) handles permitting for anything beyond basic riparian use.

## Concealed carry: the most restrictive system covered on this site so far

Every other state covered in this section, Utah, Texas, and Florida, lets most adults carry a concealed handgun without any license at all. New York is the opposite: even after the Supreme Court’s 2022 *Bruen* decision forced the state to drop its old discretionary “proper cause” standard, New York responded with the Concealed Carry Improvement Act, one of the most demanding licensing processes in the country.

| Requirement         | Detail                                                                                                                                                                            |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard            | May-issue converted to a "good moral character" standard: character references, an in-person interview, and a background investigation are all required, not just a records check |
| Required training   | 18 hours total: 16 hours of classroom instruction plus 2 hours of live-fire qualification, through a DCJS-approved instructor, plus a written test requiring 80% or better        |
| Sensitive locations | An extensive list of places where carry is banned even with a valid license: schools, parks, places of worship, bars, Times Square, public transit, and many others               |
| Governing statute   | The Concealed Carry Improvement Act (CCIA), signed July 1, 2022                                                                                                                   |

### This is still an actively litigated area of law

Multiple provisions of the CCIA have faced federal court challenges since 2022; most of the sensitive-locations framework has survived so far, including the Supreme Court declining to review key challenges, but this remains one of the more legally contested gun laws in the country. Don’t treat any single source, including this one, as the final word on current status; confirm before relying on it.

## Sources

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- New York rainwater harvesting rules and roof material restrictions: [is-this-legal.com](http://is-this-legal.com); AllowedHere
- New York riparian water rights and DEC Article 15 permitting: Pace University Elisabeth Haub School of Law; NYS DEC
- New York Concealed Carry Improvement Act, training requirements, and sensitive locations: New York Criminal Attorney Blog; Alien Gear Holsters

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## New York: Local Resources

### The Citizen Preparedness Corps: a genuinely large state-run program

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New York's Division of Homeland Security and Emergency Services runs the Citizen Preparedness Corps, a free training program open to any resident, delivered online in English plus 12 other languages. This is a notably larger, more institutionalized state preparedness effort than most of the other states covered on this site.

#### Scale and reach

As of this writing, more than 437,000 people have completed the Citizen Preparedness Corps course. The 13-language availability (including Arabic, Bengali, Chinese, Haitian Creole, Korean, Russian, Spanish, and others) specifically targets New York's large immigrant and limited-English-proficiency population, a similar equity-focused design choice to California's Listos California campaign.

*Where to find it:* [dhses.ny.gov](https://dhses.ny.gov) hosts registration and course access.

### Ready New York: the NYC-specific companion campaign

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Within New York City specifically, NYC Emergency Management runs its own parallel campaign, Ready New York, covering the same core steps (emergency plan, meeting place, home supplies, a Go Bag) but tailored to city-specific hazards, including guidance on basement apartment flood risk directly informed by the Hurricane Ida deaths covered on the Risks page.

*Where to find it:* [nyc.gov/em](https://nyc.gov/em).

### Cornell Cooperative Extension: New York's version of USU/OSU/UC ANR/AgriLife/UF IFAS

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Cornell Cooperative Extension runs the same category of land-grant Extension program as every other state covered on this site, administered county by county since 1975.

- **Extension Master Gardener Volunteer Program:** requires a minimum of 55 hours of coursework plus a required Action Project and 60 hours of volunteer service to earn certification. Not every New York county has the resources to run a program, so availability varies more than in some other states.

*Where to find it:* [gardening.cals.cornell.edu](http://gardening.cals.cornell.edu) lists participating counties; contact your local CCE office to confirm whether it runs a Master Gardener program.

## CERT: a large city-run program plus independent county teams

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Unlike most of the other states covered so far, New York City runs its CERT program directly through NYC Emergency Management, with instructors from the FDNY and NYPD Auxiliary Unit, rather than leaving it entirely to independent local chapters.

### What NYC's program looks like

Basic training runs three times a year as an 11-session cycle, open to any NYC resident or anyone who works in the city, covering fire safety, light search and rescue, disaster medical operations, and traffic control, with a one-year volunteer commitment expected after graduation.

*Where to find it:* within NYC, [nyc.gov/cert](http://nyc.gov/cert). Outside the city, several counties, Westchester and Nassau among them, run their own independent CERT programs; search “[your county] CERT” if you’re elsewhere in the state.

## Sources

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- New York State Citizen Preparedness Corps scale and language availability: Governor Hochul press release; NYS DHSES
- Ready New York campaign: NYC Emergency Management
- Cornell Cooperative Extension Master Gardener Volunteer Program requirements: Cornell Garden-Based Learning
- NYC CERT program structure and training cycle: NYC Emergency Management

BY STATE › NEW YORK

# New York: 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.

## Hurricane Sandy (2012): coastal storm surge

| Metric                                    | Figure                              |
|-------------------------------------------|-------------------------------------|
| New York State deaths                     | 48                                  |
| Direct New York City deaths               | 43                                  |
| Share of direct deaths caused by drowning | 90%, most within 3 days of landfall |
| New York City area flooded                | 51 sq mi                            |
| New York City damage estimate             | ~\$19 billion                       |
| Homes severely damaged (5 boroughs)       | ~2,000                              |
| Homes moderately damaged (5 boroughs)     | ~15,000                             |

Sandy’s death toll came almost entirely from storm surge, not wind, the same pattern later seen in Hurricane Ian’s Florida landfall a decade later. Nearly 2 million people lost power at some point during the storm.

## Hurricane Ida remnants (2021): inland flash flooding

| Metric                                                           | Figure   |
|------------------------------------------------------------------|----------|
| New York City deaths                                             | 13       |
| Deaths in basement apartments specifically                       | 11       |
| Share of deaths that were drowning in unregulated basement units | 71%      |
| Peak one-hour rainfall (NYC record)                              | 3.15 in  |
| City sewer system's typical one-hour capacity                    | ~1.75 in |

### Why this is a structurally different risk from Sandy, not a smaller version of it

Sandy was a coastal storm surge event: predictable direction, tied to a specific coastline, with days of advance warning. Ida’s NYC flooding was an inland flash flood driven by rainfall rate overwhelming fixed sewer infrastructure, capable of striking anywhere in the city with far less lead time, and it killed people specifically in housing, unregulated basement apartments outside the mapped 100-year floodplain, that official flood-risk tools didn’t flag as dangerous at all.

## Winter Storm Elliott (2022): the Buffalo blizzard

| Metric                          | Figure      |
|---------------------------------|-------------|
| New York State deaths           | 47          |
| Erie County deaths              | 39+         |
| Peak snowfall (Snyder, NY)      | 56.5 in     |
| Buffalo airport snowfall total  | 51.9 in     |
| Peak wind gust (Lackawanna, NY) | 79 mph      |
| Maximum snowdrift height        | up to 15 ft |

This was the deadliest storm in the Buffalo area’s recorded history, surpassing the region’s previous benchmark, the Blizzard of 1977. Unlike Sandy or Ida, this risk is geographically concentrated: it’s specifically a western New York, Lake Erie lake-effect phenomenon, not a statewide one.

## What these three have in common

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New York's geography produces three genuinely distinct disaster mechanisms rather than one dominant hazard type: a coastal metro area exposed to storm surge, dense inland housing stock vulnerable to flash flooding regardless of official floodplain maps, and a Great Lakes region exposed to some of the most intense lake-effect snowfall in the country. A household's actual risk profile in New York depends heavily on which of these three geographies they live in, more so than in most other states covered on this site.

## Sources

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- Hurricane Sandy New York death toll and damage figures: CDC MMWR; Wikipedia, sourced to contemporary reporting
- Hurricane Ida NYC death toll, basement apartment statistics, and rainfall record: ABC News; NYC Health Department
- Winter Storm Elliott New York death toll, snowfall, and wind data: Wikipedia, sourced to contemporary reporting