

# **VILLAGE OF FRANKFORT**

## **WATER RESOURCE MANAGEMENT PLAN**

### **Introduction:**

In and around the Village of Frankfort are a number of lakes, ponds, streams, creeks, wetlands, riverines and/or drainage ways which form the general landscape of our area and are vital for the conveyance and storage of water. These areas serve a very definable environmental and ecological function in their respective watersheds.

The Village of Frankfort recognizes the importance of our waterways and is desirous to maintain their function. Furthermore, these areas are multiplistic in their value environmentally, as recreational areas and overall benefit as green areas. For these reasons, the Village of Frankfort has undertaken a plan to identify, evaluate, maintain and protect those waterway areas that contribute to the quality of life desired by our residents. The best way to insure and preserve their function is through the administration of a management plan.

### **Purpose:**

Within this plan, the Village has attempted to identify those features of each waterway that it deems significant. Individual lakes, ponds, streams and/or drainage areas vary in their quality and importance. Subsequently, the Village has attempted to inventory those areas it sees important to our region and community. The plan provides a list and graphic representation of the most important waterways.

Since most of these areas cross or are wholly on private property, the Village sees the plan as a cooperative effort with the property owner. These areas lie on both developed and non-developed property. Property already developed and urbanized has a continual need for maintenance. Whereas, undeveloped property has the opportunity to maintain the respective natural characteristics of the water way function and incorporate protective measures to assure water quality. Our management plan attempts to identify the significant needs of the respective waterway and make recommendations on the maintenance and protection of each area.

The plan also assists the Village in budgeting resources necessary to sustain proper management. Restoration and maintenance come with a price. An effective plan, therefore, helps to establish the cost associated with proper management. A financial mechanism is necessary to assure money and manpower are in place to clear ditches and streams, provide streambank stabilization, provide public awareness through publication and education, and annually inspect our waterways.

Certain stream and drainage areas are environmentally sensitive and important to the overall water quality of our region. These areas are identified and recommendations are made to protect from forces that could compromise their importance and value to the community. The Village

believes development should incorporate these areas in their plan thereby assuring their preservation and allowing the development of the surrounding area with minimal or no negative impact to such areas.

The Village of Frankfort is an advocate of smart growth and sensible development. We believe the natural elements of our surrounding environment are an important ingredient to the quality of life our residents have come to expect. We believe smart growth occurs when development is economically viable and includes the preservation of open space, natural resources and protection of indigenous species. Sensible development means good land planning. The inclusion and management of our natural resources are part of the overall development plan.

The Village believes lakes, ponds, streams, creeks, wetlands, riparian areas and our water resources in general must be incorporated in the planning of a site considered for development. Subsequently, the Village desires to aid the process by providing guidance for those areas in our management plan.

### **Guidelines and Requirements:**

The Village of Frankfort has enacted various ordinances that address the design requirements and considerations for development adjoining environmentally sensitive areas.

#### **A. Engineering Standards**

Ordinance No. 2392 - "Design Standards" is our engineering standard for site development. Particular attention should be paid to Section 4: Storm Water Management. This section contains information on streams, lakes, ponds and wetland areas in the Village. It defines the requirements for development including the creation of conservancy districts, buffers or easements to protect sensitive areas. Furthermore, the ordinance stipulates the need for the submission of an environmental impact assessment, when requested by the Village, for areas deemed environmentally sensitive.

#### **B. Special Flood Hazard Areas**

Frankfort Code of Ordinances Title XV: Land Uses, Chapter 152: Flood Regulations establishes the requirements for developing in or on adjoining flood prone areas. The ordinance sets the standards for special flood hazard areas and a requirement for the Village's participation in the National Flood Insurance Program. Since most environmentally sensitive areas include special flood hazard areas, this ordinance is most important when considering development.

#### **C. Land Use Regulations**

The Village of Frankfort Zoning Ordinance (Ordinance No. 1872) and Land Subdivision Ordinance (Ordinance No. 921) define the zoning district and subdivision requirements of the village. Although they do not address environmental issues specifically, they do set development standards concerning setbacks, landscaping, park and public area requirements and other important considerations on land use.

#### D. Native Landscaping

Frankfort Code of Ordinances Title XV: Land Uses, Chapter 158: Landscaping Regulations sets the requirements for the preservation, installation, restoration and maintenance of naturalized or native landscaping in conjunction with stormwater management and other environmentally sensitive areas. Many best management practice applications utilize native plant material in the design. The Village recognizes the need to set landscape standards that assure the sustainability of native landscaping within non-disturbed and developed areas. The primary objective of native landscaping is to improve water quality, preserve beneficial features on-site, avoid erosion, preserve and enhance habitat, encourage ground water recharge, prevent flooding and provide economical, safe and aesthetically pleasing design in conjunction with stormwater management.

#### E. Other Guidelines

The Village encourages innovation and creativity when considering water resource management. Furthermore, the Village advocates the use of best management practices (BMP) to control the storm water impacts of development. There are numerous sources of material available to property owners and developers that can aid them in their land planning. The Northeastern Illinois Planning Commission (NIPC) has a publication titled “Restoring and Managing Stream Greenways: A Landowner’s Handbook” which is very insightful. NIPC and Chicago Wilderness have partnered in the drafting of a “Biodiversity Recovery Plan” that outlines steps to be taken to assure the long-term viability of important woodland, wetlands and prairie areas. In addition, NIPC has established BMP’s that set fundamental and practical guidelines for development. Furthermore, the Will South Cook Soil and Water Conservation District (SWCD) and Natural Resource Conservation Service (NRCS) located in New Lenox can assist property owners and other interested parties with information on the management of land and water resources.

### **Water Resource Identification:**

The Village of Frankfort desires sensible development. As previously stated, this means the consideration and integration of our natural resources in the formation of an economically viable land plan for development. To assist in the land planning process, the Village has identified various lakes, streams and drainage ways as important resources. The following is a list of these areas with recommendations on how they should be incorporated in future development plans and/or be maintained as they now exist. This is, by no means, an attempt to demean or subjugate areas that are not listed to lesser standards. We have included in our plan a map of the Village of Frankfort and surrounding area to graphically represent the areas so noted. In addition, a Facility Identification List is attached itemizing the various waterways and management areas located within the Village of Frankfort.

#### **A. Lakes and Ponds**

Prior to the development of property larger than five (5) acres, the Village requires an assessment of the watershed. Any proposed improvement to the property requires the overall drainage system be designed to minimize adverse water quality impact on the property itself and adjoining property. Subsequently, the Village of Frankfort encourages a system that incorporates multiple uses compatible with storm water management including open space, aquatic habitat,

recreational waters, wetland protection and water quality mitigation. The village gives preference to wet basin detention/retention facilities and wetland designs. The parameters of design are found in the Village Design Standards. Most of the existing lakes and ponds in the village are man made in conjunction with site development.

Some of the facilities are relatively small and serve a limited area. They do, however, serve as examples of what others have done to incorporate multiple uses in their land use plans. The Village encourages creativity in design.

## **B. Streams and Creeks**

In order to assure the protection and proper use of the watercourses within our corporate area, the Village of Frankfort has adopted a “Lowland Conservancy Overlay District”. The district is an overlay to all the zoning districts created by the Village. The Lowland Conservancy District was established by the Village under the provisions of the Illinois Revised Statutes and covers the use of Frankfort’s watercourses, lakes, ponds, floodplain and wetland areas. Our ordinance requires any one desiring to develop in or adjoining the lowland district to obtain a site development permit as outlined within the ordinance. The following is a list of streams and creeks in the Village, which we have reviewed and rated. An “A” rating means the stream or creek is of the highest importance to the Village and every effort is to be made to leave the area in an undisturbed, natural state. Only minor and public improvements will be permitted e.g. underground utilities, pedestrian ways, roadway crossings, etc. Development proposed in areas designated with a “B” rating will be allowed, but only in strict conformance to the site permitting requirements of the Design Guidelines as outlined for the Lowland Conservancy District.

<b><u>Location</u></b>	<b><u>Rating</u></b>
1. Forked Creek	A
A. East Branch	A
B. West Branch	A
2. Hickory Creek	A
A. Tributary #1	B
B. Tributary #2	B
C. Tributary #3 (north)	B
D. Tributary #3 (south)	B
E. Tributary A (east)	A
F. Tributary A (west)	A/B
3. Jackson Creek	A
A. North Branch	B
B. South Branch	B
4. Prairie Creek	A
A. North Branch	A
B. South East Branch	B
C. South West Branch	A
3. Union Ditch	B
4. Flood Zone A	B

### **C. Drainage Ways**

In addition to the streams and creeks listed in Section “B”, the Village has identified several drainage ditches (see attached Facility Identification List), which serve a significant watershed area. Consequently, it is important these areas are maintained. Maintenance is to be routinely performed by the Public Works Department. This includes the removal of debris and obstructions, repair and replacement of public drainage structures, and removal of sedimentation. Since these areas cross private property, the cooperation of the residents is most important. If drainage easements are not now in place, the Village will seek the execution of grant of easements to assure access. The need for streambank stabilization shall be established through the evaluation of qualified professionals. The Village Board of Trustees will review the cost associated with any streambank stabilization recommendation. The use of general funds, capital funds and special property assessments may be considered depending on the extent of the costs.

### **D. Wetlands**

The Village of Frankfort greatly values the protection and creation of wetland areas in and around our community. Wetlands are a valuable resource because they have shown to improve water quality, store surface runoff, offer a habitat for wildlife, support biodiversity, provide open space and are a natural recreational amenity. For these reasons, wetland areas are an extremely important natural resource that must be considered in all land use plans. Under Village Ordinance No. 2392, the Village of Frankfort exercises permit authority over all wetland areas that are not under the jurisdiction of the U. S. Army Corp of Engineers, as established by Section 404 of the Clean Water Act. The Illinois Department of Natural Resources, Office of Water Resources and Illinois Environmental Protection Agency must also be copied on any permit application for use of a wetland area. In addition, the U. S. Fish and Wildlife Services shall be notified. As discussed in Section “B”, wetland areas are covered by the Village’s Lowland Conservancy Overlay District. A complete description of the ordinance requirements can be found in Section 4.05 of our Design Standards. The Wetland Initiative is a nonprofit corporation dedicated to the proper management of wetland resources and is an excellent source of information. In addition, they have published a booklet titled “Living with Wetlands: A Handbook for Homeowners in Northeastern Illinois” which provides insightful information that can aid the integration of wetlands in land use planning and site development. This as well as other publications should be consulted when wetlands are identified on property to be developed.

The Village of Frankfort requires all owners and/or developers of property to properly assess their property for the presence of wetlands prior to receiving a permit for development. The evaluation must be done in compliance with all governing federal, state and local requirements. The Village has not attempted to specifically identify individual wetland areas or classify their quality. This is left to those governmental agencies that have regulatory authority over wetlands.

### **E. Storm Water Sewer System**

The development of property results in the increase of impervious area and the alteration of the

natural drainage of the land. The construction of storm sewers is the most common means for the collection and conveyance of storm water in urban development. The Village has established engineering standards for the design and construction of storm water management facilities within Ordinance No. 2392. Storm sewers eventually terminate with a point discharge to one of the natural watercourses in the Village. The majority of storm sewers are publicly owned. It is important, therefore, for the Village to assure these point sources have minimal impact on the receiving streams, creeks, ditches and/or wetlands in our area. As the local regulatory authority, the Village shall manage their storm water system in compliance with all Federal, State and County requirements. To this end, the Village has mapped their storm water sewer system including detention/retention ponds, point discharge locations and major out falls, including the name and location of the receiving waters. The village storm sewer atlas shall be kept current reflecting any additions, revisions or modifications to the system.

The Village of Frankfort shall inspect and monitor the operation of their system to minimize pollutant runoff to receiving waters. Every reasonable effort shall be undertaken to maintain the quality of our natural resources.

## **F. NPDES Phase II**

The Village is regulated under the NPDES (National Pollution Discharge Elimination System) Phase II provisions of the Clean Water Act as a municipality. Phase II of NPDES came into effect in March of 2003. The NPDES program is the Clean Water Acts primary point source control program. Point source discharges are “any discernible, confined, and discrete conveyance”. All point discharges of pollution are required to obtain a NPDES permit. Storm water is considered a point source and the Village falls under NPDES Phase II, as a MS4 Community (Municipal Separate Storm Sewer System).

In addition to municipal point source discharge from its storm sewer system, construction site storm water runoff control is also a source of pollution. NPDES Phase II requires the regulation of operations during construction activities. An Illinois Environmental Protection Agency (IEPA) permit is required for any earth disturbance of one acre or more. This can also include sites of less than one acre if they are “part of a larger common plan of development or within 500 feet of a lake or stream”. A Storm Water Pollution Prevention Plan (SWPPP) is a requirement of the permit. The Village and IEPA require plan approval prior to the start of construction.

The primary concern with construction site activity is the control of erosion from the site. Erosion can cause significant harm to the watershed. The developer and contractor are required to install, inspect, and maintain erosion control measures on a regular basis to ensure that they are functioning properly. The Village will also inspect sites to ensure compliance with the approved SWPPP. Erosion control shall remain in place until construction is complete and vegetative areas are established.

## **WATER RESOURCE MANAGEMENT PLAN FACILITY IDENTIFICATION LIST**

### **I. Stream/creek/riverine(s)**

- Forked Creek East Branch
- Forked Creek West Branch
- Hickory Creek
- Hickory Creek Tributary #1
- Hickory Creek Tributary #2
- Hickory Creek Tributary #3
- Hickory Creek Tributary A
- Jackson Creek
- Jackson Creek Tributary A
- Jackson Creek Tributary B
- Prairie Creek North Branch
- Prairie Creek South Branch
- Union Ditch

### **II. Major Drainage Ditches**

- Frankfort Crossing Ditch
- Old Frankfort Ditch
- Prairie Park Ditch
- Prestwick Ditch

### **III. Wetlands**

- Abbey Woods
- Charrington (Weiland Farm)
- Country Crossings
- Crystal Brook
- Founders Place
- Frankfort Prairie Park
- Kampe Farm
- Lake Lambrecht
- Lake Manitoqua
- Lake Shenandoah
- Lake Watson
- Lakeview Estates
- La Porte Meadows
- Lighthouse Pointe
- Old Stone Village
- Sandalwood Lake (park site)
- Settlers Pond
- Timbers Edge
- Walnut Creek

- Windy Hills Farm

Note: wetland list identifies land uses that have incorporated existing or constructed wetlands within development of property. Check the National Wetland Inventory Map for other identified areas.

#### **IV. Storm Water Management Facilities**

- Abbey Woods (D&2W)
- Airport Industrial (3D)
- Amoco/BP (D)
- Ashington Meadows (D&W)
- Aurelio's (D)
- Autumn Fields (2W)
- Avanti (D)
- Bachman Imports (D)
- Black Tie (W)
- Bowen's Crossing (2W)
- Brookmeadows Estates (3W)
- Brookridge Creek (D)
- Brookside I&II (2D)
- Brookside Commons (3D)
- Bruti Condo's (D)
- Butternut Creek (2D)
- Candle Creek (2W)
- Cardinal Lake (D&W)
- Charmaine (W)
- Charrington (W)
- Cobblestone (2W)
- ComEd substation (2W)
- Cooper Oil (D)
- Coquille Point (2W)
- Crystal Brook (4W)
- Dieter's (D)
- East Pointe Business Park (3W)
- Elm Medical (D)
- Enrico's Plaza (D)
- Fey/Graefen Industrial Park (2W)\*
- Five Oaks (2W)
- Flagstone (2W)
- Folkers Estates (D&W)
- Founders Place (2W)
- Frankfort Business Park (D)
- Frankfort Crossings (D&W)
- Frankfort Junior High School (D)\*
- Frankfort Police Facility (D)\*
- Frankfort Prairie Park (W)\*



- Frankfort Public Works Facility (D)\*
- Frankfort Self Storage (W)
- Garden Gate (W)
- Gas City (3D)
- Georgetown (2D)
- Gerardi Funeral Home (D)
- Grande Prairie School (D)\*
- Great American Storage (D)
- Harris Bank (D)
- Heritage Baptist Church (D)
- Heritage Knolls (2D&2W)
- Hickory Creek Market Place (2W)
- Homestead (3W)
- Hunter Woods (3D)
- Kensington (D)
- Krusemark (D)
- La Porte Meadows (D&W)
- Lakeview Estates (3W)\*\*
- Latter Day Saints (D)
- Lawndale (D)
- Lighthouse (4W)\*
- Lincoln-Way High School (2D)\*
- Majestic Pines (2W)
- Mark Commercial (D)
- Misty Falls (2W)
- Newbrook (D&2W)
- New Frankfort Settlement (D&W)
- Old Stone Village (4W)
- Philips (D)
- Peace Community Church (D)
- Plank Trail Estates (3W)
- Prairie Creek West (W)
- Prairie Crossings (W)
- President's Row (W)
- Rogus Elementary School (D)
- Royce (D)
- St. Anthony's (D)
- Sandalwood (W)
- Sara Springs (2W)
- Settler's Croft (D)
- Settlers Pond (2W)
- Shenandoah (W)
- Shimmering View (D)
- Southwick (D)
- Stone Creek (3W)
- Stonebridge (2W)

- Sutthondale (D&W)
- Swanson Tool (D)
- Tenneco (D)
- Timbers Edge (2D&4W)
- Tuffy Auto (D&W)
- U. S. Route 45 & Nebraska Street (W)\*
- U. S. Route 45 & U. S. Route 30 (D)\*
- Vans Material (D)
- Vineyards (D)
- Vistana (W)
- Walgreen's (D)
- Walnut Creek (2D&W)
- Windy Hills Farm (4W)
- Yankee Ridge (W)
- White Street Condo's (D)

Note: "D" designates dry bottom design; "W" designates wet bottom/wetland design

\* area maintained by public entity

\*\* portion of area maintained by public entity

#### Pending approval/construction

- Beacon Hill (W)
- Country Crossings (3W)\*\*
- Creekside (?W)
- Harvest Ridge (2W)\*
- Heritage Point (W)
- Lincoln Square (W)
- Prairie Creek East (W)
- Premier Plaza (D)
- Ruane Property (W)
- St. Francis Estates (D&W)
- South Pointe Industrial Park (D & W)\*\*
- Villas at Walnut Creek (D&W)
- Viola Woods (W)
- Water Stone (4W)

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