

Article 6	STORMWATER MANAGEMENT .....	1
13-6-1	Definitions .....	1
13-6-2	Stormwater Facilities .....	4
13-6-2.1	Type 1 – Major Water Routes.....	4
13-6-2.2	Type 2 – Secondary Water Routes.....	5
13-6-2.3	Type 3 – Minor/Private Water Routes.....	5
13-6-2.4	Planned Developments / Subdivisions .....	6
13-6-2.5	Culverts .....	6
13-6-3	Inspections and Maintenance.....	6
13-6-4	Village of Aviston Drainage Permit Application.....	6
13-6-4.1	Activities Requiring Permit .....	7
13-6-4.2	Approval, construction, and inspection.....	7
13-6-4.3	Fines and Penalties .....	7
13-6-5	Administration and Enforcement .....	8

**Article 6                      STORMWATER MANAGEMENT**

During periods of heavy rainfall or snowmelt, stormwater can accumulate, causing nuisance or even dangerous flooding that has the potential to damage roadways and other improvements to property. Additionally, as precipitation falls onto streets, yards, and driveways and flows away (commonly called stormwater runoff ), it collects and carries sediment and pollutants such as yard fertilizers and pesticides, garbage, solid waste, pet waste, gasoline, oil, and heavy metals into nearby ditches, storm sewers, creeks, lakes, and ponds, making them unhealthy. Stormwater Management is the process where the Village attempts to direct, slow, soak in, or store stormwater to minimize flooding while reducing, whenever possible, the amount of pollution entering larger area waterways.

The Village of Aviston hereby promulgates this regulation for the purpose of establishing a more comprehensive stormwater management program. This regulation pertains to all applications for approval of preliminary plans, stormwater management plans and sediment control permits, the issuance of building permits for new construction, easements, agreements and maintenance requirements for on-site stormwater management controls, best management practices design criteria, and waivers.

**13-6-1                      Definitions**

Unless the context specifically indicates otherwise, the meaning of terms used in this Article shall be as follows:

*Best Management Practices (BMPs):* Activities or structural improvements that help reduce the quantity and improve the quality of stormwater runoff. BMPs include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

*Clean Water Act:* Legislation that provides statutory authority for the NPDES program, which is Public law 92-500; 33U.S.C. 1251 et seq. Also known as the Federal Water Pollution Control Act.

*Drinking water:* Water, treated or untreated, which is intended for human use and consumption and considered to be free of harmful chemicals and disease-causing bacteria, cysts, viruses, or other microorganisms.

*Environmental Protection Agency (EPA):* The mission of the Environmental Protection Agency is to protect human health and the environment. Since 1970, EPA has been working for a cleaner, healthier environment for the American people.  
<http://www.epa.gov/epahome/aboutepa.htm>

*Erosion:* Removal of soil particles by wind and water. Often the eroded debris (silt or sediment) becomes a pollutant via stormwater runoff. Erosion occurs naturally but can be intensified by human activities such as farming, development, roadbuilding, and timber harvesting.

*Gray Infrastructure:* The more traditional (and typically more expensive) water management systems that green infrastructure complements and can at times replace. It relies on hard infrastructure—such as storm drains, drop boxes, concrete, and pipes—to collect and channel stormwater (sometimes treated, oftentimes not) into waterways. It does not provide the same range of benefits as green infrastructure since it neither reduces the amount of stormwater that reaches waterways nor, for the most part, improves the quality of that runoff.

*Green Infrastructure:* Stormwater BMPs that include a variety of water management practices, such as vegetated rooftops, roadside plantings, absorbent gardens, dry wells, grass swales, and other measures that capture, filter, and reduce stormwater. Green infrastructure captures the rain where it falls, mimicking natural hydrological processes and using natural elements such as soil and plants to turn rainfall into a resource instead of a waste.

*Ground water:* Water that flows below the ground surface through saturated soil, glacial deposits, or rock.

*Household hazardous materials:* Common everyday products that people use in and around their homes—including paint, paint thinner, herbicides, and pesticides—that, due to their chemical nature, can be hazardous if not properly disposed.

*Hydrology/Hydrologic Cycle* - The science of hydrologic cycle is addressing the properties, distribution, and circulation of water across the landscape, through the ground, and in the atmosphere.

*Impervious Surface or Cover:* The characteristic of a material which prevents the infiltration or passage of liquid through it. This may apply to roads, streets, parking lots, rooftops and sidewalks.

*National Pollutant Discharge Elimination System (NPDES):* Established by Section 402 of the Clean Water Act, this federally mandated system is used for regulating point source and stormwater discharges.

*Natural Filter:* A grassed, wooded or vegetative strip that acts as a filter for the runoff before the water enters a stream.

*Non-Point Source Pollution:* Pollutants from many diffuse sources. Nonpoint-source pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even underground sources of drinking water.

*Point Source Pollution:* Pollutants from a single, identifiable source such as a factory or refinery; also called single-point-source pollution. Most of this pollution is highly regulated at the state and local levels.

*Pollutants:* A contaminant existing at a concentration high enough to endanger the environment or the public health or to be otherwise objectionable.

*Regulated Development:* Any construction activity, excavation or grading, that:

(a) disturbs a land area or substantially contiguous land areas of 15,000 or more square feet in the aggregate, or,

(b) creates an at-grade impervious surface of 7,500 or more substantially contiguous square feet, inclusive of created public right-of-way, or

(c) results in any discharges of stormwater into established Tier 1 or Tier 2 routes or, upon consideration of the Aviston Village Board, creates new Tier 1 or Tier 2 routes.

*Stormwater pollution:* Water from rain, irrigation, garden hoses or other activities that picks up pollutants (cigarette butts, trash, automotive fluids, used oil, paint, fertilizers and pesticides, lawn and garden clippings and pet waste) from streets, parking lots, driveways and yards and carries them through the storm drain system into larger waterways.

*Runoff:* That portion of the precipitation on a drainage area that is discharged from the area in the stream channels. Types include surface runoff, ground water runoff or seepage. Drainage or flood discharge that leaves an area as surface flow or as pipeline flow.

*Sanitary sewer (different from the storm sewer system):* A system of underground pipes that carries sanitary waste or process wastewater to a treatment plant.

*Storm Drain System:* A network of underground pipes and open channels designed for flood control, which discharges straight into larger, open waterways.

*Sediment:* Solid material, both mineral and organic, that is being transported or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level. Soil, sand, and minerals washed from land into water, usually after rain.

*Storm drain:* An opening leading to gray infrastructure, i.e.: underground pipe or open ditch for carrying surface runoff, separate from the sanitary sewer or wastewater system.

*Stormwater:* Precipitation that accumulates in natural and/or constructed storage and stormwater systems during and immediately following a storm event.

*Stream:* A body of water, confined within a bed and banks and having a detectable current. Also called a *Creek* or a *Branch*.

*Water Quality:* Water quality is commonly defined by its physical, chemical, biological and aesthetic (appearance and smell) characteristics. A healthy environment is one in which the water quality supports a rich and varied community of organisms and protects public health.

*Watershed:* Geographical area that drains to a specified point on a water course, usually a confluence of streams or rivers, can also be known as drainage area, catchments, or a river basin.

*Wetland:* An area that is inundated or saturated by surface water or groundwater at a frequency, duration, and depth sufficient to support a predominance of emergent plant species adapted to growth in saturated soil conditions.

## **13-6-2 Stormwater Facilities**

### **13-6-2.1 Type 1 – Major Water Routes**

The Village will monitor the condition of these facilities and review new construction (planned developments) WRT their potential impact on Type 1 facilities. Developments must include storm water detention and/or retention provisions to minimize impact to Type 1 facilities. The diversion of storm/ground water from individual properties into Type 1 waterways requires an approved Drainage Permit prior to work start.

- A) Defined
  - 1) Includes concrete storm tile on public right-of-way
  - 2) Flooding restricts traffic flow
  - 3) Flooding restricts emergency / public safety response
  - 4) Projects/activities that negatively impact drainage are prohibited
  - 5) Priority: High. Failure results in cascading property damage events
- B) Locations
  - 1) Aviston/Albers Road
  - 2) Old US 50
  - 3) Railroad ditch north of rail bed, from all points east of Clinton Street
  - 4) North/South ditch running from Steel Bridge to all points south, beyond 4th Street
  - 5) East/West swale that runs west from Tucker and Jen Drive to Sugar Creek
  - 6) Ditch originating at the SW Corner of the Nursing Home property on 1st Street, through the inlet at 644 1st Street, and southward through the School property.
- C) Culpability
  - 1) Village will monitor the condition of these facilities and review new construction (Drainage Permits and Regulated Developments) WRT their potential impact on Type 1 facilities.
  - 2) Property owners of Type 1 routes have the responsibility for their upkeep and continued effectiveness. The Village may notify said owner(s) WRT needed maintenance and may levy fines to remediate neglected routes.
  - 3) Developments must include storm water detention and/or retention provisions to minimize impact to Type 1 facilities.
- D) The diversion of storm/ground water from individual properties into Type 1 waterways requires an approved Drainage Permit prior to work start.

### **13-6-2.2 Type 2 – Secondary Water Routes**

The Village will review new construction (planned developments) regarding their potential impact on Type 2 facilities. The Village will monitor the condition of Type 2 facilities and either maintain them or direct property owners to do so to ensure the proper flow / effectiveness of said facilities as a matter of routine. Reported problems with Type 2 facilities will be recorded by Village personnel. All reports will be evaluated and addressed / corrected to ensure continued effectiveness of the Type 2 infrastructure.

The diversion of storm/ground water from individual properties into Type 2 waterways AND/OR altering (burying, tiling, widening, diverting, etc.) existing Type 2 waterways requires an approved Drainage Permit prior to work start. Failure to obtain a Drainage Permit when altering Type 2 facilities may, upon review, lead to fines and/or penalties as well as a requirement to remove the ‘new work’ at no expense to the Village.

- A) Defined
  - 1) Typically include buried culverts but not concrete storm tile
  - 2) Priority: Moderate. Failure may result in minor, isolated property damage
- B) Locations
  - 1) Ditch bordered by Russland Road, starting at North Fork and running south just past Walnut Drive
  - 2) All side street ditches unless otherwise identified
- C) Culpability
  - 1) Village will monitor the condition of these facilities and review new construction (Drainage Permits and Regulated Developments) WRT their potential impact on Type 2 facilities.
  - 2) Property owners of Type 2 routes have the responsibility for their upkeep and continued effectiveness. The Village may notify said owner(s) WRT needed maintenance and may levy fines to remediate neglected routes.
  - 3) Developments must include storm water detention and/or retention provisions to minimize impact to Type 2 facilities.
- D) The diversion of storm/ground water from individual properties into Type 2 waterways requires an approved Drainage Permit prior to work start.

### **13-6-2.3 Type 3 – Minor/Private Water Routes**

The Village has no responsibility for Type 3 facilities and assumes no liability for their continued effectiveness / suitability to purpose.

- A) Defined
    - 1) Private sump pump lines, seep tiles, French drains, etc.
    - 2) Priority: Low. Failure results in limited or no real property damage
  - B) Location
    - 1) Throughout the Village
    - 2) Private sump pump lines, seep tiles, French drains, etc.
- Culpability – The Village assumes no liability or dominion over Type 3 routes but, upon request and as time and resources permit, may clean out / pressure wash culverts for effectiveness.

#### **13-6-2.4 Planned Developments / Subdivisions**

As detailed in Section 14-11-14 of this Code (Drainage and Storm Sewers), “A stormwater management plan shall be required for any new residential, commercial, industrial, institutional or utility development/subdivision having a gross aggregate area of one (1) acre or more.”

Stormwater run-off in planned developments and/or subdivisions constructed in accordance with an approved Stormwater Management Plan is the responsibility of the developer for a period of five (5) years from 80% completion / occupancy of said development. From that point forward, for developments and mature subdivisions/sections of town, stormwater management activity is subject to the provisions of this Section.

#### **13-6-2.5 Culverts**

Regardless of placement (Routes 1, 2 or 3), faulty / failed driveway culverts are the responsibility of the property owner. Alley and cross-street culverts are the responsibility of the Village.

#### **13-6-3 Inspections and Maintenance**

- A) Village Responsibilities - All stormwater systems within the Village are subject to review and maintenance in accordance with the provisions of this Chapter.
- B) Notification Required - Village Hall must be notified at least 48 hours before initiating any maintenance work on any open ditch, waterway, culvert, etc. within the Village. A completed Village Drainage Permit Application may be required upon such notification. Emergency work may be completed on an as-needed basis, upon the concurrence of the Street Superintendent.
- C) Final Inspection - Upon completion of the repair or maintenance on a stormwater route, the Village must conduct a final inspection. If the inspecting Village Official or Village Representative determines the work does not satisfy conditions for permit, said Official must prepare a written report specifying the additional repair or maintenance needed to for the work to meet requirements, and provide a copy of the report to the owner of the facility.

#### **13-6-4 Village of Aviston Drainage Permit Application**

Runoff, the product of rainstorms or snowstorms, flows over the ground and into drains, sewers, and waterways. The more permeable (or absorbent) the surface, the less runoff there will be. Streets, parking lots, rooftops, and other hard, impervious (nonabsorbent) surfaces essentially repel stormwater, preventing it from soaking into the land and forcing it to flow whichever way gravity takes it. The average city block can generate more than five times as much runoff as a forested area of equal size.

For the well-being of Aviston residents, land and/or yard alterations that impact the flow of stormwater beyond the property owner’s property line must comply with standards and practices for proper stormwater drainage and sediment control and require an approved Drainage Permit.

### **13-6-4.1 Activities Requiring Permit**

Aside from Regulated Developments, which stormwater management requirements laid out in Section 14-11-14 of this Code, the following alterations to property within the Village require permitting prior to work start.

- A) Land Alterations. Any action taken that does at least one of the following to the land requires an approved Drainage Permit:
1. Changes the contour and/or elevation of property so as to increase the runoff rate or volume of stormwater exiting the property
  2. Decreases the rate at which water is absorbed
  3. Changes the drainage pattern (exit route) extant on the property
  4. Creates or changes a stormwater facility
  5. Increases the delivery of point and/or non-point source pollution to streams
  6. Creates an impoundment (dam, body of water, reservoir, etc.)
- B) New Construction. Defined as construction of more than 600 square feet of impervious surface area (*driveways, rooftops, parking lots, etc.*), regardless of lot size, where a stormwater management plan has not already been approved. This includes construction, enlargement, or location of any building on a permanent foundation.

The applicant must submit a drainage plan that will show proposed measures to ensure control and/or *provide* safe conveyance of runoff caused by the new construction.

### **13-6-4.2 Approval, construction, and inspection**

A completed Drainage Permit Application must be filed with the Village Clerk before any work subject to the provision of this Section is initiated. Once the completed Permit is approved and work is underway, for land alterations that involve the installation/modification of stormwater facilities directly impacting (connecting to) Type 1 or Type 2 routes, the Applicant is responsible for notifying the inspector assigned to the project of the following.

- Daily work schedule plans
- Prior notification of work performed on weekends and/or holidays
- Date “as-built” verification will be performed

Inspection of stormwater drainage systems and associated land grading and erosion control measures will be performed by a designated Village Official. The assigned Official, at the contractor or owner’s request, will schedule all inspections with the Permit Holder. The Village will not accept the planned storm sewer system or alteration/development until all requirements for inspection are complete. Any portion of the stormwater system/improvement that does not pass inspection must be reworked to the extent required by the Village to attain final compliance.

### **13-6-4.3 Fines and Penalties**

Violations of any requirement or condition of this Section shall be punishable by a penalty of not less than \$100.00 and not more than \$1,000.00 for each such violation. Each day a violation continues shall be considered to be a separate violation. In addition to the civil penalties specified herein, the Village may recover as an additional civil penalty II attorneys' fees and three times the amount of all costs and expenses incurred by the City in abating or remediating a violation of this chapter.

**13-6-5 Administration and Enforcement**

- A) Responsibility for the Stormwater Management program in the Village of Aviston is the responsibility of the Zoning Administrator.
- B) Inspections will be completed by a representative of the Village.
- C) Inspection and Compliance Records will be maintained by the Village Clerk.
- D) Failed inspections may result in a Stop Work Order (Initial or Minor Issues) or Fines (Major Non-Compliance, Repeated Violations of approved Drainage Permit provisions). Work that is initiated or completed without a valid permit may require immediate restoration at the expense of the property owner instigating the work.

[https://www.chicago.gov/city/en/depts/water/provdrs/engineer/svcs/2009\\_sewer\\_construction\\_andstormwatermanagementrequirements.html](https://www.chicago.gov/city/en/depts/water/provdrs/engineer/svcs/2009_sewer_construction_andstormwatermanagementrequirements.html)

<https://www.montgomerycountymd.gov/water/stormwater/index.html>

<https://www.montgomerycountymd.gov/DEP/Resources/Files/downloads/stormwater/fact-sheets/Swale-Maintenance.pdf>



Applicant Information:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

Project Information:

1. Is the property listed above owned by the applicant?
2. Is the property that is to have the drainage work done on the same as the one listed above?
3. Legal description of the property (if required).
4. Proposal. What will be done to the drainage on this property? Who will be doing this work:
5. Make a map of the property on the second page of this application, showing which side of the property the work is to be done on, or on which easement or ditch the work is to be done.
6. Utilities. All utilities will need to be marked before any work is to be performed. You will need to call JULIE and have this scheduled.
7. This project cannot be accepted until a designated Village Official reviews the project and/or property. This review will determine the following:
  - a. The direction stormwater flows from property;
  - b. The impact additional run-off may have on downstream routes;
  - c. The depth of the ditch or how deep the pipe will need to be.
  - d. Whether anything additional in the way of Gray or Green Infrastructures will be needed of this drainage project such as a grass swale, drop box, or dry well. That does not mean that one may be needed, but it is possible that there will be additional expenses with any drainage project.
8. Any questions that you have can be directed to our office at 228-7262. There is a \$75 fee to be paid before work can begin.

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Signature of Village Official