

Standing Water in Your Yard

Rainfall runoff water must flow from higher to lower ground. In some instances the slope of the land is relatively flat and because of minor ground variations, vegetation and manmade obstructions the water will pond on the surface before infiltrating into the ground. In general, standing water or ponding should dissipate within a day or so after a rainfall event. Because of the natural topography of this area, in many cases homeowners' yards are located in natural depressional areas that have no surface outlet. These areas can be drained by an underground storm sewer system if this is available nearby. To insure that these areas drain during and after storm events the storm grates must be maintained open and free of debris. The City cannot inspect every storm drainage structure during a rain event so, if you are in a low area, please keep in mind that keeping the storm grates clear of litter and debris will help minimize the duration of ponding which occur in these areas. For rear yard depressional areas the extension of a storm line from the public system to the rear yard can be done by the homeowner. Many times there are multiple properties impacted by the lack of a positive surface outlet and so neighboring homeowners need to work together to provide a solution. Residents should contact the Engineering Division at 630-454-2750 if they desire to connect to the public storm sewer system.

Special Flood Hazard Areas

Flood plain maps are available for viewing on FEMA Flood Map Service Center website at <https://msc.fema.gov/portal>.

The Engineering Division can assist in determining if a property is located within a designated flood zone. However, please note that these maps are approximate only and the City cannot make the final determination of whether your property is in a Special Flood Hazard Area. Actual ground and foundation elevations must be surveyed to determine the flood risk for a property. A Professional Engineer or Land Surveyor can be hired to obtain this information. The Engineering Division can assist you in reading the flood plain maps and identifying approximate flood protection elevations.

General Permit Requirements

All new home construction is governed by the building permit process of the City. This permitting process requires a significant amount of detail be provided by the applicant to demonstrate that the new construction will not significantly impact the adjoining properties. It is understood that typically new construction is adding significant amounts of impervious area and thus increasing the volume of runoff that is being generated from the property.

Further information on permissible lot improvements including details are available on the Engineering web page at www.cityofbatavia.net/drainage.

Do You Still Have Questions?

In many instances a professional landscaping contractor familiar with drainage issues and City codes can help. In more difficult situations, homeowners' may require the services of a Professional Engineer to design a solution to the problem.

Additionally, the Engineering Division can assist with a drainage review of your property upon request. Please fill out the on-line form available on the Engineering web page at www.cityofbatavia.net/drainage for a City staff person to contact you to discuss your issue.

PUBLIC WORKS ENGINEERING DIVISION

200 North Raddant Road

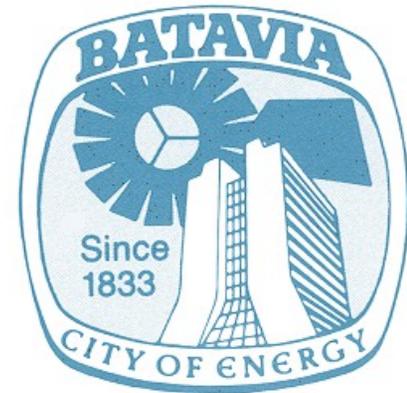
Batavia, IL 60510

Phone: 630-454-2750

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www.cityofbatavia.net/drainage

Things to Know about Flooding and Drainage Around Your Home



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Residential Drainage Issues

You may be experiencing drainage problems such as a flooded basement, basement seepage, excessive sump pump flow and standing water on your yard for long periods after it stops raining. Depending on whether your problem is with surface water or subsurface water, the options for resolving the problems are different.

This brochure provides guidance in addressing your drainage problems and provides a general understanding of Illinois Drainage Law and the Kane County Storm Water Ordinance. In most cases, the property owner is responsible for addressing problems on their property.

Overview of Illinois Drainage Law

Illinois Drainage Law is based on the civil-law of natural drainage. The basic principle of the law of natural drainage is that the landowners take whatever advantages or inconveniences of drainage nature places upon their land. This unlimited right was modified by the 1974 Supreme Court adoption of the limitation for Reasonable Use. Application of the above principals are not clearly defined in the Law but in general, owners of lower ground must receive water that naturally flows from higher ground, however, any alteration of the flow of water from higher ground is governed by the reasonable use of said land.

In summary, landowners may not:

- ⇒ Obstruct the flow of surface water using dams created by landscaping berms, fences, gardens or compost bins; or
- ⇒ Increase or accelerate the flow of water unreasonably as to cause erosion or damage downstream.

Kane County Storm Water Ordinance

The City of Batavia has adopted the Kane County Storm Water Ordinance. All developments in the City must adhere to this Ordinance. In general it requires that site improvements do not:

- ⇒ Result in unreasonable new or additional expense for flood protection by downstream properties;
 - ⇒ Unreasonably increase flood elevations or decrease flood conveyance.
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Where does the rainfall go?

Surface Water: Stormwater runoff will flow from higher to lower ground. During minor storm events much of the water will be absorbed into the ground and very little will runoff as surface flow. As the storm magnitude increases the volume of runoff will increase. Once the ground is saturated and the rain can no longer infiltrate into the ground you should envision all of the grass area as being a paved parking lot since all of the subsequent rainfall will be converted to surface water runoff. With this image in mind it should help you to envision the need to provide a positive path for the flow of water through your property and away from your home. Drainage swales, drainage pipes, diversion berms and other flood protection methods can be utilized to direct the water away from your foundation. (Refer to the [“Allowable Improvements”](#) detail on the City website). Achieving overland drainage via swales or grade diversions is preferable to underground piping systems since their capacity to convey flood flows is typically much greater than with an underground piping system.

Groundwater: The water table is the level of the groundwater and it can fluctuate several feet throughout the year. Groundwater may continuously flow at a level that is intercepted by your basement or crawl space throughout the year or just during rainy periods. When basements are constructed, underground drain pipes and sump pumps are used to take groundwater away from the foundation and to discharge it away from the house. During a storm event surface waters need to be diverted away from foundation walls otherwise the water can flow very quickly down along the basement walls or enter into window wells and then have to be pumped out via your sump pump system. These flows can be significantly greater in magnitude than normal groundwater flows and may overwhelm the capacity of the sump pump system. In addition the discharge of the sump pump must be located so that the water does not re-circulate back into the sump drainage system. Downspout discharge can also be a major source of water into the sump drainage system. A simple splash block, gutter extension or grade change may all be what is necessary to prevent this surface water from entering into the sump drainage system. Since the function of your sump pump is critical during storm events, when power outages are more likely, a battery backup sump pump or stand by generator can be a wise investment.

Downspout and Sump Pump Discharges

One of the largest numbers of unresolved drainage complaints received by the City is due to sump pump discharges. Because sump pumps are discharging subsurface water these discharges can occur during non-rainfall periods. This discharge of water can cause areas to be wet and soggy and prevent the normal use and enjoyment of the affected property. To minimize the impact of active sump pump discharges onto adjoining properties the City does allow for the connection of the sump pump to the public storm sewer system. If a storm sewer is not in close proximity, then the discharge of the sump into a drywell (an underground pit constructed of stone) or a rain garden may be a viable option. Drywells and rain gardens can be an allowable discharge location with proper subsoil type.

Generally it is recommended in all surface outlet situations that the sump pump discharge be directed to flow at least 10 to 15 feet overland before it drains onto adjoining properties or the public right of way.

Sanitary Sewer Backups & Overhead Sewers

During rainfall events, stormwater may enter into the City main sanitary sewer lines and overwhelm the capacity of the sewer to handle the increased flow of water. In these cases the sewer line becomes pressurized and water can actually back up into the service laterals of the adjoining homes. Current practice is to install overhead sewers into all buildings, however many older homes have a direct gravity feed from the house into the main sewer line. If the elevation of the basement is below the pressurized water level in the sewer line, the sewage flow will back up into the basement. Although this is actually sanitary sewer water, most of the source of the water is from the surface runoff. If your basement does flood, you should first check if the source of the water is sewage backup. The City of Batavia Water Department (630-454-2450) can assist you in this evaluation. Installing overhead sewer lines will permanently solve any sewage backup issues. The City currently has a cost sharing program for installing overhead sewers.
