



Kendall County

Stormwater Management

Ordinance

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Kendall County, Illinois

KENDALL COUNTY STORMWATER MANAGEMENT ORDINANCE

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ARTICLE 1. AUTHORITY, PURPOSE AND DEFINITIONS.

Sec. 100 Statutory Authority

100.1 This Ordinance shall be known, and may be cited, as the Kendall County Stormwater Management Ordinance (the "KCSMO").

100.2 The Kendall County Board adopts this Ordinance pursuant to its authority to regulate Stormwater Management and governing the location, width, course, and release rate of all stormwater runoff channels, streams, and basins in the County, in accordance with the Kendall County Stormwater Management Plan. The statutory authority for this Ordinance is contained in 55 ILCS 5/ 5- 1062.2, 55 ILCS 5/5-1041, 55 ILCS 5/5-1063, 65 ILCS 5/1-2-1, 5/4-12-12, 5/11-30-2, 5/11-30-8, and 5/11-31-2 and other applicable authority, all as amended from time to time.

100.3 As applicable, the Communities within the County adopt and enforce this Ordinance or in the alternative adopt and enforce a municipal ordinance that is consistent with and at least as strict as the County Ordinance. Pursuant to 55 ILCS 5/ 5- 1062.2, 55 ILCS 5/5-1041, 55 ILCS 5/5-1063, 65 ILCS 5/1-2-1, 5/4-12-12, 5/11-30-2, 5/11-30-8, and 5/11-31-2 and other applicable authority, all as amended from time to time.

Sec. 101 Kendall County Stormwater Management Plan

The Kendall County Stormwater Management Plan was recommended by the Kendall County Stormwater Management Committee and adopted by the County Board, after review by the appropriate agencies and a public hearing on December 12, 2010. The Plan is available for public inspection in the office of the Kendall County Clerk.

Sec. 102 Purposes of this Ordinance

102.1 The purpose of this ordinance is to diminish threats to public health, safety and welfare caused by excess stormwater runoff from new development and redevelopment. This ordinance seeks to establish stormwater management practices and promote sustainable planning and design to counter increases in stormwater runoff quantity and rate and the impairment of water quality from development and land improvement throughout the entire County.

102.2 This ordinance is adopted to accomplish the following objectives:

- a. To assure that new development does not create or increase flood hazards or cause damages due to erosion;
- b. To protect existing buildings, new buildings and major improvements to buildings from flood damage due to increased stormwater runoff;
- c. To protect human life and health from the hazards of increased flooding;

- d. To lessen the burden on the taxpayer for stormwater management, flood control projects, repairs to flood-damaged public facilities and utilities and correction of channel erosion conditions from new development;
- e. To protect and conserve land and water resources in the context of orderly land development;
- f. To make federally subsidized flood insurance available;
- g. To reasonably preserve the natural hydrologic and hydraulic functions of watercourses, floodplains and open space areas and to protect water quality and aquatic habitats;
- h. To control soil erosion due to development and provide effective sediment management measures on construction sites;
- i. To require the design and evaluation of site Stormwater Management plans consistent with watershed capacities;
- j. To require stormwater storage and encouraging the use of and infiltration of stormwater in preference to stormwater conveyance;
- k. To minimize conflicts between agricultural and urban drainage systems and maintaining agriculture as a viable and productive land use;
- l. To encourage cooperation and consistency in Stormwater Management activities within and between the units of government having floodplain and Stormwater Management jurisdiction;
- m. To establish requirements and promote regular, planned maintenance of Stormwater Management facilities;
- n. To provide a procedure by which Communities throughout the County may petition the Committee for authority to implement and enforce the provisions of this Ordinance;
- o. To require strict compliance with and enforcement of this Ordinance.

102.3 The purposes of this Ordinance are intended to be consistent with and supercede the Kendall County Unified Stormwater Management Plan for those applicable sections.

Sec. 103 Reference to Watershed Plans

103.1 This Ordinance recognizes the integrated nature of the watershed system and the need to study certain flood control alternatives and other Stormwater Management functions on a watershed-wide basis. A generalized process for development of watershed plans was recommended in the adopted “Kendall County Stormwater Management Plan.” This process includes a public hearing review and approval by the Committee, and adoption by the County.

103.2 Individual watershed plans or interim watershed plans which recognize the unique attributes of each watershed may be prepared and periodically updated for the major watersheds, to identify management projects and establish criteria for development. These plans may also recommend changes to this Ordinance effective within the study boundary. Watershed Plans or Interim Watershed Plans may be adopted which recommend more or less stringent criteria than the criteria in this Ordinance. When adopted by the County Board, these watershed-specific criteria established in such Watershed Plans or Interim Watershed Plans shall be set forth as Sections 105 through 117 of this Ordinance.

Sec. 104 Definitions

Within the context of this Ordinance or a Certified Community Ordinance, the following words and terms shall have the meanings set forth except where otherwise specifically indicated. Words and terms not defined shall have the meanings indicated by common dictionary definition.

Administrator. The person designated by Resolution of the permitting authority to administer and enforce this Ordinance;

Administrative Violation. An administrative violation of the ordinance occurs when rules and procedures regarding permit applications and Stormwater Management permits are not followed.

Agricultural Use. Agriculture includes the growing of farm crops, truck garden crops, animal and poultry husbandry, apiculture, aquiculture, dairying, floriculture, horticulture, nurseries, tree farms, sod farms, pasturage, viticulture, wholesale greenhouses, and the growing, developing, processing, conditioning, or selling of hybrid seed corn, seed beans, seed oats, or other farm seeds including agricultural structures and accessories thereto. In interpreting the foregoing definition, it is the intent of this Ordinance to make the definition of agriculture as used herein identical to the definition of agriculture used in 55 ILCS 5/5-12001, as amended from time to time, exempting agriculture from the zoning authority of the County Board. Cultivating the ground, including the harvesting of crops, and rearing and management of livestock: tillage; husbandry; farming. In a broader sense, the science and art of the production of plants and animals useful to man, including to a variable extent, the preparation of these products for man's use not including a manufacturing activity or use. It includes grain storage, horse stables, nurseries, animal feed, commercial feeding, dairy and the like.

Agricultural Subsurface Drainage. A water management technique driven by economic and safety concerns, where the rate at which surplus groundwater should be removed is determined primarily by the moisture/air requirements of the vegetation (commonly called "Tiles, "Field Tiles", etc.)

Applicable Engineering Practice. Procedures, methods, or materials recommended in standard engineering textbooks or references as suitable for the intended purpose.

Applicant. Any Person, Firm or Governmental Agency who executes the necessary forms to procure official approval of a development or permit to carry out construction of a development from the County or appropriate Certified Local Governmental unit.

Base Flood. The flood having a one percent probability of being equaled or exceeded in a given year.

(BFE) Base Flood Elevation. The highest water surface elevation that can be expected during the base flood expressed in a numeric value relative to North American Vertical Datum of 1988 (NAVD 88).

Basement. Any area of the building having its floor subgrade (below ground level) on all sides.

(BMP) Best Management Practices. A measure used to control the adverse stormwater-related effects of development. BMPs include structural devices (e.g., swales, filter strips, infiltration trenches, and stormwater management basins) designed to remove pollutants, reduce runoff rates and volumes, and protect aquatic habitats. BMPs also include nonstructural approaches, such as public education efforts to prevent the dumping of household chemicals into storm drains, street sweeping, etc.

Building. See the definition for Structure.

Buffer. An area of predominantly vegetated land located adjacent to channels, wetlands, lakes or ponds for the purpose of reducing contaminants in stormwater that flows to such areas.

Bulletin 75. “Precipitation Frequency Study for Illinois” by James R. Angel and Momcilo Markus with Contributing Authors Kexuan Ariel Wang, Brian M. Kerschner, and Shailendra Singh, dated March 2020. (Amended 5/18/21)

Bypass Flows. Stormwater runoff or groundwater from upstream properties tributary to a property's drainage system but not under its control.

Certified Community. A Community which has met the requirements to be delegated the responsibility for ordinance enforcement as determined by the Stormwater Committee.

Channel. Any river, stream, creek, brook, branch, natural or artificial depression, ponded area, flowage, slough, ditch, conduit, culvert, gully, ravine, wash, or natural or manmade drainage way, which has a definite bed and bank or shoreline, in or into which surface, groundwater, effluent, or industrial discharges flow either perennially or intermittently.

Channel Modification. Alteration of a channel by changing the physical dimensions or materials of its bed or banks. Channel modification includes damming, rip rapping (or other armoring), widening, deepening, straightening, relocating, lining, and significant removal of bottom or woody rooted vegetation but does not include the clearing of debris or removal of trash or dredging to previously documented thalweg elevations and side slopes.

Clearing. Any activity which removes vegetative ground cover.

Committee. The Kendall County Stormwater Management Committee.

Community. The County or any city or village within the County.

Compensatory Storage. An excavated, hydrologically and hydraulically equivalent volume of storage created to offset the loss of existing flood storage.

(CLOMR) Conditional Letter of Map Revision. A CLOMR is FEMA's comment on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective base flood elevations, or the Special Flood Hazard Area (SFHA)..

COE. The United States Army Corps of Engineers.

Conservation Planning. The practices and procedures associated with the management of soil, water, plants, plant nutrients and other elements of agricultural production. Documentation of the management system shall only be as required by the NRCS or in cases of a complaint, as requested by the Administrator in response to a notification of a complaint.

Control Structure. A structure designed to limit the rate of flow of stormwater runoff that passes through the structure to a specific rate, given a specific upstream and downstream water surface elevation.

County. Kendall County, Illinois.

Critical Duration. The duration of a storm event that results in the greatest peak runoff.

Dam. Any obstruction, wall embankment, or barrier, together with any abutments and appurtenant works, constructed to store or divert water or to create a pool (not including underground water storage tanks).

Department. Kendall County Planning, Building and Zoning Department.

Depressional Storage. The volume contained below a closed contour on a 1-foot contour interval topographic map, the upper elevation which is determined by the topographic overflow elevation or the critical duration base flood elevation whichever is less.

Developer. A person who creates or causes development.

Development. The cumulative man-made changes to real property after the effective date of this ordinance including:

- a) Construction, reconstruction or replacement of a building or an addition to a building, with the exception of agricultural structures and accessories thereto outside the floodplain;
- b) Installing a manufactured home on a site, preparing a site for a manufactured home, or installing a travel trailer or recreational vehicle on a site for more than 180 days.;
- c) Drilling, mining, installing utilities, construction of roads, bridges or similar projects;

- d) Construction or erection of levees, walls, fences, dams, or culverts, channel modifications, filling, dredging, grading, excavating, paving, or other non-agricultural alterations of the ground surface, storage materials, deposit of solids or liquid waste;
- e) Any other activity of man that might change the direction, height, or velocity of flood or surface water, including extensive vegetation removal;

The following are not considered development so long as these activities occur outside the floodplain:

- a) Maintenance of existing drainage systems limited for the purpose of agricultural use and for maintaining cultivated areas and crop production;
- b) Improvements undertaken for an agricultural use pursuant to an NRCS conservation plan.

Director. The Kendall Board Chairman or his or her designee by Resolution, charged with performing the duties specified in this Ordinance.

Drainage Area. The land area above a given point that may contribute runoff flow at that point from rainfall.

Effective Date. The date to be determined by the County Board.

Elevation Certificates. An official record that shows new buildings and substantial improvements in all identified Special Flood Hazard Areas (SFHAs) are properly elevated. This elevation information is needed to show compliance with the floodplain management ordinance. Permitting authorities shall use the most current version of the Elevation Certificate developed by FEMA. Communities participating in the Community Rating System (CRS) are required to use the FEMA Elevation Certificate.

Ephemeral Stream. A stream whose bed elevation does not intersect the groundwater table, it carries flow only during and immediately after a runoff producing rainfall event.

Erosion. The general process whereby soil is detached by the action of water, wind or construction activities.

Existing Manufactured Home Park or Subdivision. A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed or buildings to be constructed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by the community.

Expansion to an Existing Manufactured Home Park or Subdivision. The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Extended Detention. A volume of runoff temporarily detained and released over a long period of time to reflect pre-development hydrology (ref. Section 203.6).

(FEMA) Federal Emergency Management Agency. The Federal Agency and its regulations, at 44 CFR 59-79, effective as of September 29, 1989 or as amended.

Flood. A general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal ways or the unusual and rapid accumulation of runoff of surface waters from any source.

Flood Frequency. Normally expressed as a period of years, based on a percent chance of occurrence in any given year from statistical analysis, during which a flood of a stated magnitude may be expected to be equaled or exceeded. For example, the 2-year flood frequency has a fifty percent (50%) chance of occurrence in any given year. Similarly, the 100-year flood frequency has a one percent (1%) chance of occurrence in any given year.

Flood Fringe. That portion of the floodplain outside of the designated floodway.

(FIRM) Flood Insurance Rate Map. A map issued by FEMA that is an official Community map, on which map FEMA has delineated both the special flood hazard areas and the risk premium zones applicable to the Community. This map may or may not depict floodways.

(FIS) Flood Insurance Study. A study of flood discharges and flood profiles for a Community, adopted and published by FEMA.

Floodplain and Special Flood Hazard Area (SFHA). These two terms are synonymous. The land in the flood plain within the County subject to a 1 percent or greater chance of flooding in any given year. The floodplains of the Aux Sable Creek, Blackberry Creek, Clear Creek, Dave-Bob Creek, East Branch Little Rock Creek, Big Rock Creek, Fox River, Harvey Creek, Middle Aux Sable Creek, North Arm Saratoga Creek, Waubensee Creek, and West Aux Sable Creek are generally identified on the countywide Flood Insurance Rate Map of Kendall County prepared by the Federal Emergency Management Agency and dated February 4, 2009 for panels 0005, 0010, 0015, 0020, 0030, 0040, 0051, 0052, 0053, 0054, 0056, 0057, 0058, 0059, 0070, 0078, 0086, 0087, 0089, 0100, 0125, 0176, and 0200 and January 8, 2014 for panels 0035, 0037, 0039, 0045, 0065, 0130, 0135, 0140, 0145, and 0225. Floodplain also includes those areas of known flooding identified by the County or Administrator.

(FPE) Flood Protection Elevation. The elevation of the BFE plus two feet of freeboard for structures within the plan limits of the base flood elevation. Outside the plan limits, the water table or 100-year design water surface elevation of any overland flood path or adjacent stormwater management basin, whichever is higher, plus two feet of freeboard.

Floodproof. Any combination of structural and non-structural additions, changes or adjustments to structures or property which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodproofing Certificate. A form published by FEMA that is used to certify that a building has been designed and constructed to be structurally dry flood proofed to the FPE.

Floodway or Designated Floodway. The floodway includes the channel, on stream lakes, and that portion of the floodplain adjacent to a stream or channel which is needed to store and convey the critical duration 100-year frequency flood discharge with no more than a 0.1 foot increase in flood stage due to the loss of flood conveyance or storage, and no more than a 10% increase in velocities.

Floodway Conveyance. The measure of the flow carrying capacity of the floodway section and is defined using Manning's equation as, $K = 1.4863 AR^{2/3}/n$ where "n" is Manning's roughness factor, "A" is the effective area of the cross-section, and "R" is ratio of the wetted area to the wetted perimeter.

Freeboard. An increment of height added to the BFE or 100-year design water surface elevation to provide a factor of safety for uncertainties in calculations, unknown local conditions, wave actions and unpredictable effects such as those caused by ice or debris jams.

Functional. In the context of the usage in this Ordinance, functional refers to stormwater facilities, which serve their primary purpose but may not be completed.

Groundwater. Water that is located within soil or rock below the surface of the earth. Same as subsurface water.

Groundwater Control System. A designed system which may consist of tiles, under drains, French drains, or other appropriate stormwater facilities whose purpose is to lower the groundwater table to a predictable elevation throughout the year.

Hydraulics. The science and study of the mechanical behavior of water in physical systems and processes.

Hydraulically Connected Impervious Area. Hydraulically connected impervious area shall consist of those areas of concrete, asphalt and gravel surfaces along with roof tops which convey flows directly to an improved drainage system consisting of storm sewers or paved channels. Rooftops whose downspouts discharge to unpaved surfaces which are designed for the absorption and filtration of stormwater runoff shall not be considered as hydraulically connected impervious surfaces. Roadways whose primary conveyance is through open ditches and swales shall not be considered as hydraulically connected impervious surface. Roadways drained by curb and gutter and storm sewer, and driveways hydraulically connected to those roadways shall be considered as directly connected impervious surface.

Hydraulically Equivalent Compensatory Storage. Compensatory storage either adjacent to the floodplain fill or not located adjacent to the development but can be shown by analysis to be hydrologically and hydraulically equivalent to compensatory storage located adjacent to the development.

Hydrologically Disturbed. An area where development causes the land surface to be cleared, grubbed, compacted, or otherwise modified that changes runoff volumes or rates; or that changes runoff direction.

Hydrology. The science of the behavior of water, including its dynamics, composition, and distribution in the atmosphere, on the surface of the earth, and underground.

IDNR-OWR. The Illinois Department of Natural Resources, Office of Water Resources.

Impervious Surfaces. Areas that cause the majority of rainfall to be converted to direct runoff including asphalt, concrete, roofing systems and compacted gravel not designed nor constructed to promote infiltration or storage of stormwater runoff.

Interim Watershed Plan. A regional study of a watershed which does not address the entire range of purposes, goals and objectives outlined in the Countywide Stormwater Management Plan approved by the Committee and adopted by the County.

Intermittent Stream. A stream whose bed intersects the groundwater table for only a portion of the year on the average or any stream which flows continuously for at least one month out of the year but not the entire year.

(LOMA) Letter of Map Amendment. FEMA's determination that either an entire legally defined parcel of land, or the lowest grade adjacent to a structure, is above the base flood elevation and is therefore the specific structure is excluded from the SFHA. A LOMA amends the effective FLOOD HAZARD BOUNDARY MAP, FLOOD BOUNDARY FLOODWAY MAP, or FLOOD INSURANCE RATE MAP.

(LOMR) Letter of Map Revision. FEMA's modification to an effective Flood Insurance Rate Map (FIRM), or Flood Boundary and Floodway Map (FBFM), or both. LOMRs are generally based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective base flood elevations, or the SFHA. The LOMR officially revises the FIRM or FBFM, and sometimes the Flood Insurance Study (FIS) report, and, when appropriate, includes a description of the modifications. The LOMR is generally accompanied by an annotated copy of the affected portions of the FIRM, FBFM, or FIS report.

Lake. A natural or artificial body of water encompassing an area of two or more acres, which retains water throughout the year.

(LOMR) Letter of Map Revision. A formal indication of Map change by FEMA will to revise base flood elevations, flood insurance rate zones, flood boundaries, or floodways as shown on an effective FLOOD INSURANCE RATE MAP based on approved record drawings.

Lowest Floor. The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor. Provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this Ordinance.

Major Stormwater System. That portion of a stormwater facility needed to store and convey flows beyond the capacity of the minor stormwater system. A constructed Major Stormwater System shall be designed to convey the 100-year flood frequency runoff event.

Manufactured Home. A structure transportable in one or more sections, which is built on a permanent chassis and is designated for use with or without a permanent foundation when attached to the required utilities. The term Manufactured Home also includes park trailers, travel trailers, and other similar vehicles placed on site for more than 180 consecutive days. The term Manufactured Home does not include a recreational vehicle.

Manufactured Home Park or Subdivision. A parcel (or contiguous parcels) of land divided into two or more Manufactured Home lots for rent or sale.

Mass Grading. Development in which the primary activity is a change in topography affected by the movement of earth materials.

Minor Stormwater System.

Shall consist of all infrastructure including but not limited to curb, gutter, culverts, roadside ditches and roadside swales, storm sewers, and sub-surface drainage systems intended to convey stormwater runoff on a frequent basis. The recurrence frequency for design purposes shall be the 10-year event.

Mitigation. Measures taken to offset negative impacts from development in wetlands or the floodplain.

(NFIP) National Flood Insurance Program. A Federal program whose requirements are codified in Title 44 of the Code of Federal Regulations.

Net Watershed Benefit in Water Quality. The institution of best management practices as part of a development that when compared to the pre-development condition can be judged to reduce downstream sediment loading or pollutant loadings.

Net Watershed Benefit in Flood Control. A finding that, when compared to the existing condition, the developed project will do one of the following: substantially reduce (more than 10%) downstream peak discharges; reduce downstream flood stages (more than 0.1 ft.); or reduce downstream damages to structures occurring in the pre-development condition. The demonstration of one of these conditions must be through detailed hydrologic and hydraulic analysis of watersheds on a regional scale as approved by the Administrator.

New Construction. (for the purposes of floodplain management) structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by a community or the County and includes any subsequent improvements to such structures.

New Manufactured Home Park or Subdivision. A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community or the County.

Non-riverine. Areas not associated with a stream or river such as isolated depressional storage areas, ponds and lakes.

NRCS. The United States Department of Agriculture, Natural Resources Conservation Service.

Observation Structures. Structures (manholes) built on a field tile where the pipe inflow and outflow is visible upon removal of a lid.

Open Channel. A conveyance system with a definable bed and banks carrying the discharge from field tiles and surface drainage. Open channels do not include grassed swales within farm fields under agricultural production, which are ephemeral in nature.

Ordinary High Water Mark (OHWM). The point on the bank or shore up to which the presence and action of surface water is so continuous so as to leave a distinctive mark, such as by erosion, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation, or other easily recognized characteristic.

Overland Flow Path. A design feature of the major stormwater system which carries flows in excess of the minor stormwater system design capacity in an open channel or swale, or as sheet flow or weir flow over a feature designed to withstand the particular erosive forces involved.

Oversight Committee. A Certified Community's body of officials charged by the Certified Community with overseeing variance of the Stormwater Management Ordinance within the Certified Community. The Oversight Committee may be a body of elected or appointed officials. See Section 1004.

Perennial Streams. Riverine watercourses whose thalweg generally intersects the groundwater table elevation and flows throughout the year.

Permitting Authority. The County or a Certified Community.

Plan. The Kendall County Stormwater Management Plan, adopted by the Kendall County Board on 12-12-2010, as amended from time to time.

Pond. A body of water of less than two acres, which retains a normal water level year round.

Primary Gravity Outlet. The outlet device designed to meet the release rate requirements of this Ordinance.

Professional Land Surveyor. A land surveyor registered in the State of Illinois, under The Illinois Land Surveyors Act. (225 ILCS 330/1, et seq.), as amended.

Professional Engineer. An engineer registered in the State of Illinois, under The Illinois Professional Engineering Practice Act. (225 ILCS 325/1 et seq.), as amended.

Property. Contiguous land under single ownership or control.

Public Bodies of Water. All open public streams and lakes capable of being navigated by watercraft in whole or in part for commercial uses and purposes and all lakes, rivers and streams, which in their natural conditions were capable of being improved and made navigable, or that are connected with or discharge their waters into navigable lakes or rivers within, or upon the borders of the State of Illinois, together with all bayous, sloughs, backwaters, and submerged lands that are open to the main channel or body of water directly accessible thereto.

Public Flood Control Project. A flood control project, which will be operated and maintained by a public agency to reduce flood damages to existing buildings and structures, which includes a hydrologic and hydraulic study of the existing and proposed conditions of the watershed. Nothing in this definition shall preclude the design, engineering, construction or financing in whole or in part of a flood control project by persons or parties who are not public agencies.

Public Flood Easement. An easement acceptable to the appropriate jurisdictional body that meets the regulations of the IDNR-OWR, the County, and the Community, and that provides legal assurances that all areas subject to flooding will remain open to allow flooding.

Record Drawings. Drawings prepared, signed, and sealed by a registered professional engineer or registered land surveyor representing the final "as-built" record of the actual in-place elevations, location of drainage systems, and topography.

Recreational Vehicle. A vehicle which is:

- (a) Built on a single chassis;
- (b) 400 square feet or less when measured at the largest horizontal projection;
- (c)) Designed to be self-propelled or permanently towable by a light duty truck; and
- (d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Redevelopment. Development on a parcel upon which the existing condition prior to the effective date of the Ordinance is a non-agricultural land use and includes infrastructure associated with non-agricultural activities. Widening of an existing street by a unit of local government, including but not limited to the Kendall County Highway Department and Township Road Districts, may be considered redevelopment.

Registered Structural Engineer. A person licensed under the laws of the State of Illinois as a structural engineer.

Regulatory Floodplain. The floodplain as depicted on maps recognized by FEMA as defining the limits of the SFHA.

Regulatory Floodway. Regulatory floodways are those portions of the floodplain depicted on maps as floodway and recognized by the IDNR-OWR for regulatory purposes.

Removal of Vegetation. Cutting vegetation to the ground or stumps, complete extraction, or killing vegetation by spraying.

Retention Facility. A retention facility stores stormwater runoff without a gravity release.

Riverine. Related to, formed by, or resembling a channel (including creeks and rivers).

Runoff. The waters derived from melting snow or rain falling within a tributary drainage basin that exceeds the infiltration capacity of the soils of that basin.

Seasonal High Groundwater Table. The upper limits of the soil temporarily saturated with water, being usually associated with spring wetness conditions. This may be indicated by soil mottles with a Munsell color of 2 chroma or less.

Sedimentation. The process that deposits hydraulically moved soils, debris, and other materials either on other ground surfaces or in bodies of water or stormwater drainage systems.

Sediment Trap. A device or area that allows for the temporary deposit and removal or disposal of sediment materials from stormwater runoff.

Seepage. The movement of drainable water through soil and rock.

(SFHA) Special Flood Hazard Area. See the definition for Floodplain.

Start of Construction. (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (Pub. L. 97-348)), includes substantial improvement, and means the date the building permit was issued provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Stormwater Facility. All ditches, channels, conduits, bridges, culverts, levees, ponds, natural and man-made impoundments, wetlands, riparian environment, tile, swales, sewers, or other natural or artificial drainage systems, devices or measures which serve as a means of draining surface and subsurface water from land.

Stormwater Management Basin. (Detention) A constructed stormwater facility for the temporary storage of stormwater runoff at a controlled release rate.

Stormwater Management Permit. The permit issued under Article 5.

Stripping. Any activity that removes the vegetative surface cover including tree removal, clearing, and storage or removal of topsoil.

Structure. for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

Substantial Improvement. When work is performed on an existing building and any of the following three conditions occur, or any combination thereof, the work is classified as a substantial improvement and the entire building must comply with the building protection standards. 1) an improvement made to a building whose cost is equal or greater than fifty percent (50%) of the structure market value prior to the start of construction; 2) reconstruction or repair of a building, the cost of which or is equal or greater than fifty percent (50%) of the structure market value prior to the start of construction; or 3) additions to an existing building whose cost or is equal or greater than fifty percent (50%) of the structure market value prior to the start of construction, or increases the floor area by more than 20%. Note that if a building is substantially improved, then the entire building must comply with the building protection standards.

Subsurface Drainage. The removal of excess soil water to control water table levels at predetermined elevations for structural, environmental or other reasons in areas already developed or being developed for residential, industrial, commercial, or recreational uses.

Subsurface Water. Water beneath the ground or pavement surface. Sometimes referred to as ground water or soil water.

Technical Manual. The manual adopted by the County Board, which refers to this Ordinance and provides additional explanations and examples.

Thalweg. A line along the lowest point in a channel.

Transition Section. Reaches of the stream or floodway where water flows from a narrow cross-section to a wide cross-section, or vice versa.

Waterbody. Any water holding lake, pond, basin, wetland, quarry, or natural or man-made water impoundment that has a definite bed and banks or shoreline, into which surface or groundwater flows and is impounded, either perennially or intermittently.

Watercourse. Any river, stream, creek, brook, branch, flowage, ravine, or natural or man-made drainageway that has a definite bed and banks or shoreline, in or into which surface or groundwater flows, either perennially or intermittently.

Water Table. The upper limit of a free water surface in a saturated soil or underlying material.

Waters of the U.S. As defined by the United States Army Corps of Engineers in their Federal Methodology for the Regulation of Wetlands. For purposes of this Ordinance, waters of the U.S. include wetlands, lakes, rivers, streams, creeks, bogs, fens, and ponds. Waters of the U.S. do not include maintained stormwater facilities.

Watershed. All land area drained by, or contributing water to, the same stream, lake, stormwater facility, or draining to a point.

Watershed Characteristics. Watershed characteristics include land use, physiology, habitat, climate, drainage system and community profile.

Watershed Plan. A study and evaluation of an individual drainage basin's stormwater management, floodplain management, water quality and flood control needs and capabilities.

Wetland. Land area defined in the 1987 *Corps of Engineers Wetland Delineation Manual, technical report Y-87-1*, U.S. Army engineers Waterways experiment Station, Vicksburg, Mississippi (the "1987" Manual) or other current Federal methodology recognized by the U.S. Army Corps of Engineers for regulatory purposes.

Sections 105 Reserved for Watershed and/or Interim Watershed Plans.

ARTICLE 2. REQUIREMENTS FOR STORMWATER MANAGEMENT.

Sec. 200 General Information

200.1 Other Applicable Articles

All developments shall meet the requirements specified for general stormwater requirements (Section 201), site runoff requirements (Section 202), sediment and erosion control (Article 3), long term maintenance (Article 6) and performance security (Article 12).

Sec. 201 General Stormwater Requirements

201.1 Requirements Applicable to All Development

All development shall ensure the development site is reasonably safe from flooding.

No development shall:

a. Result in any new or additional expense to any person other than the developer for flood protection; nor

b. Increase flood elevations or decrease flood conveyance capacity upstream or downstream of the area under the ownership or control of the developer. This requirement shall not prohibit the removal or reduction of built obstructions to flow, such as increasing culvert capacity or lowering roadway elevations.

201.2 Building Permits

Stormwater facilities shall be functional before building permits are issued for residential and non-residential subdivisions.

201.3 Single Parcel Developments

Stormwater facilities shall be functional where practicable for single parcel developments before building construction begins.

201.4 Overland Flow Paths

The development shall have an overland flow path that will pass the base flood flow from disturbed areas to the project stormwater facilities or stormwater management basin without increasing damage to structures or property. If the upstream drainage area is less than 20 acres, a storm sewer system and inlets sized for the base flood can be constructed in lieu of providing an overland flow path. Such storm sewer systems shall be considered part of the major stormwater system. Overland flow paths internal to the site shall be considered part of the major stormwater system and shall be designed for conveyance of the base flood (critical duration) or at a minimum one (1) cfs per tributary acre, without damage to structures.

201.5 Protection of Buildings

All space in new buildings or added to existing buildings hydraulically connected to a stormwater management basin or Base Flood Elevation shall be elevated, flood proofed, or otherwise protected to at least two (2) feet above the 100-year design water surface elevation or

current FIS elevation, whichever is greater. The design water surface elevation of the stormwater management basin is determined as the elevation associated with the design release rate as determined in Section 202.3.

All space in new buildings or added to existing buildings hydraulically connected to a major stormwater system, or overland flow path with a tributary area of 20 acres or greater shall be elevated, flood proofed, or otherwise protected to at least two (2) feet above the 100-year design water surface elevation or current FIS elevation, whichever is greater.

All space in new buildings or added to existing buildings hydraulically connected to a major stormwater system, or overland flow path with a tributary area less than 20 acres shall be elevated, flood proofed, or otherwise protected to at least one (1) foot above the 100-year design water surface elevation or current FIS elevation, whichever is greater.

201.6 Depressional Storage

The function of existing on-site depressional storage shall be preserved for up to the base flood event. The function of existing on-site depressional storage shall be preserved for both on-site and off-site tributary flows in addition to required site runoff storage volume. When depressional storage is removed it must be compensated for in the stormwater management basin at a 1 to 1 ratio provided that offsite areas tributary to the existing depressional storage are routed through the stormwater management basin. This requirement is in addition to the stormwater management basin required in Section 203.

Sec. 202 Site Runoff Requirements

202.1 Stormwater Facility Discharges

Stormwater facilities shall be required and designed so that runoff exits the site at a point where it exited prior to the subject development and in a manner such that flows will not increase flood damage to adjacent property except when otherwise approved in writing by the Administrator. Concentrated discharges from new developments must enter conveyance systems capable of carrying the design flow rate without increasing flood damages or maintenance costs downstream.

202.2 Minor Stormwater System Criteria

Minor stormwater systems shall be sized to convey runoff from the tributary watershed under pre-development or fully developed conditions as may create the greatest amount of runoff. The recurrence frequency for design purposes shall be the 10-year event. The rainfall data shall be from ISWS Bulletin 75. Inlet capacity shall generally be provided such that depth of ponding does not exceed 6 inches to facilitate the 10-year event. Pipe capacity shall generally be provided such that the calculated hydraulic grade line does not exceed the top of pipe elevation. The extent and determination of minor (and major) stormwater systems shall be at the discretion of the permitting authority based on project conditions. (Amended 5/18/21)

202.3 Major Stormwater System Criteria

Major stormwater systems shall be sized to carry the base flood without causing additional flood damage. A constructed major stormwater system shall be designed to convey the critical

duration base flood event from all tributary areas under developed or undeveloped conditions whichever may result in greater flows. The extent and determination of major (and minor) stormwater systems shall be at the discretion of the permitting authority based on project conditions.

202.4 Existing Sub-Surface and Surface Drainage Systems

Stormwater systems shall properly incorporate and be compatible with existing subsurface and surface drainage systems including agricultural systems. Designs shall not cause damage to the existing drainage system(s) or the existing adjacent or tributary land including those with agricultural uses.

The following principles and requirements shall be observed in the design:

a. Off-Site Outfall: Agricultural subsurface and surface drainage systems shall be evaluated with regard to their capacity and capability to properly convey low flow groundwater and stormwater management basin release without damage to downstream drainage systems and land use on the adjacent property. If the outfall drain tile and surface drainage systems prove to be inadequate it will be necessary to modify the existing systems or construct new systems which will not conflict with the existing systems and will not impact the existing agricultural land use. Existing subsurface systems shall only be used as an outfall if extended detention volume is provided in the stormwater management basin.

b. On-Site: Agricultural drainage systems shall be located and evaluated on-site. All existing on-site agricultural drain tile not serving a beneficial use shall be abandoned by trench removal prior to other development and documented on record plans. If any existing drain tiles continue to upland watersheds the applicant must maintain drainage service at all times including during construction.

c. Off-Site Tributary: Existing drainage systems shall be evaluated with regard to existing capabilities and reasonable future expansion capacities. All flows from existing tributary drain tiles shall be facilitated by the proposed stormwater conveyance system including observation structures located at the property limits as appropriate. The proposed stormwater system shall provide a free flow discharge from tributary drain tiles and shall not allow surface runoff to enter the system. Off site surface flows (including agricultural) shall be facilitated by the proposed project with consideration given to water quality and sediment control and mitigation measures.

d. New roadway construction and utility construction shall preserve existing sub-surface systems within the right-of-way and the entire project area.

202.5 Design Runoff Rate

Design runoff rates shall be calculated using event hydrograph methods. Acceptable hydrograph methods shall be determined by the Administrator. Design runoff rates for minor stormwater systems may be calculated using the Rational Method if the tributary area is less than 20 acres.

202.6 Design Rainfall

Any design runoff rate calculation shall use Illinois State Water Survey Bulletin 75 rainfall data to calculate flow from all tributary area upstream of the point of design. Peak discharges for conveyance design purposes shall be based on the critical duration event considering the appropriate rainfall distribution. Rational method design of conveyance systems shall use Illinois State Water Survey Bulletin 75 sectional rainfall data based intensity-duration-frequency curves. (Amended 5/18/21)

202.7 Stormwater System Easements

For projects involving subdivision, major and minor storm water systems shall be located within easements or rights-of-way explicitly providing for public access and maintenance of such facilities. For all other projects requiring a permit, easements are required to provide public access for maintenance of new stormwater facilities (or for modifications) involving stormwater management basins or components of a drainage system that conveys runoff from off-site properties.

202.8 Flow Depths

Maximum flow depths for new transverse stream crossings shall not exceed one foot at the crown of the road during the base flood condition. The maximum flow depth on a roadway shall not exceed 6" at the crown for flow parallel to the roadway. For flow over a new roadway or parallel to a new roadway the product of the flow depth (in feet) and velocity (in feet per second) shall not exceed four for the base flood condition.

202.9 Diversion of Flow Between Watersheds

Transfers of waters between watersheds (diversions) shall be prohibited except when such transfers will not violate the provisions of Section 201.1 and are otherwise lawful. Watersheds for purpose of regulation under this section shall be the watershed divides as defined in the Kendall County Stormwater Plan.

Sec. 203 Site Runoff Storage Requirements

203.1 Applicability of Site Runoff Storage Requirements

All developments shall comply with the site runoff storage requirements provided in Section 203 of this Ordinance in which:

- a. Single family - detached land use property consisting of five or more residential structures having an average lot size of three acres or less;
- b. A non-residential land use or a residential land use other than single family - detached property of contiguous ownership equal to or greater than three acres and:
 1. resulting in more than 45,000 square feet of development, or;
 2. resulting in more than 32,000 square feet of impervious surface area

The area of development and impervious surface and corresponding storage requirements shall be determined on an aggregate basis from the effective date of this ordinance (Amended 5/21/13).

- c. A non-residential land use or a residential land use other than single family - detached property of contiguous ownership less than three acres and resulting in disturbance of more than 5,000 square feet and resulting in 25% or more of the site area as impervious surface. The area of development and corresponding storage requirements shall be determined on an aggregate basis from the effective date of this ordinance (Amended 5/21/13);
- d. Public roadway developments in rights-of-way under the ownership or control of a unit of local governments where the new impervious surface area tributary to any drainage outlet exceeds two acres. New impervious surface includes PCC & asphalt pavement, sidewalks and paved trails but does not include previously paved areas;
- e. The developer of a Redevelopment project may request that a fee-in-lieu of detention (site runoff storage volume) be approved provided that all of the following are demonstrated to the sole satisfaction of the Administrator:
 - 1. The drainage plan will not increase existing flood damages, and
 - 2. The drainage plan provides a net watershed benefit in water quality compared to the existing development.

The Administrator shall determine the appropriate fee to be collected as defined in Article 13, and his or her decision in the matter shall be considered final.

All impervious area shall be included when considering the threshold for requiring stormwater storage regardless of when it was created. No impervious surface is grandfathered with regard to the threshold. However, stormwater storage is only required on development after the effective date of this ordinance. Additionally, it is noted that a gravel surface is considered impervious unless it is designed and constructed to promote infiltration or provide stormwater storage. (Amended 5/21/13)

The following projects / work activities are not considered development nor subject to the site runoff storage requirements of this section:

- a. Maintenance or repair of existing buildings and facilities;
- b. Repair and replacement of existing parking lots outside the floodplain provided:
 - 1. The net impervious surface is not increased
 - 2. There is no increase in peak flows
 - 3. There is no change in the location or type of stormwater discharge (sheet flow or point discharge);
- c. Repair and replacement of existing parking lots outside the floodplain with an increase in impervious surface provided:

1. The net impervious surface increases by no more than 10% of the area of the parking lot but in no case shall the impervious surface increase by more than 45,000 sf.
 2. Best Management Practices are constructed.
 3. The Best Management Practices provide a reduction in total runoff volume or reduction in pollutant load. This shall be documented with a quantitative evaluation of before project and after project conditions.
- d. Resurfacing of streets or highways outside the floodplain;
 - e. Resurfacing publicly owned streets and highways within the floodplain provided elevation changes are limited to two inches or less;
 - f. Excavation or removal of vegetation in rights-of-way or public utility easements for the purpose of installing or maintaining utilities not including storm sewers;

203.2 Release Rate

Sufficient excess runoff / flood storage volume shall be provided so that the proposed project will not discharge at a rate greater than 0.15 cfs/acre of disturbance for a rainfall event with a 100-year recurrence frequency. Additionally, sufficient excess runoff / flood storage volume shall be provided so that the proposed project will not discharge at a rate greater than 0.04 cfs/acre of disturbance for a rainfall event with a 2-year recurrence frequency. The area of hydrologic disturbance for the entire project shall be used to calculate the site runoff storage volume requirements.

203.3 Design Methods

Event hydrograph routing methods shall be used to calculate runoff storage volume requirements for stormwater management basins with total tributary areas greater than five acres. The hydrograph routing shall be HEC-1, (SCS methodology), HEC-HMS, TR-20, or TR-55 tabular method or as otherwise approved by the Administrator. Event hydrograph methods shall incorporate the following assumptions:

- a. Antecedent moisture condition = 2; and
- b. Appropriate Huff rainfall distribution; and
- c. 24-hour duration storm with a 1% probability (100-year frequency) of occurrence in any one year as specified by Illinois State Water Survey Bulletin 75 rainfall data multiplied by a correction factor of 1.13 to account for Bulletin 75 rainfall data. (Amended 5/18/21)

Runoff storage volume requirements for stormwater management basins with total tributary areas equal to or less than five acres may utilize the *% Impervious to unit Area Detention* nomograph developed by NIPC (now known as CMAP) depicted in Table 203.

203.4 Existing Release Rate Less Than Allowable

For sites where the undeveloped release rate is less than the maximum release rate in Section

203.2, the developed release rate and corresponding site runoff storage volume requirement shall be based on the existing undeveloped release rate for the development.

203.5 Downstream Water Surface Elevations

All hydrologic and hydraulic computations must utilize appropriate assumptions for downstream water surface elevations, from low flow through the base flood elevation, considering the likelihood of concurrent flood events.

203.6 Extended Detention Requirement

The requirements of this section will apply only when the outfall from a stormwater management basin is proposed to connect to an off-site agricultural drain tile system. The first 0.75 inches of runoff from a rainfall event over the hydraulically connected impervious area of the development shall be stored below the elevation of the primary gravity outlet (extended detention) of the stormwater management basin. The facility may be designed to allow for evapotranspiration or infiltration of this volume into a subsurface drainage system and shall not be conveyed through a direct positive connection to downstream areas.

The hydraulically connected impervious area used in the calculation of required extended detention volume may be reduced by the Administrator if the soils are prepared to maximize infiltration and deep rooted grasses or other plants selected for their ability to promote infiltration or water absorption are planted in areas appropriately dedicated. The reduction in hydraulically connected impervious area used in the calculation shall be equal to the area of the development meeting the above soils/native planting requirement.

Subsurface drainage systems may be designed as a component of the extended detention portion of the stormwater management basin to assist in infiltration in accordance with the following criteria:

a. The extended detention volume shall be discharged at a rate no greater than that required to empty the calculated extended detention volume within 5 days of the storm event and at a rate no less than that required to empty the calculated extended detention volume within 30 days of the storm event.

b. No subsurface drainage pipe shall be located within 10 feet of drainage pipes directly connected to the stormwater management basin.

c. For purposes of meeting the maximum subsurface drainage discharge requirements, flow control orifices and weirs may be used.

d. All design extended detention volume shall be provided above the seasonal high ground water table or the invert elevation of the groundwater control system.

e. Farm field tile shall not be considered a subsurface drainage system.

203.7 Stormwater Management Basin Design Requirements

Stormwater management basins shall be designed and constructed with the following characteristics:

a. The stormwater management basin shall provide 1 (one) foot of freeboard above the design high water elevation or BFE.

b. The stormwater management basin shall be located on the site and designed such that they are accessible by motorized maintenance equipment necessary for regular and long term maintenance operations. The route to the basin shall be formalized with an access easement and that the surface of such route shall be easily traversable by maintenance equipment / operations as determined by the Administrator.

c. All site runoff storage volume shall be provided above the seasonal high groundwater table or above the invert of the groundwater control system.

d. Stormwater management basins shall facilitate sedimentation and catchment of floating material. Unless specifically approved by the Administrator, impervious low-flow ditches shall not be used in stormwater management basins. Stormwater management basins shall maximize the normal flow distance between stormwater management basin inlets and outlets, to the extent possible

e. Stormwater management basins shall reduce impacts of stormwater runoff on water quality by incorporating best management practices.

f. Stormwater management basins shall be designed with an emergency overflow weir capable of passing the inflow from the critical duration base flood event under developed conditions. The predicted emergency water surface elevation shall be below the top of embankment for any other portion of the stormwater management basin. The weir design shall provide appropriate erosion control measures.

g. Stormwater management basins with single pipe outlets shall have a minimum inside diameter of 12 inches. If design release rates necessitate a smaller outlet, flow control devices such as perforated risers, or flow control orifices shall be used.

h. Stormwater management basins intended to support potential fish habitat with a permanent pool, shall be at least ten feet deep over 25 percent of the bottom area.

i. Stormwater management basins shall have a maximum side slope of four to one.

j. Stormwater management basins with a permanent pool shall have a safety shelf at least eight feet wide a maximum of two feet below the normal water pool.

k. Stormwater management basins shall have a maximum drawdown time of 72 hours for a 24-hour duration rainfall event with 100-year recurrence frequency.

j. All stormwater management basins shall comply with IDNR dam safety requirements where applicable.

203.8 Site Runoff Storage Volume Within The Regulatory Floodplain

Stormwater management basins and other facilities to satisfy site runoff storage volume requirements located within the regulatory floodplain shall:

- a. Conform to all applicable requirements specified in Article 4 of this Ordinance; and
- b. Store the required amount of site runoff to meet the release rate requirement under all stream flow and backwater conditions in the receiving stream up to the 10-year flood elevation; and
- c. Site runoff storage volume provided by enlarging existing regulatory floodplain storage without providing a flow control device regulating discharge (on-stream detention) will be allowed only as a variance. The applicant must demonstrate that flood damages are not increased and the development will not increase flood flows for both the 2-year and 100-year floods on the stream with developed conditions on the site; and
- d. The Administrator may approve designs which can be shown by detailed hydrologic and hydraulic analysis to provide a net watershed benefit in flood control not otherwise realized by strict application of the requirements in a through c above.

203.9 Site Runoff Storage Volume Within The Regulatory Floodway

Stormwater management basins and other facilities to satisfy site runoff storage volume requirements located within the regulatory floodway shall:

- a. Meet the requirements for locating stormwater management basins in the regulatory floodplain; and
- b. Be evaluated by performing hydrologic and hydraulic analysis consistent with the standards and requirements for any adopted watershed plans; and
- c. Provide a net watershed benefit in flood control.

203.10 Site Runoff Storage Volume - Channel Impoundment

Flow control structures constructed across any channel to impound water to meet site runoff storage requirements shall be prohibited on any perennial stream unless part of a public flood control project with a net watershed benefit in flood control. Those streams appearing as blue on a USGS Quadrangle map shall be assumed perennial unless better data is obtained. All cross-stream flow control structures for the purpose of impounding water to provide site runoff storage in all cases on perennial and intermittent streams must demonstrate that they will not cause short term or long-term stream channel instability.

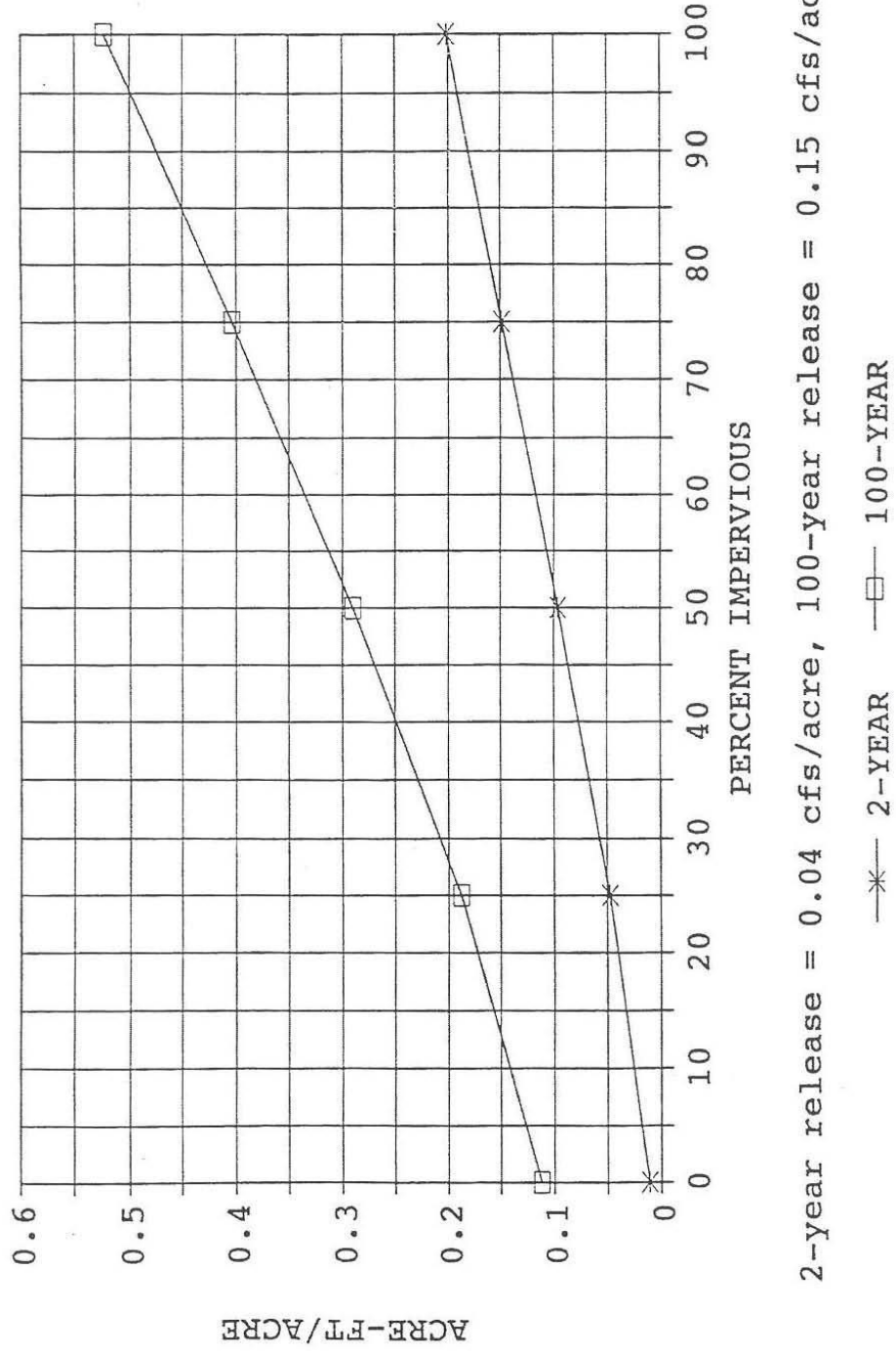
203.11 Off-Site Stormwater Management Basins

Stormwater management basins and other facilities to satisfy site runoff storage volume requirements may be located off-site if the following conditions are met:

- a. The off-site stormwater management basin meets all of the requirements of this Article 2; and
- b. Adequate storage capacity in the off-site facility is dedicated to the development; and
- c. The development includes means to convey stormwater to the off-site stormwater management basin.

Table 203

DETENTION VOLUME VS PERCENT IMPERVIOUS
2-YEAR AND 100-YEAR UNIT AREA DETENTION



Reference: Northeastern Illinois Planning Commission, Investigation of Hydrologic Methods for Urban Development in Northeastern Illinois

ARTICLE 3. SOIL EROSION AND SEDIMENT CONTROL

Sec. 300 General Principles

Measures taken to control soil erosion and sediment runoff should be adequate to assure that sediment is not transported from the site. The following principles shall apply to all development activities within the County.

- a. Erosion and sediment control planning shall be part of the initial site planning process. In planning the erosion and sediment control strategy, preference shall be given to reducing erosion rather than controlling sediment.
- b. Development shall be related to the topography and soils of the site to create the least potential for erosion. Areas of steep slopes where high cuts and fills may be required shall be avoided, and natural contours should be followed.
- c. Natural vegetation shall be retained and protected. Areas immediately adjacent to natural watercourses, lakes, ponds, and wetlands shall be left undisturbed to the greatest extent possible. Temporary crossings of watercourses, when permitted, must include appropriate watercourse and bank stabilization measures.
- d. Special precautions shall be taken to prevent damages resulting from any necessary development activity within or adjacent to any stream, lake, pond, or wetland. Preventative measures shall reflect the sensitivity of these areas to erosion and sedimentation.
- e. The smallest practical area of land shall be exposed for the shortest practical time during development.
- f. Sediment basins or traps, filter barriers, diversions, and any other appropriate sediment or erosion control measures shall be installed prior to or concurrent with site clearing and grading. Measures implemented onsite shall be maintained to prevent erosion and remove sediment from run-off waters from land undergoing development.
- g. The selection of erosion and sediment control measures shall be based on assessment of the probable frequency of climatic and other events likely to contribute to erosion (and at a minimum a rainfall event with a 25 year recurrence frequency).
- h. Provision shall be made to accommodate the increased run-off caused by changed soil and surface conditions during and after development. Drainageways shall be designed so that their final gradients and the resultant velocities and rates of discharge will not create additional erosion onsite or downstream.
- i. Permanent vegetation and drainage systems shall be installed and functional at the earliest possible time during development.

- j. Those areas being converted from agricultural purposes to other land uses shall be vegetated with an approved protective cover prior to development.
- k. All waste generated as a result of site development activity shall be properly disposed of and prevented from being carried off the site by either wind or water.
- l. All construction sites shall provide measures to prevent sediment from being tracked onto public or private roadways.
- m. Temporary vegetation or, where appropriate, mulching or other non-viable cover shall be used to protect areas exposed during development.

All development shall comply with the minimum requirements of NPDES regulations for construction activities. This ordinance may provide other requirements but is not intended to relieve NPDES requirements.

Sec. 301 Soil Erosion and Sediment Control Plan

A Soil Erosion and Sediment Control Plan shall be provided showing all measures necessary to meet the objectives of this ordinance throughout all phases of construction and permanently after completion of development of the site, including:

- a. The plan shall provide a description of the nature of the construction activity, the name of the receiving water(s), an estimate of the total area of the site and the total area of the site that is expected to be disturbed by excavation, grading or other activities.
- b. A site map indicating drainage patterns and approximate slopes anticipated before and after major grading activities.
- c. Location and description of all offsite tributary areas that will cause runoff and the potential to cause sediment flow on to the project site and or within the project limits. The extent of off-site area, nature of land use and off-site land cover shall be identified. Depict and identify the on-site erosion control and sediment control measures to facilitate potential off-site flows and sediment.
- d. The proposed phasing of development of the site, including stripping and clearing, rough grading and construction, and final grading and landscaping. Phasing should identify the expected dates and the sequences of installation of temporary sediment control measures, installation of temporary soil stabilization measures, clearing and grading, estimated duration of exposure of cleared areas, installation of storm drainage, paving of streets and parking areas, final grading, establishment of permanent vegetative cover, and the removal of temporary measures. It shall be the responsibility of the applicant to notify the permitting authority of any significant changes that occur in the site development schedule after the Soil Erosion and Sediment Control Plan has been approved.
- e. Location and description, including specifications, of all erosion control measures, including temporary or permanent seeding, mulching, erosion control blanket, and types of non-vegetative stabilization measures.

- f. Location and description, including standard details and design specifications, of all sediment control measures including but not limited to methods to prevent tracking of sediment offsite, diversions, sediment traps, sediment basins, inlets and outlets, as appropriate.
- g. Description of dust control measures.
- h. Locations of stockpiles and description of stabilization methods.
- i. Descriptions of off-site fill or borrow volumes, locations, and methods of stabilization.
- j. Provisions for construction dewatering, if needed, to address water that is pumped or discharged from the site during construction. Means shall be provided to prevent erosion from a dewatering operation as well as filter or treat water to prevent sediment from discharging offsite.
- k. Location of outfall(s).
- l. Provisions for maintenance of control measures, including type and frequency of maintenance.

These submissions shall be prepared in accordance with the requirements of this ordinance and the standards and specifications contained in the Illinois Urban Manual (2010 or current edition) which standards and requirements are hereby incorporated into this ordinance by reference. Erosion and sediment control planning shall be in accordance with the “Procedures and Standards for Urban Soil Erosion and Sedimentation Control in Illinois” (The Green Book, 1988 or current edition),

The permitting authority may waive specific requirements for the content of submissions upon finding that the information submitted is sufficient to show that the work will comply with the objectives and principles of this ordinance.

Sec. 302 Design and Operations Standards and Requirements

The following division establishes the design features and the design criteria, standards, and methods to be used in developing a Soil Erosion and Sedimentation Control Plan.

302.1 Site Design Requirements

- a. On-site soil erosion and sediment control measures, as specified by the following criteria, shall be constructed and functional prior to initiating clearing, grading, stripping, excavating or fill activities on the site.
 - 1. Disturbed areas draining less than 1 acre shall, at a minimum, provide filter barriers (including silt fences, or equivalent control measures) to control all on-site and off-site runoff as specified in referenced handbooks. Vegetated filter

strips, with a minimum width of 25 feet located on the subject property, may be used as an alternative only where runoff in sheet flow is expected.

2. Disturbed areas draining more than 1 but less than 5 acres, shall, at a minimum, be protected by a sediment trap or equivalent control measure and such protection shall be constructed at the downslope point of the disturbed area as specified in referenced handbooks.
 3. Disturbed areas draining more than 5 acres, shall, at a minimum, be protected by a sediment basin with a dewatering device or equivalent control measure and such protection shall be constructed at the downslope point of the disturbed area as specified in referenced handbooks.
 4. Sediment basin and sediment trap designs shall provide for both detention storage and sediment storage. The detention storage shall be composed of equal volumes of "wet" detention storage and "dry" detention storage and each shall be sized for the 2-year, 24-hour runoff from the site under maximum runoff conditions during construction. The release rate of the basin shall be that rate required to achieve minimum detention times of at least 10 hours. The elevation of the control structure shall be placed such that it only drains the dry detention storage.
 5. The sediment storage shall be sized to store the estimated sediment load generated from the site over the duration of the construction period with a minimum storage equivalent to the volume of sediment generated in one year. For construction periods exceeding 1 year, a sediment removal schedule shall be provided.
- b. Stormwater conveyance channels, including ditches, swales, and diversions, and the outlets of all channels and pipes shall be designed and constructed to withstand the expected flow velocity from the 10-year frequency storm without erosion. All constructed or modified channels shall be stabilized within 48 hours.
 - c. Soil disturbance shall be conducted in such a manner as to minimize erosion. Areas of the development site that are not to be graded shall be protected from construction traffic or other disturbance until final seeding is performed. Soil stabilization methods shall consider the time of year, site conditions and use of temporary or permanent measures.
 - d. Properties and channels adjoining development sites shall be protected from erosion and sedimentation. At points where concentrated flow leaves a development site, energy dissipation devices shall be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity of flow from the drainage outlet to the watercourse.
 - e. Development in excess of 20 acres shall provide a detailed schedule for earthwork including a timeline in days for stripping, excavating, filling, and establishment of erosion controls. Such schedule shall consider phasing of operations to limit the area of

disturbance on site at any one time. The erosion control plan must ensure temporary or permanent soil erosion and sediment control measures can be maintained.

- f. Disturbed areas shall be stabilized with temporary or permanent measures within 7 calendar days following the end of active disturbance, or re-disturbance, consistent with the following criteria:
 1. Appropriate temporary or permanent stabilization measures shall include seeding, mulching, erosion control blanket, sodding, and/or non-vegetative measures in accordance with the Illinois Urban manual.
 2. Areas having slopes greater than 12 percent shall be stabilized with turf reinforcement mat, or blanket in combination with seeding, or equivalent.
 3. The seven (7) day stabilization requirement may be precluded by snow cover or when construction activity will resume within fourteen (14) days from when activities have ceased, then stabilization measures do not have to be initiated on that portion of the site by the 7th day after construction activity temporarily ceased given that portion of the site has appropriate soil erosion and sediment controls.
- g. Land disturbance activities in stream channels shall be avoided, where possible. If disturbance activities are unavoidable, the following requirements shall be met:
 1. Construction vehicles shall be kept out of the stream channel to the maximum extent practicable. Where construction crossings are necessary, temporary crossings shall be constructed of non-erosive material, such as riprap or gravel.
 2. The time and area of disturbance of stream channels shall be kept to a minimum. The stream channel, including bed and banks, shall be restabilized within 48 hours after channel disturbance is completed, interrupted, or stopped.
 3. Whenever channel relocation is necessary, the new channel shall be constructed dry and fully stabilized before flow is diverted.
- h. Storm sewer inlets and culverts shall be protected by an appropriate sediment control measure.
- i. Soil storage piles containing more than 10 cubic yards of material shall not be located with a downslope drainage length of less than 25 feet to a roadway or drainage channel. Filter barriers, including filter fence, or equivalent, shall be installed immediately on the downslope side of the piles.
- j. If dewatering devices are used, discharge locations shall be protected from erosion. All pumped discharges shall be routed through an effective sediment control measure (e.g. an appropriately designed sediment traps or basins, or equivalent) and monitored for performance and compliance with the approved plan.

- k. Each site shall have a stabilized mat of aggregate underlain with filter cloth (or other appropriate measure) of sufficient length and width and stone gradation to prevent sediment or stone from being tracked onto public or private roadways at any point where traffic will be entering or leaving a construction site to or from entrance roads, access drives, and parking areas. Any sediment reaching a public or private road shall be removed by shoveling or street cleaning (not flushing) before the end of each workday and transported to a controlled sediment disposal area.
- l. The applicant shall provide adequate receptacles for the deposition of all construction material debris generated during the development process. The applicant shall not cause or permit the dumping, depositing, dropping, throwing, discarding or leaving of construction material debris upon or into any development site, channel, watercourse or water body.
- m. All temporary and permanent erosion and sediment control practices must be maintained and repaired as needed to assure effective performance of their intended function.
- n. All temporary erosion and sediment control measures shall be maintained until site stabilization is achieved with permanent soil stabilization measures. In the case of bare ground seeding, erosion controls must be maintained until a minimum of 70% density of cover and two inches of growth is established. Trapped sediment and other disturbed soils resulting from the disposition of temporary measures should be permanently stabilized to prevent further erosion and sedimentation.
- o. The condition of the construction site for the winter shutdown period shall address proper erosion and sediment control early in the fall growing season so that slopes and other bare earth areas may be stabilized with temporary and/or permanent vegetative cover and other cover types / stabilization methods. All open areas that are to remain idle throughout the winter shall receive temporary erosion control measures prior to the end of the fall growing season. The areas to be worked beyond the end of the growing season must incorporate soil stabilization measures that do not rely on vegetative cover.

302.2 Handbooks Adopted by Reference

The standards and specifications contained in the Illinois Urban Manual (2010 or current edition) and the "Procedures and Standards for Urban Soil Erosion and Sedimentation Control in Illinois" (The Green Book, 1988 or current edition) are hereby incorporated into this Section and made a part hereof by reference for the purpose of delineating procedures and methods of operation under site development. In the event of conflict between provisions of said manuals and of this ordinance, this ordinance shall govern.

Sec. 303 Maintenance of Erosion Control Measures

- a. All soil erosion and sediment control measures necessary to meet the requirements of this ordinance shall be maintained by the applicant or subsequent land owner during the period of land disturbance and development of the site in a satisfactory manner to ensure adequate performance. Soil erosion and sediment control measures shall be inspected in

accordance with NPDES requirements or at least weekly and following an equivalent 1/2 inch rainfall event, and repaired or replaced as necessary.

- b. With issuance of the Stormwater Permit by the permitting authority the applicant agrees to maintain the soil erosion and sediment control measures and shall execute a maintenance agreement with future owners of the property to maintain the property's Soil Erosion and Sediment Control Plan and Storm Water Pollution Prevention Plan as applicable.
- c. The applicant also specifically authorizes representatives or subcontractors of the permitting authority to enter onto the property for the purpose of inspections and maintenance of the drainage system.
- d. If the permitting authority notifies the property owner in writing of maintenance problems that require correction, the property owner shall make such corrections within seven calendar days of such notification.
- e. If the corrections are not made within this time period the permitting authority may issue a Stop-Work Order and revoke the permit.

Sec. 304 Inspection

- a. The permitting authority or their agent shall make inspections as hereinafter required and shall either approve that portion of the work completed or shall notify the Permittee wherein the work fails to comply with the Stormwater Permit or Soil Erosion and Sediment Control Plan as approved.
- b. Plans for grading, stripping, excavating, and filling work approved by the permitting authority shall be maintained during progress of the work. Revisions to the approved plan (including formal revisions and field revisions) shall be maintained at the site.
- c. In order to ensure compliance with the Stormwater Permit and approved Soil Erosion and Sediment Control Plan, Storm Water Pollution Prevention Plan and this Ordinance, the permitting authority may perform inspections in conjunction with scheduled building inspections.
- d. Performance inspections shall be scheduled by the Permittee for all development requiring a stormwater permit.
- e. For performance inspections, Permittee shall notify the permitting authority within two working days of the construction stages specified below:
 - 1. After establishment of erosion controls concurrent with the start of stripping and clearing,
 - 2. After final grading,

3. After seeding and landscaping deadlines, and
 4. After final stabilization and landscaping, prior to removal of sediment controls.
- f. If stripping, clearing, grading and/or landscaping are to be done in phases or areas, the Permittee shall give notice and request inspection at the completion of each of the above work stages in each phase or area.

Sec. 305 Special Precautions

- a. If at any stage of development the permitting authority determines by inspection that the nature of the site is such that further work authorized by an existing permit is likely to imperil any property, public way, stream, lake, wetland, or drainage structure, the permitting authority may require, as a condition of allowing the work to be done, that such reasonable special precautions to be taken as is considered advisable to avoid the likelihood of such peril.
- b. "Special precautions" may include, but shall not be limited to, a more level exposed slope, construction of additional drainage facilities, berms, terracing, or cribbing, installation of plant materials for erosion control, and recommendations of a registered soils engineer, a Certified Professional in Erosion and Sediment Control (CPESC), a Registered Professional engineer and/or an engineering geologist.
- c. Where it appears that storm damage may result because the grading on any development site is not complete, work may be stopped and the Permittee required to install temporary erosion control devices or measures or take such other measures as may be required to protect adjoining property or the public safety.
- d. On large developments or where unusual site conditions prevail, the permitting authority may specify the time of starting grading and time of completion or may require that the operations be conducted in specific stages so as to insure completion of protective measures or devices prior to the advent of seasonal rains.

Sec. 306 Amendment of Plans

Major amendments of the site development plan, Soil Erosion and Sediment Control Plan, Storm water Pollution Prevention Plan or Stormwater permit shall be submitted to the permitting authority and shall be processed and approved or disapproved in the same manner as the original plans. Field modifications of a minor nature may be authorized by the permitting authority by written authorization to the Permittee.

ARTICLE 4. PROTECTION OF FLOODPLAIN AND FLOODWAY

Sec. 400 General

This article sets forth requirements for developments within floodplains and floodways. References to IDNR/OWR permits or approvals in this Section shall be construed as “their designee” where a portion or all of their authority has been delegated.

Development that qualifies for any of the self-issuing statewide or regional permits administered by IDNR/OWR (Statewide Permit Nos. 2 through 14) are similarly permitted under this Article. The developer need only submit a permit application to the Administrator with such information as shall show the Administrator that the development qualifies for the particular statewide or regional permit in question under the regulations established by IDNR/OWR for such permit and no further submittal need be made under this Article. All other provisions of this ordinance applicable to such development, however, continue to apply.

Sec. 401 Floodplain, Regulatory Floodplain, Base Flood Elevation (BFE) and Regulatory Floodway Locations

The BFE shall be delineated onto the site topography to establish the Regulatory Floodplain area limits for regulation under this Ordinance. Regulatory floodplains shall be delineated onto the site map from the current FEMA FIRM or LOMR and include those areas of the SFHA which are not Regulatory Floodplains. Each Community, whether Certified or not, remains responsible for maintaining the effective FIS and a list of FIRM panels for their respective Communities.

401.1 Base Flood Elevation

The BFE shall be:

- a. The base flood elevation for the floodplains of Aux Sable Creek, Blackberry Creek, Clear Creek, Dave-Bob Creek, East Branch Little Rock Creek, Big Rock Creek, Fox River, Harvey Creek, Middle Aux Sable Creek, North Arm Saratoga Creek, Waubensee Creek, and West Aux Sable Creek shall be as delineated on the 100-year flood profiles in the countywide Flood Insurance Study of Kendall County prepared by the Federal Emergency Management Agency on February 4, 2009 for panels 0005, 0010, 0015, 0020, 0030, 0040, 0051, 0052, 0053, 0054, 0056, 0057, 0058, 0059, 0070, 0078, 0086, 0087, 0089, 0100, 0125, 0176, and 0200 and dated January 8, 2014 for panels 0035, 0037, 0039, 0045, 0065, 0130, 0135, 0140, 0145, and 0225.
- b. In the case of FEMA delineated “AH Zones” the elevation noted on the map shall be the BFE. In the case of FEMA delineated “AO Zones” the BFE shall be the depth number shown on the countywide Flood Insurance Rate Map of Kendall County.
- c. The base flood elevation for each of the remaining floodplains delineated as an “A Zone” on the countywide Flood Insurance Rate Map of Kendall County shall be according to the best data available from federal, state, or other sources. All best available data and sources will be verified by the Administrator prior to the use of the data. Should no other data exist, an engineering study must be financed by the applicant to determine the base flood elevations. The base flood elevations shall be determined using a site specific floodplain study by a Professional Engineer using appropriate hydrologic and hydraulic models as follows:

1. Hydrologic models: TR-20, HEC-1, HEC-HMS
2. Hydraulic models: HEC-2, HEC-RAS, WSP-2
3. Or a technique approved by the Administrator and the IDNR/OWR.

Where a channel has a tributary drainage area of 640 acres or more in an urban area or 6400 acres or more in a rural area, the above analyses shall be submitted to the IDNR/OWR for concurrent approval.

- d. For floodplains that are not regulatory, are not draining more than 640 acres in an urban area or 6400 acres or more in a rural area, and with no BFE determined, the Administrator may require a site-specific floodplain study for the purpose of establishing an FPE for the development.

401.2 Floodway

The location of the Regulatory Floodway shall be as delineated on the current effective regulatory maps maintained by each Community. The location of the Regulatory Floodway boundary shall be scaled onto the site plan using references common to both the map and the plan (typically the centerlines of adjacent roadways). Where an interpretation is needed to determine the exact location of the Regulatory Floodway boundary, IDNR/OWR should be contacted.

Note: If an area of the site is located in the Regulatory Floodway that is higher than the BFE, that area is subject to the Floodway Standards of Section 404 until such time as a LOMR is received from FEMA with concurrence by IDNR/OWR.

General criteria for analysis of flood elevations in the regulatory floodway are as follows:

- a. The flood profiles, flows, and data in the current effective FIS must be used for analysis of the base conditions. If the study data appears to be in error or conditions have changed, FEMA and IDNR/OWR shall be contacted for approval and concurrence on the appropriate base conditions data to use. The Director shall be copied on all related correspondence.
- b. If the BFE at the site of the proposed development is affected by backwater from a downstream receiving stream with a larger drainage area, the proposed development shall be shown to meet the requirements of this section with the receiving stream at both the normal water and BFEs.
- c. If the applicant is informed by IDNR/OWR, local governments, or a private owner that a downstream or upstream restrictive bridge or culvert is scheduled to be removed, reconstructed, modified, or a regional flood control project is scheduled to be built, removed, constructed or modified within the next five years, the proposed development shall be analyzed and shown to meet the requirements of this section for both the existing

conditions and the expected flood profile conditions when the bridge, culvert or flood control project is built, removed or modified as applicable.

- d. IDNR/OWR will review all proposed floodway modifications, including BFE, and issue permits for any work modifying the floodway.

Sec. 402 General Performance Standards

The following general performance standards are applicable to all development in a Regulatory Floodplain. The standards of this section apply except when superseded by more stringent requirements in the other sections.

- a. No development except as allowed in Section 404 shall be allowed in the Regulatory Floodplain that singularly or cumulatively creates an increase in flood stage or velocity off-site, or a damaging or potentially damaging increase in flood heights or velocity on-site or threat to public health, safety and welfare.
- b. For all projects involving a channel modification, fill, stream maintenance or a levee, the flood conveyance and storage capacity of the regulatory floodplain shall not be reduced.
- c. If the proposed development would result in a change in the BFE and Regulatory Floodplain, the applicant shall obtain a LOMR from FEMA. No buildings may be built in the existing or proposed Regulatory Floodplain until the LOMR receives concurrence from IDNR/OWR and is issued by FEMA and the building meets all the Building Protection Standards (Section 402.2). Proposed changes to the Regulatory Floodway delineation and the BFE must also be submitted to IDNR/OWR for concurrence.
- d. If the development is located in a public body of water, as defined by IDNR/OWR, a permit or a waiver of a permit must also be received from IDNR/OWR.
- e. For public flood control projects, the Floodplain Management standards will be considered met if the applicant can demonstrate to IDNR/OWR and Kendall County or the Certified Community that each of the following conditions are met:
 1. Demonstrate by hydraulic and hydrologic modeling that the proposed project will not singularly or cumulatively result in increased flood heights outside the project site or demonstrate that any increases will be contained in easements for all flood events up to and including the base flood event.
 2. Demonstrate that the project will be operated and maintained by a public agency.
 3. Demonstrate that the project will reduce flood damage to an existing building or structure.

These standards do not preclude the design, engineering, construction or financing, in whole or in part of a public flood control project by persons who are not public agencies.

- f. Proposals for new Subdivisions, Planned Unit Developments (PUDs) and additions to subdivisions or PUDs shall include base flood or 100-year frequency flood elevation data and floodway delineations.

402.1 Public Health Protection Standards

Public health standards must be met for all floodplain development. In addition to the requirements of this article and Sections 404 and 405 of the following standards apply:

- a. No development in the floodplain shall include location or storing chemicals, explosives, buoyant materials, flammable liquids, pollutants, or other hazardous or toxic materials

below the flood protection elevation unless such materials are stored in a flood proofed and anchored storage tank and certified by a Professional Engineer or flood proofed building constructed according to the requirements of Section 402.2 of this article.

- b. Public utilities and facilities such as sewer, gas and electric shall be located and constructed to minimize or eliminate flood damage.
- c. New and replacement on-site sanitary sewer lines or waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding. Manholes or other above ground openings located below the flood protection elevation shall be watertight.
- d. New on-site waste disposal systems, such as septic systems, shall not be constructed within the floodplain. An applicant seeking a variance to this restriction shall comply with all provisions of Article 9 and with the following minimum standards.
 - 1. The invert of any wastewater distribution lines shall be a minimum of 2 feet above the water surface elevation of the base flow of any perennial stream;
 - 2. The lateral distance from a ditch, creek, or other riverine source to the wastewater distribution lines shall be a minimum of 75 feet;
 - 3. The elevation of any areas which are to receive wastewater distribution shall be above the ordinary high water mark;
 - 4. The soil of the receiving field shall be of a type suitable for septic fields;
 - 5. The tank shall be placed out of the floodplain with the invert of the outlet about the BFE.
- e. New, substantially improved or replacement wastewater treatment plants shall have watertight openings for those openings located below the FPE. Such facilities should be located to avoid impairment to the facility or contamination of floodwaters during the base flood.
- f. New and replacement water supply facilities shall be designed and constructed to minimize or eliminate infiltration of flood water
- g. If a proposed building site is in a floodplain, all new construction and substantial improvements shall:
 - 1. be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy,
 - 2. be constructed with materials resistant to flood damage,

3. be constructed by methods and practices that minimize flood damages,
 4. be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- h. Subdivision proposals and other proposed new development, including manufactured home parks or subdivisions shall be reasonably safe from flooding including the following requirements.
1. all such proposals are consistent with the need to minimize flood damage within the flood-prone area,
 2. all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage,
 3. adequate drainage is provided to reduce exposure to flood hazards;

402.2 Building Protection Standards

The lowest floor including basements of all new construction and substantial improvements must have the lowest floor elevated to the FPE except non-residential buildings may be dry-flood proofed up to the flood protection elevation instead of having the lowest floor elevated as noted in 402.2.c. An attached garage for a structure must be elevated up to at least 0.5 feet above the BFE.

- a. The building protection requirements applies to the following situations:
1. Construction or placement of a new building or alteration or addition to an existing building valued at more than one thousand dollars (\$1,000) or seventy (70) square feet.
 2. Substantial improvements or structural alteration made to an existing building that increases the floor area by more than twenty percent (20%) or is equal or greater than fifty percent (50%) of the structure market value prior to the start of construction of the improvements. Alteration shall be figured cumulatively during a ten year period from the date of the permit application. If substantially improved, the existing structure and the addition must meet the flood protection standards of this section.
 3. Repairs made to a substantially damaged building. These repairs shall be figured cumulatively during the life of the building. If substantially damaged the entire structure must meet the flood protection standards of this section.

4. Any combination of new construction or improvements, figured cumulatively during a ten year period from the date of the permit application, regardless of whether some or all of the improvements are characterized as repairs, remodeling, reconstruction, addition, improvement, betterment, renewal, etc, that equals or exceeds 50% of the market value of the building, must result in a requirement to bring the building into compliance
 5. Installing a manufactured home on a new site or a new manufactured home on an existing site. (The building protection requirements do not apply to returning a manufactured home to the same site it lawfully occupied before it was removed to avoid flood damage). If the manufactured home was originally placed after the effective date of flood regulations adopted by the County then placing it back on the site after it was removed to avoid flood damage must be in compliance with the regulations (ordinance, FIRM and FIS or FHBM) that were in effect at the time it was originally placed.
 6. Installing a travel trailer or recreational vehicle on a site for more than one hundred eighty (180) days per year.
- b. Residential or non-residential buildings can meet the building protection requirements by one of the following methods:
1. The building may be constructed on permanent land fill in accordance with the following:
 - i. The lowest floor (including basement) shall be at or above the flood protection elevation.
 - ii. The fill shall be placed in layers no greater than six inches before compaction and should extend at least ten (10) feet beyond the foundation before sloping below the flood protection elevation.
 - iii. The fill shall be protected against erosion and scour during flooding by vegetative cover, riprap, or other structural measure.
 - iv. The fill shall be composed of rock or soil and not incorporated debris or refuse material, and
 - v. shall not adversely affect the flow of surface drainage from or onto neighboring properties and when necessary stormwater management techniques such as swales and basins shall be incorporated.
 2. The building may be elevated by structural means in accordance with the following:

- i. The building or improvements shall be elevated on stilts, piles, walls, crawlspace, or other foundation that is permanently open to flood waters.
 - ii. The lowest floor and all electrical, heating, ventilating, plumbing, and air conditioning equipment and utility meter shall be located at or above the flood protection elevation.
 - iii. If walls are used, all enclosed areas below the flood protection elevation shall address hydrostatic pressures by allowing the automatic entry and exit of flood waters. Designs must either be certified by a registered Professional Engineer or by having a minimum of one (1) permanent opening on each wall not more than one (1) foot above grade with a minimum of two (2) openings. The openings shall provide a total net area of not less than one (1) square inch for every one (1) square foot of enclosed area subject to flooding below the base flood elevation, the lowest inside grade must match the lowest existing outside grade adjacent to the structure and,
 - iv. The foundation and supporting members shall be anchored, designed, and certified so as to minimize exposure to hydrodynamic forces such as current waves, ice and floating debris.
 - v. All structural components below the flood protection elevation shall be constructed of materials resistant to flood damage.
 - vi. Water and sewer pipes, electrical and telephone lines, submersible pumps, and other service facilities may be located below the flood protection elevation provided they are waterproofed.
 - vii. The area below the flood protection elevation shall be used solely for parking or building access and not later modified or occupied as habitable space, or
 - viii. In lieu of the above criteria, the design methods to comply with these requirements shall be certified by a registered Professional Engineer.
3. The building may be constructed with a crawlspace located below the flood protection elevation provided that the following conditions are met:
 - i. The building must be designed and adequately anchored to resist floatation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
 - ii. The area below the flood protection elevation shall be used solely for parking or building access and not later modified or occupied as habitable space.

- iii. Any enclosed area below the flood protection elevation shall have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. A minimum of one opening on each wall having a total net area of not less than (1) square inch per one (1) square foot of enclosed area. The openings shall be no more than one (1) foot above grade.
 - iv. An adequate drainage system must be installed to remove floodwaters from the interior area of the crawlspace within a reasonable period of time after a flood event.
 - v. Portions of the building below the flood protection elevation must be constructed with materials resistant to flood damage, and
 - vi. utility systems within the crawlspace must be elevated above the flood protection elevation.
- c. Non-residential buildings may be structurally dry flood proofed (in lieu of elevation) provided a registered Professional Engineer or Registered Structural Engineer certifies that:
 - 1. Below the flood protection elevation the structure and attendant utility facilities are watertight and capable of resisting the effects of the base flood.
 - 2. The building design accounts for flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, the effects of buoyancy and the impact from debris and ice.
 - 3. Flood proofing measures will be incorporated into the building design and operable without human intervention and without an outside source of electricity (levees, berms, floodwalls and similar works are not considered flood proofing for the purpose of this subsection).
- d. Manufactured home or travel trailers to be permanently installed on site shall be:
 - 1. Elevated to or above the flood protection elevation in accordance with Section 402.2.b, and
 - 2. anchored to resist floatation, collapse, or lateral movement by being tied down in accordance with the rules and regulations for the Illinois Mobile Home Tie-Down Act issued pursuant to 77 Ill. Adm. Code & 870.
- e. Travel trailers and recreational vehicles on site for more than one hundred eighty (180) days per year shall meet the elevation requirements of section 402.2.d unless the following conditions are met:

1. The vehicle must be either self propelled or towable by a light duty truck.
 2. The hitch must remain on the vehicle at all times.
 3. The vehicle must not be attached to external structures such as decks and porches.
 4. The vehicle must be designed solely for recreation, camping, travel or seasonal use rather than as a permanent dwelling.
 5. The vehicles largest horizontal projections must be no larger than four hundred (400) square feet.
 6. The vehicle's wheels must remain on axles and inflated.
 7. Air conditioning units must be attached to the frame so as to be safe for movement out of the floodplain.
 8. Propane tanks as well as electrical and sewage connections must be quick-disconnect and above the 100-year flood elevation.
 9. The vehicle must be licensed and titled as a recreation vehicle or park model and must either :
 - i. Entirely be supported by jacks, or
 - ii. have a hitch jack permanently mounted, have the tires touching the ground and be supported by block in a manner that will allow the block to be easily removed by use of the hitch jack.
- f. Garages, sheds, or other minor accessory structures constructed ancillary to an existing residential use may be permitted provide the following conditions are met:
1. The garage or shed must be non-habitable.
 2. The garage or shed must be used only for the storage of vehicles and tools and cannot be modified later into another use.
 3. The garage or shed must be located outside of the floodway or have the appropriate state and/or federal permits.
 4. The garage or shed must be on a single family lot and be accessory to an existing principle structure on the same lot.
 5. Below the base flood elevation, the garage or shed must be built of material not susceptible to flood damage.

6. All utilities, plumbing, heating, air conditioning and electrical must be elevated above the flood protection elevation.
7. The garage or shed must have at least one permanent opening on each wall not more than one (1) foot above grade with one (1) square inch of opening for every one (1) square foot of floor area.
8. The garage or shed must have a value less than ten thousand dollars (\$10,000) in market value or replacement cost whichever is greater or be less than less than five hundred (500) square feet in total floor area.
9. The structure shall be anchored to resist floatation and overturning.
10. All flammable or toxic materials (gasoline, paint, insecticides, fertilizer, etc.) shall be stored above the flood protection elevation.
11. The lowest floor elevation should be and documented and the owner advised of the flood insurance implications.
12. Accessory structures that do not meet all of the above criteria may be constructed if they are dry flood proofed or elevated at least ½ of one foot above the BFE.

Sec. 403 Compensatory Storage Volume Standards

The following standards apply within the regulatory floodplain:

- a. Hydraulically equivalent compensatory storage volume will be required for development in a riverine regulatory floodplain and shall be at least equal to the regulatory floodplain flood storage volume displaced. To the greatest extent practicable storage volume displaced below the existing 10-year frequency flood elevation must be replaced below the proposed 10-year frequency flood elevation. To the greatest extent practicable storage volume displaced above the 10-year existing frequency flood elevation must be replaced above the proposed 10-year frequency flood elevation.
- b. Compensatory storage volume for development in a non-riverine regulatory floodplain area that is also adjacent to a lake shall be equal to the storage volume displaced.
- c. Compensatory storage volume requirements for development in a non-riverine Regulatory Floodplain that is not adjacent to a lake shall be replaced in accordance with the requirements for the loss of depressional storage in Section 201.6.
- d. Compensatory storage areas shall be designed to drain freely and openly to the channel and shall be located adjacent to the development. This standard does not apply to non-riverine Regulatory Floodplain.
- e. A recorded covenant or easement running with the land is required to maintain the compensatory storage volume in areas modified to provide compensatory storage volume.

Sec. 404 Floodway Standards

Within any floodway identified on the countywide Flood Insurance Rate Map, and within all other floodplains where a floodway has not been delineated, the following standards shall apply:

- a. Except as provided in Section 404(B) of this ordinance, no development shall be allowed which, acting in combination with existing and anticipated development will cause any increase in flood height or velocities or threat to public health and safety. The following specific development activities shall be considered as meeting this requirement:
 1. Bridge and culvert crossing of streams in rural areas meeting all conditions of the Illinois Department of Natural Resources, Office of Water Resources Statewide Permit Number 2:
 2. Barge fleeting facilities meeting all conditions of IDNR/OWR Statewide Permit Number 3:
 3. Aerial utility crossings meeting all conditions of IDNR/OWR Statewide Permit Number 4:
 4. Minor boat docks meeting all conditions of IDNR/OWR Statewide Permit Number 5:
 5. Minor, non-obstructive activities meeting all conditions of IDNR/OWR Statewide Permit Number 6:
 6. Outfall pipes, devices and drainage ditch outlets meeting all conditions of IDNR/OWR Statewide Permit Number 7:
 7. Underground pipeline and utility crossings meeting all the conditions of IDNR/OWR Statewide Permit Number 8:
 8. Bank stabilization projects meeting all the conditions of IDNR/OWR Statewide Permit Number 9:
 9. Accessory structures and additions to existing residential buildings meeting all conditions of IDNR/OWR Statewide Permit Number 10:
 10. Minor maintenance dredging activities meeting all conditions of IDNR/OWR Statewide Permit Number 11:
 11. Bridge and culvert replacement structures and bridge widening meeting all conditions of IDNR/OWR Statewide Permit Number 12:
 12. Temporary construction activities meeting all conditions of IDNR/OWR statewide Permit Number 13:

13. Special Uses of Public Waters meeting all conditions of IDNR/OWR statewide Permit Number 14:
 14. Any development determined by IDNR/OWR to be located entirely within a flood fringe area shall be exempt from State Floodway permits requirements.
- b. Other development activities not listed in Sec. 404(A) may be permitted only if:
1. If the development will result in a change in the Regulatory Floodway location or a change in the BFE, the applicant shall submit the information required to be issued a Conditional Letter of Map Revision (CLOMR) to IDNR/OWR, FEMA and the Administrator. Filling, grading, dredging or excavating may not take place until issuance of a CLOMR from FEMA, an IDNR/OWR permit and approval from the Administrator. Subsequent to completion of work within the floodway the applicant shall submit record plans and information to the Administrator and FEMA for consideration of the final LOMR. No further development activities shall take place in the existing or proposed floodplain until a Letter of Map Revision (LOMR) is issued by FEMA unless such activities meet all the requirements of the Section 402 of this Ordinance. The Director shall be copied on all related correspondence.
 2. At a minimum, the following information shall be submitted to IDNR/OWR for their review and concurrence.
 - i. Analysis of the flood profile due to a proposed bridge, culvert crossings and roadway approaches.
 - ii. An engineer's determination that an existing bridge, culvert crossing or approach road is not a source of flood damage and the analysis indicating the proposed flood profile.
 - iii. Alternative transition sections and hydraulically equivalent compensatory storage.

Sec. 405 Riverine Floodplain

These standards apply to Riverine Regulatory Floodplains without a Regulatory Floodway.

The Applicant shall obtain approval from IDNR/OWR for all development any portion of which is located partially or completely within the Regulatory Floodplain (without a delineated Regulatory Floodway) with a tributary drainage area of 640 acres or more in an urban area or 6400 acres or more in a rural area.

- a. The development shall not singularly or cumulatively result in an obstruction of flood flows or potential flood damages outside the site due to an increase in flood heights, velocities, or loss of floodplain area storage.
- b. A Professional Engineer shall submit a study that demonstrates one of the following:

1. Determine a floodway which meets the definition of a Regulatory Floodway and demonstrate that the proposed development meets the Floodway Standards in Section 404, or
2. Determine a BFE and demonstrate that the proposed development will maintain the existing conditions conveyance, will not increase flood velocities, will not increase flood profiles and will compensate for any lost floodplain storage.

Sec. 406 Disclaimer

Nothing in this ordinance purports to alter or affect the regulatory program administered by IDNR-OWR. Anything in this ordinance to the contrary notwithstanding, if under the rules and regulations administered by IDNR-OWR a submittal need not be made to IDNR-OWR, or a review, approval or permit from IDNR-OWR need not be obtained, then nothing in this ordinance shall be construed to impose a requirement that such a submittal be made or that such a review, approval or permit be obtained from IDNR-OWR. Similarly, if IDNR-OWR has delegated its regulatory authority to another entity, then anything in this ordinance to the contrary notwithstanding, if required by such entity, such submittal shall be made or such review, approval or permit shall be obtained from such entity.

**ARTICLE 5. STORMWATER MANAGEMENT PERMIT SUBMITTAL
REQUIREMENTS**

Sec. 500 General Requirements

500.1 Stormwater Management and Other Permits Required

A Stormwater Management Permit shall be required if:

- a. The development or a substantial improvement is located in the regulatory floodplain or there is regulatory floodplain within the property boundary; or
- b. Any land disturbing activity to be performed in a water course or water body; or
- c. Fill that will exceed three (3) feet in vertical height at its highest point measured from the natural ground surface where such fill violates the purpose or objectives of this ordinance, as determined by the permitting authority; or
- d. Any land disturbing activity requiring a site runoff storage facility; or
- e. The development disturbs more than 43,500 square feet of ground cover, unless the development solely involves one or more of the following:
 1. Installation, renovation, or replacement of a septic system, potable water service line, or other utility to serve an existing structure; or
 2. Maintenance, repair, or at grade replacement of:
 - a. existing lawn
 - b. garden or cultivated areas
 - c. residential drivewaynot otherwise requiring a stormwater permit under this Ordinance; or
 3. Maintenance of an existing stormwater facility, not requiring other state or federal permits or approvals.
 4. Excavation below final grade for tanks, vaults, tunnels, swimming pools, cellars, or for basements and/or footings of a single-family residence and appurtenant structures on a site that is part of an engineered and final platted subdivision or for which a building permit has been issued by the permitting authority, unless the site would otherwise require a Stormwater Management Permit.
 5. Public Roadway or Bridge projects; consisting of improvement to an existing public roadway or public bridge sponsored by a public roadway agency and contracted as a public bid project.

The following activities shall be exempt from this ordinance and shall not require a stormwater management permit.

1. Tilling of the soil for fire protection purposes.
2. Engaging in the following only if in connection with a farming or other agricultural or conservation enterprise, purpose, or use and only if there is no placement of fill within the floodplain:
 - a. Construction of sod waterways;
 - b. Construction of terraces;
 - c. Construction of surface water diversions (but not across watershed boundaries);
 - d. Construction of grade stabilization berms or systems; or
 - e. Tilling of the soil.
 - f. The implementation of conservation measures included in a farm conservation plan approved by the Kendall County Soil and Water Conservation District.
3. Agricultural use of land and development on un-platted residentially zoned property larger than three acres in size, except that the and/or paved surfaces with an impervious area totaling more than 43,560 square feet and construction of any structure(s) or any substantial improvement to a building within the floodplain shall require a Stormwater Management Permit.

All development shall secure all Federal, State, Regional and local approvals, including, without limitation, an IDNR-OWR Floodway/Floodplain Construction permit, a USACOE permit and an IDNR-OWR Dam Safety permit if required, meeting all Federal, State, Regional and local approvals prior to the issuance of a Stormwater Management Permit for proposed work and areas of a site requiring such other approvals.

500.2 Permit Review Fees

All permit fees shall be paid at the time of application. Permit fees shall be established by separate resolution of the permitting authorities. Fees may include, but are not limited to, the cost of permit administration, review and inspections prior to construction, during construction and within the permanent cover establishment period following construction.

500.3 Professional Seals and Certifications Required

- a. The design of stormwater facilities, calculations for the determination of the regulatory floodplain, or calculations of the impacts of development shall meet the standards of this Ordinance and shall be prepared, signed, and sealed by a Professional Engineer. The Professional Engineer shall provide an opinion that the technical submittal meets the criteria required by this Ordinance or the applicable certified community ordinance; and

- b. For flow control / containment dams, walls, weir or devices (not including earth embankments) that are subject to a differential water pressure greater than 3 feet the submittal shall include evidence that the subject design has been reviewed by a qualified professional who shall, as a minimum, have registration as a Professional Engineer. Such reviews shall include stability of the dam, wall, weir or device under design conditions considering the protection of downstream life and property in the event of a failure. When directed by the Administrator the calculations submitted for such dam, wall, weir or device shall be reviewed, signed and sealed by a Registered Structural Engineer.

For projects which include earth embankments which are subjected to differential water pressure the submittal shall include evidence that the embankment design and construction specifications are adequate for the design conditions. This review shall include consideration of the existing foundation soils for the embankment, the materials from which the embankment is to be constructed, compaction requirements for the embankment and protection of the embankment from failure due to overtopping. Construction and materials specifications for all such embankments shall be included with the plan set submittal. When directed by the Administrator, or when the impounded water pressure differential exceeds three feet, or when appropriate considering the volume impounded and water surface elevation differential to which the embankment is subjected, these calculations may be required to be reviewed, signed and sealed by a qualified Geotechnical or Structural Engineer;

- c. A topographical map of the site, record drawings, and other required drawings shall be prepared, signed, and sealed by a Professional Land Surveyor or Professional Engineer and tied to North American Vertical Datum, 1988 adjustment and any FEMA benchmarks.

Sec. 501 Duration and Revision to Permits

501.1 Permit Expiration

Permits shall expire and become null and void if the work authorized by the permit has not been commenced within 365 days from the date of Permit issuance. Permits expire December 31 of the third year following the date of permit issuance or upon expiration of state or federal permits required for any development activities.

501.2 Permit Extension

If the permitted activity has been started but is not completed by the expiration date of the permit, and the permittee intends to pursue the permitted activity, then the permittee may submit a written request that the expiration date be extended. Upon receipt of such request, the Administrator may extend the expiration date in one-year increments a maximum of 3 times for permitted activities outside regulatory floodplains and floodways. Expiration dates for permitted activities in regulatory floodplains and floodways may be extended in one-year increments a maximum of 3 times provided the activity is in compliance with the then current requirements of this Ordinance or the applicable Certified Community Ordinance.

501.3 Permit Revision

If, after permit issuance, the permittee decides to revise the approved plans, the permittee shall submit revised plans to the Director or the Administrator, along with a written request for approval. If the Director or the Administrator determines that the revised plans are in compliance with the then current requirements of this Ordinance or the applicable Certified Community Ordinance, an approval of the revised plans may be issued.

Sec. 502 Required Submittals

All permit submittals shall include the material listed in the Sections noted in Table 502 for the applicable type of development, unless the submittal requirements are specifically modified by the procedure in Section 502.1.

Table 502 Required Submittals (refer to Sections listed for specific material)							
Section No. / Description							
	502.2	502.3	502.4	502.5	502.6	502.7	502.8
	Application and Project Overview Plan	Erosion Control Plan Set Submittal	Engineering Plan Set Submittal	Stormwater Submittal	Floodplain Submittal	Performance Security	Maintenance Schedule and Funding
All Development Requiring a Permit	X	X					X
All Development Requiring Detention/Retention	X	X	X	X		X	X
All Development Requiring a Permit > 20 ac.	X	X	X	X		X	X
All Developments on Sites with Floodplains	X	X	X		X	X	X
All Applications Requesting Variances	X	X	X	X	If on site	X	X

502.1 Modification of Submittal Requirements

The Administrator may, at his discretion, modify the submittal requirements on a case-by-case basis considering the size, complexity and likelihood that a development will affect the discharge of stormwater. Such modifications may increase or decrease the submittal requirements noted above. The Administrator’s shall note in writing the specific submittal requirements and relevant findings to support the modified requirements.

502.2 Application and Project Overview Plan

All applicants for a stormwater permit shall provide the following information as a minimum, on forms or in a format approved by the Administrator:

Application:

- a. The name and legal address of the owner(s) of the site and the permit applicant; and
- b. The common address, legal description, property identification number (PIN) of the site; and
- c. The name of the project, area of the site in acres, type of development; and

- d. A general narrative description of the development, existing and proposed conditions, stormwater management practices being employed and project planning principles considered, including Best Management Practices used; and
- e. Affidavits signed by the owner or the applicant's authorized representative attesting to their understanding of the requirements of this Ordinance or the applicable Certified Community Ordinance and their intent to comply therewith; and
- f. A statement of opinion by a qualified person either denying or acknowledging the presence of floodplain on the development site; and
- g. Copies of other stormwater related permits or permit applications by other jurisdictions or agencies; and
- h. An engineer's estimate of probable construction cost of the stormwater facilities.

Project Overview Plan:

- a. A location map or description providing township, range, and nearest roadways to accurately locate the development site; and
- b. Acreage and zoning of property area; and
- c. Property area lines and dimensions including rights-of-way, easements, and setback lines; and
- d. Existing and proposed site conditions including all buildings, roads, impervious surfaces, and ground elevations where site grading is proposed; and;
- e. Proposed limits and restoration of disturbed areas; and
- f. Existing and proposed drainage features such as culverts, conduits, swales, streams, ponds, wetlands, etc. ; and
- g. Location and report of on-site subsurface drains and tiles and all off-site drain tiles (upstream or downstream) potentially impacted by the development; and
- h. Location of wells, septic systems, water mains, and sanitary sewers;

502.3 Erosion Control Plan Set Submittal

All applicants for a stormwater permit shall submit a Sediment and Erosion Control Plan meeting the requirements of Article 3, Section 301 and such submittal shall be accompanied by a Notice of Intent for Construction Activities as well as a Stormwater Pollution prevention Plan as required by current NPDES regulation.

502.4 Plan Set Submittal

All applicants required to submit a Plan Set in accordance with Table 502 shall provide the following basic plan exhibits: Site Topographic Map, General Plan View Drawing, Sediment/Erosion Control Plan, and a Vicinity Topographic Map. Each exhibit may be on more

than one drawing for clarity. The specific information to be included on each exhibit shall be as noted below.

- a. Site Topographic Map meeting the following requirements shall be submitted:
 1. Map scales as 1 inch = 100 feet (or less) and accurate to +/- 0.5 feet; and
 2. Existing and proposed contours on-site and within 100 feet of site; and
 3. Existing and proposed drainage patterns and watershed boundaries; and
 4. Delineation of pre-development regulatory floodplain/floodway limits; and
 5. Delineation of post-development regulatory floodplain/floodway limits; and
 6. Location of cross-sections and any other hydrologic/hydraulic computer modeled features; and
 7. Location of all on-site drain tiles and all off-site drain tiles (upstream or downstream) potentially impacted by the development; and
 8. Location of all wells, septic systems, water main, sanitary sewer and storm sewers; and
 9. Boundary of all wetlands, lakes, ponds, etc. with normal water elevation noted; and
 10. Location of all existing buildings and those to remain on the site noted; and
 11. Nearest base flood elevations; and
 12. FEMA and any site-specific benchmarks (tied to County benchmarks) used; and
 13. Highlight all contours used in the calculation of depressional storage.
- b. General Plan View Drawing meeting the following requirements shall be submitted:
 1. Drawing at the same scale as the Site Topographic Map; and
 2. Existing major and minor stormwater systems; and
 3. Proposed major and minor stormwater systems; and
 4. Design details for stormwater facilities (i.e. drainage system and outlet work detail drawings, etc.); and
 5. Scheduled maintenance program for permanent stormwater facilities including BMP measures; and

6. Planned maintenance access routes, tasks and schedule; and
 7. Identification of entities responsible for maintenance; and
 8. Permanent public access maintenance easements granted or dedicated to, and accepted by, a government entity; and
 9. Proposed regulatory floodplain and floodway location (with the base flood and flood protection elevations noted); and
 10. Highlight all plan areas at elevations below the 100-year high water elevation of site runoff storage facilities.
- c. Vicinity Topographic Map meeting the following requirements shall be submitted.
1. Vicinity topographic map identifying all off-site areas draining to the development and downstream to the receiving intermittent or perennial stream. (A 2' contour map is preferred at a scale readable by the reviewer but a USGS Quadrangle map is acceptable); and
 2. Watershed boundaries for areas draining through or from the development; and
 3. Soil types related to hydrologic soils group, vegetation and land cover affecting runoff upstream of the site for any area draining through the site; and
 4. Location of development site within the major watershed(s); and
 5. Show the overland flow path from the downstream end of the development to the receiving intermittent or perennial stream.

502.5 Stormwater Submittal

All applicants required to submit a Stormwater Submittal in accordance with Table 502 shall provide a narrative discussion and calculations to support a finding that the proposed development complies with the technical requirements of the permitting authority's ordinance. The submittal shall consist of, at a minimum, the following material.

- a. A narrative description of the existing and proposed site drainage patterns and conditions. Include description of off-site conditions, which help to identify stormwater issues considered in the design.
- b. A schedule for implementation of the site stormwater plan.
- c. On-site and off-site runoff calculations which address the following:
 1. Documentation of the procedures/assumptions used to calculate hydrologic and hydraulic conditions for sizing major and minor systems; and

2. Cross-section data for open channels; and
 3. Hydraulic grade line and water surface elevations under design flow conditions; and
 4. Hydraulic grade line and water surface elevations under base flood flow conditions.
- d. Site Runoff Storage Calculations, which address the following:
1. Calculation of hydraulically connected impervious area and corresponding retention volume.
 2. Documentation of the procedures/assumptions used to calculate hydrologic and hydraulic conditions for determining the allowable release rate.
 3. Documentation of the procedures/assumptions used to calculate on-site depressional storage.
 4. Documentation of the procedures/assumptions used to calculate hydrologic and hydraulic conditions for determining the storage volume.
 5. Elevation-area-storage data and calculations for site runoff storage.
 6. Elevation-discharge data and calculations specifically related to the outlet control structure depicted in the plan.
 7. The General Plan View Drawing of Section 502.3(b) shall indicate all impervious areas including directly connected impervious areas.

502.6 Floodplain Submittal

The applicant shall obtain approval from IDNR-OWR and FEMA for those cases in which their permitting authority applies or as noted in Article 4 of this Ordinance. The Stormwater Management Permit will not be issued until such approval is received. Documentation supporting a finding that the proposed development is in compliance with Article 4 shall be submitted with the application. At a minimum, the following material shall be submitted for approval with the application.

- a. Regulatory floodplain boundary determination:
 1. Provide source of flood profile information.
 2. Provide all hydrologic and hydraulic study information for site-specific floodplain studies, unnumbered Zone A area elevation determinations, and floodplain map revisions.

- b. Floodway hydrologic and hydraulic analyses for the following conditions:
 - 1. Existing conditions (land used and stream systems).
 - 2. Proposed conditions (land used and stream systems).
 - 3. Tabular summary of 100-year flood elevations and discharges for existing and proposed conditions.
 - 4. Calculations used for model development.
 - 5. Hydraulic/hydrologic computer model input/output.
- c. Floodplain fill and compensatory storage calculations for below and above 10-year flood elevation up to the base flood elevation:
 - 1. Tabular summary for below and above 10-year flood elevation of fill, compensatory storage, and compensatory storage ratios provided in proposed plan.
 - 2. Cross-sections used for the above calculations.
- d. Flood proofing Measures:
 - 1. Narrative discussion of flood proofing measures including material specifications, calculations, and design details, operation summary.
- e. Flood Protection Easements when required by this Ordinance or the applicable Certified Community Ordinance.

502.7 Performance Security

Performance security in accordance with Article 12 shall be required for any constructed land improvements or temporary erosion control measure prior to permit issuance.

502.8 Maintenance Plan, Schedule and Funding

A comprehensive maintenance plan for the Stormwater Management Facilities, Floodplain / Floodway protection or Natural resource Protection Areas, in accordance with Article 6 shall be submitted including identification of the entity responsible for maintenance, primary funding and back-up funding sources for maintenance in accordance with Article 6.

Sec. 503 Record Drawings

The developer is required to submit record drawings of all permitted stormwater management facilities including but not limited to storm sewers, culverts, overland flow paths and stormwater management basins. The record drawings shall include the following:

- a. The Record Drawings shall be in the same format and include the same sheet count as the approved permitted engineering plans. Supplemental topographic plans may be added to better detail stormwater management basins or overland flow paths. Submittal of Record

drawings shall be on such media and in such format as the Certified Community determines.

- b. All storm sewers and culverts shall depict actual location and elevation of all pipe inverts at all manholes and end sections. Rim elevation of all storm sewer frames and grates shall be noted. Pipe material and size shall be noted. All sump pump locations and connections shall be noted.
- c. All pipe slopes shall be calculated based on constructed elevations and lengths. The approved slope shall be crossed out and the record slope noted adjacent to the approved slope.
- d. All design cross sections shall be surveyed and record elevation and widths noted. Overland flow path slopes shall be surveyed and record elevation and locations noted. Design water surface elevations shall be calculated where cross section area or slope is less than the approved plan.
- e. Stormwater management basins and floodplain compensatory storage shall be surveyed and a one foot topographic map provided. The flow control structure shall indicate type, size and elevation of the control device. Overflow measures such as control weirs, etc, shall be surveyed noting material, location, width and elevation. The record drawings shall include calculations verifying that the volumes of detention and compensatory storage required in the permit have been provided. The calculations shall compare proposed to actual volumes at one foot elevation intervals.
- f. The plans shall be signed and sealed by a Professional Engineer who shall state that the project is constructed and will function in substantially conformance and with the approved and permitted plans and calculations.
- g. The plans shall identify the entity with current maintenance responsibility and the entity with future maintenance responsibility for stormwater management facilities including but not limited to:
 1. Stormwater Management Basins
 2. Storm Sewers
 3. Drainage Ditches
 4. Overland Flood Routes
 5. Wetlands and Natural Areas

The plans shall identify a schedule for transfer of maintenance responsibility and the status of funding for maintenance activities.

Sec. 504 Issuance or Denial of Permit and Appeal of Permit Denial

The Administrator shall either issue or deny a Stormwater permit within 30 calendar days of receiving a complete Permit application and all required submittals and fees, unless additional time is agreed upon by both the Administrator and the Applicant. Failure of the Administrator to respond in writing within 30 calendar days of the complete submittal shall be construed as approval of the Permit as submitted. Denial of a permit shall be provided to the applicant in writing and shall be accompanied by specific reasons for denial.

If a permit is denied, the applicant may appeal the Administrators decision to the Director provided such appeal is made in writing within 15 business days of the date of the notification of denial. Such appeal shall state the reasons for denial and provide responses demonstrating compliance with this ordinance (County Stormwater Management Ordinance) and Certified Community ordinance amendments as appropriate. If the permit denial is found to be based on non-compliance with a Certified Community ordinance amendment the Director shall not be required to respond. If the permit denial is based on non-compliance with this ordinance only (County Stormwater Management Ordinance) the Director shall render a decision to issue the Stormwater permit or uphold the Administrators denial of the permit. The Director shall render his decision within 30 calendar days of the appeal. Failure of the Director to respond in writing within 30 calendar days of the appeal shall be construed as approval of the Permit as submitted. Denial of a permit shall be provided to the applicant in writing and shall be accompanied by specific reasons for denial.

Upon denial by the Director, the applicant may file an appeal in writing within calendar 15 business days of the denial to the County Board. Such appeal shall state the reasons for denial and provide responses demonstrating compliance with this ordinance (County Stormwater Management Ordinance) and Certified Community ordinance amendments as appropriate. If the permit denial is found to be based on non-compliance with a Certified Community ordinance amendment the County Board shall not be required to respond. If the permit denial is based on non-compliance with this ordinance only (County Stormwater Management Ordinance) the County Board shall render a decision to issue the Stormwater permit or uphold the Directors denial of the permit. The County Board shall render his decision within 30 calendar days of the appeal. Failure of the County Board to respond in writing within 30 calendar days of the appeal shall be construed as approval of the Permit as submitted. Denial of a permit shall be provided to the applicant in writing and shall be accompanied by specific reasons for denial.

ARTICLE 6. LONG TERM MAINTENANCE.

Sec. 600 Long-Term Maintenance

Unless and until maintenance responsibility has been delegated to and accepted by another qualified entity under this section, the owner shall maintain that portion of a stormwater drainage system and stormwater facilities located upon his land. With the approval of the Administrator the stormwater drainage system and stormwater facilities, or specified portions thereof, may be:

- a. Dedicated or otherwise transferred to and accepted by the certified community or other public entity; or
- b. Conveyed or otherwise transferred to and accepted by a homeowner's association, or similar entity, the members of which are to be the owners of all of the lots or parcels comprising the development; or
- c. Conveyed to one or more persons or in one or more undivided interests to one or more persons.

Included for all applications for a stormwater permit shall be a plan for the long-term management, operation and maintenance of the stormwater drainage facilities and a description of ownership and the sources of funding therefore.

Sec. 601 Transfer to Permitting Authority or Other Public Entity

Those portions of the stormwater facilities to be dedicated or otherwise transferred to the permitting authority or other public entity under Section 600(a), shall have reserved appropriate easements for protection of drainage rights, ingress and egress and maintenance of such portions of stormwater facilities for the benefit of the permitting authority and such other public entity on the final plat.

Sec. 602 Transfer to Homeowner's or Similar Association

Those portions of the stormwater facilities to be dedicated or otherwise transferred to a homeowner's or similar association under Section 600(b) then:

- a. Appropriate easements for protection of drainage rights, ingress and egress and maintenance of stormwater facilities of such portions of stormwater facilities shall be reserved for the benefit of such association and the permitting authority on the final plat;
- b. The final plat shall contain a provision reserving the right of the permitting authority to enter upon the land to perform the maintenance required in this section if the owner does not do so and to place a lien against the land for the cost thereof;
- c. The final plat shall contain a legend imposing the maintenance obligations of this section upon the grantee and his successors in interest as a covenant running with the land and incorporating by reference the plan of long term maintenance set forth in the application for a Stormwater Management Permit, with approved amendments;

- d. The association shall be duly incorporated and a copy of the Certificate of Incorporation, duly recorded, and bylaws, and any amendment to either of them, shall be delivered to the Administrator;
- e. The bylaws of the association shall, at a minimum, contain:
 - 1. A provision acknowledging and accepting the association's obligation to maintain certain portions of the stormwater drainage system as required by this ordinance;
 - 2. A mechanism for imposing an assessment upon the owners of all of the lots or parcels comprising the development sufficient, at a minimum, to provide for the maintenance of those portions of the stormwater drainage system as required by this Ordinance and the payment of all taxes levied thereon;
 - 3. A provision adopting the plan of long term maintenance set forth in the application for a Stormwater Management Permit, with approved amendments;
 - 4. A provision identifying the officer of the association responsible for carrying out the obligations imposed upon the association under this ordinance, and an obligation to inform the Administrator of the name, address and phone number of this officer and any changes thereto;
 - 5. A provision requiring the consent of the permitting authority to any amendment of the bylaws changing any of the provisions of the bylaws required by this ordinance; and
 - 6. A provision requiring the consent of the permitting authority to the dissolution of the association
- f. Any conveyance or other instrument of transfer delivered under Section 600(b) shall include a covenant affirmatively imposing upon the association the obligations set forth in this section and the association's affirmative acceptance thereof.

Sec. 603 Conveyance to One or More Persons

Those portions of the stormwater facilities to be conveyed to one or more persons under Section 600(c), then:

- a. Appropriate easements for protection of drainage rights, ingress and egress and maintenance of stormwater facilities of such portions of stormwater facilities shall be reserved for the benefit of such association and the permitting authority on the final plat;
- b. The final plat shall contain a provision reserving the right of the permitting authority to enter upon the land to perform the maintenance required in this section if the owner does not do so and to place a lien against the land for the cost thereof;

- c. The final plat shall contain a legend imposing the maintenance obligations of this section upon the grantee and his successors in interest as a covenant running with the land and incorporating by reference the plan of long term maintenance set forth in the application for a Stormwater Management Permit, with approved amendments;
- d. Any conveyance delivered under Section 600(c), and any subsequent conveyance, shall include a covenant affirmatively imposing upon the grantee the obligations, restrictions and provisions set forth in this section and the grantee's affirmative acceptance thereof.

Sec. 604 Require Maintenance Plan - Permit Submittals

All permit submittals where stormwater facilities are proposed shall include a maintenance plan. The entities (public or private) responsible for maintenance of all elements of stormwater facilities shall be identified in the maintenance Plan as part of the permit application. All stormwater elements, including but not limited to, stormwater basins, storm sewers, swales, natural areas and wetlands shall be included. All entities and their respective maintenance responsibilities shall be listed. Maintenance responsibilities proposed shall be approved by the Administrator.

The maintenance plan shall include the following elements as appropriate and as determined by the designer and approved permitting agency:

- a. Emergency Procedure and Contact List
 - 1. Emergency Condition Procedure
 - 2. Call List & protocol
- b. Subdivision Information
 - 1. Subdivision Plat & Easements
 - 2. Engineering Plans (Record Drawings – hard copy and electronic format)
 - 3. Stormwater Management Permit and calculations
 - 4. Covenants and By Laws
 - 5. HOA Official Contact List (after established)
 - 6. Management Company Contact List & Tennant contact list
- c. Inspections & Record Keeping
 - 1. Routine Inspections
 - 2. Post Rainfall Inspection
 - 3. Incident Inspection
 - 4. Annual reporting format
 - 5. Inspector qualifications
 - 6. Inspection checklists
- d. Annual Maintenance Guidelines& Schedule
 - 1. Flushing, cleaning and sediment removal
 - 2. Vegetation management
 - 3. Stormwater Management Basin
 - 4. Televising, lamping
 - 5. Operations budget

- e. Maintenance & Expense Log
- f. Inspection / Report Log
- g. Appendix
 1. Guideline Copy and Revision Log
 2. Applicability
 3. Definitions
 4. Additional contacts and resources
 5. Quick Guide / Education Resources
- h. Capital Budget

Sec. 605 Incorporation of Maintenance Obligations in Stormwater Management Permit

The provisions of this Article shall be incorporated by reference in the Stormwater Management Permit and the applicant's acceptance of the permit shall be deemed to be the applicant's acceptance and assumption of the obligations imposed under this section. At the option of the Administrator, the Stormwater Management Permit may be recorded.

Sec. 606 Funding for Long Term Maintenance of Stormwater Facilities

As a condition of approval of any application for a Stormwater Management Permit, unless the maintenance responsibility for the stormwater facilities in connection therewith has been accepted by a public entity, the Administrator shall require the establishment of a special service area pursuant to 35 ILCS 200/27-5, et seq, as a backup means of providing for the long term maintenance of the facilities in the event the entity designated by the applicant as having primary maintenance responsibility fails to adequately carry out its duties.

If the establishment of a special service area is required, the Administrator shall require a good faith estimate by the applicant of the funding levels required to support the maintenance activities identified in the maintenance plan and the tax rate and tax to be levied upon all taxable property within the area benefitted by stormwater facilities. The applicant shall submit the same to the permitting authority for approval. The Administrator shall incorporate the approved rate into its ordinances necessary for enactment and establishment of the tax to support long term maintenance of the stormwater facilities.

Sec. 606 Enforcement

Failure to comply with the Maintenance Plan approved with the Stormwater Permit is considered a violation

ARTICLE 7. ENFORCEMENT AND PENALTIES

Sec. 700 Inspection and Maintenance Authority

Pursuant to the authority granted by 55 ILCS 5/5-1104 and 5-1062, the County may, after 30 days notice to the owner or occupant, enter upon any lands or waters within the County for the purpose of inspecting and/or maintaining stormwater facilities or causing the removal of any obstruction to an affected watercourse.

Sec. 701 Required Inspections

Any development constructed pursuant to a Stormwater Management Permit shall be subject to periodic inspections by the Administrator, Director or their designee to ensure conformity with permit provisions and conditions.

Sec. 702 Offenses

Any person who violates, disobeys, omits, neglects, refuses to comply with, or resists the enforcement of any provision of this ordinance (“ordinance violation”) or any requirement or condition in any permit issued pursuant to this ordinance (“permit violation”), and, in the case of a permit violation, fails to correct such violation, omission or neglect, or cease such disobedience, refusal or resistance after notice and reinspection as provided in Sec. 702.1 below, shall be guilty of an offense under this ordinance.

702.1 Permit Violation – Notice

Whenever the Administrator or Director determines that a permit violation exists, he shall give notice of the violation in the manner prescribed in Section 1006 to the permittee. Such notice shall state the nature of the violation and fix a date not less than 10 days after the date of the notice when the site will be reinspected.

Sec. 703 Offenses – Penalties: Remedies

- a. Any person found guilty of an offense under this ordinance shall pay a civil fine in an amount not less than \$25 and not more than \$750. Each calendar day during which such violation continues to exist shall constitute a separate offense.
- b. In addition to any fine imposed under 703.a, the Administrator or the Director may revoke any Stormwater Management Permit issued to such person.
- c. In addition to any fine imposed under Subsection 703.a or action taken under Subsection 703.b, the Administrator or the Director may issue an order requiring the suspension of any further work on the site. Such stop-work order shall be in writing, shall indicate the reason for its issuance, and shall specify the action, if any, required to be taken in order to resume work and shall provide a reasonable period to cure deficiencies based on the risks associated with non-compliance. One copy of the stop-work order shall be posted on the site in a conspicuous place and one copy shall be delivered in the manner prescribed in Section 1006 to the permittee, if any, or if none, to the person in whose name the site was last assessed for taxes as disclosed by the records of the Supervisor of Assessments.
- d. In the enforcement of this ordinance, the Administrator or the Director may bring any action, legal or equitable, including an action for injunctive relief that may be necessary.

ARTICLE 8. GENERAL PROVISIONS

Sec. 800 Scope of Regulation

This ordinance applies to all development within the County, including that under the control of any governmental entity, agency, or authority. Development within the regulatory floodway, requiring a permit, shall obtain such permit from IDNR-OWR prior to issuance of a stormwater management permit. All units of local government shall obtain stormwater management permits from the permitting authority within whose boundaries the development is located.

Sec. 801 Exemptions

This ordinance does not apply to:

- a. Development which has been substantially completed before the effective date of the Ordinance; and
- b. Development, which has been determined to be exempt by the permitting authority.
- c. Nonconforming structures existing before the effective date of the Ordinance; however if such structures are replaced, altered or substantially improved within the floodplain they may no longer be exempt and shall comply with Article 4 accordingly.

Sec. 802 Community's list of proposed exempt developments

- a. The County or a Community may place a property on its list of exempt Developments only if:
 1. A site specific stormwater plan, master plan, or a regional master plan has been submitted and substantially approved by the Certified Community's Professional Engineer; or
 2. A contractual agreement, specifically exempting the development from the stormwater regulations of the Community, was entered into before the effective date of the ordinance.
- b. A Community's list of exempt developments shall be adopted by an official action of the corporate authorities of the Community and shall be included in the Stormwater Management Ordinance Adopted by the Certified Community. Each exempt development shall be defined by a legal description (subdivision plat, annexation agreement, metes and bounds, etc.). Prior to taking such action, the Community shall publish the exempt development list in accordance with Section 1007, a notice in substantially the following form:

On [date], at [time], the [corporate authorities] of the [type of community] of [community] will consider and take formal action with respect to the approval of the following list of developments proposed as exempt from the provisions of the Kendall County Stormwater Management Ordinance, adopted by the Kendall County Board on Month Date, Year. Any person wishing to do so, may attend the meeting and be heard prior to the [corporate authorities] taking such action.

[List of proposed exempt developments]

- c. Prior to the effective date of the Countywide Stormwater Ordinance and upon similar notice and by similar official action, a Community may revise the list by adding or deleting developments there from. If a development is to be deleted from the list, an additional notice shall be served in the manner set forth in Section 1006 upon the affected developer. Revisions to the list shall be submitted to the Director. Subsequent to the effective date of the Countywide Stormwater Ordinance the list may not be changed without review and recommendation by the Committee, which shall be forwarded to the County Board for approval.

Sec. 803 Interpretation

- a. This ordinance shall be liberally construed to protect the health, welfare, safety, and the environment of the residents of the County and to effectuate the purposes of this ordinance and the enabling legislation.
- b. Nothing in this ordinance shall be deemed to consent to, license, permit to locate, construct, or maintain any structure, site, facility or operation, or to carry on any trade, industry, occupation, or activity.
- c. When provisions of this ordinance differ from any other applicable law, statute, ordinance, rule or regulation, the more stringent provision shall apply.
- d. The provisions of this ordinance are cumulative of all other laws, statutes, ordinances, rules and regulations which relate to the subject matter hereof and, except as otherwise expressly provided herein, nothing in this ordinance shall be construed as a limitation upon the application or enforcement of any such law, statute, ordinance, rule or regulation. To the greatest extent possible, the provisions of this ordinance shall be construed to be consistent with the provisions of such other laws, statutes, ordinances, rules or regulations, and with each other, to the end that all such provisions may be given their fullest application.

Sec. 804 Warning and disclaimer of liability

- a. The degree of flood protection provided by this ordinance is considered reasonable for regulatory purposes and is based upon engineering experience and scientific methods of study. Increased flooding may result from causes beyond the control of any governmental authority. This ordinance does not, therefore, guarantee that areas outside the floodplain or permitted land uses within the floodplain will be free from flooding and associated damages.
- b. Nothing in this ordinance shall be construed or applied in any manner to create liability on the part of or a cause of action against the County, any municipality or other governmental authority, or any elected official, or any officer, agent, or employee of any

of the foregoing, or any certified review specialist for any flood damage resulting from reliance on the provisions of this ordinance.

Sec. 805 Choice of planning jurisdiction

Pursuant to 55 ILCS 5/5-1062.2 (b), a community that is located in more than one county may choose, at the time of the formation of the Committee, and based upon watershed boundaries, to participate in the stormwater management planning program of either or both of the counties. The Committee shall include such community within the scope of its planning and enforcement jurisdiction unless the community provides evidence of its participation or intent to participate in the stormwater management-planning program of another county.

Sec. 806 Violations

- a. It shall be unlawful for any person to undertake any development without first securing a stormwater management permit as required by this ordinance.
- b. It shall be unlawful for any person to violate, disobey, omit, neglect and refuse to comply with, or resist enforcement of any provision of this ordinance or any condition of a stormwater management permit.

Sec. 807 Severability

- a. The several provisions of this ordinance shall be severable in accordance with the following rules:
 - 1. If any court of competent jurisdiction shall adjudge any provision of this ordinance to be invalid, such judgment shall not affect any other provision of this ordinance.
 - 2. In any court of competent jurisdiction shall adjudge to be invalid the application of any provision of this ordinance, to a particular parcel of land, a particular structure, or a particular development, such judgment shall not affect the application of said provision to any other land, structure or development.

Sec. 808 Amendments

No amendment to this ordinance may be passed without a public hearing first being held before the Kendall County Board upon notice as provided in Section 1007.

Sec. 809 Effective Date

This Ordinance shall take effect for all purposes, and its effective date shall be 1-1-2013.

ARTICLE 9. VARIANCES

Sec. 900 Purpose

In order to provide a narrowly circumscribed means by which relief may be granted when strict compliance with the requirements of the County Stormwater Management Ordinance is impossible or impracticable, variances from the specific provisions of this ordinance may be granted according to the standards set forth in this Article.

Sec. 901 Application for Variance

An application for a variance to the Certified Community and/or County Stormwater Management Ordinance, signed by the owner or developer of the development shall be filed with the Administrator. No application for a variance will be accepted for filing unless it relates to a previously or contemporaneously filed application for a stormwater management permit. Applications for a variance shall be filed in such number of duplicate copies as the Administrator may designate. No action will be taken on an application for a variance unless it, and the corresponding application for a stormwater management permit to which it relates, are complete as determined by the Administrator.

901.1 Local Variance

Variances to Certified Community requirements which are more stringent than this ordinance do not require approval by the Director or the County Board provided they result in full compliance with the County Stormwater Management Ordinance.

901.2 County & Floodplain Variances

Variances to County Stormwater Management Ordinance requirements or any variance of Article 4 require approval by the Certified Community, the Director and the County Board in accordance with the procedures set forth herein.

901.3 Administrator Responsibilities

The Administrator shall send a copy of the complete application to the Director with a Certified Community determination of compliance related to Certified Community and County Stormwater Ordinance requirements. The Administrator shall also send a copy of the complete application to all other certified communities within the same watershed.

901.4 Application Format

Applications for a variance need not be made upon any specific form, but shall contain the information set forth herein.

- a. The common addresses and legal descriptions of all lands comprising the development;
- b. The names and addresses of all owners of record of the legal title of all lands comprising the development;
- c. If title to any of the land comprising the development is held in trust, the names and addresses of all beneficiaries of the trust;
- d. The names and addresses of the developers of the land, if different from the owner;

- e. The names and addresses of all consultants retained by the developer in connection with the application for a variance;
- f. The names and addresses of all property owners within 250 feet of the development;
- g. The specific feature or features of the development that require a variance;
- h. The specific provision of the Certified Community Stormwater Ordinance from which a variance is sought and the precise extent of the variance there from;
- i. The specific provision of the County Stormwater Ordinance from which a variance is sought and the precise extent of the variance there from;
- j. A statement of the characteristics of the development that prevent compliance with the provisions of this ordinance;
- k. A statement that the variance requested is the minimum variance necessary to permit the development;
- l. A statement as to how the variance requested satisfies the standards set forth in Section 904 of this ordinance;

Sec. 902 Application Fee

With the filing of the application for a variance, the applicant shall pay all fees prescribed by the Administrator and Director.

Sec. 903 Public Hearing

When the application is deemed complete and acceptable by Administrator a public hearing on the application before the Certified Community Oversight Committee may be scheduled and the Applicant notified. Not more than 30 nor less than 15 days before the hearing, notice of the hearing shall be sent by first class mail, postage prepaid, to the applicant, to the Director, to all property owners within 250 feet of the development as disclosed in the application, and to each Certified Community within the same watershed as the development and to the Certified Community Oversight Committee. Within the same time period, notice of the hearing shall be published at least once in a newspaper published within the Certified Community having jurisdiction over the application, or within the county if the county has jurisdiction over the application. If no newspaper is published within the Certified Community, then the notice shall be published in a newspaper with a general circulation within the Certified Community, which is published in the County. The notices given under the section shall set forth the common name, address and legal description of the development and a brief description of the variance is requested.

Sec. 904 Granting of Variances

904.1 Variance Standards

The Oversight Committee shall not recommend nor shall the County Board or Corporate Authority grant a variance for a project from the provisions of the County Stormwater Ordinance unless the variance is consistent with the purpose of this Ordinance (Section 102) and meets the following standards based upon substantial evidence submitted with the variance application or at the hearing:

- a. The variance will not increase the probability of flood damage or create an additional threat to the public health, safety or welfare.
- b. The variance requested is the minimum relief necessary to accomplish the objectives of the development without compromising the objectives of Section 102 of this Ordinance.
- c. The variance will not result in a reduction of water quality benefits as compared to compliance with ordinance requirements.
- d. The variance is not requested solely for the purpose of reducing site runoff storage requirements.
- e. The variance shall not cause conveyance of stormwater from the project to increase peak discharges beyond design capacity of existing offsite conveyance facilities for any storm event from the 2-year to the 100-year recurrence frequency.
- f. The variance shall seek to preserve valuable environmental and biological resources including but not limited to stands of native trees, existing wetlands and natural floodplain storage.

In addition to the standards noted above any variance to any part of Article 4 shall be restricted as noted herein or meet the following additional standards:

- a. Variances shall not be issued by the permitting agency within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result;
- b. Variances may be issued by the permitting agency for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, in conformance with the following procedures of this section;
 1. Variances shall only be issued by the permitting agency upon
 - i. A showing of good and sufficient cause,
 - ii. A determination that failure to grant the variance would result in exceptional hardship to the applicant,

- iii. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances;
 2. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief;
 3. A permitting agency shall notify the applicant in writing over the signature of the Administrator that
 - i. The issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and
 - ii. Such construction below the base flood level increases risks to life and property. Such notification shall be maintained with a record of all variance actions as required in this section;
 4. The permitting agency shall
 - i. Maintain a record of all variance actions, including justification for their issuance, and
 - ii. Report such variances issued in its annual or biennial report submitted to the Federal Insurance Administrator.

904.2 Floodway

No variance shall be granted for any development in the regulatory floodway, the effect of which would be to create regulation less restrictive than the federal or state minimum standards applicable to development in such areas.

Sec. 905 Procedure and Recommendations

905.1 Local Variance

The Administrator shall send a copy of the complete application to the Director with a Certified Community determination of compliance with the County Stormwater Ordinance.

The Administrator or his or her designee shall review the application for a variance and present his or her written recommendations to the Oversight Committee at the public hearing with a copy to the Director.

Not more than 45 days after the close of the hearing, the Oversight Committee shall forward the application with its written recommendations to the Corporate Authorities and the Director. The written recommendations of the Oversight Committee, when forwarded, shall be accompanied

by written findings of fact with respect to each of the considerations set forth in Section 904 with citations to the evidence taken at the public hearing.

The Corporate Authorities shall grant the variation, grant the variation with modifications or conditions, or deny the variation in writing within 45 days after receipt of the written recommendations of the Oversight Committee and shall forward its final decision to the Director. In the event the Corporate Authorities do not act on the recommendations of the Oversight Committee then the recommendation from the Oversight Committee is considered to be endorsed and adopted by the Corporate Authorities.

905.2 County & Floodplain Variance

The Administrator shall send a copy of the complete application to the Director with a Certified Community determination of non-compliance with the County Stormwater Ordinance.

The Administrator or his or her designee shall review the application for a variance and present his or her written recommendations to the Oversight Committee at the public hearing with a copy to the Director.

Not more than 45 days after the close of the hearing, the Oversight Committee shall forward the application with its written recommendations to the County Board and the Director. The written recommendations of the Oversight Committee, when forwarded, shall be accompanied by written findings of fact with respect to each of the considerations set forth in Section 904 with citations to the evidence taken at the public hearing.

The County Board shall grant the variation, grant the variation with modifications or conditions, or deny the variation in writing within 45 days after receipt of the written recommendations of the Oversight Committee and shall forward its final decision to the Director. In the event the County Board does not act on the recommendations of the Oversight Committee then the recommendation from the Oversight Committee is considered to be endorsed and adopted by the Corporate Authorities.

Sec. 906 Conditions

906.1 A variance less than or different from that requested may be granted when the record supports the applicant's right to some relief, but not to the relief requested.

906.2 In granting a variance, the County Board or Corporate Authorities may impose such specific conditions and limitations concerning any matter relating to the purposes and objectives of this ordinance on the applicant as may be necessary or appropriate.

906.3 Whenever any variance is granted subject to any condition or limitation to be met by the applicant, upon meeting such conditions, the applicant shall file evidence to that effect with the Administrator.

ARTICLE 10. ADMINISTRATION

Sec. 1000 Responsibility for Administration

- a. The County Board shall determine policy related to this ordinance.
- b. The Director and Administrator shall administer this ordinance. In performing their duties, the Director and the Administrator may delegate and oversee enforcement of responsibilities to any named designee.
- c. Each community shall remain solely responsible for its standing in the National Flood Insurance Program, including:
 1. The maintenance of all records and the submission of all reports required for eligibility in the program, including elevation certificates, flood proofing certificates, and lowest floor elevations; and
 2. The notification of the Director, FEMA and IDNR-OWR of any proposed amendment to this ordinance.
- d. The Director, or his/her designee, shall be solely responsible for administering this ordinance relative to any Kendall County Department of Transportation projects on the County Highway System or any Township Road District project on the Township Road District System regardless of the jurisdictions in which the project may lie.

Sec. 1001 Duties of Director

The Director shall:

- a. Supervise the enforcement of this ordinance;
- b. Supervise the development, revision and implementation of the Plan for approval by the Committee and the County Board;
- c. Supervise the review of complex stormwater management permits for any community that requests such assistance;
- d. Notify all of the communities in the County, FEMA, IDNR-OWR, USACOE, the Illinois Environmental Protection Agency, and the United States Environmental Protection Agency of any amendments to the Plan or to this ordinance.
- e. Review variance requests for the Committee.
- f. Assume the duties of the Administrator for the unincorporated County and non-certified Communities including Kendall County Department of Transportation projects on the County Highway System or any Township Road District project on the Township Road District System.

Sec. 1002 Duties of Administrator

The Administrator shall:

- a. Receive a listing of all required federal, state, regional and County permit applications filed for the project prior to issuing a permit under this ordinance for areas covered by other stormwater related jurisdictions. The Administrator may request copies of the stormwater related permit applications;
- b. Ascertain whether any floodplains/floodways exist on any site which is the subject of an application for a permit under this ordinance and whether or not any new development is within the SFHA;
- c. Review permit applications and determine whether to issue or deny permits;
- d. Ensure that the required notice of an application for a variance has been given in accordance with Section 1006 and 1007;
- e. Notify the Director of an application for a variance, a CLOMR or a LOMR;
- f. Provide for inspections of developments as required by this ordinance;
- g. Investigate complaints of violations of this ordinance within his or her community;
- h. Notify violators within regulatory floodplains that failure to comply with the provisions of the National Flood Insurance Program could make them ineligible to receive flood insurance;
- i. Initiate any proceeding necessary to enforce this ordinance within his or her community;
- j. Advise, consult and cooperate with other governmental agencies to promote the purposes of this ordinance;
- k. Maintain copies of all applications and submittals, federal and state permits, variances, CLOMR, LOMR, CLOMA, LOMA and all documentation associated with any of the foregoing for public inspection;
- l. Maintain documentation and data on the cost of any improvement to a structure in the floodplain in order to enforce the provisions of this ordinance pertaining to substantial improvements to such structures;
- m. Notify adjacent communities in writing 30 days prior to issuing a permit for the alteration or relocation of a watercourse affecting the adjacent community.

Sec. 1003 Representative Capacity

In all cases when any action is taken by the Director or the Administrator, or his or her duly appointed designee, to enforce the provisions of this ordinance, such action shall be taken either in the name of the County or the certified community as the case may be, and neither the Director nor the Administrator, nor his or her designee, in so acting shall be rendered personally liable.

Sec. 1004 Oversight Committee

The corporate authorities of each community within the County shall establish an oversight committee to oversee the implementation and enforcement of this ordinance within its jurisdiction and to perform the duties assigned to the oversight committee in this ordinance. The oversight committee may be comprised of the corporate authorities or any committee thereof, plan commission, zoning board of appeals, or other existing body, or the corporate authorities may, according to their own rules and procedures, establish a separate oversight committee. The County Board Committee of the Whole shall act as the oversight committee for the County.

Sec. 1005 Non-Certified Communities

The Director may delegate the duties of the Administrator for Non-Certified Communities. The County may designate an Oversight Committee in these Non-Certified Communities.

Sec. 1006 Service

Unless otherwise provided herein, service of any notice or instrument under this ordinance may be made upon any person in one of the following manners:

- a. By Certified Mail/Return Receipt Requested, Postage prepaid & addressed to the address then on file for such person, if any, or if none, to such person's last known address; or
- b. By any method prescribed under the Illinois Code of Civil Procedure.

Sec. 1007 Publication

Unless otherwise provided herein, publication of any notice or other instrument under this ordinance shall be made by publishing such notice or other instrument once in a newspaper published within the community having jurisdiction over the matter to which the publication relates (or, if no newspapers published within the Community then a newspaper published in the County and having a general circulation within the Community), such publication being not less than fifteen or more than thirty days before the hearing or other event to which the publication relates.

ARTICLE 11. CERTIFIED COMMUNITY ENFORCEMENT

Sec. 1100 Authority

Pursuant to Section 5-1062 of the Counties Code (55 ILCS 5/5 –1062 (1996)), the provisions of this Ordinance shall not be enforced by the County in any Certified Community.

Sec. 1101 Petition for Certification and Waiver of Enforcement

Any community that desires to enforce the provisions of this Ordinance within its borders shall file a petition for certification and waiver of enforcement (“petition for certification”), on or before December 1, 2012. After December 1, 2012, petitions for such certification may be filed during the month of November of each year.

Sec. 1102 Filing and Contents of Petition for Certification

A petition for certification shall be filed with the Director. The petition need not be on any particular form but, at a minimum, shall set forth and be accompanied by:

- a. The agreement of the corporate authorities of the community to adopt, if certified, the provisions of this ordinance by reference;
- b. The community’s plan for the implementation and enforcing of this Ordinance, including proposed staffing;
- c. The agreement of the corporate authorities of the community to include in any new annexation agreement a provision requiring every other party to the agreement to affirmatively agree to comply with the provisions of this Ordinance as amended from time to time;
- d. The agreement of the corporate authorities of the community that the community will be bound by the rules and procedures of the Committee by which certification is granted or revoked and county jurisdiction is reasserted over the enforcement of this ordinance within the boundaries of the Community;
- e. The list of projects to which this Ordinance or some portion of this Ordinance do not apply (grand fathered projects) pursuant to the requirements of Article 8.

Sec. 1103 Committee Consideration of Petition for Certification

The Committee shall consider each properly filed petition for certification at a regular or special meeting called for such purpose not later than 60 days after the filing of the petition. The meeting may be continued from time to time. The Committee may adopt rules for the taking of evidence and conduct of such meetings.

Sec. 1104 Standards for Grant of Petition

Upon a finding of the committee that the community has complied with Sections 1101 and 1102, that the community’s plan for the implementation and enforcement of this ordinance is reasonably feasible, the Committee shall grant the petition for certification. The Committee’s decision shall be in writing, and shall specify the reasons for granting or denying the petition

Sec. 1105 Certified Community Records

Permit Records

Every certified community shall maintain adequate records of every Stormwater Management Permit issued and every variance granted under this ordinance for development within its borders.

Stormwater Facilities and Drainage Systems

Every certified Community shall retain record drawings of all drainage systems and stormwater management facilities erected or constructed pursuant to a Stormwater Management Permit issued or variance granted by such community.

Records Inspections

The records of each Certified Community maintained under this Ordinance may be periodically inspected by the Director or Committee.

Annual Reporting & Recertification

The Administrator of every Certified Community shall report annually to the Director on forms provided by the Director reporting the following information:

- a. Staff and/or consultant staff names performing stormwater permit reviews
- b. Stormwater Management Permits; total number and those involving:
 1. Site Runoff Storage Facility
 2. Floodplain Fill / Modification
 3. Floodway Construction
- c. Wetland Permit (USACE)
- d. IDNR – OWR Permit
- e. Variances – Local & County Ordinance
- f. Active construction projects/sites (any time during the reporting period)
- g. Stormwater facilities formally accepted by the Certified Community or acknowledged as complete for private maintenance during the reporting period.
- h. Enforcement actions or complaint responses
- i. Backup SSA's established, SSA's levied for stormwater management maintenance
- j. Fee In Lieu of On-Site Detention received by the Certified Community

The reporting period shall be based on the calendar year January through December. Reports shall be submitted to the Director no later than January 31st of the year following the reporting period. The Director shall review and provide comments to the Administrator by March 15th of the year following the reporting period. Certified Communities which do not submit an annual report by January 31st of the year following the reporting period will cause the initiation of an investigation and complaint in accordance with Section 1107.

The Director may offer written comments or response to the Certified Community Annual Report and all permits records and supporting documents are subject to audit at any time by the Director. If the Director offers no written comments or response to the annual report then the Certified Community is automatically Re-Certified for an additional calendar year. A Certified Community's standing as "Certified" remains valid and in effect unless and until it is changed in writing by the County Board.

Sec. 1106 Committee Review of Enforcement by a Certified Community

The Committee shall periodically review the implementation and enforcement of this Ordinance by each Certified Community.

Sec. 1107 Investigations; Complaints

Initiation of Investigation and Complaint

The Director upon his own initiative or at the request of any person may conduct an investigation into a Certified Community's implementation and enforcement of this Ordinance. Such investigation may include, without limitation, making an inspection of all relevant records maintained by the Community and making field inspections of relevant developments, drainage systems, or stormwater facilities. If, upon such investigation, the Director determines that the Community has failed in some significant way, or has repeatedly failed, to implement or enforce this Ordinance, then he shall prepare a report of his findings along with a complaint for the revocation or partial revocation of the Community's Certification and then file the same with the Committee. The complaint shall contain a short and plain statement describing how the Certified Community has failed in some significant way, or has repeatedly failed, to implement or enforce this Ordinance.

Community Notification and Response

Upon receipt of a written complaint, the Committee shall serve a copy thereof along with a copy of the report of the Director upon the Community named therein. As appropriate, a copy of the complaint and report shall also be sent to IDNR-OWR, FEMA, impacted Communities within the same watershed, and to any person who has requested an investigation of the Community's enforcement of this Ordinance by the Director within 6 months immediately preceding the filing of the complaint. The Community may file a written answer to the complaint but shall do so within 30 days of being served in order to be considered by the Committee.

Sec. 1108 Hearing on Complaint

The Committee shall conduct a hearing on the complaint not less than 45 nor more than 90 days after service of the complaint upon the Community. Notice of the hearing shall be given to the

Community. The hearing may be continued from time to time. The Committee may adopt rules for the taking of evidence and conduct of such hearings.

Sec. 1109 Committee Decision

Within 30 days of the conclusion of the hearing, the Committee shall recommend to the County Board what action to be taken which may include whether or not to revoke in whole or in part the Certification of the Community. The recommendation of the Committee shall be in writing and shall include the specific findings and conclusions supporting its determination. The County Board shall decide appropriate remedies, and shall take any actions necessary to implement the remedies. A copy of the decision County Boards and order, if any, shall be served upon the Community. The decision of the County Board to revoke the Certification of the Community is final, subject only to the right of the community to reapply for certification at or after such time as the County shall specify in its order of revocation.

ARTICLE 12. PERFORMANCE SECURITY

Sec. 1200 General Security Requirements

As security to the County or the Certified Community for the performance by the applicant to complete the construction of any and all stormwater facilities required by the Stormwater Management Permit, to pay all costs, fees and charges due from the applicant pursuant to the permitting authorities of this Ordinance and to otherwise faithfully perform the applicant's / developer's undertakings pursuant to this Ordinance or the applicable Certified Community Ordinance, the applicant shall post,:

- a. Construction Performance Security as provided in Section 1201 of this Ordinance prior to issuance of a Stormwater Management Permit; and
- b. Sediment and Erosion Control Security as provided in Section 1202 of this Ordinance, prior to issuance of a Stormwater Management Permit if a sediment and erosion control plan is required pursuant to Section 502 of this Ordinance.
- c. Maintenance Security as provided in Section 1203 of this Ordinance prior to acceptance of stormwater management facilities by any public or private entity.

Nothing contained herein shall prevent the applicant from submitting financial security that combines purposes set forth above so long as that security is for acceptable by the County or the Certified Community.

The applicant / developer or their agent shall bear the full cost and responsibility of securing and maintaining the securities required by this Section.

Sec. 1201 Performance Security

A Construction Performance Security shall be posted and shall include:

- a. A schedule, agreed upon by the applicant / developer and the Administrator, for the completion of the construction of any stormwater facilities required by the permit; and
- b. An irrevocable letter of credit, or such other adequate security as the Administrator may approve, in an amount equal to not less than one hundred ten percent (110%) of the estimated probable cost to complete the construction of any stormwater facilities required by the Stormwater Management Permit, which estimated probable cost shall be prepared by a Registered Professional Engineer and shall be approved by the Administrator; and
- c. A statement signed by the applicant granting the Administrator the right to draw on the security and the right to enter the development site to complete required work in the event that work is not completed according to the work schedule; and
- d. A statement signed by the applicant that the applicant shall indemnify the Community and the County for any additional costs incurred attributable to the concurrent activities of or conflicts between the applicant's contractor and the Community or County's remedial contractor at the site.

The security required by this Section shall be maintained and renewed by the applicant, and shall be held in escrow by the Administrator until the conditions set forth in this Section or other applicable provisions are satisfied.

The Administrator may approve periodic reductions in the letter of credit based on progress of construction. However, not more than 90% of the security provided for in this section may be released prior to approval of record drawings and final inspection.

Sec. 1202 Sediment and Erosion Control Security

If a sediment and erosion control plan is required pursuant to Section 502 of this Ordinance, then a Sediment and Erosion Control Security shall be required. Such a security shall include:

- a. An irrevocable letter of credit, or such other adequate security as the Administrator shall approve, in an amount equal to not less than one hundred ten percent (110%) of the estimated probable cost to install and maintain the sediment and erosion control measures, which estimated probable cost shall be approved by the Administrator; and
- b. A statement signed by the applicant granting the Administrator, as applicable, the right to draw on the security and the right to enter the development site to complete or maintain sediment and erosion control measures in the event that such measures are not installed and/or maintained according to the established schedule.

The security required by this Section shall be maintained and renewed by the applicant, and shall be held in escrow by the Administrator, as applicable, until the conditions set forth in this Section are satisfied.

The Administrator may approve periodic reductions in the letter of credit based on progress of construction. However, not more than 90% of the security provided for in this section may be released prior to completion of all construction, establishment of vegetation, removal of all sediment from stormwater facilities, and final inspection and approval by the Administrator.

Sec. 1203 Maintenance Security

Maintenance Security shall be posted and shall include:

- a. A schedule, agreed upon by the applicant / developer and the Administrator, for the follow up inspection and maintenance repair of any stormwater facilities required by the permit. Generally the maintenance period will be a minimum of one year; and
- b. An irrevocable letter of credit, or such other adequate security as the Administrator may approve, in an amount equal to not less than ten percent (10%) of the estimated probable cost to complete the construction of any stormwater facilities required by the Stormwater Management Permit, which estimated probable cost shall be prepared by a Registered Professional Engineer and shall be approved by the Administrator; and

- c. A statement signed by the applicant granting the Administrator the right to draw on the security and the right to enter the development site to complete required work in the event that stormwater facilities require maintenance according to the work schedule; and
- d. A statement signed by the applicant that the applicant shall indemnify the Community and the County for any additional costs incurred attributable to the concurrent activities of or conflicts between the applicant's contractor and the Community or County's remedial contractor at the site.

The security required by this Section shall be maintained and renewed by the applicant, and shall be held in escrow by the Administrator until the conditions set forth in this Section or other applicable provisions are satisfied.

Sec. 1204 Letters of Credit

12.04.1 Letters of credit posted pursuant to Sections 1200, 1201, 1202 and 1203 of this Ordinance shall be in a form satisfactory to the Director or the Administrator, as applicable.

12.04.2 Each letter of credit shall be from a lending institution: (a) acceptable to the Director or the Administrator, as applicable; (b) having capital resources of at least ten million dollars (\$10,000,000), or such other amount acceptable to the Director or the Administrator; (c) with an office in Kendall County or an adjacent County or within the Chicago Metropolitan Area; and (d) insured by the Federal Deposit Insurance Corporation.

12.04.3 Each letter of credit shall, at a minimum, provide that:

- a. It shall not be canceled without the prior written consent of the Director or the Administrator; and shall not expire without written notification of the Director or Administrator at least 45 days prior to expiration, and
- b. It shall not require the consent of the developer prior to any draw on it by the Director or the Administrator; and
- c. If at any time it will expire within 45 or any lesser number of days, and if it has not been renewed and the renewal submitted to the Director or the Administrator, and if any applicable obligation of the developer for which its security remains uncompleted or is unsatisfactory, then the Director or the Administrator may, without notice and without being required to take any further action of any nature whatsoever, call and draw down the letter of credit and thereafter either hold all proceeds as security for the satisfactory completion of all such obligations or employ the proceeds to complete all such obligations and reimburse the County or the Certified Community for any and all costs and expenses, including legal fees and administrative costs, incurred by the County or the Certified Community, as the Director or the Administrator shall determine.

12..04.4 If at any time the Director or the Administrator determines that the funds remaining in the letter of credit are not, or may not be, sufficient to pay in full the remaining unpaid cost of all stormwater facility construction or sediment and erosion control measures, then, within ten (10) days following a demand by the Director or the Administrator, the developer shall increase the

amount of the letter of credit to an amount determined by the Director or the Administrator to be sufficient to pay such unpaid costs. Failure to so increase the amount of the security shall be grounds for the Director or the Administrator to draw down the entire remaining balance of the letter of credit.

12.04.5 If at any time the Director or the Administrator determines that the bank issuing the letter of credit is without capital resources of at least ten million dollars (\$10,000,000), is unable to meet any federal or state requirement for reserves, is insolvent, is in danger of becoming any of the foregoing, or is otherwise in danger of being unable to honor such letter of credit at any time during its term, or if the Director or the Administrator otherwise reasonably deems the bank to be insecure, then the Director or the Administrator shall have the right to demand that the developer provide a replacement letter of credit from a bank satisfactory to the Director or the Administrator. Such replacement letter of credit shall be deposited with the Director or the Administrator not later than ten (10) days following such demand. Upon such deposit, the Director or the Administrator shall surrender the original letter of credit to the developer.

12.04.6 If the developer fails or refuses to meet fully any of its obligations under this Ordinance or the applicable Certified Community Ordinance, then the Director or the Administrator may, in his or her discretion, draw on and retain all or any of the funds remaining in the letter of credit. The Director or the Administrator thereafter shall have the right to take any action he or she deems reasonable and appropriate to mitigate the effects of such failure or refusal, and to reimburse the County or the Certified Community from the proceeds of the letter of credit for all of its costs and expenses, including legal fees and administrative expenses, resulting from or incurred as a result of the developer's failure or refusal to fully meet its obligations under this Ordinance or the applicable Certified Community Ordinance. If the funds remaining in the letter of credit are insufficient to repay fully the County or the Certified Community for all such costs and expenses, and to maintain a cash reserve equal to the required letter of credit during the entire time such letter of credit should have been maintained by the developer, then the developer shall, upon demand of the Director or the Administrator therefore, immediately deposit with the Director or the Administrator such additional funds as the Director or the Administrator determines are necessary to fully repay such costs and expenses and to establish such cash reserve.

ARTICLE 13. FEE-IN-LIEU OF SITE RUNOFF STORAGE

Sec. 1300 Fee-in-Lieu of Site Runoff Storage

Fee-in-Lieu of Site Runoff Storage shall only be allowed for redevelopment projects as defined by this ordinance.

The Administrator may allow the payment of a fee-in-lieu of site runoff storage to fulfill all or part of the site runoff storage requirement for a development. Fee-in-lieu of site runoff storage shall be the lesser of:

- a. The fee computed for each acre-foot or part thereof of detention required and approved in accordance with the procedures and schedules as approved and adopted by the County or the Certified Community; or
- b. The estimated construction cost, as approved by the County or the Certified Community of the applicant's proposed and approved site runoff storage, including land costs.

The following fee-in-lieu of detention procedures apply to communities with adopted procedures for requiring and collecting fee-in-lieu of revenues for detention requirements:

- a. The Administrator may allow ~~require~~, or the applicant may submit, a written request for the payment of a fee-in-lieu of site runoff storage to fulfill all of part of the site runoff storage requirement in accordance with Section 203 a request for fee-in-lieu of site runoff storage shall be either rejected or approved within forty five (45) days of the written request unless additional engineering studies are required.
- b. Approval of a request for fee-in-lieu of site runoff storage on a development site shall be determined by the Administrator.
- c. A fund will be maintained by the Certified Community or the County for Non-Certified Communities for each of the major watersheds for the purpose of identifying and controlling all revenues and expenses related to stormwater drainage services resulting from fee-in-lieu of site runoff storage approvals. All monies collected for fee-in-lieu of site runoff storage shall be deposited in these funds and may only be used for purposes related to stormwater management as noted in Section 1300.3(d).
- d. Fee-in-lieu of site runoff storage revenues from development site may be used to plan, design or construct an upgrade to existing or future stormwater management systems if the upgrade is consistent with a watershed plan, floodplain study or stormwater system improvement that has been approved by the County for Non-Certified Communities or the community elected board of officials in a Certified Community.