

Overflow Action Days: A Simple Guide to Water Conservation



Friends of the Chicago River

Who is Friends of the Chicago River?

Friends' mission is to improve and protect the Chicago River system for people, plants, animals.

Friends achieves its mission through education and outreach, public policy and planning, and on-the-ground projects that physically improve the river and make it more accessible.

Friends was founded in 1979 after an article in Chicago magazine questioned why the Chicago River was friendless. Spurred to take action, people began calling the author of the article, Robert Cassidy. Eventually, a critical mass was reached and Friends of the Chicago River was formed. Friends of the Chicago River has been at the forefront of the river's recovery and renaissance for over 35 years. With over 7,500 members, volunteers, and online advocates, Friends works to make the river cleaner and more accessible, while building awareness of the benefits that an improved, healthy river can bring to communities across the Chicago metropolitan area.

Friends of the Chicago River is working to make the Chicago River one of the world's great metropolitan rivers. For more information on Friends of the Chicago River, please visit www.chicagoriver.org. Or to explore all 156 miles of the Chicago River system virtually, visit www.explorechicagoriver.org and learn more about the river, discover attractions and activities, and see what is happening along the river.

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Overflow Action Days: A Simple Guide to Water Conservation

This document is a quick guide to all the things you can do at home and in your community to prevent sewage overflows and make the *Overflow Action Days* initiative a success.

Friends' launched the *Overflow Action Days* initiative as a gentle reminder that saving water at home can help improve the Chicago River system. During rain events, stormwater and water from homes and businesses can overwhelm the wastewater treatment system. But, there are simple actions we can take at home and even at work to reduce water sent to our system for treatment. For example, depending on your showerhead, reducing your shower by three minutes can save between 8 to 22 gallons of water. These simple solutions can save clean water, keep stormwater pollution and sewage out of the river, and protect our environment, economy, and public health. We made it simple and easy **below** – find ways to conserve water and take the *Overflow Action Days* pledge at chicagoriver.org/overflowpledge.

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KNOW HOW IT WORKS

The Chicago metropolitan area is served by a vast system of tunnels and reservoirs that move stormwater, sewage, and industrial waste. Understanding how all these pieces are connected will help you understand why you should conserve water in and around your home or at work. The Metropolitan Water Reclamation District of Greater Chicago (MWRD) designed our sewer system's tunnels and reservoirs to prevent flooding and sewage from reaching our local waterways. Known as the Tunnel and Reservoir Plan (or TARP or Deep Tunnel), the system has reduced combined sewer overflow pollution by 85% since the first tunnels opened in 1985. Yet despite these improvements, which has been measured by the increases in species of fish (seven to 70) and the number of people using the river, TARP is not complete. It is projected to be complete by 2029.

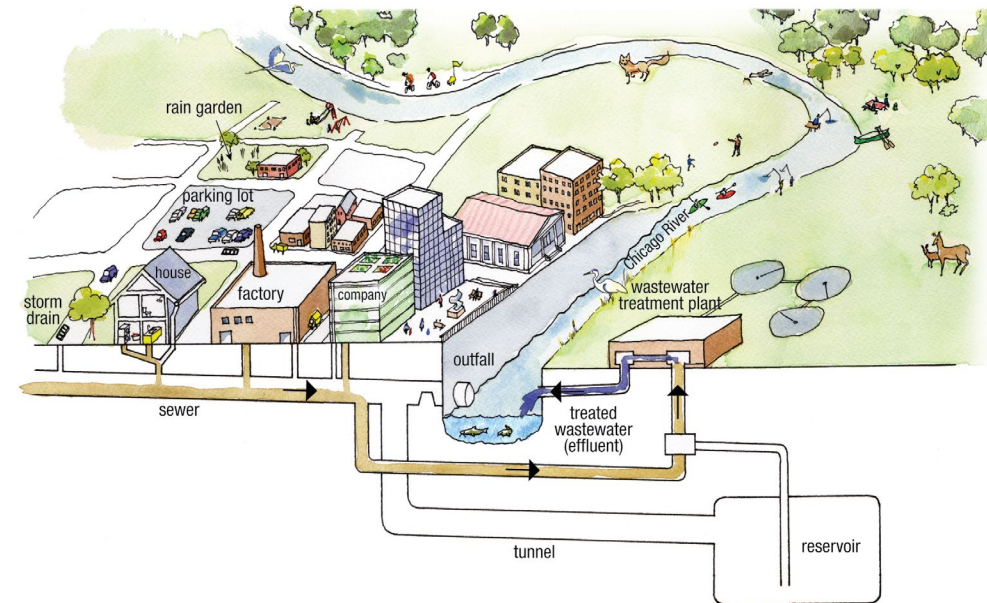
Individual action is more urgent now because climate change is causing more frequent heavy rainstorms that overwhelm the system. Rain events add water to the sewer system (see illustration) and when the pipes are full, sewage drains to the river. Sometimes heavier rains can trigger a release of untreated sewage and stormwater into Lake Michigan. Additionally, stormwater picks up some pollutants and can carry them directly to the river in places where the sewage and storm sewers are separate. In areas where the pipes are combined, pollutants, such as salt, motor oil, fertilizers and cleaning products, are also not removed through wastewater treatment technology. These pollutants kill fish, harm people, and prevent the Chicago River system from truly becoming one of the world's greatest metropolitan rivers. You can learn more about the wastewater treatment process at www.chicagoriver.org/overflowaction.

Act Now: Use Less Water During Storms

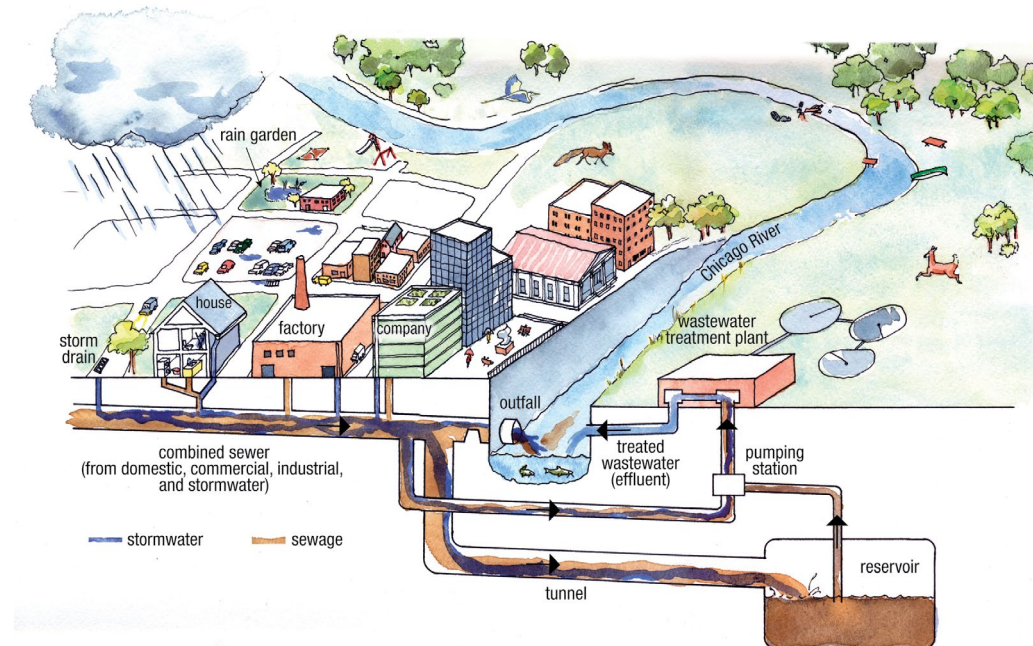
There are so many easy ways to make a difference. The best way is to do everything you can to avoid adding more water to the tunnels and reservoirs during a storm. Every action, no matter how small, improves the MWRD's ability to provide clean water and protect the Chicago River system.

Less water used = Less pollution in the Chicago River system.

How does the system work when it's dry?



How does the system work when it's wet?



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HOW MUCH DO YOU USE?

In the Chicago metropolitan area, we consume nearly 1.4 billion gallons of water a day through residential, commercial and industrial uses—enough to fill the Willis Tower three times over. Studies show the average household uses about 400 gallons of water per day for drinking, cooking, bathing, washing dishes and clothes, flushing toilets, watering lawns and gardens, and maintaining pools.

What can you do help reduce that number?

Super Easy Action Day Duties - Simple actions that use less water:



QUICKER SHOWERS

A 10 minute shower can use as much as 40 gallons of water. Try a five minute shower instead.

RUN THE DISHWASHER

Use a dishwasher rather than wash by hand. Running a full dishwasher requires about 20 gallons of water, compared to the 40 gallons required to wash the same amount of dishes by hand.

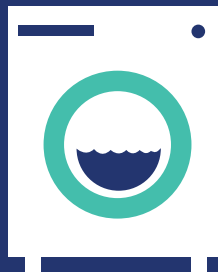
If you own a newer dishwasher, remember you do not have to rinse first, you can put them right in.

WEAR IT AGAIN

Wash your clothes less often.

FLUSH LESS

You read that right. We said it.



Money saving tip:

The average home can save \$170 annually by installing water-efficient fixtures and appliances.

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Faucets

Overflow: Replacing old faucets (~2.5 gallons per minute) with more efficient ones (~1.5 gallons per minute) can save the average family about 700 gallons of water per year.

Action Day Duty: Look for the EPA WaterSense logo which certifies products that use less water while performing as well or better than similar ones!

Overflow: A leak in the average family home can waste 10,000 gallons of water per year. That perfectly good, clean water now mixes with sewage for treatment by MWRD.

Leaks can sprout anywhere. A faucet leaking 60 drops per minute will waste 192 gallons per month or 2,304 gallons per year.

Action Day Duties:

1. Check faucets and consult EPA's WaterSense program for simple do-it-yourself repair tips.
2. Turn off your faucet when you are not using it, i.e brushing your teeth, doing dishes, washing your face, or cleaning.

SHOWERHEADS

Overflow: Showering accounts for 17 percent of daily water use, averaging 18 gallons per shower.

Action Day Duties:

1. Install low-flow showerheads to save nearly 3,000 gallons per year (for the average family).
2. Take a shorter shower. Depending on your showerhead, you can save 25-50 gallons of water by shaving 5 minutes from your shower.

LOW-FLOW TOILETS

Overflow: Toilets use more water than anything else in the average American home—over 30 percent of total water use.

Action Day Duties:

1. Replace old or leaky toilets. Toilets with the WaterSense label can save nearly 13,000 gallons of water per year (for the average family).
2. Flush only when necessary and calculate savings per flush. Each flush can be between 1.6 to 5 gallons of water.



KEEPING RAIN WHERE IT FALLS

So much of our community is paved—there's nothing to soak up the rain when it falls. Instead, the clean water lands on those hard surfaces and is channeled towards our sewers and storm sewers, which all ultimately lead to the Chicago River system. We know that as little as 0.67 inches of rain can overwhelm TARP and trigger a sewer overflow. That's why it is important to keep rain where it falls: in yards, gardens, and other natural spaces.

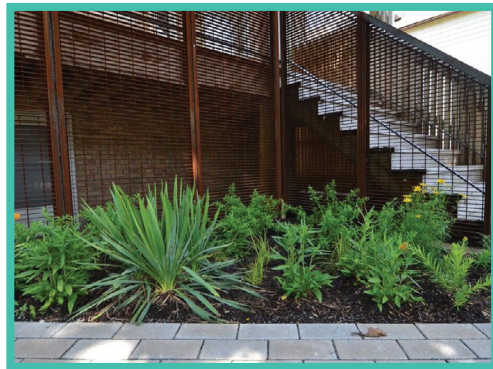
Install a Rain Barrel



- **Overflow:** Nationally, lawn and garden maintenance accounts for 40 percent of all water use.
- **Action Day Duty:** Install rain barrels. They capture rain and store it for later use on gardens and yards. You'll use less water from the spigot and prevent stormwater from entering the sewer system. The MWRD offers free rain barrels through their website: www.mwrld.org.

Plant a Rain Garden

- **Overflow:** A small, well designed rain garden will prevent 90 percent of stormwater from entering the sewer systems.
- **Action Day Duty:** Consult the Center for Neighborhood Technology's RainReady program for tips on building your own rain garden.



Prioritize Native Plants

- **Overflow:** Wildflowers, sedges, and grasses that are native to our ecosystem have deep roots and absorb stormwater much more effectively than shallow-rooted non-natives. They readily adapt to local rain patterns and environments, requiring less water to maintain. They also provide food and habitat for wildlife like birds and butterflies.
- **Action Day Duty:** Explore Chicago Wilderness's guide to native plants. Ask for them at your local nursery. Even a few plants make a difference.

Check your Downspout

- **Overflow:** During heavy rain, a downspout can drain up to 12 gallons per minute, oftentimes directly into the sewer system.
- **Action Day Duty:** Make sure your downspout is not directly connected to the sewer system. Instead, divert it to a lawn or into your rain garden.



REMEMBER THESE HELPFUL HINTS

Timing is Everything

Rain in the forecast? Delay laundry cycles and dishwashers to keep water out of the system and alleviate the burden on sewage treatment plants until they have the capacity again to treat it.



Think About What Goes Down the Drain

Go beyond conservation. Do everything you can to protect people, water, and wildlife:

Don't put anything down your drain you think could hurt wildlife and humans. No motor oil, paint, or household products that may contain harmful chemicals.

Use biodegradable soaps, shampoos, and conditioners. Especially watch what kinds of cleaning products you use.

Visit www.chicagoriver.org/think to download a free copy of eco-friendly recipes in English and Spanish.



Avoid using pesticides and herbicides.

Responsibly dispose of prescription medications and other chemicals.

All water statistics are from the U.S. EPA's Water Sense partnership program.

Now that you have read through your options, take the Overflow Action Day pledge and share your goal.

How many gallons can you save?
www.chicagoriver.org/overflowpledge

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www.chicagoriver.org

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