

# FACTS

## Stormwater



**Stormwater Runoff**

**S**tormwater runoff is water from precipitation that flows across the ground and pavement due to rain or snowmelt. Stormwater flows from saturated impervious surfaces like roofs and paved driveways, sidewalks, parking lots and streets. Stormwater runoff creates drainage and flooding problems, making sump pumps work hard. Stormwater runoff is collected and conveyed through ditches, culverts, intakes, catch basins and storm sewers directly into creeks, streams, lakes and rivers without being treated to remove pollutants.

**WHY IS IT IMPORTANT TO MANAGE STORMWATER?**

**S**tormwater runoff is a major problem when it picks up garbage, debris, sediment, chemicals, automotive fluids, fertilizers, leaves and other pollutants from parking lots, yards, streets, house roofs, etc. This type of pollution, called nonpoint source (NPS) pollution is more problematic than direct discharges from commercial industries and plants, which have National Pollution Discharge Elimination System (NPDES) permits and thus are mandated by the U.S. Environmental Protection Agency (EPA). Unclean stormwater runoff discharges result in the loss of fish and aquatic wildlife from streams and creeks. The City must comply with the state and federal regulations related to stormwater runoff.

**Stormwater Regulations in the City of Waukee**

To comply with federal regulations, the City of Waukee is required to have a stormwater management program.

**The requirements include:**

- Public education and outreach
- Public involvement
- Illicit discharge and elimination
- Construction site stormwater runoff and control
- Post-construction stormwater management
- Pollution prevention and good housekeeping



**FEDERAL MANDATE**

In accordance with the federal Clean Water Act, the Iowa Department of Natural Resources (IDNR) has issued a Phase II NPDES Permit to the City of Waukee. The permit requires the City to develop and implement a comprehensive stormwater quality management program.

*This brochure was created using the original information provided as required by the MS4 permit (Public Education and Outreach requirement).*

**This brochure is provided by:**

Waukee Public Works  
805 University Avenue • Waukee, IA 50263  
515-978-7920 • [www.Waukee.org](http://www.Waukee.org)

# Together, We Can Protect Stormwater Quality!

Here are a few ways YOU can make a difference in protecting the City's stormwater quality:

- 💧 **Avoid polluting in the first place.** Conserve and recycle resources such as newspapers, plastic containers, glass jars and metal cans.
- 💧 **Keep pavement clean.** Sweep grass clippings, leaves and fertilizer from driveways, streets and flumes.
- 💧 **Don't dump hazardous substances** such as used oil, household chemicals, yard treatment chemicals, or other waste onto pavement or into storm drains.
- 💧 **Prevent excess runoff of pesticides, fertilizers and herbicides** by using them properly and efficiently.
- 💧 **Fertilize your lawn, not nearby water sources.**
  - Understand your fertilizer label. NPK stands for (N) nitrogen, (P) phosphorus and (K) potassium.
  - Use P free (27-0-8) fertilizer or P<3
  - Follow proper application rates
- 💧 **Natural waste can be damaging as well.** Leaves, grass clippings and erosion are all sources of phosphorus - a plant nutrient that turns lakes and rivers green with algae. Dispose of these properly so they do not wash into the storm drain.
- 💧 **Clean up after pets.** Pet waste contains phosphorus and harmful bacteria.
- 💧 **Participate in local garbage and debris pick-up days** and recycle household hazardous waste materials to prevent storm drain contamination.
- 💧 **Encourage active citizen participation** in stormwater protection and public stormwater group education.



**WATERFRONT PROPERTY:** The storm drain in your street is a direct connection to the water in streams, ponds and lakes. Anything that washes off your yard and street runs directly to these waters!

## Impervious Surfaces

**What is an impervious surface, and what does it have to do with stormwater?**

An impervious surface is any surface area that does not readily absorb water. Because water cannot be absorbed by impervious surfaces, the water running off impervious surfaces must be managed through well-planned, constructed and maintained stormwater facilities to prevent flooding and pollution in receiving waters.

Impervious surfaces you may find on your property include parking lots, driveways, sidewalks, rooftops, patios, pools and severely compacted soils.

**Is gravel considered an impervious surface?**

Yes. It is difficult for water to soak into a packed gravel surface. Once gravel is compacted, surface water runs off it much like a paved surface. The gravel may slow the flow of water from an area, but nearly the same amount of runoff will flow from under the gravel as if the gravel was not there.

Many flat roofs are covered with gravel, but they still shed the rainwater that falls on them. In addition, if cars or heavy equipment are traveling on gravel surfaces, the runoff typically carries pollutants like metals or petroleum into our waterways.

# Stormwater Utility



The City of Waukee Stormwater Department takes great pride in the quality of stormwater management in the City. The department currently manages 125 miles of storm pipe, 4,490 stormwater intakes and 1,955 stormwater manholes.

The Stormwater Utility was created to ensure that appropriate resources are available to manage the stormwater within Waukee, and to provide a stable funding source to maintain compliance with the MS4 permit required by the Iowa Department of Natural Resources.

## Stormwater Management Fees

The stormwater management fees are based on impervious surface area on a property. An Equivalent Residential Unit (ERU) is a measure of the amount of the impervious surface area. One ERU is defined as less than or equal to 2,973 square feet of impervious surface. The monthly rate is determined by Waukee City Council resolution prior to July 1 of each year.

These fees are user fees, much like the water and sanitary sewer utility fees. Users are charged for the demand they place on the system. The amount of stormwater flowing off a property places a varying demand on the vast stormwater infrastructure which is costly to operate and maintain.

## How are the stormwater management fees calculated?

All single-family dwelling properties are charged the fee for one ERU. Commercial properties with greater than one ERU of impervious surface area are charged for the total ERUs rounded up to the nearest ERU. Each duplex dwelling and each townhome dwelling are treated as single-family dwellings. Owners of rental properties are responsible for payment of the fees.

## Here's how the math works:

- Commercial property with 11,000 square feet of impervious surface would be billed for 4 ERUs
- 11,000 square feet divided by 2,973 square feet (1 ERU) equals 3.7 ERUs
- 3.7 ERUs rounded up to the nearest ERU is 4 ERUs

- For example, if the rate is \$6.00 then \$6.00/ERU times 4 ERUs equals \$24 per month.

## Why do we have stormwater management fees?

The stormwater management fees raise revenues needed to fund the City's stormwater management program and facilities. This program brings the City into compliance with federal regulations. It safeguards the community through improved inspection and maintenance of stormwater infrastructure and educates the public through outreach programs.

## Who pays the fees?

Owners of all developed land in the City of Waukee pay the stormwater management fees. This includes residential properties, commercial properties, industrial properties, churches, schools and other non-profit organizations, as well as federal, state, county and city governments. Undeveloped land is not charged fees as it does not have impervious surfaces.

## How are the fees used?

These fees pay for operations and maintenance costs of the stormwater management and facilities. Some of the services tied to the stormwater management program include:

- Storm sewer system maintenance, repairs and construction
- Illicit discharge detection and elimination
- Public education and outreach
- Improving water quality

## Do other cities have stormwater user fees?

A number of municipalities in the United States have established stormwater utilities to fund stormwater management programs and facilities, including Des Moines Metro areas such as Clive, Des Moines, Windsor Heights and West Des Moines. The number of cities utilizing user fees is expected to increase in an ongoing effort to pay the costs associated with developing stormwater management programs so cities can continue to comply with federal requirements.

## If I think my bill is incorrect, what should I do?

Impervious surface is calculated from the latest aerial photographs and/or approved site plans. If you think this was incorrectly calculated causing fees to be incorrect, submit an appeal. An appeal in writing to the City Administrator will require an as-built survey prepared by a registered Iowa land surveyor or professional engineer containing information on the total property area, the impervious surface area and any other features or conditions which influence the hydrologic response of the property to rainfall events. Prior to appealing, consider scheduling time to meet with an Engineering Department staff member to view the data used to determine the fee being charged.



**To learn more about stormwater, visit [www.Waukee.org/stormwater](http://www.Waukee.org/stormwater).**

**If you have any questions or concerns related to stormwater, please call the Public Works Department at 515-978-7920. For stormwater emergencies, call the 24-hour line at 515-249-1212.**

**Any Utility Billing questions can be directed to 515-978-5502.**