

Chapter Twenty-Five
STORMWATER MANAGEMENT ORDINANCE AND
FLOOD PLAIN REGULATIONS

ARTICLE 1: AUTHORITY, PURPOSE, AND DEFINITIONS

Sec. 25-1: (RESERVED)

Sec. 25-2: (Purposes of this Ordinance) The principal purpose of this Ordinance is to promote effective, equitable, acceptable, and legal Stormwater Management measures by establishing reasonable rules and regulations for development within the City of Watseka.

Other purposes of this Ordinance include:

- a. Managing and mitigating the effects of urbanization on stormwater drainage throughout the City through planning, appropriate engineering practices and proper maintenance;
- b. Protecting from, and reducing the existing potential for, loss of human life, health, safety and property from the hazards of flooding damages on a watershed basis;
- c. Preserving and enhancing the natural hydrologic and hydraulic functions and natural characteristics of watercourses and floodplains to protect water quality, protect aquatic habitats, reduce flood damages, reduce soil erosion, provide recreational and aesthetic benefits and enhance community and economic development;
- d. Controlling sediment and erosion in and from stormwater facilities, developments, agricultural fields, and construction sites and reducing and repairing stream bank erosion;
- e. Requiring that planning for development provide for water resource management, taking into account natural features such as vegetation, wildlife, waterways, wetlands, and topography in order to reduce the probability that new development will create unstable conditions susceptible to erosion;
- f. Protecting environmentally sensitive areas from deterioration or destruction by private or public actions;
- g. Requiring appropriate and adequate provision for site runoff control, especially when the land is developed with a large amount of impervious surface;
- h. Requiring the design and evaluation of each site Stormwater Management plan

consistent with watershed capacities;

- i. Encouraging the use of stormwater storage and infiltration of stormwater in preference to stormwater conveyance;
- j. Lessening the taxpayers' burden for flood-related disasters, repairs to flood-damaged public facilities and utilities, and flood rescue and relief operations;
- k. Meeting the Illinois Department of Natural Resources-Office of Water Resources floodway permitting requirements delineated in 615 ILCS 5/18g (1992) ("An Act in Relation to the Regulation of the Rivers, Lakes, and Streams of the State of Illinois"), as amended from time to time;
- l. Making federally subsidized flood insurance available in the City by fulfilling the requirements of the National Flood Insurance Program;
- m. Complying with the rules and regulations of the National Flood Insurance Program codified in Title 44 of the Code of Federal Regulations;
- n. Restricting future development in the floodplain to facilities that will not adversely affect the potential for flood damage;
- o. Requiring regular, planned maintenance of Stormwater Management facilities;
- p. Allowing the use of simple technologies whenever appropriate and realistic, but requiring the use of more sophisticated techniques when necessary to ensure the adequacy of stormwater controls;

Sec. 25-3: (RESERVED)

Sec. 25-4: (Definitions) Within the context of this 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 the City of Watseka to administer and enforce this Ordinance, which is the City of Watseka Public Works Director.

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

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 City.

Appropriate Use. Only uses of the designated floodway that are permissible and will be considered for permit issuance. The list of permissible uses is contained in Article 4.

Armoring. A form of channel modification which involves the placement of materials (concrete, riprap, bulkheads, etc.) within a stream channel or along a shore line to protect property above streams, lakes and ponds from erosion and wave damage caused by wave action and stream flow.

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

Base Flood Elevation (BFE). The highest water surface elevation that can be expected during the base flood.

Best Management Practices (BMP). A measure used to control the adverse stormwater-related effects of development. BMPs include structural devices (e.g., swales, filter strips, infiltration trenches, and detention 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.

Bounce. The difference between the Normal Water Level and the design High Water Level in a wet bottom pond, and the invert of the outlet control and the design High Water Level for a dry bottom pond.

Building. A structure that is principally above ground and is enclosed by walls and a roof. The term includes a gas or liquid storage tank, a manufactured home, mobile home or a prefabricated building. This term also includes recreational vehicles and travel trailers to be installed on a site for more than 180 days, unless fully licensed and ready for highway use.

Building Permit. A permit issued by the City for the construction, erection or alteration of a structure or building.

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.

Bulkhead. A retaining wall that protects property along water.

Bulletin 70. “Frequency Distributions and Hydroclimatic Characteristics of Heavy Rainstorms in Illinois” by Floyd Huff and James Angel of the Illinois State Water Survey (1989).

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

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.

Channelization. Channelization is a severe form of channel modification involving a significant change in the channel cross-section and typically involving relocation of the existing channel (e.g. straightening).

City. The City of Watseka, Iroquois County, Illinois.

Clearing. Any activity which removes vegetative ground cover.

Commercial. Sale of goods to the public at large where the traffic generated warrants construction of site improvements.

Commercial Redevelopment. Development on a parcel upon which the existing condition is buildings, parking lots and infrastructure associated with commercial activities. Additions to existing buildings and new impervious surfaces added after the effective date of the Ordinance are specifically excluded from this definition.

Community. The City of Watseka.

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

Conditional Letter of Map Amendment (CLOMA). A FEMA comment letter conditionally removing a development proposed to be located in, and affecting only that portion of, the area of floodplain outside the regulatory floodway and having no impact on the existing regulatory floodway or base flood elevations.

Conditional Letter of Map Revision (CLOMR). A letter that indicates that FEMA will revise base flood elevations, flood insurance rate zones, flood boundaries, or floodways as shown on an effective FIRM or FBFM after the record drawings are submitted and approved.

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 that passes through the structure to a specific rate, given a specific upstream and downstream water surface elevation.

County. Iroquois County, Illinois.

Culvert. A structure designed to carry drainage water or small streams below barriers such as roads, driveways, or railway embankments.

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).

Depressional Area. Any area which is lower in elevation on all sides than surrounding properties (i.e. does not drain freely), or whose drainage is severely limited such as by a restrictive culvert. A depressional area will fill with water on occasion when runoff into it exceeds the rate of infiltration into underlying soil or exceeds the discharge through its controlled outlet. Large depressional areas may provide significant stormwater or floodplain storage.

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 invert of a surface gravity outlet.

Detention Basin. (Site Runoff Storage Facility) A constructed structure for the temporary storage of stormwater runoff with a controlled release rate.

Developer. A person who creates or causes a development.

Development. Any constructed change to real estate including: a) construction, reconstruction, repair, or replacement of a building or an addition to a building; 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. If the travel trailer or recreational vehicle is on-site for less than 180 days, it must be fully licensed and ready for highway use; 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; f)

plowing and cultivation and other similar agricultural practices that do not involve filling, grading or construction of levees as regulated in the Section entitled “Stormwater Requirements for Agricultural Land Use Including Croplands, Pasture Lands and Farmsteads” (Sec. 25-38 through Sec. 25-41). The following are not considered development: maintenance of existing buildings and facilities such as reroofing or resurfacing of roads with an impervious surface when there is no increase in elevation.

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

Effective Date. The effective date of this City of Watseka Stormwater Management ordinance.

Elevation Certificates. A form published by FEMA, or its equivalent, that is used to certify the base flood elevation and the lowest elevation of usable space to which a building has been constructed.

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.

Emergency Overland Flow Route. The flow path of stormwater runoff calculated assuming all enclosed storm sewers are inoperable.

Erosion. The process whereby soil is detached by the action of water or wind.

Excavation. Any act by which organic matter, earth, sand, gravel, rock or any other similar material is cut into, dug, quarried, uncovered, removed, displaced, relocated or bulldozed and shall include the conditions resulting therefrom.

Existing Grade. The vertical location of the existing ground surface prior to excavation or filling.

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 (including at a minimum the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) has been completed before April 1, 1990.

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 as specified in Section 25-30.

Fee-in-Lieu of Detention. A fee paid by a developer to the City of Watseka, commensurate

with the costs and fee schedules adopted by the City based on the detention volume required for the development to meet the ordinance release rates. Rules and procedures for fee in lieu of detention are contained in Section 25-142 of this Ordinance.

Fill. Any act, by which earth, sand, gravel, rock or any other material is deposited, placed, replaced, pushed, dumped, pulled, transported or moved by man to a new location and shall include the conditions resulting therefrom.

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

Filtered View. Filtered view means the maintenance or establishment of woody vegetation of sufficient density to screen developments from a stream or wet land, to provide for streambank stabilization and erosion control, to serve as an aid to infiltration of surface runoff, and to provide cover to shade the water. The vegetation need not be so dense as to completely block the view. Filtered view means no clear cutting.

Final Grade. The vertical location of the ground or pavement surface after the grading work is completed in accordance with the site development plan.

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 Boundary and Floodway Map (FBFM). A floodplain management map issued by FEMA that depicts, based on detailed analysis, the boundaries of the base flood, the two tenth percent (0.2%) probability flood, and the floodway.

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.

Flood Hazard Boundary Map (FHBM). A map issued by FEMA that is an official Community map, which depicts generalized areas of floodplains, replaced by a detailed Flood Insurance Study.

Flood Insurance Rate Map (FIRM). 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.

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

Floodplain. That land typically adjacent to a body of water with ground surface elevations at or below the base flood or the 100-year frequency flood elevation including detached special flood hazard areas, ponding areas, etc. The floodplain is also known as the special flood hazard areas (SFHA).

Flood Protection Elevation (FPE). The elevation of the BFE plus 1 (one) foot of freeboard for structures within the plane limits of the base flood elevation. Outside the plane limits, the water table or 100-year design water surface elevation of any adjacent stormwater facility, including emergency overland flow routes, whichever is higher, plus 1 (one) foot 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, $K = \frac{1.4863}{n} AR^{2/3}$ 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 of meeting developed release rate requirements but do not meet all of the final design conditions. For example, a detention basin, which has been excavated but has not had the side slopes graded, nor the final landscaping placed, may be considered "functional" as a site runoff storage facility.

Good Husbandry. Generally accepted agricultural practices found in good farm management.

Grading. Excavation or fill or any combination thereof and shall include the conditions resulting from any excavation or fill.

Groundwater. Water that is located within soil or rock below the surface of the earth. Also known 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.

Historic Structure. Any structure that is a) listed individually in the National Register of Historic Places, or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; b) certified or preliminarily determined by the Secretary of the Interior as contributing to the historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; c) individually listed on the State Inventory of Historic Places by the Illinois Historic Preservation Agency; d) individually listed on a local inventory of historic places that has been certified by the Illinois Historic Preservation Agency.

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

Hydraulic Characteristics. The features of a watercourse that determine its water conveyance capacity. These features include but are not limited to: size and configuration of the cross-section of the watercourse and floodway; texture and roughness of materials along the watercourse; alignment of watercourse; gradient of watercourse; amount and type of vegetation within the watercourse; and size, configuration, and other characteristics of structures within the watercourse. In low-lying areas, the characteristics of the overbank area also determine water conveyance capacity.

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 hydrologic and hydraulic analysis to be equivalent to compensatory storage located adjacent to the development.

Hydrologically Disturbed. An area where the land surface has been cleared, grubbed, compacted, or otherwise modified that changes runoff, volumes, rates, or 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 that cause the majority of rainfall to be converted to direct runoff. Asphalt, concrete and roofing systems are to be considered impervious.

Industrial Redevelopment. Development on a parcel upon which the existing condition is buildings, parking lots and infrastructure associated with industrial activities. Additions to existing buildings and new impervious surfaces added after the effective date of the Ordinance are specifically excluded from consideration as Industrial Redevelopment.

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.

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

Letter of Map Amendment (LOMA). The official determination by FEMA that a specific structure is not in a regulatory floodplain. A LOMA amends the effective FHBM, FBFM, or FIRM.

Letter of Map Revision (LOMR). A letter from FEMA that revises base flood elevations, flood insurance rate zones, flood boundaries, or floodway as shown on an effective FHBM, FBFM, or FIRM.

Lot. Lot means an area of land, with defined boundaries, that is designated in official assessor's records as being one parcel.

Major Stormwater System. That portion of a stormwater facility needed to store and convey flows beyond the capacity of the minor stormwater system.

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 curb, gutter, culverts, roadside ditches and swales, storm sewers, and sub-surface drainage systems intended to convey stormwater runoff at less than a 100-year flood frequency. The design frequency for minor stormwater systems shall be in accordance with the applicable ordinances of the local Community, or Highway Department jurisdiction.

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

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

Natural. Natural in reference to watercourses means those stream channels, grassed waterways and swales formed by the existing surface topography of the earth prior to changes made by unnatural causes. A natural stream tends to follow a meandering path; its floodplain is not constrained by levees; the area near the bank has not been cleared, mowed or cultivated; the stream flows over soil and geologic materials typical of the area with no alteration of the course or cross-section of the stream caused by filling or excavating.

Natural Drainage. Channels formed in the existing surface topography of the earth prior to changes caused by unnatural causes.

Net 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. 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 Manufactured Home Park or Subdivision. 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) has been completed on or after April 1, 1990.

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 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.

Parcel. All contiguous land under common ownership or control including right(s)-of-way to be dedicated in conjunction with the proposed development.

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

Permitting Authority. The City of Watseka.

Pond. Pond means any inland water body, fed by spring or surface water flow that is not a lake.

Primary Gravity Outlet. The outlet structure 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, and the Community, and that provides legal assurances that all areas subject to flooding in the created backwater of the development will remain open to allow flooding.

Qualified Professional. Qualified professional means a person trained in one or more of the disciplines of biology, geology, soil science, engineering, or hydrology whose training and experience ensure a competent analysis and assessment of stream, lake, pond and wetland conditions and impacts.

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 structures, and topography.

Recreational Vehicle or Travel Trailer. 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 a temporary living quarters for recreational camping travel or seasonal use.

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

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

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

Removal. Cutting vegetation to the ground or stumps, complete extraction, or killing 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 structure 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.

Setback. Setback means the horizontal distance between any portion of a structure or any development activity and the ordinary high water mark of a perennial or intermittent stream, the ordinary high water mark of a lake or pond, or the edge of a wetland, measured from the structure's or development's closest point to the ordinary high water mark, or edge.

Site. A parcel on which development is proposed or has occurred. The area of the site shall include right-of-way to be dedicated in conjunction with the development.

Site Development Permit. A permit issued by the City which permits development, or limited development, of a site in accordance with approved plans and in accordance with this Ordinance.

(SFHA) Special Flood Hazard Area. An area having special flood, mudslide or mudflow, or flood-related erosion hazards, and which area is shown on an FHBM or FIRM as Zone A, AO, A1-30, AE, A99, AH, VO, V1-30, VE, V, M, or E.

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 structures or measures which serve as a means of draining surface and subsurface water from land.

Stormwater Management Permit. The permit issued under Article 5.

Structure. The results of a built change to the land constructed on or below the ground, including the construction, reconstruction or placement of a building or any addition to a building; installing a Manufactured Home on a site; preparing a site for a Manufactured Home or installing a travel trailer on a site for more than 180 days unless they are fully licensed and ready for highway use.

Substantial Improvement. If any one of the following three conditions applies when work is performed on an existing building then the work will be classified as a substantial improvement: 1) an improvement made to a building whose cost is equal to or exceeds 50% of the buildings'

market value before the improvement; 2) reconstruction or repair of a building, the cost of which equals or exceeds 50% of the market value of the building before reconstruction or repair; or 3) additions to an existing building whose cost equals or exceeds 50% of the market value of a structure, 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 agricultural, residential, industrial, commercial, or recreational uses.

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

T Factor. The T factor is the soil loss tolerance. It is defined as the maximum amount of erosion at which the quality of a soil as a medium for plant growth can be maintained. Erosion losses are estimated by Universal Soil Loss Equation (USLE) and Revised Universal Soil Loss Equation (RUSLE).

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.

Usable Space. Space used for dwelling, storage, utilities, or other beneficial purposes, including without limitation basements.

Vegetation. Vegetation means all plant growth, especially trees, shrubs, mosses, and grasses.

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.

Watercourse. Watercourse means any river, stream, creek, brook, branch, natural or artificial depression, ponded area, slough, gulch, draw, ditch, channel, conduit, culvert, swale, grass waterway, gully, ravine, wash, or natural or man-made drainageway, which has a definite channel, bed and banks, in or into which stormwater runoff and floodwater flow either regularly or intermittently.

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

Watershed Benefit. (See Net Watershed Benefit).

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. An area of land, which meets the criteria as defined in current Federal methodology recognized by the U.S. Army Corps of Engineers whether or not the area of land is subject to the regulatory authority of U.S. Army Corps of Engineers or any other regulatory authority.

ARTICLE 2 – REQUIREMENTS FOR STORMWATER MANAGEMENT

Sec. 25-5: (General Information)

Sec. 25-6: (Other Applicable Articles)

All developments shall meet the requirements specified for general stormwater development (Sections 25-9 through 25-15), site runoff (Sections 25-16 through 25-25), sediment and erosion control (Article 3), performance security and maintenance (Article 6).

Sec. 25-7: [Applicability of Site Runoff Storage Requirements (Detention)]

All developments shall comply with the site runoff storage requirements provided in Sections 25-26 through 25-37 of this Ordinance in which:

- a. More than two single family structures or one multi-family structure are to be constructed on a parcel or site more than one acre in size;
- b. Non-residential land use is to be constructed on a parcel or site more than one acre in size;
- c. Existing multi-family or non-residential land uses on a site one acre or more in size, on which new development after the effective date of this ordinance in the aggregate exceeds 25,000 s.f.;
- d. Roadway developments in rights-of-way under the ownership or control of a unit of local governments when the contiguous area of new roadway construction (excluding previously paved areas) exceeds two acres;
- e. The developer of a Commercial or Industrial Redevelopment may request that a fee-in-lieu of detention be approved provided that all of the following are demonstrated to the sole satisfaction of the Administrator:
 - i. The drainage plan will not increase existing flood damages, and
 - ii. The drainage plan provides a net 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.

Sec. 25-8: (RESERVED)

General Stormwater Requirements

Sec. 25-9: (Requirements Applicable to All Development)

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.
- c. Increase runoff rates (from the 10-year event up to the 100-year event) to any downstream properties unless the developer can demonstrate that the increased runoff rates can be safely conveyed via storm sewers, ditches (if allowed), or overland flow paths to the next downstream receiving stream, lake or pond. If the developer is significantly raising runoff rates to downstream properties and cannot demonstrate downstream conveyance capacity, some amount of on-site stormwater management may be required in order to reduce the proposed runoff rate down to existing runoff rates.

Sec. 25-10: (Requirements Applicable to All Subdivisions and Commercial Developments)

All developments shall:

- a. Extend the storm sewer system through the proposed development to serve upstream properties in the natural drainage area. The storm sewer system should reflect the ultimate development of the drainage area.
- b. Provide a stormwater drainage system that consists of a minor drainage system, a major drainage system and an emergency overland flow route.
- c. The storm sewer drainage system is assumed to consist of such components as sewers, channels, swales, natural drainageways, inlets, catch basins, manholes, streets, detention/retention basins, and other necessary facilities.
- d. The engineering plans shall have a certification by a registered professional engineer as follows:

“To the best of our knowledge and belief, the drainage of surface waters will not be changed by the construction of such subdivision or any part thereof or that is such surface water drainage will change, adequate provision has been made for the collection and diversion of such surface waters into public areas or drains which the subdivider has a right to use, and that such surface waters will not be deposited on

the property of adjoining land owners in such concentrations as may cause damage to the adjoining property because of the construction of the subdivision.”

Dated at _____, this _____ day of _____, A.D. 20__.

Design Engineer (Seal)

- e. The storm sewer system shall be entirely separate from the sanitary sewer system.
- f. Storm sewers shall be designed to convey the peak flow from a ten-year rainfall event with a hydraulic grade line that is entirely within the pipe. Rainfall frequency data shall be obtained from the attached Table. Storm sewers and outfalls shall be designed to function at their design capacity during flooding conditions on the receiving stream or other body of water.
- g. The storm sewers shall be a minimum of twelve inches in diameter and shall be constructed of reinforced concrete pipe only unless authorized by the Administrator.
- h. No ditch system shall be permitted on any new site developments. The minor drainage system shall be constructed so that the drainage from each lot or parcel is conveyed entirely through storm sewer pipe.
- i. The major drainage system may be permitted to flow over roadways, rear yard and side yard swales, and other open conveyances as long as the maximum depth of ponding or flow is no more than nine (9) inches on pavement and one foot at any other location and the maximum water surface elevation is a least one foot below the lowest opening of any nearby structure. The design of the major drainage system may account for the minor drainage system (storm sewers) to be fully functional. No flow is allowed over the road, perpendicular to the roadway.
- j. Rear yard and side yard swales shall meet the following conditions
 - 1. The maximum side slopes shall be a four to one (4:1) ratio.
 - 2. The appropriate easements are provided, a minimum of 20 feet wide.
- k. Inlets/Catch Basins on roadways shall be located as necessary to collect surface water, but spacing shall not exceed a maximum of 400 feet. Inlets shall only be used for the first “run” and catch basins shall be placed before a storm sewer enters a manhole. Manholes shall be located at the junction of two or more storm sewer pipes or at any change in grade alignment or size of pipe. Maximum spacing of manholes shall be per the City Subdivision and Development Regulations.
- l. All storm sewers shall use materials, and be installed in the manner meeting or

exceeding the requirements, standards, and specifications contained in the “Standard Specifications for Water and Sewer Main Construction in Illinois,” the most current edition as amended, supplemented and amended by the City or its Engineer.

- m. Where applicable, the developer shall install storm systems sufficient in size and depth to carry the storm runoff from upstream properties naturally tributary to the proposed subdivision. The City shall make special provisions for that developer to recapture those additional costs incurred as a result of oversizing and/or over-excavating the storm sewer system.

Sec. 25-11: (Building Permits) Stormwater facilities shall be functional before building permits are issued for residential and non-residential subdivision.

Sec. 25-12: (Single Parcel Developments) Stormwater facilities shall be functional where practicable for single parcel developments before building construction begins.

Sec. 25-13: (Overland Flow Paths) The development shall have an overland flow path at the downstream limit of the property that will pass the base flood flow without increasing damage to structures or property. Overland flow paths internal to the site shall be considered as part of the major stormwater system and shall be designed for conveyance of the base flood (critical duration) and shall be a minimum of one (1) cfs per tributary acre without damage to structures. If the storm sewer pipe and inlet sized for the base flood can be constructed in lieu of providing an overland flow path as a part of the major drainage system, then the overland flow path shall be considered an emergency overland flow path and it shall not be considered a part of the major stormwater system but must still meet the protection of buildings criteria in Section 25-14.

For all overland flow routes, whether a part of the major drainage system or an emergency overland flow route, the water surface elevation for determining the FPE (flood protection elevation) shall be calculated assuming that the storm sewers are inoperable.

Structures of any kind, including fences, shall not be permitted in overland flow paths draining more than 20 acres, unless the structures are otherwise permissible and certified by a Professional Engineer or Professional Landscape Architect that the proposed structure will not cause any adverse upstream impacts as a result of blocking or impeding the flow of stormwater. A fence, if permitted, shall conform to the City’s fence ordinance provisions for fences located in drainage easements as applicable.

Sec. 25-14: (Protection of Buildings) All usable space in new buildings or added to existing buildings hydraulically connected to a major stormwater system, site runoff storage facility, or overland flow path shall be elevated, flood proofed, or otherwise protected to at least the FPE.

Sec. 25-15: (Depressional Storage) The function of existing on-site depressional storage shall be preserved for both on-site and off-site tributary flows in addition to required detention. When depressional storage is removed it must be compensated for in the site runoff storage facility at a 1 to 1 ratio provided that offsite areas tributary to the existing depressional storage are routed

through the site runoff storage facility. This requirement is in addition to the site runoff storage required in Sections 25-26 through 25-37. The Administrator may allow the function of depressional storage to be preserved if the applicant performs detailed pre- and post-project hydrologic and hydraulic modeling to identify the effect of the depressional storage on discharges over a range of rainfall frequencies.

Site Runoff Requirements

Sec. 25-16: (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 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.

Sec. 25-17: (Minor Stormwater System Criteria) Minor stormwater systems shall be sized to convey runoff from the tributary watershed under fully developed conditions for the 10-year storm event. Minor stormwater systems shall be enclosed systems (e.g. storm sewers) unless otherwise approved by the Administrator. Storm sewers shall be designed to convey the peak flow from a ten-year rainfall event with a hydraulic grade line that is entirely within the pipe.

Sec. 25-18: (Major Stormwater System Criteria) Major stormwater systems shall be sized to carry the base flood without causing additional flood damage. Maximum flow depths shall be nine (9) inches in streets, parking lots and driveways, except that parking lots and driveways intended for access only by commercial trucks may permit maximum flow depths of twelve (12) inches. The maximum depth of flow in non-paved drainage easements shall be twelve (12) inches. The tail water used for the major drainage system shall be the 10-year water surface elevation in the receiving system or, in the case of stormwater detention facilities the 2-year design water surface elevation plus one (1) foot.

Sec. 25-19: (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 site runoff storage facility release without damage to downstream structure 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 with extended detention design and at the discretion of the Administrator.

- 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 recorded on record plans. If any existing drain tiles continue to upland watersheds the developer must maintain drainage service during construction until new sewers can be installed for a permanent connection.
- c. Off-Site Tributary: Existing drainage systems shall be evaluated with regard to existing capabilities and reasonable future expansion capacities. All existing tributary drain tiles shall be incorporated into the new conduits including observation structures located at the property limits, shall provide a free flow discharge and shall not allow surface runoff to enter the system.
- d. New roadway construction shall preserve existing sub-surface systems within the right-of-way. Inspection wells shall be placed at the right-of-way (ROW) and tiles found to not be flowing between inspection wells at the end of the construction shall be replaced.

Sec. 25-20: (Design Runoff Rate) Design runoff rates for conveyance (i.e., pipe design) may be calculated using the Rational Method for drainage areas of less than twenty (20) acres. For drainage areas greater than twenty acres the administrator may require the use of hydrograph routing.

Sec. 25-21: (Design Rainfall) Any design runoff rate calculation method for conveyance shall use the data presented in Table 1: Watseka Rainfall Depths and Intensities.

Sec. 25-22: (Stormwater System Easements) For subdivision projects, the minor, major and emergency stormwater systems shall be located within easements or rights-of-way explicitly providing for public access for maintenance of such facilities. For all other projects requiring a permit, easements are required for public access for maintenance of stormwater facilities only for new construction or modifications involving components of a drainage system that conveys runoff from off-site properties.

Easements and rights-of-way shall be of sufficient width. Storm sewers shall be installed at such locations therein as to permit open cut installation, maintenance and repair within the confines of the easement or right-of-way without relocation or other unreasonable interference with other public utilities located therein, and so as to meet the following minimum standards: 15 feet in width, plus for storm sewers in excess of 24 inches in diameter, two additional feet for each 12 inches or portion thereof of additional storm sewer diameter rounded up to the next multiple of five feet. Sewers with depths of greater than 15 feet may require additional width as determined by the administrator.

Sec. 25-23: (Flow Depths) Maximum flow depths for new transverse stream crossings shall not exceed the crown of the road during the base flood condition. The maximum flow depth on a roadway shall not exceed 9 inches at the curb line for flow parallel to the roadway. For flow

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.

Sec. 25-24: (Diversion of Flow to Another Watershed) Transfers of waters between watersheds (diversions) shall be prohibited except when such transfers will not violate the provisions of Section 25-9 and are otherwise lawful. Watersheds for purpose of regulation under this section shall be the major watershed divides as determined by the Administrator.

Sec. 25-25: (Best Management Practices Requirements) The City of Watseka strongly encourages stormwater quality management within the City of Watseka. The developments are encouraged to incorporate the following:

- All best management practices as may be required pursuant to the United States Clean Water Act, 33 U.S.C. " 1251 et seq., as amended.
- Manage parcels as unified sites by incorporating watershed-based planning.
- Create designs that promote a healthy aquatic ecology, provide for sustainability, minimize maintenance, and human intervention.
- Treat stormwater as a multiple-use resource.

The City of Watseka does reserve the right to require stormwater quality best management practices at a particular site if the Administrator deems that the discharge is to a sensitive ecological area or that the intended use of the property produces a particularly detrimental water quality of the discharge.

Site Runoff Storage Requirements (Detention/Extended Detention)

Sec. 25-26: (Release Rate) Sufficient flood storage shall be provided so that the site will not discharge at a rate greater than 0.15 cfs/acre of development during and after a rainfall event with a 100-year frequency except for sites exempted in 200.3. Unless exempted in 200.3, sites shall not discharge at a rate greater than 0.04 cfs/acre of development during and after a rainfall event with a 2-year frequency.

This area of hydrologic disturbance on the site shall be used to calculate the required site runoff storage volume. The on-site watershed area tributary to the point of discharge shall be used to calculate the allowable release rate for the site runoff storage facility, which shall be the maximum release rate allowed considering only the on-site watershed area runoff.

Sec. 25-27: (Design Methods) Event hydrograph routing methods shall be used to calculate design runoff volumes for site runoff facilities. The Methods must be HEC-1, (SCS methodology), HEC-HMS, TR-20, or TR-55 tabular method as appropriate based upon the rounding limitations of the model used. Proprietary models that use the approved methods may be accepted at the sole discretion of the Administrator. Digital copies of the model input files shall be provided. For sites of forty acres or more, the methods used must be acceptable to FEMA. Event 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 70 Northeast Sectional rainfall statistics.

Figure 1, based upon generic hydrograph curves developed by the Northeastern Illinois Planning Commission, may be used for sites of 20 acres or less when acceptable to the Administrator. The Rational Method is not acceptable.

Sec. 25-28: (Existing Release Rate Less Than Allowable) For sites where the undeveloped release rate is less than the maximum release rate in Section 25-26, the developed release rate and corresponding site runoff storage volume shall be based on the existing undeveloped release rate for the development.

Sec. 25-29: (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.

Sec. 25-30: (Extended Detention Requirement) The requirements of this section will apply only when an existing agricultural land use is downstream of and adjacent to a site runoff storage facility outlet. The runoff from a 0.75-inch rainfall event over the hydraulically connected impervious area of the new development shall be stored below the elevation of the primary gravity outlet (extended detention) of the site runoff storage facility. 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 detention 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.
- b. No subsurface drainage pipe shall be located within 10 feet of drainage pipes directly connected to the detention 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.

Sec. 25-31: (Site Runoff Storage Facility Design Requirements) Storage facilities shall be designed and constructed with the following characteristics:

- a. The site runoff storage facility shall provide 1 (one) foot of freeboard above the design high water elevation.
- b. The storage facilities shall be accessible and easily maintained. Side slopes above the NWL shall not exceed 4:1 (horizontal to vertical) under any circumstances. For storage facilities with a bounce of greater than four feet the maximum side slope shall not exceed 5:1 (horizontal to vertical). For industrial or commercial areas that do not adjoin schools, residential, or planned residential areas the administrator may approve 4:1 side slopes for bounces up to six feet. The Administrator may require that access roads or paths on the top of berms shall be provided with an H10 design load rating and meeting other City design criteria.
- c. Storage facilities shall facilitate sedimentation and catchment of floating material. Unless specifically approved by the Administrator, concrete lined low-flow ditches shall not be used in detention basins.
- d. Storage facilities shall minimize impacts of stormwater runoff on water quality by incorporating best management practices.
- e. Storage facilities shall maximize the normal flow distance between detention inlets and outlets, to the extent possible.
- f. Storage facilities shall be designed such that the existing conditions pre-development peak runoff rate from the 100-year, critical duration rainfall will not be exceeded assuming the primary restrictor is blocked.
- g. Storage facilities with single pipe outlets shall have a minimum inside diameter of 12 inches. If design release rates necessitate a smaller outlet, structures such as perforated risers, or flow control orifices shall be used.
- h. Special rules applying to the Iroquois River and Sugar Creek.
 - 1. The creeks shall be maintained, or restored, to its natural condition. This shall include the restoration of the stream bed and banks where it has been channelized or tiled.
 - 2. Surface or buried creeks existing in the development property or adjacent rights-of-way shall be restored. This shall include, but not necessarily be limited to, daylighting piped creeks and historic creek corridors, removing fish

barriers, establishing buffers and planting native vegetation including native trees. The restoration shall emphasize water quality, fish habitat, aquatic biodiversity, vegetation, and appropriate land use. The extent practicable natural drainage patterns shall be restored based on historical research; examination of soils; and identification of channel, floodplain, and vegetation characteristics both upstream and downstream for current and projected land uses.

3. Proposed detention ponds discharging directly to the creek shall be required to be
 - a. A naturalized detention pond, or
 - b. A wet bottom pond with an average depth of no less than 10 feet over 25% of the surface area during normal pool conditions and discharge pipes no less than 6 feet the below normal water surface of the pond.
4. The stream may not be modified except in accordance with a restoration project designed by and supervised by a qualified stream channel restoration specialist under the following circumstances:
 - a. Water quality, habitat and other natural functions must be significantly improved by the modification; no significant habitat area may be destroyed;
 - b. A natural meander patter, pools, riffles, and substrate shall be created;
 - c. Gentle side slopes (no steeper than 4 feet horizontally to 1 foot vertically), including the installation of erosion control features shall be constructed;
 - d. Natural materials shall be used wherever possible; and
 - e. The planting and maintenance of vegetation normally associated with streams, including primarily native riparian vegetation, and upland prairie plants shall be required.
 - f. Individual ownership of the floodplain, detention ponds and within 35 feet of the stream banks shall be prohibited unless otherwise approved by the administrator.
 - g. A minimum of 35 feet of appropriate native vegetation shall be planted and maintained along the banks of the stream.
 - h. Provisions shall be made for passive public use of the area through the construction of trails outside of the native vegetation area whenever practicable.

- i. The following criteria are proposed as moderately conservative standards for design of stormwater basins within the City of Watseka. If a developer wishes to exceed the standards, we recommend that they (via their landscape contractor/designer) bear the burden of proof that the landscape will be successful. The following limits of acceptable fluctuation and drawdown times are based on best professional judgment for landscape treatments typical to wet and dry stormwater basin designs.

1. Wet Bottom Pond

Minimum Area: 1.0 acre at NWL

Maximum Area: No maximum

Depth: Over 25 percent of the bottom area at least 10.0 ft. deep

Maximum Bounce: 100-year: 5.0 ft. – Residential
(Industrial/Commercial may be greater based on approval
by Administrator)
2-year: 1.0 ft.

Maximum Drawdown Time:
100-year: above NWL by 0.5 ft. for ≤ 72 hrs
2-yr: above NWL by 0.5 ft. for ≤ 36 hrs

Maximum Slopes: Freeboard elevation to 2-yr water level: 4:1
2-yr water level to NWL: 8:1
NWL to 1.5 ft. below NWL: 20:1 (safety shelf)
>1.5 ft. below NWL: 2:1
Freeboard to 1.5 ft. below NWL: 5:1 avg. max.

Safety Shelf: 0.5 to 1.5 ft. inundation at NWL, 10.0 ft. avg. width
(variable 8.0 to 12.0 ft.), with 25 percent of the shoreline
2.0 ft. shorter than maximum width

Shoreline Protection: Natural vegetation (shall be used unless otherwise
approved); armoring (conditioned upon City review and
approval); biotechnical stabilization (depending on site-
specific conditions); erosion control measures

Water Quality Enhancements: Maximize distance between inlets and
outlets; no low-flow channel to be provided; energy
dissipation measures at outlets; measures such as aerators,
cascading streams, water falls, etc. are recommended for

aesthetic appeal and to promote water circulation and aeration

Landscape Options: Natural, ornamental hybrid, low maintenance turf, and turfgrass (depending on site conditions and adjacent/adjoining land uses); public access via stone outcroppings, groomed areas, etc. are recommended

2. Naturalized Detention Basin

Minimum Area: 8,000 s.f. at NWL

Maximum Area: No maximum

Depth: Ranging from 0.5 to 5.0 ft. (average 3.0 ft.); at least 5 percent of the area below NWL having pockets up to 5.0 ft. deep

Maximum Bounce: 100-year: 5.0 ft. Residential
(Industrial/Commercial may be greater based on approval by Administrator)
2-year: 1.0 ft.

Maximum Drawdown Time:
100-year: above NWL by 0.5 ft. for ≤ 72 hrs
2-yr: above NWL by 0.5 ft. for ≤ 36 hours

Maximum Slopes: Freeboard elevation to 2-yr water level: 4:1
2-yr water level to 0.5 ft. below NWL: 8:1
0.5 to 1.5 ft. below NWL: variable 8:1 to 12:1 (safety ledge)
>1.5 ft. below NWL: 2:1
Freeboard to 1.5 ft. below NWL: 5:1 avg. max.

Shoreline Protection: Natural vegetation; biotechnical stabilization (depending on site-specific conditions); erosion control measures

Water Quality Enhancements: Maximize distance between inlets and outlets; no low-flow channel to be provided; energy dissipation measures at outlets; measures such as aerators, cascading streams, water falls, etc. are strongly recommended to maintain cooler water temperatures,

promote water circulation and aeration, and provide aesthetic appeal

Landscape Options: Natural, ornamental hybrid, and low maintenance turf; public access via stone outcroppings, groomed areas, etc. are recommended. A planting and maintenance report, provided by a recognized wetlands firm, must be submitted and approved.

3. Dry Basin Design

Minimum Area: No minimum

Maximum Area: 8,000 s.f., unless approved by the Administrator

Safety Shelf: Not applicable

Maximum Bounce: 5.0 ft. Residential (Industrial/Commercial may be greater based on approval by Administrator)

Sec. 25-32: (Site Runoff Storage Facility Requirements Within the Regulatory Floodplain)
Storage facilities 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. Detention volume provided by enlarging existing regulatory floodplain storage without providing a structure controlling 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 not otherwise realized by strict application of the requirements in a through c above.

Sec. 25-33: (Site Runoff Storage Facility Requirements Within the Regulatory Floodway)

Storage facilities located within the regulatory floodway shall:

- a. Meet the requirements for locating storage facilities 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.

Sec. 25-34: (RESERVED)

Sec. 25-35: (Off-Site Facilities) Site runoff storage facilities may be located off-site if the following conditions are met:

- a. The off-site storage facility 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 storage facility.

Sec. 25-36: (RESERVED)

Sec. 25-37: (Cross-Stream Structures for Site Runoff Storage Facilities) Structures constructed across the channel to impound water to meet detention requirements shall be prohibited on any perennial stream unless part of a public flood control project with a net watershed benefit. Those streams appearing as blue on a USGS Quadrangle map shall be assumed perennial unless better data is obtained. All cross-stream structures for the purpose of impounding water to provide detention in all cases on perennial and intermittent streams must demonstrate that they will not cause short term or long-term stream channel instability.

Stormwater Requirements for Agricultural Land Use Including Croplands, Pasture Lands and Farmsteads

Applicability: Regulations under this section apply only to croplands, pasturelands, farmsteads and outbuildings associated with those agricultural practices. Compliance with the requirements of this Section shall be construed as compliance with the Stormwater Ordinance for the above land uses and no further regulation under the Ordinance will apply. Any other land use, including greenhouses, nurseries, container grown plants, equestrian facilities, the sale of agricultural products to the public or where commercial activities involving the new construction of gravel or paved parking facilities or buildings whose aggregate area is 25,000 square feet or more are required to comply with all applicable sections of this Ordinance.

Sec. 25-38: (Conservation Planning and Performance Standards) To comply with this Section, Landowners shall practice conservation planning whose product shall be a management system, which addresses site runoff, soil erosion and sediment control, surface and subsurface drainage.

Any acreage with a signed and approved NRCS Conservation Plan is exempt from the requirements of this section and the ordinance.

Applicable approved practices include:

- a. Vegetated grass waterways
- b. Contour Buffer strips
- c. Critical area planting and cover crops
- d. Terrace ridges and diversions
- e. Contour strip cropping
- f. Contour farming
- g. Crop rotation
- h. Conservation tillage and crop residue management
- i. Other standard practices for conservation planning in accordance with the N.R.C.S. Field Office Technical Guide (current edition) or as otherwise approved by the Iroquois County N.R.C.S. District Conservationist or the Iroquois County Agricultural Administrator.

The performance standard for conservation planning shall be a management system which will develop a set of field practices which will reduce the calculated actual soil loss to the “tolerable soil loss” (T) as calculated by the revised Universal Soil Loss Equation for the actual site conditions. Cropland tillage and resource management methods shall be consistent with the Technical Guide Notice IL-108 and shall be considered evidence of compliance with the “T” performance standard.

Sec. 25-39: (Drainage Practices, Requirements and Design Criteria) Drainage for agricultural purposes shall be consistent with those practices identified as appropriate for “good husbandry” given the soil types, slopes and crops. An agricultural drainage system may consist of both subsurface drainage systems and surface drainage systems. Where active Drainage Districts maintain drainage systems, they shall be consulted on surface and subsurface drainage within the District boundaries. Requirements applying to subsurface and surface drainage system shall be as follows:

- a. **Subsurface Drainage Systems:** Drain tile systems shall be maintained and constructed in accordance with subsurface drainage recommendations for the appropriate soil drainage group as specified by The Illinois Drainage Guide, University of Illinois Extension Service Circular no. 1226. Surface inlets into the subsurface drainage system shall be allowed only to maintain good husbandry. Where their use cannot be practicably avoided due to topography, they shall be installed using flow controls such as orifices and perforated risers with gravel filters and /or vegetative filters.
- b. **Surface Drainage Systems:** Surface drainage systems shall be maintained and constructed in accordance with surface drainage recommendations for the appropriate soil drainage group as specified by the Illinois Drainage Guide, University of Illinois Extension Service No. 1226. Surface drainage systems shall be built with geotechnically stable slopes and the surface when applicable shall be

further stabilized utilizing the establishment of cool and warm season grass mixes as identified in Field Office Technical Guide (Illinois 108).

- c. Buffer Strips: Open channels with a definable bed and banks shall use buffer strips in order to reduce the amount of erosion occurring from the conveyed flows as well as to help filter the runoff from the site into the waterway. Buffer strips shall be a minimum of 15 feet wide from the top of bank except where smaller widths are necessary due to site limitations and when approved by the Administrator.
- d. Agricultural drainage systems shall also comply with all regulations regarding wetlands as enforced by Federal, State, and Local agencies.

Sec. 25-40: (Sediment Control for Open Channels) All open channel drainage systems shall maintain practices adjacent to the open outlet channel that will reduce the transportation of sediment off-site. Runoff from agricultural fields must pass through a sediment control system prior to discharge into the open channel conveyance system. Approved sediment control systems may consist of the following:

- a. Vegetated buffer zones planted with permanent grasses appropriate for soil stabilization and filtering;
- b. Grade control structures for over fall stabilization;
- c. Sediment traps adjacent to the stream channel;
- d. Other standard practices for conservation planning in accordance with the N.R.C.S. Field Office Technical Guide (current edition) or as otherwise approved by the Iroquois County N.R.C.S. District Conservationist or the Administrator.

Sec. 25-41: (Maintenance and Construction of Drainage Systems) Agricultural drainage systems shall be maintained so as to convey the expected flows for good drainage practices. The existing agricultural surface drainage systems shall not be enlarged unless such enlargement is consistent with all other sections of the Section entitled Stormwater Requirements for Agricultural Land Use Including Croplands, Pasture Lands and Farmsteads (Sec. 25-38 through 25-41). Maintenance and construction of subsurface drainage systems will not be subject to the requirements of other sections of this Ordinance except as they are regulated by other agencies. Maintenance projects by legally functioning drainage districts on existing agricultural drainage systems will not be subject to further permitting requirements under this Ordinance except as they relate to the jurisdiction of other agencies.

ARTICLE 3 - SEDIMENT AND EROSION CONTROL

Sediment and Erosion Control

Sec. 25-42: (Site Planning) Sediment and erosion control planning shall be part of the initial site planning process. In planning the development of the site, the applicant shall consider the susceptibility of existing soils to erosion and topographic features such as steep slopes and stream corridors which must be protected to reduce the amount of sediment and erosion which occurs. Where appropriate, existing vegetation shall be protected from disturbance during construction by fencing or other means. In the planning process the applicant shall also address the following:

- a. For projects that involve phased construction, existing land cover for those areas not under current development shall be addressed. If existing land cover does not consist of an appropriate ground cover then these phases shall be planted temporarily to reduce erosion from idle land.
- b. In planning the sediment and erosion control strategy, preference shall be given to reducing erosion rather than controlling sediment. In order to accomplish this the plan must carefully consider the construction sequence of the phases so that the amount of land area exposed to erosive forces is the minimum consistent with completing construction. In no case shall more than 20 acres of ground cover be disturbed at one time without permanent or temporary stabilization at one time without unless authorized by the Administrator.
- c. Stormwater detention basins shall be constructed as early in the construction process as practicable.

Sec. 25-43: (Standards and Specifications)

- a. Specifications for erosion control measures shall be in accordance with the "Illinois Urban Manual" (1995) or latest edition. Sediment and erosion control planning shall be in accordance with "Procedures and Standards for Urban Soil Erosion and Sedimentation Control in Illinois" (revised July, 1988) by the Urban Committee of the Association of Illinois Soil and Water Conservation Districts (The "Green Book") Chapters 1-5. Where the Illinois Urban Manual supercedes sections of The Green Book, the Illinois Urban Manual shall prevail.
- b. All projects that will result in the development of one acre or more, except for agricultural projects regulated solely under the Section entitled Stormwater Requirements for Agricultural Land Use Including Croplands, Pasture Lands and Farmsteads (Sec. 25-38 through 25-41), shall be required to obtain coverage under an appropriate NPDES permit. The permittee shall certify to the City that all required permits, plans and inspections have been prepared and maintained in accordance with the NPDES permit. Specifically the permittee shall prepare, and adhere to, a Stormwater Pollution Prevention Plan (SWPPP) prepared for the development project

that shall meet of the conditions in the permit for SWPPPs. A copy of such plan shall be maintained on the construction site at all times that workers are present, and a copy of the permit, SWPPP and/or inspection logs, shall be provided to the City upon request. Failure to obtain an NPDES permit or to comply with the conditions of an NPDES permit for the construction activity shall constitute a violation of this ordinance.

Sec. 25-44: (General Requirements)

- a. The runoff from disturbed areas shall not leave the development site without first passing through sediment control facilities. This requirement shall apply to all phases of construction and shall include an ongoing process of implementation of measures and maintenance of those measures during both the construction season and any construction shut down periods.
- b. The smallest practical area shall be exposed for the shortest practical time during development. However in no case shall more than 20 acres be exposed at one time on a development unless a larger area is approved by the Administrator.
- c. Natural vegetation should be retained and protected whenever possible. Areas within twenty-five (25) feet of natural watercourses, lakes, ponds and wetlands should be left undisturbed whenever possible.
- d. All applicants for developments of one acre or more shall submit an application for an NPDES permit or a Notice of Intent (NOI) to be covered under a general NPDES permit. A copy of any Stormwater Pollution Prevention Plan (SWPPP) required by such permit shall be provided to the City prior to commencement of development activities and a copy shall be kept on the development site at all times.

Sec. 25-45: (Extended Construction Shutdown Periods) The condition of the construction site for the winter shut down period shall address proper sediment and erosion 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. All open areas that are to remain idle throughout the winter shall receive temporary erosion control measures including temporary seeding, mulching and/or erosion control blanketing 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 such as erosion control blankets and heavy mulching. In no case shall requirements less than those required by IEPA NPDES Permit ILR10 apply to projects disturbing more than one acre.

Sec. 25-46: (Hydraulic and Hydrologic Design Requirements) In the hydraulic and hydrologic design of major erosion control measures (those whose tributary drainage area is greater than 3 acres) such as sediment basins and traps, diversions, and the like, the design frequency shall be commensurate with the risk of the design event being exceeded. The following design frequencies shall be regarded as minimum design frequencies for the construction period:

- 1 For those projects whose construction period is less than 6 months then the storm event having a 50% chance (2-year event) of being exceeded in any year shall be used for design purposes;
- 2 For those projects whose construction period is greater than 6 months but less than 1 year, the design frequency for major sediment basins shall be a rainfall event with a 20% (5-year event) chance of being exceeded in any one year; and
- 3 For those construction projects expected to last more than 1 year major sediment basins shall be designed for a rainfall event with a 10% (10-year event) chance of being exceeded in any one year.

Sec. 25-47: ("As-Needed" Practices on the Plans) The sediment and erosion control plan shall designate a series of practices which shall be implemented either at the direction of the permittee or the permittee's representative on-site or at the direction of the Administrator should an inspection of the site indicate a deficiency in soil and sediment erosion control measures. As a minimum, these measures shall include the following:

- a. Sedimentation basins;
- b. Sediment traps;
- c. Diversion swales;
- d. Silt fences;
- e. Temporary seeding;
- f. Mulching;
- g. Dust Control;
- h. Erosion control blankets.

Sec. 25-48: (Sediment and Erosion Control Plan Requirements) Sediment and erosion control plans shall be in accordance with Article 5 Submittal Requirements but shall include the following;

- a. Detailed construction phasing plan identifying sediment and erosion control measures to be in place for each phase shall be submitted prior to stripping the site of existing vegetation or cover.
- b. Sediment and erosion control measures to be installed initially prior to stripping existing vegetation or mass grading shall be indicated on the plans.
- c. Permanent stabilization measures shall be indicated on a separate plan.
- d. The expected 2-year and 10-year runoff rates from all off-site areas draining into the site shall be identified on the plan.
- e. Methods for conveying flows through the site during construction shall be indicated. These methods must include the temporary and permanent stabilization measures to be used to reduce velocity and erosion from flow through the construction zone.

- f. A maintenance schedule of each measure used shall be indicated on the plan. As a minimum, all sediment and erosion control measures on-site shall be inspected weekly and also by the applicant's designee or after a one-half inch or greater rainfall event and any required repairs shall be made to keep these measures functional as designed. All repairs and modifications shall be reviewed by the Administrator or his/her designee.

Sec. 25-49: (Conveyance of Off-Site Flow) To the extent practicable, proposed ditches and waterways which are to convey off-site flows through the site shall be stabilized upon construction. Where new waterways are constructed they shall be stabilized to the extent practicable prior to their use to convey flood flows.

Sec. 25-50: (Stockpiles) Stockpiles of soil and other erodable or floatable building materials (sand, limestone, etc.) shall not be located in floodplains, overflow routes or areas subject to frequent inundation. If a stockpile is to remain in place for more than three days, then sediment and erosion control shall be provided for the stockpile.

Sec. 25-51: (Storm Sewer Inlets) Storm sewer inlets, catch basins, and manholes with open lid grates shall be protected with manufactured filtration devices developed to prevent sediments from entering the drainage system. Silt screens, hay bales, and filter fabrics under storm grates are not allowed.

Sec. 25-52: (Construction Dewatering) Water pumped or which is otherwise discharged from the site during construction dewatering shall be filtered and a means provided to reduce erosion.

Sec. 25-53: (Protection of Public/Private Roadways) Graveled roads, access drives, parking areas of sufficient width and length, and vehicle wash down facilities, if necessary, shall be provided to prevent soils from being tracked onto public or private roadways. Any soil tracked onto a public or private roadway shall be removed before the end of each workday or sooner as directed by the Authority maintaining the roadway.

Sec. 25-54: (Temporary Stream Crossings) Temporary stream crossings of intermittent and perennial streams used only for and during construction shall be designed to convey a 2-year flood (minimum) or other flood event approved by the Administrator without overtopping unless a more frequent design event is allowed by the Administrator. The entire crossing shall be designed to withstand hydrodynamic forces and erosive forces up to the base flood event without washing out. Ephemeral streams may be crossed at temporary at-grade crossings provided that the crossing point is stabilized with materials resistive to the erosive forces produced by runoff from the upstream drainage area, and the design is approved by the Administrator. Temporary stream crossings shall be removed upon completion of construction activities. All temporary stream crossing shall be completely removed and the stream restored to its preconstruction condition upon completion of construction. Restoration shall incorporate appropriate vegetation consistent with the adjacent existing vegetation prior to construction or in accordance with a restoration plan approved by the Administrator.

Sec. 25-55: (Inspections) The Administrator or persons designated by the Administrator shall

be permitted on the site to inspect the erosion and sediment control measures and records related to the NPDES permit at any time.

ARTICLE 4 – PROTECTION OF SPECIAL MANAGEMENT AREAS

Sec. 25-56: (Floodplains and Floodways) This article sets forth requirements for developments within floodplains and floodways. In addition, developments in the SFHA draining more than one square mile with no designated floodway must meet IDNR-OWR Ill Admin Code Part 3700 Rules. Projects which meet all the requirements and conditions to be considered permitted under IDNR-OWR Statewide, Regional and General permits, and are not in designated floodways, shall be considered to have met the technical requirements of this Section. 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.

All development shall meet the requirements set forth in Table 2 – Summary of Applicable Ordinance Section for Development in Floodplains. The table is intended only as a guide to indicate the applicable ordinance sections for development in floodplains.

Sec. 25-57: (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, FBFM or LOMR and include those areas of the SFHA which are not Regulatory Floodplains. Each Community remains responsible for maintaining the effective FIS and a list of FIRM panels for their respective Communities.

The BFE shall be:

1. The elevation of the 100-year profile corresponding to the location of the development as indicated in the flood profiles in the FEMA Flood Insurance Studies listed in Appendix B (which may be updated from time to time) or
2. 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 map added to the highest adjacent grade, or at least two feet above the highest adjacent grade if no depth number is provided; or
3.
 - a. When no BFE information exists and the upstream tributary drainage area is 640 acres or greater, the BFE shall be determined using a site specific floodplain study by a Professional Engineer using appropriate hydrologic and hydraulic models as follows acceptable to FEMA and IDNR/OWR.
 - b. Where a channel has a tributary drainage area of 640 acres or more, the above analyses shall be submitted to the IDNR/OWR for concurrent approval.

- c. For a non-riverine Regulatory Floodplain, the historic flood of record plus three feet may be used for the BFE instead of performing a detailed hydrologic and hydraulic study for developments of less than 40 acres, at the discretion of the Administrator.
4. For floodplains that are not regulatory, are not draining more than 640 acres, and with no BFE determined, the Administrator may require a site-specific floodplain study for the purpose of establishing an FPE for the development. A site-specific study is required for all developments of 40 acres or more that have regulatory floodplain on any portion of the site.

The location of the Regulatory Floodway shall be as delineated on the current effective regulatory maps maintained by the City. 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 25-63, including the appropriate use criteria, until such time as a LOMR is received from the IDNR/OWR and FEMA.

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

1. 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 Administrator shall be copied on all related correspondence.
2. 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.
3. 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.

4. If the appropriate use 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 and FEMA. A public notice inviting public comment on the proposed change in the BFE or location of the Regulatory Floodway will be issued by IDNR/OWR or its designee before a CLOMR is issued. Filling, grading, dredging or excavating may take place upon issuance of a conditional approval from IDNR/OWR and the Administrator. 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 25-58 of this Ordinance. The Administrator shall be copied on all related correspondence.
5. For those circumstances listed below and located in a Regulatory Floodway, the following information shall be submitted to IDNR/OWR for their review and concurrence.
 - a. Analysis of the flood profile due to a proposed bridge, culvert crossings and roadway approaches.
 - b. 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.
 - c. Alternative transition sections and hydraulically equivalent compensatory storage.
 - d. Stormwater Management Permits to local units of government for Regulatory Floodway and Floodplain development.
 - e. IDNR/OWR will issue permits for any IDNR/OWR projects, dams, etc. all other state, federal or community projects.

Sec. 25-58: (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 subsequent sections.

- a. No development except as allowed in Section 25-65 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 Regulatory

Floodplain or BFE, the applicant shall obtain a LOMA/LOMR from FEMA. If the development will result in an increase in the BFE of more than one (1) foot at any location a CLOMR must be obtained before any work is performed in the Regulatory Floodplain. No buildings may be built in the existing or proposed Regulatory Floodplain until the LOMA/LOMR receives concurrence from IDNR/OWR and is issued by FEMA unless the building meets all the Building Protection Standards (Section 25-60). Proposed changes to the Regulatory Floodway delineation and the BFE must 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 must also be received from IDNR/OWR.
- e. Prior to the commencement of any construction, modification or removal of a dam the developer shall obtain an IDNR/OWR Dam Safety Permit or letter indicating a permit is not required.
- f. For public flood control projects, the Floodplain Management standards will be considered met if the applicant can demonstrate to IDNR/OWR 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.

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

Sec. 25-59: (Public Health and Safety Protection Standards)

- a. New and replacement water supply systems, wells and sanitary sewer lines may be permitted if all manholes or other aboveground openings located below the FPE are watertight.

- b. New or replacement on-site waste disposal systems are not allowed in the Regulatory Floodplain within City limits.
- c. 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.
- d. No developments in the SFHA shall include the locating or storing of hazardous materials, buoyant materials, solid wastes, fertilizers, pesticides or other toxic materials or potential pollutants.

Sec. 25-60: (Building Protection Standards) The Building Protection Standards apply to all buildings located in the Regulatory Floodplain; however, it should be noted that most new and replacement buildings are not appropriate uses of the Regulatory Floodway.

- a. The lowest floor including basements of all new residential structures, substantially improved structures and additions shall be elevated up to at least the FPE. An attached garage for a structure must be elevated up to at least 0.1 feet above the BFE.
 - 1. If placed on fill, the top of the fill for the residential structure shall be above the FPE. The top of fill for an attached garage shall be at least 0.1 foot above the BFE. The fill shall be placed at that elevation for a distance of twenty feet out from the building unless the building design is certified by a registered structural engineer to be protected from damages due to hydrostatic pressures. Additionally, the fill shall not settle below the FPE for the residential structure and not below 0.1 feet above the base flood for an attached garage, and shall be adequately protected against erosion, scour and differential settlement. The building shall meet all of the requirements of FEMA Technical Bulletin 10-01.
 - 2. If elevated by means of walls, pilings, or other foundation, the building's supporting structure must be permanently open to flood waters and not subject to damage by hydrostatic pressures of the base flood. The permanent openings shall be no more than 1 foot above existing grade, and consist of a minimum of two openings. The openings must have a total net area of not less than 1 square inch for every 1 square foot of enclosed area subject to flooding below the BFE. The lowest inside grade must match the lowest existing outside grade adjacent to the structure. The foundation and supporting members shall be anchored and aligned in relation to flood flows and adjoining structures so as to minimize exposure to known hydrodynamic forces such as current, waves, ice and floating debris. All areas below the FPE shall be constructed of materials resistant to flood damage. The lowest floor (including basement) for the residential

structure and all electrical, heating, ventilating, plumbing, and air conditioning equipment and utility meters shall be located at or above the FPE. An attached garage must be elevated to at least 0.1 feet above the BFE. Water and sewer pipes, electrical and telephone lines, submersible pumps and other waterproofed service facilities may be located below the FPE. No area below the FPE shall be used for storage.

- b. The lowest floor including the basement of all new or substantially improved non-residential buildings shall be elevated at least to the FPE as described above or be structurally dry flood proofed to at least the FPE. A non-residential building may be structurally dry flood proofed (in lieu of elevation) provided that a Professional Engineer or Registered Structural Engineer shall certify that the building has been structurally dry flood proofed below the FPE and the structure and attendant utility facilities are watertight and capable of resisting the effects of the base flood. The building design shall take into account flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, the effects of buoyancy and impacts from debris or ice. Flood proofing measures shall be 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).
- c. Manufactured Homes and recreational vehicles to be installed on a site for more than 180 days shall be at or above the FPE and shall be anchored to resist flotation, collapse, or lateral movement in accordance with the Illinois Manufactured Home Tie-Down code [(77 Ill. Adm. Code 870 1999)] as amended.
- d. Accessory structures, such as tool sheds and detached garages which are not substantial improvements on an existing single-family lot, may be constructed with the lowest floor below the FPE in accordance with the following criteria:
 - 1. The building shall not be used for human habitation.
 - 2. All areas below the FPE shall be constructed with waterproof material. Structures located in a Regulatory Floodway shall meet the Floodway Standards in Section 25-63.
 - 3. The structure shall be anchored to prevent flotation and movement.
 - 4. Service facilities such as electrical and heating equipment shall be elevated or flood proofed to the FPE.

5. The building shall be no greater than 600 square feet in floor size, and be valued at less than \$7,500. The building shall meet the permanent opening criteria of Article 4, Section 25-60 (a) 2.
6. The building shall be used only for the storage of vehicles or tools and may not contain basements or other rooms, workshops, greenhouses or similar uses.

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. 25-61: (Non-Conforming Structures) A non-conforming structure damaged by flood, fire, wind or other disaster may be restored unless the damage meets or exceeds fifty percent (50%) of its market value before it was damaged, in which case it shall conform to the Building Protection Standards of this Ordinance.

Sec. 25-62: (Compensatory Storage Volume Standards) The following standards apply within the Regulatory Floodplain or, for sites draining more than 640 acres, the limits of the delineated floodplain as accepted by the Administrator.

- 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. The storage volume displaced below the existing 10-year frequency flood elevation must be replaced below the proposed 10-year frequency flood elevation. The storage volume displaced above the 10-year existing frequency flood elevation must be replaced above the proposed 10-year frequency flood elevation. Additional storage of not less than 50% of the net volume displaced shall be provided based upon the total volume filled below the BFE. The additional 50% need not be hydraulically equivalent. The volume of storage lost shall be calculated based on the existing BFE and the volume of compensatory storage shall be calculated based upon the final with project BFE.
- 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. Additional storage of not less than 50% of the net volume displaced shall be provided. The volume of storage lost shall be calculated based on the existing BFE and the volume of compensatory shall be calculated based upon the final with project BFE.
- 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 25-15.

- d. The hydraulically equivalent 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.
- d. A recorded covenant running with the land is required to maintain the compensatory storage volume in areas modified to provide compensatory storage volume.

Sec. 25-63: (Floodway Standards) The only development in a Regulatory Floodway which will be allowed are appropriate uses which will not cause an increase in flood heights or velocities for all flood events up to and including the base flood. Only those appropriate uses listed below will be allowed in the regulatory floodway.

Appropriate uses do not include the construction or placement of any new structures, fill, building additions, buildings on stilts, fencing (including landscaping or planting designed to act as a fence) and storage of materials except as specifically defined below as an appropriate use. If the development is proposed for the Regulatory Floodway portion of the Regulatory Floodplain, the following standards apply in addition to the standards for the Regulatory Floodplain:

- a. Only the construction, modification, repair or replacement of the following appropriate uses will be allowed in the Regulatory Floodway:
 - 1. Public flood control structures and private improvements relating to the control of drainage and flooding of existing buildings, erosion, water quality or habitat for fish and wildlife;
 - 2. Structures or facilities relating to functionally water dependent uses such as additions, modifications, and improvements to existing wastewater treatment plants (except for additions to habitable structures on the site) and facilities and improvements relating to recreational boating (this does not include new wastewater treatment plants);
 - 3. Storm and sanitary sewer outfalls;
 - 4. Underground and overhead utilities;
 - 5. Recreational facilities such as playing fields, open pavilions, gazebos and trail systems including any related fencing (at least 50% open when viewed from any one direction) built parallel to the direction of flood flows;
 - 6. Boat houses or other non-habitable structures without sanitary facilities that are accessory to existing buildings and will not block flood flows nor reduce regulatory floodway storage;

7. Bridges, culverts and associated roadways, sidewalks and railways, required for crossing the regulatory floodway or for access to other appropriate uses in the regulatory floodway and any modification thereto;
 8. Reserved.
 9. Regulatory floodway grading, without fill, to create a positive non-erosive slope toward a channel;
 10. Flood proofing activities to protect previously existing lawful structures including the construction of water-tight window wells, elevating structures, or the construction of flood walls or berms around residential, commercial or industrial principal structures where the outside toe of the floodwall or berm shall be no more than 10 feet away from the exterior wall of the existing structure, and, which are not considered to be substantial improvements to the structure;
 11. The repair, replacement or reconstruction of a damaged building, provided that none of the outside dimensions of the building are increased and provided that the cost of repair is less than 50% of the building's value before it was damaged. When damage is 50% or more (a substantial improvement), the activity shall conform to Section 25-60 of this Ordinance;
 12. Modifications to an existing building that would not increase the enclosed floor area of the building below the BFE and which will not block flood flows. These modifications include fireplaces, bay windows, decks, patios and second story addition. No enclosed floor areas may be built on stilts. The modifications may not singularly or cumulatively equal 50% or more of the building's market value.
- b. Additions or changes to the above list of appropriate uses must be approved by the Administrator prior to the adoption by IDNR/OWR.
 - c. All development in the Regulatory Floodway shall require a Permit from IDNR-OWR and must be in accordance with all provisions of this Ordinance.
 - d. Construction of an Appropriate Use will be considered permissible provided that the proposed project meets the following engineering and mitigation criteria and is so stated in writing with supporting plans, calculations and data prepared and signed by a Professional Engineer.
 1. All effective Regulatory Floodway conveyance lost due to the development of Appropriate Uses, other than bridge or culvert crossings or on-stream structures or dams, shall be replaced for all flood events up to and including the base flood.

2. The following expansion and contraction ratios shall be used to determine transition sections in calculations of effective Regulatory Floodway conveyance:
 - a. Flowing water will expand no faster than at a rate of one foot horizontal for every four feet of the flooded stream's length.
 - b. Flowing water will contract no faster than at a rate of one foot horizontal for every one foot of the flooded stream's length.
 - c. Flowing water will not expand or contract faster than one foot vertical for every ten feet of flooded stream length.
 - d. All cross-sections used in the calculations shall be located perpendicular to flood flows.
 - e. Transition Sections must be used to determine the effective conveyance areas on adjacent properties.
 3. Development of an appropriate use will not result in an increase in the average channel or Regulatory Floodway velocities or stage. However, in the case of bridges or culverts or on stream structures built for the purpose of backing up water in the stream during normal or flood flows, velocities may be increased at the structure site if scour, erosion and sedimentation will be avoided by the use of rip-rap or other design measures.
- e. In the case of on-stream structures built for the purpose of backing up water during normal or flood flows, the increase in flood stage when compared to existing conditions for all storm events up to and including the base flood event shall be contained within recorded easements or the channel banks. A Dam Safety Permit or letter indicating a Dam Safety Permit is not required must be obtained from IDNR/OWR for such structures.
 - f. IDNR/OWR will issue permits for all floodway projects including IDNR/OWR projects, dams, etc. and for all other state or community projects.
 - g. If the proposed activity involves a channel modification, it shall be demonstrated that:
 1. There are no practicable alternatives to the activity which would accomplish its purpose with less impact to the natural conditions of the body of water affected. Possible alternatives include levees, bank stabilization, flood proofing of existing structures, removal of structures from the flood plain, clearing the channel, high flow channel, or the establishment of a stream side buffer strip of green belt. Channel modification is acceptable if the purpose is to restore natural conditions

and improve water quality and fish and wildlife habitat;

2. Water quality, habitat, and other natural functions would be significantly improved by the modification and no significant habitat area may be destroyed, or the impacts are offset by the replacement of an equivalent degree of natural resource values;
3. The activity has been planned and designed and will be constructed in a way which will minimize its adverse impacts on the natural conditions of the body of water affected, consistent with the following criteria;
 - a. The physical characteristics of the modified channel shall match as closely as possible those of the existing channel in length, cross-section, slope and sinuosity. If the existing channel has been previously modified, restoration of more natural physical conditions should be incorporated into channel modification design, where practical.
 - b. Hydraulically effective transitions shall be provided at both the upstream and downstream ends of the project, designed such that they will prevent erosion.
 - c. One-sided construction of a channel shall be used when feasible. Removal of streamside (riparian) vegetation should be limited to one side of the channel, where possible, to preserve the shading and stabilization effects of the vegetation.
 - d. Clearing of vegetation shall be limited to that which is essential for construction of the channel.
 - e. Channel banks shall be constructed with a side slope no steeper than three to one (3:1) horizontal to vertical, wherever practical. Natural vegetation and gradual side slopes are the preferred methods for bank stabilization. Where high velocities or sharp bends necessitate the use of alternative stabilization measures, natural rock or rip-rap are preferred materials. Artificial materials such as concrete, gabions, or construction rubble should be avoided unless there are no practicable alternatives.
 - f. All disturbed areas associated with the modification shall be seeded or otherwise stabilized as soon as possible upon completion of construction. Erosion blanket or an equivalent material shall be required to stabilize disturbed channel banks prior to establishment of the vegetative cover.

- g. If the existing channel contains considerable bottom diversity such as deep pools, riffles, and other similar features, such features shall be provided in the new channel. Spawning and nesting areas and flow characteristics compatible with fish habitat shall also be established where appropriate.
- h. A sediment basin shall be installed at the downstream end of the modification to reduce sedimentation and degradation of downstream water quality.
- i. New or relocated channels should be built in the dry and all items of construction, including vegetation, should be completed prior to diversion of water into the new channel.
- j. There shall be no increases in stage or velocity as the channel enters or leaves the project site for any frequency flood unless necessitated by a public flood control project or unless such an increase is justified as part of a habitat improvement or erosion control project.
- h. Unless the modification is for a public flood control project, there shall be no reduction in the volume of floodwater storage outside the floodway as a result of the modification; and

4. The project otherwise complies with the requirements of this Section.

Sec. 25-64: (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.

- 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 25-63, 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. 25-65: (Bridge and Culvert Standards) These standards are for the reconstruction, modification or new construction of bridges, culvert crossings and roadway approaches located in the regulatory floodplain.

- a. A proposed new structure shall not result in an increase of upstream flood stages greater than 0.1 foot when compared to the existing conditions for all flood events up to and including the base flood event unless contained within the channel banks or recorded easements. The evaluation must be submitted to the IDNR-OWR for review and a permit obtained.
- b. If the proposed new structure will increase upstream flood stages greater than 0.1 foot, the applicant must contact IDNR/OWR for a Dam Safety permit or waiver. The Administrator shall be copied on all related correspondence.
- c. Lost regulatory floodplain storage must be replaced as required in Section 25-62 Compensatory Storage Volume Standards except that artificially created storage lost due to a reduction in head loss behind an existing bridge or culvert crossing shall not be required to be replaced, provided no flood damage will be incurred downstream.
- d. Velocity increases must be mitigated by use of appropriate measures to avoid scour, erosion and sedimentation at the structure.
- e. For modification or replacement of existing structures, the existing structure must first be evaluated in accordance with IDNR/OWR Rules (17 Ill. Adm. Code Part 3708) to determine if the existing structure is a source of flood damage. If the structure is a source of flood damage, the applicant's engineer shall submit justification to allow the damage to continue and evaluate the feasibility of relieving the structure's impact. Modifications or replacement structures shall not increase flood stages (0.0 feet) compared to the existing condition for all flood events up to and including the base flood event. The evaluation must be submitted to IDNR/OWR, for review and concurrence before a permit is issued. The Administrator shall be copied on all related correspondence.
- f. If any work is proposed in, near or over a public body of water, a permit or letter indicating a permit is not required must be obtained from IDNR/OWR.
- g. The hydraulic analysis for the backwater caused by the bridge showing the existing condition and proposed regulatory profile must be submitted to IDNR/OWR for concurrence that a CLOMR is not required.
- h. Construction vehicles shall cross-streams by the means of existing bridges or culverts. Where an existing crossing is not available, a temporary crossing that has been issued a permit or waiver by IDNR/OWR shall be constructed in which:

1. The approach roads will be 0.5 feet or less above existing grade.
2. The crossing will allow stream flow to pass without backing up the water above the stream bank vegetation line or above any drainage tile or outfall.
3. The top of the roadway fill in the channel will be at least 2 feet below the top of the lowest bank. Any fill in the channel shall be non-erosive material, such as rip-rap or gravel.
4. The access road and temporary crossings will be removed within one year after installation, unless an extension of time is granted by the Administrator.

Stream and Wetlands Protection

Sec. 25-66: (Authority) The Conservation Plan is adopted by the Mayor and City Council of the City of Watseka, Illinois, under the authority of the Illinois Revised Statutes, Chapter 34, Paragraphs 3151 et seq. of the Illinois Revised Statutes, Chapter 24, Paragraphs 11-13-1 et seq. The City of Watseka, Illinois also asserts its jurisdiction over all isolated wetlands within the City corporate limits and facilities planning areas that were formerly under the jurisdiction of the U.S. Army Corps of Engineers prior to January 9, 2000.

Sec. 25-67: (Title)

This ordinance shall be known and may be cited as the City of Watseka Conservation Plan Ordinance.

Sec. 25-68: (Purpose and Intent) It is the purpose and intent of this ordinance to promote the health, safety and general welfare of the present and future residents of City of Watseka and downstream drainage areas by providing for the protection, preservation, proper maintenance, and use of City of Watseka watercourses, lakes, ponds, floodplain and wetland areas. All work to be done in a Conservation Area will require a permit from the Army Corps of Engineers. The responsibility for obtaining the permit is by the applicant. If requested by the City, a sign-off from the Army Corps of Engineers will be required if the site appears to be near a wetland area. Absolutely no work shall be undertaken until the Administrator has received an approved permit by the Army Corps of Engineers.

The ordinance is more specifically adopted:

1. To prevent flood damage by preserving storm and floodwater storage capacity (including depressional storage);
2. To maintain the normal hydrologic balance of streams, floodplains, ponds, lakes, wetlands, and groundwater by storing and providing for infiltration of wet-period runoff in floodplains and wetlands, and releasing it slowly to the stream to maintain in-stream flow;

3. To manage stormwater runoff and maintain natural runoff conveyance systems, and minimize the need for major storm sewer construction and drainage way modification;
4. To improve water quality, both by filtering and storing sediments and attached pollutants, nutrients, and organic compounds before they drain into streams or wetlands, and by maintaining the natural pollutant-assimilating capabilities of streams, floodplains and wetlands;
5. To protect shorelines and stream banks from soil erosion, using natural means and materials wherever possible;
6. To protect fish spawning, breeding, nursery and feeding grounds;
7. To protect wildlife habitat;
8. To preserve areas of special recreational, scenic, or scientific interest, including natural areas and habitats of endangered species;
9. To maintain and enhance the aesthetic qualities of developing areas; and
10. To encourage the continued economic growth and high quality of life of the City of Watseka which depends in part on an adequate quality of water, a pleasing natural environment, and recreational opportunities in proximity to the City of Watseka.

In order to achieve the purpose and intent of this ordinance, City of Watseka hereby designates the Conservation Plan that shall be considered as an overlay to the zoning districts created by City of Watseka zoning ordinances as amended. Any proposed development activity within the District must obtain a Site Development Permit as approved by the governing body of City of Watseka. See Section 25-69.

Sec. 25-69: (Site Development Permit) To ensure that proposed development activity can be carried out in a manner which is compatible and harmonious with the natural amenities of the Conservation Plan and with surrounding land uses, a request for a Site Development Permit for such development activity must be submitted for approval by the Administrator.

- A. No Site Development Permit shall be issued unless the City of Watseka finds that:
 1. The development will not detrimentally affect or destroy natural features such as ponds, streams, wetlands, and forested areas, nor impair their natural functions, but will preserve and incorporate such features into the development's site;

2. The location of natural features and the site's topography have been considered in the designing and siting of all physical improvements;
3. Adequate assurances have been received that the clearing of the site of topsoil, trees, and other natural features will not occur before the commencement of building operations; only those areas approved for the placement of physical improvements may be cleared;
4. The development will not reduce the natural retention storage capacity of any watercourse, nor increase the magnitude and volume of flooding at other locations; and that in addition, the development will not increase stream velocities; and
5. The soil and subsoil conditions are suitable for excavation and site preparation, and the drainage is designed to prevent erosion and environmentally deleterious surface runoff.

There shall be no development, including the immediate or future clearing or removal of natural ground cover and/or trees, within the Conservation Areas for any purpose, unless a Site Development Permit is granted subject to the provisions of this ordinance or the provisions of the City of Watseka zoning ordinance.

Dumping, filling, mining, excavating, dredging, or transferring of any earth material within the district is prohibited unless a Site Development Permit is granted.

No ponds or impoundments shall be created nor other alterations or improvements shall be allowed in the district for recreational uses, stormwater management, flood control, agricultural uses or as scenic features unless a Site Development Permit is granted.

- B. Application for Permit - Application for a Site Development Permit, shall be made by the owner of the property, or his/her authorized agent, to the City of Watseka, on a form furnished for that purpose. Each application shall bear the name(s) and address(es) of the owner or developer of the site and of any consulting firm retained by the applicant together with the name of the applicant's principal contact at such firm, and shall be accompanied by a filing fee of \$200 unless the application is part of a subdivision review where other fees take priority. The applicant further agrees to reimburse the City for any outside review engineering fees, incurred by the City, in addition to the filing fees. Each application shall include certification that any land clearing, construction, or development involving the movement of earth shall be in accordance with the plans approved upon issuance of the permit.
- C. Submissions - Each application for a Site Development Permit shall be accompanied by the following information: General Provisions, Site Development Plan, Geologic and Soil Report, Drainage Control Plan, Site Grading & Excavation Plan, Landscape Plan, Justification for Watercourse Relocation and Minor

Modifications, Stream Modification/Relocation Plan, Channel and Bank Armoring, Culverts, On-Stream Impoundments, and an Impact Assessment.

D. Review and Approval - Each application for a Site Development Permit shall be reviewed and acted upon according to the following procedures:

- (1) The City of Watseka will review each application for a Site Development Permit to determine its conformance with the provisions of this ordinance. The City of Watseka may also refer any application to any other local government or public agency within whose jurisdiction the site is located for review and comments. Within thirty (30) days after receiving an application, the City of Watseka shall in writing, (a) approve the permit application, if it is found to be in conformance with the provisions of this ordinance, and issue the permit; (b) approve the Permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this ordinance, and issue the permit subject to these conditions; or (c) disapprove the permit application, indicating the deficiencies and the procedure for submitting a revised application and/or submission.
- (2) No Site Development Permit shall be issued for an intended development site unless:
 - (a.) The development, including but not limited to subdivisions and planned unit developments, has been approved by the City of Watseka where applicable; or
 - (b.) Such Permit is accompanied by or combined with a valid building permit issued by the City of Watseka; or
 - (c.) The proposed development is coordinated with any overall development program previously approved by the City of Watseka for the area in which the site is situated.

E. Permit Exceptions: The provisions of this ordinance shall not apply to:

- (1) Emergency work necessary to preserve life or property; when emergency work is performed under this section, the person performing it shall report the pertinent facts relating to the work to the Administrator within ten (10) days after commencement of the work and shall thereafter obtain a Site Development Permit and shall perform such work as may be determined by the agency to be reasonably necessary to correct any impairment to the watercourse, lake, pond, floodplain or wetland;
- (2.) Work consisting of the operation, repair, or maintenance of any lawful use of land existing on the date of adoption of this ordinance;

- (3.) Lands adjacent to farm ditches if:
 - (a.) Such lands are not adjacent to a natural stream or river; or
 - (b.) Those parts of such drainage ditches adjacent to such lands were not streams before ditching; or
 - (c.) Such lands are maintained in agricultural uses without buildings and structures.

Where farm ditches are found to contribute to adverse environmental impacts or hazards to persons or property, the City of Watseka may include designated farm ditches in the District. The City of Watseka may also require that linings, bulkheads, dikes and culverts be removed to mitigate hazards, or that other mitigative measures be taken, such as the maintenance of a natural vegetation buffer strip.

- F. Effect on Other Permits: The granting of a Site Development Permit under the provisions herein shall in no way affect the owner's responsibility to obtain the approval required by any other statute, ordinance, or regulation of any state agency or subdivision thereof, or to meet other City of Watseka ordinances and regulations. Where state and/or federal permits are required, a Site Development Permit will not be issued until they are obtained.

Sec. 25-70: (General Provisions: Area Affected) This ordinance applies to development in or near streams, lakes, ponds and wetlands within City of Watseka. Streams, lakes, and ponds (including intermittent streams) are those which are shown on the United States Department of the Interior Geological Survey (USGS) 7.5 minute quadrangle National Wetlands Inventory Maps and those additional streams, lakes, and ponds as identified by the Administrator. Those are hereby made a part of this ordinance, and two copies thereof shall remain on file at the City of Watseka administrative building for public inspection. Wetlands are those designated by the most recent version of the US Army Corps of Engineers Manual of Wetland Delineation.

If new drainage courses, lakes, ponds or wetlands are created as part of a development, the requirements for setbacks and uses within setbacks, and the criteria for watercourse relocation and minor modification shall apply. The District shall be amended as appropriate to include these areas.

1. Conservation Areas - The Conservation Areas shall be considered as an overlay to the zoning districts created by the City of Watseka zoning ordinance as amended in addition to the requirements of this ordinance, applicants for a Site Development Permit within the District shall meet all requirements of the underlying zoning districts. In the event of a conflict

between the overlay district requirements and the underlying zoning district requirements, the most restrictive requirements prevail.

2. District Boundary - The procedures, standards and requirements contained in this ordinance shall apply to all lots within wetlands and streams, and all lots lying wholly or in part:
 - a. Within the Special Flood Hazard Area (SFHA) designated by the Federal Emergency Management Agency (FEMA); or
 - b. Within 100 feet of the ordinary high water mark (OHWM) of a perennial stream or intermittent stream, the ordinary high water mark of a lake or pond, or the edge of a wetland; or
 - c. Within depressional areas serving as floodplain or stormwater storage areas, as designated on the Conservation Areas.

3. Minimum Setback of Development Activity from Streams, Lakes, Depressional Storage, Ponds, and Wetlands - Absolutely no development activity (except as provided below) may occur within the minimum setback. The minimum setback, should be a vegetated buffer strip, preferable planted with native plant species, shall be maintained or restored around the periphery of the area in question. The width of the buffer strip shall be as follows:
 - a. 25 feet for a tributary length of 250 feet or less.
 - b. 50 feet for a tributary length greater than 250 feet and less than 500 feet.
 - c. 75 feet for a tributary length over 500 feet.

Note: the tributary length is the maximum length of the project limits to the sensitive area or the length from a drainage divide to the sensitive area.

The minimum setback shall be measured between the ordinary high water mark of streams, lakes and ponds, or the edge of wetlands, or within a designated depressional areas. In no case shall the setback be less than the boundary of the 100-year floodway as defined by FEMA. These setback requirements do not apply to a stream in a culvert unless the stream is taken out of the culvert as part of development activity. If a culvert functions as a low-flow culvert, where water is intended to periodically flow over it, the setback requirements apply.

The following development activities may be permitted, subject to issuance of a Site Development Permit, within the minimum setback areas only if, as a practical matter, they cannot be located outside the setback area. Such development activities will only be approved based upon a report, prepared by a qualified professional, which demonstrates that they will not adversely affect water quality; destroy, damage or disrupt significant habitat area; adversely affect drainage and/or stormwater retention capabilities; adversely affect flood conveyance and

storage; lead to unstable earth conditions, create erosion hazards, or be materially detrimental to any other property in the area of the subject property or to the City of Watseka as a whole, including the loss of open space or scenic vistas:

- a. Minor improvements such as walkways, benches, comfort stations, informational displays, directional signs, footbridges, observation decks, and docks;
- b. The maintenance, repair, replacement, and reconstruction of existing utilities, highways and bridges, electrical transmission and telecommunication lines, poles, and towers; and
- c. The establishment and development of public and private parks and recreation areas, outdoor education areas, historic natural and scientific areas, game refuges, fish and wildlife improvement projects, game bird and animal farms, wildlife preserves and public boat launching ramps.

Review of proposed development activity within the minimum setback area will consider the following:

- a. Only limited filling and excavating necessary for the development of public boat launching ramps, swimming beaches, or the development of park shelters or similar structures is allowed. The development and maintenance of roads, parking lots and other impervious surfaces necessary for permitted uses are allowed only on a very limited basis, and where no alternate location outside of the setback area is available.
- b. Land surface modification within the minimum setback shall be permitted for the development of stormwater drainage swales between the developed area of the site (including a stormwater detention facility on the site) and a stream, lake or pond, or wetland. Detention basins within the setback are generally discouraged, unless it can be shown that resultant modifications will not impair water quality, habitat, or flood storage functions.
- c. No filling or excavating within wetlands is permitted except to install piers for the limited development of walkways and observation decks. Walkways and observation decks should avoid high quality wetland areas, and should not adversely affect natural areas designated in the Illinois Natural Areas Inventory or the habitat of rare or endangered species.

- d. Wetland area occupied by the development of decks and walkways must be mitigated by an equal area of wetland habitat improvement.
- e. Modification of degraded wetlands for purposes of stormwater management is permitted where the quality of the wetland is improved and total wetland acreage is preserved. Where such modification is permitted, wetlands shall be protected from the effects of increased stormwater runoff by measures such as detention or sedimentation basins, vegetated swales and buffer strips, and sediment and erosion control measures on adjacent developments. The direct entry of storm sewers into wetlands shall be avoided. Environmental impact analysis of wetland modification may be required in accordance with Section 25-72 of this ordinance.

An applicant for a Site Development Permit (See Section 25-69) must stabilize areas left exposed after land surface modification with vegetation normally associated with that stream or wetland. The planting of native riparian vegetation is recommended as the preferred stabilization measure. Other techniques should be used only when and where vegetation fails to control erosion. The preferred alternative is riprap, using natural rock materials where practicable, installed on eroding bank areas in a manner that provides interstitial space for vegetative growth and habitat for macro invertebrates and other stream organisms. Lining of the stream channel bottom is not permitted.

The applicant shall minimize access to the applicant's proposed development activity within all or part of the Conservation Areas where such access could adversely affect the stream, lake, pond, wetland, or related environmentally sensitive areas.

- 4. Site Development Plan - A site development plan must be prepared for any proposed development within, or partly within, the Conservation Areas and must indicate:
 - a. Dimension and area of parcel, showing also the vicinity of the site in sufficient detail to enable easy location, in the field, of the site for which the Site Development Permit is sought, and including the boundary line, underlying zoning, a legend, a scale, and a north arrow. This requirement may be satisfied by the submission of a separate vicinity map;
 - b. Location of any existing and proposed structures;
 - c. Location of existing or proposed on-site sewage systems or private water supply systems;

- d. Location of any perennial or intermittent stream, lake or pond, and its ordinary high water mark;
- e. Location and landward limit of all wetlands;
- f. Location of setback lines as defined in this ordinance;
- g. Location of the 100-year floodway and floodplain limits;
- h. Location of existing or future access roads;
- i. Specifications and dimensions of stream, wetland or other water areas proposed for alterations;
- j. Cross-sections and calculations indicating any changes in flood storage volumes; and
- k. Such other information as reasonably requested by City of Watseka.

The applicant shall present evidence, prepared by a qualified professional engineer, that demonstrates that the proposed development activity will not endanger health and safety, including danger from the obstruction or diversion of flood flow. The developer shall also show, by submitting appropriate calculations and resource inventories, that the proposed development activity will not substantially reduce natural floodwater storage capacity, destroy valuable habitat for aquatic or other flora and fauna, adversely affect water quality or ground water resources, increase stormwater runoff velocity so that water levels on other lands are substantially raised or the danger from flooding increased, or adversely impact any other natural stream, floodplain, or wetland functions, and is otherwise consistent with the intent of this ordinance.

- 5. Geologic and Soil Report - The site proposed for development shall be investigated to determine the soil and geologic characteristics, including soil erosion potential. A report, prepared by a licensed professional engineer, geoscientist, or soil scientist experienced in the practice of geologic and soil mechanics, shall be submitted with every application for land development within the Conservation Areas. This report shall include a description of soil type and stability of surface and subsurface conditions. Any area that the investigation indicates as being subject to geologic or soil hazards shall not be subjected to development, unless the engineer or soil scientist can demonstrate conclusively that these hazards can be overcome.
- 6. Hydrologic Controls/Drainage Control Plan - A drainage control plan that describes the hydraulic characteristics of on-site and nearby watercourses as well as the proposed drainage plan, prepared by a registered Professional engineer experienced in hydrology and hydraulics, shall be submitted with each application

for land development within the Conservation Areas. Unless otherwise noted, the following restrictions, requirements and standards shall apply to all development within the Conservation Areas:

1. Natural open-channel drainageways shall be preserved; and
2. Runoff from areas of concentrated impervious cover (e.g., roofs, driveways, streets, patios, etc. shall be collected and transported to a drainageway (preferably a natural drainageway) with sufficient capacity to accept the discharge without undue erosion or detrimental impact. Vegetated drainage swales are preferred over conveyances constructed of concrete or other manufactured materials.

The drainage control Plan shall identify appropriate measures, such as recharge basins and detention/retention basins, which will limit the quantitative and qualitative effects of stormwater runoff to pre-development conditions.

7. Site Grading and Excavation Plan - Section 7 applies to the extent that grading and excavation and erosion control plans, which satisfy the following requirements, are not already required by a jurisdiction.

A site grading and excavation Plan, prepared by a registered professional engineer, trained and experienced in civil engineering, shall be submitted with each application for a Site Development Permit and shall include the following:

- a. Details of the existing terrain and drainage pattern with one-foot contours;
- b. Proposed site contours at one-foot intervals;
- c. Dimensions, elevation and contours of grading, excavation and fill; slopes of all drainage swales shall be a minimum of 2% through the side and rear yard drainage easements;
- d. A description of methods to be employed in disposing of soil and other material that is removed from allowable grading and excavation sites, including location of the disposal site if on the property;
- e. A schedule showing when each stage of the project will be completed, including the total area of soil surface to be disturbed during each stage, and estimated starting and completion dates. The schedule shall be prepared so as to limit, to the shortest possible period, the time soil is exposed and unprotected. In no case shall the existing natural vegetation be destroyed, removed or disturbed more than fifteen (15) days prior to initiation of the improvements; and
- f. A detailed description of the revegetation and stabilization methods to be employed, to be prepared in conjunction with the landscape plan per

Section 25-70(8). This description should include locations of erosion control measures such as sedimentation basins, straw bales, diversion swales, etc.

The grading and excavation plan must be consistent with all the provisions of this ordinance.

Unless otherwise provided in this ordinance, the following restrictions, requirements and standards shall apply to all development within the District:

- a. Every effort shall be made to develop the site in such a manner so as to minimize the alteration of the natural topography;
- b. No grading, filling, cleaning, clearing, terracing or excavation of any kind shall be initiated until final engineering plans are approved and the Site Development Permit is granted by the City of Watseka; and
- c. The depositing of any excavation, grading or clearing material within a stream, lake, pond or wetland area shall be prohibited.

In addition to locating all site improvements on the subject property to minimize adverse impacts on the stream, lake, pond, or wetland, the applicant shall install a berm, curb, or other physical barrier during construction, and following completion of the project, where necessary, to prevent direct runoff and erosion from any modified land surface into a stream, lake, pond, or wetland. All parking and vehicle circulation areas should be located as far as possible from a stream, lake, pond, or wetland.

The City of Watseka may limit development activity in or near a stream, lake, pond, or wetland to specific months, and to a maximum number of continuous days or hours, in order to minimize adverse impacts. Also, the City of Watseka may require that equipment be operated from only one side of a stream, lake, or pond in order to minimize bank disruption. Other development techniques, conditions, and restrictions may be required in order to minimize adverse impacts on streams, lakes, ponds or wetlands, and on any related areas not subject to development activity.

8. Natural Vegetation Buffer Strip Required: Vegetation and Revegetation/Landscape Plan - To minimize erosion, stabilize the streambank, protect water quality, maintain water temperature at natural levels, preserve fish and wildlife habitat, to screen man-made structures, and also to preserve aesthetic values of the natural water course and wetland areas, a natural vegetation strip shall be maintained along the edge of the stream, lake, pond or wetland. The natural vegetation strip shall be as described in Section 25-70(3) and shall be measured from the ordinary high water mark of a perennial or intermittent stream, lake or pond and the edge of wetland.

Within the natural vegetation strip, trees and shrubs may be selectively pruned or removed for harvest of merchantable timber, to achieve a filtered view of the water body from the principal structure and for reasonable private access to the stream, lake, pond, or wetland. Said pruning and removal activities shall ensure that a live root system stays intact to provide for streambank stabilization and erosion control.

A landscape plan, prepared by a professional shall be submitted with each Site Development Permit application for development activity within the Conservation Areas and contain the following:

- a. A plan describing the existing vegetative cover of the property and showing those areas where the vegetation will be removed as part of the proposed construction; and
- b. A plan describing the proposed revegetation of disturbed areas specifying the materials to be used.

The vegetation must be planned in such a way that access for stream maintenance purposes shall not be prevented.

Sec. 25-71: (Watercourse Relocation and Minor Modifications, Including Channelization and Relocation)

Watercourse relocation or modification is generally not permitted because these activities are not usually consistent with the purposes of this ordinance. Under certain circumstances, relocation and minor modification may be permitted through a Site Development Permit where certain problems can be mitigated by relocation and/or minor modification, specifically when:

1. Off-site hydrologic conditions are causing erosion, flooding and related problems; or
2. On-site soil and geologic conditions are resulting in unstable conditions that pose hazards to life, health, and existing structures or property; or
3. The quality of previously modified or relocated streams can be improved through restoration; or
4. Officially adopted stormwater management plans call for placement of detention or retention facilities in a stream; or
5. Public utilities, including sanitary sewers, pipelines, and roadways require stream crossing or relocation where there are not practical alternatives.

Modification of watercourses as a convenience for site design purposes is not permitted.

1. Conditions and Restrictions for Permitting Stream Modification

Stream modification, when permitted, is subject to the following conditions and restrictions:

- a. Water quality, habitat and other natural functions must be significantly improved by the modification; no significant habitat area may be destroyed;
- b. The amount of flow and velocity of a stream is not to be increased or decreased as the stream enters or leaves a subject property, unless this reflects an improvement over previous conditions in terms of reduced flooding, reduced erosion, or enhanced low flow conditions;
- c. Prior to diverting water into a new channel, a qualified professional approved by the Administrator shall inspect the stream modification, and issue a written report to the City of Watseka that the modified stream complies with the requirements in Section 25-71(2.); and
- d. Stream channel enlargement, or other modifications that would increase conveyance, shall not be permitted if the intended purpose is to accommodate development activities in the floodplain.

2. Required Content of Stream Modification, Relocation Plan

Stream relocation may be permitted in accordance with a stream relocation plan that provides for:

- a. The creation of a natural meander pattern, pools, riffles, and substrate;
- b. The formation of gentle side slopes (at least three feet horizontally per one foot vertically), including installation of erosion control features;
- c. The utilization of natural materials wherever possible;
- d. The planting of vegetation normally associated with streams, including primarily native riparian vegetation;
- e. The creation of spawning and nesting areas wherever appropriate;
- f. The re-establishment of the fish population wherever appropriate;
- g. The restoration of water flow characteristics compatible with fish habitat areas, wherever appropriate;

- h. The filling and revegetation of the prior channel;
- i. A proposed phasing plan, specifying time of year for all project phases;
- j. Plans for sediment and erosion control; and
- k. Establishment of a low-flow channel that reflects the conditions of a natural stream.

3. Criteria for Permitting Armoring of Channels and Banks

Armoring in the form of bulkheads, riprap or other materials or devices is not permitted except in accordance with the following:

- a. Significant erosion cannot be prevented in any other way and the use of vegetation and gradual bank slopes has not sufficiently stabilized the shoreline or bank;
- b. The bulkhead or other device is not placed within a wetland, or between a wetland and a lake or pond;
- c. The bulkhead, riprap or other device will minimize the transmittal of wave energy or currents to other properties; and
- d. The change in the horizontal or vertical, configuration of the land must be kept to a minimum. Where permission to install bulkheads or other armoring devices is requested as part of the Site Development Permit application documentation and certification pertaining to the items above must be submitted.

4. Criteria for Permitting the Use of Culverts

Culverts are not permitted in streams except in accordance with the following:

- a. Where a culvert is necessary for creating access to a property; use of culverts as a convenience, in order to facilitate general site design, is not to be considered;
- b. The culvert must allow passage of fish inhabiting the stream, and accommodate the 100-year flood event without increasing upstream flooding, except where a restricting culvert is desirable as part of an overall storm and floodwater management plan;
- c. The culvert must be maintained free of debris and sediment to allow free passage of water, and if applicable, fish; and

- d. The stream bottom should not be significantly widened for the placement of a culvert as this increases siltation; if multiple culverts must be installed, one culvert should be at the level of the bottom of the stream and the others at or above normal water elevation.

5. Criteria for Permitting On-Stream Impoundments

Impoundment of streams is not permitted except in accordance with the following:

- a. The impoundment is determined to be in the public interest by providing regional stormwater detention, flood control, or public recreation;
- b. The impoundment will not prevent the upstream migration of indigenous fish species;
- c. A non-point source control plan has been implemented in the upstream watershed to control the effects of sediment runoff as well as minimize the input of nutrients, oil and grease, metals, and other pollutants;
- d. Impoundments without permanent low-flow pools are preferred except where a permanent pool is necessary to achieve the intended benefits of the impoundment (e.g. recreation or water quality mitigation); and
- e. Impoundment design shall include gradual bank slopes, appropriate bank stabilization measures, and a pre-sedimentation basin.

Sec. 25-72: (Impact Assessment) The City of Watseka may ask an applicant to submit a report prepared by a qualified professional, and approved by the Administrator, in order to assess the potential impact of proposed development on a lake, stream or wetland and associated environmentally sensitive areas, including loss of flood storage potential, loss of habitat, changes in species diversity and quantity, impacts on water quality, increases in human intrusion, and impacts on associated streams, lakes, ponds, wetlands or downstream areas.

Sec. 25-73: (Stream Maintenance Easement) The applicant shall grant an access easement for stream maintenance purposes to the City of Watseka, over twenty-five feet parallel to the stream bank.

Sec. 25-74: (Threatened and Endangered Species) All developments shall conform to the requirements set forth in 520 ILCS 10/11, which states that a consultation with the Department shall be undertaken to evaluate whether actions proposed by the development are likely to jeopardize the continued existence of listed endangered or threatened species or are likely to result in the destruction or adverse modification of the designated essential habitat of such species. Final disposition of any disagreement not resolved by non-local laws, ordinance, etc will be made by the City Council.

Sec. 25-75: (Security) The applicant may be required to file with the City of Watseka a letter of credit, or other improvement security satisfactory to the City and in an amount deemed sufficient by the Administrator to ensure compliance with any aspect of this ordinance; to cover all costs of improvements, landscaping, or maintenance of improvements and landscaping, for such period as specified by the City of Watseka, and engineering and inspection costs; and to cover the cost of failure or repair of improvements installed on the site.

Sec. 25-76: (Liability) Prior to issuance of a construction permit, the applicant shall enter into an agreement with the City of Watseka which runs with the property, in a form acceptable to the City of Watseka attorney, indemnifying the City of Watseka for any damage resulting from development activity on the subject property which is related to the physical condition of the stream or wetland.

Sec. 25-77: (Separability) Every section, provision, or part of this ordinance is declared separable from every other section, provision, or part; and if any section, provision, or part thereof shall be held invalid, it shall not affect any other section, provision, or part.

Sec. 25-78: (Retroactivity) The requirements of this ordinance apply to all platted and unplatted lands within the jurisdiction of the City of Watseka.

Sec. 25-79: (RESERVED)

ARTICLE 5 – STORMWATER MANAGEMENT PERMIT SUBMITTAL REQUIREMENTS

General Requirements

Sec. 25-80: (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. The development disturbs more than 5,000 square feet of ground cover, or 500 square feet if within 25 feet of a lake, pond stream or wetland; 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. 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; or
 3. Maintenance, repair, or at grade replacement of existing lawn areas not otherwise requiring a stormwater permit under this Ordinance; or
 4. Maintenance of an existing stormwater facility, not requiring other state or federal permits or approvals.

All development shall secure all appropriate Stormwater Management related approvals, including, without limitation, an IDNR-OWR Floodway/Floodplain Construction permit, a USACOE 404 permit and an IDNR-OWR Dam Safety permit if required, from all Federal, State and Regional authorities and other appropriate Federal, State, and Regional approvals prior to the issuance of a Stormwater Management Permit for areas of a site requiring such other approvals.

Sec. 25-81: (Permit Review Fees) All permit fees, as established by separate ordinance by the City Council, shall be paid at the time of application. 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.

Sec. 25-82: (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; and
- b. For structures (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 structure 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 structures 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 National Geodetic Vertical Datum, 1929 adjustment and any FEMA benchmarks.

Duration and Revision to Permits

Sec. 25-83: (Permit Expiration) Permits expire December 31 of the third year following the date of permit issuance or upon expiration of state or federal permits required for Stormwater Management.

Sec. 25-84: (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.

Sec. 25-85: (Permit Revision) If, after permit issuance, the permittee decides to revise the approved plans, the permittee shall submit revised plans to the Administrator, along with a written request for approval. If the Administrator determines that the revised plans are in compliance with the then current requirements of this Ordinance, an approval of the revised plans may be issued.

Required Submittals

All permit submittals shall include the material listed in the Sections noted in Table 3. Permit Submittal Requirements for the applicable type of development, unless the submittal requirements are specifically modified by the procedure in Section 25-86.

Sec. 25-86: (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 shall be requested and answered in writing. The Administrator's response shall note the relevant findings, and be specific as to what submittal requirements are changed. The Administrator may not modify submittal requirements for any aspect of the development requiring state or federal permits or approvals is requested.

Sec. 25-87: (Applications and Project Overview) The Applicant shall provide the following information as a minimum, on forms or in a format approved by the Administrator:

- 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, 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 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 as required; and,
- h. A subsurface drainage investigation report; and,
- i. An engineer's estimate of probable construction cost of the stormwater facilities.

Sec. 25-88: (Plan Set Submittal) All applicants for a stormwater permit 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
 8. Boundary of all wetlands, lakes, ponds, etc. with normal water elevation noted; and
 9. Location of all existing buildings and those to remain on the site noted; and
 10. Nearest base flood elevations; and
 11. FEMA and any site-specific benchmarks used; and
 12. 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. structure and outlet work detail drawings, etc.); and
 5. Scheduled maintenance program for permanent stormwater facilities including BMP measures; and

6. Planned maintenance 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.
 11. For work in the floodplain, cross-section views of the project and engineering study reach showing existing and proposed conditions including principal dimensions of the work as shown in plan view, existing and proposed elevations, normal water elevation, existing and proposed 10-year and 100-year flood elevation, and graphical or numerical scales (horizontal and vertical).
- c. Sediment and Erosion Control Plan meeting the following requirements shall be submitted:
1. Drawings at the same scale as the Site Topographic Map; and
 2. Sediment/erosion control installation measures, including standard details, and schedule; and
 3. Existing and proposed roadways, structures, parking lots, driveways, sidewalks and other impervious surfaces; and
 4. Limits of clearing and grading; and
 5. Floodplain/floodway locations; and
 6. Proposed buffer location, existing soil types, vegetation and land cover conditions; and
 7. List of maintenance tasks and schedule for sediment/erosion control measures; and
 8. Location and description of methods to prevent tracking of sediment or soil off-site, including construction entrance details as appropriate; and
 9. Description of dust and traffic control measures; and

10. Locations of stock-piles to be in place more than 180 days.
- d. 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.
- e. The submittal shall not be considered complete until the preliminary plat and final engineering drawings have been determined to be complete by the City.

Sec. 25-89: (Stormwater Submittal) The stormwater submittal shall include narrative discussion and calculations to support a finding that the proposed development complies with the technical requirements of the permitting authorities 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 Exhibits.
7. The General Plan View Drawing of Section 25-88(b) shall indicate the areas of directly connected impervious areas and any offsetting landscaped areas as defined in Section 25-30.

Sec. 25-90: (Floodplain Submittal) The applicant shall obtain approval from IDNR-OWR and FEMA for all new base flood and floodway determinations for those cases in which their permitting authority applies or as noted in Section 25-57 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 Sections 25-56 and 25-57 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 Easements when required by this Ordinance.

Submittals Prior to Permit Issuance

The following additional submittals as noted in Sections 25-91 and 25-92 are required prior to issuance of the Stormwater Permit.

Sec. 25-91: (Performance Security) Performance security in accordance with Article 12 shall be required prior to permit issuance.

Sec. 25-92: (Maintenance Schedule and Funding) A completed maintenance schedule for the Stormwater Management Facilities and Special Management Areas, in accordance with Article 6 shall be submitted along with identification of the entity responsible for maintenance and funding and back-up funding sources for maintenance in Accordance with Section 25-100.

Sec. 25-93: (Record Drawings) The developer is required to submit record drawings of all permitted stormwater facilities. The record drawings shall be signed and sealed by a Professional Engineer or Professional Land Surveyor who shall state that the project as constructed is substantially in conformance with the project as permitted. The record drawings shall include calculations verifying that the volumes of detention and compensatory storage required in the permit have been provided.

Sec. 25-94: (Issuance or Denial of Permit and Appeal of Permit Denial) The Administrator shall either issue or deny a Stormwater permit within 30 days of receiving a complete Permit application and all required submittals and fees, unless additional time is granted by both the Administrator and the Applicant. When a permit is denied, the applicant may appeal the

Administrator's decision to the City Council provided such appeal is made in writing within 15 days of the date of the notification of denial. The City Council shall render a decision to issue the Stormwater permit, issue the permit with conditions, or uphold the Administrator's denial of the permit. The City Council shall render its decision within 30 days of the appeal. Failure to take action shall be deemed action to uphold the permit denial by the Administrator.

ARTICLE 6 – LONG TERM MAINTENANCE

Sec. 25-95: (Long-Term Maintenance) Unless 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 located upon his land. With the approval of the Administrator the stormwater drainage system, or specified portions thereof, may be:

- a. Dedicated or otherwise transferred to and accepted by the permitting 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.

Except for those portions of a stormwater drainage system to be dedicated or otherwise transferred to the permitting authority or other public entity, included in the application for a stormwater permit shall be a plan for the long-term management, operation and maintenance of the stormwater drainage system and a description of the sources of funding therefore. Amendments to the plan must be approved by the Administrator.

Sec. 25-96: (Transfer to Permitting Authority or Other Public Entity) If any portion of the stormwater drainage system is to be dedicated or otherwise transferred to the permitting authority or other public entity under Section 25-95(a), appropriate easements for ingress and egress to and maintenance of such portions shall be reserved for the benefit of such entity on the final plat.

Sec. 25-97: (Transfer to Homeowner's or Similar Association) If any portion of the stormwater drainage system is to be conveyed or otherwise transferred to a homeowner's or similar association under Section 25-95(b) then:

- a. Appropriate easements for ingress and egress to and maintenance of such portions shall be reserved for the benefit of such association and the permitting authority on the final plat;
- b. 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;

- c. 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
- d. Any conveyance or other instrument of transfer delivered under Section 25-95(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. 25-98: (Conveyance to One or More Persons) If any portion of the stormwater drainage system is to be conveyed to one or more persons under Section 25-95(c), then:

- a. Appropriate easements for ingress and egress to and maintenance of such portions shall be reserved for the benefit of the permitting authority on the final plat;
- b. 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;
- c. The final plat shall contain a legend 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;

- d. Any conveyance delivered under Section 25-95(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. 25-99: (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. 25-100: (Funding of 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 drainage system to be constructed or installed in connection therewith has been accepted by a public entity, the Administrator will require assurance of long-term funding in a form found acceptable to the permitting authority. A corporation with a bond rating of "A" or higher from a major investment firm (i.e. Standard and Poor, Moody or equivalent) will be considered to have met the long-term maintenance funding requirement. Absent some other form of agreement, then the Administrator shall require the establishment of a special service area pursuant to 35 ILCS 200/27-5, et seq, either as the primary means of providing for the long term maintenance of the facilities, or as a backup vehicle 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 consider and approve a good faith estimate by the applicant of the tax rate required to produce a tax to be levied upon all taxable property within the area, sufficient for the long term maintenance of the facilities and submit the same to the permitting authority which shall incorporate such rate into its enactment of the ordinances necessary for the establishment of the area.

On or before August 1 of each year thereafter, the Administrator shall submit to the permitting authority a good faith estimate of the amount of tax required to be levied upon all taxable property within the area for the next fiscal year for the continued maintenance of the stormwater drainage system.

ARTICLE 7 – ENFORCEMENT AND PENALTIES

Sec. 25-101: (Inspection and Maintenance Authority) Pursuant to the authority granted by 55 ILCS 5/5-1104 and 5-1062, the City may, after 30 days notice to the owner or occupant, enter upon any lands or waters within the City for the purpose of inspecting and/or maintaining stormwater facilities or causing the removal of any obstruction to an affected watercourse. Such requirement of notice shall not infringe upon any rights of the City to take immediate actions to protect the public health and safety.

Sec. 25-102: (Required Inspections) Any development constructed pursuant to a Stormwater Management Permit shall be subject to periodic inspections by the Administrator or his designee to ensure conformity with permit provisions and conditions. Such inspections may be conducted without notice at any time during while the permit is effective.

Sec. 25-103: (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. 25-106 below, shall be guilty of an offense under this ordinance.

Sec. 25-104: (Permit Violation – Notice) Whenever the Administrator determines that a permit violation exists, he shall give notice of the violation in the manner prescribed in Section 25-133 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. 25-105: (Offenses – Penalties: Remedies)

1. Any person found guilty of an offense under this ordinance shall pay a civil fine in an amount not less than \$50 and not more than \$750. Each calendar day during which such violation continues to exist shall constitute a separate offense. Where monetary penalties are imposed for violations of the Section entitled “Stormwater Requirements for Agricultural Land Use Including Croplands, Pasture Lands and Farmsteads” (Sec. 25-38 through Sec. 25-41) by regional, state or federal agencies, the amount of these other agency fines will be offset against the monetary penalties for violation of this ordinance.
2. In addition to any fine imposed under 25-105(1), the Administrator may revoke any Stormwater Management Permit issued to such person.
3. In addition to any fine imposed under Subsection 25-105(1) or action taken under Subsection 25-105(2), the Administrator 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. 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 25-133 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.
4. In the enforcement of this ordinance, the Administrator may bring any action, legal or equitable, including an action for injunctive relief that may be necessary.

Sec. 25-106: (RESERVED)

ARTICLE 8 – GENERAL PROVISIONS

Sec. 25-107: (Scope of Regulation) This ordinance applies to all development within the City, including that under the control of any governmental entity, agency, or authority. When the City shall undertake development in the regulatory floodway, or regulatory floodplain where no regulatory floodway has been designated, shall obtain a permit from IDNR-OWR prior to issuance of a stormwater management permit. All units of local government shall obtain stormwater management permits from the City for all development projects within corporate limits of the City.

Sec. 25-108: (Exemptions)

- a. This ordinance does not apply to:
 - 1. Development which has been substantially completed before the effective date of the Ordinance; and
 - 2. Development, which has been determined to be exempt by the City.
- b. Nonconforming structures shall not be replaced or enlarged in any manner unless such replacement or enlargement conforms to the requirements of this ordinance.

Sec. 25-109: (RESERVED)

Sec. 25-110: (Interpretation)

- a. This ordinance shall be liberally construed to protect the health, welfare, safety, and the environment of the residents of the City 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. 25-111: (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. 25-112: (RESERVED)

Sec. 25-113: (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. 25-114: (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. 25-115: (Repealer) This ordinance repeals the original ordinance or resolution, which was adopted to meet the National Flood Insurance Program regulations, but is not intended to replace any ordinance or resolution passed in order to establish initial eligibility for the National Flood Insurance Program.

Sec. 25-116: (Amendments) (RESERVED)

Sec. 25-117: (Effective Date) This Ordinance shall take effect for all purposes, and its effective date shall be June 24, 2014.

ARTICLE 9 – VARIANCES

Sec. 25-118: (Purpose) In order to provide a narrowly circumscribed means by which relief may be granted when strict compliance with the requirements of this 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. 25-119: (Application for Variance) It is the responsibility of the owner or developer and/or their engineer to review this ordinance and identify any and all variance. An application for a variance, prepared by the owner or developer's licensed Professional Engineer and signed by the owner or developer of the development to which it relates, 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 by administrative order. 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. Applications for a variance need not be made upon any specific form, but shall contain the information set forth in Section 25-120.

Sec. 25-120: (Application for Variance) An application for variance shall set forth:

1. The common addresses and legal descriptions of all lands comprising the development;
2. The names and addresses of all owners of record of the legal title of all lands comprising the development;
3. If title to any of the land comprising the development is held in trust, the names and addresses of all beneficiaries of the trust;
4. The names and addresses of the developers of the land, if different from the owner;
5. The names and addresses of all consultants retained by the developer in connection with the application for a variance;
6. The names and addresses of all property owners within 250 feet of the development;
7. The specific feature or features of the development that require a variance;
8. The specific provision of this ordinance from which a variance is sought and the precise extent of the variance there from;

9. A statement of the characteristics of the development that prevent compliance with the provisions of this ordinance;
10. A statement that the variance requested is the minimum variance necessary to permit the development;
11. A statement as to how the variance requested satisfies the standards set forth in Section 25-123 of this ordinance;

Sec. 25-121: (Application Fee) With the filing of the application for a variance, the applicant shall pay the fee prescribed by the City.

Sec. 25-122: (Public Hearing) When the application is complete, the Administrator will so notify the applicant and will schedule a public hearing on the application before the City Council. 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 and to all property owners within 250 feet of the development as disclosed in the application. Within the same time period, notice of the hearing shall be published at least once in a newspaper published within the City. 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. 25-123: (Granting of Variances) The City Council shall not grant a variance for a project from the provisions of this ordinance unless the variance is consistent with the purpose of this Ordinance (Section 25-2) and meets the following standards based upon substantial evidence submitted at the hearing:

- a. The variance will not increase measurably the probability of flood damage to insurable structures.
- b. The variance requested is the minimum required considering each of the following statements of underlying intent of this ordinance and there are no means other than the requested variance by which the alleged hardships can be avoided or remedied to a degree sufficient to permit the reasonable continuation of the development:
 1. Detention of stormwater shall also contribute to the improvement of the quality of stormwater runoff.
 2. The volume of detention storage provided in open air vegetated facilities is maximized consistent with other land use site constraints including zoning requirements essential for the proposed development.
 3. Conveyance of stormwater from the project shall not increase peak discharges from existing offsite conveyance facilities beyond design capacity for any storm event from the 2-year to the 100-year flood frequency.
 4. High quality natural areas shall be preserved on the site, including without limiting the generality of the foregoing, stands of native trees, existing wetlands, natural floodplain storage or other valuable environmental and biological resources.

- c. The variance is not requested solely for the purpose of increasing the density of the development nor impervious areas on the site.
- d. The variance is not requested solely as a result of economic hardship.
- e. If applicable, the variance is required due to unique, natural topographical features of the site.
- f. The applicant's circumstances are not self-imposed.

Sec. 25-124: (Recommendations) The Administrator or his designee shall review the application for a variance and present his written recommendations to the City Council at the public hearing. The written recommendations shall be accompanied by written findings of fact with respect to each of the considerations set forth in Section 25-123 with citations to the evidence taken at the public hearing.

Sec. 25-125: (Decision) The City Council shall grant the variation, grant the variation with modifications or conditions, or deny the variation in writing within 45 days of the Public Hearing but in the event the City Council does not act as aforesaid then the application is denied.

Sec. 25-126: (Conditions) 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.

In granting a variance, the City Council 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.

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. 25-127: (Responsibility for Administration)

- a. The City Council shall determine policy related to this ordinance.
- b. The Administrator shall administer this ordinance. In performing his duties, the Administrator may delegate and oversee enforcement of responsibilities to any named designee.
- c. The City of Watseka 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 FEMA and IDNR-OWR of any proposed amendment to this ordinance.

Sec. 25-128: (RESERVED)

Sec. 25-129: (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 that 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 25-133 and 25-134;
- e. Notify an applicant for a variance that such variance may result in increased rates for flood insurance;
- f. Provide for inspections of developments as required by this ordinance;
- g. Investigate complaints of violations of this ordinance within the City;
- 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 the City;
- 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;

Sec. 25-130: (Representative Capacity) In all cases when any action is taken by the Administrator, or his duly appointed designee, to enforce the provisions of this ordinance, such action shall be taken in the name of the City of Watseka and the Administrator, nor his designee, in so acting shall be rendered personally liable.

Sec. 25-131: (RESERVED)

Sec. 25-132: (RESERVED)

Sec. 25-133: (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. 25-134: (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 City (or, if no newspapers published within the Community then a newspaper published in the County and having a general circulation within the City), 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 – RESERVED

Sec. 25-135: (Authority) (RESERVED)

ARTICLE 12 – PERFORMANCE SECURITY

Sec. 25-136: (General Security Requirements) Should the City of Watseka Subdivision and Development Regulations Ordinance not be applicable to the said development/improvement, then it shall be required as security to the City for the performance by the developer of the developer's obligations to complete the construction of any stormwater facilities required by the Stormwater Management Permit, to pay all costs, fees and charges due from the developer pursuant to the permitting authorities of this Ordinance and to otherwise faithfully perform the developer's undertakings pursuant to this Ordinance, the developer shall, prior to issuance of a Stormwater Management Permit:

- a. Post a development security as provided in Section 25-137 of this Ordinance; and
- b. Post a sediment and erosion control security as provided in Section 25-138 of this Ordinance, if a sediment and erosion control plan is required pursuant to the Section entitled "Required Submittals" (Sec. 25-86 through Sec. 25-90) of this Ordinance.

The developer shall bear the full cost and responsibility of securing and maintaining the securities required by this Section.

Sec. 25-137: (Development Security) A development security shall be posted and shall include:

- a. A schedule, agreed upon by the 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 Twenty-five percent (125%) 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 City for any additional costs incurred attributable to the concurrent activities of or conflicts between the applicant's contractor and the City'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. A minimum of ten percent (10%) of the security shall be retained for a period of time not less than one year after completion of construction of all stormwater facilities required by the permit.

Sec. 25-138: (Sediment and Erosion Control Security) If a sediment and erosion control plan is required pursuant to the Section entitled "Required Submittals" (Sec. 25-86 through Sec. 25-90) 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 twenty-five percent (125%) 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 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.

After completion of construction, establishment of vegetation, removal of all sediment from stormwater facilities, and final inspection and approval by the Administrator, as applicable, one hundred percent (100%) of the sediment and erosion control security shall be released.

Sec. 25-139: (Letters of Credit) Letters of credit posted pursuant to Sections 25-136, 25-137 and 25-138 of this Ordinance shall be in a form satisfactory to the Administrator.

Each letter of credit shall be from a lending institution: (a) acceptable to the Administrator, as applicable; (b) having capital resources of at least ten million dollars (\$10,000,000), or such other amount acceptable to the Administrator; and (c) insured by the Federal Deposit Insurance Corporation.

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

- a. It shall not be canceled without the prior written consent of the Administrator; and shall not expire without written notification of the 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 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 Administrator, and if any applicable obligation of the developer for which its security remains uncompleted or is unsatisfactory, then 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 City for any and all costs and expenses, including legal fees and administrative costs, incurred by the City, as the Administrator shall determine.

If at any time 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 Administrator, the developer shall increase the amount of the letter of credit to an amount determined by the Administrator to be sufficient to pay such unpaid costs. Failure to so increase the amount of the security shall be grounds for the Administrator to draw down the entire remaining balance of the letter of credit.

If at any time 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 Administrator otherwise reasonably deems the bank to be insecure, then the Administrator shall have the right to demand that the developer provide a replacement letter of credit from a bank satisfactory to the Administrator. Such replacement letter of credit shall be deposited with the Administrator not later than ten (10) days following such demand. Upon such deposit, the Administrator shall surrender the original letter of credit to the developer.

If the developer fails or refuses to meet fully any of its obligations under this Ordinance, then 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 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 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. If the funds remaining in the letter of credit are insufficient to repay fully the 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 Administrator therefore, immediately deposit with the Administrator such additional funds as the Administrator determines are necessary to fully repay such costs and expenses and to establish such cash reserve.

ARTICLE 13 – FEE-IN-LIEU OF ON-SITE DETENTION

Sec. 25-140: (Fee-in-Lieu of On-Site Detention)

- a. All single-family residential developments under 5 acres in size and all other development under 1 acre in size may pay a fee of \$100,000.00 for each acre-foot of detention which would be required under this ordinance rather than installing detention facilities on the property, unless specifically directed to do otherwise by the Administrator or his designee. The City of Watseka also shall have the option for larger properties of requiring a fee of \$100,000 for each acre-foot of detention needed in lieu of the applicant building a basin on-site provided the property will discharge stormwater to the City's storm sewer system and the applicant can demonstrate that the redevelopment will not increase the risk to downstream properties of flooding. Fee in-lieu of solely due to financial constraints is not allowed. In addition, a redevelopment project requesting fee-in-lieu of detention must demonstrate a net benefit in water quality will be realized. The \$100,000 fee may be adjusted yearly by the Construction Cost Index (CCI).
- b. The applicant may provide the City of Watseka with a detailed, verifiable cost estimate for actually providing the required storage. If the Administrator or his designee concurs with the cost estimate, the fee set for fee in-lieu of detention will be determined by the lesser of the \$100,000 per acre foot or part thereof or the verifiable cost of providing the required storage.
- c. To encourage redevelopment of properties that have been within the City limits for a minimum of 15 years, the City Council may allow a discount of up to 90% for projects if there is no increase in impervious area between the existing development and the proposed redevelopment.
- d. In instances where regional benefits and economics of scale can be achieved, it is encouraged for adjacent property owners to utilize a common regional detention basin. Special fee districts may be established for areas where a regional stormwater management plan has been approved by the City Council. Fee-in-lieu of detention for the detention volume required for the 2 year 24-hour storm shall require a variance for sites with aggregate development or re-development greater than 20 acres subsequent to the effective date of this ordinance unless tributary to a regional stormwater management system approved by the City Council.

Sec. 25-141: (Procedures)

The following fee-in-lieu of detention procedures:

- a. The Administrator may require, or the applicant may submit, a written request for the payment of a fee-in-lieu of on-site detention to fulfill all or part of the on-site detention requirement in accordance with Section 25-7 a request for fee-in-lieu of on-site detention 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 on-site detention on a development site shall be determined by the Administrator.
- c. A fund will be maintained by the City 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 on-site detention approvals. All monies collected for fee-in-lieu of on-site detention shall be deposited in these funds and may only be used for purposes related to stormwater management as noted in Section 1300.1(d).
- d. Fee-in-lieu of on-site detention 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 basin plan, floodplain study or stormwater system improvement that has been approved by the City Council.