

## CHAPTER 5

### STORMWATER AND EROSION CONTROL

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(ORD. NO. 2920-06/07 04-09-07)

#### 4-5-1: **PURPOSE/INTENT IF THE STORMWATER AND EROSION CONTROL:**

1. The City hereby establishes a Stormwater and Erosion Control code to provide for the management, protection, control, regulation, use, construction, and enhancement of the stormwater systems and facilities owned and operated by the City of Pekin.
2. The management and supervision of the Stormwater and Erosion Control shall be under the direction of the Public Works Director.

4-5-2: **DEFINITIONS:** As used in this Chapter, the following words shall have the meanings set forth hereinafter:

**ADJACENT LANDS:** means surrounding land that may either impact a site, or be impacted by potential soil erosion, sediment, and/or stormwater run-off as a result of land-disturbing activities conducted on a site, and at a minimum is an area within 50 feet of the site.

**AUTHORIZED ENFORCEMENT AGENCY:** Employees or designees of the Public Works Department.

**BEST MANAGEMENT PRACTICES (BMP's):** Schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to the stormwater, receiving waters, or stormwater conveyance systems. BMP's also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

**CITY:** The City of Pekin, Illinois

**CLEAN WATER ACT:** The federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), and any subsequent amendments thereto.

**COMBINED SEWER:** A sewer designated to receive or receiving both wastewater and storm or surface water.

**CONSTRUCTION ACTIVITY:** Activities subject to the NPDES Construction Permits. Currently these include construction projects resulting in land disturbance of one (1) acre or more. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.

**CONTROL MEASURE:** Any proposed temporary or permanent measures to be installed to control erosion, sediment, and stormwater runoff from a project area.

**DEVELOP or DEVELOPMENT:** The division of a parcel into two or more parcels; the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any structure; any mining, excavation, landfill, or land disturbance; and any use or extension of the use of land.

**DEVELOPER:** Any person, persons, company or corporation that develops property.

**DISTURBED AREA:** Any area of land on which the pre-development ground surface will be affected or altered by the development activities. This includes but is not limited to grading, clearing, stock piling, tracking, and other similar activities.

**FIVE YEAR FREQUENCY:** The storm event rainfall depth during a 24-hour period which is exceeded, on the average, once every five years.

**LAND DISTURBING ACTIVITY:** Any change in land which may result in soil erosion from water or wind and the movement of sediments into state, county or city waters or a change in the amount and/or intensity of storm water run-off, including but not limited to, the covering with an impervious surface, stockpiling, clearing, grading, excavating, rehabilitating, transporting, depositing or filling of land.

**NPDES OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM:** The national permitting program implemented under the Clean Water Act.

**PERIMETER CONTROL:** Any control measure installed between the down slope side of the disturbed area and the property line and/or between the down slope side of the disturbed area and any area of concentrated flow.

**STANDARDS:** The Illinois Environmental Protection Agency's Illinois Urban Manual, A Technical Manual Designed for Urban Ecosystem Protection and Enhancement published in 1995.

**STORM WATER SYSTEM:** A conveyance or system of conveyances and includes sewers, storm drains, curbs, gutters, ditches, retention ponds or basins, dams, stream impoundments, man made channels or storm drains and flood control facilities and appurtenances thereof, which is designed or used for the collection, control, transportation, treatment or discharge of stormwater. Does not include combined sewers.

**TRACK-OUT:** Dirt tracked out of a construction site on tires of vehicles.

**TWENTY-FIVE YEAR FREQUENCY:** A storm event rainfall depth during a 24-hour period which is exceeded, on the average, once every twenty-five years.

4-5-3: **REQUIREMENTS:** Any person that develops or creates any land-disturbing activities for more than 2500 square feet of property within the City shall provide a stormwater pollution prevention plan, obtain all applicable permits, and pay all applicable fees. This covers any development that is below the NPDES requirements for stormwater control.

4-5-4: **STANDARDS:**

- A. No development of 2500 square feet or more shall take place within the City unless there is an adequate stormwater pollution prevention plan designed and approved by the City that demonstrated that the development will not overtax or cause flooding of or from existing storm sewers and retention or detention facilities. The developer shall show by detailed calculations that the stormwater outlet is adequately sized for a twenty-five (25) year frequency rainfall event based on Illinois Department of Transportation Design policies or other acceptable method. The calculations are subject to the City's review and approval.
- B. In connection with any required control facilities, the developer shall submit plans, specifications and drainage calculations to the City for review and approval. Plans shall be prepared by a registered professional engineer or registered architect. Plans and calculations shall include existing and proposed elevation of site, including buildings with streets adjacent to the site(s).
- C. Formulas for determining the size of detention and retention basins shall be based on the latest Illinois Department of Transportation "Standards for Storm Water Runoff" or other acceptable method.
- D. Erosion of soil through runoff, track-out, or dust from any development or disturbed area onto adjacent properties is strictly prohibited. Violators will be subject to penalties as outlined in 4-5-10 of this section

4-5-5: **FEES:**

- A. Plan Review Fee: A fee shall be paid to the City of Pekin at the Inspections Department for review of stormwater pollution prevention plans as follows:

Development of 1 acre or less	\$100
Development of more than 1 and less than 10 acres	\$250
Development of 10 acres or more	\$500

- B. Payment of Fees: Payment of the review fee shall be made prior to the issuance of any building permit for development.

4-5-6: **BUILDING PERMIT:** No building permit shall be issued for development within the City as provided herein until all requirements of this Chapter are met.

4-5-7: **DESIGN AND CONSTRUCTION STANDARDS FOR STORM SEWERS AND DRAINAGE WAYS:**

- A. Design Standards: All subdivisions shall include a stormwater drainage system designed in such a way as to accomplish the following:

1. Provide that all lots and outlots in the subdivision will be graded and shaped so as to drain property within the subdivision to natural drainage ways by gravity by means of catch basins, inlets, retention ponds and natural drainage ways with adequate capacity.

2. Connect all storm water inlets and catch basins to a primary storm sewer, pipe or conduit of sufficient size, grade, and capacity to carry the runoff reasonably expected from a 25-year frequency storm event for property within the corporate limits or the land use element of the City's Comprehensive Plan for property outside the corporate limits.

3. Outlet all storm sewers to other existing storm sewers or improved drainage ways of sufficient size, grade and capacity to carry the runoff reasonably expected from a 25-year frequency storm event for that area within the corporate limits of the City or the land use element of the City's Comprehensive Plan for property outside the corporate limits.

4. Improve all drainage ways through the proposed subdivision to a size and in a way adequate to carry the runoff reasonably expected from a 25-year frequency rainfall event on the area in the natural drainage area for property within the corporate limits or the land use element of the City's Comprehensive Plan for property outside the corporate limits.

B. Retention and/or Detention Facilities:

1. No development shall be authorized in the City unless there is an adequate stormwater outlet and the City has approved retention and/or detention facilities. The applicant shall show by his detailed calculations and plans that the storm sewer outlet and/or drainage way are in compliance with the City design criteria. The calculations must be submitted for review and approval.

2. In connection with any required storage facilities, the developer shall submit two (2) sets of plans, specifications and calculations for review and approval. Plans shall be prepared by a registered professional engineer or professional architect in accordance with standards previously set forth. Plans and calculations shall include existing and proposed elevations of site, including buildings, with streets adjacent to the sites.

C. Manholes: Provide public manholes installed at the end of each storm sewer line in public right of way or permanent drainage easements at all changes in grade or alignment, at all intersections and at distances not greater than three hundred fifty feet (350') between manholes.

D. Adequate Outfall: Provide a controlled outlet from all drainage facilities. The applicant shall show by his detailed calculations that the storm sewer outlet or retention basin outlet is adequate for a twenty-five (25) year rainfall event in the calculations presented to the City.

- E. Approvals: A certificate of occupancy for the development of a building or structure shall not be issued until all storm water facilities are completed to the satisfaction of the Inspection Department according to the previously approved plans. Building permits for structures or buildings in any residential subdivision shall not be issued until all storm water facilities are completed to the satisfaction of the Inspection Department in accordance with previously approved plans.

**4-5-8: EROSION CONTROLS:**

- A. All developments shall have a stormwater pollution prevention plan that details all temporary and permanent erosion control systems and incorporates all current best management practices. They shall be designed in such a way as to do and accomplish the following:

1. Provide that all loosened earthen materials, vegetative debris, construction debris and/or rubbish caused by construction or erection of any building, structure, parking lot, or construction of streets be contained within the boundaries of the development during the period of construction. Permanent erosion controls are established by settling basins, berms, silt control fences, permanent vegetation, entrance rumble strips, or other standard recognized methods of permanently controlling erosion prior to removal of temporary erosion control.

2. Provide that all stormwater outlets or drainage ways be constructed with controls to control erosion of material both on the developed land and all adjacent lands. Erosion controls shall be provided such that velocities of stormwater discharged from outlets and into natural drainage ways is limited as set forth by the Illinois Department of Transportation's Design Manual. Means of controlling erosion shall include, but not be limited to: energy dissipators, settling basins, riprap or fabric slope protection and establishment of permanent vegetation.

3. Provide for dust control measures to prevent airborne soil erosion.

- B. Approval: A certificate of occupancy or acceptance of a subdivision shall not be issued until all erosion control facilities are completed and approved in accordance with previously approved plans.

**4-5-9: EXCEPTIONS:**

Storm Water Retention and Detention Facilities: Storm water retention and detention facilities shall be incorporated into all developments except where it can be demonstrated that retention or detention facilities are unfeasible to construct and at least one of the following exists:

1. The stormwater runoff from the development can be directed by natural drainage ways or existing storm systems of adequate capacity to a previously approved storm water retention or detention facility of adequate capacity to accommodate the runoff by the standards as set forth by the City.

2. The storm water runoff from the development can be discharged into an existing drainage or storm sewer system maintained by public bodies other than the City; provided that such other public bodies have evidenced their consent to or acceptance of such discharge.

4-5-10: **VIOLATION AND PENALTIES:** This code shall be enforced by the authorized enforcement agency. Any person who violates, disobeys, omits, neglects, or refuses to comply with, or who resists the enforcement of any of the provisions of this Chapter shall be subject to a penalty by a fine of not less than one hundred dollars (\$100.00) nor more than five hundred dollars (\$500.00). Unless specifically provided otherwise, each day that any violation of any provision of this Code continues shall constitute a separate offense.

(ORD. NO. 2920-06/07 4-9-07)