

# STORMWATER MANAGEMENT ORDINANCE



**KANE COUNTY**

Effective Date: January 1, 2002

Revision Date: June 1, 2019

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## CHAPTER 9 STORMWATER MANAGEMENT

### ARTICLE I—AUTHORITY, PURPOSE AND GENERAL PROVISIONS

#### 9-1 STATUTORY AUTHORITY

- A. This Chapter shall be known, and may be cited, as the *KANE COUNTY STORMWATER MANAGEMENT ORDINANCE*.
- B. The Kane County Board adopts this Chapter pursuant to its authority to regulate stormwater management and govern the location, width, course, and release rate of all stormwater runoff channels, streams, and basins in the **County**, in accordance with the Kane County Comprehensive Countywide Stormwater Management Plan (**Plan**). The statutory authority for this Chapter is contained in 55 Illinois Compiled Statutes 5/5-1041, 5/5-1042, 5/5-1049, 5/5-1062, 5/5-1063, 5/5-1104, 5/5-12003 and 5/5-15001 et seq., and 415 Illinois Compiled Statutes 5/43, and other applicable authority, all as amended from time to time.
- C. As applicable, the municipalities within the **County** adopt and enforce this Chapter pursuant to 55 Illinois Compiled Statutes 5/5-1062; 65 Illinois Compiled Statutes 5/1-2-1, 5/11-12-12, 5/11-30-2, 5/11-30-8, and 5/11-31-2; and 615 Illinois Compiled Statutes 5/5 et seq., including 5/18g.

#### 9-2 KANE COUNTY COMPREHENSIVE COUNTYWIDE STORMWATER MANAGEMENT PLAN AND EFFECTIVE DATE ORDINANCE

- A. The **Plan** was recommended by the Kane County Stormwater Management Committee (**Committee**) and adopted by the County Board, after review by the appropriate agencies and a public hearing, by ordinance 98-251 on October 13, 1998. The **Plan** is available for public inspection in the office of the Kane County Clerk;
- B. The Kane County Stormwater Management Ordinance was originally adopted by the County Board by the passage of Ordinance No. 00-312 on November 14, 2000;
- C. The Kane County Stormwater Management **Technical Manual** was originally adopted by the County Board by the passage of Ordinance No. 01-149 on May 8, 2001; and
- D. The Kane County Stormwater Management Ordinance and **Technical Manual** were revised, and those revisions were adopted by the County Board by the

passage of Ordinance No. 01-338 on October 9, 2001. Ordinance No. 01-338 became effective on January 1, 2002.

### 9-3 PURPOSES OF THIS CHAPTER

- A. The principal purpose of this Chapter is to promote effective, equitable, acceptable and legal **Stormwater Management Measures** by establishing reasonable rules and regulations for **Development**. Other purposes of this Chapter include:
1. Managing and mitigating the effects of urbanization on stormwater drainage throughout Kane County through planning, appropriate engineering practices and proper maintenance;
  2. Protecting the public health and safety and reducing the potential for loss of human life and property from **Flood** damage;
  3. Protecting the public from the degradation of water quality on a **Watershed** basis;
  4. Preserving and enhancing the natural hydrologic and hydraulic functions and natural characteristics of watercourses and **Floodplains** to protect water quality, aquatic habitats, reduce **Flood** damage, reduce soil **Erosion**, provide recreational and aesthetic benefits and enhance community and economic development;
  5. Controlling **Sedimentation** and **Erosion** in and from stormwater facilities, **Developments**, agricultural fields, and construction sites and reducing and repairing stream bank **Erosion**;
  6. Requiring planning for **Development** to 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** or degrade the quality of ground and surface waters;
  7. Protecting environmentally sensitive areas from deterioration or destruction by private or public actions;
  8. Protecting and enhancing the quantity and quality of potable **Groundwater** and potable surface water supplies;
  9. Requiring appropriate and adequate provision for **Site Runoff** control, especially when the land is developed with a large amount of impervious surface;
  10. Requiring the design and evaluation of each **Site's** stormwater management



plan to be consistent with **Watershed** capacities;

11. Encouraging the use of stormwater storage and infiltration of stormwater in preference to stormwater conveyance;
12. Lessening the taxpayers' burden for **Flood** related disasters, repairs to **Flood** damaged public facilities and utilities, and **Flood** rescue and relief operations;
13. Meeting the **IDNR-OWR Floodway** permitting requirements delineated in 615 Illinois Compiled Statutes 5/18g ("an act in relation to the regulation of the rivers, lakes, and streams of the state of Illinois" (1992)), as amended from time to time;
14. Complying with the rules and regulations of the **National Flood Insurance Program** thereby making federally subsidized flood insurance available to **Persons** throughout the **County**;
15. Minimizing conflicts and incompatibilities between agricultural and urban drainage systems and maintaining agriculture as a viable and productive land use;
16. Encouraging cooperation and consistency in stormwater management activities within and between units of government having **Floodplain** and stormwater management jurisdiction;
17. Restricting **Development** in the **Floodplain** to facilities that will not adversely affect the potential for **Flood** damage;
18. Protecting and improving surface water quality and promoting beneficial uses of **Ponds, Lakes, Wetlands**, rivers and streams by reducing point source and nonpoint source discharges of pollutants;
19. Requiring regular, planned maintenance of stormwater management facilities;
20. Requiring control of stormwater quantity and quality at the most site-specific or local level and preventing unauthorized or unmitigated discharge of flow off-site;
21. Protecting the quantity and quality of **Wetlands**;
22. 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;
23. Providing a procedure by which communities throughout the **County** may petition the **Committee** for authority to implement and enforce the provisions of

this Chapter; and

24. Requiring strict compliance with and enforcement of this Chapter.

B. The purposes of this Chapter are consistent with and supersede the **Plan**.

#### **9-4 SCOPE OF REGULATION**

This Chapter applies to all **Development** within the **County** and to all **Development** within the corporate boundaries of any **Certified Community**, including that under the control of any governmental entity, agency, or authority.

- A. Any **Person** undertaking a **Development** shall obtain a **Stormwater Management Permit** from the **Permitting Authority** within whose boundaries the **Development** is located;
- B. Any **Person** undertaking a **Development** having a **Wetland Impact** shall obtain a permit from the **Department** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter);
- C. Any **Certified Community** undertaking **Development** in the regulatory **Floodway**, or regulatory **Floodplain** where no regulatory **Floodway** has been designated, shall obtain a permit from **IDNR-OWR** if required prior to issuance of a **Stormwater Management Permit**; and
- D. All units of local government shall obtain **Stormwater Management Permits** from the **Permitting Authority** within whose boundaries the **Development** is located.

#### **9-5 EXEMPTIONS**

- A. This Chapter does not apply to:
  - 1. **Development** which has been substantially completed before January 1, 2002, with the exception of any **Structure** located in the **Floodplain**; and
  - 2. **Wetland Impacts** occurring before the **Effective Date**.
- B. Nonconforming **Structures** shall not be replaced or enlarged in any manner unless such replacement or enlargement conforms to the requirements of this Chapter.

#### **9-6 AMENDMENTS**

- A. A minimum of forty-five (45) days prior to the Kane County Board's consideration of an amendment(s) to the Kane County Stormwater Ordinance, the **Director** shall notify and provide a copy of said amendment(s) to every **Certified Community** (the **Certified Community's Administrator** and city/village engineer), and the

proposed date said amendment(s) will be presented to the **Committee**.

- A. All of the **Communities** in the **County**, **FEMA**, **IDNR-OWR**, **USACE**, **NRCS**, the Kane DuPage Soil and Water Conservation District, the United States Fish and Wildlife Service (**USFWS**), the Illinois Environmental Protection Agency (**IEPA**), and the United States Environmental Protection Agency (**USEPA**) shall be notified of any amendments to this Chapter.
- B. **Administrators** or their designees shall be allowed to present oral or written comments to the **Committee** expressing their comments relating to said amendment(s).
- C. No amendment may be passed without a public hearing first being held before the **Committee**.
- D. Publication for a public hearing shall occur no less than 15 days and no more than 30 days per Section 9-317.

## **9-7 EFFECTIVE DATE**

After its passage, approval and publication according to law, the Kane County Stormwater Management Ordinance took effect on January 1, 2002. The **Revision Date** of this Chapter is June 1, 2019. This Chapter replaces Ordinance 01-338 adopted on October 9, 2001 and all revisions thereafter.

## **9-8 - 9-27 RESERVED**

# ARTICLE II—REQUIRED SUBMITTALS FOR STORMWATER MANAGEMENT PERMITS

## 9-28 GENERAL REQUIREMENTS

A. A **Stormwater Management Permit** is required if:

1. The **Development** is located in the regulatory **Floodplain**;
2. A **Substantial Improvement** in the **Floodplain**;
3. There is any **Floodplain** within the **Site**;
4. The **Development** impacts a **Wetland**; or
5. The **Development** has a **Detention Storage Facility** previously permitted under this Chapter and the **Net New Impervious Area** is less than five thousand (5,000) square feet and storage for those improvements is not included in that **Detention Storage Facility**.
6. The **Development** disturbs more than five thousand (5,000) square feet of ground or two hundred fifty (250) cubic yards of material (earth, soil, clay, gravel, grindings, etc.), unless the **Development** consists solely of:
  - a. The installation, renovation or replacement of a septic system, potable water service line or other utility serving an existing **Structure** located outside of a **Special Management Area**;
  - b. The installation of a watermain, sanitary sewer, overhead and underground utilities located outside of **Special Management Areas**;
  - c. The maintenance, repair or at grade replacement of existing lawn areas not otherwise requiring a **Stormwater Management Permit** under this Chapter; or
  - d. The maintenance of an existing **Stormwater Management Measure, Major and Minor Stormwater Systems**, not requiring other state or federal permits or approvals.

B. **Certified Communities** may develop general permits for certain activities with the approval of the **Director**.

C. All appropriate stormwater management related approvals and permits, including, without limitation, an **IDNR-OWR Floodway / Floodplain** construction permit, a **USACE 404** permit, and an **IDNR-OWR Dam** safety permit shall be obtained from all federal, state and regional authorities prior to the issuance of a **Stormwater**

**Management Permit.** An IEPA NPDES ILR10 permit, if required, shall be obtained prior to the start of construction.

- D. All permit fees shall be paid at the time of application, or according to a schedule determined by the **Administrator**. Permit fees shall be established by separate ordinance. Fees may be established based upon all costs incurred by the **Permitting Authority** in the administration of the permit, including, without limitation, the costs of review and inspections both during and after construction within the period for the establishment of permanent cover.
- E. The design of stormwater facilities, calculations for the determination of the **Regulatory Floodplain** and calculations of the impacts of **Development** shall meet the standards of this Chapter and shall be prepared, signed, and sealed by a **Professional Engineer** (excluding Category I BMPs). The signature and seal of such **Professional Engineer** shall stand as his or her opinion that the submittals which accompany the permit application meet the requirements of this Chapter.
1. For projects which include earth embankments which are subjected to a 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. Specifications for the construction and materials for all such embankments shall be included. When directed by the **Administrator**, or when the impounded water pressure differential exceeds three feet (3') 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 **Registered Structural Engineer**.
  2. For structures (not including earth embankments) that are subject to a differential water pressure greater than three feet (3') the submittal shall, at a minimum, be reviewed by 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**.

## 9-29 DURATION AND REVISION OF PERMITS

- A. Permits expire on December 31st of the third year following the date of their issuance.
- B. For new **Buildings** or **Substantial Improvements** to a **Building** in the **Floodplain**, the **Start of Construction** of the **Structure** must begin with 180 days from the

date of permit issuance. If **Start of Construction** of the **Structure** has not begun within 180 days of permit issuance, the **Applicant** shall submit to the **Administrator** proof that the **BFE** has not changed and that the project is in compliance with any revisions to this Chapter or resubmit a revised application that reflects changes to the **BFE** or any revisions to this Chapter. If the **Administrator** determines that the revised plans are in compliance with the then current requirements of this Chapter, an amended permit may be issued.

- C. If the permitted activity has begun but is not complete by the expiration date of the permit, the permittee may submit a written request for an extension to the **Administrator**. Upon receipt of such request, the **Administrator** may extend the expiration date for up to three (3) years for permitted activities outside **Special Management Areas**. Expiration dates for permitted activities within **Special Management Areas** may also be extended for up to three (3) years provided the activity is in compliance with the then current requirements of this Chapter. A permittee may apply for any number of extensions.
- D. If the **Applicant** revises the approved plans after issuance of the permit, the permittee shall submit the 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 Chapter, an amended permit may be issued.

### 9-30 REQUIRED SUBMITTALS

- A. Refer to Table 9-30 of this Section for the submittals required to accompany the permit application based upon the type of **Development**. The **Administrator** may, at his or her 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 **Runoff**. Such modifications shall be requested and approved 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, nor for any application in which any variance is requested.

**TABLE 9-30**  
**PERMIT SUBMITTAL REQUIREMENTS**

Type of Development	Section/Number Descriptions								
	9-31 Applications and project overview	9-32 Plan Set Submittal	9-86 Stormwater Submittal	9-110 Stormwater Mitigation/ BMP and Watershed Benefit Submittal	9-145 Floodplain Submittal	9-180 Wetland Submittal	9-33 Performance Security	9-34 Maintenance Schedule and Funding	9-35 Record Drawings
All requiring a permit	X	X					X	X	X
All sites with Floodplain	X	X			X		X	X	X
All sites with or adjacent to Linear Watercourse, nonlinear waterbodies, or Wetlands	X	X				X	X	X	X
All applications for variances	X	X			If on-site	If on-site	X	X	X
All requiring Detention Storage Facilities	X	X	X				X	X	X
All requiring Stormwater Mitigation/ BMPs or Watershed Benefit Measures	X	X		X			X	X	X

## 9-31 APPLICATION AND PROJECT OVERVIEW

- A. The **Applicant** shall at a minimum, provide the following information on forms or in a format approved by the **Administrator**:
1. The names and legal addresses of all owners of the **Site**;
  2. The names and legal addresses of the **Developer** or **Developers** responsible for completing the **Development** according to the plans submitted, the terms and conditions of the permit and the requirements of this Chapter;
  3. The common address, legal description and parcel identification number (PIN) of all **Parcels** which comprise the **Site**;
  4. The name of the project, area of the **Site** in acres, and type of **Development**;
  5. A general narrative description of the **Development**, existing and proposed conditions and project planning principles considered, including **Stormwater Mitigation/ Best Management Practices (BMPs)** used;
  6. A statement of opinion by a **Professional Engineer** as to the presence of a **Floodplain** or **Floodway** on the **Site**;
  7. A statement of opinion by a qualified wetland specialist as to the presence of **Wetlands** on or near the **Site**. This requirement may be waived if the **Professional Engineer** determines in writing that it is obvious from the nature of the **Development** or **Redevelopment** that **Wetlands** cannot be located on or near the **Site**;
  8. Copies of all other permits or permit applications as required;
  9. A survey of the **Subsurface Drainage System**;
  10. An engineer's estimate of probable construction cost of the **Stormwater Management Measures, Major and Minor Stormwater Systems, Subsurface Drainage Systems, Special Management Area** and the installation and maintenance of **Erosion and Sedimentation Control Practices**; and
  11. An engineer's estimate of probable yearly maintenance costs for all **Stormwater Management Measures, Major and Minor Stormwater Systems, Stormwater Facilities**, and **Special Management Areas**. The **Owner** shall provide certification that Association Covenants, Deeds and Restrictions will allow for sufficient funds to be collected based on engineer's estimate with built in inflation not subject to lot **Owner** approval. If these areas are to be conveyed to one or more **Persons**, not a homeowners association, the **Owner** shall



provide certification that this **Person(s)** has the means to perform the yearly maintenance based on engineer's estimate with built in inflation.

- B. The application shall be signed by all owners and **Developers** identified in Subsections 9-31.A.1 and 9.31.A.2 and shall contain their attestation that they have read and understand the provisions of this Chapter and agree to bind themselves to the **Permitting Authority** to comply therewith. If at any time prior to completion and final inspection and approval of the **Development** the identity of the **Persons** required to be disclosed in Subsections 9-31.A.1 and 9-31.A.2 changes, an amended application containing the current information shall be filed and the permit shall be amended accordingly.

## 9-32 PLAN SET SUBMITTAL

All **Applicants** for a **Stormwater Management Permit** shall provide the following basic plan exhibits: site topographical map, general plan view drawing, erosion and sedimentation control plan and a vicinity topographical map. A construction plan set that includes this information or individual plan sheets may be used to meet this requirement. 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 topographical map:

1. Map scales as one inch equals one hundred feet (1" = 100') (or less) and accurate to plus or minus 0.5 foot;
2. Existing and proposed contours on-site (one foot (1') maximum contour interval) and within one hundred feet (100') of the **Site**;
3. Existing and proposed drainage patterns and **Watershed** boundaries;
4. Delineation of pre-**Development Regulatory Floodplain** and **Floodway** limits;
5. Delineation of post-**Development Regulatory Floodplain** and **Floodway** limits;
6. Location of cross sections and any other hydrologic or hydraulic computer modeled features;
7. The location of all on-site drain tiles in accordance with Subsection 9-83.B.2.a;
8. Boundaries of all **Linear Watercourses**, **Nonlinear Waterbodies**, **Wetlands**, and **Buffers**, with normal water elevations, if applicable, noted;
9. The existing and proposed **Impervious Area** and **Net New Impervious Area**;
10. Location of all existing **Buildings** and those to remain on the **Site** noted;

11. Nearest **Base Flood Elevations**;
12. North American Vertical Datum of 1988 (**NAVD 88**) and reference bench marks used; and
13. All contours used in the calculation of **Depressional Storage** highlighted.

B. General plan view drawing:

1. Drawing at the same scale as the site topographical map;
2. Existing **Major** and **Minor Stormwater Systems**;
3. Proposed **Major** and **Minor Stormwater Systems**;
4. Design details for **Stormwater Management Measures** (i.e., stormwater structure and outlet work detail drawings, etc.). If **BMPs** and **Watershed Benefit Measures** are proposed, additional drawings shall be provided in accordance with Section 9-110;
5. Scheduled maintenance program for **Stormwater Management Measures**, **Major** and **Minor Stormwater Systems**, and **Subsurface Drainage Systems**;
6. Planned maintenance tasks and schedule;
7. Identification of **Persons** responsible for maintenance;
8. Permanent public access maintenance easements granted or dedicated to, and accepted by, a government entity;
9. Proposed **Regulatory Floodplain** and **Floodway** location (with the **Base Flood Elevations** and **Flood Protection Elevations** noted);
10. Existing **Linear Watercourses**, **Nonlinear Waterbodies**, **Wetlands**, and **Buffers**. If impacts are proposed to these areas, additional drawings shall be provided in accordance with Section 9-180;
11. All plan areas at elevations below the high water elevation of **Detention Storage Facilities** highlighted; and
12. Where the two-tenths percent (0.2%) and the one percent (1%) regulatory flood profile are available, the plan limit of the **Floodplain**.

C. Erosion and sedimentation control plan:

1. Drawings at the same scale as the **Site** topographical map;
2. Existing and proposed roadways, **Structures**, parking lots, driveways, sidewalks and other impervious surfaces;
3. Existing soil types, vegetation and land cover conditions;
4. Limits and acreage of disturbance;
5. Location of all **Special Management Areas**;
6. Location of all **Erosion and Sedimentation Control Practices**;
7. Details for all proposed **Erosion and Sedimentation Control Practices**;
8. List of maintenance tasks for all **Erosion and Sedimentation Control Practices**;
9. Schedule for implementation and maintenance of **Erosion and Sedimentation Control Practices** and temporary and permanent stabilization; and
10. The name, address and phone number at which the **Person** responsible for **Erosion and Sedimentation Control Practices** may be reached on a twenty-four (24) hour basis.
11. All items identified in Subsection 9-59.H.

D. Vicinity topographical map:

1. Vicinity topographical map identifying the upstream **Drainage Area** to the **Development** and downstream receiving **Channel** (a two foot (2') contour map is preferred at a scale readable by the reviewer but a USGS quadrangle map is acceptable);
2. **Watershed** boundaries for the **Drainage Area** through or from the **Development**;
3. Soil types related to hydrologic soils group, vegetation and land cover affecting **Runoff** upstream of the **Site** for any upstream **Drainage Area**;
4. Location of **Site** within the major **Watershed(s)**; and
5. **Overland Flow Path** from the downstream end of the **Development** to the receiving **Channel**.

### 9-33 PERFORMANCE SECURITY

Performance security in accordance with Article VIII of this Chapter shall be required prior to permit issuance.

### **9-34 MAINTENANCE SCHEDULE AND FUNDING**

A completed maintenance schedule for the **Stormwater Management Measures, Major and Minor Stormwater Systems, Subsurface Drainage Systems** and **Special Management Areas** in accordance with Article IX of this Chapter shall be submitted along with identification of the **Persons** responsible for maintenance and funding and backup funding sources for maintenance in accordance with Section 9-233 and 9-234.

### **9-35 RECORD DRAWINGS**

The permittee is required to submit **Record Drawings** of all permitted **Development** improvements, including but not limited to: **Stormwater Management Measures, Major and Minor Stormwater Systems, and Subsurface Drainage Systems, Wetland Mitigation Facilities** and stream restoration. The **Record Drawings** shall be signed and sealed by a **Professional Engineer** who shall state that the project as constructed is substantially in conformance with the **Development** as permitted. The **Record Drawing** shall be referenced to the North American Vertical Datum of 1988 (NAVD88).

### **9-36 TERMS OF PERMIT/DENIAL—APPEAL**

- A. Within ten (10) days after being served with the permit or notice that the permit has been denied, the **Applicant** may appeal the terms or denial of the permit to the oversight committee. The appeal shall be made by filing a notice thereof with the oversight committee specifying the specific provisions appealed from and the grounds therefor. The oversight committee shall conduct a hearing on the appeal not more than sixty (60) days after the filing of the notice of appeal. The hearing shall be de novo. Notice of the hearing shall be served upon the **Applicant**, the **Administrator**, the **Director** and upon all communities within the same **Watershed** as the **Development** to which the appeal relates. The hearing may be continued from time to time. The oversight committee may adopt rules for the taking of evidence and conduct of such hearings.
- B. Within thirty (30) days of the conclusion of the hearing, the oversight committee shall decide whether to affirm or reverse, in whole or in part, the terms or denial of the permit. The decision of the oversight committee shall be in writing and shall include the specific findings and conclusions supporting its determination. A copy of the decision and order shall be served upon all parties entitled to notice in accordance with Section 9-316.
- C. Within ten (10) days of being served with the order of the oversight committee, the

**Applicant** may (and if the denial of the permit or any of the terms thereof have been reversed, in whole or in part, by the oversight committee, the **Administrator** shall), further appeal to the decision-making authority. The decision-making authority shall decide the appeal upon the record before the oversight committee. The decision-making authority shall decide the appeal within forty-five (45) days of its receipt thereof. The decision-making authority shall affirm the order of the oversight committee if it is supported by substantial evidence in the record. A copy of the decision and order of the decision-making authority shall be served upon all parties entitled to notice in accordance with Section 9-316.

D. Within ten (10) days of being served with the order of the decision making authority, the **Applicant** may (and if the effect of the decision making authority's decision is that the denial of the permit or any of the terms thereof have been reversed, in whole or in part, the **Administrator** shall), further appeal to the **Committee**. The **Committee** shall decide the appeal upon the record below. The **Committee** shall decide the appeal within forty-five (45) days of its receipt thereof. The **Committee** shall affirm the order of the decision-making authority if it is supported by substantial evidence in the record. A copy of the decision and order of the **Committee** shall be served upon all parties entitled to notice in accordance with Section 9-316.

E. From a final order of the **Committee**, the **Applicant** may appeal to the courts under the Illinois Administrative Review Law.

**9-37 - 9-57 RESERVED**

## ARTICLE III—REQUIREMENTS FOR EROSION AND SEDIMENTATION CONTROL

### 9-58 APPLICABILITY

All **Developments** and **Redevelopments** shall meet the requirements of this Article.

### 9-59 EROSION AND SEDIMENT CONTROL

A. **Erosion** and **Sedimentation** control planning shall be part of the initial site planning process. In planning the **Development** of the **Site**, the **Applicant** shall consider the sensitivity of existing soils to **Erosion** and topographical features such as steep slopes, stream corridors and **Special Management Areas** which must be protected to reduce the amount of **Erosion** and **Sedimentation** 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:

1. 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 dense vegetation, then these phases shall be planted temporarily to reduce **Erosion** from idle land.
2. In planning the **Erosion** and **Sedimentation** control strategy, preference shall be given to reducing **Erosion** rather than controlling **Sedimentation**. In order to accomplish this, the construction sequence of the phases must be carefully considered so that the amount of land area exposed to erosive forces is the minimum consistent with completing construction.

B. An **Applicant** with land disturbing activities greater than one (1) acre shall provide, upon receipt, a copy of the Notice of Intent, Stormwater General Permit under Illinois Environmental Protection Agency General NPDES Permit No. ILR 10 (IEPA NPDES ILR10).

C. Standards and specifications for **Erosion and Sedimentation Control Practices** shall be taken from the current editions of one of the following sources, where the "Illinois Urban Manual" conflicts with the other sources, the Illinois Urban Manual shall prevail:

1. The "Illinois Urban Manual";
2. The **Technical Manual**;
3. IDOT Standard Specifications for Road and Bridge Projects; and

4. Other design criteria, standards or specifications may be approved by the **Administrator**.
- D. The **Runoff** from disturbed areas shall not leave the **Site** without first passing through **Sedimentation** control practices or devices. This requirement shall apply to all phases of construction and shall include an ongoing process of implementation of practices and maintenance of those practices during both the construction season and any construction shutdown periods.
- E. In the hydraulic and hydrologic design of major **Erosion and Sedimentation Control Practices** (those whose tributary **Drainage Area** is greater than three (3) acres) such as **Sedimentation** 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. If disturbance is estimated to be permanently stabilized in less than six (6) months, the storm event having a fifty percent (50%) (2-year event) chance of being exceeded in any year shall be used for design purposes;
  2. If disturbance is estimated to be permanently stabilized in greater than six (6) months but less than one year, the design frequency for major **Sedimentation** basins shall be a rainfall event with a twenty percent (20%) (5-year event) chance of being exceeded in any one year;
  3. If disturbance is estimated to be permanently stabilized in greater than one year, major **Sedimentation** basins shall be designed for a rainfall event with a ten percent (10%) (10-year event) chance of being exceeded in any one year; and
  4. All **Sedimentation** basins shall be designed for a minimum residence time of ten (10) hours for detained **Runoff** and draw down the storage within a twenty-four (24) to forty (40) hour period at discharge rates, which at a minimum do not increase over pre-construction conditions for the storm event having a fifty percent (50%) chance (2-year frequency, 24-hour storm event) of being exceeded in any given year. The basin should have a maintenance schedule that restores its original design dimensions once the sediment has accumulated to two thirds the design depth of the dead sediment storage per the Illinois Urban Manual.
- F. The erosion and sedimentation control plan shall designate a series of practices which shall be implemented either at the direction of the **Applicant** or the **Applicant's** representative on-site or at the direction of the **Administrator** should an inspection of the **Site** indicate a deficiency in soil and **Erosion and Sedimentation Control Practices**. At a minimum, these practices shall include: **Sedimentation** basins, sediment traps, diversion swales, silt fences, temporary seeding, and erosion control blankets.

- G. The area of disturbance on-site at any one time shall be limited to forty (40) acres. An additional forty (40) acres (a maximum of eighty (80) acres of disturbance at any one time) may be disturbed if necessary to balance cut and fill on-site. The **Administrator** may approve a larger area of disturbance pursuant to a plan for phased construction or after **Development** has begun, if the **Developer** adequately demonstrates the need therefor and the **Administrator** finds that adequate temporary and permanent **Erosion and Sedimentation Control Practices** can be maintained and that the **Developer** is proposing an area of disturbance which at any one time is the smallest practical area consistent with the intent to limit disturbed area and minimize the risk of sediment being introduced into **Site Runoff** and being carried off-site. No additional area may be disturbed without the permission of the **Administrator** until the previously disturbed areas have been temporarily or permanently stabilized.
- H. Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the **Site**, or temporarily ceased on any portion of the **Site** and will not resume for a period exceeding fourteen (14) calendar days. Stabilization of disturbed areas must be initiated within one (1) working day of permanent or temporary cessation of earth disturbing activities and shall be completed as soon as possible but not later than fourteen (14) days from the initiation of stabilization work in an area. Exceptions to these time frames are specified below:
1. Where the initiation of stabilization practices is precluded by snow cover, stabilization practices shall be initiated as soon as practicable.
  2. On areas where construction activity has temporarily ceased and will resume after fourteen (14) days, a temporary stabilization method can be used.
- I. The condition of the construction site for winter shutdown shall be addressed early in the fall growing season so that slopes and other bare earth areas may be stabilized with temporary and/or permanent vegetative cover for proper **Erosion and Sedimentation** control. All open areas that are to remain idle throughout the winter shall receive temporary **Erosion** control practices including temporary seeding, mulching and/or erosion control blanket 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 practices that do not rely on vegetative cover such as erosion control blanket and heavy mulching.
- J. Erosion and sedimentation control plans shall include the following:
1. Detailed construction phasing plan identifying **Erosion and Sedimentation Control Practices** to be in place for each phase shall be submitted;



2. **Erosion and Sedimentation Control Practices** to be installed initially prior to stripping existing vegetation or **Mass Grading** shall be indicated on the plans;
  3. Permanent stabilization practices shall be indicated on a separate plan;
  4. The expected 2-year and 10-year **Runoff** rates from all off-site areas draining into the **Site** shall be identified on the plan;
  5. Methods for conveying flows through the **Site** during construction shall be indicated. These methods must include the temporary and permanent stabilization practices to be used to reduce velocity and **Erosion** from flow through the construction zone;
  6. A maintenance schedule of each practice used shall be indicated on the plan;
  7. A note stating that at a minimum, all **Erosion and Sedimentation Control Practices** on-site shall be inspected in accordance with the current IEPA NPDES ILR10 permit, which is weekly or after a one-half inch ( $1/2$ " ) or greater rainfall event, as of the **Revision Date** of this Chapter. Any required repairs shall be made to keep these practices **Functional** as designed; and
  8. **Special Management Areas** shall be indicated on the erosion and sedimentation control plan.
- K. Temporary stream crossings of **Linear Watercourses** used only for and during construction shall be designed to convey a storm event having a fifty percent (50%) chance of occurrence in any given year (2-year frequency, 24-hour storm event), without overtopping unless a more frequent design event is allowed by the **Administrator** and will not obstruct the portion of the **Channel** carrying the base flow. The entire crossing shall be designed to withstand hydrodynamic 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 resistant to the erosive forces produced by **Runoff** from the upstream **Drainage Area** and the design is approved by the **Administrator**. All temporary stream crossings shall be completely removed, and the stream restored to its preconstruction condition upon completion of construction. Restoration shall incorporate appropriate native vegetation.
- L. To the extent practicable, proposed ditches and waterways that are to convey off-site flows through the **Site** shall be stabilized prior to their use to convey **Flood** flows.
- M. **Erosion** control blanket placed along the banks of **Linear Watercourses**, within **Wetlands** or **Buffers** shall be 100% biodegradable or photodegradable, unless otherwise approved by the **Director** (or **Administrator** in a **Community** certified to administer Article VII).

- N. Stockpiles of soil and other **Building** materials (sand, limestone, etc.) shall not be located in **Special Management Areas** or **Buffers**, unless otherwise approved by the **Administrator**. If a stockpile is to remain in place for more than three (3) days, **Erosion and Sedimentation Control Practices** shall be provided.
- O. Storm sewer inlets shall be protected with sediment trapping and/or filter control devices during construction.
- P. Water pumped or which is otherwise discharged from the **Site** during construction dewatering shall be filtered and a means provided to reduce **Erosion** and **Sedimentation**.
- Q. Graveled roads, access drives, parking areas of sufficient width and length and vehicle wash down facilities if necessary, shall be provided to prevent soil 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 or the **Administrator**.
- R. On areas of exposed soils, the generation of dust shall be minimized through the appropriate application of water or other dust suppression techniques.
- S. The **Applicant** shall design, install, implement, and maintain effective pollution prevention practices to minimize the discharge of pollutants. At a minimum, such practices must be designed, installed, implemented and maintained to:
1. Ensure and demonstrate compliance with applicable state and/or local waste disposal, sanitary sewer or septic system regulations;
  2. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
  3. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the **Site** to precipitation and to stormwater;
  4. Minimize the exposure of fuel, oil, hydraulic fluid and other petroleum products by storing them in covered areas or containment areas;
  5. Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures; and
  6. Monitor directional drilling operations and have a contingency plan in place to

contain drilling lubricants and restore disturbed areas if a frac-out occurs.

- T. For sites that require an IEPA NPDES ILR10 permit, the **Applicant** shall provide qualified personnel to inspect disturbed areas of the **Site** for compliance with the plan. Inspections shall be conducted in accordance with the current IEPA NPDES ILR10 permit, which, as of the **Revision Date** of this Chapter, is at least once every seven calendar days and within twenty-four (24) hours of the end of a storm or by the end of the following business or work day that is one-half inch ( $1/2$ " ) or greater. Areas inaccessible during inspections due to flooding or other unsafe conditions shall be inspected within seventy-two (72) hours of becoming accessible. Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities are conducted, or if there is one-half inch ( $1/2$ " ) or greater precipitation event, or a discharge due to snowmelt occurs.

**9-60 - 9-80 RESERVED**

# ARTICLE IV—REQUIREMENTS FOR STORMWATER MANAGEMENT

## 9-81 GENERAL INFORMATION

- A. All **Developments** shall meet the requirements of Sections 9-81 and 9-82 and Articles III and VI of this Chapter.
- B. The thresholds for requiring **Stormwater Management Measures** are summarized in Table 9-81.

**TABLE 9-81**  
REQUIREMENTS FOR STORMWATER MANAGEMENT MEASURES

Development Category	New Impervious Area for Development or Net New Impervious Area for Redevelopment	Detention Storage Facility (Section)	Stormwater Mitigation / BMP (Section)	Watershed Benefit Measure <sup>1</sup> (Section)	Fee-in-Lieu <sup>3</sup> (Section)
Development or Redevelopment	< 5,000 sq.ft.		X <sup>2</sup> (9-107.C)		A (9-85)
	5,000 sq.ft. – 24,999 sq.ft.		X (9-107.C)		A (9-85)
	≥ 25,000 sq.ft. AND < 1% Site area	X (9-84)	X (9-107.D)	O (9-108)	A (9-85)
	≥ 25,000 sq.ft. AND ≥ 1% Site area	X (9-84)	X (9-107.D)		A (9-85)
Linear Project (Trails/Roads)	> 1-acre in aggregate for roads and trails that are ≤ AASHTO max. width		X <sup>1</sup> (9-107.C)	O (9-108)	A (9-85)
	> 1-acre in aggregate for roads and trails that are > AASHTO max. width	X (9-84)	X (9-107.D)		A (9-85)
Total Impervious Area > 50% Site area (for Sites < 1-acre)			X (9-107.C)		A (9-85)
Hydrologically Disturbed Area > 3-acres		X <sup>4</sup> (9-84)	X (9-107.D)	O (9-108)	A (9-85)

X = Required; O = Option for required measure; A = Allowed

<sup>1</sup>A **Watershed Benefit Measure** may be provided in lieu of the required **Detention Storage Facility** and **Stormwater Mitigation/BMP** at the discretion of the **Administrator**.

<sup>2</sup> Required at the discretion of the **Administrator** where known flooding or drainage issues are in the immediate vicinity of the project, in areas without **Adequate Downstream Stormwater Capacity**, or that outlet to a **Volume Sensitive Watershed**.

<sup>3</sup>Fee-in-lieu requires approval of the **Administrator** and compliance with the requirements listed under Subsection 9-81.B.4.

<sup>4</sup>**Redevelopment** with a **Net New Impervious Area** less than the **Impervious Area** being removed will not be required to provide a **Detention Storage Facility** per Subsection 9-81.B.3.a.

1. The **Administrator** may require **Stormwater Management Measures** for **Developments** or **Redevelopments** in areas where known flooding or drainage issues are in the immediate vicinity of the project, in areas without adequate downstream stormwater capacity, or that outlet to a **Volume Sensitive Watershed** unless the **Applicant** demonstrates, to the satisfaction of the **Administrator**, that the **Development** or **Redevelopment** will not result in adverse impacts upstream or downstream of the **Site**.
2. An exemption from the **Detention Storage Facility** requirements may be granted by the **Administrator** in accordance with Table 9-84.A and Table 9-84.B for **Redevelopment Sites** containing an existing **Detention Storage Facility**. The **Redevelopment** may still be required to provide a **BMP** or **Watershed Benefit Measure** to meet the requirements of Table 9-81.
3. The following special conditions and cases of **Development** and **Redevelopment** are exempt from providing **Stormwater Management Measures**:
  - a. **Redevelopment** with a **Net New Impervious Area** less than the **Impervious Area** being removed will not be required to provide a **Detention Storage Facility**. The **Redevelopment** may still be required to provide a **BMP** to meet any other requirements of Table 9-81, such as **Hydrologically Disturbed Area** or total **Impervious Area**;
  - b. Bridge and culvert modifications, repairs, and replacements;
  - c. Projects whose sole purpose is to install, repair or replace water, sewer and all underground or overhead utility lines within a public right of way or utility easement;
  - d. Stream restoration projects;
  - e. Restoration of natural areas;
  - f. **Wetland Mitigation Facilities** or **Banks**; and
  - g. Flood-relief projects.
4. The **Administrator** may waive the requirements of Table 9-81 and approve a **Fee-In-Lieu** of **Stormwater Management Measures** if the following conditions are met:

- a. The **Development** will not increase peak discharges from the **Site**, nor change the existing conveyance of off-site flow:
  - (1) If the **Development** produces increased **Runoff** to a **Volume Sensitive Watershed**, fee-in-lieu may be allowed if it discharges to an **Outfall** in accordance with Subsection 9-83.B.1;
  - (2) If the **Development** produces increased **Runoff** to a **Volume Sensitive Watershed** and it does not discharge to an **Outfall** in accordance with Subsection 9-83.B.1, then:
    - (a) The **Applicant** shall be required to rebuild the **Outfall** in accordance with Subsection 9-83.B.1 before approval of fee-in-lieu; or
    - (b) The cost to rebuild the **Outfall** in accordance with Subsection 9-83.B.1 shall be included in the assessed fee.
- b. The **Development** provides a **Net Benefit in Water Quality** compared to the existing conditions;
- c. The **Administrator** may waive the requirements of Subsection 9-81.B.3.a. if the **Development** discharges directly to a perennial stream or river and will not cause an **Adverse Hydraulic Impact**.

## 9-82 GENERAL STORMWATER REQUIREMENTS

### A. No **Development** shall:

1. Result in any new or additional expense to any person other than the **Developer** for flood protection; or
2. Increase water surface elevations or decrease conveyance capacity upstream or downstream of the **Site**.

### B. Analysis and design of all **Stormwater Management Measures** required for a **Development** shall:

1. Comply with the standards and criteria established in any applicable **Watershed Plan** or **Interim Watershed Plan**; and
2. Ensure that the **Site** is reasonably safe from flooding.

**Stormwater Management Measures** shall be **Functional** where practicable

before a building permit is issued for any other construction on a **Site** and all of its **Parcels**.

C. The design of any **Development** shall incorporate the following specific planning principles:

1. **Impervious Areas** are the minimum necessary to satisfy the intended design function. Where requirements of zoning ordinances conflict with this principle, consideration has been given to asking for a zoning variance.
2. Where feasible, allow sufficient right-of-way and easement widths so that stormwater **Runoff** may be conveyed in vegetated swales. Storm sewers may be used for conveyance of **Nuisance Flows** and where conveyance in vegetated swales is impractical.
3. Existing **Open Channels** have been preserved and incorporated into the design.
4. **BMPs** have been used in the **Site** drainage plan to reduce the volume of stormwater runoff and the quantity of runoff pollutants.
5. **Wetlands** have been avoided, preserved or enhanced.

## 9-83 SITE RUNOFF REQUIREMENTS

A. The location of the existing **Outfall** from the **Site** prior to **Development** is maintained (unless approved in writing by the **Administrator**) and in a manner so as not to cause an **Adverse Hydraulic Impact** downstream. Concentrated discharges from new **Developments** must enter conveyance systems capable of carrying the design flow rate without increasing **Flood** elevations, damage, inundation depths or duration, **Erosion** or maintenance costs to upstream, downstream, or adjacent properties.

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

1. Off-Site Outfall: Surface drainage, **Major** and **Minor Stormwater Systems** and **Subsurface Drainage Systems** shall be evaluated with regard to their capacity and capability to convey **Nuisance Flows** and the **Detention Storage Facility** release without damage to downstream **Structures** and land. The off-site **Outfall** shall be evaluated to the nearest **Open Channel**. If the **Outfall** is located within a publicly owned storm drainage system, it shall be evaluated to the downstream location directed by the **Administrator**. The following provisions shall apply:
  - a. The **Applicant** or **Developer** shall notify adjoining, downstream property owners in writing of any proposed modifications to stormwater outlet locations and designs.

- b. Discharges from **Outfalls** to downstream agricultural surface drainage systems and steep slope zones (examples are provided in the **Technical Manual**) with no base flow must be conveyed 100% underground within forty-eight (48) hours after a storm event up to and including the one percent (1%) chance storm event.
- c. Off-site **Outfalls** shall be located within a public right-of-way or dedicated easement and marked on the **Record Drawings**. The easement language shall clearly define the individual or entity responsible for long term maintenance.
- d. Discharge from **Outfalls** to **Volume Sensitive Watersheds** shall not increase **Flood** elevations and shall mitigate for any additional volume produced to ensure the **Flood** duration is not increased.
- e. Off-site **Agricultural Subsurface Drainage Systems** shall not be used for surface water discharges including the discharge from the **Control Structure** or **Nuisance Flows** discharges, but may be used for **Stormwater Mitigation/BMP** underdrains in accordance with **Reasonable Use**:
  - (1) The capacity of such systems shall be the lesser of the existing downstream capacity or three thousandths of a cubic foot per second per acre of **Tributary Area** (0.003 cfs/acre) to the **Agricultural Subsurface Drainage System**;
  - (2) Nonagricultural **Subsurface Drainage Systems** may be used for **Nuisance Flows** with the approval of the **Permitting Authority** or owner of the **Subsurface Drainage System**;
  - (3) **Nuisance Flows** must be conveyed in a storm sewer to an **Open Channel** or publicly owned storm drainage system with approval by the **Permitting Authority** if a nonagricultural **Subsurface Drainage System** is not available; and
  - (4) Off-site **Agricultural Subsurface Drainage Systems** may be used for surface water discharges including the discharge from the **Control Structure** or **Nuisance Flows** discharges if there is an agreement between the **Applicant** and the downstream **Owner** specific to capacity and long term maintenance and that agreement is recorded with the property and on a plat.
- f. If an off-site **Outfall** is required to be constructed and the downstream property owner refuses to grant access across his or her property, and



construction within a right-of-way or alternate route is not feasible or reasonable, the **Applicant** shall provide the **Administrator** a two (2) year post-development security for the engineer's estimate of probable construction cost for the off-site **Outfall** plus a ten percent (10%) contingency. If the downstream property owner has not granted access for construction of the improvements within two (2) years following completion of the **Development**, the **Administrator** shall release the security.

- g. The **Applicant** shall consider coordinating with adjacent property owners that may develop within the same **Tributary Area** to design and construct a mutually beneficial stormwater management improvement to meet the requirements of this Chapter. Maintenance, construction costs, and responsibilities for the improvement shall be coordinated between the owners by an agreement.
- h. Contributions to a recapture fund shall be considered by the **Certified Community** for **Developments** occurring without an off-site **Outfall** that meets the provisions of this Section in an effort to establish the means to construct a mutually beneficial stormwater system.
- i. Permit applications are required to be submitted for a fifteen (15) business day review to the following entities prior to issuance of a **Stormwater Management Permit**:
  - (1) **Drainage Districts**, if the **Development** discharges to a drainage facility owned and maintained by an active **Drainage District** within the County; or
  - (2) Downstream municipalities (including unincorporated Kane County), if the **Development** discharges outside of the municipal boundary of the **Certified Community** issuing the permit.

2. On-Site Drainage Systems: **Agricultural Subsurface Drainage Systems** and other **Subsurface Drainage Systems** shall be evaluated in accordance with Article II of this Chapter and the following provisions:

- a. A **Subsurface Drainage Survey** shall be conducted to locate existing farm and storm drain tiles by means of slit trenching or other appropriate methods performed by a qualified subsurface drainage consultant. Any **Subsurface Drainage System** damaged during investigation shall be repaired to its previous working status. A **Subsurface Drainage Survey** shall include the following as applicable on a topographic map:

- (1) The location of each slit trench identified to correspond with the investigation report and field staked at no less than fifty (50) foot intervals;
  - (2) The location of each drain tile with a flow direction arrow, tile size and any connection to adjoining properties;
  - (3) A summary of the investigation report showing trench identification number, tile size, material and quality, percentage of tile filled with water, percentage of restrictions caused by **Sedimentation**, depth of ground cover and working status; and
  - (4) The name, address, phone number and qualifications of the person or consultant responsible for the **Subsurface Drainage Survey**.
- b. Information collected during the **Subsurface Drainage Survey** shall be used as part of the design and construction of a stormwater management system that meets the requirements of this Chapter. The **County's** standard **Subsurface Drainage System** notes (refer to the Technical Guidance Manual) shall be included on the plans. **Subsurface Drainage Systems** that service a single **Site** may be excused from this requirement upon approval from the **Administrator**.
- c. The **Administrator** may accept a drain tile map prepared by a **Drainage District** or other reliable source in lieu of a **Subsurface Drainage Survey**. The survey requirement shall be waived by the **Administrator** for any **Development** with less than 5,000 sq. ft. of **Net New Impervious Area**. The **Administrator** may waive the survey requirement for other **Development**, provided the **Applicant** submits a narrative and supporting evidence indicating to the satisfaction of the **Administrator** that **Subsurface Drainage Systems** are not likely present within the **Development**. This evidence may consist of:
- (1) Soil maps;
  - (2) Historic aerial photographs;
  - (3) Historic topographic maps; and
  - (4) Wetland maps.
- d. **Subsurface Drainage Systems** found on-site during design or construction of the **Development** shall be replaced and incorporated into the new **Minor Stormwater System** or **Subsurface Drainage System**. The system or bypass shall be of an equivalent size and

capacity. The capacity shall be determined by either the capacity of the existing tile flowing full, in its original condition, or the existing downstream capacity, whichever is more restrictive. A flow **Restrictor** shall be required as necessary to achieve the existing discharge requirements.

- e. All existing on-site **Agricultural Subsurface Drainage Systems** not serving a beneficial use shall be abandoned in their entirety by trench removal prior to **Development** and recorded on **Record Drawings**. If any existing system continues to serve adjacent properties, the **Applicant** or his or her representative must maintain drainage service during construction until new storm sewers or a **Maintainable Outlet** can be installed for a permanent connection.

3. Off-Site Tributary: Existing drainage systems shall be evaluated with regard to existing capabilities and reasonable future expansion capacities of upstream properties. The following provisions shall apply:

- a. All existing tributary **Subsurface Drainage Systems** shall be incorporated into the new **Minor Stormwater System** or **Subsurface Drainage System** including **Observation Structures** located at the limits of the **Site**. Maintenance access shall be provided through an easement;
- b. Subsurface connections serving off-site **Tributary Areas** shall have a free flow discharge into the drainage system within the **Development**, where practical, and shall not be subject to head pressure within the storm sewer or surcharge resulting from fluctuating water elevations in a **Detention Storage Facility**;
- c. Sizing of subsurface connections for off-site **Tributary Areas** shall be based upon the established sizing chart published as part of Illinois Drainage Law to allow for reasonable future subsurface drainage improvements to occur on upstream, tributary farms. A drainage coefficient of three-eighth inches per day (3/8 in/day) shall be assumed for plastic tubing;
- d. The **Applicant** or his or her representative shall consult with the upstream land owner regarding plans for future stormwater improvements. The **Applicant** or the representative shall provide documentation showing consultation with the upstream owner regarding future drainage improvements; and
- e. Tributary surface conveyance from **Agricultural Land** shall be accepted by the new **Development** with design consideration given to the natural amount of **Erosion**, sediment and farm debris present in

agricultural runoff. Highly erodible land in agricultural production shall maintain agricultural Best Management Practices in accordance with **NRCS** conservation guidelines and standards. The following provisions shall apply:

- (1) The **Applicant** shall work with the **Agricultural Land** owners to develop a means for a maintainable system, such as a **Sedimentation Trap**. The proposed system may be provided on the **Site** or the upstream agricultural property;
- (2) If a maintainable system is not provided then the tributary surface conveyance from **Agricultural Land** shall bypass the **Major** and **Minor Stormwater System** and **Detention Storage Facility** within the **Development**;
- (3) Upstream surface agricultural flows shall be conveyed through the **Development** within a public right-of-way, outlot, or other commonly owned property. It shall not be conveyed in a drainage easement located on a private, residential property; and
- (4) Maintenance costs and responsibility for this system shall be included in the long-term maintenance plan in accordance with Article IX for the **Development**.

4. Preservation of Existing Systems: New roadway construction shall preserve existing **Subsurface Drainage Systems** within the right-of-way. **Observation Structures** shall be placed at the right-of-way and **Subsurface Drainage Systems** found not to be flowing between structures at the end of construction shall be replaced if damaged.

- C. **Minor Stormwater Systems** shall be sized to convey **Runoff** from the tributary **Watershed** under fully developed conditions consistent with the design requirements of the **Permitting Authority**.
- D. **Major Stormwater Systems** shall be sized to carry the storm with a one percent (1%) chance of occurrence in any one year without causing additional **Flood** damage.
- E. **Major** and **Minor Stormwater Systems** shall be located within easements or rights-of-way explicitly providing for public access or maintenance of such facilities.
- F. All **Developments** shall have an **Overland Flow Path** to the downstream limit of the **Site** that will pass flow from the storm with a one percent chance (1%) of occurrence in any one year without increasing **Flood** damage. If the upstream **Drainage Area** is less than twenty (20) acres, a storm sewer pipe and inlet sized

for the storm with a one percent (1%) chance of occurrence in any one year may be constructed in lieu of providing an **Overland Flow Path**. **Overland Flow Paths** internal to the **Site** shall be considered part of the **Major Stormwater System** and shall be designed for conveyance of a minimum of one cubic foot per second per tributary acre (1 cfs/acre) without damage to **Structures**. All **Structures** adjacent to an **Overland Flow Path** shall comply with the building protection standards of Section 9-139.

- G. Design runoff rates shall be calculated using the event hydrograph methods and the assumptions contained in Subsection 9-84.C of this Article. Design runoff rates for minor conveyance systems may be calculated using the rational method if the tributary **Watershed** is less than twenty (20) acres.
- H. Any design runoff rate calculation method shall use **Bulletin 70** northeast sectional rainfall statistics and shall calculate flow from all **Tributary Areas** upstream of the point of design. Peak discharges for conveyance design purposes shall be based on the one percent (1%) **Critical Duration** considering the appropriate rainfall distribution.
- I. Maximum flow depths for new transverse stream crossings shall not exceed one foot (1') at the crown of the road during the storm with a one percent (1%) chance of occurrence in any one year. The maximum flow depth on a roadway shall not exceed six inches (6") at the crown for flow parallel to the roadway. For flow over a roadway or parallel to a roadway the product of the flow depth (in feet) and velocity (in feet per second) shall not exceed four (4) for the storm with a one percent (1%) chance of occurrence in any one year.
- J. Transfers of waters between **Watersheds** (diversions) shall be prohibited except when such transfers will not violate the provisions of Subsection 9-82.A and are otherwise lawful. **Watersheds** for the purposes of this Section shall be the major **Watershed** divides shown in Appendix A.
- K. Building protection standards shall be in accordance with Section 9-139.

## 9-84 DETENTION STORAGE FACILITY REQUIREMENTS

- A. The onsite **Hydrologically Disturbed Area**, area of land cover disturbance, or a combination thereof, whichever encompasses the greatest area of the **Site**, shall be used to calculate the required detention storage volume. The **Tributary Area** at the point of discharge shall be used to calculate the **Allowable Release Rate** of the restrictor for the **Detention Storage Facility**.
- B. Absent any applicable **Watershed Plan** or **Interim Watershed Plan**, sufficient detention storage shall be provided such that the probability of the post-development release rate exceeding 0.1 cubic foot per second per acre of **Development** shall be less than one percent (1%) per year.

1. For **Sites** where the undeveloped release rate is less than 0.1 cubic feet per second per acre, the developed release rate and corresponding detention storage volume shall be based on the existing undeveloped release rate for the **Site**.
  2. The **Applicant** shall demonstrate the **Allowable Release Rate** from the **Site**, considering all **Upstream Tributary Flows**, is less than the existing conditions flows from the one percent (1%) **Critical Duration Design Storm**.
  3. The **Administrator** may allow a higher release rate to accommodate the minimum **Restrictor** size specified in Subsection 9-84.I provided that the **Applicant** demonstrates there are no adverse impacts.
- C. **Runoff** volumes shall be calculated using event hydrograph methods (such as EPA-SWMM, HEC-1, HEC-HMS, TR-20, TR-55 or other tabular methods using SCS curve number methodology as approved by the **Administrator**). Event methods shall incorporate the following assumptions:
1. Antecedent moisture condition equals two (2);
  2. Appropriate Huff rainfall distribution except that SCS type II distribution is acceptable with TR-55 tabular method only; and
  3. Twenty four (24) hour duration for the storm with a one percent (1%) probability of occurrence in any one year as specified by **Bulletin 70** northeast sectional rainfall statistics.
- D. When **Depressional Storage** is present on-site, detention storage volume shall be provided in accordance with Subsections 9-84.A and 9-84.B. A volume equivalent to any filled **Depressional Storage** shall be provided between the high-water elevation and the elevation of the **Emergency Overflow** at a one-to-one (1:1) ratio. The **Emergency Overflow** shall be designed and sized in accordance with Subsection 9-84.G.
- E. If there is additional on-site or off-site **Tributary Area** to the **Detention Storage Facility** that is routed to the basin, but is not hydrologically disturbed or is off-site to the **Development**, then:
1. Detention volume shall be provided for the **Development** according to Subsections 9-84.A and 9-84.B when there is no **Depressional Storage** on-site. The **Restrictor** shall be sized independently for a release rate of 0.1 cubic feet per second per acre for the total **Tributary Area** to the **Detention Storage Facility** using the computed high-water elevation and assuming appropriate tailwater considerations. The normal water level shall be designed to establish the design head on the reservoir side of the **Restrictor**. The **Emergency**

**Overflow** shall be sized to accommodate the **Upstream Tributary Flow** in accordance with Subsection 9-84.G. Two stage **Restrictors** shall be considered with large, off-site **Tributary Areas**.

2. **Sites** with **Upstream Tributary Flows** and **Depressional Storage** shall provide detention volume for the **Development** in accordance with Subsection 9-84.B and shall replace any lost **Depressional Storage** between the high-water elevation and the elevation of the **Emergency Overflow**. The **Restrictor** shall be sized independently using the high-water elevation used to replace the **Depressional Storage**, and the normal water elevation. The **Restrictor** is sized for a maximum release rate at the new high-water elevation for 0.1 cubic feet per second per acre for the total **Tributary Area**. An **Emergency Overflow** shall be sized to accommodate the **Upstream Tributary Flow** in accordance with Subsections 9-84.D and 9-84.G.
- F. **Nuisance Flows** shall be included when calculating the **Allowable Release Rate**. Any **Nuisance Flows** that are not routed through the **Detention Storage Facility** shall be added to the **Allowable Release Rate** assuming a rate of five (5) gallons per minute per structure with sump pumps for the first fifty structures, and assuming three (3) gallons per minute per structure for every structure thereafter.
- G. The **Detention Storage Facility** shall have an **Emergency Overflow** set at a minimum elevation required to contain the detention storage volume and any **Depressional Storage** volume in accordance with Subsection 9-84.D. The **Emergency Overflow** shall be sized to convey the flow from the **Allowable Release Rate** for the **Site** for the one percent (1%) **Critical Duration Design Storm**.
- H. Hydraulic computations for the release structure must assume appropriate backwater conditions considering the likelihood of concurrent flood events on the **Site** and receiving stream.
- I. **Restrictors** such as orifices, weirs and perforated risers shall be located within a **Control Structure** and be designed to prevent tampering and clogging and reduce the need for maintenance. The **Administrator** may adopt a minimum **Restrictor** policy so long as the policy does not have a minimum diameter greater than four (4) inches when a single pipe outlet or an orifice plate is used to restrict the outflow from a **Detention Storage Facility**. The **Administrator** may require a **Restrictor** less than four (4) inches in diameter if it is determined there will be adverse impacts to properties downstream or if it outlets to a **Volume Sensitive Watershed**.
- J. **Detention Storage Facilities** shall be designed such that:
1. A minimum **Freeboard** of one (1) foot is provided above the high-water elevation as determined by the flow over the **Emergency Overflow** according

to Subsection 9-84.G.

2. All design detention storage volume shall be provided above the **Seasonal High Groundwater Table** and the invert elevation of the **Restrictor**;
3. The impacts of stormwater **Runoff** on water quality are minimized by incorporating **BMPs** as described in Article V;
4. The distance between inlets and outlets is maximized to the extent possible;
5. **Sedimentation** and catchment of floating material is facilitated. Unless specifically approved by the **Administrator**, concrete lined low flow ditches shall not be used in **Detention Storage Facilities**;
6. The basin functions without human intervention under tailwater conditions assuming the tailwater conditions for the receiving stream is equal to the **Design Storm** event with a ten percent (10%) (10-year event) chance of being exceeded in any one year; and
7. Minimum maintenance is required and there is adequate access for maintenance equipment.

K. **Detention Storage Facilities** located within the **Regulatory Floodplain** shall:

1. Comply with Article VI of this Chapter;
2. Store the required amount of detention volume to meet the **Allowable Release Rate** under all stream flow and tailwater conditions up to the **Design Storm** event with a ten percent (10%) (10-year event) chance of being exceeded in any one year **Flood** elevation on the adjacent receiving watercourse. 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 set forth in this Subsection; and
3. Provide **Compensatory Storage** in accordance with Section 9-141.

L. Detention volume provided by enlarging existing **Regulatory Floodplain** storage (an on-stream **Detention Storage Facility**) shall be allowed only as a **Watershed Benefit Measure**.

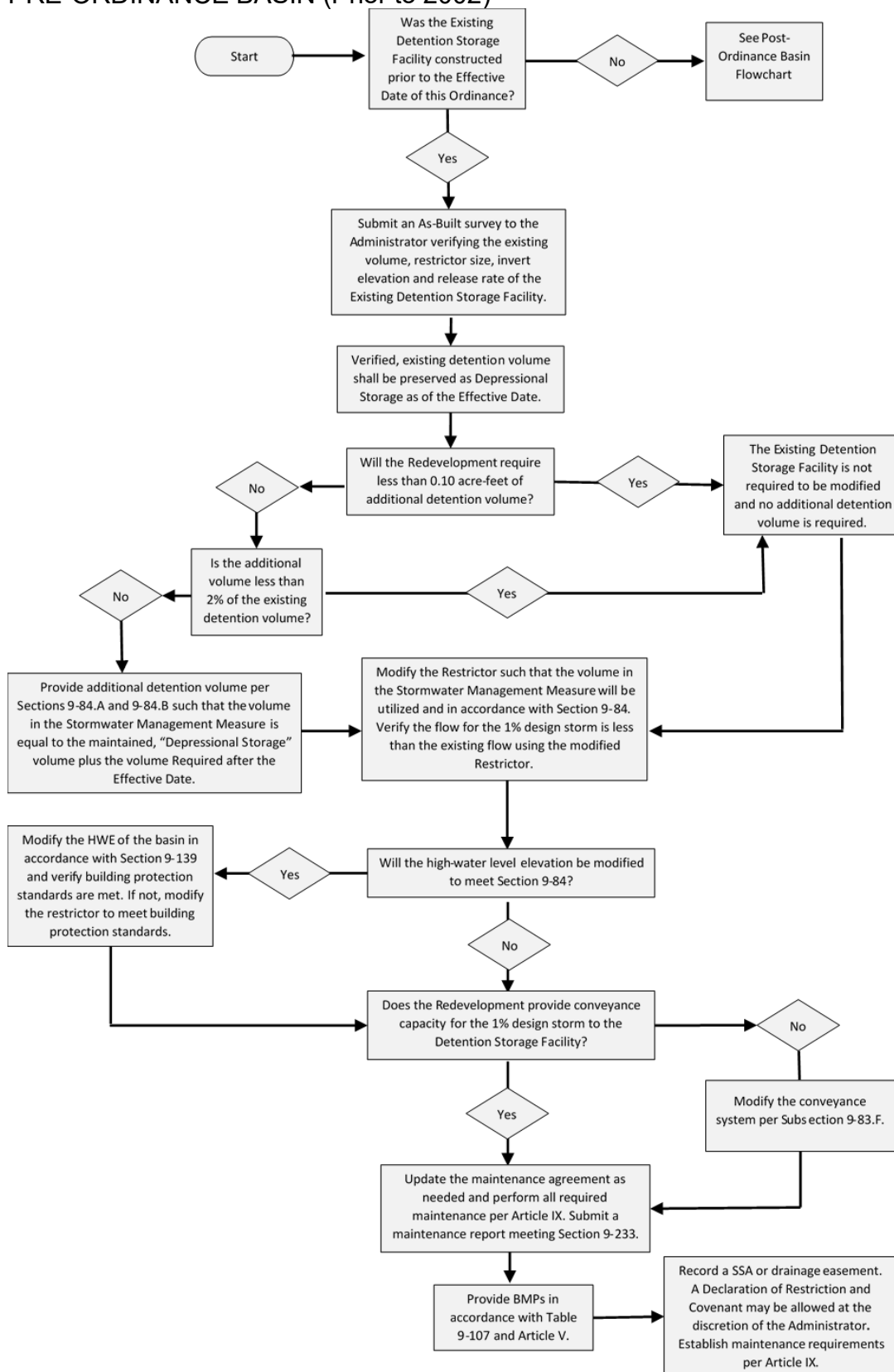
M. **Detention Storage Facilities** may be located off-site if:

1. The off-site storage facility meets all the requirements of this Article;
2. Adequate storage capacity in the off-site facility is dedicated to the **Development**; and

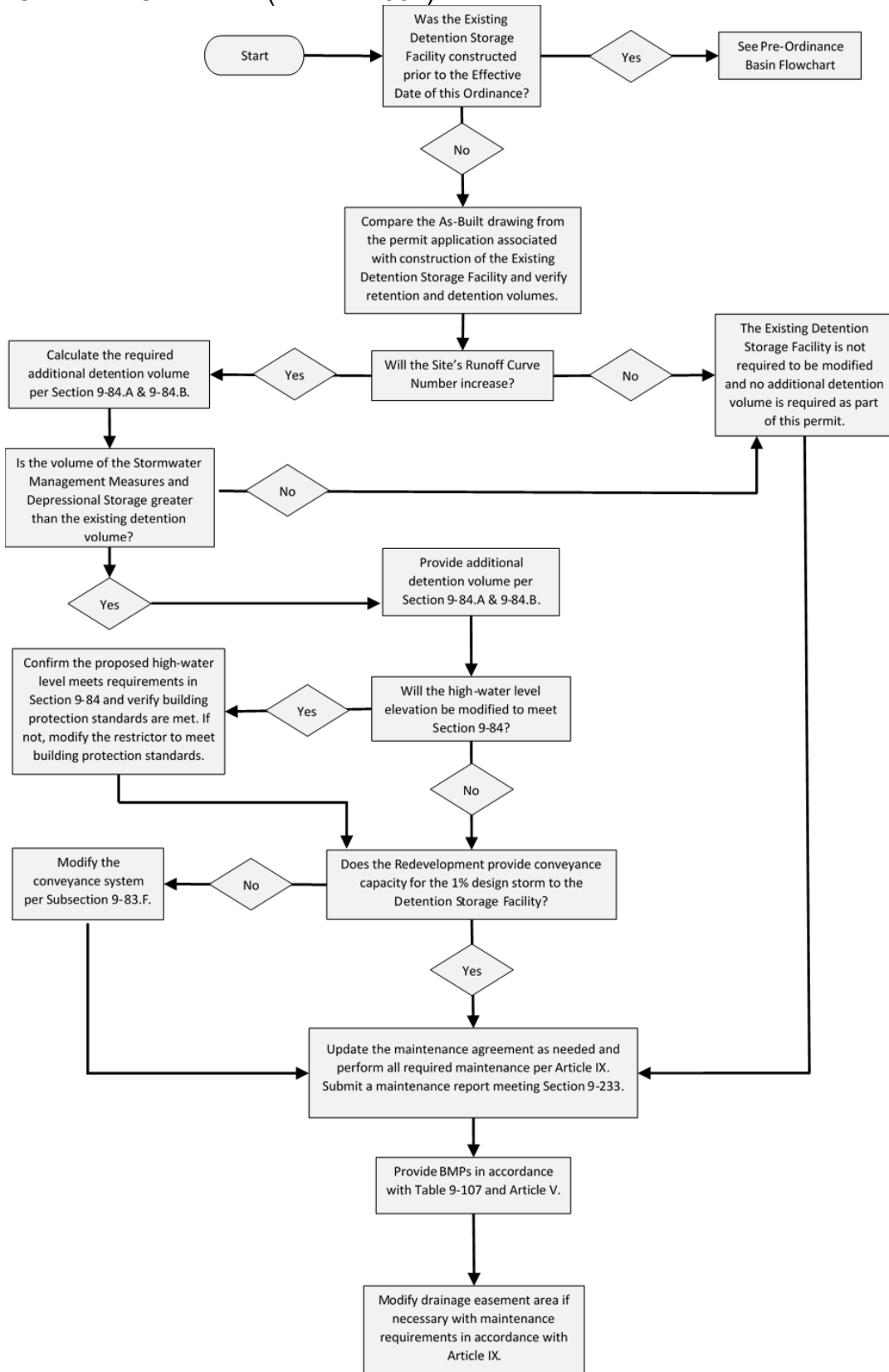


3. The **Development** includes means to convey the one percent (1%) chance **Design Storm** to the off-site storage facility.
- N. **Detention Storage Facilities for Redevelopment** shall be designed and constructed according to Table 9-84.A and Table 9-84.B with the following characteristics:
1. The required total detention volume for the **Site** shall not be less than the existing volume of the existing **Detention Storage Facility** at the time of application, regardless of the provisions of this Section;
  2. Incidental disturbance to an existing **Detention Storage Facility** to provide new required detention volume will not be counted as part of the **Hydrologically Disturbed Area**;
  3. The **Redevelopment** provides **Stormwater Mitigation/BMPs** in accordance with Section 9-137, Table 9-81 and Article V; and
  4. The **Redevelopment** provides adequate capacity to convey stormwater **Runoff** to the existing **Detention Storage Facility** for all storms up to and including the one percent (1%) **Design Storm**.
- O. Structures built across the **Channel** to impound water to meet detention storage requirements shall be prohibited on any perennial stream (i.e. has continuous flow) 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 to be perennial unless better data is provided by the **Developer**. In all cases it must be demonstrated that all such structures will not cause short term or long-term stream instability. Where such facilities are approved the **Applicant** must also comply with Article VI of this Chapter and obtain an **IDNR-OWR Dam Safety Permit** or letter stating no permit is required prior to the start of such activity.
- P. All **Structures** adjacent to a **Detention Storage Facility** shall comply with the building protection standards of Section 9-139.
- Q. **Record Drawings** shall be provided for every **Detention Storage Facility** and shall indicate the as-constructed volume and utility information, including the **Control Structure**.
- R. Maintenance costs and responsibility for every **Detention Storage Facility** shall be included in the long-term maintenance plan submitted as part of the **Stormwater Management Permit** for the **Development**.

**TABLE 9-84.A**  
**PRE-ORDINANCE BASIN (Prior to 2002)**



**TABLE 9-84.B**  
 POST-ORDINANCE BASIN (After to 2002)



## 9-85 FEE-IN-LIEU OF STORMWATER MANAGEMENT MEASURES

- A. The **Administrator** may require, or in the limited circumstances prescribed in Article IV of this chapter an **Applicant** may request approval of, the payment of a **Fee-In-Lieu of Stormwater Management Measures**. The fee-in-lieu shall be the greater of:
1. The sum of the fee for each acre-foot or part thereof of detention volume otherwise required as computed under a schedule adopted for such purpose by the **Permitting Authority**, the fee for each cubic-foot or part thereof of **BMP** storage otherwise required as computed under a schedule adopted for such purpose by the **Permitting Authority**, and the engineer's opinion of probable cost of off-site **Major, Minor or Subsurface Drainage System**; or
  2. The engineer's opinion of probable cost of otherwise providing the required **Stormwater Management Measure** and the verifiable off-site **Major, Minor or Subsurface Drainage System**, including the value of the land required and all construction costs. For this purpose, the land required shall be valued according to the use to which it will ultimately be put if not used to provide the required **Stormwater Management Measure**.

## 9-86 STORMWATER SUBMITTAL

The stormwater submittal shall include a narrative discussion and calculations to support a finding by a **Professional Engineer** that the proposed **Development** complies with the technical requirements of this Article. The submittal shall consist, at a minimum, of the following materials:

- A. A narrative description of the existing and proposed **Site** drainage patterns and conditions and include a description of off-site conditions which help to identify stormwater considerations in the design;
- B. A schedule for implementation of the **Site's** stormwater management plan;
- C. On-site and off-site **Runoff** calculations that address the following:
  1. Documentation of the procedures and assumptions used to calculate hydrologic and hydraulic conditions for sizing **Major Stormwater Systems** and **Minor Stormwater Systems**;
  2. Cross section data for **Open Channels**;
  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. Detention storage calculations, which address the following:

1. Calculation of existing **Impervious Areas**, **New Impervious Areas**, and **Net New Impervious Areas**;
2. Documentation of the procedures and assumptions used to calculate hydrologic and hydraulic conditions for determining the **Allowable Release Rate**;
3. Documentation of the procedures and assumptions used to calculate on-site **Depressional Storage**;
4. Documentation of the procedures and assumptions used to calculate hydrologic and hydraulic conditions for determining the detention storage volume;
5. Elevation and storage data and calculations for detention volume; and
6. Elevation and discharge data and calculations specifically related to the **Restrictor** depicted in the engineering drawings.

**9-87 - 9-106 RESERVED**

# ARTICLE V—REQUIREMENTS FOR STORMWATER MITIGATION / BEST MANAGEMENT PRACTICES (BMPS) AND WATERSHED BENEFIT MEASURES

## 9-107 REQUIREMENTS FOR STORMWATER MITIGATION / BMPS

- A. All **Development** and **Redevelopment** shall meet the requirements of Sections 9-82 and 9-83 and Articles III and VI of this Chapter.
- B. **Stormwater Mitigation/BMPs** shall be required for all **Developments** and **Redevelopments** in accordance with Table 9-107.

**TABLE 9-107**  
REQUIREMENTS FOR STORMWATER MITIGATION/BEST MANAGEMENT PRACTICES (BMPS)

Development Category	New Impervious Area for Development or Net New Impervious Area for Redevelopment	Stormwater Mitigation / BMP		Fee-in-Lieu <sup>2</sup> (Section)
		Category I (Section)	Category II (Section)	
Development or Redevelopment	< 5,000 sq.ft.	X <sup>1</sup> (9-107.C)		A (9-85)
	5,000 sq.ft. – 24,999 sq.ft.	X (9-107.C)		A (9-85)
	≥ 25,000 sq.ft. AND < 1% Site area		X (9-107.D)	A (9-85)
	≥ 25,000 sq.ft. AND ≥ 1% Site area		X (9-107.D)	A (9-85)
Linear Project (Trails/Roads)	> 1-acre in aggregate for roads and trails that are ≤ AASHTO max. width	X (9-107.C)		A (9-85)
	> 1-acre in aggregate for roads and trails that are > AASHTO max. width		X (9-107.D)	A (9-85)
Total Impervious Area > 50% Site area (for Sites < 1-acre)		X (9-107.C)		A (9-85)
Hydrologically Disturbed Area > 3-acres			X (9-107.D)	A (9-85)

X = Required; A = Allowed

<sup>1</sup>Required at the discretion of the **Administrator** where known flooding or drainage issues are in the immediate vicinity of the project, in areas without **Adequate Downstream Stormwater Capacity**, or that outlet to a **Volume Sensitive Watershed**.

<sup>2</sup>Fee-in-lieu requires approval of the **Administrator** and compliance with the requirement listed under Subsection 9-81.B.4.

- C. Category I **BMPs** shall provide **Volume Reduction** and **Water Quality Treatment** of one-inch (1.0") of rainfall over the **New Impervious Area**. The required **Volume Reduction** shall be calculated as the product of the **New Impervious Area** and a one-inch (1.0") rainfall event with no abstractions.
- D. Category II **BMPs** shall provide **Volume Reduction** and **Water Quality Treatment** of the required **Volume Reduction**. The required **Volume Reduction** shall be:
1. Calculated as the product of the **New Impervious Area** and a one-inch (1.0") rainfall event with no abstractions; or
  2. Calculated via continuous simulation so that the post-development infiltration volume shall match ninety percent (90%) of the pre-development infiltration volume, based on the **Average Annual Rainfall**.
- E. The **Applicant** shall identify the pollutants of concern that may be generated by the **Development** or **Redevelopment** and select **BMPs** that address those pollutants. **BMPs** shall provide both **Water Quality Treatment** and **Runoff Volume Reduction** unless no pollutants are identified, then **Applicant** may provide a **BMP** that provides **Volume Reduction** only.
- F. Pretreatment shall be required for **Runoff** from non-permeable parking lots or roadway areas that will enter an infiltration-based **BMP**.
1. The pretreatment shall be designed to treat one-inch (1.0") of rainfall over the **New Impervious Areas** tributary to the infiltration-based **BMP** to protect it from clogging prior to scheduled maintenance and to protect **Groundwater** quality;
  2. Pretreatment options include: manufactured **BMPs** such as hydrodynamic separators, biofiltration, vegetated swales, filter strips, or other pretreatment **BMPs**, upon approval by the **Administrator**;
  3. For manufactured **BMPs**, pollutant removal rates shall be 80% removal of hydrocarbons and Total Suspended Solids (TSS), with the TSS being defined as the OK110 Particle Size Distribution (PSD).
- G. Infiltration-based **BMPs** are prohibited on **Sites** where:
1. Fueling and vehicle maintenance areas are tributary to the **BMP**;
  2. **Commercial**, industrial and institutional land uses are tributary to the **BMP** within 400 feet of a known **Community** water system well, or within 100 feet of a known private well. The **Applicant** shall identify such zones from available information sources, which include the Illinois State Water Survey, IEPA, USEPA, Kane County Health Department and the local municipality or water agency;

3. Contaminants of concern, as identified by the USEPA or the IEPA prior to **Development**, are present in the soil through which infiltration would occur. For sites with a No Further Remediation (NFR) letter from the USEPA or IEPA, the **Applicant** shall determine whether or not structural barriers are part of the **Mitigation** strategy and account for such measures in the design;
  4. Soils on-site that are classified entirely as Hydrologic Soils Group A by the **NRCS** through which rapid infiltration would occur and alternate locations on-site where more suitable soils are present are not practical;
  5. Soils on-site through which infiltration would occur are proven to have low permeability that are not conducive for infiltration-based **BMPs** and alternate locations on-site where soil permeability is conducive for infiltration-based **BMPs** are not practical; and
  6. The **Seasonally High Groundwater Table** is within two feet (2') of the surface where infiltration would occur.
- H. **Developments** and **Redevelopments** that are prohibited from providing on-site infiltration-based **BMPs** shall provide **BMPs** within a native vegetated **Detention Storage Facility** or the following:
1. Treatment of one-inch (1.0") for all **New Impervious Areas** within a pretreatment practice identified within Subsection 9-107.F; and
  2. A payment of a fee in lieu of providing **Stormwater Management Measures** in accordance with Section 9-85.
- I. **Developments** and **Redevelopments** that provide **Volume Reduction** are eligible to receive credit for detention storage provided the calculated volume is infiltrated and/or evapotranspired in no less than one (1) day or no greater than five (5) days of the storm event. The Potential Average Daily Evapotranspiration Rate shall be one-tenth inch per day (0.1 in/day), the **Applicant** may provide site specific calculations to prove an evapotranspiration rate that is different than one-tenth inch per day (0.1 in/day) for review and approval by the **Administrator**. The **Applicant** must document that:
1. The infiltration capacity of the subgrade soils of areas where **BMPs** are proposed are suitable for the intended **BMP**. This shall be verified by an appropriate geotechnical investigation. An opinion of the soils suitability shall be provided by a **Professional Engineer** or soil scientist. Verification of soil conditions prior to placement of subsurface storage material or **Topsoil** may be required by the **Administrator**. Final approval is at the sole discretion of the **Administrator**; or



2. That **Subsurface Drainage Systems** and flow control orifices or weirs are incorporated into the design of **BMPs** to meet this requirement.
- J. Detention storage credit shall be:
1. The volume of the ponding zone provided it is no greater than twenty-four inches (24") in depth; and
  2. The volume of the expected void space (typically no greater than 36%) within the uniformly graded stone, aggregate or sand layer of the **BMP**. Particles less than 1/16 mm may not be used to complete this calculation. The design shall incorporate pretreatment measures to protect the void space from long term deposition of fine sediments. If testing is completed on samples of the proposed material which indicates a higher level of porosity, the **Applicant** may submit the analysis completed on the material along with the storage calculations.
- K. The **Applicant** may use the **Technical Manual** as a reference for the design.
- L. Native vegetated **BMPs** shall be planted with predominately native deep-rooted vegetation and a **BMP** planting plan shall be submitted in accordance with Section 9-110. Native vegetated **BMPs** shall be appropriately managed and maintained in accordance with Section 9-109.

## 9-108 REQUIREMENTS FOR WATERSHED BENEFIT MEASURES

- A. For **Developments** for which the **Administrator** has approved a **Watershed Benefit Measure** per Table 9-81, a **Natural Resources Conservation Services (NRCS)** Conservation Practice, or other approved practice, may be provided in lieu of the required **Detention Storage Facility** and **BMP**, provided:
1. There are no adverse impacts upstream or downstream of the **Development**;
  2. The measure provides a benefit to the overall **Watershed** via **Runoff** reduction, increased storage volume, or water quality improvement that meets or exceeds the benefits provided by the minimum requirements of this Chapter;
  3. The design considers the guidance provided in the **NRCS** Conservation Practices technical guides;
  4. The proposed **Watershed Benefit Measure** meets the other requirements of this Chapter;
  5. The **Watershed Benefit Measure** is not a permit requirement under Article VI **Flood Hazard Area** or Article VII **Wetland**; and
  6. The **Watershed Benefit Measure** is not required by the Department of

Agriculture as part of a conservation plan in accordance with Food Security Act.

- B. For storage-based **Watershed Benefit Measures**, the quantifiable storage provided shall meet or exceed the sum of the calculated volume required in the **Detention Storage Facility** and the **Volume Reduction** required in the **BMP** for the **Development** or **Redevelopment**.
1. The **Detention Storage Facility** volume required may be calculated using the simple methodology outlined in Investigation of Hydrologic Methods for **Site** Design in Northeastern Illinois (Dreher and Price, 1991).
  2. Creation of **Floodplain** storage shall occur between the ten percent (10%) and one percent (1%) probability storms and shall be designed to drain freely and openly to the **Channel**.
  3. Vegetated areas of storage-based **Watershed Benefit Measures** may continue to be in agricultural production if they have been in production within the past five (5) years or maintained as turf or landscape areas if they have been so as of the **Effective Date** of this ordinance or previously permitted.
  4. Vegetated areas of storage-based **Watershed Benefit Measures** that do not meet Subsection 9-108.B.3 shall be planted with predominately native deep-rooted vegetation and a planting plan shall be submitted in accordance with Subsection 9-110.A.1.e and 9-110.A.4. These areas shall be appropriately managed and maintained in accordance with Section 9-109.
- C. For water quality **Watershed Benefit Measures** such as edge of field nitrogen removal practices like bioreactors or saturated **Buffers**, the quantifiable treatment acreage shall meet or exceed the twenty-four (24) hour – one percent (1%) probability flow rate of the **Development** or **Redevelopment**.
1. Peak discharge from the **New Impervious Area** shall be calculated according to the following equation:

$$Q = c * i * A$$

Where:

c = rational method coefficient = 0.95 for impervious surfaces

i = intensity of the twenty-four (24) hour – one percent (1%) probability storm event = 0.3571 inches per hour (in/hr)

A = area of new impervious surfaces in acres

Q = peak discharge in cubic feet per second (cfs)

2. Peak Discharge shall be converted to an equivalent **Drainage Area** over a twenty-four (24) hour period according to the following equation:

$$A_{eq} = Q * \left(86,400 \frac{seconds}{day}\right) * \left(\frac{1 acre}{43,560 ft^2}\right) * \left(\frac{12 inches}{foot}\right) \div (C_{drainage})$$

Where:

Q = peak discharge in cubic feet per second (cfs)

C<sub>drainage</sub> = drainage coefficient = 3/8 inches per day (in/day)

A<sub>eq</sub> = equivalent **Drainage Area** (acres)

3. Equivalent **Agricultural Subsurface Drainage System** pipe diameter for the required treatment area shall be calculated according to the following equation:

$$D_{eq} = \left[ \frac{(10.08 * n * Q)}{(1.49 * \pi * S^{0.5})} \right]^{3/8} * \left( \frac{12 inches}{1 foot} \right)$$

Where:

n = Manning's coefficient for corrugated plastic pipe = 0.019

Q = peak discharge in cubic feet per second (cfs)

S = assumed drain tile slope = 0.001 foot per foot (ft/ft)

D<sub>eq</sub> = equivalent pipe diameter in inches (in). Fractions of equivalent pipe diameter shall be rounded to typical pipe sizes.

- D. For linear **Watershed Benefit Measures** such as (re)establishment of **Buffers** or grassed waterways:

1. The required square footage for linear **Watershed Benefit Measures** shall equal or exceed the square footage required for a **Detention Storage Facility** determined using the simple methodology outlined in Investigation of Hydrologic Methods for Site Design in Northeastern Illinois (Dreher and Price, 1991) and actual **Site** conditions;
2. **Buffer** (re)establishment widths shall be required per Section 9-177; and
3. Vegetated areas of linear **Watershed Benefit Measures** shall be planted with predominately native deep-rooted vegetation and a planting plan shall be submitted in accordance with Subsection 9-110.A.1.e and 9-110.A.4. These areas shall be appropriately managed and maintained in accordance with Section 9-109.

- E. For **Watershed Benefit Measures** that construct or re-establish **Wetlands**:

1. The volume contained within the **Wetland** shall meet or exceed the calculated **Runoff** volume for the twenty-four (24) hours – four percent (4%) probability storm from the **Development** or **Redevelopment**;
2. The **Upstream Tributary Flow** to the **Wetland** shall be verified to ensure there is sufficient **Hydrology** to support the **Wetland** vegetation;
3. The design shall include provisions for **Sedimentation** and crop debris

management if the **Upstream Tributary Flow** contains cultivated fields; and

4. Vegetated areas of **Wetlands** shall be planted with predominately native deep-rooted vegetation and a planting plan shall be submitted in accordance with Subsection 9-110.A.1.e and 9-110.A.4. These areas shall be appropriately managed and maintained in accordance with Section 9-109.

- F. Other **Natural Resources Conservation Services (NRCS)** Conservation Practices may be considered under this Section with approval of the **Administrator**. Proposed practices other than those outlined above shall demonstrate that the proposed **Watershed Benefit Measure** provides a comparable volume, land area or cost that meets or exceeds the required **Detention Storage Facility** and **Volume Reduction**.

## **9-109 PERFORMANCE STANDARDS & MONITORING FOR STORMWATER MITIGATION/BMPS AND WATERSHED BENEFIT MEASURES**

A. Category I **BMPS**, shall:

1. Meet the following performance standards:
  - a. All proposed vegetated areas shall achieve eighty-five percent (85%) cover;
  - b. All proposed native vegetated areas shall not be dominated by or contain cumulatively more than twenty-five percent (25%) cover by non-native or invasive species;
2. Be maintained in accordance with Article IX of this Chapter, upon acceptance by the **Administrator**; and
3. Be recorded as Declaration of Restriction and Covenant that acknowledges the presence of **BMPS** on-site, the **Stormwater Management Permit** number, and any associated maintenance requirements.

B. All Category II **BMPS** and **Watershed Benefit Measures**, shall:

1. Meet the following performance standards:
  - a. All proposed vegetated areas shall achieve eighty-five percent (85%) cover;
  - b. All proposed native vegetated areas shall achieve a minimum **FQI** of ten (10) within the three (3) year monitoring period; and
  - c. All proposed native vegetated areas shall not be dominated or contain cumulatively more than ten percent (10%) cover by non-native or invasive

- species.
2. Be monitored and managed for three (3) years beginning on the day planting is completed;
  3. Be monitored via meander method or transect method in accordance with the procedures set forth in the current Chicago District protocol promulgated by **USACE**;
  4. Provide an annual report to the **Administrator** by February 15th of each year for every native vegetated **BMP** and **Watershed Benefit Measure** under permit;
  5. Make a request for the release of the performance security to the **Administrator** once the native vegetated **BMPs** and **Watershed Benefit Measures** meet the performance standards. A release of the performance security may be requested of the **Administrator** as early as the end of the second full growing season;
  6. Be maintained in accordance with Article IX of this Chapter at the end of the three (3) year monitoring and management period, or upon acceptance by the **Administrator**; and
  7. Be shown to be within an appropriate plat of easement that includes the **Stormwater Management Permit** number and any associated maintenance requirements.
- C. At the end of the required monitoring period, or upon an earlier request for the release of the performance security, the **Administrator** shall evaluate native vegetated Category II **BMPs** and **Watershed Benefit Measures** for compliance with the performance standards. The **Administrator** or **Administrator's** qualified wetland specialist may review the annual monitoring reports and/or perform a site visit to make this evaluation. If the **Administrator** determines that the native vegetated **BMP** and **Watershed Benefit Measures** meet the standards he shall release the performance security (this is not required for Category I **BMPs**). If the **Administrator** determines that the native vegetated **BMP** and **Watershed Benefit Measures** does not meet the standards he shall make an estimate of the probable cost of mitigating for the shortfall in performance. The **Administrator** shall reduce so much of the performance security to cash as is required to mitigate for the shortfall in performance and shall release the remainder. The amount withheld shall be deposited in the fund created under and expended in the manner described in Section 9-318.

## **9-110 STORMWATER MITIGATION/BEST MANAGEMENT PRACTICE (BMP) AND WATERSHED BENEFIT MEASURE SUBMITTAL**

- A. A **Stormwater Mitigation/BMP** and **Watershed Benefit Measure** submittal in

accordance with the detailed requirements of this Article shall be required. The submittal shall include:

1. A narrative description documenting:
  - a. Compliance with the requirements of this Article.
  - b. Anticipated pollutants of concern based upon proposed **Development** land use;
  - c. A listing and discussion of all **BMPs** or **Watershed Benefit Measures** to be used and how they will mitigate water quality and quantity impacts of the proposed **Development**;
  - d. A description of soils on-site and the following information where the **BMP** is proposed:
    - (1) Infiltration rates;
    - (2) Percentage of clay;
    - (3) Proximity to private and community wells; and
    - (4) Depth to **Seasonal High Groundwater Table**, bedrock, or limiting layer.
  - e. For native vegetated **BMPs** or **Watershed Benefit Measures** the following shall be provided:
    - (1) Seeding and planting locations, specifications, and methodology;
    - (2) A schedule for installation; and
    - (3) Proposed maintenance and monitoring provisions.
2. The following calculations shall be provided:
  - a. For Category I **BMPs**:
    - (1) The existing **Impervious Area** and **New Impervious Area**;
    - (2) The **Net New Impervious Area** for **Redevelopment**;
    - (3) The required **Volume Reduction**;
    - (4) The quantifiable storage provided in each proposed **BMP**.

b. For Category II **BMPs**:

- (1) The existing **Impervious Area** and **New Impervious Area**;
- (2) The **Net New Impervious Area** for **Redevelopment**;
- (3) The required **Volume Reduction**;
- (4) The quantifiable storage provided in each proposed **BMP**;
- (5) Calculations to demonstrate that pretreatment **BMPs** will treat the targeted pollutants of concern. For manufactured **BMPs**, documentation to support pollutant removal rates from the manufacturer shall be supplied;
- (6) The drawdown time for each **BMP** if detention credit is being sought; and
- (7) All calculations shall be prepared by a **Professional Engineer**.

c. For **Watershed Benefit Measures**:

- (1) The existing and proposed **Runoff** from the **Site**;
- (2) If storage based, the quantifiable storage provided by the **Watershed Benefit Measure** that is equivalent to the calculated volume required in the **Detention Storage Facility** and/or **Volume Reduction** per Subsection 9-108.B;
- (3) If water quality based, the quantifiable treatment acreage per Subsection 9-108.C;
- (4) If area based, the square footage in accordance with Subsection 9-108.D;
- (5) If constructed or reestablished **Wetland**, calculations that document sufficient hydrology is present to support **Wetland** hydrology; and
- (6) Calculations to demonstrate no adverse impacts upstream or downstream of the **Development** are proposed.

3. An opinion of probable cost to construct, maintain and monitor the **BMPs** or **Watershed Benefit Measures**.

4. Drawings including:

- a. A plan view of each **BMP** or **Watershed Benefit Measure** proposed;
  - b. Cross sections of each **BMP** or **Watershed Benefit Measure** proposed;
  - c. Identification of easement areas for Category II **BMPs** or **Watershed Benefit Measures**;
  - d. If native vegetated **BMPs** or **Watershed Benefit Measures** are proposed, the plan shall also contain:
    - (1) A planting plan including location and acreage of **Plant Communities** (e.g., lawn, upland prairie, wet prairie, emergent, etc.) and plant list including scientific and common names, seeding rate, plant quantities and spacing distance; and
    - (2) Maintenance and monitoring provisions including an annual work schedule describing each task in detail and time of year when it will be performed.
5. The proposed easement or Declaration of Restriction and Covenant to be recorded upon completion of the project, in accordance with the following:
- a. Category I **BMPs** shall be recorded as a Declaration of Restriction and Covenant that acknowledges the presence of these areas on-site to alert all future owners;
  - b. Category II **BMPs** and **Watershed Benefit Measures** shall be shown to be within an appropriate plat of easement; and
  - c. The **Stormwater Management Permit** number and maintenance requirements shall be noted on the plat or included in the Declaration of Restriction and Covenant running with the land in any deed which conveys any portion of these areas.

**9-111 - 9-131 RESERVED**



## **ARTICLE VI—REQUIREMENTS FOR FLOOD HAZARD AREAS AND BUILDING PROTECTION STANDARDS**

### **9-132 RESERVED**

### **9-133 DISCLAIMER**

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

### **9-134 STATEWIDE AND REGIONAL PERMITS**

**Development** that qualifies for any of the self-issuing statewide or regional permits administered by **IDNR-OWR** (statewide permits nos. 1 through 14 and regional permit no. 3) are similarly permitted under this Article. The **Developer** need only submit to the **Administrator** such information as shall show the **Administrator** that the **Development** qualifies for the particular statewide or regional permit in question under the regulations established by **IDNR-OWR** for such permit and no further submittal need be made under this Article. All other provisions of this Chapter applicable to such **Development**, however, continue to apply.

### **9-135 FLOODPLAIN MANAGEMENT**

All **Development** shall meet the requirements set forth in this Article.

### **9-136 FLOODPLAIN, REGULATORY FLOODPLAIN, BFE AND REGULATORY FLOODWAY LOCATIONS AND STANDARDS**

- A. The **BFE** shall be delineated on the **Site** topography to establish the **Regulatory Floodplain** area limits for regulation under this Chapter. **Regulatory Floodplains** shall be delineated on the **Site** map from the current **FEMA FIRM, FIS** or **LOMR** and include those areas of the **SFHA** which are not **Regulatory Floodplains**. The current version of the maps adopted and published by **FEMA** for regulation under the **NFIP** together with any amendments, additions, revisions or substitutions

thereto or therefor adopted and published by **FEMA** at any time in the future are hereby referred to, adopted, and made part hereof as if fully set out in this Chapter. A list of the current regulatory maps for the **County** to be consulted is maintained by the **Department**. A list of the current regulatory maps for each **Community** to be consulted is maintained by the **Administrator**.

- B. The **BFE** shall be the elevation of the profile shown for the **Design Storm** with the one percent (1%) chance of occurrence in any given year for the **Site** on the current **Flood Insurance Study**.
1. In the case of **FEMA** delineated AH Zones the elevation noted on the current applicable regulatory map(s) shall be the **BFE**.
  2. In the case of **FEMA** delineated AO Zones the **BFE** shall be the depth number shown on the current applicable regulatory map(s) added to the **Highest Adjacent Grade**, or at least two feet (2') above the **Highest Adjacent Grade** if no depth number is provided.
  3. When no **BFE** information exists and the upstream **Tributary Area** is six hundred forty (640) acres or more, the **BFE** shall be determined using a site-specific **Floodplain** study by a **Professional Engineer** using appropriate hydrologic and hydraulic models as follows:
    - a. Hydrologic models: TR-20, HEC-1, HEC-HMS;
    - b. Hydraulic models: HEC-2, HEC-RAS, WSP-2; or
    - c. A technique approved by the **Administrator** and **IDNR-OWR**.
  4. Where a **Channel** has a tributary **Drainage Area** of six hundred forty (640) acres or more, the above analyses shall be submitted to **IDNR-OWR** for approval.
  5. For a **Nonriverine Regulatory Floodplain** where no **BFE** information exists, a site-specific **Floodplain** study is required for the purpose of establishing a **BFE** for the **Development**.
  6. For **Floodplains** that are not regulatory, are not draining more than six hundred forty (640) acres and for which no **BFE** has been determined, the **Administrator** may require a site-specific **Floodplain** study for the purpose of establishing an **FPE** for the **Development**.
  7. The **Administrator** may require the use of a **Floodplain** study not yet approved by **IDNR-OWR** and **FEMA** if its use would establish a higher **BFE** than the approved study. This provision may necessitate that different analyses be prepared for other agencies having permitting jurisdiction over the **Floodplain** and **Floodway**.

8. When none of the above apply but the proposed **Development** consists of more than fifty (50) lots or more than five (5) acres, a study acceptable to the **Administrator** shall be provided for determination of a site-specific **BFE**.
- C. The location of the **Regulatory Floodway** shall be as delineated on the current applicable regulatory map(s). The location of the **Regulatory Floodway** boundary shall be scaled on 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. 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 9-142 and 9-143, including the **Appropriate Use** criteria, until such time as a **LOMA** or **LOMR** receives concurrence from **IDNR-OWR** and is issued by **FEMA**.
  - D. General criteria for analysis of **Flood** elevations in the **Regulatory Floodway** are as follows:
    1. The **Flood** profiles, flows and data from the current applicable regulatory map 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 same Manning's "n" value shall be used for both existing and proposed conditions unless a recorded maintenance agreement obligates a public entity to maintain the proposed conditions or the land cover is changing from vegetative to nonvegetative. The **Administrator** shall be copied on all related correspondence.
    2. If the **BFE** at the **Site** 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 elevation and **BFE**.
    3. If the **Applicant** is informed by **IDNR-OWR**, a local government or a private owner that a downstream or upstream **Restrictive Bridge or Culvert** is scheduled to be removed, reconstructed or modified, or a **Public Flood Control Project** is scheduled to be built, removed, constructed or modified within the next five (5) 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.
    4. If the **Development** will result in a change in the location of the **Regulatory Floodway** or an increase in the **BFE**, the **Applicant** shall submit the information required for the issuance of a **CLOMR** to **IDNR-OWR** and **FEMA**. A public notice

inviting comment on the proposed change in the **BFE** or location of the **Regulatory Floodway** will be published by **IDNR-OWR** or its designee before a **CLOMR** is issued. All communities adjacent to a watercourse alteration or revocation shall be notified of the proposed **Development**. Filling, grading, dredging or excavating may take place upon issuance of a **CLOMR** issued by **FEMA**. No further **Development** activities shall take place in the existing or proposed **Floodplain** until a **LOMR** is issued by **FEMA**. The **Administrator** shall be copied on all related correspondence.

5. In the circumstances listed below and located in a **Regulatory Floodway**, at a minimum, the information set forth below shall be submitted to **IDNR-OWR** for its review and approval:
  - a. Analysis of the **Flood** profile due to a proposed bridge, **Culvert** crossing or roadway approach;
  - b. A **Professional 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. A **Professional Engineer's** determination that a proposed bridge affected by backwater from a downstream receiving stream may be built with a smaller opening;
  - d. Alternative **Transition Sections** and **Hydraulically Equivalent Compensatory Storage**;
  - e. **Stormwater Management Permits** issued to local units of government for **Regulatory Floodway** and **Floodplain Development**;
  - f. **BFE** determinations where none now exist;
  - g. **IDNR-OWR** will issue permits for any **IDNR-OWR** projects, **Dams** and all other state, federal or local unit of government projects, including **Community** projects;
  - h. **IDNR-OWR** will issue permits for construction and other activities in public bodies of water pursuant to 17 Ill. Admin. Code 3708; and
  - i. Permits for organizations which are exempt from this Chapter per Illinois Compiled Statutes (ILCS) including state, federal or local units of government.

## **9-137 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 subsequent Sections.

- A. No **Development** shall be allowed in the **Regulatory Floodplain** that singularly or cumulatively creates any increase in **Flood** stage or velocity off-site, or a damaging or potentially damaging increase in **Flood** heights or velocity on-site or a threat to the public health, safety and welfare.
- B. For all projects involving a **Channel Modification**, fill, stream maintenance or a levee, the **Floodway 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 **CLOMR** from **FEMA**. No **Buildings** may be built in the existing or proposed **Regulatory Floodplain** until the **LOMR** is obtained from **FEMA** unless the **Building** meets all the **Building** protection standards of Section 9-139. Proposed changes to the **Regulatory Floodway** delineation and the **BFE** must be submitted to **IDNR-OWR** for approval. If a **LOMR** is a result of fill **FEMA** Technical Bulletin 10-01 shall be followed and an engineering report shall be completed by a **Professional Engineer** or Certified Soil Scientist.
- D. If the **Development** is in the Fox River, 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**, Sections 9-135 through 9-167 will be deemed met if the **Applicant** demonstrates to **IDNR-OWR** and the **Committee** that the proposed project:
  - 1. By hydraulic and hydrologic modeling will not singularly or cumulatively result in increased **Flood** heights outside the project **Site** or that any increases will be contained in easements for all **Flood** events up to and including the **Base Flood**;
  - 2. Will be operated and maintained by a public entity; and
  - 3. Will reduce **Flood** damage to an existing **Building** or **Structure**.
- G. All activities, defined as **Development**, such as pools, fences, filling, paving, etc., shall be designed so as not to alter flood flows or increase potential **Flood** damages. Fences within the **Floodplain** shall not impede the **Base Flood**.

- H. Drainage paths shall be provided around **Structures** on sloped ground to guide water away from the **Structures**.
- I. Nothing in this Section precludes the design, engineering, construction or financing, in whole or in part, of a **Public Flood Control Project** by **Persons** who are not public entities.
- J. If a **Development** will alter or relocate a watercourse the **Administrator** shall notify adjacent **Communities** in writing 30 days prior to the issuance of a permit for the alteration or relocation of the watercourse.
- K. All new construction and **Substantial Improvements** must be adequately anchored to prevent flotation, collapse, or lateral movement of the **Building** resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
- L. All new construction and **Substantial Improvements** must be constructed with materials resistant to **Flood** damage.
- M. All new construction and **Substantial Improvements** must be constructed by methods and practices that minimize **Flood** damage.
- N. All new construction and **Substantial Improvements** must be constructed with electrical, HVAC, plumbing, and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during **Flood** conditions.
- O. If a proposed subdivision or other similar new **Development** is in a **Flood** prone area, all public utilities and facilities, such as sewer, gas, electrical, and water systems must be located and constructed to minimize or eliminate **Flood** damage and adequate drainage must be provided to reduce exposure to **Flood** hazards.

## 9-138 PUBLIC HEALTH PROTECTION STANDARDS

- A. No **Developments** in the **Floodplain** shall include locating or storing chemicals, explosives, buoyant materials, animal wastes, fertilizers, flammable liquids, pollutants, or other hazardous or toxic materials below the **FPE** unless such materials are stored in a **Floodproofed** and anchored storage tank or **Floodproofed Building** and certified by a **Professional Engineer**.
- B. Public utilities and facilities such as sewer, gas and electric shall be located and constructed to minimize or eliminate **Flood** damage.
- C. New and replacement water supply systems, wells and sanitary sewer lines may be permitted if:

1. Constructed to minimize or eliminate infiltration of **Flood** waters into the systems and discharges from the systems into **Flood** waters; and
  2. All manholes or other above ground openings located below the **FPE** are watertight.
- D. New on-site waste disposal systems, such as septic systems, shall not be constructed within the **Regulatory Floodplain**.
- E. **Substantially Improved** or replacement wastewater treatment plants shall have watertight openings for those openings located below the **FPE**. Such facilities should be located to avoid impairment to the facility or contamination of floodwaters during the **Base Flood**.
- F. New or proposed **Critical Facilities** shall be located outside of the two tenths percent (0.2%) frequency **Floodplain**.

### **9-139 BUILDING PROTECTION STANDARDS**

This Section applies to all **Buildings** located in the **Regulatory Floodplain**. However, most new and replacement **Buildings** are not **Appropriate Uses** of the **Regulatory Floodway**. A summary of the building protection standards is provided in Tables 9-139.A and 9-139.B below:

**TABLE 9-139.A**  
BUILDING PROTECTION STANDARDS FOR SPECIAL FLOOD HAZARD AREAS  
(SFHA)

Type	Type of SFHA	Flood Protection Elevation (feet above BFE)	Lowest Floor <sup>5</sup> (feet above BFE)	Lowest Opening Elevation (feet above BFE) <sup>1</sup>
<b><i>Fox River Floodplain</i></b>				
Residential Structures/ Additions	Adj. to Floodplain <sup>3</sup>	3	0.5	3
	Floodplain		3	-
Attached Garages	Adj. to Floodplain <sup>3</sup>	3	0.5	-
	Floodplain			
Accessory Structure	Floodplain	3	0.5	-
Small Accessory Structure	Floodplain	3	-	-
Non-Residential/ Industrial Structure <sup>2</sup>	Floodplain	3	3 <sup>4</sup>	-
<b><i>Other Floodplains</i></b>				
All Residential Structures/ Additions	Adj. to Floodplain <sup>3</sup>	2	0.5	2
	Floodplain		2	-
Attached Garage	Adj. to Floodplain <sup>3</sup>	2	0.5	-
	Floodplain			
Accessory Structure	Floodplain	2	0.5	-
Small Accessory Structure	Floodplain	2	-	-
Non-Residential/ Industrial Structure <sup>2</sup>	Floodplain	2	2 <sup>4</sup>	-

<sup>1</sup>This requirement does not apply to **Dry Floodproofed Buildings**.

<sup>2</sup>An addition to an existing industrial **Building** may be constructed at the **BFE** plus one foot (1') of **Freeboard** as approved by the **Administrator**.

<sup>3</sup>"Adjacent to" shall apply to the location of the **Structure** and shall be established by the **FPE** and includes **LOMR-Fs**. The **Administrator** may reduce this requirement upon review of a soil engineering report prepared by a **Professional Engineer** or **Certified Soil Scientist**.

<sup>4</sup>Nonresidential Industrial **Structures** may be elevated or **Dry Floodproofed** to the **FPE**.

<sup>5</sup>The **Lowest Floor** shall be the bottom of the floor joists or top of slab foundation as applicable for the **Structure's** construction.



**TABLE 9-139.B**  
**OTHER BUILDING PROTECTION STANDARDS<sup>4</sup>**

	Type of Facility	Lowest Opening Elevation (feet above HWL) <sup>1</sup>
All Structures adjacent to <sup>2</sup> at least one of the following:	<b>Detention Storage Facility/Pond/Lake/Reservoir</b>	2
	<b>Depressional Storage ≥ 20 acres of Tributary Area<sup>3</sup></b>	2
	<b>Overland Flow Path ≥ 20 acres of Tributary Area</b>	2
	<b>Overland Flow Path &lt; 20 acres of Tributary Area</b>	0.5

<sup>1</sup>This requirement does not apply to **Dry Floodproofed Buildings**.

<sup>2</sup>Adjacent to” shall apply to the location of the **Structure** and shall be established by the **FPE**.

<sup>3</sup>When modeling is not provided, the **Lowest Opening** shall be two feet (2’) above the overtopping elevation.

<sup>4</sup>The **Lowest Floor** may be required to be six inches (6”) above the normal water level or **Seasonal High Groundwater Table** at the discretion of the **Administrator**.

A. The elevation of the **Lowest Floor**, including basements and Heating, Ventilation, and Air Conditioning (HVAC) (i.e. electrical, heating, ventilating, plumbing and air conditioning equipment and utility meters), of all new residential **Structures**, **Substantially Improved Structures**, and additions shall be elevated at least to the **FPE**. The elevation of the **Lowest Floor** of an **Attached Garage** for a **Structure** must be elevated at least six inches (6”) above the **BFE**.

1. If placed on fill, the top of the fill for a residential **Structure** shall be above the **FPE**. Fill shall be placed following the **FEMA** guidelines for ensuring **Buildings** placed on fill (**FEMA** TB 10-01, or current guidelines) are reasonably safe from flooding.
  - a. The top of fill for an **Attached Garage** shall be at least six inches (6”) above the **BFE**. The fill shall be placed at that elevation for ten feet (10’) out from the **Building** unless the **Building** design is certified by a **Registered Structural Engineer** to be protected from damage due to hydrostatic pressures.
  - b. The fill shall not settle below the **FPE** for a residential **Structure** and not below six inches (6”) above the **Base Flood** for an **Attached Garage**, and shall be adequately protected against **Erosion**, scour and differential settlement.
  - c. An **LOMR** shall be obtained from **FEMA** removing the residential **Structure**

- from the **Floodplain**.
2. If elevated by means of walls, pilings, or other foundation, the **Building's** supporting **Structure** must be permanently open to floodwaters and not subject to damage by hydrostatic pressures of the **Base Flood** in addition to the following design standards:
    - a. The permanent openings shall be no more than one foot (1') above existing grade and consist of a minimum of two (2) openings. The openings must have a total net area of not less than one square inch for every one square foot of enclosed area subject to flooding below the **BFE**.
    - b. The lowest inside grade must match the lowest existing outside grade adjacent to the **Structure**.
    - c. The foundation and supporting members shall be anchored and aligned in relation to flood flows and adjoining **Structures** to minimize exposure to known hydrodynamic forces such as current, waves, ice and floating debris.
    - d. All areas below the **FPE** shall be constructed of materials resistant to **Flood** damage.
    - e. The elevation of the **Lowest Floor** and HVAC, including the basement, for a residential **Structure** shall be located at or above the **FPE**.
    - f. Water and sewer pipes, electrical and telephone lines, submersible pumps and other waterproofed service facilities may be located below the **FPE**.
    - g. No area less than two feet (2') above the **BFE** shall be used for storage.
  3. Fully enclosed areas in **New Construction** and **Substantial Improvements** that are subject to flooding and are used solely for parking of vehicles, **Building** access or storage in an area other than a basement shall be:
    - a. Designed to automatically equalize hydrostatic **Flood** forces on exterior walls by allowing the entry and exit of floodwaters.
    - b. Certified by a **Registered Professional Engineer** or have a minimum of two (2) openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding with the bottom of all openings no higher than one foot (1') above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic entry and exit of floodwaters.
- B. The elevation of the **Lowest Floor** and HVAC, including the basement, of all new or **Substantially Improved** nonresidential **Buildings** shall be elevated at least to

the **FPE** as described above or be **Structurally Dry Floodproofed** to at least the **FPE**. A nonresidential **Building** may be **Structurally Dry Floodproofed** (in lieu of elevation) provided that a **Professional Engineer** or **Registered Structural Engineer** shall certify that the **Building** has been **Structurally Dry Floodproofed** 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. **Floodproofing** measures shall be operable without human intervention and without an outside source of electricity. Levees, berms, floodwalls and similar works are not considered **Floodproofing** for the purpose of this Subsection.

- C. **Manufactured Homes** placed outside a **Manufactured Home Park** or on a **Site** in an **Existing Manufactured Home Park** in which a **Manufactured Home** has suffered **Substantial Damages** as a result of a **Flood** shall be at or above the **FPE** and shall be anchored to resist flotation, collapse or lateral movement in accordance with the Illinois Mobile Home Tie-Down Act issued pursuant to 77 Ill. Adm. Code § 870 (77 Ill. Adm. Code 870 [1999], as amended). **Recreational Vehicles** to be installed on a **Site** for more than one hundred eighty (180) days, unless fully licensed and highway ready (i.e. is ready for use if it's on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions), shall be at or above the **FPE** and shall be anchored to resist flotation, collapse or lateral movement in accordance with the Illinois Mobile Home Tie-Down Act issued pursuant to 77 Ill. Adm. Code § 870 (77 Ill. Adm. Code 870 [1999], as amended).
- D. Small accessory **Structures** such as toolsheds and detached garages which are not **Substantial Improvements** on an existing single-family lot, may be constructed with the elevation of the **Lowest Floor** below the **FPE** in accordance with the criteria of this Subsection. Accessory **Structures** that do not meet all of the requirements below may be constructed if they are **Dry Floodproofed** or elevated such that the elevation of the finish floor or bottom of floor joints (if constructed on blocks or piers) is at least six inches (6") above the **BFE**.
1. The **Building** shall not be used for human habitation.
  2. All areas below the **FPE** shall be constructed with flood-resistant material. **Structures** located in a **Regulatory Floodway** shall meet the **Floodway** standards of Section 9-143.
  3. The **Structure** shall be anchored to prevent flotation and movement.
  4. Service facilities such as electrical and HVAC equipment shall be elevated or **Floodproofed** to the **FPE**. Sanitary facilities and plumbing are not allowed.
  5. The **Building** shall be no greater than five hundred seventy-six square feet

(576 sq. ft.) in floor size and cost not more than fifteen thousand dollars (\$15,000) to construct.

6. The **Building** shall meet the requirements of Subsection 9-139.A.2.
  7. The **Building** shall be used only for the storage of vehicles or tools and may not contain other rooms, workshops, greenhouses or similar uses.
- E. The elevation of the HVAC of all new industrial **Buildings** shall be constructed at the **BFE** plus two feet (2') unless it is within the Fox River **Floodplain**, then it shall be constructed at the **BFE** plus three feet (3'). The elevation of the HVAC of an addition to an existing industrial use may be constructed at the **BFE** plus one foot (1') provided this elevation is required by the industrial process as demonstrated by the **Applicant** and the **Administrator** approves the elevation in writing.
- F. All **New Construction** and **Substantial Improvements** shall employ anchoring to prevent flotation, collapse or lateral movement of the **Structure**, use **Flood** resistant materials, and be constructed by methods and practices that minimize **Flood** damages.
- G. Where **Base Flood** elevation data are used within **Non-Designated Floodway** on the **Community's FIS** or **FIRM**, a record of the following shall be obtained and maintained by the **Administrator**:
1. The elevation of the **Lowest Floor** and HVAC (including basement) of all new **Structures** and **Substantially Improved Structures**; and
  2. The elevation to which the **Structure** was **Floodproofed** (if the **Structure** has been **Floodproofed** in accordance with Subsections 9-139.A.2, 9-139.B and 9-139.F).
- H. In **FEMA** Zones AO and AH drainage paths shall be provided around **Structures** on slopes to guide water around and away from proposed **Structures**.

## 9-140 NON-CONFORMING STRUCTURES

- A. A nonconforming **Structure** damaged by **Flood**, fire, wind or other sources may be restored unless the cumulative percentage of damage, improvement, and maintenance since January 1, 2010 is equal to or greater than fifty percent (50%) of the **Structure's** fair **Market Value** in the year prior to damage for that event, in which case it shall conform to Section 9-139.
- B. **Maintenance of Existing Buildings** may occur unless the cumulative percentage of damage, improvement, and maintenance is equal to or greater than fifty percent (50%) of the **Structure's** fair **Market Value** in the year prior to each improvement, in which case it shall conform to Section 9-139. Maintenance will be

recorded cumulatively towards the **Substantial Improvement** of the **Structure**. The cost of maintenance improvements shall be recorded cumulatively over a rolling, ten (10) year period, beginning on January 1, 2010.

- C. **Substantial Improvement** does not include any work done to a **Structure** listed on the state or federal historic register provided that the alteration will not preclude the **Structure's** continued designation as a **Historic Structure**.

## 9-141 COMPENSATORY STORAGE VOLUME STANDARDS

The following standards apply within the **Regulatory Floodplain**:

- A. **Hydraulically Equivalent Compensatory Storage** volume will be required for **Development or Redevelopment** in a **Riverine Regulatory Floodplain** and at a minimum, shall be equal to the **Regulatory Floodplain Flood** storage volume displaced multiplied by:

1. A factor of one and five tenths (1.5) if no hydraulic modeling is provided;
2. A factor of one and two tenths (1.2) if hydraulic modeling is provided;
3. A factor of one (1) for public roadway, stream restoration or streambank stabilization projects; or
4. A factor of one (1) for **Depressional Storage** and **Nonriverine Regulatory Floodplain**.

- B. **Compensatory Storage** shall be provided incrementally such that:

1. The storage volume displaced below the existing ten percent (10%) frequency **Flood** elevation must be replaced below the proposed ten percent (10%) frequency **Flood** elevation.
2. The storage volume displaced above the existing ten percent (10%) existing frequency **Flood** elevation must be replaced above the proposed ten percent (10%) frequency **Flood** elevation and below the existing one percent (1%) frequency **Flood** elevation.
3. The additional **Compensatory Storage** required beyond a one to one (1:1) ratio may be placed below the one percent (1%) frequency **Flood** elevation.
4. Incremental **Compensatory Storage** for public roadway and stream restoration or streambank stabilization projects may be waived, through a written waiver at the discretion of the **Administrator**, provided the storage volume displaced is replaced below the one percent (1%) frequency **Flood** elevation.

- C. **Compensatory Storage** volume for **Development** or **Redevelopment** in a **Nonriverine Regulatory Floodplain** area that is also adjacent to a **Lake** shall be equal to the storage volume displaced.
- D. **Compensatory Storage** volume requirements for **Development** or **Redevelopment** in a **Nonriverine Regulatory Floodplain** that is not adjacent to a **Lake** shall be replaced in accordance with Subsection 9-141.A.4. If a **Detention Storage Facility** is required and the lost storage is in the same **Tributary Area** then the lost storage shall be replaced in accordance with the requirements for the loss of **Depressional Storage** in Article IV, Subsection 9-84.H.
- E. **Compensatory Storage** areas shall be designed to drain freely and openly to the **Channel** and shall be located in a hydraulically equivalent area to the **Development** or **Redevelopment**. This standard does not apply to **Nonriverine Regulatory Floodplain** or the replacement of **Depressional Storage**.
- F. **Compensatory Storage** for **Developments** and **Redevelopments** requiring minimal amounts of fill may be waived through a written waiver at the discretion of the **Administrator** provided the **Developer** has verified there are no **Repetitive Loss** areas downstream, and there are no adverse impacts resulting from the following types of **Development**:
1. Replacement of on-site septic systems within the **Floodplain** or **Floodway** provided:
    - a. The existing land use is maintained;
    - b. The volume of fill is the least amount of fill required to maintain the existing land use;
    - c. The number of bedrooms is maintained;
    - d. A **Community's** sanitary system is not located within five hundred feet (500') of the **Site**; and
    - e. The work meets the requirements of Section 9-135.
  2. Dredging of ditches in the **Floodplain** and **Non-Designated Floodway** as long as the dredging spoils are evenly dispersed at a depth of no more than two tenths of a foot (0.2') adjacent to the dredging operation;
  3. **Floodproofing** of an existing, lawfully habitable residential or **Commercial Building** within ten feet (10') of the outside face of the **Building** in the **Floodplain** provided the probability of **Flood** damage to other **Buildings** is not increased;

4. Loss of artificially created storage due to a reduction in upstream head loss caused by replacement of a bridge, **Culvert**, storm sewer, provided there are no increases to the downstream flows or **Flood** elevation. If increases to the downstream flows or **Flood** elevation are proposed the following shall be provided:
  - a. An analysis of the downstream **Floodplain** shall be conducted to determine whether **Structures** will be at risk of damage. If **Structures** are at risk of damage, a detailed hydrologic analysis shall be performed to establish the extent to which the artificial storage decreases flood flows, and the damages that might be incurred as a result of the loss thereof. **Compensatory Storage** or **Mitigation** shall be required to the extent necessary to protect the **Structures** from additional damages; and
  - b. The **Applicant** shall document that the downstream regulatory entity or **Drainage District** has been informed.
5. **Building** members (including horizontal and vertical members) for decks, fences and accessory **Structures** meeting Section 9-135 and as constructed within the **Floodplain**;
6. Top dressing for the purposes of restoring pre-subsidence grade to an area that primarily experiences subsidence due to a documented **Flood** event. Top dressing is the placement of not more than four (4) inches of **Topsoil** or gravel within the **Regulatory Floodplain**. Upon approval of the **Administrator**, **Compensatory Storage** shall not be required for top dressing provided that it meets the following:
  - a. This provision shall not be applicable for new **Developments** or **Redevelopments**;
  - b. Top dressing shall be allowed by permit on a per **Parcel** basis and not damage or alter adjoining property drainage patterns;
  - c. Top dressing fill shall comply with Article III and Article VII of this Chapter;
  - d. The restoration fill shall meet pre-subsidence elevations, and within **Riverine** areas, the pre-subsidence effective **Regulatory Floodplain** and **Regulatory Floodway** conveyance shall be maintained;
  - e. Proper documentation shall be submitted as part of the stormwater management permit application by the **Applicant** and shall be either topographic information or photographic documentation of the flooding and resulting subsidence that has occurred on the **Site**;

- f. Upon completion of top dressing, the **Applicant** shall provide topographic or photographic documentation of completed work; and
- g. Repeat top dressing applications are limited to documented **Flood** events with topographic or photographic evidence of subsidence.

G. **Compensatory Storage** shall be operational and **Functional** prior to placement of fill, **Structures**, or other materials temporarily or permanently placed in the **Regulatory Floodplain**.

H. A recorded covenant running with the land is required to maintain the **Compensatory Storage** volume.

## 9-142 FLOODWAY STANDARDS

The only **Development** in a **Regulatory Floodway** or **Non-Designated Floodway** that will be allowed are **Appropriate Uses** that 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**. **Development** within the **Floodway** will require an approved **IDNR-OWR** permit. **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 Projects**, 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. **Water Dependent Facilities**;
  3. Storm and sanitary sewer **Outfalls**;
  4. Replacement of existing septic tanks and fields provided:
    - a. All mechanical parts are elevated a minimum of six inches (6") above the **BFE**;
    - b. The system is placed within the conveyance shadow of an existing **Structure** when possible for mounded septic fields;



- c. The **Applicant** demonstrates to the satisfaction of the **Administrator** that no reasonable alternative location exists on the **Site** outside of the **Floodway**, and that the fill volume is the minimum amount necessary to maintain the existing land use; and
  - d. The **Applicant** provides proof of an approved **IDNR-OWR** permit.
5. Underground and overhead utilities if sufficiently **Floodproofed**;
6. Recreational facilities such as open space consisting of playing fields, open pavilions, trail systems and fencing that is publicly owned by a governmental agency;
7. Detached garages, storage sheds, boathouses or other non-habitable **Structures** without sanitary facilities that are accessory to existing **Buildings** and will not block flood flows nor reduce **Regulatory** or **Non-Designated Floodway** storage;
8. Bridges, **Culverts** and associated roadways, sidewalks and railways, runways and taxiways, required for crossing the **Regulatory Floodway** or for access to other **Appropriate Uses** in the **Regulatory Floodway** and any modification thereto;
9. Parking lots built at or below existing grade provided that either:
  - a. The **BFE** is less than one foot (1') above the proposed parking lot; or
  - b. The parking lot is accessory to short term outdoor recreational facilities and the **Applicant** agrees to restrict access during periods of inundation and agrees to accept liability for all damage caused by vehicular access during **Flooding** events.
10. **Regulatory Floodway** regrading, without fill, to create a positive nonerosive slope toward a **Channel**;
11. **Floodproofing** activities to protect previously existing lawful **Structures** including the construction of watertight window wells, elevating **Structures** or the construction of floodwalls or berms around residential, **Commercial** or industrial principal **Structures** where the outside toe of the floodwall or berm is no more than ten feet (10') away from the exterior wall of the existing **Structure** and where such activities are not considered to be a **Substantial Improvement** to the **Structure**, unless the **Structure** then meets building protection standards. **Compensatory Storage** will be required for any activities that result in fill in the **Floodway**;
12. The repair, replacement or reconstruction of a damaged **Building** or **Structure**,

provided the **Structure** is not considered **Substantially Damaged** or **Improved** and none of the outside dimensions of the **Building** are increased and such repair, replacement or reconstruction does not constitute a **Substantial Improvement**;

13. The repair, replacement, reconstruction or **Floodproofing** of a **Building** or **Structure** that is **Substantially Damaged** or **Improved** is allowed at its previous location on the **Site** or further outside of the **Regulatory Floodway** provided that:
    - a. The **Building** will meet the **Building** Protection Standards in Section 9-139;
    - b. The square footage of the portion of the **Structure** below the **Floodplain** elevation is not greater than the existing **Building**;
    - c. The width of the **Building** perpendicular to the flow shall be equal to or less than the existing **Building** width; and
    - d. If demolished, the construction of a replacement **Building** shall begin within two (2) years of the demolition date. If no construction has begun prior to this date, a replacement **Structure** will not be considered an **Appropriate Use** in accordance with this Section.
  14. Modifications to an existing **Building** such as fireplaces, bay windows, decks, patios and second story additions, which do not constitute a **Substantial Improvement**, do not increase the enclosed floor area or livable space of the **Building** below the **BFE** and does not block flood flows; no enclosed floor areas may be built on stilts.
- B. No change shall be made to the list of **Appropriate Uses** without the prior approval of **IDNR-OWR** and the **Committee**.
- C. All **Development** in the **Regulatory Floodway** shall require a **Stormwater Management Permit** and must be in accordance with all provisions of this Chapter.
- D. An **Appropriate Use** may be permitted if the proposed project meets the following engineering and **Mitigation** criteria and is so stated in writing with supporting plans, calculations and data. The **Administrator** may require the submittal to be 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 at a 1:1 ratio 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 a rate of one foot (1') horizontally for every four feet (4') of the flooded stream's length.
  - b. Flowing water will contract no faster than at a rate of one foot (1') horizontally for every one foot (1') of the flooded stream's length.
  - c. Flowing water will not expand or contract faster than one foot (1') vertically for every ten feet (10') of the flooded stream's length.
  - d. All cross Sections used in the calculations shall be perpendicular to flood flows
  - e. **Transition Sections** must be used to determine the effective **Floodway Conveyance** areas on adjacent properties.
3. **Development** of an **Appropriate Use** will not result in an increase in the **Channel** or **Regulatory Floodway** erosive 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, erosive velocities may be increased at the structure **Site** if scour, **Erosion** and **Sedimentation** will be avoided by the use of riprap or other design measures.
4. 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. On-stream structures may increase the **BFE** within the limits of the **Site**, but may not increase the **BFE** on adjacent or upstream properties. A **Dam** safety permit or letter indicating a **Dam** safety permit is not required must be obtained from **IDNR-OWR** for such structures. All **Dams** and impoundment structures shall meet the permitting requirements of 17 Ill. Adm. Code Part 3702 (Construction and Maintenance of Dams).
5. If **Floodproofing** construction is required beyond the outside dimensions of an existing habitable residential or **Commercial Building**, the outside perimeter of the **Floodproofing** construction shall be no further than ten feet (10') from the **Building**. Compensation for lost storage and **Floodway Conveyance** will be required for **Floodproofing** within the ten foot (10') perimeter provided the probability of **Flood** damage to other **Buildings** is not increased.
6. **IDNR-OWR** will issue permits for all **IDNR-OWR**, state, federal or **Community** projects.

## 9-143 NON-DESIGNATED FLOODWAY

These standards apply to **Riverine Regulatory Floodplains** with a **Non-Designated Floodway**. The **Applicant** shall obtain approval from **IDNR-OWR** for all **Development**, any portion of which is located within the **Regulatory Floodplain** (without a delineated **Regulatory Floodway**) with a **Tributary Area** of six hundred forty (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:
  1. Determines a **Floodway** which meets the definition of a "**Regulatory Floodway**" and demonstrates that the proposed **Development** meets the **Floodway** standards in Section 9-142 and 9-143;
  2. Determines a **BFE** and demonstrates 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 in accordance with Section 9-142; or
  3. Shows that the proposed **Development** will meet the requirements for **Regulatory Floodplains** in Sections 9-137 and 9-138.

## 9-144 BRIDGE AND CULVERT STANDARDS

These standards are for the construction, reconstruction or modification 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 one-tenth of a foot (0.1') 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 one-tenth of a foot (0.1') increase is allowed for the margin of error in the model, construction, and survey overall. The evaluation must be submitted to **IDNR-OWR** for review and issuance of a permit.
- B. If the proposed new structure will increase upstream **Flood** stages greater than one-tenth of a foot (0.1') the **Applicant** must contact **IDNR-OWR** for a Dam Safety Permit or waiver. The **Administrator** shall be copied on all related correspondence.
- C. A **Restrictive Bridge or Culvert** may be altered to increase the conveyance of the

**Base Flood** if an impact analysis is completed and approved in writing by the **Administrator** and all other required regulatory approvals are obtained.

- 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 in a **Regulatory Floodway**, 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 justify allowing the damage to continue and evaluate the feasibility of relieving the structure's impact. Modifications to or replacement of structures, other than a **Restrictive Bridge or Culvert** under Subsection 9-144.C, 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 approval before a permit is issued. The **Administrator** shall be copied on all related correspondence.
- F. If any work is proposed in, near or over the Fox River, 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, for which a permit or waiver has been issued by **IDNR-OWR**, shall be constructed in which:
1. The approach roads will be six inches (6") 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 two feet (2') below the top of the lowest bank;
  4. Any fill in the **Channel** shall be nonerosive material, such as riprap or gravel;  
and
  5. The access road and temporary crossings will be removed within one year after installation, unless an extension of time is granted by the **Administrator**.

## 9-145 FLOODPLAIN SUBMITTAL

The **Applicant** shall obtain approval from **IDNR-OWR** and **FEMA** when required for all new **Base Flood** and **Floodway** determinations or as required in Section 9-135. Documentation supporting a finding by the qualified engineer that the proposed **Development** is compliant with Section 9-135 shall be submitted with the stormwater management permit application. At a minimum, the following materials shall be submitted for approval with the application:

A. **Regulatory Floodplain** boundary determination:

1. Provide the source of **Flood** profile information; and
2. Provide all hydrologic and hydraulic study information for site-specific **Floodplain** studies, **Non-Designated Floodway** elevation determinations, and **Floodplain** map revisions;

B. **Floodway** hydrologic and hydraulic analyses for the following conditions:

1. Existing conditions (land use and stream systems);
2. Proposed conditions (land use and stream systems);
3. Tabular summary of the one percent (1%) **Design Storm** elevations, discharges, and velocities for existing and proposed conditions;
4. Calculations used for model **Development**; and
5. Hydraulic / hydrologic computer model input/output.

C. **Floodplain** fill and **Compensatory Storage** calculations for below and above the ten percent (10%) **Design Storm** elevation up to the **Base Flood Elevation**:

1. Tabular summary for below and above the ten percent (10%) **Design Storm** elevation of fill, **Compensatory Storage** volumes and **Compensatory Storage** ratios provided in the proposed plan; and
2. Cross sections used for the above calculations. AutoCAD and Geographic Information System (GIS) tools may be used to create existing and proposed surfaces, to determine cut and fill, in place of cross sections, at the discretion of the **Administrator**.

D. **Floodproofing** measures:

1. Narrative discussion of **Floodproofing** measures including material specifications, calculations, design details and operation summary; and
2. **Flood** easements when required by this Chapter.

E. Statewide and regional self-issuing permits (statewide permits nos. 1 through 14 and Regional Permit No. 3. Such information as shall show that the **Development** qualifies for the particular permit in question under the regulations established therefor by **IDNR-OWR**.

**9-146 - 9-167 RESERVED**

# ARTICLE VII—REQUIREMENTS FOR WETLANDS, LINEAR WATERCOURSES, NON- LINEAR WATERBODIES, BUFFERS AND MITIGATION

## 9-168 GENERAL

All **Developments** that have a **Wetland Impact**, modify a **Linear Watercourse**, **Nonlinear Waterbody**, or disturb a **Buffer** shall comply with this Article. A permit for any **Wetland Impact**, modification to a **Linear Watercourse**, **Nonlinear Waterbody**, or **Buffer** disturbance shall be obtained from the **Director** (or **Administrator** in a **Community** certified to administer this Article).

## 9-169 REQUIREMENTS FOR WETLAND DELINEATION

- A. Before any **Development** in or near **Linear Watercourses**, **Nonlinear Waterbodies**, or **Wetlands** is permitted, the **Applicant** shall submit a written report identifying and evaluating the boundaries, location, area, functions and quality of **Linear Watercourses**, **Nonlinear Waterbodies**, **Wetlands**, and **Buffers**. The presence and extent of **Linear Watercourses**, **Nonlinear Waterbodies**, and **Wetlands** on the **Site** shall be determined as the result of an on-site delineation using the following methodology:
1. The **Ordinary High Water Mark (OHWM)** shall be used to delineate all **Linear Watercourses** and **Nonlinear Waterbodies**, that are not **Wetlands**;
  2. All on-site **Wetlands** shall be delineated in accordance with the current federal wetland delineation methodology; or
  3. All on-site **Farmed Wetlands** in agricultural areas that are in production that are not determined to be **Wetlands** through the current federal wetland delineation methodology shall be delineated in accordance with the current National Food Security Act Manual methodology. **Agricultural Land** that has been abandoned for five (5) consecutive years shall be delineated in accordance with the current federal wetland delineation methodology per Subsection 9-169.A.2.
- B. The following areas are not considered to be **Linear Watercourses**, **Nonlinear Waterbodies**, or **Wetlands** under this Chapter. Documentation is required to verify the purpose and use of the facility and that the area was excavated or diked in an **Upland** area. The **Director** (or **Administrator** in a **Community** certified to administer this Article) reserves the right on a case-by-case basis to determine if an area within the categories below shall be regulated under this Chapter:



1. Waste treatment systems, including treatment **Ponds** or lagoons;
  2. Drainage, irrigation, agricultural, and **Roadside Ditches** excavated in **Upland** areas;
  3. Areas with artificial **Hydrology**, including but not limited to drain tile breaks, irrigation, or **Detention Storage Facility** outlets which would revert to **Upland** if the tile were repaired or irrigation were to cease;
  4. Artificial **Nonlinear Waterbodies** or **Wetlands** created by excavating and/or diking **Upland** areas to collect and retain water and which are used exclusively for such purposes as stormwater storage, stock watering, irrigation, industrial cooling systems, settling basins, sediment traps, or primarily aesthetic purposes;
  5. Water filled depressions created in **Upland** areas incidental to construction activity; and
  6. Pits or quarries excavated in **Upland** areas for the purpose of obtaining fill, stone, aggregate, sand, or gravel unless and until the construction or excavation operation is abandoned for a period of five (5) years or more and the resulting body of water meets the definition of **Waters of the U.S.** or **Wetlands**.
- C. **Wetland** delineations under this Section shall be valid for five (5) years.
- D. Delineations for permitting purposes may be performed outside the growing season when **Site** conditions allow. **FQI** assessments made before May 1st or after October 15th shall be considered preliminary.
- E. The approximate location, extent and relative quality of off-site **Linear Watercourses, Nonlinear Waterbodies** and **Wetlands** within one hundred feet (100') of the **Site** shall be identified and included in the written report. The location and extent of such, at the time of **Development**, shall be determined by using the following hierarchy:
1. Site-specific delineation in accordance with the current federal wetland delineation methodology;
  2. **Wetlands** identified in **Watershed Plans** or **ADID** studies;
  3. **Wetlands** identified in **Interim Watershed Plans**; or
  4. **Wetlands** identified on **USFWS** National Wetlands Inventory maps.
- F. The quality of the **Wetlands** shall be evaluated based upon the **FQI**. The **FQI** shall be based solely on the **Wetland** vegetation. **Buffers** and adjacent **Plant**

**Communities** shall not be included in the calculation.

- G. The presence of any federally or state listed threatened and endangered species on-site shall be determined.

## 9-170 MITIGATION REQUIRED

All **Wetland Impacts** shall be mitigated as described within this Article with the following exceptions:

- A. A **Wetland Impact** created by the dredging of an isolated **Wetland** with a **FQI** of less than seven (7) for the purpose of creating a native vegetated **Detention Storage Facility** need not be mitigated;
- B. A **Wetland Impact** to **Isolated Wetlands** less than 0.10 acre (4,356 square feet) in aggregate need not be mitigated, provided that:
1. One tenth of an acre (4,356 square feet) or more of the **Wetlands** on the **Site** have not been dredged or filled, cumulatively, since the **Effective Date** of this Chapter; and
  2. The **Wetland(s)** has a **FQI** less than twenty-five (25).
- C. **Development** proposing a **Temporary Wetland Affect** need not be mitigated provided that the impacted **Wetland** is restored to its pre-existing condition pursuant to Subsection 9-174.A;
- D. A **Wetland Impact** occurring on **Agricultural Land** administered by any program under the Food Security Act (16 USC Section 3801 et seq.), as amended, need not be mitigated, provided that:
1. It has been enrolled in the program for the previous three (3) years; and
  2. It is an approved impact under the program's conservation plan.
- E. A **Wetlands Impact** to **Wetlands** identified as having a **FQI** greater than or equal to twenty-five (25) shall not be allowed as part of any **Development** unless the application of this Section would:
1. Have the effect of depriving the owner of all economically beneficial use of the **Site**; or
  2. Make the construction or installation of an essential public improvement by a public entity impossible or highly impracticable. The **Applicant** may apply for a variance from the requirements of this Section under Article X of this Chapter; and

3. If such a variance is granted **Mitigation** for the **Wetland Impact** allowed shall be made according to Sections 9-171 and 9-172.

F. **Mitigation** required for indirect impacts shall be prorated by the percentage of the **Tributary Area** to the **Wetland** that is on-site (existing on-site **Tributary Area**/total existing **Tributary Area**) multiplied by the **Wetland** area, excluding any direct impacts via dredge or fill.

## 9-171 MITIGATION TO BE LOCAL

A. All **Mitigation** for **Wetland Impacts** required under a **USACE** Section 404 permit or under this Chapter shall be provided in this **County** through:

1. On-site **Mitigation** meeting the wetland mitigation plan requirements per Section 9-173;
2. Off-site **Mitigation** meeting the wetland mitigation plan requirements per Section 9-173 within the same major **Watershed** as the impact within this **County**;
3. The purchase of credits from a **Wetland Mitigation Bank** within the same major **Watershed** as the impact; or
4. Payment of a fee in lieu of **Wetland Mitigation** per Sections 9-197 of this Chapter.

B. **Mitigation** outside the **County** shall be allowed when:

1. **Wetland Mitigation** is required for **Wetland Impacts** that occur in any other **County**;
2. **Wetland Mitigation Bank** credits are not available within the same major **Watershed** as the impact in this **County**, **Mitigation** via the purchase of credits in a **Mitigation** bank within the other major **Watershed** in the **County** or **Mitigation** outside the **County** within the same major **Watershed** as the impact, upon approval of the **Director**; or
3. **Mitigation** required under a **USACE** Section 404 permit that must occur within a **USACE** approved bank and credits within a **USACE** approved bank are not available within the **County** at the time of the approval, upon approval of the **Director**.

## 9-172 MITIGATION REQUIREMENTS

A. If **Linear Watercourses** are to be completely or partially relocated, **Mitigation** may be made through stream restoration meeting the stream restoration plan

requirements per Subsection 9-173.B.

B. For all mitigable **Wetland Impacts**, **Mitigation** may be made:

1. Within a **Wetland Mitigation Facility** meeting the wetland mitigation plan requirements per Subsection 9-173.A;
2. Through the purchase of credits from a **Wetland Mitigation Bank**; or
3. Through the payment of a fee in lieu of **Mitigation** under Section 9-179.

C. **Wetland Mitigation** shall be provided at the following ratios:

1. One to one (1:1) for **Wetland Impacts** upon **Wetlands** with a **FQI** of less than seven (7). For purposes of this Section, a **Farmed Wetland** is assumed to have a **FQI** less than seven (7);
2. Two to one (2:1) for **Wetland Impacts** upon **Wetlands** with a **FQI** of seven (7) or more but less than sixteen (16);
3. Three to one (3:1) for **Wetland Impacts** upon **Wetlands** with a **FQI** of sixteen (16) or more but less than twenty-five (25);
4. Ten to one (10:1) plus one-half ( $\frac{1}{2}$ ) for each point by which the **FQI** exceeds twenty-five (25) rounded up to the nearest whole number for **Wetland Impacts** upon **Wetlands** with a **FQI** of more than twenty-five (25);
5. Three to one (3:1) unless the **FQI** dictates a higher **Mitigation** ratio for **Wetland Impacts** upon **Wetlands** inhabited by a threatened or endangered species;
6. **Mitigation** for **Wetland Impacts** upon more than one **Wetland** within a **Site** shall be mitigated at the ratio of the highest quality **Wetland Impacted**; and
7. **Mitigation** requirements based upon preliminary assessments per Subsection 9-169.D shall not be considered final unless a **FQI** of sixteen (16) is assumed or the **Director** (or **Administrator** in a **Community** certified to administer this Article), accepts such security as he shall deem appropriate to ensure that the required **Mitigation** will be achieved.

D. The **Applicant** may provide **Wetland Mitigation** by enhancing preserved **Wetlands** with a **FQI** of seven (7) or less at the ratio of one-fourth to one (0.25:1 ) per one acre of **Wetland** enhanced. If this option is chosen, the entire **Wetland** shall be enhanced even if credit in excess of that required for the **Development** is generated. The enhanced **Wetland** shall meet the performance standards of Section 9-174.

- E. **Mitigation** for impacts to **Wetlands** with a **FQI** less than seven (7) may occur within the **Detention Storage Facility**, upon approval of the **Director** (or **Administrator** in a **Community** certified to administer this Article).
- F. The **Applicant** may propose an alternative **Mitigation** plan combining **Wetland** creation, purchase of credits from a **Wetland Mitigation Bank**, payment of a fee in lieu of **Wetland Mitigation**, and/or enhancing existing **Wetlands** either on-site or off-site.

## 9-173 WETLAND MITIGATION AND STREAM RESTORATION PLAN

- A. If **Wetland Mitigation** is required and is proposed within a **Wetland Mitigation Facility**, a wetland mitigation plan shall be submitted in accordance with Section 9-180. The wetland mitigation plan shall be designed so that:
  - 1. Every **Wetland Mitigation Facility** shall contain at least two (2) **Wetland Plant Communities** (for example, wet prairie, emergent, floating vascular, forested wetland, sedge meadow, or hemimarsh);
  - 2. **Open Water** shall not constitute more than twenty percent (20%) of the entire **Wetland Mitigation Facility**; and
  - 3. It is buffered according to the requirements of Section 9-177. Reductions are allowed in accordance with Subsections 9-177.B.5.c and 9-177.B.6. No **Buffer** is required for that portion of a **Wetland Mitigation Facility** which is adjacent to an existing preserved **Wetland**.
- B. If **Linear Watercourses** are modified, a stream restoration plan shall be submitted in accordance with Section 9-180. The stream restoration plan shall be designed so that:
  - 1. If **Linear Watercourses** are completely or partially relocated, the newly created portion must be of equal or greater length than the existing **Linear Watercourse**;
  - 2. It is constructed in a manner which will allow naturalizing to occur (i.e. meandering, pools, riffles, and the like); and
  - 3. It is buffered according to the requirements of Section 9-177. Reductions are allowed in accordance with Subsections 9-177.B.5.c and 9-177.B.6.

## 9-174 MITIGATION PERFORMANCE STANDARDS

- A. All **Wetland Mitigation Facilities** shall meet the following performance standards:
  - 1. The proposed **Wetland** acreage within the **Wetland Mitigation Facility** shall

meet the definition of a "**Wetland**" under this Chapter.

2. All vegetated zones, including the **Buffer**, within any **Wetland Mitigation Facility** shall achieve eighty five percent (85%) cover, with the following exceptions:
    - a. The emergent **Plant Community** shall achieve sixty percent (60%) aerial coverage;
    - b. The floating vascular **Plant Community** shall meet twenty-five percent (25%) aerial coverage; and
    - c. **Open Water** shall have zero percent (0%) vegetative coverage.
  3. A **Wetland Mitigation Facility** designed to mitigate for impacts to **Wetlands** with a **FQI** of less than seven (7) shall achieve a minimum **FQI** three (3) points greater than the **FQI** of the **Wetland Impacted** within the five (5) year monitoring period.
  4. A **Wetland Mitigation Facility** designed to mitigate for impacts to **Wetlands** with a **FQI** of seven (7) or more but less than twenty-five (25) shall achieve a minimum **FQI** five (5) points greater than the **FQI** of the **Wetland Impacted** within the five (5) year monitoring period.
  5. A **Wetland Mitigation Facility**, including the **Buffer**, shall not be dominated or contain cumulatively more than ten percent (10%) cover by non-native or invasive species.
- B. All stream restorations and their **Buffers** shall meet the following performance standards:
1. All constructed in stream structures (i.e., pools, riffles, bank stabilization, and the like) shall be dynamically stable;
  2. No rills or gullies shall be present on stabilized streambanks;
  3. The overbank areas of any stream restoration, including the **Buffer**, shall achieve eighty five percent (85%) coverage. Proposed vegetated areas in the stream or along the toe shall achieve sixty percent (60%) coverage;
  4. The overbank areas of a stream restoration with no associated **Wetlands** shall achieve a minimum **FQI** of ten (10) within the three (3) year monitoring period;
  5. A stream restoration with associated **Wetlands** with a **FQI** of less than seven (7) shall achieve a minimum **FQI** three (3) points greater than the **FQI** of the associated **Wetlands** within the three (3) year monitoring period;

6. A stream restoration with associated **Wetlands** with a **FQI** of seven (7) or more but less than twenty-five (25) shall achieve a minimum **FQI** five (5) points greater than the **FQI** of the associated **Wetlands** within the three (3) year monitoring period; and
  7. A stream restoration, including the **Buffer**, shall not be dominated or contain cumulatively more than ten percent (10%) cover by non-native or invasive species.
- C. All **Buffer** (re)establishment areas that are not part of a **Wetland Mitigation Facility** or stream restoration shall meet the performance standards in Subsection 9-177.C.

## 9-175 MITIGATION MONITORING

### A. All **Wetland Mitigation** facilities shall:

1. Be monitored and managed for five (5) years beginning on the day the **Wetland** planting is completed;
2. Be monitored in accordance with the procedures set forth in the current Chicago District protocol promulgated by **USACE**;
3. Provide an annual report to the **Director** (or **Administrator** in a **Community** certified to administer this Article) by February 15th of each year for every **Wetland Mitigation Facility** under permit;
4. Make a request for the release of the performance security to the **Director** (or **Administrator** in a **Community** certified to administer this Article) once a **Wetland Mitigation Facility** reaches its required **FQI** and meets the performance standards of Section 9-174. A release of the performance security may be requested of the **Director** (or **Administrator** in a **Community** certified to administer this Article) as early as the end of the third full growing season; and
5. Be maintained in accordance with Article IX of this Chapter at the end of the five (5) year monitoring and management period, or upon acceptance by the **Director** (or **Administrator** in a **Community** certified to administer this Article).

### B. All stream restorations shall:

1. Be monitored and managed for three (3) years beginning on the day planting is completed;
2. Be monitored in accordance with the procedures set forth in the current Chicago District protocol promulgated by **USACE**;

3. Provide an annual report to the **Director** (or **Administrator** in a **Community** certified to administer this Article) by February 15th of each year for the stream restoration under permit;
4. Make a request for the release of the performance security to the **Director** (or **Administrator** in a **Community** certified to administer this Article) once the stream restoration reaches its required **FQI** and meets the performance standards of Section 9-174. A release of the performance security may be requested of the **Director** (or **Administrator** in a **Community** certified to administer this Article) as early as the end of the second full growing season; and
5. Be maintained in accordance with Article IX of this Chapter at the end of the three (3) year monitoring and management period, or upon acceptance by the **Director** (or **Administrator** in a **Community** certified to administer this Article).

## 9-176 NON-PERFORMING MITIGATION REQUIREMENTS

At the end of the five (5) year monitoring period for a **Wetland Mitigation Facility** and the three (3) year monitoring period for a stream restoration, or upon an earlier request for the release of the performance security, the **Director** (or **Administrator** in a **Community** certified to administer this Article) shall evaluate the **Wetland Mitigation Facility** or stream restoration for compliance with the performance standards of Section 9-174. The **Director** (or **Administrator** in a **Community** certified to administer this Article) may review the annual monitoring reports and/or perform a site visit to make this evaluation. If the **Director** (or **Administrator** in a **Community** certified to administer this Article) determines that the facility meets the standards he shall release the performance security. If the **Director** (or **Administrator** in a **Community** certified to administer this Article) determines that the facility does not meet the standards he shall make an estimate of the probable cost of mitigating for the shortfall in performance. The **Director** (or **Administrator** in a **Community** certified to administer this Article) shall reduce so much of the performance security to cash as is required to mitigate for the shortfall in performance and shall release the remainder. The amount withheld for **Mitigation** shall be deposited in the fund created under and expended in the manner described in Section 9-179.

## 9-177 BUFFER REQUIREMENTS

A.Applicability:

1. The requirements of this Section are applicable to:
  - a. Areas in conservation or drainage easements that were established under this Chapter for the purpose of protecting, enhancing or reestablishing a **Buffer** shall be preserved in accordance with



Subsection 9-177.B and if disturbed, shall be re-established;

- b. **Developments** that require a **Stormwater Management Permit** per Section 9-28 but do not require a **Detention Storage Facility** per Subsection 9-81.B shall meet Subsection 9-177.B; and
- c. **Developments** that require a **Detention Storage Facility** per Subsection 9-81.B shall meet Subsection 9-177.B. If disturbance is proposed within a **Buffer** on the **Site**, the area within the defined width per Subsection 9-177.B that does not currently meet the definition of a **Buffer** shall be assessed for potential **Buffer** functions. Areas that have high potential to provide **Buffer** functions shall be re-established in accordance with Subsection 9-177.C. Such areas include, but are not limited to:

- (1) **Agricultural Land** within the defined width currently in production that are tributary to the **Linear Watercourse, Nonlinear Waterbody, or Wetland**;
- (2) Maintained turf or landscape areas within the defined width that are tributary to the **Linear Watercourse, Nonlinear Waterbody, or Wetland**;
- (3) Fallow or unmaintained areas within the defined width dominated by invasive species that are tributary to the **Linear Watercourse, Nonlinear Waterbody, or Wetland**;
- (4) **Redevelopment** areas within the defined width that propose removal of **Buildings, Structures** or impervious surface in an area that is tributary to the **Linear Watercourse, Nonlinear Waterbody, or Wetland**; or
- (5) Areas within the defined width that are not tributary to, but provide ground water recharge, to the **Linear Watercourse, Nonlinear Waterbody, or Wetland**.

2. The requirements of this Section are not applicable to:

- a. **Redevelopment** projects on **Sites** adjacent to the main **Channel** of the Fox River; or
- b. **Isolated Wetlands** or **Waters of the U.S.** that, in either case, are below the threshold size limitations for **Mitigation** requirements under the **USACE** Section 404 permit program (currently, less than 0.10 acre);
- c. Roadside and agricultural drainage ditches that do not meet the definition

of a **Wetland** or **Waters of the U.S.**;

- d. Swales that do not have a defined bed and bank that do not meet the definition of a **Wetland** or **Waters of the U.S.**; and
- e. Public roadway crossings and their associated installations.

**B. Buffers:**

1. A **Buffer** shall not constitute a **Linear Watercourse, Nonlinear Waterbody** or **Wetland**.
2. **Buffer** widths required as a part of a **USACE** Section 404 permit supersede the widths required in this Section, unless the width required herein is greater. If a **USACE** permit is obtained to permanently fill a portion of a **Wetland** and no **Buffer** is required, the **Buffer** width required by this Chapter immediately adjacent to the area of impact does not apply. "Immediately adjacent" refers to the area within fifteen feet (15') of the area of impact, which may be used to transition from no **Buffer** to the required width. In no case shall additional **Wetland** area be filled to provide **Buffer** required by this Chapter.
3. **Buffer** areas are divided into two (2) types, linear **Buffers** and water body **Buffers**. The **Buffer** area for all **Linear Watercourses** and **Nonlinear Waterbodies**, except **Wetlands**, shall extend from the **OHWM**. The **Buffer** area for **Wetlands** shall extend from the edge of the approved delineated **Wetland** boundary.
4. A **Site** may contain **Buffer** that originates from a **Linear Watercourse, Nonlinear Waterbody** or **Wetland** located on another property.
5. **Buffer** widths are to be fifty feet (50') wide unless otherwise determined using the criteria specified in Section 9-177.
  - a. Linear **Buffers** shall be designated along **Linear Watercourses** and associated **Wetlands** (i.e. swales, creeks, streams, rivers, etc.). Refer to Section 9-177 where **Wetlands** are adjacent to and not part of the main **Channel** (i.e., **Floodplain Wetland**, backwater slough, oxbow, bordering **Wetland** complex). The minimum **Buffer** width for all **Linear Watercourses** and associated **Wetlands** shall be:
    - (1) Determined utilizing the formula,  $X = (A * 0.0547) + 30$ , where "X" equals the **Buffer** width in feet and "A" equals the **Drainage Area** in acres when the **Linear Watercourse** has a **Drainage Area** less than six hundred forty (640) acres, measured at the downstream property line. The width calculated by this formula shall be rounded up to the

nearest multiple of five (5). Figure 9-177.1 of this Section may be used to determine **Buffer** widths provided the resultant width is increased to the nearest multiple of five (5);

- (2) Fifty feet (50') when the **Linear Watercourse** has a **Drainage Area** greater than six hundred forty (640) acres, measured at the downstream property line, or is designated as **ADID** because of high habitat value or an adjacent **Wetland** has a calculated **FQI** greater than sixteen (16); or
  - (3) One hundred feet (100') when the **Linear Watercourse** is rated A or B for diversity or integrity or is mapped as Biologically Significant by the current edition of "Integrating Multiple Taxa in a Biological Stream Rating System" by the Illinois Department of Natural Resources.
- b. Water body **Buffers** shall encompass nonlinear waterbodies meeting the definition of **Waters of the U.S.**, and **Wetlands** that are not part of the main **Channel** of a **Linear Watercourse**. The **Buffer** width shall be based upon the **FQI** of the **Wetland**. **Buffer** requirements based upon preliminary **FQI** assessments per Subsection 9-169.F shall not be considered final unless maximum **Buffer** widths are assumed. The minimum **Buffer** width shall be:
- (1) Fifteen feet (15') and a maximum of thirty-five feet (35'), in accordance with Table 9-177.2 of this Section, for all **Wetlands** with a **FQI** of less than seven (7) and nonlinear waterbodies that do not have associated **Wetlands**;
  - (2) Fifteen feet (15') and a maximum of fifty feet (50'), in accordance with Table 9-177.3. of this Section, for all **Wetlands** with a **FQI** of seven (7) to sixteen (16);
  - (3) Thirty feet (30') and a maximum of fifty feet (50'), in accordance with Table 9-177.4 of this Section, for all **Wetlands** with a **FQI** greater than sixteen (16) to twenty-five (25); or
  - (4) One hundred feet (100') for all **Wetlands** with a **FQI** greater than twenty-five (25).
- c. If protective measures are installed along the perimeter of a **Buffer**, the width may be reduced by up to ten percent (10%) immediately adjacent to the protective measure. The reduction in width that may be applied due to installation of protective measures may not be applied where **Buffer** width averaging has been used and the **Buffer** would be more than fifty percent (50%) less than originally specified. Protective measures may consist of fencing, native vegetated **Detention Storage**

**Facilities, BMPs** or other methods approved by the **Administrator**.

6. **Buffer** width averaging is acceptable at the discretion of the **Director** (or **Administrator** in a **Community** certified to administer this Article). If **Buffer** width averaging is proposed:
    - a. The width may not be more than fifty percent (50%) less, at the narrowest point, than the required width;
    - b. The width may never be less than fifteen feet (15'); and
    - c. High potential **Buffer** function areas may be re-established to meet **Buffer** averaging requirements for **Developments** meeting Subsection 9-177.A.1.c, upon approval by the **Director** (or **Administrator** in a **Community** certified to administer this Article).
- C. **Buffer** (Re)Establishment: **Buffer** (re)establishment includes revegetation of the required **Buffer** per Subsection 9-177.A using the width determined per Subsection 9-177.B with predominately native deep-rooted vegetation.
1. If **Buffer** (re)establishment is required, a buffer establishment plan shall be submitted in accordance with Section 9-180.
  2. The **Buffer** shall be appropriately managed and maintained in accordance with the following:
    - a. **Buffer** (re)establishment areas less than five thousand (5,000) square feet, cumulatively on-site, shall:
      - (1) Meet the following performance standards:
        - (a) All proposed vegetated areas shall achieve eighty five percent (85%) cover; and
        - (b) All proposed vegetated areas not be dominated by or contain cumulatively more than twenty-five percent (25%) cover by non-native or invasive species.
      - (2) Within one (1) year of the completion of the **Development** a qualified wetland specialist retained by the **Developer** shall verify compliance with this Section in a report submitted to the **Director** (or **Administrator** in a **Community** certified to administer this Article);
      - (3) Make a request for the release of the performance security to the **Director** (or **Administrator** in a **Community** certified to administer this Article) once the **Buffer** (re)establishment areas meet the performance

standards. A release of the performance security may be requested as early as the end of the first full growing season following planting; and

- (4) Be maintained in accordance with Article IX of this Chapter at the end of the monitoring and management period, or upon acceptance by the **Director** (or **Administrator** in a **Community** certified to administer this Article).

b. **Buffer** (re)establishment areas greater than five thousand square feet (5000 sq. ft.), cumulatively on the **Site**, shall:

- (1) Meet the following performance standards:

- (a) All proposed vegetated areas shall achieve eighty five percent (85%) cover;

- (b) All proposed vegetated areas shall achieve a minimum **FQI** of ten (10) within the three (3) year monitoring period; and

- (c) All proposed vegetated areas shall not be dominated or contain cumulatively more than ten percent (10%) cover by non-native or invasive species.

- (2) Be monitored and managed for three (3) years beginning on the day planting is completed;

- (3) Be monitored via meander method or transect method in accordance with the procedures set forth in the current Chicago District protocol promulgated by **USACE**;

- (4) Provide an annual report to the **Director** (or **Administrator** in a **Community** certified to administer this Article) by February 15th of each year for every **Buffer** (re)establishment area under permit;

- (5) Make a request for the release of the performance security to the **Director** (or **Administrator** in a **Community** certified to administer this Article) once the **Buffer** reaches its required **FQI** and meets the performance standards. A release of the performance security may be requested as early as the end of the second full growing season; and

- (6) Be maintained in accordance with Article IX of this Chapter at the end of the three (3) year monitoring and management period, or upon acceptance by the **Director** (or **Administrator** in a **Community** certified to administer this Article).

3. At the end of the three (3) year monitoring period for a **Buffer**

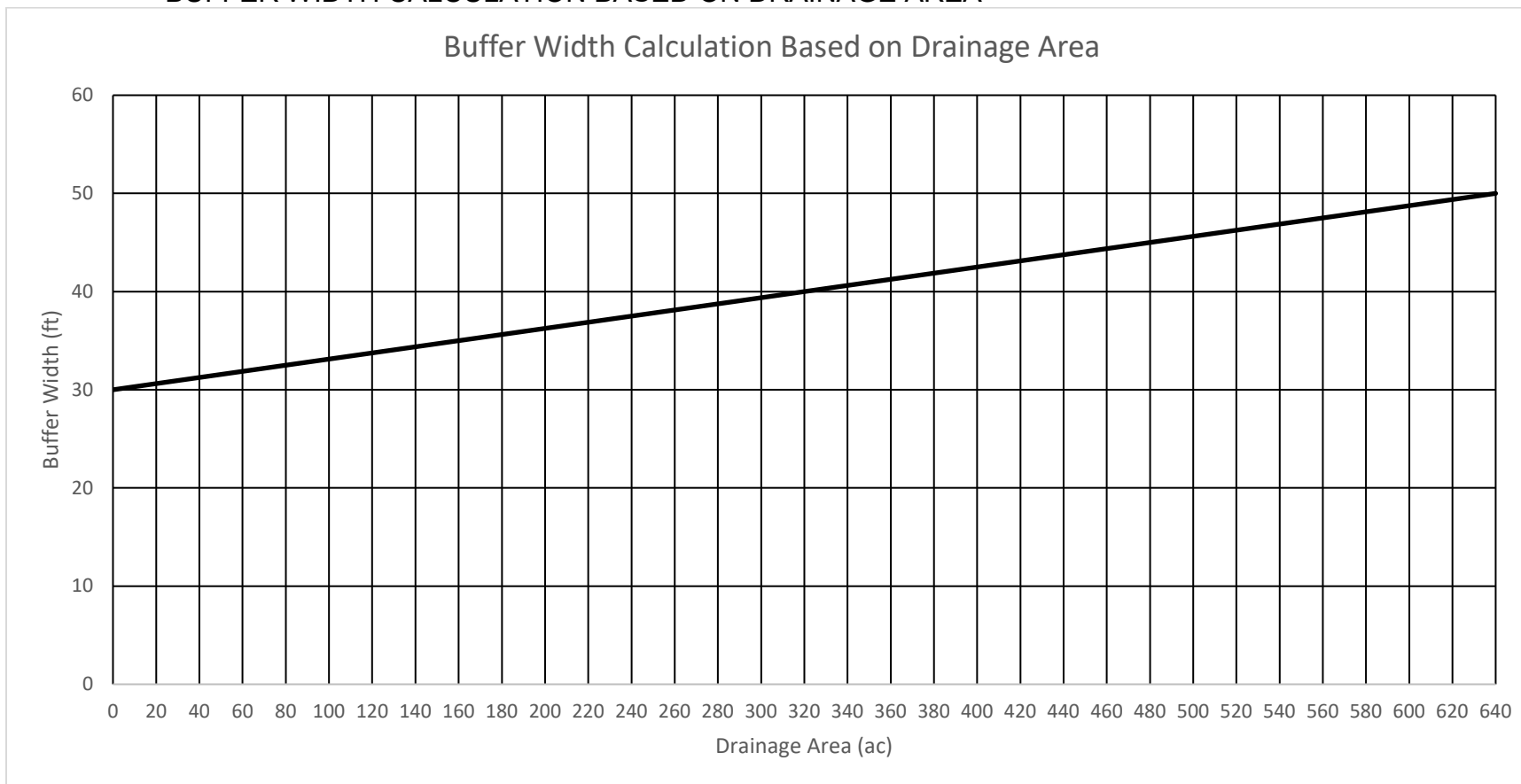
(re)establishment area greater than five thousand square feet, or upon an earlier request for the release of the performance security, the **Director** (or **Administrator** in a **Community** certified to administer this Article) shall evaluate the **Buffer** for compliance with the performance standards. The **Director** or **Administrator** may review the annual monitoring reports and/or perform a site visit to make this evaluation. If the **Director** or **Administrator** determines that the **Buffer** (re)establishment area meets the standards he shall release the performance security. If the **Director** or **Administrator** determines that the **Buffer** (re)establishment area does not meet the standards he shall make an estimate of the probable cost of mitigating for the shortfall in performance. The **Director** or **Administrator** shall reduce so much of the performance security to cash as is required to mitigate for the shortfall in performance and shall release the remainder. The amount withheld shall be deposited in the fund created under and expended in the manner described in Section 9-179.

- D. Stormwater Management Facilities: **Stormwater Management Measures** shall not require a **Buffer** but may constitute **Buffer**. The total width of the **Buffer** required may not be reduced by the installation of a **Stormwater Management Measure** unless they can be considered a protective measure, then the width of the **Buffer** may be reduced as specified in Subsection 9-177.B.5.c.
- E. Disturbed During Construction: If a **Buffer** area is disturbed during construction, the **Buffer** shall be re-established in accordance with Subsection 9-177.C.
- F. Access Allowed When Necessary: Access through **Buffer** areas shall be allowed when necessary for maintenance purposes. Unless otherwise dedicated for a public purpose, **Buffer** areas shall remain private property and are not generally accessible to the public.
- G. Discharge Through **Buffer**: Undetained stormwater which has not passed through a **Detention Storage Facility** shall discharge through a **BMP** or **Buffer** before entering a **Linear Watercourse**, **Nonlinear Waterbody** or **Wetland**.
- H. Free from **Development** Once Established:
1. All **Buffer** areas once established shall be maintained free from **Development**, except as follows:
    - a. A **Buffer** area may be used for passive recreation (e.g., birdwatching, walking, jogging, bicycling, horseback riding and picnicking) and it may contain pedestrian, bicycle or equestrian trails, provided that the created path is no wider than the width required for the designated use by the **AASHTO** Guide for Development of Bicycle Facilities, current edition. If the path leads to a **Wetland**, it must be a winding path to help prevent **Erosion**;

- b. Accessory **Structures** (i.e., toolshed) and impervious surfaces may occupy a maximum of fifteen percent (15%) of the portion of the required **Buffer** that extends onto or is part of a **Site**;
  - c. Below and above ground utilities shall be allowed provided all other federal, state and local regulations are met;
  - d. Utility maintenance, and maintenance of drainage facilities and drainage easements shall be allowed provided the maintenance activity meets all other federal, state and local regulations; and
  - e. Anchoring and placement of boat docks and piers shall be allowed provided the **Structure** meets all other federal, state and local regulations.
2. **Buffer** areas including the protected **Linear Watercourses**, **Nonlinear Waterbodies** and **Wetlands** shall be shown to be within appropriate easements on all new plats. Additionally, the **Stormwater Management Permit** number, and any associated maintenance requirements shall be noted on the plat or included as a covenant running with the land in any deed which conveys any portion of a **Buffer** area.
3. An easement over **Buffer** areas for projects meeting the requirements of Subsection 9-177.C.2.a is not required. A Declaration of Restriction and Covenant that acknowledges the presence of **Linear Watercourses**, nonlinear waterbodies, **Wetlands** and **Buffers** on-site, the **Stormwater Management Permit** number, and any associated maintenance requirements. However, an easement per Subsection 9-177.H.2 may be required at the discretion of the **Administrator**.

I. **Buffer** width calculation Figures and Tables:

**FIGURE 9-177.1**  
BUFFER WIDTH CALCULATION BASED ON DRAINAGE AREA





**TABLE 9-177.2**  
 LOW QUALITY WETLANDS (FQI<7)

<b>Wetland Area (Acres)</b>	<b>Buffer Width (Feet)</b>
0.10	15.0
0.25	15.0
0.50	15.0
0.75	15.0
1.00	20.0
1.25	20.0
1.50	20.0
1.75	25.0
2.00	25.0
2.25	25.0
2.50	25.0
2.75	30.0
3.00	30.0
3.25	30.0
3.50	30.0
3.75	35.0
4.00	35.0
4.25	35.0
4.50	35.0
4.75	35.0
5.00 or more	35.0

**TABLE 9-177.3**  
 MEDIUM QUALITY WETLANDS (7>FQI<16)

<b>Wetland Area (Acres)</b>	<b>Buffer Width (Feet)</b>
0.10	15.0
0.25	15.0
0.50	15.0
0.75	20.0
1.00	25.0
1.25	25.0
1.50	30.0
1.75	30.0
2.00	30.0
2.25	35.0
2.50	35.0
2.75	35.0
3.00	40.0
3.25	40.0
3.50	40.0
3.75	45.0
4.00	45.0
4.25	45.0
4.50	45.0
4.75	50.0
5.00 or more	50.0

**TABLE 9-177.4**  
HIGH QUALITY WETLANDS (16>FQI>25)

<b>Wetland Area (Acres)</b>	<b>Buffer Width (Feet)</b>
0.10	30.0
0.25	30.0
0.50	35.0
0.75	40.0
1.00	45.0
1.25	45.0
1.50	45.0
1.75	45.0
2.00	50.0
2.25	50.0
2.50	50.0
2.75	50.0
3.00	50.0
3.25	50.0
3.50	50.0
3.75	50.0
4.00	50.0
4.25	50.0
4.50	50.0
4.75	50.0
5.00 or more	50.0

### **9-178 DENIAL OF PERMIT—APPEAL**

The denial of a permit under this Article may be appealed in the manner described in Section 9-36.

### **9-179 FEE IN LIEU OF WETLAND MITIGATION**

If a **Wetland Mitigation** is required under this Chapter and the **Applicant** chooses to satisfy the **Mitigation** requirement by paying a fee in lieu of **Mitigation**, the **Applicant** shall:

- A. Prepare a statement of the estimated probable cost to acquire the land, install, monitor and maintain a **Wetland Mitigation Facility** for five (5) years (which estimate is subject to the approval of the **Director** [or **Administrator** in a **Community** certified to administer this Article]), as if the **Applicant** had chosen to satisfy the **Mitigation** requirement by mitigating within a **Wetland Mitigation Facility**; and
- B. If **Mitigation** credits are available from any **Wetland Mitigation Bank**, the **Applicant** shall also prepare a statement of the estimated probable cost of satisfying the **Mitigation** requirement through the purchase of credits from a **Wetland Mitigation Bank** (which estimate is subject to the approval of the **Director** [or **Administrator** in

a **Community** certified to administer this Article]) as if the **Applicant** had chosen to satisfy the **Mitigation** requirement in such manner.

C. The fee in lieu of **Wetland Mitigation** to be paid under this Section shall be the greater of Subsections 9-179.A or 9-179.B.

## 9-180 WETLAND SUBMITTAL

- A. The **Applicant** shall obtain a permit for all federally regulated activities involving **Waters of the U.S.** from the appropriate federal authorities. The **Applicant** shall obtain a permit from the **County** (or **Community** certified to administer Article VII of this Chapter), for all **Developments** having a **Wetland Impact** or that modify a **Linear Watercourse** or **Nonlinear Waterbody**.
- B. If the **Development** proposes a **Wetland Impact** or modification to a **Linear Watercourse** or **Nonlinear Waterbody**, the requirements of this Article shall be met and a wetland submittal shall be required. The submittal shall include all of the following information:
1. A written report containing:
    - a. A **Wetland** delineation report (**USACE** format);
    - b. Calculation of the required **Buffer** width for each **Linear Watercourse**, **Nonlinear Waterbody**, and **Wetland** (including date the **FQI** was completed, size and description of the **Buffer** functions);
    - c. Consultation with the Illinois Department of Natural Resources to determine if the **Site** is inhabited by a state listed threatened or endangered species and obtain a consultation termination letter or other instrument of approval;
    - d. An evaluation of the **Site** in accordance with current **USFWS** review procedure;
    - e. One of the following forms of documentation from the **USACE**:
      - (1) A copy of the written Jurisdictional Determination (JD) from the **USACE** as to which **Linear Watercourses**, nonlinear waterbodies and **Wetlands** on the **Site** are **Waters of the U.S.**;
      - (2) A copy of a Letter of No Objection (LONO) where no impacts to **Waters of the U.S.** are proposed; or
      - (3) A copy of the **USACE** permit for the **Development**.
    - f. A narrative describing the proposed **Wetland Impacts** and means of **Mitigation**;
    - g. Supporting calculations to prove the **Development** will not cause an indirect impact to **Wetlands** on-site or within 100 feet of the **Site** shall be included in the **Wetland** submittal. An indirect **Wetland Impact** is determined if a **Development** activity would result in the **Wetland Hydrology** falling below 80 percent, or exceeding 150 percent, of the existing condition storm event **Runoff** volume to the **Wetland** for the 2-year, 24-hour storm event. The following minimum information shall be submitted

to address this provision:

- (1) An exhibit illustrating the existing and proposed tributary **Drainage Area** to **Wetlands**;
  - (2) Existing and proposed condition land use documentation and soil type;
  - (3) Existing condition and proposed **Runoff** volume determination;
  - (4) Where practical, the **Development** shall include a design for the stormwater management system that maintains or replicates the existing hydrologic condition of the **Wetland**, unless changes are proposed to enhance the **Wetland** function;
  - (5) For proposed **Developments** that will change the size of a **Wetland** through direct impacts via dredging or filling, the proposed to existing conditions **Runoff** volume ratio shall be adjusted according to the change in **Wetland** size, to determine if the **Hydrology** threshold has been met;
  - (6) The requirements of this Section may be waived if the on-site **Tributary Area** is less than 10% of the total **Tributary Area** to the **Wetland**, upon approval of the **Director** (or **Administrator** in a **Community** certified to administer this Article); and
  - (7) If an indirect impact is proposed, the requirements of Article VII of this Chapter shall be met.
- h. If **Wetland Impacts** will be mitigated within a **Wetland Mitigation Facility**, the report shall also contain:
- (1) The proposed plan including a description of the proposed hydrologic regime, soils and **Site** geomorphology, where applicable;
  - (2) Specifications for rough and final grading, soil types, soils placement, plant procurement, water control structures and a planting plan that lists the plant materials by scientific and common name, seeding rate or spacing distance and special planting provisions; and
  - (3) Maintenance and monitoring provisions including an annual work schedule describing each task in detail and time of year when it will be performed.
- i. If **Linear Watercourses** are modified, the report shall also contain:
- (1) Supporting calculations for bank stabilization measures and **Channel** width, depth, sinuosity, pool and riffle locations, and the like; and
  - (2) Specifications for bank stabilization measures, in-stream practices and a planting plan that lists the plant materials by scientific and common name, seeding rate or spacing distance and special planting provisions.
- j. Cost estimate for installation and required management, monitoring, and reporting

for all **Mitigation**, restoration, establishment proposed.

2. Plan view drawings including:

- a. All **Linear Watercourses**, nonlinear waterbodies, and **Wetlands** on-site or within one hundred feet (100') of the **Site**;
- b. All **Buffers** with the width labeled;
- c. Proposed **Wetland** and **Buffer** impacts;
- d. A **Wetland** summary table for all **Wetlands** including their **FQI**, acreage, **Buffer** width, acreage of proposed **Wetland** and **Buffer** impacts, **Wetland Mitigation** ratio, **Mitigation** acreage required, and **Wetland** enhancement acreage and **Wetland Mitigation Facility** acreage;
- e. Identification of easement areas;
- f. If **Wetland Impacts** will be mitigated within a **Wetland Mitigation Facility**, the plan shall also contain:
  - (1) Planting plan for **Wetlands** and **Buffers** including location and acreage of **Plant Communities** and plant list including scientific and common names, seeding rate, plant quantities, and spacing distance; and
  - (2) Maintenance and monitoring provisions including an annual work schedule describing each task in detail and time of year when it will be performed.
- g. If **Linear Watercourses** are modified, a stream restoration plan shall be submitted in accordance with Subsection 9-174.B. At a minimum the plan shall contain:
  - (1) The plan, profile and cross sections of the existing and proposed stream;
  - (2) The length of the existing and proposed **Linear Watercourse**. The newly created portion must be of equal or greater length;
  - (3) Location and type of streambank stabilization measures, meanders, pools, riffles, and the like;
  - (4) A planting plan for disturbed banks that provides stabilization with native vegetation where appropriate; and
  - (5) An appropriately sized **Buffer** in accordance with Subsection 9-177.B.5.
- h. If **Buffer** averaging or re-establishment will occur on-site, the plan shall also contain:
  - (1) Planting plan for **Buffers** including location and acreage of **Plant Communities** and plant list including scientific and common names, seeding rate, plant quantities and spacing distance; and
  - (2) Maintenance and monitoring provisions including an annual work schedule

describing each task in detail and time of year when it will be performed.

**9-181 - 9-201 RESERVED**

## ARTICLE VIII—PERFORMANCE SECURITY

### 9-202 GENERAL SECURITY REQUIREMENTS

- A. To secure the performance of the **Developer's** obligation to complete the construction of the **Major and Minor Stormwater Systems, Stormwater Management Measures and Special Management Areas** required by the **Stormwater Management Permit**, and to pay all costs, fees and charges due under this Chapter, and to fully and faithfully comply with all of the provisions of this Chapter, the **Applicant** shall, prior to the issuance of a **Stormwater Management Permit**:
1. Post the security provided in Section 9-203;
  2. Post the security provided in Section 9-204 if an erosion and sedimentation control plan is required under this Chapter;
  3. Post the security provided in Section 9-205 if **Stormwater Mitigation/BMPs** and **Watershed Benefit Measures** are required under this Chapter; and
  4. Post the security provided in Section 9-206 if **Mitigation** for a **Wetland Impact** is required under this Chapter and the applicant chooses to mitigate within a **Wetland Mitigation Facility**, stream restoration or **Buffer** (re)establishment is proposed; or
  5. The security may be posted as one single security that includes all of the above.
- B. The **Applicant** shall bear the full cost and responsibility of obtaining and maintaining the security required by this Article.

### 9-203 DEVELOPMENT SECURITY

- A. In all cases the **Applicant** shall post:
1. A schedule, agreed upon by the **Applicant** and the **Administrator**, for the completion of any **Major and Minor Stormwater Systems, Stormwater Management Measures** (excluding Category I **BMPs**) or **Special Management Areas** required by the permit;
  2. A statement of the estimated probable cost to complete the construction of any **Major and Minor Stormwater Systems, Stormwater Management Measures** (excluding Category I **BMPs**) and **Special Management Areas** required by the permit which estimate is subject to the approval of the **Administrator**; and
  3. An irrevocable letter of credit in favor of the **Permitting Authority**, or other adequate security upon approval by the **Administrator**, in an amount equal to one hundred ten percent (110%) of the approved estimated probable cost to complete the construction of any required **Major and Minor Stormwater Systems, Stormwater Management Measures** (excluding Category I **BMPs**) and **Special Management Areas**.
- B. The security required by this Section shall be maintained by the **Applicant** in favor of the **Permitting Authority** until all **Major and Minor Stormwater Systems, Stormwater Management Measures** (excluding Category I **BMPs**), and **Special Management Areas**



required by the permit have been completed, all conditions set forth in the permit have been satisfied and the **Applicant** has complied with all of the provisions of this Chapter.

- C. The **Administrator** may approve periodic reductions in the amount of the security based upon the progress of construction. At no time, however, shall more than ninety percent (90%) of the security be released prior to approval of **Record Drawings** and final inspection. A minimum of ten percent (10%) of the original amount of the security shall be retained for a period of one year after completion of all required stormwater facilities.

## 9-204 EROSION AND SEDIMENTATION CONTROL SECURITY

- A. If an erosion and sedimentation control plan is required under this Chapter the **Applicant** shall post:
1. A statement of the estimated probable cost to install and maintain the **Erosion and Sedimentation Control Practices** required by the plan which estimate is subject to the approval of the **Administrator**; and
  2. An irrevocable letter of credit in favor of the **Permitting Authority**, or other adequate security upon approval by the **Administrator**, in an amount equal to one hundred ten percent (110%) of the approved estimated probable cost to install and maintain the required **Erosion and Sedimentation Control Practices**.
- B. The security required by this Section shall be maintained by the **Applicant** in favor of the **Permitting Authority** until construction has been completed, vegetation has been established, sediment has been removed from all **Stormwater Facilities** and the **Development** has been inspected and approved by the **Administrator** at which time it shall be released.

## 9-205 STORMWATER MITIGATION / BMP AND WATERSHED BENEFIT MEASURE PERFORMANCE SECURITY

- A. If Category II **Stormwater Mitigation/BMPs** or **Watershed Benefit Measures** are required under this Chapter, the **Applicant** shall post:
1. A statement of the estimated probable cost to install, monitor and maintain the native vegetated Category II **BMPs** or **Watershed Benefit Measures** required by the plan for three (3) years which estimate is subject to the approval of the **Administrator**; and
  2. An irrevocable letter of credit in favor of the **Permitting Authority**, or other adequate security upon approval by the **Administrator**, in an amount equal to one hundred ten percent (110%) of the approved estimated probable cost.
- B. The security required by this Section shall be maintained by the **Applicant** in favor of the **Permitting Authority**, until construction has been completed, vegetation has been established and the native vegetated Category II **BMPs** or **Watershed Benefit Measures** have been evaluated by the **Administrator**, and found to meet the performance standards of Section 9-174 at which time it shall be released.

## 9-206 SPECIAL MANAGEMENT AREA PERFORMANCE SECURITY

A. If **Mitigation** for a **Wetland Impact** is required under this Chapter and the **Applicant** chooses to mitigate within a **Wetland Mitigation Facility**, the **Applicant** shall post:

1. A statement of the estimated probable cost to install, monitor and maintain the **Wetland Mitigation Facility** required by the plan for five (5) years which estimate is subject to the approval of the **Director** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter); and
2. An irrevocable letter of credit in favor of the **County** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter), or other adequate security upon approval by the **Director** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter), in an amount equal to one hundred ten percent (110%) of the approved estimated probable cost.

B. If stream restoration is required under this Chapter, the **Applicant** shall post:

1. A statement of the estimated probable cost to install, monitor and maintain the stream restoration required by the plan for three (3) years which estimate is subject to the approval of the **Director** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter); and
2. An irrevocable letter of credit in favor of the **County** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter), or other adequate security upon approval by the **Director** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter), in an amount equal to one hundred ten percent (110%) of the approved estimated probable cost.

C. If **Buffer** (re)establishment is required under this Chapter, the **Applicant** shall post:

1. For **Buffer** (re)establishment areas less than five thousand (5,000) square feet, cumulatively on-site, shall:
  - a. A statement of the estimated probable cost to install, monitor and maintain **Buffer** (re)establishment areas required by the plan for one (1) year which estimate is subject to the approval of the **Director** (or **Administrator** in a **Community** certified to administer this Article); and
  - b. An irrevocable letter of credit in favor of the **County** (or **Administrator** in a **Community** certified to administer this Article), or other adequate security upon approval by the **Director** (or **Administrator** in a **Community** certified to administer this Article), in an amount equal to one hundred ten percent (110%) of the approved estimated probable cost.
2. For **Buffer** (re)establishment areas greater than five thousand square feet, cumulatively on the **Site**, shall,
  - a. A statement of the estimated probable cost to install, monitor and maintain **Buffer** (re)establishment areas required by the plan for three (3) years which estimate is subject to the approval of the **Director**; and

- b. An irrevocable letter of credit in favor of the **County** (or **Administrator** in a **Community** certified to administer this Article), or other adequate security upon approval by the **Director** (or **Administrator** in a **Community** certified to administer this Article), in an amount equal to one hundred ten percent (110%) of the approved estimated probable cost.
- D. The security required by this Section shall be maintained by the **Applicant** in favor of the **County** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter), until construction has been completed, vegetation has been established and the **Wetland Mitigation** facility, stream restoration, or **Buffer** (re)establishment has been evaluated by the **Director** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter), and found to meet the performance standards of Section 9-174 at which time it shall be released.

## 9-207 LETTERS OF CREDIT

- A. Letters of credit posted pursuant to this Article shall be in a form satisfactory to the **Administrator**.
- B. Each letter of credit shall be drawn on an institution:
1. Acceptable to the **Administrator**;
  2. Having assets of at least ten million dollars (\$10,000,000.00);
  3. Having an office in the Chicago metropolitan area;
  4. That is a member of the federal deposit insurance corporation; or
  5. As required by the **Administrator**.
- C. Each letter of credit shall provide that:
1. It is irrevocable;
  2. The consent of the **Applicant** is not required prior to its presentment for payment; and
  3. If at any time it will expire within forty-five (45) or any lesser number of days, and if it has not been renewed and the renewal submitted to the **Administrator**, and if any obligation of the **Applicant** for which it stands as 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, present the letter of credit for payment 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 **Permitting Authority** for any and all costs and expenses, including legal fees and administrative costs, incurred by the **Permitting Authority**.
- D. If the **Administrator** at any time determines that the amount of the letter of credit is not, or may not be, sufficient to pay in full the remaining unpaid cost of the construction of all stormwater facilities or the installation and maintenance of all **Erosion and**

**Sedimentation Control Practices**, then, within ten (10) days following a demand by the **Administrator**, the **Applicant** shall increase the amount of the letter of credit to the amount determined by the **Administrator** to be sufficient to pay such unpaid costs. Failure to increase the amount of the letter of credit shall be grounds for the **Administrator** to present the letter of credit for payment.

- E. If at any time the **Administrator** determines that the bank issuing the letter of credit is without assets of at least ten million dollars (\$10,000,000.00), 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 **Permitting Authority** to be insecure, then the **Administrator** shall have the right to demand that the **Applicant** provide a replacement letter of credit from a bank meeting the requirements of this Section. Such replacement letter of credit shall be deposited with the **Administrator** not less than ten (10) days following such demand. Upon such deposit, the **Administrator** shall surrender the original letter of credit to the **Applicant**.
- F. If the **Applicant** fails or refuses to fully meet any of its obligations under this Chapter then the **Administrator** may, in his or her discretion, present the letter for payment 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 or otherwise mitigate the effects of such failure or refusal and may reimburse the **Permitting Authority** for any and all costs and expenses, including legal fees and administrative costs, incurred by the **Permitting Authority**. If as a result of such default, the remaining amount of the letter of credit is less than the amount otherwise required to be then maintained under this Article, then the **Applicant** shall, upon demand of the **Administrator** therefor, immediately deposit with the **Administrator** such additional funds as the **Administrator** determines to be required to be then maintained.

**9-208 - 9-228 RESERVED**

## ARTICLE IX—LONG-TERM MAINTENANCE

### 9-229 LONG-TERM MAINTENANCE

The owner shall maintain all **Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas**, located upon his land or within easements for off-site **Outfalls**. With the approval of the **Administrator** the **Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas**, or specified portions thereof, may be:

- A. Dedicated or otherwise transferred to and accepted by the **Permitting Authority** or other public entity; or
- B. Conveyed or otherwise transferred to and accepted by a homeowners' association, or similar entity, the members of which are to be the owners of all 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 the **Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas** 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 Management Measures, Major and Minor Stormwater Systems, and Special Management Areas** and a description of the sources of funding therefor. Amendments to the plan must be approved by the **Administrator**.

### 9-230 TRANSFER TO PERMITTING AUTHORITY OR OTHER PUBLIC ENTITY

If any portion of the **Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas** are to be dedicated or otherwise transferred to the **Permitting Authority** or other public entity under Section 9-229, 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.

### 9-231 TRANSFER TO HOMEOWNER'S OR SIMILAR ASSOCIATION

If any portion of the **Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas** are to be conveyed or otherwise transferred to a homeowners' or similar association under Section 9-229 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 final plat shall contain a legend imposing the maintenance obligations of this Section upon the association and its 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 association does not do so and to place a lien against the land for the cost thereof;
- D. The association shall be duly incorporated and a copy of the certificate of incorporation, duly recorded, and bylaws, and any amendment to either of them, shall be delivered to the **Administrator**;
- E. The bylaws of the association shall, at a minimum, contain:
1. A provision acknowledging and accepting the association's obligation to maintain those portions of the **Stormwater Management Measures, Major and Minor Stormwater Systems**, and **Special Management Areas** conveyed or otherwise transferred to it under this Chapter;
  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 Management Measures, Major and Minor Stormwater Systems**, and **Special Management Areas** conveyed or otherwise transferred to it under this Chapter, and the payment of all taxes levied thereon;
  3. An engineer's estimate of probable yearly maintenance costs for all **Stormwater Management Measures, Major and Minor Stormwater Systems**, and **Special Management Areas** with a certification from the Owner that Association Covenants, Deeds and Restrictions will allow for sufficient funds to be collected based on engineer's estimate with built in inflation not subject to lot owner approval;
  4. A provision adopting the plan of long-term maintenance set forth in the application for a **Stormwater Management Permit**, with approved amendments;
  5. A provision identifying the officer of the association responsible for carrying out the obligations imposed upon the association under this Chapter;
  6. 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 Chapter; and
  7. A provision requiring the consent of the **Permitting Authority** to the dissolution of the association.
- F. Any conveyance or other instrument of transfer delivered under Section 9-229 shall include a covenant affirmatively imposing upon the association the obligations set forth in this Section and the association's affirmative acceptance thereof; and
- G. The **Developer** shall, when the homeowner's association is turned over to property owners, provide two (2) hard copies of the stormwater plan and long-term maintenance plan and one digital copy of both to the homeowner's association.

## 9-232 CONVEYANCE TO ONE OR MORE PERSONS

If any portion of the **Stormwater Management Measures, Major and Minor Stormwater Systems**, and **Special Management Areas** are to be conveyed to one or more **Persons** under Subsection 9-229.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; and
- D. Any conveyance delivered under Subsection 9-229.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.

### **9-233 INCORPORATION OF MAINTENANCE OBLIGATIONS IN STORMWATER MANAGEMENT PERMIT**

A long-term maintenance plan for **Stormwater Management Measures, Major and Minor Stormwater Systems**, off-site **Outfalls**, and **Special Management Areas** shall be included in the **Stormwater Management Permit** and the **Applicant's** acceptance of the permit shall be deemed to be the **Applicant's** acceptance of these obligations. The **Stormwater Management Permit** and any associated maintenance requirements shall be noted on the plat of easement, if required by this Chapter, or shall be recorded as a Declaration of Restriction and Covenant.

- A. The long-term maintenance plan shall include the following:
  1. Identification of the **Person** or party responsible for all long-term maintenance obligations;
  2. A list of the **Stormwater Management Measures, Major and Minor Stormwater Systems**, and **Special Management Areas** and associated features (e.g. restrictor in a **Detention Storage Facility**) that are to be inspected and maintained;
  3. Identification of maintenance tasks for each of the areas referenced in Subsection 233.A.2 and associated features, including but not limited to:
    - a. Removal of debris;
    - b. Cleaning and repair of any underground stormwater infrastructure;
    - c. Repair and stabilization of any areas experiencing **Erosion**;

- d. Removal of accumulated sediment;
  - e. Manufacturer's maintenance specifications for all proprietary features (e.g. **Permeable Pavements**, hydrodynamic separators, etc.);
  - f. Stewardship of native vegetated areas which may include, but is not limited to: mowing, prescribed burning and herbicide application for the purpose of non-native and invasive species management;
  - g. Performance criteria for which the native vegetated areas may not fall below; and
  - h. An annual schedule for inspections, implementation and frequency of maintenance tasks, and qualified **Persons** responsible for each task.
- B. Inspection, maintenance and repairs in accordance with the annual schedule per Subsection 233.A.3.h for the areas referenced in Subsection 233.A.2 shall be completed. A report of the items in Subsection 9-233.A. shall be submitted to the **Administrator**, at a frequency determined by the **Administrator**, for all areas referenced in Subsection 233.A.2. except Category I **BMPs**. The report shall include: the date of the inspection, the name and qualifications of the **Persons** who performed the inspection, the items inspected, deficiencies noted, maintenance tasks required, and dates maintenance was or is to be completed.
- C. If the **Person** or party responsible for all long-term maintenance obligations fails to adequately carry out its duties, the **Administrator** shall levy the special service area (SSA) in accordance with Section 9-234 to perform the required maintenance tasks.

## **9-234 FUNDING OF LONG-TERM-MAINTENANCE OF STORMWATER FACILITIES**

Unless: a) A public entity has accepted primary maintenance responsibility for the **Stormwater Management Measures** (excluding category I BMPs), **Major and Minor Stormwater Systems**, and **Special Management Areas** to be constructed, installed or preserved under the permit, or b) a public entity has agreed and so states in the permit, to accept maintenance responsibility in the event the **Person** designated by the **Applicant** as having primary maintenance responsibility fails to adequately carry out its duties, the **Administrator** will require, as a condition of approving of any application for a **Stormwater Management Permit**, the establishment of a special service area pursuant to 35 Illinois Compiled Statutes 200/27-5 et seq., either as the primary means of providing for the long-term maintenance of these areas, or as a backup vehicle in the event the **Person** 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 make a good faith estimate 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 these areas 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. The ordinances to be enacted by the **Permitting Authority** shall be substantially in the form set forth in Appendix D. On or before August 1st 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 Management Measures, Major and Minor Stormwater Systems**, off-site **Outfalls** and **Special Management Areas**.

**9-235 - 9-255 RESERVED**

## ARTICLE X—VARIANCES

### 9-256 PURPOSE

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

### 9-257 APPLICATION FOR VARIANCE

An application for a variance, signed by at least one of the **Persons** identified in Section 9-31 with respect to 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**. The **Administrator** shall send a copy of the complete application to the **Director** and to all other communities within the same **Watershed**. Applications for a variance need not be made upon any specific form, but shall contain the information set forth as follows:

A. Application for Variance: An application for variance shall set forth:

1. The common address(es) and legal description of the **Site**;
2. The **Persons** identified in Sections 9-31;
3. The names and addresses of all consultants retained in connection with the application for a variance;
4. The names and addresses of all owners of record of land within two hundred fifty feet (250') of the **Site**;
5. The specific feature or features of the **Development** that require a variance;
6. The specific provisions of this Chapter from which a variance is sought and the precise extent of the variance therefrom;
7. A statement of the characteristics of the **Development** that prevent compliance with the provisions of this Chapter;
8. A statement that the variance requested is the minimum variance necessary to permit the **Development**; and
9. A statement as to how the variance requested satisfies the standards set forth in Section 9-260.

### 9-258 APPLICATION FEE

With the filing of the application for a variance, the **Applicant** shall pay a fee to be prescribed by separate ordinance by the **Certified Community**.

## 9-259 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 oversight committee. Notice of the hearing shall be published as provided in Section 9-317 and served as provided in Section 9-316 upon the **Applicant**, the **Director**, all owners of record of land within two hundred fifty feet (250') of the **Site** as disclosed in the application, and upon each **Community** within the same **Watershed** as the **Development**. The notices given under this Section shall set forth the common name, address and legal description of the **Development** and a brief description of the variance as requested.

## 9-260 GRANTING OF VARIANCES

- A. The oversight committee shall not recommend nor shall the decision-making authority grant a variance from the provisions of this Chapter unless the variance is consistent with the purposes of this Chapter and meets the following standards based upon substantial evidence submitted at the hearing:
1. The variance will not increase the probability of **Flood** damage or create an additional threat to the public health, safety, and welfare.
  2. The variance is the minimum required considering each of the following statements of policy underlying this Chapter and there are no means other than the requested variance by which the demonstrated hardship can be avoided or remedied to a degree sufficient to permit the reasonable continuation of the **Development**:
    - a. **Detention Storage Facility** shall also contribute to the improvement of the quality of stormwater **Runoff**.
    - b. The volume provided in open air vegetated **Detention Storage Facilities** is maximized consistent with other **Site** constraints on land use, including zoning requirements essential for the proposed **Development**.
    - c. Conveyance of stormwater shall not disproportionately absorb the design capacity of existing off-site conveyance facilities for any storm event from the 50 percent (50%) **Design Storm** to the one percent (1%) **Design Storm**.
    - d. High quality natural areas shall be preserved on the **Site**, including, without limitation, stands of native trees, existing **Wetlands**, natural **Floodplain** storage or other valuable environmental and biological resources.
  3. The variance is not requested solely for the purpose of increasing the density of the **Development** nor **Impervious Areas** on the **Site**.
  4. The variance is not requested solely as a result of economic hardship.

5. If applicable, the variance is required due to unique, natural topographical features of the **Site**.
  6. The **Applicant's** circumstances are not self-imposed.
- B. Variances requested in connection with the restoration of a **Historic Structure** may be granted using criteria more permissive than those set forth above provided that:
1. The repair or rehabilitation is the minimum necessary to preserve the historic character and design of the **Historic Structure**; and
  2. The repair or rehabilitation will not result in the **Structure** no longer meeting the definition of a "**Historic Structure**" under this Chapter.
- C. No variance shall be granted for any **Development** in the regulatory **Floodway**, or **Waters of the U.S.** or **Wetlands**, the effect of which would be to create regulations less restrictive than the federal or state minimum standards applicable to **Development** in such areas.
- D. When a variance would lessen the degree of protection to any **Structure**, the **Administrator** shall notify the **Applicant** that the variance, if granted, may result in increased rates for flood insurance.

## 9-261 RECOMMENDATIONS

- A. The **Administrator** shall review the application for a variance and present his or her written recommendations to the oversight committee at the public hearing.
- B. Not more than forty-five (45) days after the close of the hearing, the oversight committee shall forward the application with its written recommendations to the decision-making authority. If the oversight committee fails to act within forty-five (45) days, it shall be deemed to have forwarded the application with no recommendation to the decision-making authority. The written recommendations of the oversight committee, when forwarded, shall be accompanied by written findings of fact with respect to each of the elements set forth in Section 9-260 with citations to the evidence taken at the public hearing.

## 9-262 DECISION

The decision-making authority shall grant the variance, grant the variance with modifications or conditions, or deny the variance in writing within forty-five (45) days after receipt of the application from the oversight committee. The failure of the decision making authority to act within forty five (45) days, absent the agreement of the **Applicant** to any extension of the time, shall be deemed to be a decision approving the variance.

## 9-263 CONDITIONS

- A. 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.

- B. In granting a variance, the decision-making authority may impose such specific conditions and limitations on the **Applicant** concerning any matter relating to the purposes and objectives of this Chapter as may be necessary or appropriate.
- C. Whenever any variance is granted subject to any condition to be met by the **Applicant**, upon meeting such condition, the **Applicant** shall file evidence to that effect with the **Administrator**.

**9-264 - 9-284 RESERVED**

# ARTICLE XI—ENFORCEMENT AND PENALTIES

## 9-285 INSPECTION AND MAINTENANCE AUTHORITY

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

## 9-286 REQUIRED INSPECTIONS

Any **Development** constructed pursuant to a **Stormwater Management Permit** may be periodically inspected by the **Administrator** or **Director** to ensure its conformity with this Chapter and the terms and conditions of its permit.

## 9-287 OFFENSES

- A. Any **Person** who violates, disobeys, omits, neglects, refuses to comply with, or resists the enforcement of any provision of this Chapter (Chapter violation), or any requirement or condition in any permit issued pursuant to this Chapter (permit violation), or any requirement or condition contained in Article VI of this Chapter (**Floodplain Violation**), and, in the case of a permit violation or a **Floodplain Violation**, fails to correct such violation, omission or neglect, or cease such disobedience, refusal or resistance after notice and reinspection as provided below, shall be guilty of an offense under this Chapter.
- B. Whenever the **Administrator** or **Director**, as the case may be, determines that a permit violation exists, he shall serve notice of the violation in the manner prescribed in Section 9-316 on the permittee. Such notice shall state the nature of the violation and fix a date not less than ten (10) days after the date of the notice by which the violation shall be corrected and the **Site** re-inspected, except in the case of a violation of Article III of this Chapter, in which case the notice may require the correction of the violation and reinspection of the **Site** within as little as two (2) days.
- C. Any person who violates, disobeys, omits, neglects, refuses to comply with or resists the **Substantial Improvement/Damage** requirements as defined in the **NFIP** regulations (44 Code of Federal Regulations, 59.1) and fails to relocate, demolish or **Floodproof** the **Structure** within the **FEMA** standard of six (6) years from the date of loss or improvement for which the **Substantial Damage/Improvement** determination was made.

## 9-288 OFFENSES - PENALTIES AND REMEDIES

- A. The **Administrator** or **Director** may pursue any one or more of the following remedies against any **Person** found by him or her to be guilty of an offense under this Chapter:
1. The **Administrator** or **Director** may impose a civil fine upon such **Person** in an amount not less than twenty-five dollars (\$25.00) and not more than seven hundred fifty dollars (\$750.00). Each calendar day during which such violation continues to exist shall

constitute a separate offense.

2. The **Administrator** or **Director** may revoke any **Stormwater Management Permit** issued to such **Person**.
  3. The **Administrator** or **Director** may issue an order requiring the suspension of any further work on the **Site**. Such stop work order shall be in writing, shall indicate the reason for its issuance, and shall specify the action, if any, required to be taken in order to resume work. One copy of the stop work order shall be posted on the **Site** in a conspicuous place and one copy shall be served in the manner prescribed in Section 9-316 upon the permittee, if any, or if none, upon the **Person** in whose name the **Site** was last assessed for taxes as disclosed by the records of the Supervisor of Assessments.
  4. The **Administrator** or **Director** may require that the area impacted be fully restored to its condition existing prior to such **Development**, disturbance or impact. In the case of a **Wetland Impact** the area's preexisting condition shall be determined by reference to a creditable wetland assessment performed within two (2) years of such impact. In the event that a creditable wetland assessment is not available, the **FQI** of the **Wetland Impacted** shall be determined by the **Director** and **Mitigation** shall be provided accordingly.
  5. The **Administrator** or **Director** may require the **Person** to apply "after the fact" for the appropriate permits for an unpermitted **Development**, disturbance or impact.
- B. In order to enforce any of the remedies set forth in the preceding paragraph, the **Administrator** or the **Director** may bring any action, legal or equitable, including an action for injunctive relief, deemed necessary. In any such action, in addition to any fine or other relief, the **Administrator** or the **Director** may recover all costs and expenses, including reasonable attorney fees, incurred. )

**9-289 - 9-309 RESERVED**

## ARTICLE XII—ADMINISTRATION

### 9-310 RESPONSIBILITY FOR ADMINISTRATION

- A. The oversight committee shall oversee the enforcement of this Chapter.
- B. The **Director** and **Administrator** shall administer this Chapter. In performing their duties, the **Director** and the **Administrator** may delegate routine responsibilities to any named designee.
- C. Each **Community** shall remain solely responsible for its standing in the **National Flood Insurance Program**, including:
  - 1. The maintenance of all records and the submission of all reports required for eligibility in the program, including **Elevation Certificates**, **Floodproofing Certificates**, and **Lowest Floor** elevations;
  - 2. The notification of the **Director**, **FEMA**, **IDNR-OWR**, **USACE**, **NRCS**, the Kane DuPage Soil and Water Conservation District, the **USFWS**, the **IEPA**, and the **USEPA** of any proposed amendment to this Chapter; and
  - 3. The adoption pursuant to Subsection 9-344.A of the most current version of the maps adopted and published by **FEMA** for regulation under the **NFIP** and the automatic adoption of any amendments, additions, revisions or substitutions thereto or therefor.

### 9-311 DUTIES OF DIRECTOR

The **Director** shall:

- A. Supervise the enforcement of this Chapter;
- B. Supervise the development, revision and implementation of the **Plan** for approval by the **Committee** and the **County**;
- C. Supervise the review of complex **Stormwater Management Permits** for any **Community** that requests such assistance;
- D. Notify all of the communities in the **County**, **FEMA**, **IDNR-OWR**, **USACE**, **NRCS**, the Kane DuPage Soil and Water Conservation District, the **USFWS**, the **IEPA**, and the **USEPA** of any amendments to the **Plan** or to this Chapter;
- E. Administer the qualified engineer and qualified wetland specialist programs;
- F. Maintain a current list of all maps considered regulatory under this Chapter;
- G. Administer Article VII of this Chapter except in those communities certified under this Chapter to administer Article VII of this Chapter; and
- H. The **Director** shall recommend an appointment of a member of the **Department** staff to the **County** Board as **Administrator** to enforce all of the provisions of this Chapter within



the unincorporated areas of the **County**, within any portion of an uncertified **Community** that lies within the **County**, and, pursuant to an intergovernmental agreement, within any portion of an uncertified **Community** that lies outside the **County**.

## 9-312 DUTIES OF ADMINISTRATOR

A. The **Administrator** shall:

1. Ensure that all required stormwater related federal, state, regional and **County** permits and approvals are received prior to issuing any permit under this Chapter;
2. Ascertain whether any **Special Management Areas** exist on any **Site** which is the subject of a **Stormwater Management Permit** under this Chapter;
3. If the **Development Site** is within a **Floodway** or in a **Floodplain** for which a detailed study has not been conducted and which drains more than one (1) square mile, the permit shall be reviewed by a **Professional Engineer** under the employ or contract of the **Community** to ensure that the **Development** meets the provisions of this Chapter;
4. Use of a qualified wetland specialists for the review of permit applications and consider their recommendations in granting or denying any permit under this Chapter, unless the review of the **Developer's** qualified wetland specialist indicates that there are no **Wetlands** on-site in which case the **Administrator** may rely upon that review without having it independently verified. The review of wetland submittals by a qualified wetland specialist may be waived if all on-site **Linear Watercourses**, **Nonlinear Waterbodies** and **Wetlands** are under the jurisdiction of the **USACE** and a **USACE** permit is required;
5. Ensure that the required notice of an application for a variance has been given and published in accordance with Sections 9-316 and 9-317;
6. Notify an **Applicant** for a variance that such variance may result in increased rates for flood insurance, if applicable;
7. Notify the **Director** of an application for a **CLOMR** or **LOMR**;
8. Provide for inspections of **Developments** as required by this Chapter, including projects before, during and after construction to assure proper elevation of the **Structure** and to ensure compliance with the provisions of this Chapter;
9. Investigate complaints of violations of this Chapter within his or her **Community**;
10. 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;
11. Initiate any other requirements necessary to enforce this Chapter within his or her **Community**;
12. Advise, consult and cooperate with other governmental agencies to promote the purposes of this Chapter;

13. 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;
  14. Maintain documentation and data on the cost of any improvement to a **Structure** in the **Floodplain** to enforce the provisions of this Chapter pertaining to **Substantial Damage/Improvements** to such **Structures**;
  15. Notify adjacent communities and **Drainage Districts** in writing thirty (30) days prior to the issuance of a **Stormwater Management Permit** involving the alteration or relocation of a watercourse. Downstream communities and **Drainage Districts** shall have a fifteen (15) business day review period of any stormwater management permit application prior to its issuance;
  16. Ensure that all **Wetland Impacts** have been mitigated; and
  17. Maintain records of the **Lowest Floor** and **Floodproofing** elevations for **New Construction** and **Substantial Improvements** in Zone A **Floodplain** where **BFE** data is not provided in the **FEMA Flood Insurance Study**.
- B. The County Engineer shall enforce all the provisions of this Chapter within all **County** or township rights-of-way.

### **9-313 REPRESENTATIVE CAPACITY**

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

### **9-314 OVERSIGHT COMMITTEE**

The corporate authorities of each **Certified Community** within the **County** shall establish an oversight committee to oversee the implementation and enforcement of this Chapter within its jurisdiction and to perform the duties assigned to the oversight committee in this Chapter. The oversight committee may be comprised of the corporate authorities or any committee thereof, plan commission, zoning board of appeals, or other existing body, or the corporate authorities may, according to their own rules and procedures, establish a separate oversight committee. The executive committee of the **County** shall designate the oversight committee for the **County**. The oversight committee, when considering an appeal or request for a variance under this Chapter, may request an opinion from a qualified engineer or qualified wetland specialist on technical issues.

### **9-315 DECISION-MAKING AUTHORITY**

The corporate authorities of each **Certified Community** within the **County** shall by separate resolution designate a decision making authority to perform the duties assigned to the decision making authority in this Chapter. The decision making authority may be comprised

of the corporate authorities or any committee thereof, plan commission, zoning board of appeals, or other existing body, or the corporate authorities may, according to their own rules and procedures, establish a separate decision making authority. The Development Committee of the County Board shall act as the decision making authority for the **County**. The decision making authority, when considering an appeal or request for a variance under this Chapter, may request an opinion from a qualified engineer or qualified wetland specialist on technical issues.

### **9-316 SERVICE**

Unless otherwise provided herein, service of any notice or other instrument under this Chapter may be made upon any **Person**:

- A. By first class mail, postage prepaid, addressed to 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.

### **9-317 PUBLICATION**

Unless otherwise provided herein, publication of any notice or other instrument under this Chapter shall be made by publishing such notice or other instrument once in a newspaper published within the **Community** having jurisdiction over the matter to which the publication relates (or, if no newspaper is published within the **Community**, then a newspaper published in the **County** and having a general circulation within the **Community**), such publication being not less than fifteen (15) nor more than thirty (30) days before the hearing or other event to which the publication relates.

### **9-318 PROCEDURES AND USE OF FUNDS FOR FEE-IN-LIEU OF STORMWATER MANAGEMENT MEASURES**

- A. An **Applicant's** request for approval of the payment of a **Fee-In-Lieu of Stormwater Management Measures** shall be submitted to the **Administrator**. The **Administrator** shall grant or deny the request within forty-five (45) days, unless the **Applicant** agrees to an extension.
- B. The collected **Fee-In-Lieu of Stormwater Management Measures** shall be deposited by the **Certified Community** in a separate fund created for such purpose. Provisions shall be made so that all receipts and disbursements of such funds may be accounted for according to the major **Watershed** in which the **Development** for which they were paid was located.
- C. The collected **Fee-In-Lieu of Stormwater Management Measures** may be expended to plan, design, construct or improve stormwater management systems within the major **Watershed** in which the fee was collected.

### **9-319 PROCEDURES AND USE OF FUNDS FOR FEE-IN-LIEU OF WETLAND MITIGATION**

- A. An **Applicant's** statement of its intention to satisfy the **Wetland Mitigation** requirement

by the payment of a fee in lieu of **Wetland Mitigation** shall be in writing and filed with the **Director** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter) along with the estimates described in the preceding Section.

- B. Fees paid in lieu of **Wetland Mitigation** shall be deposited by **County** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter) in a separate fund created for such purpose. Provisions shall be made so that all receipts and disbursements of such funds may be accounted for according to the individual **Watershed** in which the **Development** for which they were paid was located.
- C. Fees paid in lieu of **Mitigation** for **Wetland Impacts** within the **County** shall be expended to plan, design, construct, improve, acquire, create or enhance **Wetlands, Wetland Mitigation Facilities** and **Wetland Mitigation Banks**, in accordance with Section 9-171. Fees paid in lieu of **Mitigation** for **Wetland Impacts** within any other **County** may be expended to plan, design, construct, improve, acquire, create or enhance **Wetlands, Wetland Mitigation** facilities and **Wetland Mitigation**, within the same major **Watershed** as the impact within such **County** or within this **County**.

**9-320 - 9-341 RESERVED**

## ARTICLE XIII—CERTIFIED COMMUNITY ENFORCEMENT

### 9-342 ENFORCEMENT AUTHORITY

- A. The **County** shall enforce all of the provisions of this Chapter within: the unincorporated areas of the **County**; the limits of any **County** highway, **County** right of way or any highway or right of way upon which the **County** is constructing or causing to be constructed a highway improvement or appurtenance; in connection with the **Development** of any **Site** owned by the **County**; any portion of an uncertified community that lies within the **County**; and pursuant to intergovernmental agreement, within any portion of an uncertified community that lies outside the **County**. For the purposes of this Section the terms "highway" and "right of way" shall have the meanings ascribed to them under the Illinois Highway Code (605 ILCS 5/1-105 et sq).
- B. Unless such **Community** has been certified under this Article to administer Article VII of this Chapter before January 1, 2006, the **County** shall enforce the provisions of Article VII of this Chapter within that portion of any **Certified Community** that lies within the **County** and, pursuant to intergovernmental agreement, within that portion of any **Certified Community** that lies outside the **County**.
- C. A **Community** certified under this Article shall enforce all of the provisions of this Chapter within the **Community** for which it has received certification.

### 9-343 PETITION FOR CERTIFICATION AND WAIVER OF ENFORCEMENT

Any **Community** that wishes to enforce the provisions of this Chapter within its borders shall file a petition for certification and waiver of enforcement (petition for certification), on or before January 8, 2002. After January 8, 2002, petitions for certification may be filed during the month of June of each year.

### 9-344 FILING AND CONTENTS OF PETITION FOR CERTIFICATION

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

- A. The agreement of the corporate authorities of the **Community** to adopt, if certified, this Chapter by reference, including in such Chapter language expressing the intent of the corporate authorities of the **Community** to automatically adopt by reference all amendments to this Chapter adopted by the **County** at any time in the future, and specifically to automatically adopt by reference the most current version of the maps adopted and published by **FEMA** for regulation under the **NFIP**;
- B. While amendments to this Chapter are required to be automatically adopted by the **Certified Communities** as a condition of the certification, if additional action is required by the corporate authorities of the **Community** to formally recognize the amendment, such action shall occur within 3 months following the effective date of any amendments to this Chapter;

- C. The **Community's** plan for the implementation and enforcement of this Chapter, including proposed staffing;
- D. The agreement of the corporate authorities of the **Community** to include in any new annexation agreement a provision requiring every other party to the agreement to affirmatively agree to comply with the provisions of this Chapter, as amended from time to time;
- E. The agreement of the corporate authorities of the **Community** that the **Community** will follow the rules and procedures of the **Committee** in any proceeding concerning its certification and be bound by the decision of the **Committee** in granting or failing to grant, or suspending or revoking its certification and reasserting **County** jurisdiction over the enforcement of this Chapter within the boundaries of the **Community**;
- F. If a portion of the **Community** lies outside the **County** and the **Community** has not requested, or if requested does not receive, certification to administer Article VII of this Chapter, the agreement of the corporate authorities of the **Community** to enter into, if certified to administer the remaining provisions of this Chapter, an intergovernmental agreement with the **County** providing for the **County's** enforcement of Article VII of this Chapter within those portions of the **Community** lying outside the **County**;
- G. Evidence of the **Community's** ability to comply with Article XIV of this Chapter pertaining to the use of qualified engineers and qualified wetland specialists; and
- H. The list of projects to which this Chapter or some portion of this Chapter do not apply pursuant to the requirements of Article XV of this Chapter.

### **9-345 COMMITTEE CONSIDERATION OF PETITION FOR CERTIFICATION**

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

### **9-346 STANDARDS FOR CERTIFICATION**

Upon a finding of the **Committee** that the **Community** has complied with Sections 9-343 and 9-344, that the **Community's** plan for the implementation and enforcement of this Chapter is reasonably feasible, and that the **Community** has demonstrated the ability to comply with Article XIV of this Chapter, the **Committee** shall grant the petition for certification. The **Committee's** decision shall be in writing, and shall specify the reasons for granting or denying the petition.

### **9-347 CERTIFIED COMMUNITY RECORDS**

- A. Every **Certified Community** shall maintain adequate records of every **Stormwater Management Permit** issued, and every variance granted under this Chapter for **Development** within its borders.
- B. Every **Certified Community** shall retain **Record Drawings** of all improvements made

pursuant to a **Stormwater Management Permit** issued or variance granted by such **Community**.

- C. The records of each **Certified Community** maintained under this Chapter may be periodically inspected by the **Department**.
- D. Every **Certified Community** shall report annually to the **Director** on forms provided by the **Department** concerning **Stormwater Management Permits** issued in the preceding year.

### **9-348 COMMITTEE REVIEW OF ENFORCEMENT BY CERTIFIED COMMUNITY**

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

### **9-349 INVESTIGATIONS AND COMPLIANCE**

- A. The **Director** upon his own initiative or at the request of any **Person** may conduct an investigation into a **Certified Community's** implementation and enforcement of this Chapter. Such investigation may include, but is not limited to, an examination of all relevant records maintained by the **Community** and field inspections of relevant **Developments, Structures** or **Stormwater Facilities**. If upon such investigation, the **Director** determines that the **Community** has failed in some significant way, or has repeatedly failed, to implement or enforce this Chapter, then he shall prepare a report of his findings along with a complaint for the suspension, revocation or partial revocation of the **Community's** certification and file them with the **Committee**. The complaint shall contain a short and plain statement describing how the **Certified Community** has failed in some significant way, or has repeatedly failed, to implement or enforce this Chapter.
- B. Upon receipt of a written complaint, the **Committee** shall serve a copy thereof along with a copy of the report of the **Director** upon the **Community** named therein in accordance with Section 9-316. A copy of the complaint and report shall also be served upon **IDNR-OWR, FEMA**, all communities within the same **Watershed**, and upon any **Person** who has requested an investigation of the **Community's** enforcement of this Chapter by the **Director** within six (6) months immediately preceding the filing of the complaint. The **Community** may file a written answer to the complaint within thirty (30) days after being served.

### **9-350 HEARING ON COMPLAINT**

The **Committee** shall conduct a hearing on the complaint not less than seventy-five (75) nor more than one hundred twenty (120) days after service of the complaint upon the **Community**. Notice of the hearing shall be served upon the **Community** and all parties which received a copy of the complaint and published in accordance with Section 9-317. The hearing may be continued from time to time. The **Committee** may adopt rules for the taking of evidence and conduct of such hearings.

### **9-351 COMMITTEE DECISION**

Within thirty (30) days of the conclusion of the hearing, the **Committee** shall decide whether

or not to suspend or to revoke in whole or in part the certification of the **Community**. The decision of the **Committee** shall be in writing and shall include the specific findings and conclusions supporting its determination. A copy of the decision and order shall be served upon the **Community** and all parties which received a copy of the complaint in accordance with Section 9-316. The decision of the **Committee** to suspend or to revoke the certification of the **Community** in whole or in part is final and may not be appealed to any court. If the **Community's** certification is suspended, the **Community** shall automatically become recertified upon the expiration of the period of suspension. If the **Community's** certification is revoked in whole or in part, the **Community** may reapply for certification at or after such time as the **Committee** shall specify in its order of revocation.

**9-352 - 9-372 RESERVED**



## ARTICLE XIV—QUALIFIED REVIEW SPECIALISTS

### 9-373 GENERAL

The review of an application for a **Stormwater Management Permit** shall be performed by a qualified engineer and a qualified wetland specialist. The qualified engineer and qualified wetland specialist together with the **Administrator** shall determine whether the permit application meets the requirements of this Chapter. The **Department** shall maintain a list of qualified engineers and qualified wetland specialists.

### 9-374 REQUIREMENTS FOR QUALIFIED ENGINEERS

- A. In order to be included on the list of qualified engineers, an engineer or engineering firm must be employed by the **County** or **Certified Community** or must be under contract with the **County** or **Certified Community** to review permit submittals. The engineer or engineering firm must be or employ a **Professional Engineer** registered in Illinois that has expertise either by training or significant experience in all of the following areas:
1. Design and permitting of **Stormwater Management Measures**;
  2. Identification of **Floodplains** and **Floodways** and familiarity with **FEMA** and **IDNR-OWR** requirements, policies, and procedures;
  3. **Erosion and Sedimentation Control Practices** and procedures;
  4. Construction practices and inspection procedures; and
  5. A copy of the contract, letter from the **Community** or resolution, or proof of employment with the **Certified Community**.
- B. Submit proof of the qualifications above and complete, sign, and professionally seal the qualified **Professional Engineer** statement in the form included as Appendix B; and
- C. File the qualifications and statement (Appendix B) with the **Department** and pay a fee of fifty dollars (\$50.00) for each engineer to a maximum of two hundred fifty dollars (\$250.00) for engineering firms, fifty dollars (\$50.00) for individual engineers not associated with an engineering firm, or twenty-five dollars (\$25.00) if the engineer is employed by a unit of local government.

### 9-375 REQUIREMENTS FOR QUALIFIED WETLAND SPECIALIST

- A. In order to be included on the list of qualified wetland specialists, a wetland specialist must:
1. Complete a **USACE** approved or other **Wetland** delineation course approved by the **Director**; and
  2. Be a Professional Wetland Scientist (PWS) certified by the Society of Wetland Scientists Professional Certification Program (SWSPCP); or

3. Have a bachelor's degree in an earth science, biological science or engineering together with at least one of the following:
  - a. Three (3) years' (cumulative) full time experience in the upper midwest region engaged in consulting on **Wetland** related projects; or
  - b. Six (6) years' (cumulative) full time experience engaged in consulting outside the upper midwest region on **Wetland** related projects; or
  - c. The completion of one hundred (100) **Wetland** delineations in the upper midwest region; or
  - d. Three hundred (300) hours spent in field review of **Wetland** indications in the upper midwest region; and
  - e. Have personally been involved with the design of at least ten (10) **Wetland Mitigation** areas.
- B. Submit proof of the qualifications above and complete and sign the qualified wetland specialist statement in the form included as Appendix C; and
- C. File the qualifications and statement (Appendix C) with the **Department** and pay a fee of fifty dollars (\$50.00) or twenty-five dollars (\$25.00) if the **Applicant** is employed by a unit of local government.

### **9-376 REVIEW OF QUALIFICATIONS**

- A. Within thirty (30) days of filing of the application, the **Director** will notify the **Applicant** of his/her or their inclusion on the list of qualified engineers and/or qualified wetland specialists, as the case may be. If the **Applicant** is not accepted for inclusion in the list, the **Director** shall specify the reasons for his decision. Within thirty (30) days of his receipt of the decision of the **Director**, the **Applicant** may appeal to the **Committee** by filing a notice thereof with the **Department**. The **Committee** shall conduct a hearing on the appeal in the manner prescribed by Section 9-378 from which the **Applicant** may further appeal in the manner prescribed by Section 9-379.
- B. Once accepted, the qualified engineer, engineering firm or qualified wetland specialist, no later than March 31<sup>st</sup> of each year, shall resubmit the qualified engineer statement and/or qualified wetland specialist statement together with an annual maintenance fee of fifty dollars (\$50.00) for each engineer and wetland specialist to a maximum of two hundred fifty dollars (\$250.00) for engineering firms, fifty dollars (\$50.00) for individual engineers or wetland specialist not associated with an engineering firm, or twenty-five dollars (\$25.00) if the engineer or wetland specialist is employed by a unit of local government, in order to maintain his/her or their inclusion on the list.

### **9-377 INVESTIGATION AND COMPLIANCE**

- A. In the event that the **Committee** decides to suspend or to revoke in whole or in part the certification of the **Community** per Section 9-351 the **Committee** may also request that the **Director** conduct an investigation into the qualifications of a qualified engineer,

engineering firm, or qualified wetland specialist, or his/her or their performance of permit reviews under this Chapter. Such investigation may include, but is not limited to, an examination of all relevant records maintained by the **Community** and field inspections of relevant **Developments, Structures** or stormwater facilities. If upon such investigation, the **Director** determines that the qualified engineer, engineering firm, or qualified wetland specialist has failed in some significant way, or has repeatedly failed to conduct such reviews in conformance with this Chapter, then the **Director** shall prepare a report of his findings along with a complaint for the removal of the qualified engineer, engineering firm or qualified wetland specialist from the qualified engineer or qualified wetland specialist list and file them with the **Committee**. The complaint shall contain a short and plain statement describing how the qualified engineer, engineering firm, or qualified wetland specialist has failed in some significant way or has repeatedly failed to conduct such reviews in conformance with this Chapter.

- B. Upon receipt of a written complaint, the **Committee** shall serve a copy thereof along with a copy of the report of the **Director** upon the qualified engineer, engineering firm, or qualified wetland specialist named therein in accordance with Section 9-316. A copy of the complaint and report shall also be served upon every **Community** for whom the qualified engineer, engineering firm, or qualified wetland specialist has conducted permit reviews. The qualified engineer, engineering firm, or qualified wetland specialist may file a written answer to the complaint within thirty (30) days after being served.

### **9-378 HEARING ON COMPLAINT**

The **Committee** shall conduct a hearing on the complaint not less than seventy-five (75) nor more than one hundred twenty (120) days after the **Committee** decision to suspend or to revoke in whole or in part the certification of the **Community** under Section 9-351. Notice of the hearing shall be served upon the qualified engineer, engineering firm, or qualified wetland specialist and all parties which received a copy of the complaint and published in accordance with Section 9-317. The hearing may be continued from time to time. The **Committee** may adopt rules for the taking of evidence and conduct of such hearings.

### **9-379 COMMITTEE DECISION**

Within thirty (30) days of the conclusion of the hearing, the **Committee** shall decide whether to remove the qualified engineer, engineering firm or qualified wetland specialist from the qualified engineer or qualified wetland specialist list. The decision of the **Committee** shall be in writing and shall include the specific findings and conclusions supporting its determination. A copy of the decision shall be served upon the qualified engineer, engineering firm or qualified wetland specialist and all parties which received a copy of the complaint in accordance with Section 9-316. If the qualified engineer, engineering firm or qualified wetland specialist is removed from the list, he/she/they may appeal the decision in accordance with Section 9-380 or may reapply for inclusion on the list at or after such time as the **Committee** shall specify in its order of removal.

### **9-380 APPEALS**

- A. The qualified engineer, engineering firm or qualified wetland specialist may appeal a final decision of the **Committee** to the courts under the Illinois Administrative Review Law.

**9-381 - 9-401 RESERVED**

## ARTICLE XV—MISCELLANEOUS PROVISIONS

### 9-402 COMMITTEE'S DETERMINATION OF EXEMPTION

- A. Fifteen (15) days prior to the **Revision Date**, each **Community** shall submit to the **Director** a list of proposed exempt **Developments** prepared and adopted in accordance with Section 9-403. At its next regularly scheduled meeting occurring not less than fifteen (15) days after the **Director's** receipt of the list, the **Committee** shall hear public comment and consider the **Developments** listed therein. Any member of the **Committee** may remove a **Development** from the list for further consideration. After such removals, the **Developments** remaining on the list shall be determined to be exempt from the changes to this Chapter effective at the **Revision Date**.
- B. With respect to those **Developments** removed from the list, the **Committee** shall determine each **Development** to be exempt from the changes to this Chapter effective at the **Revision Date** if the stormwater management plan for such **Development** meets the January 1, 2002 effective ordinance.
- C. Notwithstanding the **Committee's** determination that a particular **Development** is exempt from the changes to this Chapter effective at the **Revision Date**, all mitigable **Wetland Impacts** from any **Development** occurring after the **Effective Date** shall be mitigated.

### 9-403 COMMUNITY'S LIST OF PROPOSED EXEMPT DEVELOPMENTS

- A. A **Community** may place a **Development** on its list of proposed exempt **Developments** only if:
1. The stormwater management plan for such **Development** meets the January 1, 2002 effective ordinance;
  2. A stormwater management plan has been submitted and substantially approved by the **Community** engineer; or
  3. A contractual agreement, specifically exempting the **Development** from the changes to this Chapter effective at the **Revision Date**, was entered into before 15 days prior to the **Revision Date** of this Chapter.
- B. The **Administrator** shall approve the **Community's** list of proposed exempt **Developments**. If required by the **Community** the list shall be adopted by an official action of the corporate authorities of the **Community**.
- C. Not less than fifteen (15) days prior to the **Committee** meeting, the **Director** shall publish in accordance with Section 9-317 of the Chapter a listing of the proposed exempt **Developments**, the date and time of the meeting at which formal action with respect to the approval of the list will be taken and of the public's right to appear to be heard prior to such approval.
- D. Once submitted, the list may not be changed except that a **Developer** of a **Development** inadvertently omitted from the list by the **Community** may apply directly to the **Committee** for a determination that the **Development** meets all of the requirements of

this Article for being exempt.

- E. A **Community** shall determine when exemptions expire for **Developments** in their jurisdiction listed on the approved exemption lists. This includes the January 1, 2002 exemption list.

#### **9-404 INTERPRETATION**

- A. This Chapter shall be liberally construed to protect the health, welfare, safety, and the environment of the residents of the **County** and to effectuate the purposes of this Chapter and the enabling legislation.
- B. Nothing in this Chapter 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 Chapter differ from any other applicable law, statute, ordinance, rule or regulation, the more stringent provision shall apply.
- D. The provisions of this Chapter 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 Chapter 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 Chapter 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.

#### **9-405 WARNING AND DISCLAIMER OF LIABILITY**

- A. The degree of **Flood** protection provided by this Chapter 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 Chapter 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 Chapter 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 qualified engineer or qualified wetland specialist for any **Flood** damage resulting from reliance on the provisions of this Chapter.

#### **9-406 CHOICE OF PLANNING JURISDICTION**

Pursuant to 55 Illinois Compiled Statutes 5/5-1062(b), a **Community** that is located in more than one **County** may choose, at the time of the formation of the **Committee**, and based upon **Watershed** boundaries, to participate in the stormwater management planning program of either or both of the counties. Unless the **Community**, at the time of the formation of the **Committee**, has chosen to participate in the stormwater management

planning program of another **County**, the **Committee** shall include such **Community** within the scope of its planning and enforcement jurisdiction.

#### **9-407 SEVERABILITY**

A. The provisions of this Chapter shall be severable in accordance with the following rules:

1. If any court of competent jurisdiction shall adjudge any provision of this Chapter to be invalid, such judgment shall not affect any other provision of this Chapter.
2. If any court of competent jurisdiction shall adjudge to be invalid the application of any provision of this Chapter 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**.

#### **9-408 REPEALER**

This Chapter 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**.

#### **9-409 - 9-429 RESERVED**

## ARTICLE XVI—WATERSHED SPECIFIC PROVISIONS

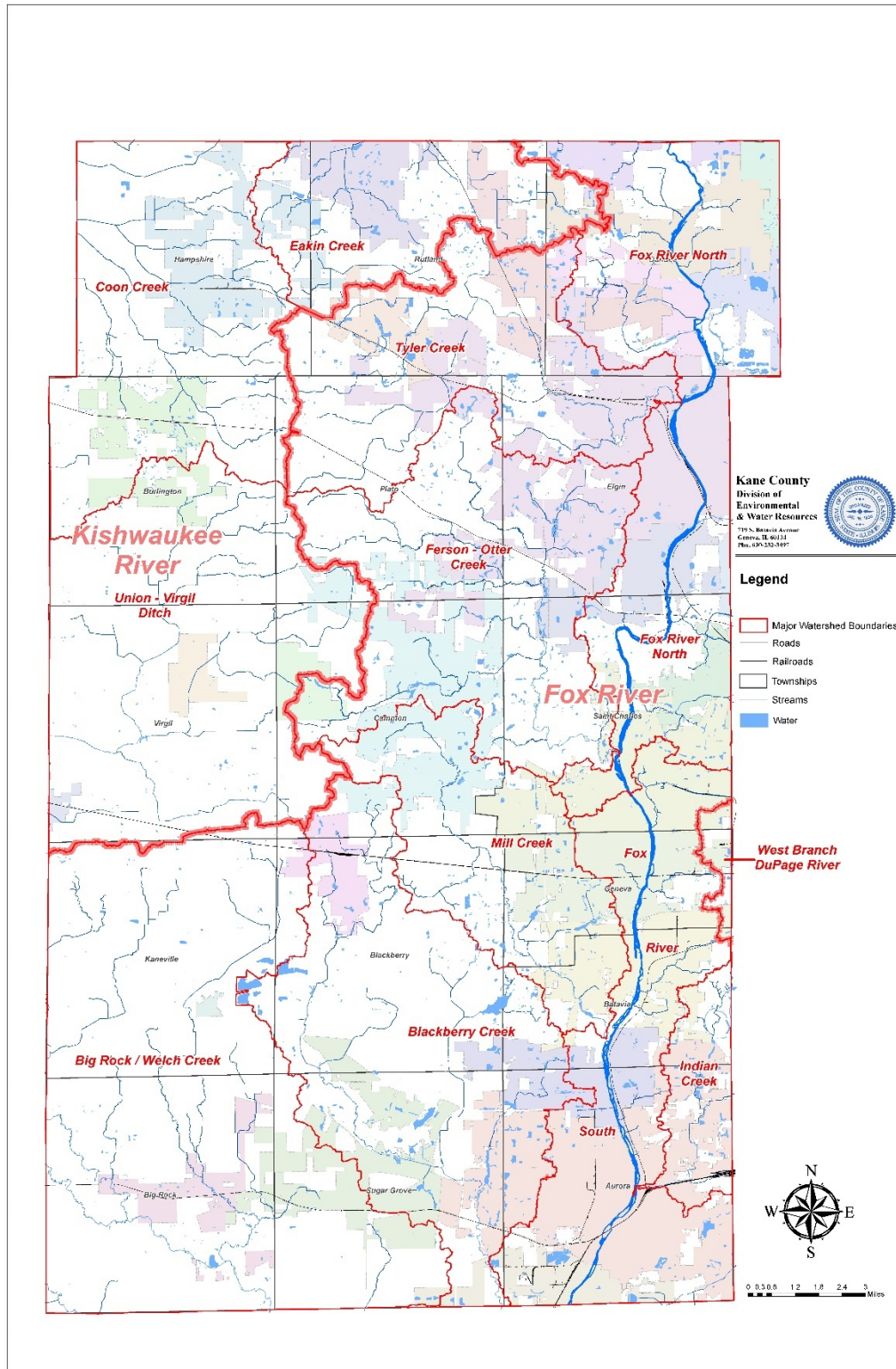
### 9-430 REFERENCE TO WATERSHED PLANS

- A. This Chapter recognizes the integrated nature of the **Watershed** system and the need to study certain **Flood** control alternatives and other stormwater management functions on a **Watershed** wide basis.
- B. Individual **Watershed Plans** or **Interim Watershed Plans** which recognize the unique attributes of each **Watershed** may be prepared and periodically updated for the major **Watersheds** to identify management projects and establish criteria for **Development**.
- C. **Watershed Plans** or **Interim Watershed Plans** may be adopted which contain more or less stringent requirements than those of this Chapter. **Watershed** specific requirements established in such **Watershed Plans** or **Interim Watershed Plans** will be set forth in Sections 9-87 through 9-106.

### 9-431 - 9-451 RESERVED



# APPENDIX A—WATERSHED BOUNDARIES



## APPENDIX B—QUALIFIED ENGINEER STATEMENT

I, \_\_\_\_\_, of \_\_\_\_\_, with professional licensure in the State of Illinois, do hereby state that I have read and understand the Kane County Stormwater Ordinance and the **Technical Manual** which accompanies it, and will obtain, read and abide by any amendments thereto. I affirmatively state that I meet the requirements set forth in Article XIV of the ordinance. I will review projects for compliance with the ordinance using my expertise in **Stormwater Management Measure** design and permitting, **Floodplain** and **Floodway** policies and procedures, **Erosion and Sedimentation Control Practices**, and construction practices and inspections. I will exercise professional judgment with respect to projects submitted for my review in accordance with the customary standard of care applicable to **Persons** providing similar services in the same or similar **Communities** in order to insure substantial conformance with the ordinance. I understand that failure to adequately discharge this obligation may, with due process, result in loss of this status. It is my responsibility to provide the **Director** with any changes to the information provided.

Signed

P.E. Registration Number/Expiration Date

Telephone:

Fax:

Email:

(Seal)

Employer:

**Certified Communities** and each **Community's** contact for whom you perform reviews:

(Attach a one-page summary of your qualifications under Article XIV of the ordinance.)

## APPENDIX C—QUALIFIED WETLAND SPECIALIST STATEMENT

I, \_\_\_\_\_, of \_\_\_\_\_, do hereby state that I have read and understand the Kane County Stormwater Ordinance and the **Technical Manual** which accompanies it, and will obtain, read and abide by any amendments thereto. I affirmatively state that I meet the requirements set forth in Article XIV of the ordinance. I will submit permit applications or review projects for compliance with those Sections of the ordinance pertaining to **Wetlands**, including, without limitation, **Wetland** delineation and the calculation of **Buffer** widths. I will use my expertise in **Wetland** delineations or field identification of **Wetland** indicators in the Upper Midwest. I will exercise professional judgment with respect to projects submitted for my review in accordance with the customary standard of care applicable to **Persons** providing similar services in the same or similar **Communities** in order to insure substantial conformance with the ordinance. I understand that failure to adequately discharge this obligation may, with due process, result in loss of this status. It is my responsibility to provide the **Director** with any changes to the information provided.

Signed

SWSPCP PWS Number (if applicable)

Telephone:

Fax:

Email:

Employer:

(Attach a one-page summary of your qualifications under Article XIV of the ordinance.)

# **APPENDIX D—SAMPLE SPECIAL SERVICE AREA ORDINANCES**

[CITY/VILLAGE] OF \_\_\_\_\_

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE PROPOSING THE ESTABLISHMENT OF THE  
\_\_\_\_\_ SPECIAL SERVICE AREA [or SPECIAL SERVICE AREA  
NO. \_\_\_\_\_] OF \_\_\_\_\_, ILLINOIS  
AND THE LEVY OF TAXES FOR THE PURPOSE OF PAYING THE COST  
OF PROVIDING SPECIAL SERVICES IN AN FOR SUCH AREA

ADOPTED BY THE  
[MAYOR AND CITY COUNCIL/PRESIDENT AND BOARD OF TRUSTEES]  
OF THE  
[CITY/VILLAGE] OF \_\_\_\_\_

[DATE]

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE PROPOSING THE ESTABLISHMENT OF THE  
\_\_\_\_\_ SPECIAL SERVICE AREA [or SPECIAL SERVICE AREA  
NO. \_\_\_\_\_] OF \_\_\_\_\_, ILLINOIS  
AND THE LEVY OF TAXES FOR THE PURPOSE OF PAYING THE COST  
OF PROVIDING SPECIAL SERVICES IN AN FOR SUCH AREA

**WHEREAS** pursuant to the provisions of the 1970 Constitution of the State of Illinois (the **Constitution**), the [City/Village] of \_\_\_\_\_, Kane County, Illinois (the **[City/Village]**), is authorized to create special service areas in and for the [City/Village]; and

**WHEREAS** special service areas are established by non-home rule<sup>1</sup> units pursuant to Section 7(6) of Article VII of the Constitution, which provides that-

[M]unicipalities...which are not home rule units shall have...powers...to levy or impose additional taxes upon areas within their boundaries in the manner provided by law for the provision of special services to those areas and for the payment of debt incurred in order to provide those special services;

and are established “in the manner provided by law” pursuant to the provisions of “AN ACT to provide the manner of levying or imposing taxes for the provision of special services to areas within the boundaries of home rule units and non-home rule municipalities and counties,” approved September 21, 1973, as amended, and pursuant to the Revenue Act of 1939 of the State of Illinois, as amended; and

**WHEREAS** it is in the public interest that the establishment of the area hereinafter described as a special service area for the purposes set forth herein and to be designated as the \_\_\_\_\_ Special Service Area [or Special Service Area No. \_\_\_\_\_], of the [City/Village] (the **Area**) be considered; and

**WHEREAS** the Area is compact and contiguous, totally within the corporate limits of the [City/Village]; and

**WHEREAS** the Area will benefit specially from the municipal services to be provided by the [City/Village] (the **Services**), and the Services are unique and in addition to the services provided to the [City/Village] as a whole, and it is, therefore, in the best interests of the [City/Village] that the establishment of the Area be considered; and

**WHEREAS** it is in the public interest that the levy of a direct annual *ad valorem* tax upon all taxable property within the Area be considered for the purpose of paying the cost of providing the Services; and

**WHEREAS** the revenue from such tax shall be used solely and only for Services for which the [City/Village] is authorized under the provisions of the Illinois Municipal Code, as amended, to levy taxes or special assessments or to appropriate the funds of the [City/Village], all of the Services to be in and for the Area and all of the necessary construction and maintenance to be

<sup>1</sup>Home rule municipalities should alter this language accordingly.

on property now owned or to be acquired by the [City/Village], or property in which the [City/Village] will obtain an interest sufficient for the provision of the Services; and

**WHEREAS** said direct annual *ad valorem* tax shall be levied upon all taxable property within the Area for an indefinite period of time beginning for the year \_\_\_\_\_ and shall not exceed an annual rate of \_\_\_\_\_ of the assessed valuation of each tax parcel within the Area and shall be in addition to all other taxes permitted by law; and

**WHEREAS** a public hearing will be held at \_\_\_\_\_, on the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, in the [City/Village] Hall, \_\_\_\_\_, Illinois \_\_\_\_\_ (the **Hearing**), to consider the establishment of the Area for the purpose of providing the Services and the levy of an additional direct annual *ad valorem* tax for the purpose of paying the cost thereof, all as described in the Notice of Public Hearing set forth in Section 2 hereof (the **Notice**); and

**WHEREAS** the Notice shall be given by publication and mailing. Notice by publication shall be given by publication on a date, such date being not less than 15 days prior to the Hearing, in a newspaper published within the [City/Village] [or, of general circulation within the [City/Village], there being no newspaper published therein]. Notice by mailing shall be given by depositing the Notice in the United States Mail addressed to the person or persons in whose name the general taxes for the last preceding year were paid on each lot, block, tract, or parcel of land lying within the Area. The Notice shall be mailed not less than 10 days prior to the time set for the Hearing. In the event taxes for the last preceding year were not paid, the Notice shall be sent to the person last listed on the tax rolls prior to that year as the owner of said property.

**NOW, THEREFORE**, Be it Ordained by the [Mayor and City Council/President and the Board of Trustees] of the [City/Village] of \_\_\_\_\_, Kane County, Illinois, as follows:

### **§1. Incorporation of preambles**

The preambles of this ordinance are hereby incorporated into this text as if set out herein in full.

### **§2. Notice**

The [Mayor and City Council/President and Board of Trustees] determine that the Notice is in the proper statutory form as set forth as follows:

**NOTICE OF PUBLIC HEARING**  
**[City/Village] OF \_\_\_\_\_, KANE COUNTY, ILLINOIS**  
**\_\_\_\_\_ SPECIAL SERVICE AREA [or NO. \_\_\_\_\_]**

**NOTICE IS HEREBY GIVEN** that on \_\_\_\_\_, at \_\_\_\_\_, in the [City/Village] Hall, \_\_\_\_\_, \_\_\_\_\_, Illinois, a public hearing (the **Hearing**) will be held by the [Mayor and City Council/President and Board of Trustees] of the [City/Village] of \_\_\_\_\_, Kane County, Illinois (the **[City/Village]**), to consider the establishment of the \_\_\_\_\_ Special Service Area [No. \_\_\_\_\_], (the **Area**), of the [City/Village], consisting of the following described territory:

**SEE ATTACHED EXHIBIT A**

Said territory consists of approximately \_\_\_ acres lying [insert general description of location]. An accurate map of said territory is on file in the office of the [City/Village] Clerk and is available for public inspection.

The purpose of the establishment of the Area is to provide the following special services (the **Services**) to the Area: the operation, maintenance, repair, rehabilitation, replacement and reconstruction of any Stormwater Management Measures, Major or Minor Stormwater System or Special Management Areas; costs of design, engineering and other consulting services, surveying and permits, public liability insurance, and all administrative, legal and other costs or expenses incurred in connection therewith and with the administration of the Area, including the repayment of any loan or debt incurred for the provision of any of such Services, all of the Services to be in and for the Area.

All of the Services are to be on property now owned or to be acquired by the [City/Village], or property in which the [City/Village] will obtain an interest sufficient for the provision of the Services.

The levy of a direct annual *ad valorem* tax upon all taxable property within the Area for the purpose of paying the cost of the Services will also be considered at the Hearing. The tax shall be levied upon all taxable property within the Area for an indefinite period of time beginning for the year \_\_\_\_\_ and shall not exceed an annual rate of \_\_\_\_\_ of the assessed valuation of each tax parcel within the Area and shall be in addition to all other taxes permitted by law.

All interested persons affected by the establishment of the Area or tax levy, including all owners of real estate located within the Area, will be given an opportunity to be heard at the Hearing regarding the establishment of the Area and the tax levy and an opportunity to file objections to the establishment of the Area or the tax levy.

At the Hearing, any interested persons affected by the Area may file with the [City/Village] Clerk written objections to and may be heard orally in respect to any issues embodied in this notice. The [Mayor and City Council/President and Board of Trustees] shall hear and determine all protests and objections at the Hearing, and the Hearing may be adjourned to another date without further notice other than a motion to be entered upon the minutes fixing the time and place of its adjournment.



If a petition signed by at least 51% of the electors residing within the Area and by at least 51% of the owners of record of the land included within the boundaries of the Area is filed with the [City/Village] Clerk within 60 days following the final adjournment of the Hearing objecting to the creation of the Area or the levy or imposition of a tax for the provision of the Services to the Area, no such Special Service Area may be created or no tax may be levied or imposed.

By order of the [Mayor and City Council/President and Board of Trustees] of the [City/Village] of \_\_\_\_\_, Kane County, Illinois.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

/s/  
\_\_\_\_\_  
[City/Village] Clerk, [City/Village] of  
\_\_\_\_\_, Kane County, Illinois

**§3. Miscellaneous**

The [City/Village] agrees to produce or file such forms, statements, proceedings and supporting documents as may be required and in a timely manner in order to establish the Area and levy the taxes and, if deemed necessary or advisable by its officers, to employ and pay fiscal agents, financial advisors, attorneys and other persons to assist the [City/Village] in these endeavors.

**§4. Repealer; effective date**

All ordinances, orders and resolutions and parts thereof in conflict herewith be and the same are hereby repealed, and this ordinance be in full force and effect forthwith upon its passage, approval and publication as provided by law.

DATED: \_\_\_\_\_.

<i>Alder- man/Trustee</i>	<i>Aye</i>	<i>Nay</i>	<i>Absent</i>	<i>Abstain</i>
Totals				

Approved:

\_\_\_\_\_  
[Mayor/President]

Attested, Filed in my office, and published in pamphlet form on \_\_\_\_\_, 20\_\_:

\_\_\_\_\_  
Clerk of the [City/Village] of  
\_\_\_\_\_, Kane County, Illinois

[CITY/VILLAGE] OF \_\_\_\_\_

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE ESTABLISHING THE  
\_\_\_\_\_ SPECIAL SERVICE AREA [OR NO. \_\_\_\_\_]  
OF \_\_\_\_\_, ILLINOIS  
AND PROVIDING FOR THE LEVY OF TAXES FOR THE PURPOSE OF  
PAYING THE COST OF PROVIDING SPECIAL SERVICES  
IN AND FOR SUCH AREA

ADOPTED BY THE  
[MAYOR AND CITY COUNCIL/PRESIDENT AND BOARD OF TRUSTEES]  
OF THE  
[CITY/VILLAGE] OF \_\_\_\_\_  
[DATE]

ORDINANCE NO. \_\_\_\_\_

**AN ORDINANCE ESTABLISHING THE  
\_\_\_\_\_ SPECIAL SERVICE AREA [or NO. \_\_\_\_] OF  
\_\_\_\_\_, ILLINOIS  
AND PROVIDING FOR THE LEVY OF TAXES FOR THE PURPOSE OF  
PAYING THE COST OF PROVIDING SPECIAL SERVICES  
IN AND FOR SUCH AREA**

**WHEREAS**, pursuant to the provisions of the 1970 Constitution of the State of Illinois (the **Constitution**), the [City/Village] of \_\_\_\_\_, Kane County, Illinois (the **[City/Village]**), is authorized to create special service areas in and for the [City/Village]; and

**WHEREAS**, special service areas are established by non-home rule<sup>2</sup> units pursuant to Section 7(6) of Article VII of the Constitution, which provides that-

municipalities...which are not home rule units shall have only the powers granted to them by law and the powers... (6) to levy or impose additional taxes upon areas within their boundaries in the manner provided by law for the provision of special services to those areas and for the payment of debt incurred in order to provide those special services;

and

**WHEREAS**, special service areas are established "in the manner provided by law" pursuant to the provisions of "AN ACT to provide the manner of levying or imposing taxes for the provision of special services to areas within the boundaries of home rule units and non-home rule municipalities and counties," approved September 21, 1973, as amended (the **Act**), and pursuant to the provisions of the Revenue Act of 1939 of the State of Illinois, as amended; and

**WHEREAS**, it is in the public interest that the area hereinafter described be established as the \_\_\_\_\_ Special Service Area [or No. \_\_\_\_\_] of the [City/Village] for the purposes set forth herein (the **Area**); and

**WHEREAS**, the Area is compact and contiguous and totally within the boundaries of the [City/Village]; and

**WHEREAS**, the Area will benefit specially from the services to be provided by the [City/Village] (the **Services**), and the Services are unique and in addition to the services provided to the [City/Village] as a whole, and it is, therefore, in the best interests of the [City/Village] that the Area be established; and

**WHEREAS**, the cost of providing the Services shall be paid by the levy of a direct annual *ad valorem* tax upon all taxable property within the Area; and

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<sup>2</sup>Home rule units should alter this language accordingly.

**WHEREAS**, said direct annual tax shall be levied upon all taxable property within the Area for an indefinite period of time beginning for the year \_\_\_\_\_ and shall not exceed an annual rate of \_\_\_\_\_ of the assessed valuation of each tax parcel within the Area and shall be in addition to all other taxes permitted by law; and

**WHEREAS**, the establishment of the Area was proposed by the [City Council/Board of Trustees] of the [City/Village] (the **[Council/Board]**) pursuant to Ordinance No. \_\_\_\_\_, entitled:

AN ORDINANCE proposing the establishment of the \_\_\_\_\_ Special Service Area [or No. \_\_\_\_\_] of \_\_\_\_\_, Illinois, and the levy of taxes for the purpose of paying the cost of providing special services in and for such Area.

(the **Proposing Ordinance**), duly adopted on \_\_\_\_\_, and was considered at a public hearing (the **Hearing**) held by the [Council/Board] on \_\_\_\_\_; and

**WHEREAS**, notice of the Hearing was given by publication at least once not less than 15 days prior to the Hearing in \_\_\_\_\_, the same being a newspaper published in the [City/Village] [or, of general circulation with the [City/Village], there being no newspaper published therein]; and

**WHEREAS**, mailed notice of the Hearing was given by depositing notice in the United States mails addressed to the person or persons in whose name the general taxes for the last preceding year were paid on each lot, block, tract or parcel of land lying within the Area not less than 10 days prior to the time set for the Hearing, and in the event taxes for the last preceding year were not paid, the notice was sent to the person or persons last listed on the tax rolls prior to that year as the owner or owners of said property; and

**WHEREAS**, said notice complied with all of the applicable provisions and requirements of the Act; and

**WHEREAS**, all interested persons affected by the establishment of the Area or the levy of the tax to pay the cost of providing the Services, including all owners of real estate located within the Area, were given an opportunity to be heard at the Hearing regarding the establishment of the Area and the levy of said tax and an opportunity to file objections to the establishment of the Area or the levy of said tax; and

**WHEREAS**, at the Hearing, all interested persons affected by the Area were permitted to file with the [City/Village] Clerk written objections to and to be heard orally in respect to any issue embodied in the notice given of the Hearing; and

**WHEREAS**, the Council/Board has determined and does hereby determine that it is in the public interest and in the interest of the [City/Village] and the Area that the Area be established;

**NOW, THEREFORE**, Be It Ordained by the [Mayor and City Council/President and Board of Trustees] of the [City/Village] of \_\_\_\_\_, Kane County, Illinois, as follows:

**§1. Incorporation of preambles**

The preambles of this ordinance are hereby incorporated into this text as if set out herein in full.

**§2. Final adjournment of Hearing**

The Hearing was finally adjourned on \_\_\_\_\_.

**§3. Establishment of Area**

- a. The \_\_\_\_\_ Special Service Area [or No. \_\_\_\_\_] of the [City/Village] is hereby established in and for the [City/Village] and shall consist of the territory legally described in Exhibit A attached.
- b. Said territory consists of approximately \_\_\_\_\_ acres lying [insert a general description of the location of the area] in the [City/Village]. An accurate map of the Area is attached hereto and made a part hereof.

**§4. Purpose of the establishing the Area**

The purpose of establishing the Area is to provide the Services to the Area, including the operation, maintenance, repair, rehabilitation, replacement and reconstruction of any Stormwater Management Measures, Major or Minor Stormwater System or Special Management Areas;; costs of design, engineering and other consulting services, surveying and permits, public liability insurance, and all administrative, legal and other costs or expenses incurred in connection therewith and with the administration of the Area, including the repayment of any loan or debt incurred for the provision of any of such Services, all of the Services to be in and for the Area and all of said construction and improvements to be on property now owned or to be acquired by the [City/Village], or property in which the [City/Village] will obtain an interest sufficient for the provision of the Services.

**§5. Tax Levy**

The cost of the Services shall be paid by the levy of a direct annual *ad valorem* tax upon all taxable property within the Area for an indefinite period of time beginning for the year \_\_\_\_\_ and shall not exceed an annual rate of \_\_\_\_\_ of the assessed valuation of each tax parcel within the Area and shall be in addition to all other taxes permitted by law.

**§6. Filing**

The [City/Village] Clerk is hereby directed to file a certified copy of this ordinance, including an accurate map of the Area, in the office of the Kane County Clerk and in the office of the Kane County Recorder forthwith after its adoption and approval.

**§7. Repealer**

All ordinances, orders and resolutions and parts thereof in conflict herewith be and the same are hereby repealed, and this ordinance be in full force and effect forthwith upon its adoption.

**DATED:** \_\_\_\_\_.

<i>Alder- man/Trustee</i>	<i>Aye</i>	<i>Nay</i>	<i>Absent</i>	<i>Abstain</i>
Totals				

Approved:

\_\_\_\_\_

[Mayor/President]

Attested, Filed in my office, and published  
in pamphlet form on \_\_\_\_\_,  
20\_\_:

\_\_\_\_\_  
Clerk of the [City/Village] of  
\_\_\_\_\_, Kane County, Illinois

## APPENDIX E—DEFINITIONS

### 9-452 DEFINITIONS

In this Chapter:

**AASHTO:** Current publications from the American Association of State Highway and Transportation Officials (AASHTO) providing design guidelines and maximum width dimensions applicable to specific types of proposed linear projects.

**ADEQUATE DOWNSTREAM STORMWATER CAPACITY:** A stormwater management system shall be considered to have **Adequate Downstream Stormwater Capacity** if the system can be shown to store or convey stormwater **Runoff** from the storm event having a one percent (1%) chance of occurrence in any given year without increasing damage to adjoining properties or to a point downstream known to the **Administrator** to a restriction that causes significant backwater.

**ADID:** Advanced identification of **Wetlands** and aquatic resources under a study authorized and funded by the **USEPA** and adopted by the **County**.

**ADMINISTRATOR:** The **Person** designated by the **Permitting Authority** to administer and enforce this Chapter.

**ADVERSE HYDRAULIC IMPACT:** An increase of more than 0.10' to the modeled **Flood** profile for a given storm event due to a proposed **Development** activity.

**AGRICULTURAL LAND:** Land predominantly used for agricultural purposes.

**AGRICULTURAL SUBSURFACE DRAINAGE SYSTEM:** A subsurface, water management system 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. Systems are often referred to as drain tiles and may include **Observation Structures** or hickenbottom inlets.

**ALLOWABLE RELEASE RATE:** The maximum post-development release rate from a **Development** or **Redevelopment** during the one percent (1%) chance **Design Storm** as specified in Section 9-84 of this Chapter. The **Allowable Release Rate** includes the release rate from the **Restrictor** and the **Unrestricted Release** from the **Development**.

**APPLICANT:** Any person who submits an application for a **Stormwater Management Permit** under this Chapter.

**APPROPRIATE USE:** A use of the **Regulatory Floodway** permitted under Article VI of this Chapter.

**ATTACHED GARAGE:** A garage attached, adjacent, and connected to a residential **Structure**. An **Attached Garage** does not include an enclosed area below an elevated residential **Structure** to meet the building protection standards.

**AVERAGE ANNUAL RAINFALL:** The distribution of precipitation recorded during a calendar year with an average amount of precipitation in comparison to historically recorded years. An example **Average Annual Rainfall** distribution may be found in the **Technical Manual**.

**BASE FLOOD:** The **Flood** having a one percent (1%) probability of being equaled or exceeded in a given year. The **Base Flood** is also known as the 1% **Design Storm** or the 100-year **Design Storm**.

**BFE OR BASE FLOOD ELEVATION:** The highest water surface elevation that can be expected during the **Base Flood**.

**BMP OR BEST MANAGEMENT PRACTICE:** See **Stormwater Mitigation/Best Management Practice (BMP)**

**BUFFER:** Predominantly vegetated **Upland** areas within a defined width adjacent to **Wetlands** and **Waters of the U.S.** that provide a function that eliminate or minimize adverse impacts to those areas. **Buffer** functions include: reducing flood flow rates, velocities and volumes; promoting bank stability; filtration of sediment, nutrients and other pollutants; insulation and moderation of daily water temperatures; and habitat for aquatic and terrestrial fauna and flora. Areas that do not provide **Buffer** functions include: impervious non-vegetated surfaces, permanent **Structures** or **Buildings**, land in agricultural production within the past five (5) years, and maintained turf or landscape areas as of the **Effective Date** of this ordinance or previously permitted.

**BUILDING:** A **Structure** that is principally aboveground and is enclosed by walls and a roof; a **Building** includes a gas or liquid storage tank, a **Manufactured Home** or prefabricated **Building**. This term also includes **Recreational Vehicles** and travel trailers to be installed on a **Site** for more than 180 days.

**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) for permits received prior to January 1, 2020. "Frequency Distributions of Heavy Precipitation in Illinois: Updated Bulletin 70," by James Angel and Momcilo Markus of the Illinois State Water Survey (current edition) for permits received on or after January 1, 2020.

**CERTIFIED COMMUNITY:** A **Community** certified under Article XIII of this Chapter.

**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, and includes damming, riprapping (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 slope.

**CLOMA OR CONDITIONAL LETTER OF MAP AMENDMENT:** A **FEMA** comment letter on 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**.

**CLOMR OR CONDITIONAL LETTER OF MAP REVISION:** 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.

**COMMITTEE:** The Kane County Stormwater Management Planning Committee.

**COMMUNITY:** The **County** or any municipality within the **County**.

**COMPENSATORY STORAGE:** An excavated, hydrologically and hydraulically equivalent volume of storage created to offset the loss of existing flood storage when fill or **Structures** are placed within the **Floodplain** or when a **Depressional Storage** area is drained or filled.

**COUNTY:** Kane County, Illinois.

**CRITICAL DURATION:** The duration of a storm event that results in the greatest peak **Runoff**.

**CRITICAL FACILITY:** Critical facilities are those that are essential to a **Community's** ability to quickly and efficiently respond to **Floods**, recover from **Floods**, meet the needs of its citizens and rebuild after **Floods**. Typical **Critical Facilities** include hospitals, fire stations, police stations, storage of critical records, and similar facilities.

**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).

**DEMOLITION:** Removal of **Structures**, **Impervious Area**, or utilities that return a **Site** to a natural or vacant state. Demolition must not increase the volume or flow rate, or

affect the drainage pattern, or composition of stormwater. Demolition activities that change the use of the **Site** or require any fill within a **Floodplain** or **Floodway** are considered **Development**.

**DEPARTMENT:** The Kane County Department that administers the Stormwater Management Ordinance.

**DEPRESSIONAL STORAGE:** The volume contained below a closed contour on a one foot (1') contour interval topographical map, the upper elevation of which is determined by the invert of a surface gravity outlet. A surface gravity outlet does not include a surface inlet or hickenbottom that connects to a **Subsurface Drainage System**.

**DESIGN STORM:** A selected storm event, described in terms of the probability of occurring once within a given number of years, for which stormwater or **Flood** control improvements are designed and built. The **Critical Duration** storm shall be evaluated unless otherwise specified.

**DETENTION STORAGE FACILITY:** A manmade structure providing temporary storage of stormwater runoff from a **Development** with a controlled release rate during or immediately after a storm. The **Detention Storage Facility** includes a stormwater storage basin, **Control Structure** (or **Restrictor**), and the basin outlet, **Emergency Overflow** and inflow pipes.

**DEVELOPER:** Any **Person** who undertakes **Development** or certifies **Development** on such **Person's** behalf.

**DEVELOPMENT:** Any manmade change to the land undertaken by private or public entities which includes:

- A. The construction, reconstruction, or replacement of a **Building** or an addition to a **Building**;
- B. The installation of utilities, construction of roads, bridges or similar projects;
- C. Dredging, drilling and mining;
- D. The construction or erection of levees, walls, fences, dams, or culverts;
- E. **Channel Modifications**, filling, dredging, grading, excavating, paving, or other nonagricultural alterations of the ground surface;
- F. The storage of equipment and materials or the deposit of solid or liquid waste;
- G. The installation of a **Manufactured Home** on a **Site**, the preparation of a **Site** for a **Manufactured Home**, or the placement of a **Recreational Vehicle** on a **Site** for more than one hundred eighty (180) days;

H. Any **Wetland Impact**;

I. Any other manmade activity that increases the volume, height or velocity of **Flood** or surface water or changes the composition of stormwater, direction, of **Flood** or surface water, including the extensive removal of vegetation; and

J. The alteration, subdivision or change in land use or practice (plat act divisions) in which the proposed use will require a **Stormwater Management Measure**.

**Development**, however, does not include:

A. **Site Maintenance** and repair of existing **Buildings** or facilities located outside of the **Floodplain**;

B. **Site Maintenance** of existing parking lots, pedestrian trails and bikeways outside the **Floodplain** provided that no new **Impervious Areas** are added, there is no increase in peak flows, and there is no change in the location of the stormwater discharge;

C. **Site Maintenance**, including resurfacing of streets and highways outside the **Floodplain**;

D. **Site Maintenance**, including resurfacing of publicly owned streets and highways within the **Floodplain** provided the difference between the elevation of the road surface after resurfacing and the elevation of the road surface on the **Effective Date** is not more than two inches (2");

E. Maintenance of existing **Stormwater Management Measures** (e.g. sediment removal, shoreline stabilization, etc.), to restore to or improve: 1) the permitted function and condition, or 2) if completed prior to the **Effective Date** of this Chapter, the verifiable constructed function and condition;

F. Paving over an existing permitted or grandfathered **Impervious Area**, provided no change in peak discharge or location of discharge;

G. For agricultural uses, maintenance of existing drainage systems for the limited purpose of maintaining cultivated areas and crop production;

H. For agricultural uses, improvements undertaken pursuant to a written **NRCS** conservation plan provided they are outside of the **Floodplain**; and

I. Plowing, cultivation and similar agricultural practices that do not involve filling, grading or the construction of levees.

**DIRECTOR**: The **Person** designated by the County Board to oversee the administration of the Stormwater Management Ordinance.

**DRAINAGE AREA:** The land area above a given point that may contribute **Runoff** flow at that point from rainfall and/or snowmelt.

**DRAINAGE DISTRICT:** A special district created by petition or referendum and court approval. It has the power to construct and maintain drainage improvements and to pay for the improvements with assessments on the land within the district boundaries. An assessment on the land cannot be greater in value than the benefits of the drainage improvements.

**DRY FLOODPROOFED OR DRY FLOODPROOFING:** **Building** protection measures designed according to current **FEMA** guidelines to keep water out of the **Building**. **Dry Floodproofing** measures are among the **Floodproofing** measures described in the current edition of the following **FEMA** publications: Engineering Principles and Practices for Retrofitting flood-Prone Residential Structures (FEMA P-259), Homeowner's Guide to Retrofitting (FEMA P-312), Selecting Appropriate Mitigation Measures for Flood Prone Structures (FEMA 551), Protecting Building Utilities from Flood damage (FEMA 348), Reducing damage from Localized Flooding (FEMA 511), Non-Residential Floodproofing – Requirements and Certification (FEMA TB 3), and Floodproofing Non-Residential Structures (FEMA 102).

**EFFECTIVE DATE:** January 1, 2002.

**ELEVATION CERTIFICATE:** A form published by **FEMA** used to certify the **Base Flood Elevation** and the lowest elevation of **Usable Space** to which a **Building** has been constructed.

**EMERGENCY OVERFLOW:** Stormwater runoff from the **Critical Duration Design Storm** with a one percent (1%) chance of occurrence in any one year for the **Tributary Area** assuming the **Detention Storage Facility** is empty at the start of the storm and assuming zero release. The **Emergency Overflow** shall convey this **Runoff** without increasing **Flood** heights on upstream, adjoining properties or resulting in **Flood** damage at the **Development**.

**EROSION:** The process whereby soil is detached by the action of water or wind.

**EROSION AND SEDIMENTATION CONTROL PRACTICES:** A temporary or permanent measure that stabilizes soil by covering and/or binding soil particles to prevent soil particles from becoming detached by the forces of wind, water, or gravity and filters sediment from **Runoff**.

**EXISTING MANUFACTURED HOME PARK:** A **Development** for the placement of **Manufactured Homes** for which, at a minimum, the installation of utilities, the construction of streets, and either the final **Site** grading or the pouring of concrete pads was completed before the **Effective Date**.

**EXPANSION OF EXISTING MANUFACTURED HOME PARK:** The installation of

utilities, or the construction of streets, or final **Site** grading, or pouring of concrete pads in connection with the **Development** of additional lots within an **Existing Manufactured Home Park**.

**FARMED WETLANDS:** **Wetlands** that have been identified as **Farmed Wetlands** in accordance with the current "National Food Security Act Manual" (NFSAM) methodology and the U.S. Army Corps of Engineers - Chicago district methodology.

**FEE IN LIEU OF STORMWATER MANAGEMENT MEASURES:** A fee assessed to the **Applicant** by the **Permitting Authority**, commensurate with the costs and fee schedules adopted by the **County** or **Certified Community**, paid "in-lieu-of" constructing the required **Stormwater Management Measures** for the **Development** to meet the Ordinance requirements. Rules and procedures for **Fee-in-Lieu** of **Detention Storage Facilities**, **Best Management Practices** and **Watershed Benefit Measures** are contained in Section 9-85 and 9-318.

**FEMA:** The Federal Emergency Management Agency and its regulations at 44 CFR 59-79, effective September 29, 1989, as amended.

**FIRM OR FLOOD INSURANCE RATE MAP:** The current version of a map published by **FEMA** on which **FEMA** has delineated both the **Special Flood Hazard Areas** and the risk premium zones applicable to a **Community**, together with any amendments, additions, revisions or substitutions made thereto or therefor by **FEMA** at any time.

**FIS OR FLOOD INSURANCE STUDY:** The current version of an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations (or an examination of **Flood** related erosion hazards) for a **Community** adopted and published by **FEMA**, together with any amendments, additions, revisions or substitutions made thereto or therefor by **FEMA** at any time.

**FLOOD FREQUENCY:** A frequency normally expressed as a period of years, based upon 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, as in the 2-year **Flood Frequency** has a fifty percent (50%) chance of occurrence in any given year and the 100-year **Flood Frequency** has a one percent (1%) chance of occurrence in any given year.

**FLOOD:** A general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal waves or the unusual and rapid accumulation of **Runoff** of surface waters from any source.

**FLOODPLAIN:** That land typically adjacent to a body of water with ground surface elevations at or below the **Base Flood** including detached **Special Flood Hazard Areas**, ponding areas and the like. The **Floodplain** is also known as the **Special Flood Hazard Area (SFHA)**.

**FLOODPLAIN VIOLATION:** The failure of a **Structure** or other **Development** to be in compliance with the **Floodplain** management regulations of this Chapter, including the failure to have the **Elevation Certificate**, other certificates, or other evidence of compliance required in Article VI of this Chapter until such time as the required documentation is provided.

**FLOODPROOF OR FLOODPROOFING:** Any combination of structural and nonstructural additions, changes or adjustments to **Structures** or property which reduce or eliminate **Flood** damage to real estate, 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 Floodproofed** to the **FPE**.

**FLOODWAY CONVEYANCE:** The measure of the flow carrying capacity of the **Floodway** section and is defined using Manning's equation,  $K=1.49 AR^{2/3}/n$ , where "n" is Manning's roughness factor, "A" is the effective area of the cross section, and "R" is the ratio of the wetted area to the wetted perimeter.

**FLOODWAY OR DESIGNATED FLOODWAY:** The **Channel**, including on-stream **Lakes**, and that portion of the **Floodplain** adjacent to a stream or **Channel**, as depicted on the **FEMA FIRM**, which is needed to store and convey the **Critical Duration Base Flood** discharge with no more than a one-tenth of a foot increase in **Flood** stage due to the loss of **Floodway Conveyance** or storage, and no more than a ten percent (10%) increase in velocities.

**FPE OR FLOOD PROTECTION ELEVATION:** The elevation to which a **Building** must be protected from **Flood** damage, through elevation or **Floodproofing**. The **FPE** is the **Base Flood Elevation** plus a recommended **Freeboard**.

**FQI OR FLORISTIC QUALITY INDEX:** The parameter related to the number of native plant species present, as defined by Floyd Swink and Gerald Wilhelm in "Plants of the Chicago Region", 4th edition (1994) and calculated using the Chicago Region Floristic Quality Assessment (FQA) Calculator

**FREEBOARD:** An increment of height added to the **BFE**, groundwater table or **Base Flood** design water surface elevation to provide a factor of safety for uncertainties in calculations, unknown local conditions, wave action and unpredictable effects such as those caused by ice or debris jams.

**FUNCTIONAL:** Refers to **Stormwater Management Measures** and **Major Stormwater Systems** which serve the primary purpose of meeting developed release rate requirements, but does not meet all of the final design conditions. For example, a **Detention Storage Facility**, which has been excavated but has not, had the side slopes graded, nor the final landscaping placed, may be considered **Functional** as a **Detention**

## **Storage Facility.**

**GROUNDWATER:** Water that is located within soil or rock below the surface of the earth.

**HIGHEST ADJACENT GRADE:** The highest natural elevation of the ground surface next to the proposed walls of a **Structure** prior to construction.

**HISTORIC STRUCTURE:** A **Structure** or **Site** 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 in the national register;
- B. Certified or preliminarily determined by the Secretary of the Interior as contributing to a historic district or a district preliminarily determined by the Secretary of the Interior to qualify as a registered historic district;
- C. Individually listed on the state inventory of historic places by the Illinois Historic Preservation Agency; or
- D. Individually listed on a local inventory of historic places that has been certified by the Illinois Historic Preservation Agency.

**HYDRAULICALLY EQUIVALENT COMPENSATORY STORAGE:** **Compensatory Storage** (either adjacent to the **Floodplain** fill or located off-site), which can be shown by **Hydrologic** and **Hydraulic** analysis to be equivalent to **Compensatory Storage** located adjacent to the **Development**.

**HYDRAULICS:** The science and study of the mechanical behavior of water in physical systems and processes.

**HYDRIC SOIL:** A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part.

**HYDROLOGICALLY DISTURBED AREA:** An area of land surface cleared, grubbed, excavated, compacted or otherwise modified that changes stormwater **Runoff** volumes or rates.

**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, or its duly authorized designee.

**IEPA:** The Illinois Environmental Protection Agency.

**IMPERVIOUS AREA:** Any hard-surfaced, man-made area that does not readily absorb, retain or infiltrate water, including but not limited to **Building** roofs, non-porous asphalt and concrete, areas of compacted structural clay, limestone riding arenas, compacted graveled areas, sidewalks and paved recreation areas. Graveled surfaces may be counted as pervious provided the aggregate gradation has a high porosity (such as CA-7). **Open Water** shall be considered impervious (at its normal water elevation), but vegetated **Wetlands** and constructed **Wetland** basins shall not be considered impervious. Areas that are designed to promote the infiltration of rainfall into the ground at rates at or above the infiltration rate of naturally vegetated areas (given applicable soil types), such as porous or **Permeable Pavement** areas, and bioretention areas (rain gardens and bio-swales, composed of an engineered soil mix) shall not be considered impervious.

**INTERIM WATERSHED PLAN:** A regional study of a **Watershed** which does not address the entire range of purposes, goals and objectives outlined in the **Plan**.

**ISOLATED WETLAND:** A **Wetland** that does not have an identifiable surface water connection to other **Waters of the U.S.** as determined by a **USACE** jurisdictional determination.

**LAKE:** A body of water two (2) or more acres in size which retains water throughout the year.

**LINEAR WATERCOURSE:** Ephemeral, intermittent and perennial creeks, streams, rivers, and online impoundments.

**LOMA OR LETTER OF MAP AMENDMENT:** The official determination by **FEMA** that a specific **Structure** is not in a **Regulatory Floodplain** and amends the effective **Flood** hazard boundary map, Flood Boundary and Floodway Map, or **FIRM**.

**LOMR OR LETTER OF MAP REVISION:** A letter from **FEMA** that revises the **BFE**, flood insurance rate zones, **Flood** boundaries or **Floodway** as shown on an effective flood hazard boundary map, Flood Boundary and Floodway Map, or **FIRM**.

**LOMR-F:** A Letter of Map Revision based on Fill.

**LOWEST FLOOR:** The **Lowest Floor** of the lowest enclosed area of a **Structure** (including basement) but does not include an unfinished or **Flood** resistant enclosure suitable solely for parking of vehicles, **Building** access, or storage in an area other than a basement, provided, however, that such enclosure is not built so as to render the **Structure** in violation of the applicable requirements of Article VI of this Chapter.

**LOWEST OPENING:** The elevation at which water could enter a **Building** through any non-watertight opening such as a doorway threshold, a window sill, the top-of-



foundation, or a basement window well.

**MAINTAINABLE OUTLET:** A **Major or Minor Stormwater System** (such as a storm sewer or **Overland Flow Path**) that a **Stormwater Management Measure** may outlet to that provides positive drainage to an **Open Channel** or stormwater management system. The downstream system shall have adequate stormwater capacity. Stormwater management systems shall be within a recorded drainage easement or right-of-way.

**MAINTENANCE OF EXISTING BUILDINGS:** Activities including keeping spaces, **Structures** and infrastructure in proper operating condition in a routine, scheduled, or anticipated fashion to prevent failure and/or degradation. These tasks include, but are not limited to: re-roofing; replacement of windows, water heaters and furnaces; the repair of existing plumbing; and the re-wiring of an existing electric service. Maintenance does not include any tasks that increase the outside dimensions of a **Building** or changes the dimensions of a **Structure**.

**MAJOR STORMWATER SYSTEM:** All infrastructure including levees, bridges, culverts, flood routes, stormsewer, swales and channels 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 and includes park trailers, travel trailers and other similar vehicles on-site for more than one hundred eighty (180) consecutive days but does not include a **Recreational Vehicle**.

**MANUFACTURED HOME PARK OR SUBDIVISION:** A **Site** (or contiguous sites) of land divided into two (2) or more **Manufactured Home** lots for rent or sale.

**MARKET VALUE:** The value of a **Structure** prior to **Substantial Damages** and/or **Substantial Improvement**. **FEMA** accepts several methods to determine **Market Value**. The method to determine **Market Value** shall be one approved by **FEMA** and the **Administrator**.

**MINOR STORMWATER SYSTEM:** All infrastructure including curb, gutter, **Culverts**, **Roadside Ditches** and swales, and storm sewers intended to convey stormwater **Runoff** at less than a one percent (1%) **Design Storm Flood Frequency**.

**MITIGATION:** Measures taken to offset negative impacts from **Development** in **Linear Watercourses**, **Nonlinear Waterbodies**, **Wetlands** or the **Floodplain**.

**NET BENEFIT IN WATER QUALITY:** The institution of **Best Management Practices** as part of a **Development** that when compared to the predevelopment condition can be judged to reduce downstream sediment or pollutant loadings.

**NET NEW IMPERVIOUS AREA:** The difference between the **New Impervious Area**

and the existing **Impervious Areas** on-site to be removed, as a result of the proposed **Development**, at the time of the stormwater management permit application or other approved date, allowed at the discretion of the **Administrator**. **Net New Impervious Area** is tracked cumulatively since the **Effective Date**. **Open Water** shall not be included in the **Net New Impervious Area** calculation.

**NET WATERSHED BENEFIT:** A finding that, when compared to the existing condition, the **Development** will substantially reduce (more than 10 percent) downstream peak discharges, will reduce downstream **Flood** stages (more than 0.1 feet), or will reduce downstream damage to **Structures** occurring in the predevelopment condition and must be demonstrated by detailed hydrologic and hydraulic analysis of **Watersheds** on a regional scale as approved by the **Administrator**.

**NEW IMPERVIOUS AREA:** Undetained **Impervious Area** created by **Development** or **Redevelopment** after the **Effective Date** and **Impervious Area** defined as **Development** or **Redevelopment** that is proposed after the **Revision Date**. For **Redevelopment**, the accumulation of **New Impervious Area** between the **Effective Date** and the **Revision Date** will be reassessed to reflect the standards for **Impervious Areas** as part of this Chapter.

**NEW MANUFACTURED HOME PARK:** A **Development** for the placement of **Manufactured Homes** for which the installation of utilities and the construction of streets, and either the final **Site** grading or the pouring of concrete pads was completed before the **Effective Date**.

**NFIP OR NATIONAL FLOOD INSURANCE PROGRAM:** The federal program codified in Title 44 Of the Code of Federal Regulations.

**NON-DESIGNATED FLOODWAY:** The **Channel**, including on-line impoundments, and that portion of the **Floodplain** adjacent to a stream or watercourse, not specifically identified as a **Floodway** on the **FEMA FIRM**, but which has a **Tributary Area** of 640 acres or more in an urban area or a **Tributary Area** of 640 acres or more in a rural area. The urban area or rural area designations shall be determined by **IDNR/OWR**. **Non-Designated Floodway** is also known as "Zone A."

**NONLINEAR WATERBODY:** **Ponds** and **Lakes** that are not hydraulically connected to surface water that meet the definition of **Waters of the U.S.**

**NONRIVERINE:** Areas not **Riverine** in character such as isolated **Depressional Storage** areas, **Ponds** and **Lakes**.

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

**NUISANCE FLOW:** Primarily a dry weather flow resulting from **Groundwater** pumped by individual sump pumps, curtain drain systems, French drains not directly related to

rainfall events and surface **Runoff**.

**OBSERVATION STRUCTURES:** Structures built on an **Agricultural Subsurface Drainage System** or other **Subsurface Drainage System** where the pipe inflow and outflow is visible upon removal of a lid.

**OHWM OR ORDINARY HIGH WATER MARK:** The point on the bank or shore up to which the presence and action of surface water is so continuous 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.

**OPEN CHANNEL:** A conveyance system with a definable bed and banks carrying the discharge from field tiles and surface drainage including ditches, culverts, streams, creeks, and rivers. An **Open Channel** does not include grassed swales or cultivated swales within farm fields under agricultural production which are ephemeral in nature.

**OPEN WATER:** Surface water in **Lakes, Ponds, Detention Storage Facilities**, impoundments and **Wetlands** devoid of vegetative cover.

**OUTFALL:** Discharge or point of discharge of a culvert or other closed conduit from a **Development** at which stormwater can be released from the **Site** without causing scouring, **Erosion**, flooding, sedimentation or produce any **Adverse Hydraulic Impacts** to the receiving system.

**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:** A separate tract of land identified by its own legal description.

**PERMEABLE PAVEMENT:** Porous asphalt, pervious concrete, permeable pavers and similar paving materials designed to promote stormwater infiltration. **Permeable Pavement** is not considered an **Impervious Area**, if it is constructed over soil which can be shown by **Development** site-specific soil data to be sufficiently permeable to allow infiltration without a system of underdrains and provided that the full depth of the pavement cross-section is above the elevation of the **Seasonal High Groundwater Table** and calculations are provided documenting runoff will not occur.

**PERMITTING AUTHORITY:** The **Certified Community** having jurisdiction under this Chapter to issue permits.

**PERSON:** An individual, partnership, corporation, limited liability company, unincorporated association, trust, municipal corporation, unit of local government or other government agency or authority, or any combination of any of the foregoing.

**PLAN:** The Kane County Comprehensive Countywide Stormwater Management Plan adopted by the County Board on October 13, 1998, as amended from time to time.

**PLANT COMMUNITIES:** Groups of plants with similar habitat requirements and planting regimes.

**POLLUTANTS OF CONCERN:** Common pollutants generated by **Development** or **Redevelopment** which include: Total Suspended Solids (TSS); metals and oils; and nutrients consisting of nitrogen and phosphorous.

**POND:** A body of water less than two (2) acres in size which retains a normal water level year-round.

**PROFESSIONAL ENGINEER:** A person licensed under the laws of the State of Illinois to practice professional engineering.

**PROFESSIONAL LAND SURVEYOR:** A person licensed under the laws of the State of Illinois to practice professional land surveying.

**PUBLIC FLOOD CONTROL PROJECT:** A **Flood** control project which will be operated and maintained by a public agency or public entity to reduce **Flood** damage 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 **IDNR-OWR**, the **Department** and the **Community** and provides legal assurances that all areas subject to flooding in the created backwater of the **Development** will remain open to allow flooding.

**REASONABLE USE:** Use of land to improve drainage such that the benefits of the improved drainage outweigh the disadvantages to lands receiving additional flow in compliance with Illinois Drainage Law (Uchtmann and Gehris, 1997).

**RECORD DRAWINGS:** Drawings prepared, signed and sealed by a **Professional Engineer** or **Professional Land Surveyor** representing the final record of the actual in place elevations, locations of **Structures** and topography.

**RECREATIONAL VEHICLE:** A vehicle that is:

- A. Built on a single chassis,
- B. Four hundred (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 as temporary living quarters for recreational camping, travel or seasonal use and not for use as a permanent dwelling.

**REDEVELOPMENT:** The process of developing land previously developed. The term shall be understood to exclude **Site Maintenance**.

**REGISTERED STRUCTURAL ENGINEER:** A **Person** licensed under the laws of the state of Illinois as a structural engineer.

**REGULATORY FLOODPLAIN:** The **Floodplain** depicted on maps recognized by **IDNR-OWR** for regulatory purposes.

**REGULATORY FLOODWAY:** Those portions of the **Floodplain** depicted as **Floodway** on maps recognized by **IDNR-OWR** for regulatory purposes.

**REPETITIVE LOSS:** **Flood**-related damages sustained by a **Structure** on two separate occasions during a 10-year period for which the cost of repairs at the time of each such **Flood** event, on the average, equals or exceeds twenty-five percent (25%) of the **Market Value** of the **Structure** before the damage occurred.

**RESTRICTIVE BRIDGE OR CULVERT:** A bridge or **Culvert** that crosses a **Floodplain** and cannot convey the **Base Flood** without causing increases in the upstream **Flood** profile.

**RESTRICTOR:** The physical mechanism or means for controlling the rate of stormwater discharge from a **Detention Storage Facility** or retention basin.

**REVISION DATE:** June 1, 2019

**RIVERINE:** Related to, formed by or resembling a **Channel** and includes creeks and rivers.

**ROADSIDE DITCH:** A drainage ditch within twenty-five (25) feet from the edge of the outside travel lane or the median of a divided road.

**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 which may be indicated by soil mottles with a Munsell color of two (2) chroma or less.

**SEDIMENTATION TRAP:** A **Structure** or area that allows for the temporary deposit and removal or disposal of sediment materials from stormwater runoff.

**SEDIMENTATION:** The process that deposits hydraulically moved soils, debris and other materials in flowing or standing water.

**SFHA OR SPECIAL FLOOD HAZARD AREA:** The land in the **Floodplain** within a **Community** that is subject the **Base Flood** and has special **Flood**, mudslide or mudflow, or **Flood** related **Erosion** hazards and is shown on an **FBFM** or **FIRM** as zone A, AO, A1-30, AE, A99, AH, VO, V1-30, VE, V, M or E.

**SITE MAINTENANCE:** In kind replacement, restoration, or repair of existing infrastructure, pavement, or facilities including, but not limited to, roadways and parking lots such that they will perform the same functions for which they were originally designed and constructed.

**SITE:** The **Parcel** or contiguous **Parcels** contemplated to be part of a single **Development**, coordinated **Development** or **Redevelopment** under single ownership or control.

**SPECIAL MANAGEMENT AREA:** A **Floodplain**, **Regulatory Floodplain**, **Floodway**, **Regulatory Floodway**, **Linear Watercourse**, **Nonlinear Waterbody**, **Wetland**, **Wetland Mitigation Bank** or **Facility**, or **Buffer**.

**START OF CONSTRUCTION:** The actual start means either the first placement of permanent construction of a **Structure** on a site, such as: the pouring of slab or footings; the installation of piles; the construction of columns or any work beyond the stage of excavation; or placement of a **Manufactured Home** on a foundation. For a **Substantial Improvement**, actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a **Building** whether or not that alteration affects the external dimensions of the **Building**. Construction of the **Structure** does not include: land preparation such as clearing, grading and filling; installation of streets and/or walkways; excavation for basement, footings, piers, or foundations or the erection of temporary forms; or the construction of accessory **Buildings**, such as garages or sheds not occupied as dwelling units or not part of the main **Structure**.

**STORMWATER MANAGEMENT MEASURE:** A man-made facility or naturally enhanced area such as **Detention Storage Facilities**, **Stormwater Mitigation/BMPs** and **Watershed Benefit Measures**, implemented to control stormwater runoff with the objectives of providing controlled surface drainage by promoting infiltration, **Flood** control, enhanced water quality, and pollutant reduction in **Runoff**.

**STORMWATER MANAGEMENT PERMIT:** The permit issued under Article II of this Chapter.

**STORMWATER MITIGATION / BEST MANAGEMENT PRACTICE (BMP):** A measure used to control the adverse stormwater related effects of **Development**, designed to remove pollutants, reduce **Runoff** rates and volumes, and protect aquatic habitats.

Example practices include:

- A. Infiltration-based **BMPs** such as infiltration trenches or dry wells, **Permeable Pavements**, native vegetated rain gardens or bioswales with quantifiable storage, and other **BMPs**, upon approval by the **Administrator**; and
- B. Storage-based **BMPs** such as: native vegetated **Detention Storage Facilities**; native vegetated swales with quantifiable storage behind check dams; and other **BMPs**, upon approval by the **Administrator**.

#### **STRUCTURALLY DRY FLOODPROOFED OR STRUCTURAL DRY**

**FLOODPROOFING:** **Building** protection measures designed and certified by a **Professional Engineer** to make the **Building** and its attendant utilities 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. **Structural Dry Floodproofing** measures shall be operable without human intervention and without an outside source of electricity. Levees, berms, **Floodwalls**, and similar **Building** protection measures are forms of **Dry Floodproofing** which are not **Structural Dry Floodproofing**.

**STRUCTURE:** A manmade 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**.

**SUBSTANTIAL DAMAGES OR SUBSTANTIALLY DAMAGED:** Damage of any origin (which may include but is not limited to **Flood**, fire, earthquake and wind) sustained by a **Building** located in the **Floodplain** or **Floodway** whereby the cumulative percentage of damages, improvements and **Maintenance of Existing Building**, taking place on or after January 1, 2010 equals or exceeds 50 percent of the **Market Value** of the **Structure** before the damage occurred regardless of actual repair work performed. The **Market Value** of volunteer labor and materials must be included in this determination. The cumulative total of damages, improvements and **Maintenance of Existing Building** shall be tied to the property. The term includes **Repetitive Loss Buildings**.

**SUBSTANTIAL IMPROVEMENTS OR SUBSTANTIALLY IMPROVED:** Any reconstruction, rehabilitation, addition, or improvement of a **Structure** located in the **Floodplain** or **Floodway**, in which the cumulative percentage of improvements, damages and **Maintenance of Existing Building**, taking place on or after January 1, 2010, equals or exceeds 50 percent of the **Market Value** of the **Structure** before the improvement or repair is started, or increases the floor area by more than twenty percent (20%). The **Market Value** of volunteer labor and materials must be included in this determination. The cumulative total of damages, improvements and **Maintenance of Existing Building** shall be tied to the property.

- A. **Substantial Improvement** is considered to occur when the first alteration of any

wall, ceiling, floor, or other structural part of the **Building** commences, whether or not that alteration affects the external dimensions of the **Building**. This term includes **Structures** which have incurred **Repetitive Loss** or **Substantial Damage**, regardless of the actual work done.

B. The term does not, however, include either:

1. Any project for improvement of a **Structure** to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or
2. Any alteration of a **Historic Structure** listed on the National Register of Historic Places or the Illinois Register of Historic Places, provided that the alteration will not preclude the **Structure's** continued designation as a **Historic Structure**.

**SUBSURFACE DRAINAGE SYSTEM:** A water management system used to remove excess **Groundwater** 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 DRAINAGE SURVEY:** An inventory of existing **Agricultural Subsurface Drainage Systems** and other **Subsurface Drainage Systems**, typically based upon a field investigation utilizing the slit trench method to locate existing systems.

**TECHNICAL MANUAL:** The manual developed by the **County** which provides examples and other helpful tools to assist **Applicants** and **Certified Communities** in the planning of **Developments** and application for a **Stormwater Management Permit**.

**TEMPORARY WETLAND AFFECT:** A disturbance to a **Wetland** that would result in a short-term loss of **Wetland** function. Temporary affects do not include relocation of a **Wetland**, or conversion of a vegetated community to **Open Water**, unless the conversion is part of an overall **Wetland** restoration or **Wetland Mitigation Facility** that is submitted for review and approved. Additionally, for the impact to be considered temporary, **Wetland** soil profiles shall be able to be restored to a similar pre-disturbance condition and elevation, vegetative communities shall have the capability of being restored to same or higher quality and function, and the restoration must occur within one year of the disturbance.

**TOPSOIL:** The uppermost part of the soil, ordinarily moved in tillage, or its equivalent in uncultivated soils.

**TRANSITION SECTION:** The reaches of the stream or **Floodway** where water flows from a narrow cross section to a wide cross section, or vice versa.

**TRIBUTARY AREA:** All of the land surface that contributes **Runoff** to a given point.



**UNRESTRICTED RELEASE:** Stormwater runoff from a **Development** which is not directed to the **Detention Storage Facility** is unrestricted or uncontrolled release or flow.

**UPLAND:** Terrain lying above the level where water flows, where flooding occurs, or where soils are not saturated by **Groundwater** at a frequency and a duration to support **Wetland** vegetation.

**UPSTREAM TRIBUTARY FLOW:** Stormwater runoff from **Tributary Areas** upstream of a **Development**.

**USABLE SPACE:** Space used for dwelling, storage, utilities or other beneficial purposes and includes basements.

**USACE:** The United States Army Corps of Engineers.

**USEPA:** The United States Environmental Protection Agency.

**USFWS:** The United States Fish and Wildlife Service.

**VOLUME REDUCTION:** The volume of stormwater runoff from **New Impervious Areas** of a **Development** or **Redevelopment** that is captured, retained, infiltrated, evapotranspired or re-used by **BMPs**.

**VOLUME SENSITIVE WATERSHED:** A **Depressional Storage** area or an area that retains water due to the lack of an adequate outfall where an increase in the **Flood** elevation, volume, or duration will result in an **Adverse Hydraulic Impact** or deny the receiving property owner **Reasonable Use** of their land.

**WATER DEPENDENT FACILITIES:** **Structures** or facilities relating to the use of, or requiring direct access to the water, shoreline or **Wetlands** to accomplish their primary function/purpose, whether it is recreational, commercial or industrial. Examples include, but are not limited to, pumping facilities, modifications to existing wastewater treatment plants and facilities, shoreline protection, boating facilities and improvements, but does not include new wastewater treatment plants or habitable **Structures** at existing wastewater treatment plants, long-term storage or related manufacturing facilities.

**WATER QUALITY TREATMENT:** Treatment of **Pollutants of Concern** generated by **Development** or **Redevelopment** via physical, biological and chemical removal processes by permanent **BMPs**.

**WATERS OF THE U.S.:** Is defined by **USACE** in 33 CFR 328.3 and, for purposes of this Chapter, includes **Wetlands**, **Lakes**, rivers, streams, creeks, bogs, fens, and **Ponds** that are under the jurisdiction of the **USACE**.

**WATERSHED:** All land drained by, or contributing water to the same stream, **Lake**, **Stormwater Management Measure**, or draining to a point. In Kane County, the major **Watersheds** shall be defined as the Fox River Watershed and the Kishwaukee Watershed.

**WATERSHED BENEFIT MEASURE:** A **Natural Resources Conservation Services (NRCS)** Conservation Practice, or other approved practice, used to mitigate the adverse stormwater related effects of small **Development** on large tracts of land. These include practices that: stabilize swales, agricultural ditches and streams; reconnect **Channels** and **Wetlands** to the **Floodplain**; create or enhance **Wetlands**, **Buffers** and riparian areas; improve and preserve natural **Upland** areas such as prairies and forest stands; and filter or remove pollutants from **Impervious Areas** or agricultural practices. Examples of allowable **NRCS** conservation practices include: Bioreactors, **Channel** Bed Stabilization, Constructed **Wetland**, Contour **Buffer** Strips, Drainage Water Management Plan Implementation, Filter Strips, Grassed Waterway, Riparian Forest **Buffer**, Riparian Herbaceous Cover, Saturated Buffers, Streambank and Shoreline Protection, Stream Habitat Improvement and Management, **Wetland** Creation, **Wetland** Enhancement, and **Wetland** Restoration.

**WATERSHED PLAN:** A study and evaluation of an individual drainage basin's stormwater management, **Floodplain** management, water quality and **Flood** control needs capabilities adopted by the **County**.

**WET FLOODPROOFED OR WET FLOODPROOFING:** Permanent or contingent measures applied to a **Structure** or its contents that prevent or provide resistance to damage from flooding while allowing floodwaters to enter the **Structure** or area. Generally, this includes properly anchoring the **Structure**, using **Flood** resistant materials below the **Base Flood Elevation (BFE)**, protection of mechanical and utility equipment, and use of openings or breakaway walls. **Wet Floodproofing** measures are among the **Floodproofing** measures described in the current edition of the following **FEMA** publications: Wet Floodproofing Requirements for Structures Located in Special Flood Hazard Areas (FEMA TB 7-93), Selecting Appropriate Mitigation Measures for Floodprone Structures (FEMA 551), Protecting Building Utilities from Flood Damage (FEMA 348), Reducing Damage from Localized Flooding (FEMA 511), Non-Residential Floodproofing – Requirements and Certification (FEMA TB 3), and Floodproofing Non-Residential Structures (FEMA 102).

**WETLAND:** Is defined by the current U.S. Army Corps of Engineers Wetland Delineation Manual, or other federally recognized methodology. A **Wetland** is an area that is inundated or saturated by surface or **Groundwater** at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. A **Wetland** is delineated based upon these three attributes: 1) **Hydrology**, 2) **Hydric Soil**, and 3) hydrophytic vegetation.

**WETLAND IMPACT:** Conversion of a **Wetland** to a non-**Wetland** via:

- A. Direct impact caused by the dredging or filling of any **Wetland**; or
- B. Indirect **Wetland Impact** caused by a **Development** activity that would result in the **Wetland Hydrology** falling below 80 percent, or exceeding 150 percent, of the existing condition storm event **Runoff** volume to the **Wetland** for the 2-year, 24-hour storm event.

**WETLAND MITIGATION:** The establishment or re-establishment and long-term maintenance of **Wetlands** to offset **Wetland Impacts** from **Development**.

**WETLAND MITIGATION BANK:** One or more **Parcels** approved by **USACE** or the **Director** where **Wetlands** and/or other aquatic resources are established, re-established, enhanced or, in exceptional circumstances, preserved expressly for the purpose of providing compensatory **Mitigation** in advance of authorized impacts to similar resources.

**WETLAND MITIGATION FACILITY:** Land in the **County** specifically dedicated for the establishment and re-establishment, rehabilitation and long term maintenance of **Wetlands** and other aquatic resources. This includes any area designated as a **Compensatory Storage** facility or **Detention Storage Facility** when such area is used for **Wetland Mitigation**.