



# WINNETKA FLOODPLAIN INFORMATION

Floodplain inquiries can be directed to the Engineering Department at the Village of Winnetka, and can be made in person, by telephone, or by e-mail. The Engineering Department is located at the **Village Yards, 1390 Willow Road, Winnetka, IL, 60093**. While any of our Engineering staff can answer your questions, our Floodplain Manager is Obaid Khalid, Assistant Village Engineer, who can be reached at **847-716-3532** or **okhalid@winnetka.org**. For floodplain inquiries, please provide the Village with the street address of the property in question.

For general questions or concerns regarding local flooding, drainage issues or sewer back-ups, contact **847-716-3568**, and your call will be directed to appropriate staff.

## What is the Winnetka Floodplain?

A floodplain is land that is typically adjacent to a body of water that has its ground elevation at or below the 100-year base flood elevation. The floodplain is made up of two components: the flood way and the flood fringe. The flood way is a more restrictive development area than the flood fringe. All the residential areas within the Village of Winnetka within the floodplain are located in the flood fringe.

In Winnetka, there are two sources of floodplain: the Skokie River and Lake Michigan. The floodplain that is tributary to the Skokie River covers a large area of residential and park property, affecting more than 600 properties. The Skokie Ditch was initially constructed in

the early 20<sup>th</sup> century in an attempt to drain the Skokie Marsh into Lake Michigan, but was abandoned to create the Skokie Lagoons during the 1930's and early 1940's. Presently, the remainder of this ditch system that is north of Hill Road, flows to the north into a pump station, which then pumps the stormwater into the drainage system which conveys the water back to the Skokie River.

## Flooding Events

If one were standing near the intersection of Hibbard Road and Ash Street, the elevation of a 100-year flood event (defined as having a 1% probability of occurring in any given year) would be approximately 2.3 feet deep, well above the knee of an adult. The Village of Winnetka experienced several 100-year storm events, most recently in April of 2013, July of 2011 and September of 2008. There have also been several riverbank overtopping events, though they did not reach the 100-year base flood elevation.

The most common source of flooding occurs during heavy rainstorm events when the capacity of the storm sewers has been exceeded due to the increase of stormwater flow. Once stormwater starts ponding on the street surface, the potential for that water to infiltrate into the sanitary sewer system increases. As a result, basement back-ups can occur for homes with a gravity sanitary sewer.

## SAFETY

- **Do not walk through flowing water.** Currents can be deceptive: six inches of moving water can cause you to lose your balance.
- **Avoid driving through flooded areas,** as this could cause damage to your vehicle, and could potentially cause injury or loss of life. Don't drive around road barriers, as the road or bridge may be washed out or otherwise compromised.
- **Stay away from downed power lines and electrical wires,** as electrical currents can travel through water and electrocution is a significant risk during flooding events. Report downed power lines, power outages or water outages to **847-501-2531**.
- **Watch out for animals, especially snakes.** Small animals that have been flooded out of their homes may seek shelter in yours.
- **Look before you step.** After a flood, the ground may be slick or covered with debris.
- **Be alert for gas leaks.** Use a flashlight to inspect for damage. Don't smoke or use candles, lanterns, or open flames unless you know that the gas has been turned off and the area is well-ventilated.
- **Develop a family emergency plan.**
  - Create a safety kit with drinking water, canned food, first aid kit, blankets, battery operated radio and flashlight.
  - Post emergency telephone numbers by the phone and teach your children how to dial 911.
  - Plan and practice a flood evacuation route and know safe routes from home, work and school that are on higher ground.
  - Have an emergency family contact.
  - Have a plan to protect your pets.



## WHAT IS WINNETKA'S BASE FLOOD ELEVATION?

The Skokie River's base flood elevation is 625.3 NAVD 1988, which is generally consistent throughout the limits of Winnetka, but does vary south of Hill Road. The base flood elevation for Lake Michigan varies between 588-594 North American Vertical Datum of 1988.

## NATURAL FLOODPLAIN FUNCTIONS

### The Floodplain's Natural and Beneficial Functions

The original function of the floodplain and waterway served to provide for a variety of needs. Rivers provided for transportation, water supply, a source of energy, and even a source of waste disposal. However, after hundreds of years, the character of the rivers and floodplains has changed and the natural function of the riparian ecosystems (the vegetated areas adjacent to the streams) has been significantly altered by human action.

### Floodplain's Natural Resources

There are three classifications of a floodplain's natural resources: water resources; biological resources; and cultural resources. Water resources include maintaining both the natural flood storage and erosion control characteristics, as well as the maintenance of water quality, which benefits the reduction of flood velocities, reduction of erosion, and filtering out nutrients and impurities from stormwater prior to entering the stream or lake. Biological resources include the support and diversification of flora and wildlife habitats. Cultural resources include the provision of recreational opportunities, scientific study, and outdoor education, and improving the economic base for the community by improving property values and stimulating natural resource activities and businesses.

### Protecting Winnetka's Floodplain

Floodplain resources, including wetlands, have experienced increased pressure from construction and

development. Expanding urbanization of our watershed delivers increased amounts of surface water runoff into the receiving water bodies. The straightening and channelization of streams allow for increased water velocities, which with the increase in stormwater runoff from past developments have created increased bank erosion, loss of wildlife habitat and detrimental changes in water quality.

The Village of Winnetka has taken significant steps toward minimizing stormwater runoff from developments, as well as requiring that stormwater quality management techniques be implemented for each development. Every permit issued in the Village of Winnetka that results in an alteration of the existing drainage pattern requires that some form of stormwater management and water quality control be implemented as part of the design. All permits issued in the floodplain require that no fill be placed in the floodplain without the provision of compensatory storage in order to maintain and enhance the existing capacity of our floodplain storage without having to increase its boundaries.

The Village has undertaken several large-scale stormwater management projects, the details of which can be found at [villageofwinnetka.org/stormwater](http://villageofwinnetka.org/stormwater).



# FLOODPLAIN CONSTRUCTION – BUILD RESPONSIBLY

## When to Get a Permit

Regardless of whether or not you live in the floodplain, if you are planning on doing ANY type of alteration to your home or property, be it an interior renovation, addition, constructing a new or replacement home or garage, shed or other detached auxiliary structure, and/or any type of landscape/ hardscape work that may in any way alter the existing grades on your property, you will need to obtain a permit through the Community Development Department. For floodplain properties, this permit will need to include a copy of the signed contract for the proposed work, certified calculations and grading plan to address drainage issues, compensatory storage information, architectural plans, and details that address various floodplain specific construction requirements.

If you have questions regarding the Village's permitting process, please contact the **Building Permit Coordinator** at **847-716-3520** or **buildingpermit@winnetka.org**; for questions regarding the Village's Floodplain requirements, contact **Obaid Khloid** at **847-716-3532** or **okhalid@winnetka.org**.

## Compensatory Storage

The Village's Flood Hazard Protection Regulations are intended to preserve the natural storage capacity of the 100-year floodplain, maintaining the volume that the floodplain occupies. These regulations require that there be no fill placed within the 100-year floodplain without the provision of compensatory storage. Compensatory storage must equal at least 1.1 times the volume of flood storage lost below the Base Flood Elevation (BFE).

Fill is classified as **any** amount of **any** material that occupies volume between the existing grade and the

100-year base flood elevation. Fill can include mulch, soil, timbers, stone, raised gardens or patios, porches, sheds, or any other material or structure, in addition to garages, additions or new homes. The floodplain ordinance has no minimum threshold for what is considered fill and makes no distinction between various materials with respect to volume.

If you or your landscaper decide to beautify your property by creating new landscaping or even maintaining existing landscaping, please be aware that if you are located within the 100-year floodplain, you will need to remove 1.1 times the amount of material from your property in conjunction with the placement of any new materials.

## Construction Requirements

The Village of Winnetka's Flood Hazard Protection Regulations, along with the Metropolitan Water Reclamation District's Watershed Management Ordinance (MWRD's WMO) requires compliance with certain criteria, depending on the type of construction/ development that is being proposed in and within 100 feet of the 100-year floodplain. Permit applicants must comply with the more restrictive of either the Village Flood Hazard Protection Regulations or the MWRD WMO.

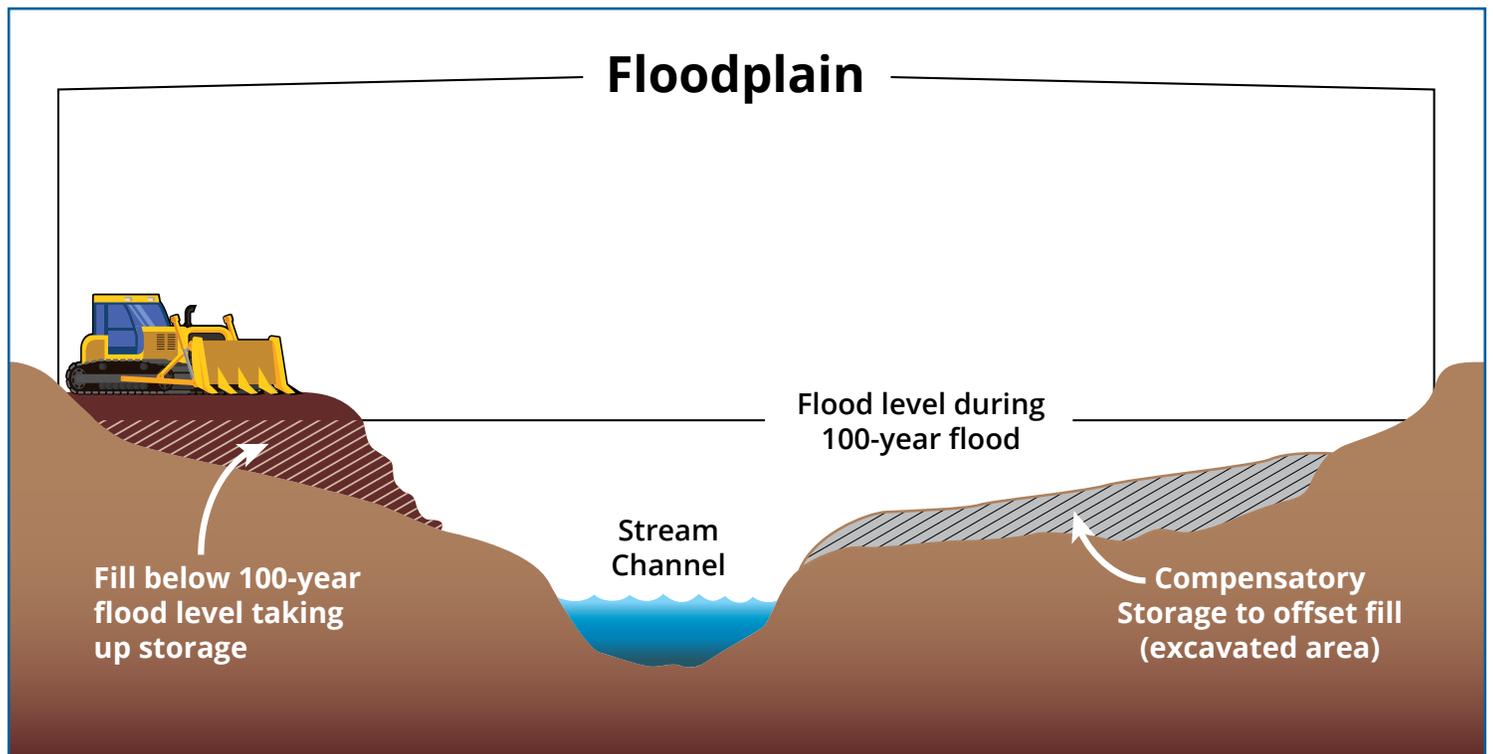
The Village has incorporated the WMO in the Flood Hazard Area Protection Regulations, which can be found in Section 15.68 of the Village Code. The WMO can be viewed here:

<https://mwrld.org/watershed-management-ordinance-and-infiltrationinflow-control-program>.



## Floodplain Construction Tips

- Structures that are located within 100 feet of the 100-year floodplain must comply with the Village's Flood Hazard Protection Regulations and the MWRD WMO. A WMO Single Family Home-Special Flood Hazard Area Permit Application must be submitted with the building permit application.
  - If the existing/proposed structure is mapped outside of Zone A/AE, but lies within 100 feet of the 100-year Base Flood Elevation (BFE), a certified topographic survey must be submitted to prove that the lowest adjacent grade to the existing/proposed structure is at least 0.1 foot above the BFE so that the existing/proposed structure can be considered out of the 100-year floodplain, and therefore, not be restricted to the requirements regarding substantial improvements within the 100-year floodplain.
- A topographic survey is needed to make an exact floodplain determination and to develop a grading plan with compensatory storage calculations.
- The total cost of improvements to an existing structure must be less than 50% of the current market value of that structure, excluding the land value, taken cumulatively over a ten-year period.
- New construction and substantial improvements must be protected from the floodplain by elevating the structure's lowest floor a minimum of 2 feet above the BFE.
- Compensatory storage is an excavated volume that must be provided to offset any fill placed within the floodplain at a ratio of 1.1 to 1 (cut to fill).
- Compensatory storage must be freely draining, without the use of a pump.



## FLOOD PREVENTION

It is important to remember not to dump or throw anything into ditches, swales, streams or other water conveyance systems, including storm inlets and manholes. Even grass clippings, mulch and branches can accumulate and block drainage. Dumping or altering grades is in violation with the Village Code Sections 9.16.020.B.11; 14.04.130.A.1; 15.32.080.G and L; and 15.68. An obstructed drainage-way can result in water displacement and potentially cause flooding. If your property is adjacent to a drainage ditch or swale, please do your part and keep the area clear of brush and debris.

### Floodplain Protection Tips

If you notice non-stormwater discharge into any stream, lake, pond, storm inlet, due to erosion or other deleterious substance, please contact the Public Works Department at [847-716-3568](tel:847-716-3568).

If you notice that a public storm drain appears to be blocked or has an accumulation of debris over the grate that is inhibiting its function, please contact the Public Works Department at [847-716-3568](tel:847-716-3568).

If you see any dumping or debris in ditches, swales or streams, or any filling within the floodplain, please contact the Public Works Department at [847-716-3568](tel:847-716-3568).

If you are considering development on your property, including altering, regrading or filling on your property, a permit will most likely need to be obtained through the Community Development Department, with approval by the Engineering Department, to ensure that there will be no fill in the floodplain and no adverse drainage impacts on adjacent properties. Contact the Village of Winnetka's Building Permit Coordinator at [847-716-3520](tel:847-716-3520) or the Engineering Department at [847-716-3568](tel:847-716-3568) to determine whether a permit or approval will be required prior to the work commencing.

If your property is adjacent to a drainage ditch or swale, please do your part and keep the area clear of brush and debris. The Village of Winnetka has a maintenance program which can help remove major blockages, such as downed trees.

If you see any building or filling without a permit posted or notice any damaged or broken silt fencing on construction sites, please contact the Community Development Department at [847-716-3520](tel:847-716-3520) or the Engineering Department at [847-716-3568](tel:847-716-3568). Remember, if you are calling to report an incident, it is best to call while the activity is in progress.



## FLOOD INSURANCE

The Village of Winnetka participates in the National Flood Insurance Program (NFIP) which makes federally-guaranteed flood insurance available to all eligible buildings, whether they are in a floodplain or not. The NFIP Community Rating System (CRS) recognizes community efforts beyond the Federal Emergency Management Agency (FEMA) minimum standards by reducing flood insurance premiums for the community's property owners. In 2015, the Village of Winnetka received a CRS Class 6 designation. By entering the program at this class, residents receive a reduction in their insurance premiums: up to 20% from their current rate, less additional non-policy fees associated with their premiums, as applied by FEMA.

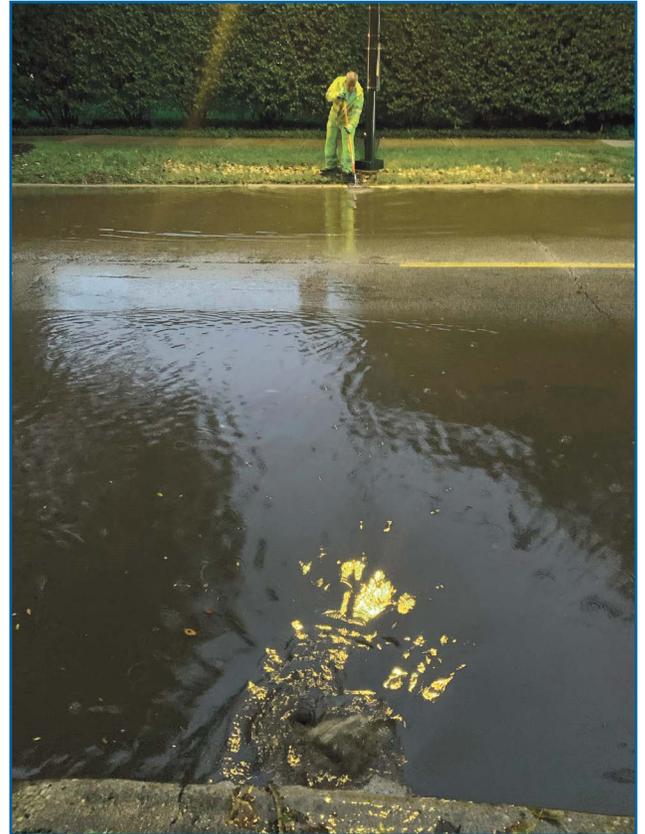
Standard property insurance does not cover flood damage and flood insurance covers all surface floods. Any home with a federally-guaranteed loan or mortgage that is located within the 100-year floodplain boundaries is required to obtain flood insurance. There is a 26% chance of experiencing a flood during the life of a 30-year mortgage. To compare, there is a 4% chance of having a fire during that same time period.

The NFIP insures buildings with two types of coverage: building and contents. Building coverage is for the walls, floors, insulation, furnace, and other items permanently attached to the structure. Contents coverage may be purchased separately, if the contents are in an insurable building. There is a 30 day waiting period before flood insurance coverage goes into effect. Please note that standard property insurance does not cover flood damage. Premiums for non-Special Flood Hazard Area structures can be obtained at a much-reduced rate.

### How Flood Insurance Works

If a building is located in the Special Flood Hazard Area (SFHA), which is commonly known as the 100-year flood plain, and a loan or mortgage is necessary, the Federal agency or lender is required by law to require the building owner to purchase a flood insurance policy on the building. Federal regulations require building coverage equal to the amount of the loan (excluding appraised value of the land) or the maximum amount of insurance available from the NFIP, whichever is less. The maximum amount available for a single-family residence is \$250,000. Government-sponsored enterprises, such as Freddie Mac and Fannie Mae, have stricter requirements.

The mandatory purchase requirement does not affect loans or financial assistance for items that are not



covered by a flood insurance policy, such as vehicles, business expenses, landscaping, and vacant lots. It does not affect loans for buildings that are not in an SFHA, even though a portion of the lot may be. While not mandated by law, a lender may require a flood insurance policy, as a condition of a loan, for a property in any zone on a Flood Insurance Rate Map (FIRM).

### Learn more about Flood Insurance

Visit [www.floodsmart.gov](http://www.floodsmart.gov) for additional flood insurance details, and to estimate the annual premiums for various floodplain scenarios and coverage. Call your insurance provider to determine the exact premium rates and coverage available for your home. If you do not have an agent or your agent does not write flood insurance policies, the NFIP has a toll-free number for agent referrals **(1-800-427-4661)**.

Copies of a FIRM or to view a FIRM online can be obtained at: <https://msc.fema.gov/portal/search>.

The Village's website also has an interactive mapping system, as well as a Floodplain Information page with an abundance of floodplain-related information: <https://www.villageofwinnetka.org/floodplain>

## PROTECTING YOUR PROPERTY

If your home or property is experiencing flooding in the form of ponding water, basement flooding by surface waters, seepage or through the floor drains, there are certain steps you can take to help minimize the problem.

- If you are experiencing ponding water on your property that is only draining by either evaporation or infiltrating into the ground, you may want to consider installing a storm inlet in the low area on the property to collect stormwater and discharge it into the public storm system. If there is already an existing storm service to the property, and if grade elevations allow for positive drainage and the service is in good condition, then you may be able to tie the inlet into the existing service. Otherwise, a new storm service can be brought to the site, disconnecting any existing storm service at the main.
- If you are experiencing water entering the basement by topping over the window wells or seeping through the foundation wall or footing, providing positive drainage away from the foundation and/or maintaining the foundation's drain tiles may help.
- If you are experiencing water entering through the floor drain in the basement, most likely the sanitary sewer service is the issue, and will need to be investigated. Ensure the storm sewer and sanitary sewer services are not interconnected in any way. If it is found that they are, they must be separated immediately, in accordance with Section 15.24.070 of the Village Code.

### Flood Hazard Preparation Tips

- **Safeguard your possessions.**
  - Create a personal flood file:
  - For insurance purposes, keep a written and visual record of ALL major household items and valuables.
    - Include serial numbers and store receipts for major appliances and electronics.
    - Keep a copy of your insurance policies with your agent's contact information.
    - Have jewelry and artwork appraised. These documents are critically important when filing insurance claims.
    - Keep documents in a secure and safe place, such as a safe deposit box or waterproof container.
- **Prepare your home.**
  - Check to see that your sump pump is working properly and consider installing a battery-operated backup and water alarm to let you know if water is collecting in the basement.
  - Clean gutters, downspouts, inlets, etc.
  - Raise electrical components (switches, outlets, circuit breaker, furnace, water heater, washer/dryer) to the Flood Protection Elevation (FPE = BFE + 2'; or 627.3 NAVD 1988)
  - Move furniture and valuables to a safe place.

