

Help Stop Storm Water Pollution

What is storm water runoff and why is it a problem?

Do you know...

The difference between a storm drain and a sewer? Storm drains collect water from outside our homes and businesses and carry it, untreated, directly to streams and rivers. Sewers collect water from inside homes and businesses and carry it to treatment plants where it is treated before it reaches streams and rivers.

Contact the City Engineering Department if you would like additional storm water information.

701-857-4100

Storm water runoff occurs when rainfall or snowmelt flows over the ground. In an undisturbed world, runoff would be managed by natural erosion controls like grasslands, vegetation, trees, etc.

In the world we live in now, runoff flows over many impervious surfaces like sidewalks, parking lots and streets. The impervious surfaces don't allow for water to naturally soak into the ground. This means the water will only flow over the surface. While it flows, it picks up debris, chemicals, dirt and other pollutants. In the City of Minot, anything that enters the storm drain is discharged untreated into the Souris/Mouse River.

The Souris River is a tributary

river, which means that it feeds into larger water bodies that we use for swimming, fishing, and for drinking. Water from the Souris River eventually makes its way to Lake Winnipeg. Then the water from Lake Winnipeg flows into the Hudson Bay, which feeds both the Arctic and Atlantic Oceans. This means that pollution along the Souris can eventually lead to pollution in major water bodies of the world.

Residents need to be aware that their actions can greatly impact the area waters, be it negative or positive.

Rain water and snowmelt are the only things that belong in the storm drain.

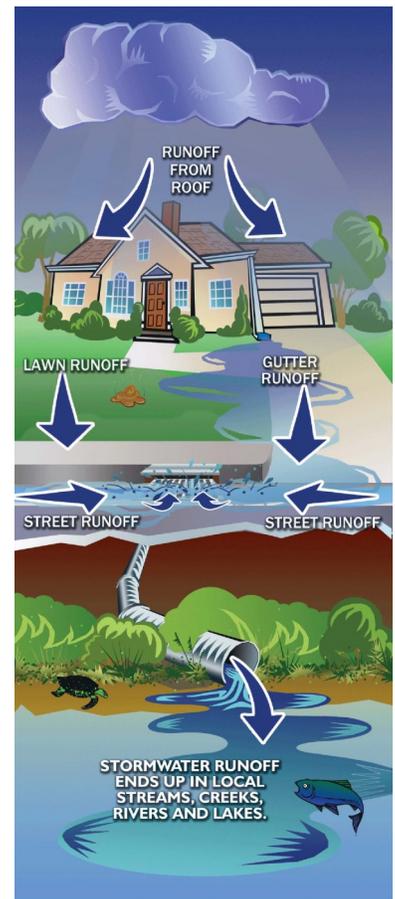


Image courtesy of NCDENR

Effects of Storm Water Pollution

Polluted storm water runoff can have many adverse effects on plants, fish, animals and people.

Storm water often effects drinking water sources. If drinking water is polluted then this will, in turn, have a negative effect on human health and increase costs to treat the water. As you can imagine, this would also have an adverse effect on our water bills.

Excess lawn fertilizers and pet waste in

storm water can cause algae blooms. When the algae dies, they sink to the bottom and decompose. The decomposition process removes oxygen from the water. Fish and other organisms can't exist in water with low dissolved oxygen levels.

Sediment, which can come from construction projects that don't properly manage their storm water on site, can cloud the water and make it difficult for plants to grow, which also destroys aquatic life.

Debris, such as plastic bags, six-pack rings, bottles and cigarette butts, can choke, suffocate, or disable fish, waterfowl and other aquatic life.

Common household products can actually be considered hazardous waste. Products like insecticides, pesticides, paint, motor oil and other auto fluids can poison aquatic life. This affects the entire food chain as land animals drink the polluted water and eat the poisoned fish.

Simple Steps to Clean Up Our Water

Looking for ways to help reduce your impact? Here are some simple ways you can help keep the Souris River clean:

- Decreasing impervious surfaces around your home. Landscape with vegetation, mulch, landscaping rocks or other porous materials. Redirect rain gutters and downspouts away from buildings. If possible, utilize rain barrels to reuse water for watering plants, lawns and gardens (see image below).
- Use native plants and natural fertilizers. Native plants need less water. Natural fertilizers and soil conditioners such as compost, peat, rotted manure and bone meal help stimulate plant growth and retain moisture.
- Don't over water lawns or gardens. According to the EPA, "nationwide, landscape irriga-

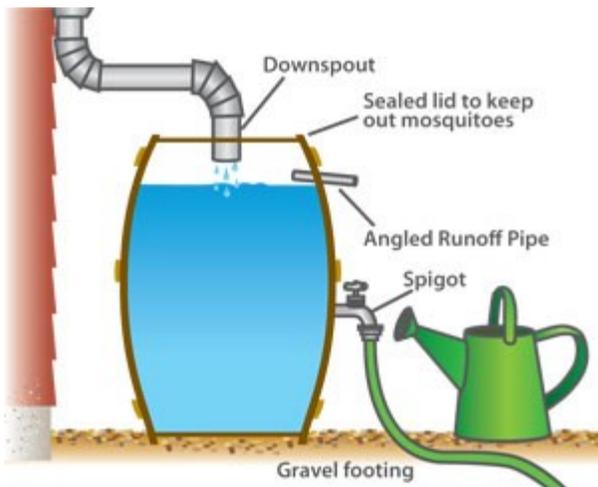
tion is estimated to account for almost one-third of all residential water use, totaling more than 7 billion gallons per day." Over watering can increase the leaching of fertilizers into groundwater and runoff into surface water.

- Recycle and dispose of all trash properly. Household hazardous waste, such as paints, used oil, cleaning solvents, polishes, pool chemicals, etc., are accepted at the landfill. Pet waste should be disposed of and not left on the ground. It contains pathogens that can contaminate surface water.
- Never flush pharmaceuticals down the toilet. They can eventually end up in our water ways. The best disposal method is through "take-back" programs at local participating pharmacies.

- Use non-toxic household products when possible. Check the EPA's Greener Products website (<http://epa.gov/greenerproducts/>) for examples of safe substitutes for environmentally harmful household products.
- Recycle used motor oil. A single quart of motor oil that is poured down the drain can ruin the quality of 250,000 gallons of water.
- Skip the home carwash. Take your car to a professional. They have the equipment to treat and/or recycle their wash water before discharging.
- Help identify, report and stop polluters. If you see someone discharging to the storm drain call the City Engineering Department at (701) 857-4100.

Information found on the Natural Resource Defense Council website. For more information visit www.nrdc.org/water

Rain Barrel Diagram



<http://dublinhiousa.gov>

Keep the Butts Out!

Each year, thousands of cigarette butts are discarded onto streets and sidewalks. When it rains, those butts are carried to ponds and into the Souris/Mouse River.

The problem is that cigarette butts are not biodegradable. It can take 15 years to break down the filters. Not only do they pose an ingestion/choking hazard for wildlife, over those 15 years they will be releasing toxic substances into the environment.

Hold on to your cigarette butts and please dispose of them properly.

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