



My RainReady

Center for Neighborhood Technology

RainReady Home



RainReady Home



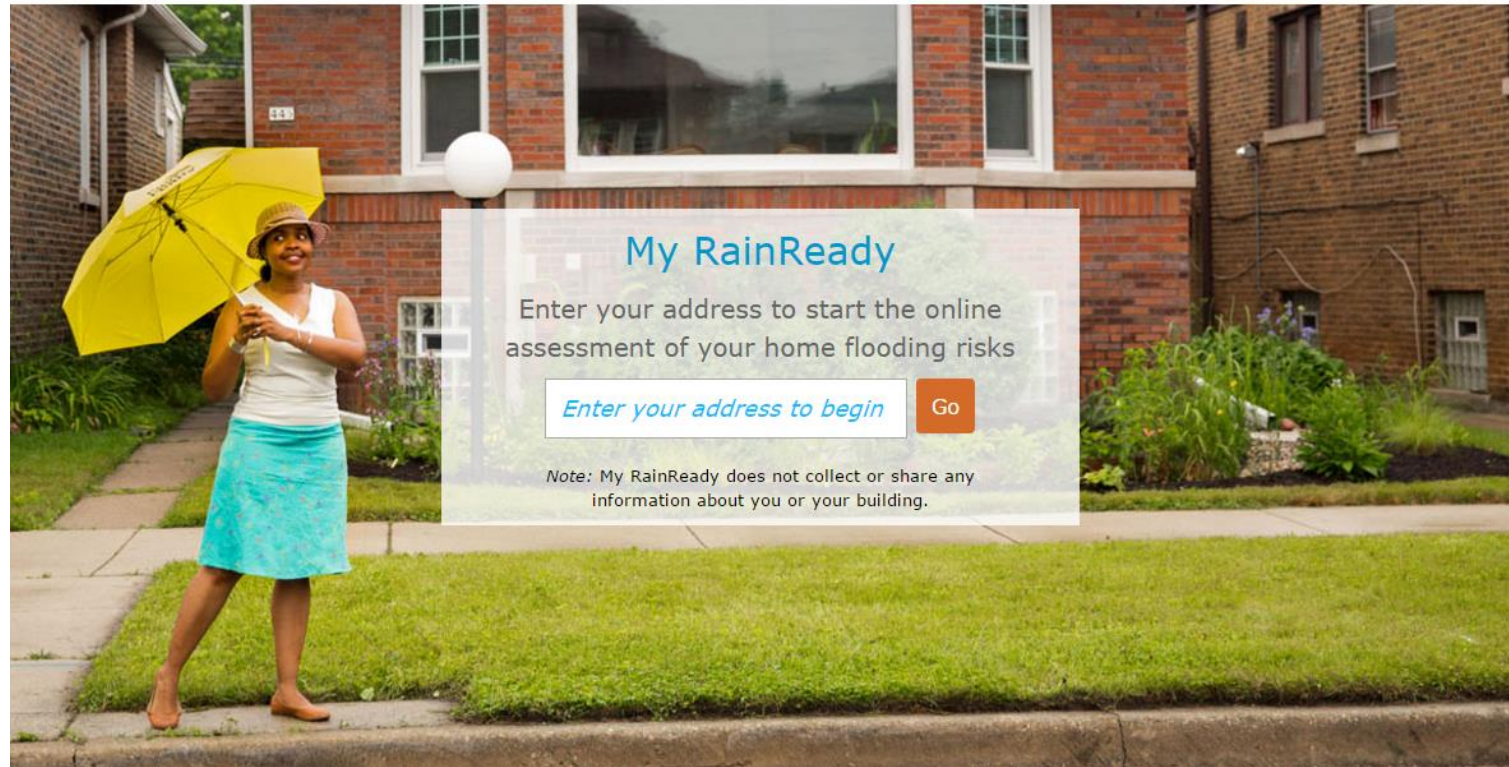
Key Projects

- Cook County Residential Resilience Program
- City of Chicago Residential Flood Assistance Program
- RainReady Oak Park



Virtual Home Flood Risk Assessment

Your Location Your Home Your Flood History View Your Report



My RainReady

The screenshot displays the 'My RainReady' web application interface. At the top, there is a navigation bar with four tabs: 'Your Location', 'Your Home', 'Your Flood History', and 'View Your Report'. Below this, the main content area is divided into two sections: 'Your Location' and 'Survey Summary'. The 'Your Location' section features a map of a residential area with a property at 13845 S Wabash Ave, Riverdale, IL 60827, USA, highlighted. The 'Survey Summary' section shows the property address and a 'RainReady neighborhood flood risk score' with three categories: low (green), medium (yellow), and high (red). A pop-up window is overlaid on the map, providing details about the property's location within a RainReady Community Plan area. The pop-up text reads: 'The selected property is located within a RainReady Community Plan area and includes the following information:'. Below this, there is a bulleted list: 'Year property was built: 1928', 'FEMA flood risk: Minimal Risk', and 'RainReady neighborhood flood risk score: High'. A yellow arrow points from the first bullet to the map, and another yellow arrow points from the third bullet to the 'High' risk score. Below the list, the text says: 'Please complete the remaining survey questions about your location, home and flood history.' and there is an 'Ok' button. At the bottom left, there is a 'Resilience Opportunity' section with a legend: 'Business Districts, Shopping Centers, and Downtown' (red), 'Houses and Neighborhoods' (yellow), 'Industrial Centers and Railroad Corridor' (purple), and 'Open Land and Natural Areas' (green). A link is provided: 'Learn more about Riverdale's Resilience Opportunities here: [Riverdale RainReady Plan](#)'. At the bottom right, it says '2 of 19 questions answered'.

Your Location

Your Home

Your Flood History

View Your Report

Your Location

Map Satellite

13845 S Wabash Ave, Riverdale, IL 60827, USA

Year Built
Land Square Feet
FEMA Flood Zone

RainReady neighborhood flood risk score

low medium high

The selected property is located within a RainReady Community Plan area and includes the following information:

- Year property was built: **1928**
- FEMA flood risk: **Minimal Risk**
- RainReady neighborhood flood risk score: **High**

Please complete the remaining survey questions about your location, home and flood history.

Ok

Resilience Opportunity

- Business Districts, Shopping Centers, and Downtown
- Houses and Neighborhoods
- Industrial Centers and Railroad Corridor
- Open Land and Natural Areas

Learn more about Riverdale's Resilience Opportunities here: [Riverdale RainReady Plan](#)

2 of 19 questions answered

FEMA National Flood Hazard Layer



Resilience Planning Tool

CNT/RainReady Resilience Planning Tool

Catchment: 420

Area: 962,156 sqft [view data](#)

FLOOD RISK SCORE: 5 [hide](#)

- Community Denined Risk Area: 1.7%
- Problem Area: 77.5%
- Impervious Area: 43.4%
- Depression Area: 41.1%
- Surveyed for Flooding: 88.2% (15/17)

OPPORTUNITY SCORE: 2 [expand](#)

AVERAGE ANNUAL RAINFALL

Annual Rainfall (in): 35.8 [edit](#)

Design Storm Rainfall (in): 5.5 [edit](#)

Design Storm Time (hrs): 24 [edit](#)

REDUCTION GOAL

Precipitation Depth Capture (in): **1.0**

Volume Needed to Capture: 80,180cuft (599,788 gallons)

0.0%
Goal Reached

Total Cost: \$0
[show detail](#)

GREEN IMPROVEMENTS	Lifecycle Cost	% Towards Goal
Roof Water Capture		

Map Layers | Community Areas |

Map | Satellite | Streets | Transit | Bike | Expand Map | Hide Legend

Upstream → Selected Catchment → Downstream

FLOOD RISK

low 0 1 2 3 4 5 high

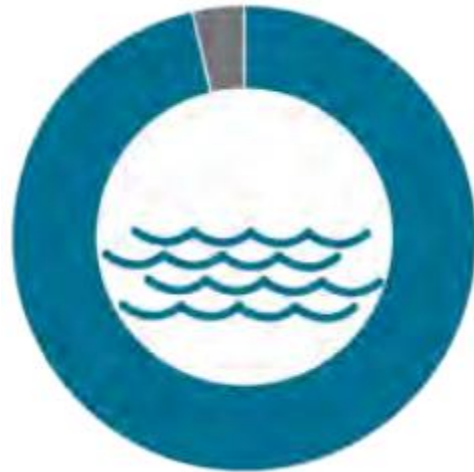
GREEN IMPROVEMENT CO-BENEFITS

0% Runoff Reduction

\$0 Water Treatment Cost Reduction

[Show Details](#)

RainReady Riverdale Survey



*Respondents experiencing flooding problems**



87 *survey respondents*

\$4,109 *is the average amount spent on stormwater-related repairs*

\$1,533 *is the average amount residents are willing to invest to reduce risk of future damage*

Your Location

Map Satellite

13845 S Wabash Ave, Riverdale, IL 60827, USA ✕

Year Built: 1928
Land Square Feet: 6875
FEMA flood risk: Minimal Risk

Resilience Opportunity

- Business Districts, Shopping Centers, and Downtown
- Houses and Neighborhoods
- Industrial Centers and Railroad Corridor
- Open Land and Natural Areas

Learn more about Riverdale's Resilience Opportunities here: [Riverdale RainReady Plan](#)

Do your neighborhood **streets flood** when it rains?

Yes No I don't know

Tip: Take a look at your street when it next rains, and take photographs. Look to see if it is flooding in areas where there is a street **sewer grate**. This might help identify the cause of the street flooding. The sewer grate could be clogged with litter or leaves. If the sewer grates are clear, but street flooding still occurs, your municipality may have installed restrictor valves in the street's sewer inlet. The purpose of these devices is to slow the flow of water entering the sewer system. This reduces the risk of sewage and stormwater runoff backing up into your basement.

Parcel-specific data

Guided questionnaire to determine type of flooding or flood risk (19 questions)

Tips for answering questions and reducing flood risk

Your Location

Map Satellite

13845 S Wabash Ave, Riverdale, IL 60827, USA

Year Built: 1928
Land Square Feet: 6875
FEMA flood risk: Minimal Risk

Resilience Opportunity

- Business Districts, Shopping Centers, and Downtown
- Houses and Neighborhoods
- Industrial Centers and Railroad Corridor
- Open Land and Natural Areas

Learn more about Riverdale's Resilience Opportunities here: [Riverdale](#)

Do your neighborhood streets flood when it rains?

Yes No I don't know

Tip: Take a look at your street when it next rains, and take photographs. Look to see if it is flooding in areas where there is a street sewer grate. This might help identify the cause of the street flooding. The sewer grate could be clogged with litter or leaves. If the sewer grates are clear, but street flooding still occurs, your municipality may have installed restrictor valves in the street's sewer inlet. The purpose of these devices is to slow the flow of water entering the sewer system. This reduces the risk of sewage and stormwater runoff backing up into your basement.



(example photos)

Your Home

What year was your home built?

1928

Tip: All homes require regular maintenance in order to prevent water from entering the building. Problems can be hidden from view. For example, if you have a finished basement, wall cracks or other issues can develop behind the drywall. You can reduce your risk of flooding and water damage through preventative maintenance.

Has it been more than 1 year since last [rodding and televising](#) your home's sewer line?

Yes

No

I don't know

- Questions about property to assess risk factors:
 - home age
 - sewer system
 - yard ponding
 - slope of yard
 - erosion
 - etc.

Your Flood History

Have you experienced flooding at your home?

Yes No I don't know

Check all types of flooding that apply

- Water backs up through drains (ex., floor drains, bathtubs, sinks)
- Water enters the building from an adjacent property, street or stream
- Water seeps through basement walls

How many times has your home flooded (1 to 10+)?

1

Tip: If water has entered the property in the past, it can happen again unless the problem has been solved. In a survey of homeowners in Cook County, Illinois, most respondents said they flooded repeatedly - 70% said they had flooded at least 3 times in the last 5 years. And flooding isn't limited to the FEMA-mapped [floodplain](#). Read more in CNT's report, "[The Prevalence and Cost of Urban Flooding](#) (PDF)."

- Questions about flood history:
 - How many times?
 - What type?
 - Estimated damages?

My RainReady Report



My RainReady Report

Property Location

13845 S Wabash Ave, Riverdale, IL 60827, USA

Flood Risk Indicators

Your Location

RainReady neighborhood flood risk score ⓘ



- Home is at lower elevation
- Flooding in streets

Your Home

- High % of impervious surfaces
- Backyard ponding / erosion
- More than one year since rodding home's sewer line
- Drains or catchbasin always full / collapsed or have sheen inside
- Clogged or damaged gutters and/or downspouts
- Inadequate downspout discharge
- Foundation damage (efflorescence, mold, spalling or water stains)
- Windows susceptible to stormwater
- Door or window frames susceptible to stormwater
- Basement plumbing

Survey Summary

**13845 S Wabash Ave,
Riverdale, IL 60827, USA**

[Enter a different address](#)

RainReady neighborhood flood risk score ⓘ



Your Location

- FEMA flood risk: Minimal Risk
- Home is at lower elevation
- Flooding in streets

Your Home

- Year Built: 1928 (older building)
- Lot: **50%** impervious (high risk)
- Backyard ponding / erosion
- More than one year since rodding home's sewer line
- Drains or catchbasin always full / collapsed or have sheen inside
- Clogged or damaged gutters and/or downspouts
- Inadequate downspout discharge
- Foundation damage (efflorescence, mold, spalling or water stains)
- Windows susceptible to stormwater
- Door or window frames susceptible to stormwater
- Basement plumbing

Your Flood History

- Previous flooding (5 times)
 - Water backup through drains (ex., floor drains, bathtubs, sinks)
 - Water seeps through basement walls
- Estimated Cost of Damages: \$4,200

[View Your Report](#)

19 of 19 questions answered

Flood Risk Indicators

Your Location

- Home is at lower elevation
- Served by old sewer system
- Flooding in streets

Your Home

- High % of impervious surfaces
- Yard or concrete slopes towards building
- More than one year since rodding home's sewer line
- Drains or catchbasin always full / collapsed or have sheen inside
- Connected Downspouts
- Inadequate downspout discharge
- Foundation damage (efflorescence, mold, spalling or water stains)
- Door or window frames susceptible to stormwater

Your Flood History

- Previous flooding (3 times)
 - Water backup through drains (ex., floor drains, bathtubs, sinks)
 - Water seeps through basement walls
- Estimated Cost of Damages: \$10,000

- Risk indicators based on location and on questionnaire

Add nature-based solutions to your yard

Recommended because you indicated:

- Your property has a high percentage of surfaces that are impervious to rain
- Your home has areas that show efflorescence, mold, spalling or water stains or damage
- Water seeps through your basement walls

Your yard offers many opportunities to manage flooding. Many of these solutions are do-it-yourself and cost-effective. Others should be done by an experienced landscape contractor.

- Let rain soak into a rain garden or bioswale that uses porous soil and water-loving plants. Rain gardens are bowl-shaped; bioswales are line-shaped.
- Capture and store rain in a rain barrel, cistern or dry well. Rain barrels and cisterns sit above ground; dry wells are an underground chamber.
- Reduce [stormwater runoff](#) by replacing concrete or asphalt with [permeable](#) paving.

Nature-based solutions work best when they capture the rain water from your roof. You can do this by disconnecting your downspout and directing it into the rain garden or bioswale. If you use a rain barrel or cistern, be sure to empty it before heavy rains. Some homes use multiple rain barrels to increase the amount of rain that can be stored. Stored rain can be used to water your yard.

See our factsheets, "[Making Your Yard RainReady](#) (PDF)" and "[Options for Flood Prevention](#) (PDF)" to learn more about nature-based solutions. Check out [our videos](#) of homeowners using nature-based solutions to address seepage and yard ponding.

Typical costs (Chicago, IL):

- Rain garden or Bioswale: \$500 to \$4,000, depending on size and if you want to do-it-yourself
- Dry well: \$2,500

- Nature-based solutions based on location and questionnaire
- Links to informational resources (next slide)
- Typical costs

Add nature-based solutions to your yard

Recommended because you indicated:

- Your property has a high percentage of surfaces that are impervious, such as rain
- Your home has areas that show efflorescence, mold, spalling or water stains or damage
- Water seeps through your basement walls

Your yard offers many opportunities to manage flooding. Many of these solutions are do-it-yourself and cost-effective. Others should be done by an experienced landscape contractor.

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Making Your Yard RainReady 

In RainReady™ communities, better water management means that homes, schools, and businesses are prepared for rain—whether too much or too little. RainReady programs keep residences secure and dry, services running, and rivers and lakes clean.

Your yard offers many quick and affordable opportunities to manage flooding, water scarcity, soil erosion, and pollution. You may need an expert to assess the problems and recommend customized solutions, particularly in the case of flooding, since there may be multiple, more effective ways to address your property simultaneously.

RETAINING WATER ONSITE
By capturing the rain that runs off your yard or roof, you can reduce the risk of a being splashed into your house or the homes of your neighbors. Onsite retention also reduces the need for irrigation and the impact of drought, and many improvements can attract wildlife.

There are several ways to capture rainwater, such as rain gardens, swales, dry wells, and permeable paving. Rain gardens, for example, can receive the runoff from your downspout. They are also attractive, easy to build, and good for wildlife when planted with native vegetation. Traditional lawns, in contrast, are poor at capturing rain, since they eat most the impervious surface.

In order to capture as much runoff as possible, make sure that your retention site is at least five or six feet away from your building foundation and that it is located at a low point in your yard. You can also use a French drain to transport runoff from the building to your retention site.


Rain barrels and cisterns are also useful for capturing rain that can be used to water plants. Because of their relatively small capacity, you may need to empty them after each rain event.

PLANT AND LAWN CARE
Although they are the standard in many places, single-species grass lawns (often composed of Bermuda or Ryegrass) are poor for water management. Because of their large surface areas and limited ability to absorb water, conventional lawns act like impervious surfaces and contribute to flooding. Lawns are also susceptible to drought, demand regular watering, mowing, and weeding, and require fertilizers and herbicides that pollute rivers and streams.

Plants that are native to your area are better adapted to the local climate than nonnative plants, so they are also better able to handle drought or water scarcity. Additionally, native plants are typically more attractive to wildlife, better at preventing soil erosion, and contribute to less pollution than traditional lawns.

In drought-prone areas, xeriscaping offers an alternative to conventional landscaping. Xeriscaping and gardening that reduces or eliminates the need for supplemental water from irrigation. The technique by limiting turf areas, irrigating efficiently, using mulches, and selecting native, more based on the regional climate.

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RainReady Home
Options for Flood Prevention 

Options to prevent flooding or standing water in your yard

RAIN GARDENS
REDUCE BASEMENT BACKUP BY KEEPING WATER OUT OF THE SEWER
What they do: Fill and store water from a downspout, leachwell, or sump pump using porous soil and other plants.
Watch out: Rain gardens require some maintenance, especially during the first month after planting.
Who does the work: A qualified landscaper

BIOSWALES
REDUCE SEEPAGE BY MOVING AND INFILTRATING STORMWATER AWAY FROM BUILDING FOUNDATION
What they do: Move and infiltrate stormwater away from a building's foundation using linear ditches vegetated with grass and/or native plants.
Watch out: Bioswales require some maintenance depending on the type of vegetation used.
Who does the work: A qualified landscaper

SITE GRADING
REDUCES POOLING IN YOUR YARD, WHICH CAN CAUSE SEEPAGE AND FOUNDATION ROT
What it does: Changes the slope of your yard to direct water away from your property and prevent pooling.
Watch out: Typical site grading involves digging your yard one inch per horizontal foot for at least a six-foot radius around the foundation.
Who does the work: A landscaper

For more information, contact Anna Wolf at HOME@RAINREADY.ORG


Program of the Center for Neighborhood Technology (CNT) is a Chicago-based nonprofit research organization committed to improving urban economies and environments across the United States.

WWW.RAINREADY.ORG | @RainReadyPlan | Rain Ready

Videos: Homes

Our videos share stories of RainReady practices in homes and businesses as well as flood-related activism. Follow the links for more videos on each subject, and feel free to use them at meetings or show them to friends and neighbors. The collection will be gradually updated and expanded.

See more: [All videos](#) | [Businesses](#) | [Public Spaces](#) | [Urban Flooding and Activism](#)



[RainReady Home - Pat from CNT on Vimeo](#)

Property Retrofit: Pat

CNT's RainReady team helped Pat stop basement backup in their home by regrading their property, installing a rain garden and .



Avoid pouring fats, oils or grease into drains and catch basins

Recommended because you indicated:

- It has been more than one year since rodding home's sewer line
- Your drains or catchbasin are always full / collapsed or have sheen inside

Fats, oils and grease can clog drains and cause sewer backup. Read our factsheet, "Your Building's Sewer Pipe" for more information.

Typical cost: Free

Rake sewer grates to clear out any leaves and litter

Recommended because you indicated:

- Your neighborhood streets flood when it rains
- Drains or catchbasin always full / collapsed or have sheen inside
- It has been more than one year since rodding home's sewer line

Leaves and litter can clog sewer lines and contribute to street flooding. If you anticipate a heavy rains or snow thaw, it's a good idea to clean the grates along your street beforehand.

Typical cost: Free

- Behavior-based solutions based on location and questionnaire

Install basement window well covers or replace basement sliding windows with glass block windows

Recommended because you indicated:

- You have plumbing in your basement, such as floor drains, a sink or toilet
- Your windows or doors are below or at grade or you have sliding windows without a window well

Window well covers keep rain, leaves and animals out of your window wells. Glass block windows are less prone to water intrusion than sliding glass windows.

Typical Cost (Chicago, IL): Window well covers: \$600

Install a sewer backup prevention system

Recommended because you indicated:

- You have plumbing in your basement, such as floor drains, a sink or toilet
- Your windows or doors are below or at grade or you have sliding windows without a window well
- Your home has previously flooded
- Water backs up through drains (ex., floor drains, bathtubs, sinks)

There are multiple types of sewer backup prevention systems. Sewer backup prevention systems must be installed and maintained by a licensed contractor. See our factsheet "Options for Flood Prevention" for more information.

1) A backwater valve prevents [sewer backup](#) by installing a one-way flap in your private building sewer. Think of it as a one-way swinging door – water can flow out, but if your system backs up it cannot flow back in. Backwater valves can be installed inside your

- Traditional construction-based solutions based on questionnaire

Recommendations for Your Home

- Add nature-based solutions to your yard
- Avoid pouring fats, oils or grease into drains and catch basins
- Rake sewer grates to clear out any leaves and litter
- Clean your gutters and downspouts seasonally, and repair as needed
- Create a soil berm or concrete lip around the home
- Disconnect and extend your downspouts
- Maintain your foundation walls with tuckpointing, crack repair and/or waterproofing
- Install a sewer backup prevention system
- Install foundation drain with sump pump and sump pit
- Purchase a sewer backup rider for your home insurance policy
- [...]

Recommendations for Your Community

- **Northeast Sewer Separation/Flood Relief Project**

Strategy: Reduce widespread flooding in the Northeast Riverdale neighborhood through concentrated and integrated green (e.g. stormwater) and gray (e.g. transportation) infrastructure investments.

- **Riverdale Prairie Industrial Redevelopment**

Strategy: Redevelop industrial sites in a way that reduces nearby flooding.

- **Riverdale Marsh Nature Preserve**

Strategy: Develop the Cal-Sag Trail other outdoor recreation amenities.



My RainReady

For those who do not qualify for the RainReady program, **My RainReady** allows homeowners to virtually assess their parcel.

- Homeowner self-diagnosis to identify what type of flooding they are experiencing and recommend appropriate solutions.
- Educates and empowers homeowners to make the best decisions about appropriate interventions for their specific issues.
- Particularly useful for homeowners in the Calumet region.

<http://my.rainready.org/>



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Center for Neighborhood Technology