



A healthy waterway begins with you.

A GUIDE TO WATER WELLNESS



OUR MISSION



Metropolitan Water Reclamation District of Greater Chicago

The District will protect the health and safety of the public in its service area, protect the quality of the water supply source (Lake Michigan), improve the quality of water in watercourses in its service area, protect businesses and homes from flood damages, and manage water as a vital resource for its service area. The District's service area is 883.5 square miles of Cook County, Illinois. The District is committed to achieving the highest standards of excellence in fulfilling its mission.





WAIT

Covering about 71 percent of the Earth's surface, water is a basic life necessity. From the foods we grow, prepare and eat, to the products we use, water is essential to our everyday life. Everyone has a right to clean water, so protecting it from contamination is important.

About 21 percent of the world's supply of surface fresh water is found in the Great Lakes Region. When our water source becomes polluted, the effect can be widespread. Along with endangering aquatic and wildlife, contaminants can make our drinking water unsafe and threaten our recreational activities. Poor water quality can also devastate a community's health and livelihood. To ensure it's clean for generations to come, our water source needs your help.

Preventive steps we each take today are collectively giant leaps towards helping the Metropolitan Water Reclamation District of Greater Chicago (MWRD) fulfill its mission to protect and improve the quality of our water supply source (Lake Michigan), and we're committed to achieving the highest standard of excellence towards this mission.

WATER IS ONE OF
THE WORLD'S
MOST VALUABLE
RESOURCES

CONTAMINANTS

CHLORIDES

COOKING OILS

DETERGENTS

FERTILIZERS

FOOD SCRAPS

MEDICATION

MICROBEADS

MOTOR FLUIDS

PAINT

PESTICIDES

PET WASTE

STORMWATER RUNOFF

WRAPPERS

YARD WASTE

Photo by NeONBRAND on Unsplash

ARE COMMON IN YOUR HOME

Protecting our waterways

It is estimated each person in the U.S. uses about 80 - 100 gallons of water per day. Despite our reliance on this valuable resource, we sometimes take it for granted. The good news is, we can protect our water resource and prevent contaminants from impacting the waterways by modifying our lifestyle. Start by closely evaluating the products and foods you purchase and use – and think before you discard them.

Many common products could contribute to water contamination. Some personal care products like shampoos and body cleansers contain compounds like phosphorus, phosphate, sulfates and nitrogen. These chemicals contribute to nutrient contamination in the waterways.

Although nitrogen and phosphorus are natural parts of the aquatic ecosystems, an overabundance in the waterways can cause adverse health and ecological effects. Excess nitrogen causes overstimulation of the

growth of aquatic plants and algae that can clog water intakes, use up dissolved oxygen, and block deeper waters. This can kill fish and impair waterbodies.

Other contributors to water contamination include runoff fertilizer, car soaps, yard waste and stormwater runoff. They may contain nutrients that could wash down a sewer, storm drain or into nearby waterways. Pesticides, herbicides and chlorides could seep into the soil and potentially contaminate both the groundwater and neighboring waterways which could be toxic to humans, animals and many forms of aquatic life. Pesticides are used to control pests while herbicides help to control unwanted plants or vegetation. Chloride can be found in road salt.

Misplaced trash and microplastics can also be harmful. Microbeads are made of plastic and can be found in various personal care and household cleaning products. They contribute to particle contamination



SIMPLE WAYS THAT YOU CAN HELP PROTECT OUR WATERWAYS

and are harmful to marine life because they can be mistaken for food. Although more than 90 percent of microbeads are filtered during the water treatment process, the remainder find their way into the waterways, where they could last for decades. Litter and debris, such as plastic bags, fast food containers, beverage bottles and cigarette butts,

are highly visible forms of water contamination or pollution. Some debris originates from the sea and inland waters while the remainder derives from land-based sources such as people who litter. Along with harming aquatic life and plants, water debris can also have a negative impact on wildlife and humans.

You can start minimizing the risk of water contamination by taking these three steps:



Photo by Raquel Martínez on Unsplash

THINK

about how you will use or discard a product before you purchase it.



Photo by Catt Liu on Unsplash

CONSIDER

how the things you use every day affect the waterways and the environment.



Photo by Kelly Sikkema on Unsplash

CHOOSE

to use environmentally friendly products and teach your children to do the same.

HOW CAN YOU HELP?



Check ingredients before you purchase or use a product

To avoid the risk of nutrient, particle or debris contamination, check ingredients before you purchase or use a product. If it contains phosphate, sulfates, nitrates, chlorides or microbeads, consider how the product could affect the waterways and choose to purchase an environmentally friendly product instead. Practice proper and safe trash disposal, recycle and purchase reusable items.

Clean up after your pet

Animals also contribute to water contamination. Your cuddly, fun-loving and adorable pet's waste contains phosphorus, nitrogen, harmful bacteria and parasites, which should never enter the waterways.

Clean up after your pet. Discard their waste into a trash receptacle. Do not flush it down a drain nor allow your pet to urinate on a surface that could allow the fluid to run into a nearby sewer or waterway. Take pets to an area like a park that allows the fluid to drain into the ground – away from sewers or waterbodies.

Unwanted medication

Prescription and over-the-counter medications can be harmful to the waterways. Their compounds can end up in discarded or surface water and disturb aquatic life.

According to the Illinois Environmental Protection Agency (EPA), these items – including pet medication – can enter our water source via sinks, toilets or trash disposals. There

is no way to process unwanted medicine. Preventing contamination is critical, and it begins with you.

What are proper medication disposal methods?

Use proper disposal methods, such as drug collection boxes, when discarding unused or expired medications. Never flush medications down the toilet. The MWRD has seven water reclamation plants (WRPs) working 24/7 to treat discarded water leaving your home.

While our process can remove many things, water reclamation plants are not designed to deal with pharmaceuticals. Thus, they are released into the waterways following the treatment process. To help reduce the risk of contamination, the MWRD has permanent medication collection boxes at four locations.

Use any one of the following sites:

Main Office Building

100 E. Erie St., Chicago
Open Monday - Friday: 9 a.m. to 6 p.m.

Calumet WRP

400 E. 130th St., Chicago
Open seven days a week: 9 a.m. to 6 p.m.

O'Brien WRP

3500 Howard St., Skokie
Open seven days a week: 9 a.m. to 6 p.m.

Stickney WRP

6001 W. Pershing Rd., Cicero
Open seven days a week: 9 a.m. to 6 p.m.

Visit our website at mwrld.org for a listing of medication collection sites located throughout Cook County.

Alternate disposal methods

If you do not have access to a drug disposal site, the Illinois EPA offers the following direction: Throw medications in the trash instead of the sink or toilet. To do so safely, crush or dissolve the medication and mix it with an unappetizing substance such as kitty litter or coffee grounds. Then place it in an unmarked sealed bag or container, making sure to remove all identifying information. Make sure the medication is out of reach of children and pets.

Helpful websites for more information on water and the environment

U.S. Environmental Protection Agency
www.epa.gov

Illinois Environment Protection Agency
www.epa.illinois.gov

Friends of the Chicago River
www.chicagoriver.org/

Marine Debris Program
marinedebris.noaa.gov/

US Geological Survey
www.usgs.gov/

Water Environment Federation
www.wef.org

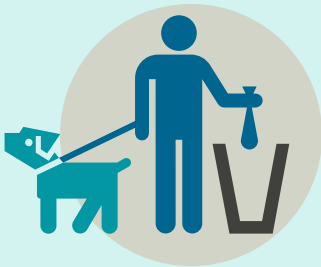
World Health Organization
www.who.int/en/

Tips on Protecting Our Waterways



Nutrient pollution in the waterways can kill aquatic life and impair waterbodies

Keep yard waste like leaves and twigs away from sewer drains, and never sweep it into the street. Choose environmentally friendly, organic fertilizers and select native plants for your landscape design. Native species can thrive with minimal care. Do not allow fertilizers containing phosphorus or chemicals to run into the street or lake. Leave a buffer zone when near a body of water.



Pet waste contributes to nutrient contamination

Never allow pet waste or medication to enter the waterways. Always clean up after your pet and walk them away from waterbodies.



Foods we eat can contribute to water pollution

Choose unprocessed, chemical-free foods and beverages. Not only will you be helping your water but you also will be helping your health.



Pesticides can seep into and through the soil and get into aquifers

Find environmentally friendly alternatives to chemical products.



Rock salt (sodium chloride) and salt runoff are harmful to surface water

Reduce salt usage on snow and ice in the winter.



Car washes are required to properly dispose of wastewater

Many filter and recycle the water. When washing your car at home, use a pervious surface such as grass or gravel (not concrete or asphalt) so water is filtered before reaching a waterbody, and use nontoxic, phosphate-free soaps



Misplaced waste and trash can harm waterways and take away from its beauty

Don't litter. Dispose of trash properly. Recycle paper, plastic, glass and metal. Buy reusable items and choose items that have the least packaging. Report water blockages, illegal or suspicious dumping to waterways and sewers. Call the MWRD at 1-800-332 DUMP (3867).



Pharmaceuticals should never be flushed down the toilet

Use an MWRD collection site, or check with your local pharmacy to see if they accept unused or expired medications for disposal. Teach children never to handle medication without adult supervision, and talk to your teen about the dangers of pharmaceuticals and over-the-counter medication.



Microbeads are still used in hundreds of products, often as abrasive scrubbers

If a product says polyethylene and polypropylene, then there is plastic in it. Choose natural cleaning materials instead, such as a mixture of white vinegar and warm water to clean hardwood floors, or a mixture of baking soda, salt and water to clean your oven.

Water Wellness Facts




In June 2014, Illinois became the first state to ban the production, manufacture, or sale of personal care products containing plastic microbeads.

Water is never sitting still. Thanks to the water cycle, our planet's water supply is constantly moving from one place to another and from one form to another.

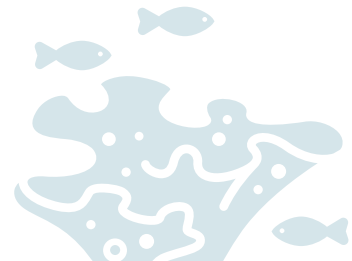


The Microbead-Free Waters Act of 2015 amends the Federal Food, Drug, and Cosmetic Act to ban rinse-off cosmetics that contain intentionally-added plastic microbeads beginning on January 1, 2018.

A diagram showing a house with a roof. Rain is depicted as small circles falling from the sky onto the roof and the ground. Arrows indicate the runoff of water from the roof and ground into a body of water, representing stormwater runoff.

Stormwater carries nutrients, including nitrogen and phosphorus, into the waterways.

Some algae blooms produce elevated toxins and bacterial growth that can make people sick if they come into contact with polluted water, consume tainted fish or shellfish, or drink contaminated water.

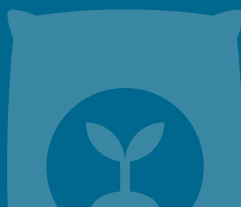


How MWRD is Helping

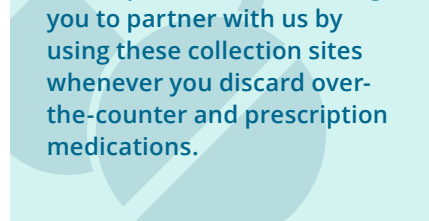
Interesting items that have found their way to the MWRD water reclamation plants: Car wheels and tires, 2 x 4 studs, parking blocks, mop heads, a bowling ball and a 50-foot extension cord.



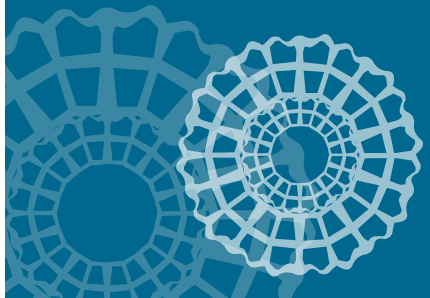
In 2016, the MWRD unveiled the world's largest nutrient recovery facility at the Stickney Water Reclamation Plant (WRP). The facility recovers phosphorus and nitrogen to create a high value fertilizer, marketed as Crystal Green.



The MWRD has partnered with the Cook County Sheriff's Office (CCSO) to expand the CCSO's Prescription Drug Take-Back Program by providing funds to purchase and install drug collection receptacles throughout the county for better public access. We urge you to partner with us by using these collection sites whenever you discard over-the-counter and prescription medications.

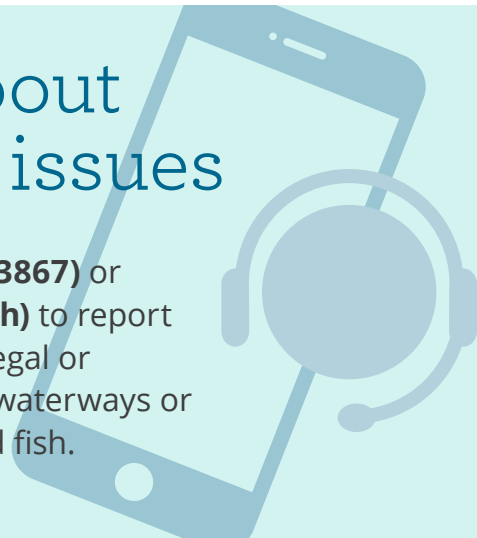


The MWRD is piloting the ANITA Mox nitrogen removal system at the Egan WRP and it's experimenting with algae as a nutrient remover at the O'Brien WRP.



Call us about waterway issues

Call **1-800-332-DUMP (3867)** or **(855) 332-4801 (Spanish)** to report waterway blockages, illegal or suspicious dumping to waterways or sewers, odors and dead fish.





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