

PROTECTING OUR DRINKING WATER – EVERYDAY ACTIONS THAT MATTER!



The quality of our drinking water begins at its source. In Southeast Michigan, we are fortunate to have access to one of the nation’s best sources of raw water – the Great Lakes waterways. Water drawn from the Detroit River and Lake Huron is treated by the Great Lakes Water Authority (GLWA) to supply drinking water to nearly 4 million people. Protecting this valued resource is a shared responsibility between government, businesses and citizens.

Everyday actions of people can contribute pollutants to our waterways and potentially impact the quality of our source water. Negative impacts can result from activities near the water and in areas further away that drain to the river or lake. Understanding how different actions can impact nearby surface waters is critical for protection.

Pollutants make their way into our surface waters in a variety of ways. The most common route is through stormwater runoff. When it rains, stormwater flows over roadways and parking lots, picking up pollutants like sediment, oil and heavy metals. It also runs off lawns that can contribute pesticides, fertilizer, leaves, and bacteria from animal waste. This polluted water eventually enters a storm drain or ditch that connects directly to our waterways.

“There are many actions people can take in their daily routines to help keep pollutants out of stormwater runoff and protect our drinking water,” explains Mary Lynn Semegen, Water Quality Manager for GLWA.

“These pollutants build over time. Small actions can have a big impact when multiplied by the number of people in our watershed.”

Easy Ways to Keep Home Pollutants Out of our Waterways

Lawn care practices are a great place to start protecting our drinking water. Fertilizer, pesticides and herbicides should be used sparingly and limited to the lawn only. If any of these materials fall on driveways and sidewalks, sweep them back onto the lawn to keep them from washing into storm drains. Avoid using a hose to clean driveways and sidewalks. Mower decks should be set to at least three inches high to limit cutting to one-third of grass length and encourage root growth. Consider having your soil tested to determine your lawn’s actual nutrient needs and adjust your lawn care practices accordingly.

“The key to a great lawn is density,” says Kevin Frank, Michigan State University Associate Professor and Extension Turf Specialist. “A thick turf will have fewer weeds and be more resistant to pests and diseases. Build density by mowing high on a weekly basis and recycling clippings back onto the lawn as free food. Fertilizer should never be used before a heavy rain storm when nutrients will likely wash off.”

Animal and human waste can contribute disease-carrying bacteria into our drinking water sources. Pick up pet waste promptly from your yard or during

Everyday actions taken outside and inside your home can help keep pollutants out of our drinking water sources – the Detroit River and Lake Huron. Even small actions can have a big impact when multiplied by the millions of people that live in our watershed.



a walk and dispose of it in the trash. Homes within GLWA's service area that use septic systems should focus on proper operation and maintenance to avoid failure and costly repairs. Failing septic systems release bacteria, viruses and toxic chemicals into the ground that eventually reach our waterways.

Pollutants are also generated when we wash and service our cars. Wash your car at a commercial car wash or on the lawn to keep oils, grease, phosphates from soap, and heavy metals from washing into the storm drain. Car leaks and drips should be fixed and used fluids, such as oil and antifreeze, should be properly disposed of at household hazardous waste collection events or businesses that accept them. Never dump any of these products down the storm drain – rain is the only thing meant to go down the drain.

Many indoor household products are also hazardous to our waterways. Cleaning, home improvement, automotive, and personal care products, as well as over the counter and prescription medications, should be properly disposed of and never put down a sink, toilet or storm drain. Many products can be properly disposed of at household hazardous waste collection events. Consider using non-toxic products in place of traditional products. Personal care products that contain microbeads and anti-bacterial agents have been proven harmful to the environment and should be avoided.

GLWA Strengthens Source Water Safeguards

GLWA is committed to protecting against pollutants that make their way to our source water. Surface Water Intake Protection Programs (SWIPPs) were developed for each of the three intakes in the Detroit River and Lake Huron that supply GLWA's water treatment plants. Each SWIPP enhances intake protection through water quality monitoring, emergency preparedness and public education.

"GLWA belongs to the Huron to Erie water quality monitoring network," continues Semegen. "We are constantly monitoring our source water at the Detroit River and Lake Huron intakes. We also monitor water throughout the treatment and distribution process to make sure it is safe from our water treatment plants to our customers' taps."

GLWA is focusing on public education to increase public awareness and understanding of the need to safeguard our surface water. Materials are being developed for customers to use in their communities along with social media posts. Efforts are also being undertaken to promote use of these materials in up-stream areas, beyond the GLWA service area, that are also potential sources of pollutants.

"It's a lot easier to keep contaminants out of our water supply than to wait until a contaminant is found and have to find the technology to remove it," cautions Semegen. "We all play a part in protecting our watershed and being stewards of the environment to ensure that future generations have high quality drinking water."

Everyday actions matter. Consumers can do their part to protect our source water by choosing routine activities that limit pollutants in stormwater runoff and staying informed about water quality issues. Acting in environmentally-conscious ways will benefit public health and help keep our drinking water safe.

Home Actions to Protect Our Drinking Water

- ✓ Use fertilizers, pesticides and herbicides sparingly
- ✓ Mow high and recycle clippings back onto your lawn to encourage dense growth
- ✓ Clean up pet waste and throw it in the trash
- ✓ Wash your car at a commercial car wash and fix leaks and drips
- ✓ Properly dispose of household hazardous waste including products and medications
- ✓ Use non-toxic household and personal care products
- ✓ Properly operate and maintain your septic system
- ✓ Keep storm drains clear of debris and never dump anything into them

Operation Clean Water features articles on how GLWA and its suburban customers manage our water and sewer infrastructure to protect public health and the environment. It was created by the GLWA Customer Outreach Public Education Work Group that includes individuals from wholesale customers (Macomb, Oakland and Wayne Counties and DWSD), GLWA, MDEQ, SEMCOG and consultants. Operation Clean Water is published on the GLWA Customer Outreach Portal at outreach.glwater.org.