

**Winnetka Village Council**  
**STUDY SESSION**  
**Village Hall**  
510 Green Bay Road  
Tuesday, April 8, 2014  
7:00 PM

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**AGENDA**

- 1) Call to Order
- 2) BCDC Recommendations – Retail Overlay District .....2
- 3) MWRDC Watershed Management Ordinance and Intergovernmental Agreement ..... 14
- 4) Coal Tar Policy .....206
- 5) Public Comment
- 6) Executive Session
- 7) Adjournment

**NOTICE**

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## Agenda Item Executive Summary

**Title:** BCDC Recommendations - Retail Overlay District

**Presenter:** Jason Harris, BCDC Chair

**Agenda Date:** 04/08/2014

**Consent:**  YES  NO

<input type="checkbox"/>	Ordinance
<input type="checkbox"/>	Resolution
<input type="checkbox"/>	Bid Authorization/Award
<input checked="" type="checkbox"/>	Policy Direction
<input type="checkbox"/>	Informational Only

### Item History:

The Urban Land Institute (ULI) completed its two-part Technical Assistance Panel (TAP) process and made a final report to the Village Council on August 6, 2013. On September 10, 2013, the Village Council held a strategic planning goal session, leading to a Council Study Session dedicated to an in-depth review of ULI recommendations on October 8, 2013. At the January 14, 2014 Study Session an update was provided on progress toward implementation of a number of ULI TAP recommendations, including reviews of liquor license, fire sprinkler, commercial district parking and building height requirements. At the February 11, 2014 Council Study Session the BCDC presented its recommendations concerning building height and commercial district parking regulations.

### Executive Summary:

The task of reviewing the recommendations pertaining to the Retail Overlay District (Overlay District) was assigned to the BCDC last November. The BCDC has completed its review of the zoning regulations pertaining to the Overlay District. The BCDC examination of the Overlay District focused on two components of the regulations: (1) the specific uses subject to the Special Use Permit process, and (2) the Overlay District boundaries. In conducting its review, the BCDC began with the premise that both uses and boundaries are closely related and bear examination side-by-side, versus looking at each as separate subjects. At the conclusion of its review, the BCDC made five recommendations concerning uses and seven proposed boundary changes.

The BCDC is recommending the following changes be made to the Overlay District use regulations:

- 1) allow fitness studio, weight loss clinic/diet center, personal training, or similar uses to be a permitted use and limit size to 3,000 s.f.
- 2) allow educational therapy and counseling services to be a permitted use and limit size to 3,000 s.f.
- 3) allow architect, interior design service (without retail services) and home builder to be a permitted use and limit size to 3,000 s.f.
- 4) allow accounting and bookkeeping, financial planning, income tax services, insurance sales, loan or mortgage brokers, and stock/commodity/security brokers to be a permitted use and limit size to 3,000 s.f.
- 5) allow medical and dental offices to be a permitted use and limit size to 3,000 s.f.

The BCDC is recommending the following areas be removed from the Overlay District:

- 1) 1043-1049 Tower Rd. (Hubbard Woods) - area immediately west of Green Bay Rd. on north side of Tower Rd., includes two existing business (1,600 s.f. in Overlay District).
- 2) 1046-1062 Gage St. (Hubbard Woods) - area of Gage St. east of Green Bay Rd., includes six existing businesses (3,700 s.f. in Overlay District).
- 3) 511-517 Lincoln Ave. (East Elm) - east side of Lincoln Ave. south of Elm St., former Fell clothing store and Marian Michael clothing store (3,400 s.f. in Overlay District).
- 4) 554 -572 Lincoln Ave. (East Elm) - west side of Lincoln Ave. north of Little Ricky's, to the north boundary of District, includes nine existing businesses (7,500 s.f. in Overlay District).
- 5) 545-551 Lincoln Ave. (East Elm) - east side of Lincoln Ave. north of Cafe Aroma, to the north boundary of the District, includes 10 existing businesses (4,400 s.f. in Overlay District).
- 6) 809-821 & 810 Chestnut Ct. (West Elm) - both sides of Chestnut Ct., includes four existing businesses, (6,700 s.f. in Overlay District).
- 7) 844 Spruce St. & 566 Chestnut (West Elm) - south side of Spruce St. west of Chestnut St. to the west boundary of District, includes two businesses (3,500 s.f. in Overlay District).

### Recommendation / Suggested Action:

- 1) Provide policy direction on the BCDC's twelve (12) recommendations.
- 2) Consider referring BCDC recommendations to Plan Commission to evaluate for consistency with Plan Commission's land use goals and objectives, including the 2020 Comprehensive Plan.

### Attachments:

- 1) Agenda Report, Mike D'Onofrio & Brian Norkus
- 2) Map 1 - Hubbard Woods, Sites Considered for Removal from Overlay District
- 3) Map 2 - Elm Street, Sites Considered for Removal from Overlay District
- 4) Map 3 - Hubbard Woods, Sites Recommended for Removal from Overlay District
- 5) Map 4 - Elm Street, Sites Recommended for Removal from Overlay District

## **AGENDA REPORT**

**TO:** Village Council

**PREPARED BY:** Michael D'Onofrio, Director of Community Development  
Brian Norkus, Assistant Director of Community Development

**SUBJECT:** Retail Overlay District Regulations

**DATE:** April 3, 2014

### **Introduction**

As part of the ULI TAP report, it was recommended that one area to be examined was the Retail Overlay District (Overlay District). The TAP report recommended that the Village should consider revising or eliminating the Overlay District. This recommendation was made based on ULI's belief that: "The nature of successful retail today is a blend of shops and services, and Winnetka, with its high median income is ideally suited for it." As with the building height and parking regulations, the Village Council tasked the BCDC with reviewing the Overlay District.

The BCDC examination of the Overlay District focused on two components: (1) the specific uses subject to the Special Use Permit process, and (2) the Overlay District boundaries. In conducting its review, the BCDC began with the premises that both boundaries and uses are closely related and bear examination side-by-side, versus looking at each as separate subjects. For example, the extent to which Overlay District boundaries are contracted may reduce the need to liberalize certain uses. The inverse is also true, as liberalizing use limitations would suggest less aggressive modification to mapped Overlay District boundaries.

### **Background**

The Overlay District, which includes significant portions of the Hubbard Woods, East and West Elm business districts, was established in the late 1980's. The desire to create such a district was largely a reaction to the proliferation non-retail uses, real estate offices in particular, in the commercial districts. The fear at that time was that the retail base of the Village would be eroded by the expansion of service related, non-retail uses in the core of the commercial districts.

The goal of the Overlay District is best defined in the Purpose Statement of the C-2 Commercial Zoning District - Retail Overlay District – which states:

Portions of the C-2 (General Retail) Commercial District shown in the shaded areas of the Official Village of Winnetka Zoning Map and referred to in this chapter as the C-2 Overlay District are subject to regulations that encourage retailing of comparison shopping goods and personal services compatible with

such retailing on ground floor in order to encourage a clustering of such uses, to provide for a wide variety of retail shops and expose such shops to maximum foot traffic, while keeping such traffic in concentrated (yet well distinguished) channels throughout the district, and permitting as a special use other commercial uses only to the extent that they meet certain additional requirements.

The Overlay District remained unchanged from its inception in the late 1980's until 2009. In 2006, the BCDC initiated a review of the Overlay District based on concerns that parcels outside of the district might be prime redevelopment sites. As a result of the BCDC review and subsequent study by the Plan Commission, on May 5, 2009, the Village Council adopted Ordinance MC-4-2009 amending the Overlay District regulations. Following is a synopsis of the modifications made to the regulations.

- Reduced the restriction on first floor uses within the Overlay District, from 100 feet to 50 feet.
- Modified the use categories. This included eliminating use types no longer in existence (i.e. telegraph offices), clarifying or expanding existing uses (i.e. “Beauty Salon” use was expanded to include “... day spa, including nail salons, skin care and related services”) and, adding a limited number of new uses (i.e. weight loss clinic/diet center, tanning salon, printing shop, convenience food store) .
- Expanded the district boundaries (banks at Elm and Green Bay, Amoco station, etc.).
- Contracted district boundaries (area around Oak and Chestnut).

### **BCDC review and recommendations**

In developing its recommendations, the BCDC felt a combined approach of making targeted map amendments with strategic revisions to use limitations was the most appropriate method of accomplishing the goals of the Overlay District. Beginning last December, the BCDC spent all or parts of its last five meetings discussing the Overlay District. Following are a series of recommendations being made by the BCDC. The first five recommendations are proposed modifications to the uses. The second set of recommendations includes seven proposed changes to the Overlay District boundaries.

### **PROPOSED USE MODIFICATIONS**

- 1. Personal Services Establishments** – Under Section 17.46.010.B of the Zoning Ordinance (Table of Use, Personal Service Establishments), uses such as fitness studios, weight loss clinic/diet center, personal training facilities, etc., are allowed only as Special Uses.

*Recommendation #1 – Allow fitness studio, weight loss clinic/diet center, personal training, or similar uses to be permitted uses and limit size to 3,000 s.f.*

There are several factors behind the rationale for this recommendation. First, in recent years the trend has been that these types of uses have become popular and are being located in commercial districts. To that point, there are six of these types of facilities currently in operation in the Hubbard Woods and Elm Street business districts. Second, with the exception of one of the facilities (Spynergy), the other five have been approved under the Special Use process. Furthermore, dating back at least 12 years, no Special Use request for such a type of establishment has been denied. Third, these types of personal service establishments, if permitted by right, are consistent with one of the ULI recommendations which are that these types of uses will bring additional traffic into the business districts.

The rationale behind the 3,000 s.f. size limitation is threefold. First, the Zoning Ordinance has long allowed “complementary service businesses” by right, within the Overlay District. These originally included beauty salons and later extended that definition to include specific related categories, including skin care, nail salons and day spas. The BCDC believes the case can be made that the uses in the proposed change would be an extension of those types of complementary businesses. Second, the five existing fitness related facilities range in size from 980 to 2,170 s.f. and the BCDC believes that the 3,000 s.f. maximum would accommodate any of these uses, as well as allow for size flexibility for these types of uses in the future. Third, the proposed maximum is still low enough so not to have a negative impact on parking.

It needs to be pointed out that even with the proposed recommendation, a Special Use for the larger personal service establishments would be required. The rationale here is that a larger facility could have a negative impact, in terms of the size of a facility, hours of operation, and/or parking demand.

- 2. Educational Uses** – Under Section 17.46.010.Q of the Zoning Ordinance (Table of Uses, Educational Uses) educational therapy and counseling services are allowed as a Special Use.

*Recommendation #2 – Allow educational therapy and counseling services to be a permitted use and limit size to 3,000 s.f.*

The BCDC rationale behind this recommendation has to do with the particular importance placed on education in the Village and surrounding communities, which in turn creates a demand for these types of services. Second, there are three such facilities currently in the Overlay District and range in size from 1,300 to 2,200 s.f., all of which bring traffic into the commercial areas. Finally, as is the case with *Recommendation #1*, the 3,000 s.f. limitation would allow for size flexibility in the future either for moderate expansion of existing facilities, or new facilities.

- 3. Construction Related Uses** – Under Section 17.46.010.C, I & L of the Zoning Ordinance, (Table of Uses, General Retail Sales & Related Service Uses, Office and Professional Uses, Material Supply and Construction Uses) certain construction related uses are permitted, with certain conditions. For example, construction uses such as HVAC, electrical, roofing and plumbing businesses are permitted by right, as long as there is a “sales” component to the business. The same goes for interior decorating businesses. However, architects, landscape architects and home builders are either not permitted at all, or allowed only as a Special Use.

*Recommendation #3 – Allow architects, interior design services (without retail merchandise) and home builders as a permitted use and limit size to 3,000 s.f.*

The rationale behind this recommendation is based on several factors. First, there are currently 12 businesses in operation that fall under construction related uses, four of which are in the Overlay District. Second, the current required sales component for a number of the uses is somewhat limited in that it does not provide any standard as to the amount of sales. Third, these types of uses will generate traffic in the commercial districts in that they represent the type of activity and services residents and consumers desire in the village. Finally, as is the case with *Recommendation #1*, the 3,000 s.f. limitation would allow for size flexibility in the future for these types of uses.

- 4. Financial Services** – Under Section 17.46.010.G of the Zoning Ordinance (Table of Uses, Financial Uses), financial service uses are only allowed in the Overlay District as Special Use.

*Recommendation #4 – Allow the following financial services uses as permitted uses – accounting and bookkeeping, financial planning, income tax services, insurance sales, loan or mortgage brokers, and stock/commodity/security brokers – and limit size to 3,000 s.f.*

The rationale behind this recommendation was that these are the types of uses that will generate traffic in the commercial districts. Second, there are currently 11 financial service businesses, excluding banks, in the three commercial districts that range in size from 500 to 3,000 s.f. Again the BCDC believes that these types of uses will generate activity and traffic that is beneficial to the commercial district.

This recommendation would still require approval of a Special Use for any banks.

- 5. Medical and Related Uses** – Under Section 17.46.010.J of the Zoning Ordinance (Table of Uses, Medical and Related Uses), medical and dental offices are only allowed as Special Uses in the Overlay District.

*Recommendation #5 – Allow medical and dental offices as a permitted use and limit size to 3,000 s.f.*

The primary rationale behind this recommendation is that medical and dental offices would bring additional traffic to the commercial districts. This change would also impose a maximum size limit of 3,000 s.f. This limitation is being recommended in that it is consistent with the existing medical and dental offices which range in size from 400 to 3,000 s.f. Additionally, by limiting the size, it will limit the impact on parking. Furthermore, if larger medical or dental clinics want to locate in the Overlay District, they would have to go through the Special Use process.

### **Summary of Proposed Use Modifications**

In making its recommendations related to use modifications, the BCDC took into consideration several factors. First, as recommended by ULI, it was critical to promote uses that would generate activity and traffic that would be beneficial to all businesses in all the business districts. Second, it was important to understand today's retail and service markets, yet create an environment where the next generation of these uses can be accommodated in the Village's business districts. Finally, the BCDC had to balance the demands of tomorrow's uses with existing businesses that have created the business environment that is so unique to Winnetka.

### **PROPOSED BOUNDARY MODIFICATIONS**

Along with the recommendations related to uses, the BCDC also examined the Overlay District boundaries. In arriving at its recommended boundary changes, the BCDC *considered* a number of areas where the boundaries might be amended. This included 16 specific areas in the Hubbard Woods and Elm Street business districts. These areas are identified on the attached Maps #1 and #2. As a result of its review and discussion, the BCDC has *recommended* a number of changes to the boundaries which are summarized below by commercial district, as well as identified graphically on Maps #3 and #4.

#### **Hubbard Woods**

1. *Remove 1043 – 1049 Tower Road.* Existing businesses Girlfriends (nail salon) and North Shore Shoe Clinic. These properties were added to the Overlay District in 2009 with adoption of Ord. MC-4-2009. This area includes approximately 1,600 s.f. in the Overlay District. The rationale in recommending removal is that this property does not front on Green Bay Road and the pedestrian traffic does not wrap around from Green Bay Road on to Tower Road.

2. *Remove 1046 – 1062 Gage Street.* (Gage Street, east of Green Bay Road). Existing businesses include Excellent Cleaners, Prufrock Floral, Bellows Shop, Once Upon a Bagel, Stitches and Willow Boutique. This area includes approximately 3,700 s.f. This area is recommended for removal because it does not front along Green Bay Road and therefore pedestrian traffic does not wrap around from Green Bay Road on to Gage Street. Finally, this area is not visible from Green Bay Road.

### **East Elm**

1. *Remove 511 – 515 Lincoln Avenue.* This includes two currently vacant buildings, the former Fell clothing store and former Marian Michael clothing store. This area contains approximately 3,400 of s.f. in the Overlay District. This area is being recommended for removal due to its location south of Elm Street and the fact that there is no retail across the street (railroad cut is along west side of Elm Street).
2. *Remove 554 – 572 Lincoln Avenue.* (west side of Lincoln Avenue north of Little Ricky's). Existing businesses in this area include Homemade Pizza, Spa Nail City, Oui Madame, Your Loss Your Gain, TJ Cullen Jewelers, Anthony Perry Designs and Round Table Books. This area contains approximately 7,500 s.f. in the Overlay District. The BCDC recommended removal of this area due to a significant vacancy rate in the East Elm District and one solution to reducing it, would be to open it up to non-retail related uses.
3. *Remove 545 – 551 Lincoln Avenue* (east side of Lincoln Avenue north of Café Aroma). Existing businesses in the area include Mark Beard LTD, former D's Haute Dogs, Orrington Jewelers, Optique, Flee Bags, Sara Campbell, Conlon Real Estate, J. McLaughlin, M. Stefanich Antiques and Donald Stuart. This area contains approximately 4,400 s.f. in the Overlay District. The same rationale for removal identified for the west side of Lincoln Avenue holds true here.

### **West Elm**

1. *Remove 809 - 821 and 810 Chestnut Court.* This includes both the north and south sides of Chestnut Court. Existing businesses include Bella Day Spa, Hair Couture, as well as portions of the former Gray women's clothing store and Lakeside Foods. These two areas contain approximately 6,700 s.f. in the Overlay District. The rationale in recommending removal of this area is that first there is limited vehicular traffic in the area and with the exception of a portion of Lakeside Foods, it is populated with non-retail uses.
2. *Remove 844 Spruce Street and 566 Chestnut Street.* This includes the south side of Spruce Street 50 feet west of Chestnut Street to the west boundary of the Overlay District – 852 Spruce Street. Existing business in this area include Savocchi Glass and Glenn Klauke CPA. Also included is the 1,300 s.f. northwest

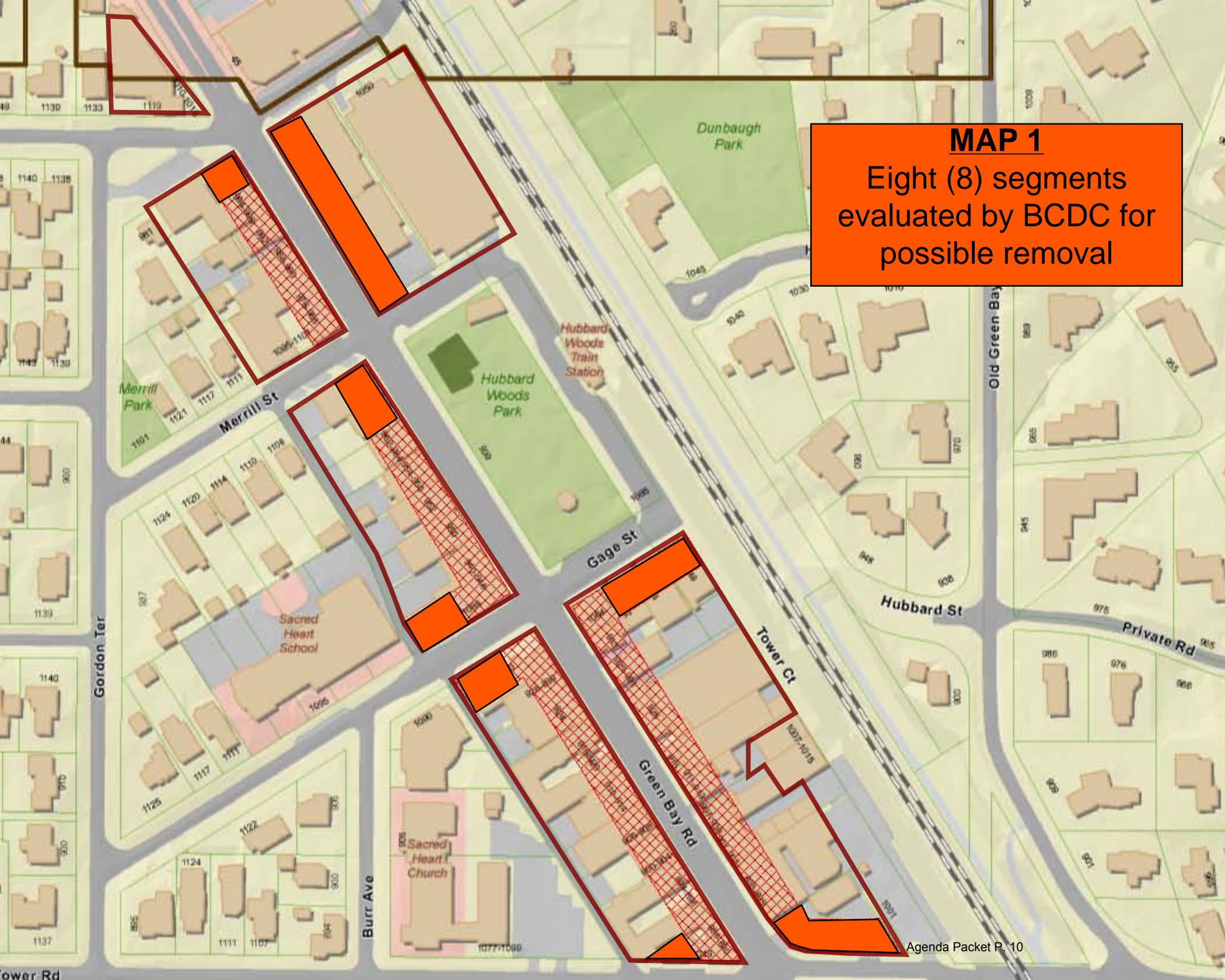
corner of the Laundry Mall. In total this area contains contain approximately 3,500 s.f in the Overlay District. The BCDC recommended removal of this area, first due to the fact that there is limited pedestrian traffic that wraps around Chestnut Street on to Spruce Street, and second, because there is no retail frontage across the street along the north side of Spruce Street.

### **Summary of Recommended Boundary Changes**

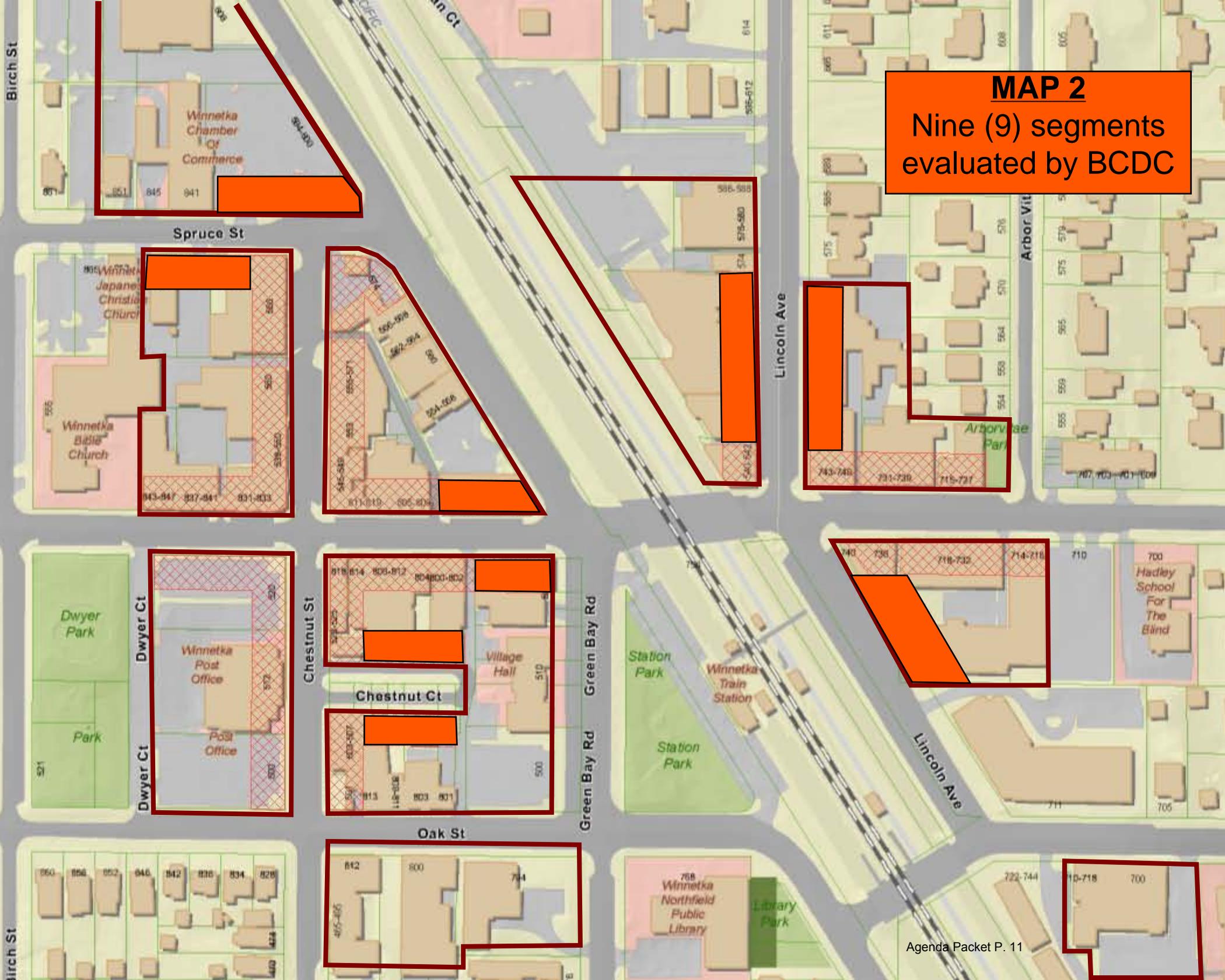
Overall the BCDC examined 16 areas, in the three business districts that it thought might be candidates for removal from the Overlay District. At the conclusion of its review it is recommending that seven areas be taken out of the Overlay District. The areas include both small geographic areas, such as 1043 – 1049 Tower Road (1,600 s.f.), and larger parcels like both sides of Lincoln Avenue, north of Elm Street (11,900 s.f.). Its rationale for removal includes factors such as creating pedestrian traffic, proximity to other retail and vacancy rates. All told, the BCDC is recommending that 30,800 s.f. be removed from the Overlay District. This represents a reduction of 9.5% reduction in the overall size of the Overlay District.

### **Recommendation:**

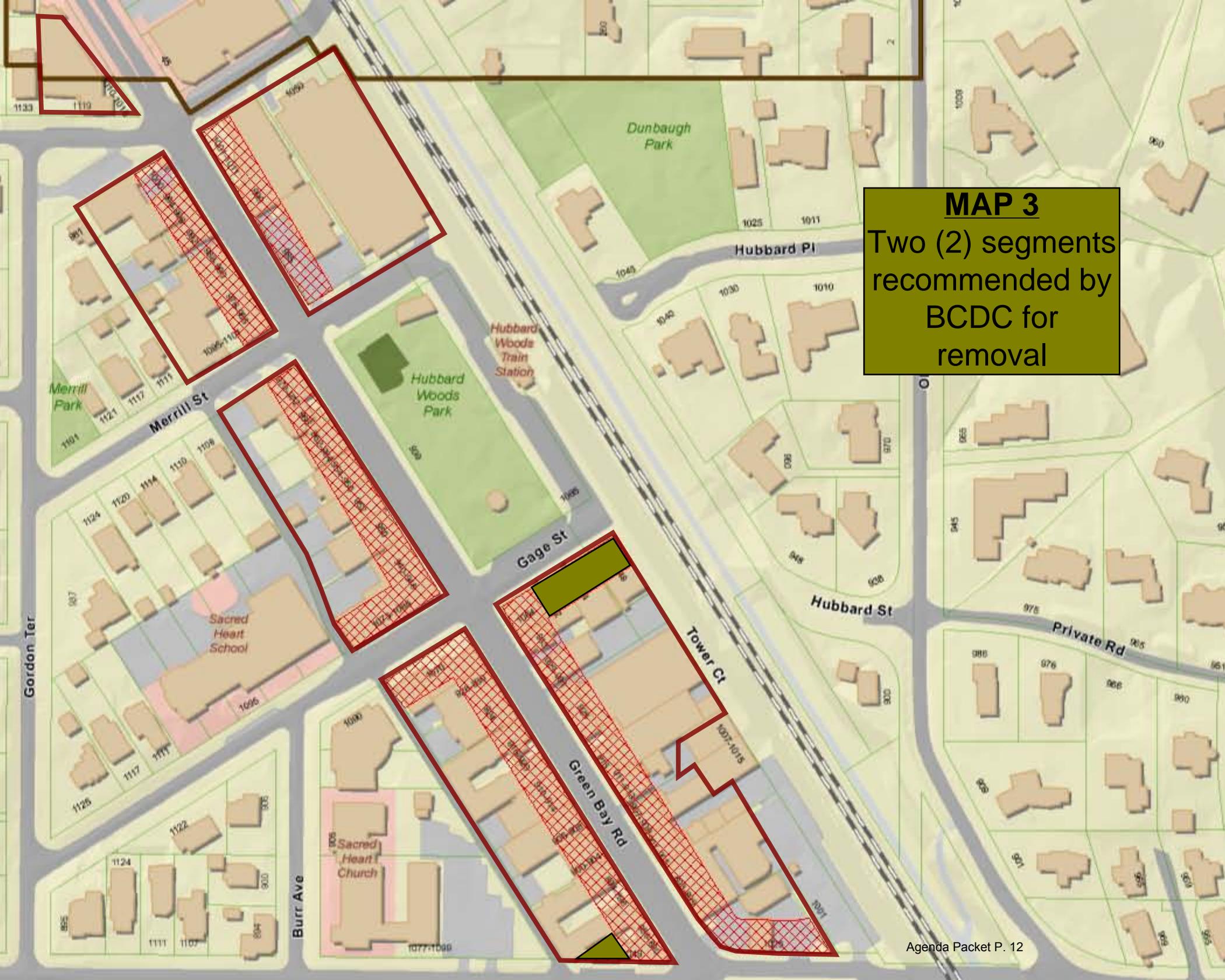
- (1) Provide policy direction on the BCDC’s recommendations concerning the Retail Overlay District uses and boundaries.
- (2) Consider referring some, or all, of the BCDC’s recommendations to the Plan Commission to evaluate for consistency with the Plan Commission’s land use goals and objectives, including the 2020 Comprehensive Plan.



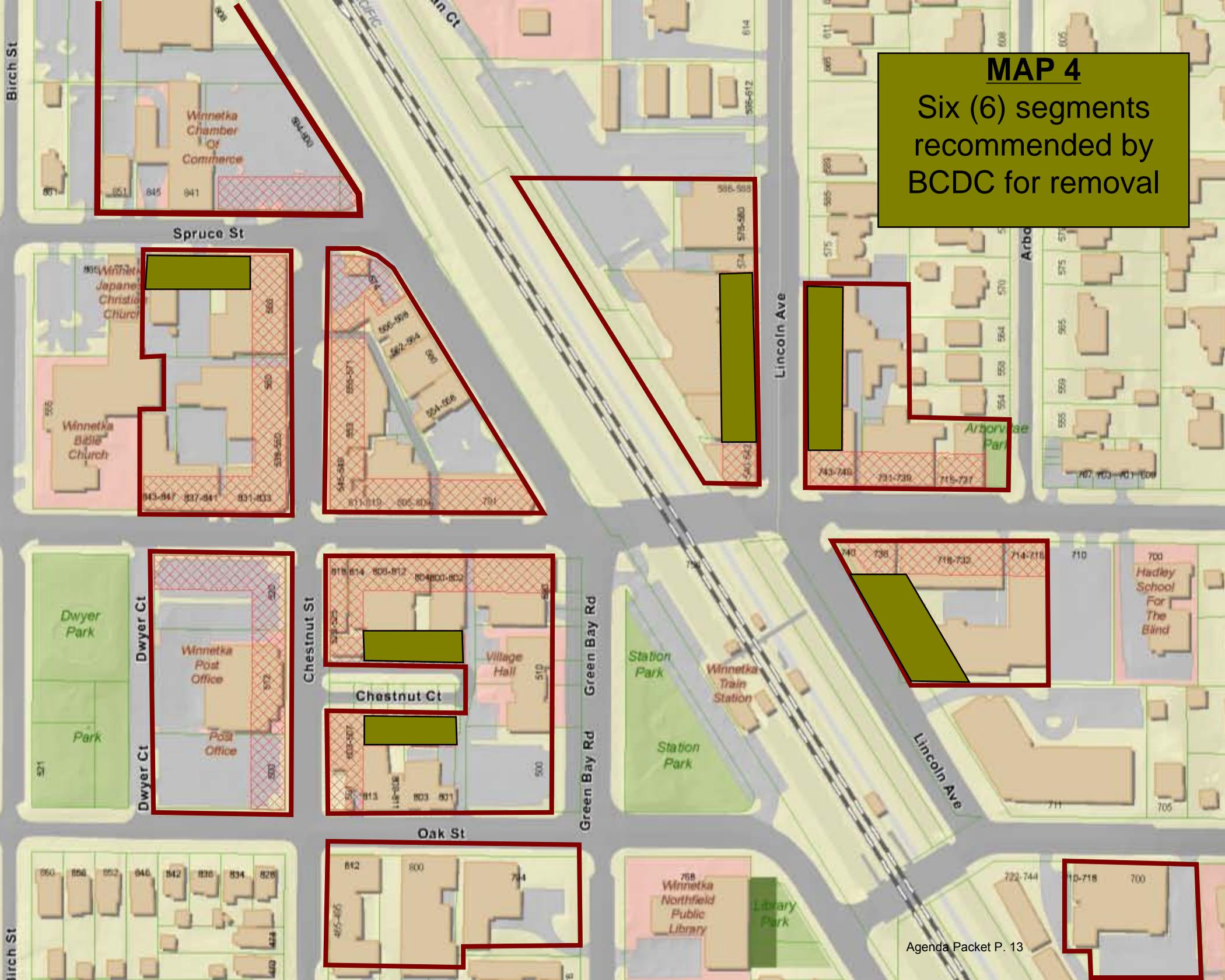
**MAP 1**  
Eight (8) segments  
evaluated by BCDC for  
possible removal



**MAP 2**  
Nine (9) segments  
evaluated by BCDC



**MAP 3**  
Two (2) segments  
recommended by  
BCDC for  
removal



**MAP 4**  
Six (6) segments  
recommended by  
BCDC for removal



## Agenda Item Executive Summary

**Title:** MWRDC Watershed Management Ordinance and Intergovernmental Agreement

**Presenter:** Steven M. Saunders, Director of Public Works/Village Engineer

**Agenda Date:** 04/08/2014

**Consent:**  YES  NO

- |                                     |                         |
|-------------------------------------|-------------------------|
| <input type="checkbox"/>            | Ordinance               |
| <input type="checkbox"/>            | Resolution              |
| <input type="checkbox"/>            | Bid Authorization/Award |
| <input checked="" type="checkbox"/> | Policy Direction        |
| <input type="checkbox"/>            | Informational Only      |

### Item History:

November 14, 2013 Council Study Session, Agenda pp. 2 – 39

### Executive Summary:

At the November 14, 2013, Study Session, the Village Council engaged in a discussion with the Village Engineer and the Village's consulting engineer from Baxter & Woodman (B&W) regarding their recommendation that the Village seek authorization to administer the Cook County Watershed Management Ordinance (WMO) adopted by the Metropolitan Water Reclamation District of Greater Chicago (MWRD) on October 3, 2013, with an effective date of May 1, 2014. The Council concurred with the engineers' recommendations and directed that Staff and B&W proceed with preparing the documents necessary for the Village to become an authorized municipality.

The MWRD has since outlined the process for becoming an authorized municipality under the WMO, which requires entering into an intergovernmental agreement (IGA) with the MWRD, and sending other documentation, including: (i) a legal opinion regarding the Village's authority to perform its obligations under the WMO; and (ii) a verified statement of the Village's financial capacity to perform its obligations under the WMO. The MWRD's required IGA form requires the Village to adopt the WMO by reference, and enumerates the Village's administrative responsibilities as an authorized municipality under the WMO.

The attached Agenda Report outlines (i) the administrative obligations that would be assumed under the IGA, (ii) the requirements of the WMO, (iii) proposed Village Code amendments, and (iv) the formal steps needed for the Village to proceed.

### Recommendation / Suggested Action:

- 1) Confirm Village Council's intent to obtain MWRD authorization to administer the new Watershed Management Ordinance.
- 2) Direct Staff to prepare ordinance amending Village Code to incorporate the WMO requirements, as recommended by Village Staff.
- 3) Provide policy direction as to whether the Council will waive introduction of the ordinance making the Code amendments.
- 4) Direct Staff to prepare a resolution approving and authorizing execution of the proposed intergovernmental agreement with the MWRD.

### Attachments:

Agenda Report

Attachment 1 - January 8, 2014 letter from MWRD Director of Engineering

Attachment 2 - MWRD sample letter of intent

Attachment 3 - Intergovernmental Agreement (MWRD form)

Attachment 4 - Cook County Watershed Management Ordinance (text only)

Attachment 5 - Applicability Summary (WMO Table 1)

Attachment 6 - Comparison Table (Village Code, County WMO, and recommendations)

Attachment 7 - Minutes of November 14, 2013 Council Study Session

## AGENDA REPORT

SUBJECT: Metropolitan Water Reclamation District of Greater Chicago  
Watershed Management Ordinance and Intergovernmental Agreement

PREPARED BY: Katherine S. Janega, Village Attorney  
Steven M. Saunders, Director of Public Works / Village Engineer

REF: November 14, 2013 Council Study Session, Agenda pp. 2 – 39

DATE: April 3, 2014

### Background

At the November 14, 2013, Study Session, the Village Council engaged in a discussion with Village Engineer Steven Saunders and Mark Phipps of Baxter & Woodman Consulting Engineers (B&W) regarding updating the Village's stormwater management regulations. That discussion included the consideration of the engineers' recommendation that the Village seek authorization to administer the Cook County Watershed Management Ordinance (WMO) adopted by the Metropolitan Water Reclamation District of Greater Chicago (MWRD) on October 3, 2013, with an effective date of May 1, 2014.

At the conclusion of the discussion, the Council concurred with the engineers' recommendations and directed that Staff and B&W proceed with preparing the documents necessary for the Village to become an authorized municipality.

In January 2014, the MWRD sent out a communication outlining the process for municipalities to become authorized under the WMO. That process requires sending a letter of intent to the MWRD that contains the following documentation: (i) a legal opinion regarding the Village's authority to take all of the actions needed to administer the WMO and to enter into an intergovernmental agreement with the MWRD; (ii) a verified statement of the Village's financial capacity to perform its obligations under the WMO; (iii) an implementation plan; (iv) a schedule of permit fees; (v) a map delineating the Village's jurisdictional limits for administering the WMO and (vi) contact information. (See Attachments 1 and 2)

The January 2014 materials also included the MWRD's draft intergovernmental agreement (IGA), which requires the Village to adopt the WMO by reference, and enumerates the Village's administrative responsibilities as an authorized municipality under the WMO. (See Attachment 3)

This Agenda Report outlines (i) the administrative obligations that would be assumed under the IGA, (ii) the requirements of the WMO, (iii) proposed Village Code amendments, and (iv) the formal steps needed for the Village to proceed.

### **Intergovernmental Agreement with the MWRDC**

MWRD's form IGA is appended to this report as Attachment 3. In addition to requiring the Village to adopt the WMO by reference, the IGA requires the Village to have sufficient professional staff to process water management permit applications, including an enforcement officer, a licensed professional engineer and a wetlands specialist. The IGA also requires the Village to actively participate in the National Flood Insurance Program (NFIP), to maintain and share records electronically, and to make records available for audit.

As an authorized municipality under the IGA, the Village would have the authority to review permit applications other than those reserved exclusively for MWRD review and, upon determining compliance with the WMO, to issue watershed management permits for covered development activities within the Village's corporate limits. The Village would also be authorized to conduct inspections and to investigate complaints of violations of the WMO or a watershed management permit.

The IGA contains mutual waivers of personal liability running to the officers, employees and agents of both parties. While the IGA's indemnification provision runs only from the Village to the MWRD, it is limited to the actions taken by the Village as authorized under the IGA. Consequently, the Village would not be assuming any greater liability than it has for administering and enforcing all of the Village's Code requirements, and it would be entitled to invoke the same immunities against damages or injuries arising from the review of plans, or from the issuance, denial or enforcement of any permits.

Finally, the IGA sets out conditions under which the MWRD could suspend or terminate the Village's status as an authorized municipality. It also allows the Village to terminate the IGA at any time, upon giving a written, 60-day notice.

### **Watershed Management Ordinance (WMO)**

Although the regulations established in the WMO will apply in the Village, regardless of whether the Village becomes an authorized municipality, the Village must adopt the WMO by reference for the Village to obtain authorization to administer the WMO locally. A text-only copy of the WMO that applies in Cook County is appended as Attachment 4, without its appendices. Attachment 5 is an Applicability Summary that modifies Table 1 of the WMO to show which provisions of the WMO would be administered by the Village if it becomes an authorized municipality, and which provisions are to be administered by the MWRD. (The full text of the WMO, with appendices, is approximately 200 pages long, and can be accessed at [https://www.mwrld.org/pv\\_obj\\_cache/pv\\_obj\\_id\\_39254F631AB5D7B2312C9ABEECD6655853A25900/filename/Final\\_WMO\\_10-03-13.pdf](https://www.mwrld.org/pv_obj_cache/pv_obj_id_39254F631AB5D7B2312C9ABEECD6655853A25900/filename/Final_WMO_10-03-13.pdf))

In general, the WMO applies to all development activities that are located in flood protection areas, that have an impact on wetlands, that reconfigure major or minor stormwater systems or that involve "disturbances" of more than a half-acre of land. It also applies to

substantial improvements to buildings located in the regulatory floodplain, as well as to sewer construction, new or reconstructed outfalls into Lake Michigan or other waterways, and direct connections to MWRD facilities or structures. (See Applicability Summary, Attachment 5)

### **Proposed Village Code Amendments**

After adopting the WMO by reference, the Village would have the following three options:

1. leave the Village's current regulations as they are, and enforce whichever regulation is more stringent;
2. repeal the Village's own regulations, leaving only the WMO; or
3. amend the Village's current regulations to incorporate the specific requirements of the WMO.

After further reviewing the WMO and IGA, Staff continues to recommend the third option, as we did at the Council's November 14, 2013 Study Session. (See Attachment 7) While the implementation of the first two options would be easier, in that they would not require any additional Code amendments, the administrative impact of each of those options is undesirable. Under the first option, it would be difficult for permit applicants to know what the standards are for any given project and what is needed to obtain a permit, which could lead to confusion, delay and frustration. The second option, on the other hand, would substitute WMO regulations that in some cases are far more permissive than the Village's current regulations, which have been tailored to the Village's needs.

The third option results in a single, integrated regulatory document that would facilitate both understanding on the part of property owners and administration by Village staff. In addition, the cooperative relationship that would be established between the Village and MWRD under the IGA would help facilitate the processing of applications in the instances where the MWRD has retained administrative jurisdiction.

Attachment 6 is a Comparison Table that compares the Village's current regulations with those in the WMO, and makes recommendations regarding possible Village Code amendments. The remainder of this section explains the areas of the Winnetka Village Code (WVC) that would need to be amended. With one exception, the amendments are all to chapters in Title 15, "Buildings and Construction."

**WVC Chapter 15.04, General Provisions.** The definitions and enforcement procedures in Chapter 15.04 will be reviewed and modified as necessary to assure that they are consistent with the WMO.

**WVC Chapter 15.08, Model Codes Adopted by Reference.** The adoption of the WMO by reference would be inserted in this chapter.

**WVC Chapter 15.24, Sewer Code, and new Chapter 15.26, Stormwater and Watershed Management.** Chapter 15.24 currently pertains to both storm sewers and sanitary sewers. Because both the Village and the MWRD prohibit combined sewer systems, Chapter 15.24 will be amended so that it pertains only to sanitary sewer regulations, and a new Chapter, 15.26, will be added to address storm sewer regulations. Both chapters will contain additional substantive provisions drawn from the WMO.

This restructuring is parallel to the structure of the Village's utility regulations in Title 13, in which water, electric, sanitary sewer and stormwater utility systems are each addressed in a separate chapter.

In addition, both Chapter 15.24 and Chapter 15.26 will contain direct authorization for the Public Works Engineering Guidelines, which will also be modified as necessary to comply with the WMO's system design requirements.

**WVC Chapter 15.32, Construction Permits.** References to the permit requirements will be inserted as necessary to comply with the WMO. In particular, the provisions pertaining to permit applications and criteria for permit approval will be amended to incorporate the permit requirements under the WMO and new Chapter 15.26.

**Chapter 15.68, Flood Hazard Protection Regulations.** Chapter 15.68 contains the requirements for the National Flood Insurance Program (NFIP) and governs construction and development in the regulated flood plain. References to the Watershed Management Permit requirements will be inserted and, where the WMO imposes a stricter standard than under the NFIP, Chapter 15.68 will be amended to include the WMO standard.

### **Next Steps**

Approval of the IGA and the adoption of the WMO and related Code amendments require formal action by the Village Council. To that end, the Village Attorney is preparing two documents for Council action at the April 17, 2014 meeting.

- Ordinance MC-5-2014 will adopt the WMO by reference and amend the Village Code as outlined above.
- Resolution R-10-2014 will authorize the execution of the intergovernmental agreement and such other steps as may be necessary to implement it.

Because the WMO will be going into effect on May 1, Staff is requesting that the Council consider waiving introduction of Ordinance MC-5-2014, so that both the Ordinance and Resolution can be adopted on April 17<sup>th</sup>. If the Council elects not to waive introduction, then Ordinance MC-5-2014 will be on the April 17<sup>th</sup> Agenda for introduction, with the companion resolution for review only. Both the Ordinance and the Resolution would then be presented for final action at the May 6, 2014, Council meeting, prior to the swearing in of the new Trustees.

### **Attachments**

Attachment 1	January 8, 2014 letter from MWRD Director of Engineering
Attachment 2	MWRD sample letter of intent
Attachment 3	Intergovernmental Agreement (MWRD form)
Attachment 4	Cook County Watershed Management Ordinance (text only)
Attachment 5	Applicability Summary (WMO Table 1)
Attachment 6	Comparison Table (Village Code, County WMO, and recommendations)
Attachment 7	Minutes of November 14, 2013 Council Study Session

### **Recommendation**

- 1) Confirm the Village Council's intent to obtain authorization from the MWRD to administer the new Watershed Management Ordinance.
- 2) Direct Staff to prepare an ordinance amending the Village Code to incorporate the WMO requirements, as recommended by Village Staff.
- 3) Provide policy direction as to whether the Council will waive introduction of the ordinance making the Code amendments.
- 4) Direct Staff to prepare a resolution approving and authorizing execution of the proposed intergovernmental agreement with the MWRD for administering the WMO.

**BOARD OF COMMISSIONERS**  
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**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET CHICAGO, ILLINOIS 60611-3154 312.751.5600

**CATHERINE A. O'CONNOR, Ph.D., P.E.**  
Director of Engineering

312.751.7905 f: 312.751.5681  
Catherine.O'Connor@mwrdd.org

January 8, 2014

Mr. Gene Greable  
President  
Village of Winnetka  
510 Green Bay Road  
Winnetka, IL 60093

Dear Mr. Greable;

Subject: Process for municipalities to become authorized under the Watershed Management Ordinance

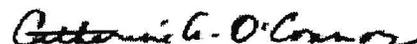
The Metropolitan Water Reclamation District of Greater Chicago's (District) Board of Commissioners adopted the Watershed Management Ordinance (WMO) on October 3, 2013. The WMO will become effective on May 1, 2014.

Article 14 of the WMO allows local municipalities to become authorized to administer aspects of the WMO. Such municipalities are referred to as authorized municipalities. Municipalities interested in authorization must submit a letter of intent to the District. A sample letter of intent is enclosed with this letter and an editable copy is accessible through the District's website ([wmo.mwrdd.org](http://wmo.mwrdd.org)). A subsequent intergovernmental agreement between the municipality and District will effectuate the municipality's status as an authorized municipality. If your municipality intends to become an authorized municipality, please submit a letter of intent to:

Catherine A. O'Connor  
Director of Engineering  
Metropolitan Water Reclamation District of Greater Chicago  
100 East Erie Street  
Chicago, Illinois 60611

The WMO, a sample letter of intent, and a template intergovernmental agreement are accessible at [wmo.mwrdd.org](http://wmo.mwrdd.org). Please contact Mr. Jason Meyer at (312) 751-3191 if you require further information.

Very truly yours,



Catherine A. O'Connor  
Director of Engineering

WSS:JPM:JJM:ch  
Enclosures  
cc: VILLAGE/CITY MANAGER

Month XX, Year

Dr. Catherine A. O'Connor, Ph.D., P.E.  
Director of Engineering  
Metropolitan Water Reclamation District of Greater Chicago  
100 E. Erie Street  
Chicago, Illinois 60611

Dear Dr. O'Connor:

Subject: Intent to become an authorized municipality to administer the Watershed Management Ordinance

The Town/City/Village of \_\_\_\_\_ ("municipality") intends to become authorized to adopt and administer the Watershed Management Ordinance ("WMO") to the extent allowed by Article 14 of that ordinance.

The municipality designates Mr./Ms. \_\_\_\_\_ as the municipality's enforcement officer. All correspondence should be directed to Mr./Ms. \_\_\_\_\_'s attention at the following address:

Street Address

City, State ZIP

Please find the following documents enclosed in support of this letter of intent.

1. Legal Opinion indicating the municipality has legal authority to perform all obligations required by the WMO, including:
  - a. Regulating erosion and sediment control, stormwater management, floodplains, isolated wetlands, and riparian environments;
  - b. Conducting inspections on private property;
  - c. Issuing watershed management permits;
  - d. Administering the WMO; and
  - e. Entering into an intergovernmental agreement with the District.
2. A verified statement of financial capacity to perform and adequately fund the municipality's obligations related to the administration of the WMO as set forth in Article 14 of that ordinance.
3. An implementation plan, with an estimate of permit load and available review staff.
4. Schedule of Permit Fees.
5. An exhibit delineating the corporate limits of the municipality for the purposes of administering the WMO. Note that areas within the limits of the Combined Sewer Area Limits cannot be locally administered.
6. Contact information sheet.

Please contact the municipality's enforcement officer at (XXX) XXX-XXXX if you require further information.

Very truly yours,

Municipal Executive

**INTERGOVERNMENTAL AGREEMENT BY AND BETWEEN THE  
TOWN/VILLAGE/CITY OF \_\_\_\_\_ AND THE METROPOLITAN WATER  
RECLAMATION DISTRICT OF GREATER CHICAGO FOR AUTHORIZATION TO  
ADMINISTER THE WATERSHED MANAGEMENT ORDINANCE**

**THIS INTERGOVERNMENTAL AGREEMENT** (hereinafter the “Agreement”) is entered into this \_\_\_\_\_, 201\_\_, by and between the Metropolitan Water Reclamation District of Greater Chicago, a municipal corporation, organized and existing under the laws of the State of Illinois (hereinafter the “District”) and the Town/City/Village of \_\_\_\_\_, a municipal corporation and home rule / non-home rule unit of government organized and existing under Article VII, Section (6 for home rule / 7 for non-home rule) of the 1970 Constitution of the State of Illinois (hereinafter the “Municipality”).

**WITNESSETH:**

**WHEREAS**, on November 17, 2004, the Illinois General Assembly passed Public Act 093-1049 (hereinafter the “Act”); and

**WHEREAS**, the Act declares that stormwater management in Cook County shall be under the general supervision of the District; and

**WHEREAS**, the Act specifically authorizes the District to prescribe by ordinance reasonable rules and regulations for floodplain and stormwater management and for governing the location, width, course, and release rate of all stormwater runoff channels, streams, and basins in Cook County; and

**WHEREAS**, the Watershed Management Ordinance (hereinafter the “WMO”), attached hereto as Exhibit 1, was adopted by the District’s Board of Commissioners on October 3, 2013 and became effective on May 1, 2014; and

**WHEREAS**, the Municipality is located in its entirety or partially within the boundaries of Cook County; and

**WHEREAS**, pursuant to Article 14 of the WMO, the District may authorize municipalities to locally administer certain provisions of the WMO; and

**WHEREAS**, on \_\_\_\_\_ \_\_, 20\_\_, the Municipality submitted a letter of intent to the District in which the Municipality expressed its desire to administer the WMO within the

Municipality's corporate limits as an authorized municipality in conformance with the provisions of the WMO; and

**WHEREAS**, pursuant to the Illinois Municipal Code, 65 ILCS 5/1 *et seq.*, the Municipality has the authority to adopt the WMO by reference; and

**WHEREAS**, on \_\_\_\_\_, 20\_\_\_, the Municipality's \_\_\_\_\_ adopted the WMO by reference; and

**WHEREAS**, the WMO may be administered more effectively with the Municipality and District cooperating and using their joint efforts and resources most efficiently; and

**WHEREAS**, the Intergovernmental Cooperation Act, 5 ILCS 220/1 *et seq.*, and Section 10 of Article VII of the Illinois Constitution, allow and encourage intergovernmental cooperation; and

**WHEREAS**, on \_\_\_\_\_, the District's Board of Commissioners authorized the District to enter into an intergovernmental agreement with the Municipality; and

**WHEREAS**, on \_\_\_\_\_, the Municipality's \_\_\_\_\_ authorized the Municipality to enter into an intergovernmental agreement with the District; and

**NOW THEREFORE**, in consideration of the matters set forth, the mutual covenants and agreements contained in this agreement and other good and valuable consideration, the Municipality and District hereby agree as follows:

**Article 1. Incorporation of Recitals.** The recitals set forth above are incorporated herein by reference and made a part hereof.

**Article 2. General Responsibilities.**

1. The Municipality shall administer the WMO within its corporate limits in conformance with the provisions of the WMO.
2. The District shall provide oversight of the Municipality's administration of the WMO.
3. Both the Municipality and the District shall comply with the provisions of the WMO.
4. The Municipality shall participate actively in the regular phase of the National Flood Insurance Program. The Municipality shall notify the District promptly if the Municipality is not in full compliance with the National Flood Insurance Program.

5. The Municipality shall appoint an Enforcement Officer (hereinafter “Enforcement Officer”) and provide the District with the name, address, telephone number, and email address of the appointed Enforcement Officer. The Municipality shall promptly notify the District in any change of Enforcement Officer by the manner provided in Article 25 below.
6. The Municipality shall either employ or retain adequate staff for all of the following positions:
  - a. An Enforcement Officer;
  - b. Professional Engineer(s) licensed by the State of Illinois (hereinafter "Professional Engineer"); and
  - c. Wetland Specialist(s).
7. The District shall promptly notify the Municipality of any amendments to the WMO by the manner provided in Article 25 below. The Municipality shall adopt all amendments to the WMO by reference.

**Article 3. Watershed Management Permits.**

1. The Municipality shall review watershed management permit applications for development activities enumerated in Section 201.1 of the WMO, which are proposed within the Municipality’s corporate limits. The Municipality shall use the watershed management permit applications, forms, numbering conventions, and schedules supplied by the District. The Municipality shall contact the District’s Permit Unit to obtain a permit number for all new permits.
2. The Municipality shall not review a watershed management permit application for any development activity enumerated in Section 201.2 of the WMO. The Municipality shall forward any watershed management permit applications containing a proposed development activity enumerated in Section 201.2 to the District for the District’s review and approval.
3. The Municipality shall not issue a watershed management permit for development activities within a combined sewer area as delineated on Exhibit 2.
4. The Municipality shall not issue a watershed management permit to itself. The Municipality shall obtain a watershed management permit from the District for any of its

own projects that involve development activities enumerated in Sections 201.1 and 201.2 of the WMO.

5. The Municipality may establish a schedule of permit fees for watershed management permits in accordance with the provisions of the WMO, which may be amended from time to time. The Municipality shall notify the District promptly by letter of any change in established permit fees.
6. The Municipality shall timely review all watershed management permit applications and respond within:
  - a. Fifteen working days of an initial submittal for developments not involving flood protection areas;
  - b. Thirty working days of an initial submittal for developments involving flood protection areas; and
  - c. Ten working days of a resubmittal.
7. The Municipality shall issue watershed management permits for development activities enumerated in Section 201.1 of the WMO proposed within the District's corporate limits, which are in conformance with the terms and conditions of the WMO.
8. The Municipality shall have a Professional Engineer review all engineering information and plans prepared for the development by a Professional Engineer.
9. The Municipality shall conduct a pre-application meeting at the request of an applicant for a watershed management permit. For any unresolved questions from the pre-application meeting, the District shall make its best efforts to be available for an additional joint meeting to resolve such questions.
10. The Municipality shall not issue watershed management permits for proposed developments that do not comply with the provisions of the WMO.
11. The Municipality shall not issue any variance to the WMO. All petitions for variance shall be submitted to the District in accordance with the requirements of the WMO.
12. The Municipality shall not hear any appeals. All petitions for appeal shall be submitted to the District in accordance with the requirements of the WMO.
13. Upon request, the Municipality shall reasonably cooperate with the District on administrative proceedings related to variances, appeals, and violations of the WMO. The

Municipality's reasonable cooperation shall include assistance in the form of supporting documents, information, and, if necessary, testimony.

**Article 4. Records.**

1. The Municipality shall maintain all of the following records electronically for developments within the Municipality's corporate limits:
  - a. Watershed management permits issued within the Municipality;
  - b. Record drawings;
  - c. Structure improvement data;
  - d. Wetland mitigation bank credits;
  - e. Elevation certificates;
  - f. Floodproofing certificates;
  - g. Base flood data and base flood maps; and
  - h. Letters of Map Changes, including but not limited to, Conditional Letters of Map Revision, Letters of Map Revision, and Letters of Map Amendment.
2. The Municipality shall transmit a copy of all records specified in Article 4, Section 1 of this Agreement to the Permit Unit of the District within ten business days of receipt by the Municipality.
3. The District may conduct inspections to verify that the Municipality is properly maintaining records as required by this Article.

**Article 5. Inspections.**

1. The Municipality shall inspect construction related to any development activity within the Municipality that requires a watershed management permit. The Municipality shall ensure that any development within its corporate limits is constructed in conformance with the requirements of both the WMO and any issued watershed management permit.
2. The District may inspect any development subject to a watershed management permit within the Municipality to ensure compliance with both the watershed management permit and the WMO.
3. Any inspections performed pursuant to this Agreement shall be conducted in accordance with the WMO and all other applicable local, state, and federal laws.

**Article 6. Training.** The Municipality shall participate in training as conducted by the District or its designee.

**Article 7. Stop-Work Orders.**

1. The Municipality is authorized to issue an order requiring the suspension of construction of a development that is subject to the WMO.
2. A stop-work order shall:
  - a. Be in writing;
  - b. Indicate the reason for its issuance; and
  - c. Order the action, if any, necessary to resolve the circumstances requiring the stop-work order.
3. One copy of the stop-work order shall be posted on the property in a conspicuous location and one copy shall be delivered by Registered Mail, Return Receipt Requested, or personal delivery to the permittee/co-permittee, and/or to the property owner or his/her agent. Additionally, one copy of the stop-work order shall be provided to the District within 24 hours of its issuance pursuant to the notice procedures set forth in Article 26 below.
4. The stop-work order shall state the conditions under which the construction of the subject development may be resumed.
5. The Municipality shall issue a stop-work order if:
  - a. A development is proceeding in a manner which creates imminent hazard of severe harm to persons, property, or the environment on or off the site;
  - b. A development is occurring in violation of a requirement of the WMO, or of a watershed management permit, and the Municipality has determined it is necessary to halt ongoing development activity to avoid continuing or additional violations and where significant costs and effort would be incurred should the offending development activity be allowed to continue; or
  - c. A development for which a watershed management permit is required is proceeding without issuance of a watershed management permit. In such instance,

the stop-work order shall state that the order terminates when the required watershed management permit is properly obtained.

6. The Municipality shall not hear any appeals of its stop-work orders. Such appeals may only be heard by the District in accordance with the provisions of the WMO.

**Article 8. Violations.**

1. The Municipality shall investigate complaints of violation of either the WMO or a watershed management permit.
2. The Municipality shall notify the District within 72 hours of any suspected violation of either the WMO or a watershed management permit within the Municipality.
3. The District shall solely conduct all administrative proceedings to remedy violations.

**Article 9. Audits; Deficiencies and Cure.**

1. The District may audit the Municipality periodically to ensure proper administration of the WMO. During an audit, the District may:
  - a. Inspect and copy records kept by the Municipality related to the Municipality's administration of the WMO;
  - b. Inspect and copy watershed management permits issued by the Municipality;
  - c. Meet with staff of the Municipality, which may include the Enforcement Officer, Professional Engineer, and Wetland Specialist;
  - d. Conduct field inspections of developments permitted by the Municipality;
  - e. Request and copy financial records of the Municipality related to the Municipality's administration of the WMO;
  - f. Verify that the Municipality complies with all requirements listed in Article 14, Section 1402.2 of the WMO;
  - g. Verify that the Municipality does not violate any provision listed in Article 14, Section 1402.3 of the WMO; and
  - h. Verify compliance with this Agreement.
2. The District shall promptly notify the Municipality in writing of any deficiency with respect to any provision of this Agreement or the WMO, which the Municipality must remedy within thirty (30) calendar days. In cases where a deficiency cannot be remedied

within thirty (30) calendar days, the District may grant a time extension to the Municipality.

3. If the Municipality does not remedy the deficiency as required by Article 9, Section 2 of this Agreement, the District may either terminate or suspend this Agreement in accordance with Article 11 of this Agreement.

**Article 10. Termination by the Municipality.** The Municipality may, at its option, and upon giving a sixty (60) day written notice to the District in the manner provided in Article 26 below, terminate this Agreement.

**Article 11. Suspension or Termination by the District.**

1. The District may terminate this agreement, after providing written notice of any deficiency and a thirty (30) calendar day opportunity to cure in accordance with Article 9, Section 2 of this Agreement, for any of the following reasons:
  - a. Failure to comply with any provision of Section 1402.2 of the WMO;
  - b. Violation of any provision of Section 1402.3 of the WMO; or
  - c. Breach of this Agreement;
2. The District may also terminate this Agreement if the District's legal authority to delegate the administration of the WMO is revoked by statute, ordinance, or court order;
3. The District shall provide written notice to the Municipality if the Municipality does not meet all requirements of either this Agreement or the WMO, to enable the Municipality to correct such deficiencies within thirty (30) calendar days. The District may terminate this Agreement and the Municipality's status as an Authorized Municipality if the Municipality does not cure such deficiencies within thirty (30) calendar days.
4. If the Municipality does not meet all requirements of either this Agreement or the WMO, then, at the discretion of the District, the District may at any time suspend the Municipality's status as an Authorized Municipality, including its authority to issue watershed management permits. Such suspension shall specify all deficiencies necessary to be remedied.
5. If the Municipality's status as an Authorized Municipality is either suspended or terminated, the Municipality may petition the District's Director of Engineering in the manner prescribed by the WMO for reauthorization after all deficiencies are remedied.

6. Except as provided in Article 15, suspension or termination of the Municipality's status as an Authorized Municipality is the District's sole remedy against the Municipality if the Municipality does not meet all of the requirements of this Agreement or the WMO.

**Article 12. Duration.** This Agreement becomes effective on the date that the last signature is affixed hereto, which shall be the date inserted on the first page hereof. Subject to the terms and conditions of Articles 10 and 11 above, this Agreement shall remain in full force and effect for perpetuity.

**Article 13. Non-Assignment.** Neither party may assign its rights hereunder without the written consent of the other party.

**Article 14. Waiver of Personal Liability.** No official, employee, or agent of either party to this Agreement shall be charged personally by the other party with any liability or expenses of defense incurred as a result of the exercise of any rights, privileges, or authority granted herein, nor shall he or she be held personally liable under any term or provision of this Agreement, or because of a party's execution or attempted execution of this Agreement, or because of any breach of this Agreement.

**Article 15. Indemnification.** The Municipality shall defend, indemnify, and hold harmless the District, its commissioners, officers, employees, and other agents ("District Party") from liabilities of every kind, including losses, damages and reasonable costs, payments and expenses (such as, but not limited to, court costs and reasonable attorneys' fees and disbursements), claims, demands, actions, suits, proceedings, judgments or settlements, any or all of which are asserted by any individual, private entity, or public entity against the District Party and arise out of, or are in any way related to any authority, duty, or obligation bestowed on the Municipality pursuant to this Agreement and/or the WMO; provided, however, that this indemnity is not, and will not be construed to be, a waiver by the Municipality of any immunity from tort liability to which the Municipality is entitled by law.

**Article 16. Covenants, Representations, and Warranties of the Municipality.** The Municipality covenants, represents, and warrants as follows:

- (1) The Municipality participates in the regular phase of the National Flood Insurance Program and is in full compliance with the program;

- (2) The Municipality has legal authority to perform all responsibilities of an authorized municipality required by the WMO and this Agreement;
- (3) The Municipality has legal authority to adopt the WMO and has adopted the WMO, including all amendments, by reference;
- (4) The Municipality has full authority to execute, deliver, and perform or cause to be performed this Agreement;
- (5) The individuals signing this Agreement and all other documents executed on behalf of the Municipality are duly authorized to sign same on behalf of and to bind the Municipality;
- (6) No conflict of interest exists for any engineer employed or retained by the Municipality to perform work or provide services related to, or arising out of, the Municipality's administration of the WMO.
- (7) The execution and delivery of this Agreement, consummation of the transactions provided for herein, and the fulfillment of the terms hereof will not result in any breach of any of the terms or provisions of or constitute a default under any agreement of the Municipality or any instrument to which the Municipality is bound or any judgment, decree, or order of any court or governmental body or any applicable law, rule, or regulation.

**Article 17. Covenants, Representations, and Warranties of the District.** The District covenants, represents, and warrants as follows:

- (1) The District has full authority to execute, deliver, and perform or cause to be performed this Agreement;
- (2) The individuals signing this Agreement and all other documents executed on behalf of the District are duly authorized to sign same on behalf of and to bind the District;
- (3) The execution and delivery of this Agreement, consummation of the transactions provided for herein, and the fulfillment of the terms hereof will not result in any breach of any of the terms or provisions of or constitute a default under any agreement of the District or any instrument to which the District is bound or any judgment, decree, or order of any court or governmental body or any applicable law, rule, or regulation.

**Article 18. Disclaimers.** This Agreement is not intended, nor shall it be construed, to confer any rights, privileges, or authority not permitted by Illinois law. This Agreement is solely for the benefit of the District and the Municipality. Nothing in this Agreement shall be construed to establish a contractual relationship between either the District or the Municipality and any other

party. No claim as a third party beneficiary under this Agreement by any person, firm, or corporation shall be made or be valid against the District or the Municipality.

**Article 19. Waivers.** Whenever a party to this Agreement by proper authority waives the other party's performance in any respect or waives a requirement or condition to performance, the waiver so granted, whether express or implied, shall only apply to the particular instance and shall not be deemed a waiver for subsequent instances of the performance, requirement, or condition. No such waiver shall be construed as a modification of this Agreement regardless of the number of times the performance, requirement, or condition may have been waived.

**Article 20. Severability.** If any provision of this Agreement is held to be invalid, illegal, or unenforceable, such invalidity, illegality, or unenforceability will not affect any other provisions of this Agreement, and this Agreement will be construed as if such invalid, illegal, or unenforceable provision has never been contained herein. The remaining provisions will remain in full force and will not be affected by the invalid, illegal, or unenforceable provision or by its severance. In lieu of such illegal, invalid, or unenforceable provision, there will be added automatically as part of this Agreement a provision as similar in its terms to such illegal, invalid, or unenforceable provision as may be possible and be legal, valid, and enforceable.

**Article 21. Deemed Inclusion.** Provisions required (as of the effective date) by law, ordinances, rules, regulations, or executive orders to be inserted in this Agreement are deemed inserted in this Agreement whether or not they appear in this Agreement or, upon application by either party, this Agreement will be amended to make the insertions. However, in no event will the failure to insert such provisions before or after this Agreement is signed prevent its enforcement.

**Article 22. Entire Agreement.** This Agreement, and any exhibits or riders attached hereto, shall constitute the entire agreement between the parties. No other warranties, inducements, considerations, promises, or interpretations shall be implied or impressed upon this Agreement that are not expressly set forth herein.

**Article 23. Amendments.** This Agreement shall not be amended unless it is done so in writing and signed by the authorized representatives of both parties.

**Article 24. References to Documents.** All references in this Agreement to any exhibit or document shall be deemed to include all supplements and/or authorized amendments to any such exhibits or documents to which both parties hereto are privy.

**Article 25. Judicial and Administrative Remedies.** The parties agree that this Agreement and any subsequent Amendment shall be governed by, and construed and enforced in accordance with, the laws of the State of Illinois in all respects, including matters of construction, validity, and performance. The parties further agree that the proper venue to resolve any dispute which may arise out of this Agreement is the appropriate Court of competent jurisdiction located in Cook County, Illinois.

This Agreement shall not be construed against a party by reason of who prepared it. Each party agrees to provide a certified copy of the ordinance, bylaw, or other authority to evidence the reasonable satisfaction of the other party that the person signing this Agreement for such party is authorized to do so and that this Agreement is a valid and binding obligation of such party.

The rights and remedies of the District or the Municipality shall be cumulative, and election by the District or the Municipality of any single remedy shall not constitute a waiver of any other remedy that such party may pursue under this Agreement.

**Article 26. Notices.** Unless otherwise stated in this Agreement, any and all notices given in connection with this Agreement shall be deemed adequately given only if in writing and addressed to the party for whom such notices are intended at the address set forth below. All notices shall be sent by personal delivery, UPS, Fed Ex or other overnight messenger service, first class registered or certified mail, postage prepaid, return receipt requested, or by facsimile. A written notice shall be deemed to have been given to the recipient party on the earlier of (a) the date it is hand-delivered to the address required by this Agreement; (b) with respect to notices sent by mail, two days (excluding Sundays and federal holidays) following the date it is properly addressed and placed in the U.S. Mail, with proper postage prepaid; or (c) with respect to notices sent by facsimile, on the date sent, if sent to the facsimile number(s) set forth below and upon proof of delivery as evidenced by the sending fax machine. The name of this Agreement i.e., "INTERGOVERNMENTAL AGREEMENT BY AND BETWEEN THE TOWN/VILLAGE/CITY OF \_\_\_\_\_ AND THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO FOR

AUTHORIZATION TO ADMINISTER THE WATERSHED MANAGEMENT ORDINANCE” must be prominently featured in the heading of all notices sent hereunder.

Any and all notices referred to in this Agreement, or that either party desires to give to the other, shall be addressed as set forth in Article 27, unless otherwise specified and agreed to by the parties:

**Article 27. Representatives.** Immediately upon execution of this Agreement, the following individuals will represent the parties as a primary contact and receive notice in all matters under this Agreement.

For the District:  
Director of Engineering  
Metropolitan Water Reclamation District  
of Greater Chicago  
100 East Erie Street  
Chicago, Illinois 60611  
Phone: (312) 751-3169  
FAX: (312) 751-5681

For the Municipality:  
Enforcement Officer  
Street Address  
Municipality, Illinois ZIP  
Phone: (XXX) XXX-XXXX  
FAX: (XXX) XXX-XXXX

Each party agrees to promptly notify the other party of any change in its designated representative, which notice shall include the name, address, telephone number and fax number of the representative for such party for the purpose hereof.

**IN WITNESS WHEREOF**, the Metropolitan Water Reclamation District of Greater Chicago and the Town/Village/City of \_\_\_\_\_, the parties hereto, have each caused this Agreement to be executed as of the date first above written by their duly authorized officers, duly attested and their seals hereunto affixed.

**IN WITNESS WHEREOF**, the Municipality has executed this Agreement on the \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_.

VILLAGE/CITY OF \_\_\_\_\_

BY: \_\_\_\_\_  
XX XX, TOWN/Village/City President

ATTEST:

\_\_\_\_\_  
XX XXXX, Town/Village/City Clerk

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

\_\_\_\_\_  
Chairman of the Committee on Stormwater Management

\_\_\_\_\_  
Executive Director

ATTEST:

\_\_\_\_\_  
Clerk

\_\_\_\_\_  
Date

APPROVED AS TO ENGINEERING, OPERATIONS, AND TECHNICAL MATTERS:

\_\_\_\_\_  
Engineer of Stormwater Management

\_\_\_\_\_  
Date

\_\_\_\_\_  
Assistant Director of Engineering

\_\_\_\_\_  
Date

\_\_\_\_\_  
Director of Engineering

\_\_\_\_\_  
Date

\_\_\_\_\_  
Director of Maintenance and Operations

\_\_\_\_\_  
Date

\_\_\_\_\_  
Director of Monitoring and Research

\_\_\_\_\_  
Date

APPROVED AS TO FORM AND LEGALITY:

\_\_\_\_\_  
Head Assistant Attorney

\_\_\_\_\_  
Date

\_\_\_\_\_  
General Counsel

\_\_\_\_\_  
Date



## **Cook County Watershed Management Ordinance**

October 3, 2013

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## ARTICLE 1. AUTHORITY AND PURPOSE

### § 100. Statutory Authority

1. This **ordinance** shall be known and may be cited as the Cook County Watershed Management Ordinance (**ordinance**).
2. The Metropolitan Water Reclamation District of Greater Chicago (**District**) promulgates this **ordinance** pursuant to its authority to adopt ordinances regulating sewers tributary to the **District's water reclamation plants**, regulating **floodplain** and **stormwater** management, and governing the location, width, course, and release rate of all **stormwater runoff** channels, streams, and basins in **Cook County**, over which the **District** has jurisdiction, in accordance with the adopted Cook County Stormwater Management Plan (**CCSMP**). The statutory authority for this **ordinance** is contained in 55 ILCS 5/5-1062.1, 70 ILCS 2605/1 *et seq.*, and particularly 70 ILCS 2605/7f, 70 ILCS 2605/7h, 70 ILCS 2605/12, as well as other applicable authority, all as amended from time to time.
3. An **authorized municipality**, as defined in Article 14 of this **ordinance**, may adopt this **ordinance** pursuant to its authority to adopt ordinances regulating **floodplain** and **stormwater** management and governing the location, width, course, and release rate of all **stormwater runoff** channels, streams, and basins in the **authorized municipality**, over which the **authorized municipality** has jurisdiction. The statutory authority for an **authorized municipality** to adopt this **ordinance** is contained in the Illinois Municipal Code, 65 ILCS 5/1 *et seq.*, as well as other applicable authority, all as amended from time to time.

### § 101. Cook County Stormwater Management Plan

The **District's Board of Commissioners** adopted the **CCSMP** on February 15, 2007. This **ordinance** is a component of the countywide **stormwater** management program presented in the **CCSMP**. Other components of the countywide **stormwater** management program include the **development** of Detailed Watershed Plans (**DWPs**) for the major **watersheds** of **Cook County**. The **CCSMP** and **DWPs** are available on the **District's** website, [www.mwrd.org](http://www.mwrd.org).

### § 102. Considerations

The **District** has considered numerous factors in the creation of this **ordinance** including but not limited to:

1. Inappropriate **floodplain** uses and **development** have increased **flood** risk, **flood** damage, and environmental degradation;

2. It is necessary to consider **stormwater** management on a **watershed** basis;
3. **Cook County** lands drain poorly due to generally flat topography and soils of low permeability;
4. Many land **development** practices alter the natural hydrologic balance of **Cook County** streams;
5. **Wetlands** play an essential role in **flood** storage, **floodplain** management, **sediment** control, and water quality enhancement;
6. **Riparian environments** are effective in reducing flow rates and volumes in addition to providing stream bank **erosion** protection and water quality enhancements;
7. Many **stormwater facilities** are not adequately maintained;
8. While the **District** has required **stormwater** detention in **separate sewer areas** since 1972 via the **Sewer Permit Ordinance**, **flooding** continues to be a concern in **Cook County** due to the increased volume and rate of **stormwater runoff** resulting from continued **development**;
9. **Stormwater** detention requirements for new **developments** alone do not address the impacts of transportation and other improvements; and
10. Infiltration and inflow contributes to **basement** backups, **sanitary sewer** overflows, and excessive flows to the **District's water reclamation facilities**.

### § 103. Purposes of this Ordinance

The purpose of this **ordinance** is to effectuate the purposes and intent of the Metropolitan Water Reclamation District Act (70 ILCS 2605/1 *et seq.*) by:

1. Protecting the public health, safety, and welfare, and reducing the potential for loss of property due to **flood** damage;
2. Managing and mitigating the effects of urbanization on **stormwater** drainage throughout **Cook County**;
3. Protecting existing and new **development** by minimizing the increase of **stormwater runoff** volume beyond that experienced under existing conditions and by reducing peak **stormwater** flows;
4. Promoting responsible land use practices in **Cook County**, particularly within **floodplains** and **floodways**;

5. Protecting existing water resources, including **lakes**, streams, **floodplains**, **wetlands**, and **groundwater** from detrimental and unnecessary modification in order to maintain their beneficial functions;
6. Reducing or mitigating the environmentally detrimental effects of existing and future **runoff** in order to improve and maintain water quality;
7. Preserving and enhancing existing **riparian environments**;
8. Controlling **erosion** and the discharge of **sediment** from all sources including, but not limited to, **stormwater facilities**, **waterways**, **developments**, and construction **sites**;
9. Requiring appropriate and adequate provisions for **site runoff** control;
10. Requiring consistency in **stormwater** management activities within and among the units of government having **stormwater** management jurisdiction;
11. Ensuring future **development** in the **floodplain** does not adversely affect **floodplain** environments or increase the potential for **flood** damage;
12. Requiring regular, planned **maintenance** of **stormwater** management facilities;
13. Encouraging control of **stormwater** quantity and quality at the most **site-specific** or local level;
14. Establishing uniform and minimum countywide **stormwater** management regulations while recognizing and coordinating with **stormwater** programs effectively operating within **Cook County**;
15. Requiring strict compliance with and enforcement of this **ordinance**;
16. Meeting the **floodway** permitting requirements of the Illinois Department of Natural Resources, Office of Water Resources, delineated in the Rivers, Lakes, and Streams Act (615 ILCS 5/18g);
17. Complying with the rules and regulations of the National Flood Insurance Program (**NFIP**) thereby making federally subsidized **flood** insurance available;
18. Protecting the ability of the **District's** sewerage systems, intercepting sewers, **TARP structures**, **sewage** disposal and treatment plants, works and facilities to perform the functions for which they were designed;
19. Controlling the nature, volume, and manner of discharge into the **District's** sewerage systems, intercepting sewers, **TARP structures**, **sewage** disposal and treatment plants, works, and facilities;

20. Maintaining stable operation of the **District's** sewerage systems, intercepting sewers, **TARP structures**, **sewage** disposal and treatment plants, works, and facilities;
21. Reducing infiltration and inflow into the **District's** sewerage systems, intercepting sewers, **TARP structures**, **sewage** disposal and treatment plants, works, and facilities; and
22. Protecting waters within **Cook County** so as to preserve the public health.

#### § 104. Relationship to the Sewer Permit Ordinance and Manual of Procedures

1. **Permittees** and **co-permittees** that have **Sewerage System Permits** issued prior to the effective date of this **ordinance** shall retain all rights, obligations and liabilities under the **Sewer Permit Ordinance** and the **Manual of Procedures** as they existed prior to their repeal.
2. Proposed **development** for which a complete **Sewerage System Permit** application has been accepted by the **District** prior to the effective date of this **ordinance** will retain all rights, obligations and liabilities under the **Sewer Permit Ordinance** and the **Manual of Procedures** as they existed prior to their repeal.
3. Effective [**Date Reserved**], the **Sewer Permit Ordinance** and its companion ordinance, the **Manual of Procedures**, will be repealed. (See MWRDGC ordinance repealing **Sewer Permit Ordinance** and MWRDGC Ordinance repealing the **Manual of Procedures** for Administration of the **Sewer Permit Ordinance** [**Date Reserved**]).
4. The requirements for **qualified sewer construction** are now contained in Article 7 of this **ordinance**.

## ARTICLE 2. APPLICABILITY AND GENERAL PROVISIONS

### § 200. Scope of Regulation

1. This **ordinance** applies to all **development** within the boundaries of **Cook County**, Illinois and **qualified sewer construction** within the **District's** corporate boundaries or service agreement areas, over which the **District** has jurisdiction as described in §100.2 of this **ordinance**, including those **developments** under the control of any governmental entity, agency, or authority.
2. Any **person** proposing a **development** that falls under any of the categories set forth in §201 of this **ordinance** shall obtain a **Watershed Management Permit** prior to **development**.
3. The requirements for sewer construction contained within Article 7 supersede the requirements of the repealed **Sewer Permit Ordinance** and the **Manual of Procedures**, as described in §104. Any **person** proposing to install **qualified sewer construction** within the **District's** corporate limits or service agreement areas, as detailed under §700.5 of this **ordinance**, shall obtain a **Watershed Management Permit** prior to commencing sewer work.
4. The provisions of this **ordinance** shall **not** apply to any of the following:
  - A. **Structures** and land uses existing as of the effective date of this **ordinance**, except when **redevelopment** occurs;
  - B. Proposed **development** with a **Sewerage Systems Permit** issued prior to the effective date of this **ordinance**, which has not been fully constructed by the effective date of this **ordinance**. **Stormwater** management provisions for such **development** shall conform to the approved plans and specifications of the issued **Sewerage System Permit** and shall not result in any increase in **impervious area** over the amount specified by the **Sewerage System Permit**;
  - C. Proposed **development** for which a complete **Sewerage System Permit** application has been accepted by the **District** prior to the effective date of this **ordinance**. Any such **Sewerage System Permit** application shall be subject to the **Sewer Permit Ordinance** and **Manual of Procedures** effective at the time the application was made. A complete **Sewerage System Permit** application is considered accepted by the **District** upon actual receipt by the **District** and is minimally composed of the following:
    - (1) Complete and executed **Sewerage System Permit** forms consisting of Schedules A, B, C, and D where **stormwater** detention is required;

- (2) **Sewerage System Permit** fee paid in full;
  - (3) Plan drawings signed and sealed by a **Professional Engineer**; and
  - (4) Permit documents signed by the **permittee** and **co-permittee**;
- D. **Development** within the corporate boundaries of the City of Chicago, Illinois except for any of the following:
- (1) New or reconstructed sewers, drainage, or detention **outfalls** to **waterways** or Lake Michigan;
  - (2) **Stormwater** discharges directly to **District** property; and
  - (3) Direct connections to **District** interceptors, **TARP structures**, facilities, or **District** property.
- E. **Development** activities listed in §201.1 that are within the corporate boundaries of a **multi county municipality**, which has adopted and currently enforces the **stormwater** ordinance of a **contiguously** adjacent Illinois county subject to the requirements of §207 of this **ordinance**; or
- F. A **development** included on the **District’s existing development plans list**, except that such developments must comply with the provisions of Appendix C, Existing Development Plans List Requirements – Legacy **Sewer Permit Ordinance** and **Manual of Procedures**. The **existing development plans list** shall be subject to all of the following conditions:
- (1) The **District** shall compile the **existing development plans list** before the effective date of this **ordinance**;
  - (2) All **developments** included on the **existing development plans list** shall be subject to the provisions of Appendix C, Existing Development Plans List Requirements – Legacy **Sewer Permit Ordinance** and **Manual of Procedures**, provided the **development** has:
    - (a) Submitted a complete permit application within one year of the effective date of this **ordinance**; and
    - (b) Conformed to the permit application requirements of Appendix C, Existing Development Plans List Requirements – Legacy **Sewer Permit Ordinance** and **Manual of Procedures**.
  - (3) A **development** must have received preliminary approval from the governing **municipality** to be included on the **existing development plans**

**list;**

- (4) A **development** shall be removed from the **existing development plans list** upon expiration of the governing **municipality's** preliminary approval; and
  - (5) The **existing development plans list** shall expire one year from the effective date of this **ordinance**.
5. Existing **structures** that do not conform to the requirements of this **ordinance** shall not be substantially improved, replaced, or enlarged in any manner unless such **substantial improvements**, replacements, or enlargements conform to the requirements of this **ordinance**.

## § 201. Applicability

Table 1. Applicability Summary				
Activity		Regulated Area	Permitting Authority	See Section
Development Activities	Disturbances more than 0.5 acre*	Cook County Except City of Chicago	District or Authorized Municipality	§ 201.1.D
	Reconfiguration of existing <b>major</b> or <b>minor stormwater systems</b> which alters the service area of a permitted or <b>existing detention facility</b>	Cook County Except City of Chicago	District	§ 201.2.E
	Modifications to a permitted or <b>existing detention facility</b>	Cook County Except City of Chicago	District	§ 201.2.F
Flood Protection Areas	<b>Development</b> within a <b>flood protection area</b>	Cook County Except City of Chicago	District or Authorized Municipality	§ 201.1.A
	Indirect impacts to a <b>wetland</b>	Cook County Except City of Chicago	District or Authorized Municipality	§ 201.1.B
	Alteration of an existing <b>building</b> which constitutes a <b>substantial improvement</b> in the <b>regulatory floodplain</b>	Cook County Except City of Chicago	District or Authorized Municipality	§ 201.1.C
Qualified Sewer Construction	Sewers, drainage, or detention in <b>combined sewer areas</b> tributary to <b>combined sewers</b>	District Corporate Limits or Service Areas Except City of Chicago	District	§ 201.2.A
	<b>Qualified sewer construction</b> including lift stations	District Corporate Limits or Service Areas Except City of Chicago	District	§ 201.2.B
District Impacts	Direct connections to <b>District</b> interceptors, reservoirs, facilities, or <b>TARP Structures</b>	Entire <b>Cook County</b> Including City of Chicago <sup>+</sup>	District	§ 201.2.C & § 201.3.A
	<b>Stormwater</b> discharges directly to <b>District</b> Property	Entire <b>Cook County</b> Including City of Chicago <sup>+</sup>	District	§ 201.2.G & § 201.3.B
	New or reconstructed sewers, drainage, or detention <b>outfalls</b> to <b>waterways</b> or Lake Michigan	<b>Cook County</b> Including City of Chicago <sup>+</sup>	District	§ 201.2.D & § 201.3.C

\*unless the **development** solely involves one or more activity listed in §201.1.D.

<sup>+</sup>**Facility connection authorization** as outlined in §703.

1. A **Watershed Management Permit** from either the **District** or an **authorized municipality** shall be required for any of the following **development** activities:
  - A. **Development** within a **Flood Protection Area**;
  - B. **Development** with an **indirect wetland impact**;
  - C. **Development** altering an existing **building** which constitutes a **substantial improvement** in the **regulatory floodplain**; and
  - D. **Development** disturbing more than 0.5 acre, unless the **development** solely involves one or more of the following:
    - (1) Agriculture or gardening that maintains existing grades and drainage patterns;
    - (2) Installation, renovation, or replacement of a septic system, potable water service line, or other utility to serve an existing **structure**, provided that the area is restored to existing grade and vegetative cover is restored;
    - (3) Excavation in rights-of-way or public utility easements disturbing less than 0.5 acre for the purpose of installing or maintaining utilities other than **qualified sewer construction**, provided that the area is restored to existing grade and vegetative cover is restored. Utility excavation not requiring a **watershed management permit** must install and maintain adequate **sediment** and **erosion** control;
    - (4) **Maintenance activities**, repair, or at-grade in-kind replacement of existing lawn areas not otherwise requiring a **Watershed Management Permit**, provided that the area is restored to existing grade and vegetative cover is restored; or
    - (5) **Maintenance activities**, repair, or in-kind replacement of existing **impervious areas** including, but not limited to, roadways or parking lots not otherwise requiring a **Watershed Management Permit**.
  
2. A **Watershed Management Permit** from the **District** shall be required for any of the following **development** activities:
  - A. **Development** proposing sewers, drainage, or detention in **combined sewer areas** tributary to either a **combined sewer** or a **waterway**;
  - B. **Permittees** or **co-permittees** proposing **qualified sewer construction** within the **District's** corporate boundaries;

- C. **Development** proposing a direct connection to **District** interceptors, reservoirs, facilities, or **TARP structures**;
  - D. **Development** proposing new or reconstructed sewer, drainage, or detention **outfalls** to the **waterways** or Lake Michigan, within **Cook County**;
  - E. **Development** proposing reconfiguration of existing **major** or **minor stormwater systems** which alters the service area of a permitted or existing **detention facility**;
  - F. **Development** proposing modifications to a permitted or **existing detention facility**;
  - G. **Development** discharging **stormwater** directly to **District** property; and
  - H. **Non-residential development** on septic systems or private treatment systems proposing a connection to a **sanitary sewer**.
3. **Development** located within the City of Chicago that proposes a direct or indirect connection to **District** interceptors, reservoirs, facilities, or **TARP structures** or new or reconstructed sewers, drainage, or detention **outfalls** to **waterways** or to Lake Michigan shall obtain a **facility connection authorization**.

## § 202. Interpretation

- 1. This **ordinance** shall be liberally construed to protect the health, welfare, safety, and environment of the residents of **Cook County** and to effectuate the purposes of this **ordinance** and enabling legislation.
- 2. Nothing contained in this **ordinance** shall be understood to imply consent, licensing, or permission to locate, construct, or maintain any **structure, site**, or facility, nor to carry on any trade, industry, occupation, operation, or activity.
- 3. When provisions of this **ordinance** differ or conflict with any other applicable statute, law, ordinance, regulation, or rule, the more stringent provisions shall apply.
- 4. The provisions of this **ordinance** are cumulative and shall be considered additional limitations on all other laws and ordinances previously approved, or that may hereafter be approved, and that concern any subject matter included in this **ordinance**.

## § 203. Disclaimer of Liability

- 1. The degree of **flood** protection provided by this **ordinance** is considered reasonable for regulatory purposes and is based on engineering experience and scientific methods of

study.

2. This **ordinance** does not warrant that areas outside the delineated **floodplain** or permitted **developments** within the delineated **floodplain** will be free from **flooding** and associated damages.
3. This **ordinance** shall not be construed or applied in any manner to create liability on the part of, or a cause of action against, the **District**, any **municipality**, or any elected official, officer, agent, or employee thereof, for any damage or injury to **person** or property resulting from reliance on the provisions of this **ordinance** or from reading or interpreting any map that is part of this **ordinance**.
4. The design and supplementary design requirements contained herein do not replace nor substitute sound engineering practice.

#### § 204. Severability

1. The provisions of this **ordinance** shall be severable in accordance with the following rules:
  - A. If any court of competent jurisdiction shall adjudge any provision of this **ordinance** invalid, such judgment shall not affect any other provisions of this **ordinance**; and
  - B. If any court of competent jurisdiction shall adjudge invalid the application of any provision of this **ordinance** to a particular **parcel** of land, a particular **structure**, or a particular **development**, such judgment shall not affect the application of said provisions to any other **parcel** of land, **structure**, or **development**.
2. All such unaffected provisions of this **ordinance** shall remain in full force and effect.

#### § 205. Right of Access

1. Representatives of the **District** may, at all reasonable times during regular business hours or upon notice, enter upon any **development** subject to this **ordinance** for the purpose of conducting periodic inspections to ensure compliance with this **ordinance** or with a **Watershed Management Permit** issued thereunder. The scope of the inspection, including reviewing and copying of records, is limited to determining whether the **development** is in compliance with all requirements and conditions of this **ordinance** and/or **Watershed Management Permit**.
2. The **District** may periodically inspect any mitigation measure at reasonable times and such inspection shall be limited to determining whether the **development** is in

compliance with all requirements and conditions of this **ordinance** and/or a **Watershed Management Permit**.

3. An inspection may also be conducted in accordance with Article 12, § 1201.4 of this **ordinance**.

### § 206. National Flood Insurance Program Eligibility

1. This **ordinance** does not repeal any municipal ordinance or resolution passed in order to establish eligibility for the National Flood Insurance Program (**NFIP**).
2. This **ordinance** is not intended to supplement, replace, or remove any responsibility that a **municipality** may have to maintain eligibility and good standing in the **NFIP**. Proper administration and enforcement of the **NFIP** within participating municipalities is a requirement of the **NFIP**.
3. **Floodplain** requirements included in Article 6 of this **ordinance** meet or exceed the **NFIP** requirements for **development** as set forth under the Code of Federal Regulations (44 C.F.R §§ 59-60).

### § 207. Multi County Municipalities

1. A **multi county municipality** may adopt and enforce one of the following ordinances of an adjacent county if the **municipality** has corporate area within that county:
  - A. The DuPage County Countywide Stormwater and Flood Plain Ordinance, as amended from time to time by the DuPage County Board;
  - B. The Kane County Stormwater Ordinance, as amended from time to time by the Kane County Board;
  - C. The Lake County Watershed Development Ordinance, as amended from time to time by the Lake County Board;
  - D. The McHenry County Stormwater Management Ordinance, as amended from time to time by the McHenry County Board; or
  - E. The Will County Stormwater Management Ordinance, as amended from time to time by the Will County Board.
2. A **Watershed Management Permit** shall not be required from the **District** for any **development** activity specified in §201.1 within a **multi county municipality**, in which the **multi county municipality** elects to adopt an adjacent county's ordinance as specified in §207.1 of this **ordinance** and satisfies all of the following requirements:

- A. Has the authority to adopt an adjacent county's ordinance;
  - B. Retains qualified staff per the adopted ordinance;
  - C. Enters into an intergovernmental agreement with the **District**; and
  - D. Administers and enforces the adopted ordinance per the requirements of the adopted ordinance.
3. A **Watershed Management Permit** shall be required from the **District** for all **development** activities specified in §201.1 and §201.2 of this **ordinance** within a **multi county municipality** that does not:
- A. Adopt and enforce an ordinance specified in §207.1 of this **ordinance**; or
  - B. Comply with the requirements specified in §207.2 of this **ordinance**.
4. A **Watershed Management Permit** shall be required from the **District** for all **development** activities specified in §201.2 of this **ordinance** within a **multi county municipality**, regardless of whether a **multi county municipality** adopts and enforces an adjacent county's ordinance.

## § 208. Amendments

Amendments to this **ordinance** shall become effective when adopted by the **District's Board of Commissioners**.

## § 209. Effective Date

This **ordinance** shall be effective on May 1, 2014.

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## ARTICLE 3. WATERSHED MANAGEMENT PERMIT REQUIREMENTS AND SUBMITTALS

### § 300. General Requirements

1. The **District** shall establish permit fees by ordinance. Fees shall be based upon the costs the **District** incurs for all aspects of the permitting process, including inspections.
2. The **watershed management permit** submittal shall include an opinion by a **Professional Engineer** that the technical submittal meets the criteria required by this **ordinance**. In addition:
  - A. The **site stormwater** plan shall include the signature and seal of a **Professional Engineer**;
  - B. The design of **stormwater facilities**, calculations for the determination of the 100-year **floodplain** and **regulatory floodplain**, and calculations of the impact of **development** shall meet the standards of this **ordinance** and shall be prepared, signed, and sealed by a **Professional Engineer**;
  - C. If **wetlands** are located on the **site** or within 100 feet of the **site**, a survey locating the **wetland** in plan view, including the **wetland buffer** in accordance with §603 of this **ordinance**, shall be signed and sealed by a **Professional Engineer** or a **Professional Land Surveyor**; and
  - D. If **riparian environments**, in accordance with §606 of this **ordinance**, are located on the **site** or within 100 feet of the **site**, a survey in plan view of the channel or stream and associated **riparian environment** shall be signed and sealed by a **Professional Engineer** or a **Professional Land Surveyor**.
3. All required topographic information shall be tied to the North American Vertical Datum of 1988 based on national map standard accuracy.
4. Prior to commencing construction, the **co-permittee** shall secure all appropriate approvals from federal, state, and regional authorities or their designee, including, but not limited to, **OWR**, the **Corps**, **IEPA**, and **FEMA**.
5. **Co-permittees** proposing point discharge at a location adjacent to holdings or property of Forest Preserve District of Cook County (FPD) shall contact FPD and review FPD's Stormwater Management Policy.
6. Either the **District** or relevant **authorized municipality** shall make the final determination that all pertinent information is submitted by the **co-permittee** to allow

for **watershed management permit** review and/or issuance. Additional information or calculations may be requested from the **co-permittee** by either the **District** or **authorized municipality** to ensure compliance with this **ordinance**.

7. Both the Cook County Land Bank Authority and the South Suburban Land Bank and Development Authority offer opportunities for the **District** to work with neighborhoods, **Cook County**, and local governments to determine neighborhood level best practices for **stormwater** and **flood** mitigation management that can be combined with both the Cook County Land Bank Authority's mission and the South Suburban Land Bank and Development Authority's mission to return vacant and abandoned homes and land back into productive and sustainable community assets.

### § 301. Watershed Management Permit Application and Submittals

The **watershed management permit** application and submittal shall include all of the following when applicable:

1. The name(s) and legal address(es) of the **co-permittee(s)**, **permittee**, and of the **owner(s)** of the land;
2. The common address and legal description of the **site** where the **development** will take place;
3. A general narrative description of the proposed **development** that shall include:
  - A. Type of **development**;
  - B. Total **parcel** or **site** size; and
  - C. Size of area under **development**;
4. Affidavit(s) signed by the **co-permittee(s)** attesting to the understanding of the requirements of and intent to comply with this **ordinance**;
5. A statement of opinion by either a **Professional Engineer** or **Wetland Specialist** either denying or acknowledging the presence of **flood protection areas**:
  - A. Within the area of the **development**;
  - B. On the **site**;
  - C. 100 feet beyond the area of the **development** if not included within the **site**; and
  - D. The appropriate submittals identified in this article if the statement acknowledges the presence of **flood protection areas**;

6. Copies of other permits or permit applications as required, including any **FEMA LOMAs, LOMRs, LOMR-Fs, CLOMAs, and CLOMRs**;
7. The **Erosion and Sediment Control** Submittal specified in §302 of this **ordinance** for any **development** requiring a **watershed management permit**;
8. The **Stormwater Management** Submittal specified in §303 of this **ordinance** for any **development** requiring a **watershed management permit**;
9. The **Floodplain** Submittal specified in §304 for **development** associated with a **floodplain** designated in §601 of this **ordinance**;
10. The **Wetland** Submittal specified in §305 for any **development** associated with a **wetland** designated in §603 of this **ordinance**;
11. The **Riparian** Submittal specified in §306 for any **development** associated with a **riparian environment** designated in §606 of this **ordinance**;
12. The **Sewer Construction** Submittal specified in §307 for any **development** associated with **qualifying sewer construction** designated in Article 7 of this **ordinance**;
13. All applicable maps specified in §308.1 of this **ordinance**; and
14. **Maintenance and Monitoring Plan** Submittal specified in §310 of this **ordinance**.

### § 302. Erosion and Sediment Control Submittal

The **Erosion and Sediment Control** Submittal shall require the following when applicable:

1. Maps, exhibits, and plan sheet(s) in accordance with §308.4 of this **ordinance**;
2. An **erosion and sediment** control plan that describes all measures appropriate for the **development** such that all the requirements of Article 4 of this **ordinance** are met. This plan shall include:
  - A. A narrative description of the existing land cover, hydrologic conditions of the proposed **development**, and areas adjacent to the **development** including a description of any **flood protection areas**, **site** discharge location(s), points of discharge to **Jurisdictional Waters of the U.S.**, and soil survey data;
  - B. The **NPDES** ILR-10 permit number issued by **IEPA** to the **co-permittee** upon submittal of the ILR-10 Notice of Intent permit application or permit;
  - C. A narrative description of the proposed temporary **erosion and sediment control practices**, including a narrative describing how **flood protection areas**

will be protected from **erosion** and **sedimentation**;

- D. A schedule of construction activities including, but not limited to, clearing and grading, installation of **stabilized** construction entrances, disposal of construction waste, stockpiling, and inspection and **maintenance** of all **erosion and sediment control practices**;
- E. A narrative describing how **flood protection areas** will be protected from **erosion** and **sedimentation**;
- F. Data and calculations used to size, locate, design, and maintain all **erosion and sediment control practices**, and the design of temporary stream crossings; and
- G. A mechanism for ensuring that the **erosion** and **sediment** control installation and **maintenance** requirements for both temporary and permanent measures will be met, including the list of **maintenance** tasks and performance schedules that have been identified and/or required in the plan sheet(s) and specifications.

### § 303. Stormwater Management Submittal

The **Stormwater** Management Submittal shall require the following when applicable:

- 1. Maps, exhibits, and plan sheet(s) in accordance with §308.1, §308.2, §308.3, and §308.5 of this **ordinance**;
- 2. The **site runoff** plan for the **development** that describes all appropriate measures necessary to meet the requirements of §502 of this **ordinance**. This plan shall include:
  - A. A narrative description of the existing drainage pattern that shall include:
    - (1) The portion of the **parcel(s)** that is located in a **separate sewer area**;
    - (2) The portion of the **parcel(s)** that is located in a **combined sewer area**;
    - (3) The **parcel(s)** and **site** discharge point(s) to a **storm sewer** or **waterway**; and
    - (4) The **parcel(s)** and **site** discharge point(s) to a **combined sewer**;
  - B. A narrative description of the proposed **development** that shall include:
    - (1) Area in acres of existing **impervious areas**; and
    - (2) Area in acres of proposed **impervious areas**;

- C. A narrative description of the upstream **tributary area** to allow for evaluation of offsite impacts resulting from the proposed **development**;
  - D. **Stormwater** calculations comprised of **site runoff** and upstream tributary **runoff** calculations. Such **stormwater** calculations must include the following as applicable:
    - (1) Documentation identifying the procedures, assumptions, and data used to calculate hydrologic and hydraulic conditions for sizing both **major and minor stormwater systems**;
    - (2) Time of concentration calculations as required in Article 5 of this **ordinance**;
    - (3) Curve number calculations for existing and proposed conditions;
    - (4) Calculations for sizing **storm sewer** systems;
    - (5) Delineation of areas tributary to each **stormwater facility**, overland flow route, and storage facility;
    - (6) Hydraulic grade line and water surface elevations under both design flow and **base flood** conditions;
    - (7) Calculations for sizing overland flow routes, ditches, channels, and swales;
    - (8) Cross section data for open channels;
    - (9) Profile drawings for open channels and sewers;
    - (10) Assumptions or calculations utilized to determine tailwater conditions for the **site**; and
    - (11) Other calculations necessary to demonstrate compliance with this **ordinance**;
  - E. Determination of the **BFE** and **FPE**, including the source of the determination, in accordance with §601 of this **ordinance**.
3. A volume control plan that describes all measures appropriate for the **development** in accordance with §503 of this **ordinance**. This plan shall include:
- A. Calculations of **impervious area** and the associated volume required for the **volume control practices**;

- B. Narrative description of likely water quality impacts based upon proposed **development** land use;
  - C. Description of soils that shall include:
    - (1) Infiltration rates;
    - (2) Percentage of clay; and
    - (3) Depth to water table, bedrock, or limiting layer.
  - D. Narrative description of the utilization of the **volume control practices** hierarchy in §503.3, including use of **retention-based practices** and **flow-through practices** in §503.3, and for **impervious area** reduction in §503.3.C of this **ordinance**;
  - E. Calculations of the quantifiable storage provided in each proposed **retention-based practice(s)** in §503.3 of this **ordinance** to verify adequate storage;
  - F. Calculations to demonstrate that the chosen **flow-through practice(s)** in §503.3 of this **ordinance** will treat the targeted water quality impacts; and
  - G. Calculation of **impervious area** reduction in §503.3 of this **ordinance**, if applicable.
4. A **detention facility** plan that describes all measures appropriate for the **development** in accordance with §504 of this **ordinance**. This plan shall include:
- A. Documentation identifying the procedures, assumptions, and data used to calculate hydrologic and hydraulic conditions and to determine the post-**development allowable release rate** and related storage volume;
  - B. Elevation versus storage area curve and associated calculations for **detention facility**;
  - C. Elevation versus discharge curve and associated calculations for the outlet works of the storage system;
  - D. Calculations demonstrating that the overflow **structure** and overflow path are sized in accordance with §504.11(C) of this **ordinance**; and
  - E. Assumptions or calculations utilized to determine tailwater conditions for the **site** in accordance with §504.13(B) of this **ordinance**.

### § 304. Floodplain Submittal

The **Floodplain** Submittal shall describe all measures appropriate for the **development** in accordance with Article 6 of this **ordinance**. This submittal shall include the following when applicable:

1. Maps, exhibits, and plan sheet(s) in accordance with §308.5 of this **ordinance**;
2. A determination of the **BFE**, including the source of the determination, in accordance with §601.4 of this **ordinance**;
3. A determination of the **FPE**, including the source of the determination, in accordance with §601.9 of this **ordinance**;
4. A narrative description of proposed **development** within the limits of the **regulatory floodplain** and **regulatory floodway**;
5. A determination from the **permittee** of whether the **development** constitutes a **substantial improvement**;
6. A narrative discussion and details of **floodproofing** measures including material specifications, construction methods, and calculations;
7. **Floodplain** fill and **compensatory storage** calculations in accordance with §602.9, §602.10, and §602.11 of this **ordinance** that shall include:
  - A. Cross section profiles of the **floodplain** fill and **compensatory storage**;
  - B. A plan view delineating the location of cross sections; and
  - C. Tabular summary showing fill below and above the existing 10-year **flood** elevation and cuts below and above the proposed 10-year **flood** elevation;
8. Revisions to **FIRM(s)** including all hydrologic and hydraulic calculations, modeling, and all **CLOMR/LOMR** applications;
9. A copy of the **Cook County FIS Floodway** Data Table; and
10. For **development** in the **regulatory floodway**, the following calculations or analyses shall be submitted to demonstrate compliance with §602.26 of this **ordinance**:
  - A. Existing and proposed hydrologic and hydraulic analysis (land use and stream systems);
  - B. Tabular summary of existing and proposed flows, **flood** elevations, and **floodway**

- velocities for the 2-year, 10-year, and 100-year **storm event**;
  - C. All calculations used in hydrologic and hydraulic modeling;
  - D. Input and output for hydraulic and hydrologic computer models;
  - E. Plan view drawing locating all cross sections utilized within the hydraulic and hydrologic computer models;
  - F. **Flood** damage analyses for the replacement or modification of existing culverts, bridges, or impoundments;
  - G. Hydraulic analyses of new, modified, or replacement bridges or culverts;
  - H. Analyses of alternative transition sections as required in §602.28 of this **ordinance**; and
  - I. Analyses of hydrologically and **hydraulically equivalent compensatory storage**; and
11. Copies of any of the following forms of correspondence from the **OWR**:
- A. A letter of no objection stating that no **OWR** permit is necessary; or
  - B. A copy of the completed joint application form (NCR Form 426, "Protecting Illinois Waters"), signed by the **co-permittee**, and all associated correspondence submitted to and received from **OWR**.

### § 305. Wetland Submittal

The **Wetland** Submittal shall describe all measures appropriate for the **development** in accordance with Article 6 of this **ordinance**. This submittal shall include the following when applicable:

- 1. Maps, exhibits, and plan sheet(s) in accordance with §308.7 of this **ordinance**;
- 2. The **isolated wetland submittal** for a **standard isolated wetland** that includes **contiguous isolated waters** less than one-tenth of an acre (0.10 acre) in aggregate shall include the following:
  - A. An **isolated wetland** delineation report containing the following:
    - (1) A delineation of the **wetlands** consistent with the requirements for **wetland** delineation provided in §603 of this **ordinance**;

- (2) A statement indicating date of boundary verification by the **District**;
  - (3) All **Corps** "Routine Wetland Determination Data Form(s);" and
  - (4) Mapping products in accordance with §308 of this **ordinance**;
- B. Copies of the following forms of correspondence from the **Corps**:
- (1) A **jurisdictional determination** from the **Corps** indicating that the impacted **wetland** is not under the jurisdiction of the **Corps**; or
  - (2) A Letter of No Objection stating that no permit from the **Corps** is necessary; and
  - (3) If required by the **Corps**, a Section 404 permit application, all associated correspondence, and a copy of the completed joint application form (NCR Form 426, "Protecting Illinois Waters") signed by the **co-permittee**;
3. The **isolated wetland submittal** for a **high quality isolated wetland** or a **standard isolated wetland** equal to or greater than one-tenth of an acre (0.10 acre) in aggregate shall contain the following:
- A. An **isolated wetland** delineation report containing the following:
- (1) A narrative describing the location, type, functions, and size of all **wetlands** and **wetland buffers** on the **site**;
  - (2) A statement indicating date of boundary verification by the **District**;
  - (3) A delineation of the **isolated wetlands** consistent with the requirements for **wetland** delineation provided in §603 of this **ordinance**;
  - (4) A classification of each onsite **isolated wetland** as either a **high quality isolated wetland** or a **standard isolated wetland**, including a narrative detailing the results of the assessment of specific functions and values;
  - (5) All **Corps** "Routine Wetland Determination Data Form(s);" and
  - (6) An assessment to determine the **Swink and Wilhelm Floristic Quality Index (FQI)** and **mean coefficient of conservatism (ĉ)**, carried out within the growing season for all **wetlands** on the **site**;
  - (7) Photos of all **wetlands** and **wetland buffers** on the **site**;
  - (8) An Illinois Department of Natural Resources (IDNR) threatened and

- endangered species consultation;
- (9) A United States Fish and Wildlife Service (USFWS) threatened and endangered species consultation; and
- (10) Mapping products in accordance with §308 of this **ordinance**;
- B. Copies of the following forms of correspondence from the **Corps**:
- (1) A **jurisdictional determination** from the **Corps** indicating that the impacted **wetland** is not under the jurisdiction of the **Corps**; or
- (2) A Letter of No Objection stating that no permit from the **Corps** is necessary; and
- (3) If required by the **Corps**, a Section 404 permit application, all associated correspondence, and a copy of the completed joint application form (NCR Form 426, "Protecting Illinois Waters") signed by the **co-permittee**;
- C. For impacts to **high quality isolated wetlands**, documentation must be provided indicating that the proposed amount of impact represents the least amount of impact required to allow for an economically feasible use of the **parcel**, and documentation shall be provided indicating that:
- (1) The presence of **high quality isolated wetlands** precludes all economically feasible uses of the **site** and no practicable alternative to **wetland** modification exists; and/or
- (2) Avoidance of **high quality isolated wetlands** would create a hazardous road condition and no practicable alternative to **wetland** modification exists;
- D. For impacts to **standard isolated wetlands** with a total acreage greater than or equal to one-tenth of an acre (0.10 acre) in aggregate, documentation must be provided indicating that no practicable alternative to **wetland** modification exists;
- E. An evaluation of the indirect impacts to **isolated wetlands** on the **site** and **wetlands** 100 feet beyond the area of the **development** if not included within the **site**;
- F. For impacts to **isolated wetland buffers**, documentation must be provided that describes how the impacted buffer functions and how its values will be mitigated. **Isolated wetland buffer** impacts may be mitigated via replacement

- or enhancement of impacted functions and values, or through buffer averaging;
- G. If mitigation is required, a **wetland mitigation** document must be developed in accordance with §310.4 of this **ordinance** and a plan in accordance with §308.7; and
  - H. If mitigation is to be provided via a **wetland mitigation bank**, a statement of obligation from the **wetland mitigation bank** showing mitigation acreage reserved for the project; and
4. Prior to construction, the **co-permittee** shall submit all relevant federal, state, and local permits.

### § 306. Riparian Environment Submittal

The **Riparian Environment** Submittal shall describe all measures appropriate for the **development** in accordance with Article 6 of this **ordinance**. This submittal shall include the following when applicable:

1. Maps, exhibits, and plan sheet(s) in accordance with §308.8 of this **ordinance**;
2. An inventory of the functions of the **riparian environments** in accordance with §606.1 of this **ordinance**;
3. A delineation of the **riparian environments** in accordance with §606.2 of this **ordinance**;
4. For impacts to **riparian environments**, documentation must be provided that describes the impacted riparian functions and how their values will be mitigated. **Riparian environments** impacts may be mitigated via replacement or enhancement of impacted functions;
5. For impacts to a **Jurisdictional Waters of the U.S.**, provide copies of any of the following forms of correspondence from the **Corps**:
  - A. A **Jurisdictional Determination** from the **Corps** indicating that the impacted waters are isolated;
  - B. A Letter of No Objection stating that no permit is necessary; or
  - C. A Section 404 permit application from the **Corps**, all associated correspondence and a copy of the completed joint application form (NCR Form 426, "Protecting Illinois Waters") signed by the **co-permittee** or agent;

6. For channel relocation, include documentation indicating that the length of the mitigated channel is equal to or greater than the length of the disturbed channel; and
7. If mitigation is required, a **riparian environment** mitigation document must be developed in accordance with §310.5 and a plan in accordance with §308.8 of this **ordinance**.

### § 307. Sewer Construction Submittal

The Sewer Construction Submittal shall describe and delineate all measures appropriate for installing **qualified sewer construction** in accordance with Article 7 of this **ordinance**. This submittal shall include the following when applicable:

1. Maps, exhibits, and plan sheet(s) in accordance with § 308.1 and §308.6 of this **ordinance**;
2. All **District** required general notes, approved material and applicable standard **qualified sewer construction** details available from the **TGM**;
3. All applicable **District** details, technical requirements, and design guidelines for **qualified sewer construction** available from the **TGM**;
4. Population Equivalency (PE) calculations for expected sewer flows based on new or expanded **development**;
5. Service area and future service area exhibits along with supporting population calculations;
6. A narrative description of any live sewer connection or live sewer bypass protocol;
7. Characteristic of waste for onsite treatment or pre-treatment of **industrial wastes** including:
  - A. Completed Permit forms Schedule F & G; and
  - B. Narrative of wastes being generated, treatment process, and flow loading;
8. **District** Direct Connection information, including:
  - A. Completed permit form Schedule (**RESERVED**);
  - B. Clearly label all **District** owned sewers and **structures** on the plans;

- C. Provide clearance distances for all proposed excavation within 15 feet of **District** sewers and **structures**;
  - D. Provide sewer construction notes associated with construction in proximity of **District** facilities (available from the **TGM**);
  - E. Provide required **District** direct connection detail (available from the **TGM**);
  - F. Narrative of excavation protocol in proximity to **District structure**; and
  - G. Provide shoring calculations certified by a structural engineer for any deep excavation in proximity of **District** facilities;
9. **Outfall** Connection details including:
- A. Completed permit form Schedule (RESERVED);
  - B. Clearly label proposed **outfall** location on the plans;
  - C. Provide **District outfall** general notes (available from **TGM**);
  - D. Provide construction details for the proposed **outfall**; and
  - E. Provide construction details of **stormwater** quality interceptor; and
10. Other calculations necessary to demonstrate compliance with this **ordinance**.

### § 308. Maps, Exhibits and Plan Sheets Submittal

Depending on the complexity of the proposed **development** combining plan sheets is desirable if information provided on all plan sheets is clear, specific, and legible. The Maps, Exhibits, and Plan Sheets Submittal shall include the following when applicable:

- 1. Mapping products, with the project location indicated, shall include where applicable and where available:
  - A. Location map to scale displaying the route and **ownership** of storm drainage from the **development** to the receiving **waterway** or **combined sewer**;
  - B. Location map to scale displaying the route and **ownership** of sanitary flow from the **development** through the local sewer system(s) to the receiving **District** interceptor or facility;
  - C. United States Geological Survey (USGS) topographic map;

- D. Natural Resources Conservation Service (**NRCS**) soils map noting hydric soils;
  - E. **Cook County FIRM**;
  - F. **DWP inundation map**;
  - G. **National Wetland Inventory (NWI)**;
  - H. Aerial photo of the **site**;
  - I. Aerial photo showing onsite **wetland** and offsite **wetland** boundaries and locations of delineation data points; and
  - J. Historical aerial photographs, USGS hydrological atlas, or **NRCS wetland** inventory maps;
2. Plan sheet(s) and exhibits that shall contain the following:
- A. North arrow;
  - B. Scale of at least one inch to 100 feet or less (e.g., one inch to 50 feet);
  - C. Legend;
  - D. Property and/or **parcel** lines; and
  - E. Date of original preparation and any revisions;
3. A **drainage area** exhibit that shall include:
- A. A vicinity topographic map covering the entire upstream **watershed** that drains to or through the **site** and the entire **watershed** downstream to the point of known or assumed discharge and water surface elevation on the **site**;
  - B. Top of foundation elevations and overland flow paths on properties located directly downstream of and adjacent to the proposed **site**; and
  - C. A plan view drawing of existing and proposed **stormwater facilities** at the same scale as the vicinity topographic map that shall include:
    - (1) **Watershed** boundaries for areas draining through or from the **development**;
    - (2) The location of the **development** within the **watershed planning area**; and
    - (3) Soil types, vegetation, and land cover conditions affecting **runoff**

upstream of the **development site** for any area draining through or to the **site**;

4. An **erosion** and **sediment** control plan sheet(s) at the same scale as the **stormwater** management plan sheet(s) that shall include:
  - A. Existing contours with drainage patterns and clearly delineated **watershed** boundaries tributary to the **site**;
  - B. Location of **flood protection areas** and vegetated areas for the **development** that are to be preserved or avoided;
  - C. Proposed contours, locations of **waterways**, and the location of **erosion and sediment control practices**;
  - D. The **drainage area** tributary to each **erosion and sediment control practice** delineated on the drawing;
  - E. A schedule of construction activities including, but not limited to, clearing and grading of the **site**, installation of **stabilized** construction entrances, disposal of construction waste, stockpiling, and **maintenance** of all **erosion and sediment control practices**;
  - F. Design details for proposed **erosion and sediment control practices**; and
  - G. Identification of **person(s)** having legal responsibility for installation, **maintenance**, and removal of **erosion and sediment control practices** during construction and after **development** is completed;
5. The **stormwater** management plan sheet(s) shall include the following:
  - A. An existing conditions plan sheet(s) that shall contain the following:
    - (1) Benchmark location and information;
    - (2) A delineation of any pre-development **regulatory floodplain** and **regulatory floodway** on the **site**;
    - (3) A **wetland** delineation of all **jurisdictional waters of the U.S.**, including **wetlands**, both on the **site** and extending one-hundred (100) feet beyond the **site**;
    - (4) A delineation of any **riparian environments** on the **site**;
    - (5) Existing contours to be disturbed during **development** on entire **site** and

50 feet beyond the **site**;

- (6) Minimum contour interval of one foot with accuracy equal to one half of a foot (0.5 foot) of elevation;
- (7) Top of foundation, **lowest floor, lowest entry elevation**, and **floodproofing** elevations of all existing **structures** within 100 feet of the **development** area;
- (8) Existing **structures**, parking lots, driveways, sidewalks, pathways, trails, and other **impervious areas** on the **site**;
- (9) All existing **stormwater facilities** including pipes, field tile, culverts, and inlets on entire **site** and 50 feet beyond the **site**. Information regarding the invert and rim elevations, pipe sizes, pipe lengths, and material type shall be provided;
- (10) Existing utilities including sanitary, storm, water main, or any other utilities that exist on the **site**. Information regarding the invert and rim elevations, pipe sizes, pipe lengths, and material type shall be provided; and
- (11) Existing trees and vegetation areas on the **site**;

B. A utility and geometry plan sheet(s) shall contain the following:

- (1) Delineated limits of any **flood protection areas** on the **site**;
- (2) The **FPE(s)** shall be specified, as appropriate;
- (3) All existing and proposed impervious surfaces such as roadways, **structures**, parking lots, driveways, sidewalks, pathways, trails, or any other impervious surfaces;
- (4) All top of foundation elevations for existing and proposed **structures**;
- (5) All existing and proposed **lowest entry elevations** of any **structures** within a **regulatory floodplain** on the **site** or on adjacent property;
- (6) All existing and proposed **lowest entry elevations** of any **structures** adjacent to a **stormwater facility**;
- (7) All existing and proposed **stormwater facilities** including pipes, field tile, culverts, and inlets, including rim and invert elevations, pipe sizes, pipe lengths, and material type;

- (8) Existing and proposed utilities including sanitary, storm, water main, electric, television cables, gas or any others that exist on the **site**. Information regarding the invert and rim elevations, pipe sizes, pipe lengths, and material type should be provided;
  - (9) Design details for all proposed **stormwater facilities** including, but not limited to, **major and minor stormwater systems**, storage basins, **detention facilities, volume control practices** and **water quality control practices**, and outlet works including restrictor size and invert;
  - (10) Delineated limits of the **base flood** condition from new or adjacent **detention facilities**;
  - (11) Location of all **volume control practices** and **water quality control practices**;
  - (12) Downspout and sump pump discharge line locations and directions. Outlets should be outside the limits of **flood protection areas**; and
  - (13) Location and limits of all easements;
- C. A grading plan sheet(s) that shall contain the following:
- (1) Delineated limits of any **flood protection areas** on the **site**;
  - (2) Existing and proposed contours of the entire **site** and 100 feet beyond the **site**;
  - (3) Existing and proposed spot elevations demonstrating drainage patterns;
  - (4) **Major and minor stormwater systems** that shall include:
    - (a) All existing and proposed **stormwater** facilities;
    - (b) All existing and proposed **volume control practices**;
    - (c) All existing and proposed **base flood** conditions for the **major stormwater system**;
    - (d) All existing and proposed overland flow routes;
    - (e) Stage-storage-discharge table for **detention facilities**;
    - (f) Design details for proposed **stormwater** facilities including, but not limited to, major and **minor stormwater systems**, storage basins,

**volume and water quality control practices**, and outlet works including restrictor size and invert; and

- (g) **Drainage area** to all proposed **stormwater facilities**;
  - (5) A delineation of the pre-development and post-development **regulatory floodplain** and **regulatory floodway** in accordance with §601 of this **ordinance**;
  - (6) Topographic survey drawings of all existing and proposed **structures** located on or within 100 feet of the **site** including the **lowest floor, lowest entry elevation**, and **floodproofing** elevations;
  - (7) Plan view of locations of cross sections utilized to compute **compensatory storage**; in addition, the cross sections should be plotted on the plans or in the **stormwater** management submittal at a scale such that the reviewer can verify quantities;
  - (8) Location of cross sections and any other hydrologic or hydraulic computer-modeled features;
  - (9) **Volume control practices**; if native plantings are required this shall be shown on a separate planting plan;
  - (10) Delineation of all **unrestricted areas**;
  - (11) Delineation of all **native planting conservation areas**; and
  - (12) Delineation of all **disturbed areas**;
6. The utility plan sheet(s) for **qualified sewer construction** shall include the following:
- A. A utility plan sheet(s) shall contain the following:
    - (1) Benchmark location and information;
    - (2) Existing **structures**, parking lots, driveways, sidewalks, pathways, trails, and other **impervious areas** on the **site**;
    - (3) All top of foundation elevations for existing and proposed **structures**;
    - (4) All proposed **qualified sewer construction** information including:
      - (a) **Qualified sewer** manhole, cleanout or other **structure** information including rim, and invert elevation (each labeled by compass

- direction), with a unique clearly labeled identifier;
- (b) **Qualified sewer** pipe size, length, material, and slope, clearly labeled as proposed;
  - (c) At the upstream **building** connection, estimated sewer invert;
  - (d) At the downstream point of connection, estimated invert, size, slope, and flow direction of the existing sewer;
  - (e) Utility crossing information, including pipe-to-pipe clearance distance, for all water main and water service intersections along the proposed alignment; and
  - (f) **Qualified sewer** manhole, **structure** lid cover type where appropriate (within HWL or **BFE**);
- (5) All existing sanitary and **combined sewer** pipe and **structure** information including pipes size, invert and rim elevation, flow direction, material type, and **ownership**;
  - (6) All existing sanitary and **combined sewer** pipe and **structure** to be demolished or abandoned, including septic systems;
  - (7) All existing and proposed water main and water service rim and invert elevations, and the location of all fire hydrants and valves;
  - (8) Existing and proposed utilities including, electric, television cables, gas or any others that exist on the **site**. Information regarding the invert and rim elevations, pipe sizes should be provided;
  - (9) All existing and proposed **stormwater facilities** including pipes, field tile, culverts, and inlets, including rim and invert elevations, pipe sizes, pipe lengths, and material type;
  - (10) Location of all **volume control practices** and **major stormwater systems**;
  - (11) All proposed and existing downspout and sump pump discharge line locations and directions. Outlets should be outside the limits of **flood protection areas**;
  - (12) Delineated limits of any **flood protection areas** on the **site**;
  - (13) The **BFE** and **FPE(s)** shall be specified in accordance with §601 of this **ordinance**, as appropriate;

- (14) Location and limits of all easements; and
  - (15) Existing trees and vegetation areas along the alignment;
- B. The plan and profile for public **qualified sewer main construction** shall include the following (when applicable):
- (1) Profile views or all proposed public **qualified sewer main construction** depicted on the same sheet as an accompanying plan view;
  - (2) Profiles shall follow the alignment of public **qualified sewer main construction** if substantially different from the centerline of a **right-of-way** alignment;
  - (3) Proposed size, length, slope, material and class of pipe for all proposed public **qualified sewer main construction**;
  - (4) A unique line type to distinguish between proposed and existing sewer systems;
  - (5) **Structure** rim and invert elevations (labeled by compass direction) for all proposed **qualified sewer construction** along with a unique identifier;
  - (6) Horizontal and vertical scale [exaggeration as appropriate to show detail];
  - (7) Utility crossings with vertical distance between proposed **qualified sewer** and existing or proposed utility;
  - (8) Existing ground profile (and bedrock when applicable);
  - (9) Profile stationing to coincide with plan stationing;
  - (10) Match line when profile covers more than one page; and
  - (11) For large or complex projects, an insert map indicating immediate plan limits within the overall project.
- C. The lift station plan, profile, and schematic shall include the following (when applicable):
- (1) Completed Permit form Schedule E;
  - (2) Lift station and wet well plan and profile, including:
    - (a) Critical pump operation elevations (pump off, pump on, etc.);

- (b) Pump installation elevation;
  - (c) **Structure** rim Elevation; and
  - (d) Initial Check valve and air/vacuum relief valve;
- (3) Force main profile, including:
- (a) Location of check valve(s);
  - (b) Location of combination air/vacuum relief valve(s) along the alignment; and
  - (c) Stream or **waterway** crossing(s) and crossing provisions;
- (4) Pump detail (manufacturer cut sheet) indicating specified HP and impeller type;
- (5) Lift station construction details;
- (6) Lift station service area map;
- (7) Calculations for lift station design including:
- (a) Design population including average and peak flow;
  - (b) Narrative for basis of lift station design population (service area or actual flow monitoring data);
  - (c) Force main pipe friction and design head losses;
  - (d) Wet well capacity, cycle time, detention time;
  - (e) Narrative of alternative power source;
  - (f) System curve and pump performance curve; and
  - (g) Programmable Logic Controller logic including pump operation elevations.
7. The **wetland** plan sheet(s) shall include:
- A. In plan view, the location of **wetland** and **wetland buffer** on or within 100 feet of the **site**, based upon a survey of the **wetland** delineation in accordance with §603 of this **ordinance**;

- B. Acreage and area of proposed impact to **wetland** or **wetland buffer**; and
  - C. A proposed **wetland mitigation** that meets the requirements of §604 of this **ordinance**, if **wetland** or **wetland buffer** impacts are proposed; the proposed **wetland mitigation** plan sheet(s) shall include the following:
    - (1) Location and acreage of proposed **wetland mitigation**;
    - (2) Soil locations and soil management activities;
    - (3) Planting zones, species, quantities, sizes, locations, specifications, methodologies, and details;
    - (4) **Hydrology** monitoring equipment locations;
    - (5) Schedule of earthwork, planting, **maintenance**, and monitoring;
    - (6) Temporary and permanent access locations; and
    - (7) Applicable **maintenance** and conservation easements granted or dedicated to, and accepted by, a governmental entity;
8. The riparian plan sheet(s) shall include:
- A. Location of **riparian environments** located on **site**, based upon a survey of the Ordinary High Water Mark (**OHWM**) of the channel or stream and associated **riparian environment**, in plan view;
  - B. Acreage and area of proposed impact to **riparian environments** as defined in §607.3 of this **ordinance** ; and
  - C. Proposed **riparian environment** mitigation plan that meets the requirements of §607 of this **ordinance**, if riparian mitigation is required. The proposed **riparian environment** mitigation plan sheet(s) shall include the following:
    - (1) A plan and profile of the existing and proposed channel showing the channel width, depth, sinuosity, and location of in-stream **structures**;
    - (2) Proposed planting zones, species, quantities, sizes, locations, specifications, methodologies, and details;
    - (3) Schedule of earthwork, planting, **maintenance**, and monitoring;
    - (4) Temporary and permanent access locations; and

- (5) Applicable **maintenance** and conservation easements granted or dedicated to, and accepted by, a governmental entity; and
9. The recording plan sheet(s) shall include:
- A. Location of all existing and proposed **detention facilities** to meet **District stormwater storage** requirements and to ensure they are permanently sustained and adequately maintained by future **parcel owners**;
  - B. Location of any offsite, trade-off **detention facilities** to meet **District stormwater storage** requirements not located on the **parcel** and to ensure they are linked to the permitted **parcel development** and permanently sustained and adequately maintained by future/alternate **parcel owners**;
  - C. Location of all existing and proposed **volume control practices** to meet **District volume control** requirements and to ensure they are permanently sustained and adequately maintained by future **parcel owners**;
  - D. Entire **parcel** area for phased **development** providing notice of **stormwater** detention storage requirements for undeveloped portions of a **parcel** now developed in part under the WMO;
  - E. A sewer utility plan for **parcels** outside of a **municipality** delineating any **qualified sewer constriction** to be maintained by the **co-permittee** in the event that the Township or County is unwilling or unable to do so;
  - F. Location of all **wetland and riparian mitigation areas** provided to meet **District** mitigation requirements and to ensure they are permanently sustained and adequately maintained by future **parcel owners**;
  - G. Location of all native or natural planting areas to ensure they are permanently sustained and remain as native or natural planting areas by future **parcel owners**; and
  - H. Location of all **qualified sewer construction** for **parcels** in unincorporated areas, to ensure sewer systems are permanently sustained and adequately maintained by future **parcel owners** in the event the **permittee** (township or other non municipal entity) is unable to do so.

### § 309. Recordation of Watershed Management Permit

1. At the expense of the **Co-Permittee**, the **District** may record the recording submittal specified under §308.9 of this **ordinance**, together with the appropriate permit form, Schedule L, with the **Cook County** Recorder of Deeds.

2. The **Director of Engineering** may record the **watershed management permit** and any amendments thereto with the **Cook County** Recorder of Deeds.
3. Obligations imposed under a recorded **watershed management permit** shall continue for the useful life of the subject **development** or **qualified sewer construction**.

### § 310. Maintenance and Monitoring Plan Submittal

The **maintenance** and monitoring plan submittal shall describe all measures appropriate for the **development** during the construction phase such that requirements of Article 4, Article 5, Article 6, and Article 7 are met, and for the post-construction phase such that all the requirements of Article 9 of this **ordinance** are met. Such submittal shall include the following when applicable:

1. A schedule of implementation of the **erosion** and **sediment** control plan including, but not limited to:
  - A. A statement that installation of **erosion and sediment control practices** will occur prior to any soil disturbance;
  - B. A schedule for construction activities, including **stabilized** construction entrance installation, **sediment** trapping facility installation, **site** clearing, stockpiling, grading, construction waste disposal, temporary and permanent **stabilization**, and removal of temporary **erosion and sediment control practices**;
  - C. A schedule for inspection, reporting, and **maintenance** of all **erosion and sediment control practices**; and
  - D. Contact information for the party responsible for implementation and **maintenance** of the **site** soil **erosion** and **sediment** control plan;
2. A scheduled perpetual **maintenance** program for **stormwater facilities** including, but not limited to:
  - A. Planned **maintenance** tasks and frequency of each task such as removal of **sediment**, debris, mowing and pruning of vegetation, and restoration of eroded areas;
  - B. Identification of the responsible parties for performing the **maintenance** tasks; and
  - C. A description of applicable temporary and permanent access and **maintenance** easements granted or dedicated to, and accepted by, a governmental entity.

3. A scheduled perpetual **maintenance** program for **qualified sewer construction** including, but not limited to:
  - A. Planned **maintenance** tasks and frequency of each task for the removal of objectionable wastes, fats, oils and grease, or any **other wastes** collected in private pre-treatment or separator **structures**;
  - B. Planned routine **maintenance** for all private lift station and pumping facilities;
  - C. Operation **maintenance** agreements for all private **service sewers** providing service to multiple **owners**;
  - D. Identification of the responsible parties for performing the **maintenance** tasks; and
  - E. A description of applicable temporary and permanent access and **maintenance** easements granted or dedicated to, and accepted by, a governmental entity.
  
4. If **wetland mitigation** is required, a **wetland mitigation** document shall be developed in accordance with §604 of this **ordinance**. This document shall include:
  - A. Proposed **wetland hydrology** and an inundation and duration analysis;
  - B. Proposed soils and soil management activities;
  - C. Proposed planting zones, species, quantities, sizes, locations, specifications, methodologies, and details;
  - D. Proposed **maintenance** and monitoring plan with **maintenance activities** and performance criteria outlined;
  - E. Schedule of earthwork, planting, monitoring, and **maintenance**;
  - F. A plan for the continued management, operation, and **maintenance** of the **wetland mitigation** measures including the designation of funding sources and the **person** responsible for long-term operation and **maintenance**; and
  - G. A description of applicable temporary and permanent access and **maintenance** and conservation easements granted or dedicated to and accepted by a governmental entity; and
  
5. If riparian mitigation is required, a **riparian environment** mitigation document shall be developed in accordance with §607 of this **ordinance**. This document shall include:
  - A. The proposed methods which will allow naturalizing to occur, such as

meandering, pools, or riffles for relocated channels. Methods proposed are expected to be able to withstand all events up to the **base flood** without increased **erosion**;

- B. The methods by which the normal flow within the channel will be diverted to construct the new or relocated channel;
- C. The **erosion and sediment control practices** to be utilized to minimize and control **sediment** and degradation of downstream water quality;
- D. The appropriate hydrologic and hydraulic methods analyzing the impacts on **flood** flows and **flood** elevations (to be provided in the **floodplain** and **floodway** submittal) meeting all other requirements in the **ordinance**, including the **floodplain/floodway** requirements outlined in §601 and §602 of this **ordinance**;
- E. Proposed planting zones, species, quantities, sizes, locations, specifications, methodologies, and details;
- F. Proposed **maintenance** and monitoring plan with **maintenance activities** and performance criteria outlined;
- G. Scheduling of earthwork, planting, **maintenance**, and monitoring;
- H. A plan for the continued management, operation, and **maintenance** of the **riparian environment mitigation** measures, including the designation of funding sources and the **person** responsible for long-term operation and **maintenance**; and
- I. A description of applicable temporary and permanent access and **maintenance** and conservation easements granted or dedicated to, and accepted by, a governmental entity.

### § 311. Record Drawings

- 1. Upon completion of **development, record drawings** (as-built) of the **site stormwater** plan sheet(s), **detention facility, water quality control practices, and stormwater facilities** shall be submitted to the **District**. **Record drawings** shall consist of the following as necessary:
  - A. Record topography with one foot contours;
  - B. Record utility plans; and
  - C. Cross sections.

2. All **record drawings** shall contain benchmark information and reference a vertical datum.
3. **Record drawing** calculations shall be required showing the as-built volume of **compensatory storage**. As-built **compensatory storage** volume calculations shall incrementally determine both cut and fill volumes within the **regulatory floodplain** as follows:
  - A. Below the 10-year **flood** elevation; and
  - B. Between the 10-year **flood** elevation and **BFE**.
4. **Record drawing** calculations shall be required showing the as-built volume of the **volume control practices**.
5. **Record drawing** calculations shall be required showing the as-built volume of the **detention facility**.
6. If the constructed grades, geometries, or inverts of **stormwater facilities, volume control practices, or detention facilities** are not in conformance with the approved plans, the **co-permittee** shall be responsible for any modifications required for compliance with this **ordinance**.
7. **Record drawings** shall be prepared, signed, and sealed by a **Professional Engineer** or a **Professional Land Surveyor**. The record calculations shall be prepared, signed, and sealed by a **Professional Engineer**.

### § 312. Terms of Permit/Denial - Appeal

1. Upon receipt of a complete **watershed management permit** application, either the **District** or an **authorized municipality** may:
  - A. Request clarifications or revisions from the **co-permittee**;
  - B. Issue a **watershed management permit**;
  - C. Issue a **watershed management permit** with special conditions in accordance with this **ordinance**; or
  - D. Deny the application for a **watershed management permit**.
2. Any **co-permittee** aggrieved by the special conditions or denial of a **watershed management permit** may appeal said denial or special conditions as specified in Article 13 of this **ordinance**.

### § 313. Permit Fees

1. The **District** shall establish permit fees by ordinance in accordance with the provisions of this **ordinance**, which may be amended from time to time.
2. An **authorized municipality** may establish a schedule of permit fees in accordance with the provisions of this **ordinance**, which may be amended from time to time.
3. Fees shall be based upon the costs either the **District** or **authorized municipality** incurs for all aspects of the permitting process, including, but not limited to, review of permit applications and inspections.
4. A **co-permittee** shall pay all relevant permit fees at the time of application for a **watershed management permit**.

### § 314. Construction Timeline Requirements and Approval of Plan Revisions

1. Construction activities authorized under a **watershed management permit** must be initiated within one year following the date of permit issuance. Failure to commence construction activities within one year following the date of permit issuance renders the issued **watershed management permit** null and void.
2. Construction activities authorized under a **watershed management permit** must be completed within three years following the date of permit issuance.
3. If construction activity has been started but is not completed within three years of the date of issuance of a **watershed management permit** and the **co-permittee** intends to pursue the permitted activity, then the **co-permittee** shall submit a written request for an extension. Upon receipt of such request, either the **District** or an **authorized municipality** may grant an extension for construction activities under a **watershed management permit**.
4. After issuance of a **watershed management permit**, approval of all material revisions from either the **District** or an **authorized municipality** is required. The **co-permittee** shall submit a written request for approval, the appropriate fee, and the revised plans to either the **District** or an **authorized municipality**. If either the **District** or **authorized municipality** determines that the revised plans are in compliance with the then current requirements of this **ordinance**, an approval of the revised plans will be issued.

## ARTICLE 4. REQUIREMENTS FOR EROSION AND SEDIMENT CONTROL

### § 400. Erosion and Sediment Control General Requirements

1. Any **development** requiring a **watershed management permit** as specified in §201 shall comply with the requirements of Article 4. All **co-permittees** shall submit the documents specified in §302 of this **ordinance** to demonstrate compliance and develop an **erosion** and **sediment** control plan.
2. All **developments** that are subject to National Pollutant Discharge Elimination System (**NPDES**) Permit ILR-10 shall meet the submittal and approval requirements of ILR-10.
3. All **developments** shall incorporate **erosion and sediment control practices** into the initial **site** plan. Primary emphasis should be placed on **erosion control practices** as they are preventative source controls, while **sediment control practices** are secondary measures designed to contain eroded soil after it is in transport.
4. For all **developments** that discharge directly to **Jurisdictional Waters of the U.S.**, the hydraulic and hydrologic design of the **erosion** and **sediment** control plan shall be designed for a **storm event** equal to or greater than a 25-year, 24-hour **storm event**.
5. Design criteria and specifications for **erosion and sediment control practices** shall be taken from the **Illinois Urban Manual**, as amended.
6. Where criteria and specifications are not provided in the **Illinois Urban Manual**, the design criteria and specifications shall be taken from the **TGM**.
7. Other **erosion and sediment control practices** that are equally effective as those in the **Illinois Urban Manual** may be used if either the **District** or an **authorized municipality** provides prior written approval.
8. **Erosion and sediment control practices** shall be functional before disturbances are made to the **site**.

### § 401. Temporary Erosion Control Requirements

1. Existing vegetation shall be preserved where practicable to minimize the area of soil disturbance.
2. Selection of appropriate **erosion control practices** shall consider:
  - A. Seasonal, topographic, and **maintenance** limitations;
  - B. The susceptibility of soils to **erosion**; and

- C. Proximity to **flood protection areas**.
3. Temporary **erosion control practices** are **stabilization** measures that include, but are not limited to, protection of existing vegetation or establishment of new vegetation, such as seeding and sod **stabilization**, mulches and soil binders, geotextiles, **erosion control blankets**, plastic covers and mats, wind and dust control measures, **stormwater conveyance channels**, and velocity dissipation measures.
  4. Areas where the existing ground cover does not consist of appropriate stabilizing vegetation in the portions of the **site** not under current **development** shall incorporate appropriate **erosion control practices**.
  5. **Erosion control practices** shall be maintained on a year-round basis during construction and any periods of construction shutdown until permanent **stabilization** is achieved.
  6. For projects involving phased construction, the portions of the **site** where construction activities have temporarily or permanently ceased must have **stabilization** practices completed within seven days, except:
    - A. Where precluded by snow cover, **erosion control practices** shall be completed as soon as practicable; or
    - B. Where construction activity resumes on that portion of the **site** within 14 days from when activities ceased.
  7. If a soil stockpile is to remain dormant or undisturbed:
    - A. For time periods between 30 days and 12 months, temporary **stabilization** shall be completed within seven days of the formation of the stockpile; or
    - B. For time periods of more than 12 months, permanent **stabilization** of the stockpile shall be completed within seven days of the formation of the stockpile.
  8. Any trenches, holes, or other excavations required for utility installation shall be protected at the end of each workday.
  9. **Development sites** shall incorporate appropriate **erosion control practices** that reduce the potential for wind **erosion**.
  10. Velocity dissipation measures shall be placed at discharge locations and along the length of any **outfall** channel, as necessary, to provide a non-erosive velocity flow so that the natural, physical, and biological characteristics and functions are maintained and protected.

11. **Erosion control practices** shall be functional before disturbances are made to the **site**.
12. Earthen embankment side slopes shall not exceed 3:1 (horizontal to vertical) and shall be **stabilized** with an **erosion** control blanket.

#### § 402. Temporary Sediment Control Requirements

1. Selection of appropriate **sediment control practices** shall consider:
  - A. Seasonal, topographic, and **maintenance** limitations;
  - B. Amount of tributary **drainage area**; and
  - C. Proximity to **flood protection areas**.
2. **Sediment control practices** include, but are not limited to, **silt fences**, fiber rolls and berms, storm drain inlet controls such as barriers and inserts, entrance and exit controls, **sediment** traps, basins, and check **dams**. Straw bales shall not be used as **sediment control practices**.
3. Perimeter **sediment control practices** shall be installed and functioning prior to soil disturbance.
4. **Sediment control practices** shall be maintained on a year-round basis during construction and any periods of construction shutdown until permanent **stabilization** is achieved.
5. **Sediment control practices** shall intercept all **runoff** from **disturbed areas** before **runoff** leaves the **site** under the following conditions:
  - A. **Disturbed areas** draining less than one acre shall be protected by **silt fence** or equivalent; or
  - B. **Disturbed areas** draining more than one acre shall be protected by a **silt fence** and a **sediment basin** or equivalent, which shall be:
    - (1) Sized to intercept the 2-year, 24-hour **runoff** volume from the tributary **drainage area**; and
    - (2) Located at the lowest point of the disturbance.
6. All storm drain inlets draining **disturbed areas** shall be protected with an appropriate **sediment control practice**.
7. A **stabilized** construction entrance/exit shall be provided to prevent soil from being

tracked or deposited onto public or private roadways. Any soil reaching a public or private roadway shall be removed immediately and transported to a controlled **sediment** disposal area.

8. If a soil stockpile is created on the **site**, perimeter **sediment** controls shall be placed around the stockpile immediately.
9. Construction dewatering operations shall be designed and operated so that water discharged from a **site** will meet State of Illinois water quality standards, as set forth in Title 35, Subtitle C, Chapter I, Part 302, Subpart B, of the Illinois Administrative Code.

### § 403. Construction Site Management Requirements

1. All waste generated as a result of **site development** including, but not limited to, any building waste, concrete truck washout, chemicals, litter, sanitary waste, or any **other waste** shall be properly disposed of and shall be prevented from being transported offsite by either wind or water.
2. **Flood protection areas** shall be protected with a minimum of a double-row **silt fence** or equivalent measure.
3. Soil stockpiles or other construction materials shall not be located within **flood protection areas** or their buffers.
4. Temporary stream crossings used during construction shall be designed to convey a 2-year, 24-hour **flood** event without overtopping unless either the **District** or an **authorized municipality** approves a more frequent design event. In addition, the following conditions shall be met:
  - A. Temporary stream crossings shall not reduce the carrying capacity of the channel;
  - B. The entire crossing shall be designed to withstand hydrodynamic, hydrostatic, and erosive forces up to the **base flood** event without washing out;
  - C. Upon completion the temporary stream crossings shall be entirely removed and the stream bed and banks restored to a stable non-erosive condition that incorporates native vegetation where appropriate; and
  - D. **Erosion and sediment control practices** shall be implemented and maintained during installation, **maintenance**, and removal of temporary stream crossings.

**§ 404. Permanent Erosion Control Requirements**

1. Permanent **erosion control practices** shall be initiated within seven days following the completion of soil disturbing activities.
2. All temporary **erosion and sediment control practices** shall be maintained until permanent **stabilization** practices are achieved by at least one of the following:
  - A. The establishment of a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent on all unpaved areas and areas not covered by permanent **structures**; and
  - B. Installation of riprap, gabions, or other non-vegetative practices.
3. All temporary **erosion and sediment control practices** shall be removed within 30 days after permanent **stabilization** is achieved in accordance with §404.2 of this **ordinance**.

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## ARTICLE 5. REQUIREMENTS FOR STORMWATER MANAGEMENT

### § 500. General Site Development and Stormwater Management Information

1. All **developments** shall meet the requirements specified for general **site development** specified in §501, Article 4, Article 6, and Article 9 of this **ordinance**.
2. All **co-permittees** shall submit the documents specified in Article 3 to verify compliance with the requirements in Article 5 of this **ordinance**.
3. **Development** in **combined sewer areas** shall collect, route and discharge **stormwater** to the **waterway** as required in §502.19 of this **ordinance**.
4. Analysis, design, and performance standards of all **stormwater facilities** required for **development** shall be consistent with the **TGM** for the **ordinance**.
5. **Stormwater facilities** constructed under the provisions of this **ordinance** shall be maintained according to the criteria and guidelines established in Article 9 of this **ordinance**.
6. For all **developments**, **stormwater facilities** shall be designed to comply with Illinois drainage law in addition to the requirements of this **ordinance**.
7. For any **Development** subject to an intergovernmental agreement listed in Appendix F, the terms of the intergovernmental agreement shall prevail over any conflicting requirements of Article 5 of this **ordinance**.

### § 501. General Site Development and Stormwater Management Requirements

1. **Development** shall not:
  - A. Increase **flood** elevations or decrease **flood** conveyance capacity upstream or downstream of the area under the **ownership** or control of the **co-permittee**;
  - B. Pose any increase in **flood** velocity or impairment of the hydrologic and hydraulic functions of streams and **floodplains** unless a **water resource benefit** is realized;
  - C. Violate any provision of this **ordinance** either during or after construction; and
  - D. Unreasonably or unnecessarily degrade surface or ground water quality.
2. **Development** shall meet the **site stormwater** management requirements of Article 5 as summarized in Table 2 of this **ordinance**.

<b>Table 2. Summary of Site Stormwater Management Requirements*</b>			
	<b>§502</b>	<b>§503</b>	<b>§504</b>
<b>Development Type</b> (See Appendix A for definitions)	<b>Runoff Requirements</b>	<b>Volume Control Requirements</b>	<b>Storage Requirements</b>
<b>Single-Family Home</b>	Exempt	Exempt	Exempt
<b>Residential Subdivision</b>	<b>Parcels</b> ≥ 1 acre	<b>Parcels</b> ≥ 1 acre	<b>Parcels</b> ≥ 5 acres
<b>Multi-Family Residential</b>	<b>Parcels</b> ≥ 0.5 acre	<b>Parcels</b> ≥ 0.5 acre	<b>Parcels</b> ≥ 3 acres ‡
<b>Non-Residential</b>	<b>Parcels</b> ≥ 0.5 acre	<b>Parcels</b> ≥ 0.5 acre	<b>Parcels</b> ≥ 3 acres ‡
<b>Right-of-Way</b>	<b>New Impervious Area</b> ≥ 1 acre	<b>New Impervious Area</b> ≥ 1 acre †	<b>New Impervious Area</b> ≥ 1 acre †
<b>Open Space</b>	<b>Parcels</b> ≥ 0.5 acre	Not Applicable	Not Applicable
<p>* <b>Site stormwater</b> management requirements are not required for <b>maintenance activities</b> as defined in Appendix A.</p> <p>† Where practicable.</p> <p>‡ Starting the effective date of this <b>ordinance</b>, any new <b>development</b> on the <b>parcel</b> that totals either individually or in the aggregate to more than one-half (0.5) of an acre.</p>			

## § 502. Site Runoff Requirements

1. The requirements of this section shall apply to any of the following:
  - A. **Residential subdivision development** on **parcels** totaling one acre or more;
  - B. **Multi-family residential development** on **parcels** totaling one-half of an acre (0.5 acre) or more;
  - C. **Non-residential development** on **parcels** totaling one-half of an acre (0.5 acre) or more;
  - D. **Right-of-way development** totaling one acre or more of **new impervious area**, where practicable; and
  - E. **Open space development** on **parcels** totaling one-half of an acre (0.5 acre) or more.
2. Transfers of waters between **watersheds** shall be prohibited except when such transfers will not violate any of the provisions of §501.1 of this **ordinance**.
3. Concentrated discharges from **stormwater facilities** must enter conveyance systems that are:
  - A. Capable of carrying the **design runoff rate** without increasing **flood** or **erosion** damages downstream or on adjacent property for the 2-year, 10-year, and 100-year **storm events**; or
  - B. Contained within public **rights-of-way** or public easements.
4. **Design runoff rates** for **major stormwater systems** shall be calculated by using event hydrograph methods. Event hydrograph methods must be HEC-1 (SCS **runoff** method), HEC-HMS, or TR-20. A **critical duration analysis** is required for all methods. Event hydrograph methods shall incorporate the following assumptions:
  - A. Antecedent Moisture Condition II;
  - B. **Bulletin 70** northeast sectional rainfall statistics shall be used for rainfall depths; and
  - C. Appropriate Huff rainfall distributions shall be used when performing the **critical duration analysis**.
5. **Minor stormwater systems** shall be sized to convey **runoff** from the **tributary area** under fully developed conditions consistent with the design requirements of the local

- jurisdiction or existing **stormwater** system.
6. **Major stormwater systems** shall be sized to convey the **design runoff rate** of the 100-year **storm event** using the methodology provided in §502.4 of this **ordinance**. The **design runoff rate** for **major stormwater systems** shall include the calculated flows from all the **tributary areas** upstream of the point of design without increasing **flood** or **erosion** damages downstream or on adjacent properties.
  7. Drain tiles that are found on the **site** during design or construction of the **development** shall be replaced and incorporated into the new **site** drainage plan or removed and incorporated into the new **site** drainage system, based upon their existing capacity and capability to properly convey low flow **groundwater** and upstream flows. The **co-permittee** shall ensure that:
    - A. The new **site** drainage plan shall not cause damage to upstream and downstream **structures**, land uses, or existing **stormwater facilities**;
    - B. Drain tiles that receive **upstream tributary flows** shall maintain drainage service during construction until the new **stormwater** system can be installed for a permanent connection;
    - C. Replaced drain tile shall be properly reconnected to the downstream system and located within a public **right-of-way** or dedicated easement and marked on the **record drawings**; and
    - D. Drain tiles are not tributary to either a **sanitary sewer** or **combined sewer**.
  8. **Major stormwater systems** and **minor stormwater systems** shall be located within easements or rights-of-way explicitly providing public access for **maintenance** of such facilities.
  9. **Upstream tributary flows** must be considered for all **developments** and safely routed through or around the **site** in the following manner:
    - A. Where **site** detention is not required in §504.1, the **co-permittee** shall demonstrate that the **development** will not increase velocities or flows downstream or on adjacent properties for the 2-year, 10-year, and 100-year **storm events**, at a minimum, using **critical duration analysis** and the methodology provided in §502.4 of this **ordinance**; and
    - B. Where **site detention** is required in §504.1, the requirements of §504.10 apply of this **ordinance**.
  10. The **runoff** or **flood** water storage function of **depressional storage** on the **site** shall be

preserved. For **developments** where the **depressional storage** is altered, the **depressional storage** must be compensated in the following manner depending on whether **site** detention is required per §504.1 of this **ordinance**:

- A. Where **site detention** is not required, the **co-permittee** shall demonstrate that the proposed **development** does not increase velocities, flows, or **flood** elevations downstream nor on adjacent properties for the 2-year, 10-year, and 100-year **storm events** of a 24-hour duration. The analysis shall utilize the methodology described in §502.4 of this **ordinance** and include the **upstream tributary flow** areas to the existing **depressional storage**; and
  - B. Where **site** detention is required, the requirements of §504.5 of this **ordinance** shall apply.
11. All **developments** shall provide a separate **sanitary sewer** and a separate **storm sewer** within the property lines of the **development**.
  12. Maximum flow depths on roads for all **development** shall not exceed twelve inches during the **base flood** condition.
  13. Maximum detention depths on new parking lots shall be designed for protection against damages caused by **stormwater** detention inundation, which shall not exceed twelve inches. The inundation hazard below the 100-year high water elevation shall be clearly posted.
  14. For **developments** adjacent to a **floodplain**, the **lowest floor** in new **buildings** or additions to existing **buildings** shall be:
    - A. Elevated to the **FPE** as determined by §601.9; or
    - B. **Floodproofed** or otherwise protected to prevent the entry of surface **stormwater** or floodwater below the **FPE** and such that the **lowest entry elevation** of the **building** is at or above the **FPE**; and
    - C. **Floodproofing** devices should be operational without human intervention. If electricity is required for protection against **flood** damage, there shall be a backup power source that will activate without human intervention.
  15. The **lowest floor** in new **buildings**, or added to existing **buildings**, adjacent to a **major stormwater system** as sized in §502.6 or a **detention facility** overflow path as designed in §504.11.C shall be elevated, **floodproofed**, or otherwise protected to at least one foot above the design elevation associated with the design flow rate to prevent the entry of surface **stormwater**.

16. The **lowest floor** in new **buildings**, or added to existing **buildings**, adjacent to a **detention facility** as designed in §504.11 shall be elevated, **floodproofed**, or otherwise protected with a minimum of one foot of freeboard for the **base flood** condition to prevent the entry of surface **stormwater**.
17. To the extent practicable, all **runoff** from rooftops and parking lots that does not discharge into a **detention facility** shall be directed onto pervious surfaces.
18. Proposed **developments** that discharge **stormwater** to a private sewer shall obtain written permission from the sewer **owner**.
19. The **co-permittee** shall procure any required federal, state, or local permits for **stormwater** discharges to a **waterway**. **Development in combined sewer areas** shall collect, route and discharge **stormwater** to either a **waterway** or **storm sewer** if:
  - A. Any boundary of the **development** is within one-eighth of a mile of either a **waterway** or **storm sewer**; or
  - B. Any boundary of the **development** is within one-fourth of a mile of either a **waterway** or **storm sewer** if practicable.
20. Proposed **developments** that propose offsite construction on private property shall obtain written permission from the property **owner** and obtain any required easements.
21. Watertight connections are required for any sewer tributary to a **combined sewer**. Watertight connections per **sanitary sewer** standards are required between sewer segments and all manholes, inlets, and **structures**.
22. Underdrains, field tiles, drain tiles, and open jointed pipes shall not be tributary to a **combined sewer**, unless:
  - A. Separation is provided upstream of the receiving **combined sewer**;
  - B. It is intended to protect a **building** foundation and cannot discharge to a **storm sewer**; or
  - C. It is used in conjunction with **green infrastructure** and conforms to the **TGM**.
23. Underdrain systems for athletic fields, tracks and parks shall not be directly connected to any sewer tributary to a **combined sewer** without separation.

### § 503. Site Volume Control Requirements

1. The requirements of this section shall apply to any of the following:
  - A. **Residential subdivision development** on **parcels** totaling one acre or more;
  - B. **Multi-family residential development** on **parcels** totaling one-half of an acre (0.5 acre) or more;
  - C. **Non-residential development** on **parcels** totaling one-half of an acre (0.5 acre) or more; and
  - D. **Right-of-way development** totaling one acre or more of **new impervious area**, where practicable.
  
2. The first inch of **runoff** from the **impervious area** of **development** on the **site** shall be the **control volume**.
  
3. **Volume control practices** shall provide treatment of the **control volume**. The **volume control practices** shall be designed according to the following hierarchy:
  - A. **Retention-based practices** with quantifiable storage capacity shall be the primary form of water quality treatment. **Retention-based practices** shall:
    - (1) Be sized to retain and infiltrate the **control volume**;
    - (2) Include, but not be limited to: infiltration trenches, infiltration basins, porous pavement, bio retention systems, dry wells, open channel practices fitted with check **dams**, retention storage below the outlet of a **detention facility**, and constructed **wetlands** that have quantifiable storage; and
    - (3) Provide pretreatment measures to protect the functionality of **retention-based practices** where necessary. **Flow-through practices** included in §503.3.B may be used to meet the pretreatment requirement where appropriate.
  
  - B. **Flow-through practices** shall be required for treatment of any portion of the **control volume** that has not been treated using **retention-based practices**. **Flow-through practices** shall:
    - (1) Be sized to filter or detain the **control volume** as it passes through the **structure**; and
    - (2) Include, but not be limited to: vegetated filter strips, bio swales, constructed **wetlands**, catch basin inserts, and oil and grit separators.

- C. For **redevelopments** with **site** constraints that prevent use of **retention-based practices** to retain the **control volume** in full, a co-applicant may reduce the **control volume** by twenty-five percent (25%) for every five-percent (5%) of reduced **impervious area**, however, the co-applicant shall:
  - (1) Demonstrate that **site** limitations prevent the co-applicant from providing the entire **control volume** onsite; and
  - (2) Provide the **control volume** onsite to the maximum extent practicable with **retention-based practices**.

#### § 504. Site Detention Requirements

1. The requirements of this section shall apply to any of the following:
  - A. **Residential subdivision development** on **parcels** totaling five acres or more;
  - B. **Multi-family residential development** on **parcels** totaling three acres or more with new **development** on the **parcel** that totals either individually or in the aggregate to more than one-half of an acre (0.5 acre) after the effective date of this **ordinance**;
  - C. **Non-residential development** on **parcels** totaling three acres or more with new **development** on the **parcel** that totals either individually or in the aggregate to more than one-half of an acre (0.5 acre) after the effective date of this **ordinance**; and
  - D. **Right-of-way development** totaling one acre or more of **new impervious area**, where practicable.
2. The area of **development** shall be used to calculate the **development's allowable release rate**.
3. The **allowable release rate** for a **development** shall be determined at the time a complete **watershed management permit** application is accepted by the **District** and shall be:
  - A. 0.30 cfs/acre of **development** for the **storm event** having a one percent probability of being equaled or exceeded in a given year (100-year **storm event**) until April 30, 2019; and
  - B. Based on a **watershed** specific release rate after and including May 1, 2019 as specified in Appendix B. The **watershed** specific release rate shall not be less than 0.15 cfs/acre of **development**.

4. The release rate from the **detention facility** in addition to any **unrestricted flow** shall not exceed the **allowable release rate** for the **development**.
5. For **sites** where **depressional storage** exists and where the existing **runoff** rate for the **development** is less than the **allowable release rate** provided in §504.3, then the **allowable release rate** and the corresponding **detention facility** volume shall be based on the existing **runoff** rate. The existing **runoff** rate shall be calculated using the methods described in §504.9 of this **ordinance**.
6. When all **runoff** from a **development** is not captured in the **detention facility**, the **unrestricted flow** shall be addressed by:
  - A. Demonstrating that the **unrestricted flow** does not cause offsite damage; and
  - B. Providing for **unrestricted flow** by one of the following methods:
    - (1) Diverting an equivalent **upstream tributary area** where detention is not provided to the **detention facility**;
    - (2) Calculating the **unrestricted flow** rate using the methods in §504.9 of this **ordinance** and reducing the required **site runoff** release rate such that the total developed release rate from the **development site** equals the **allowable release rate**; or
    - (3) Planting the **unrestricted flow** area with native deep-rooted vegetation approved by either the **District** or an **authorized municipality**. **Unrestricted flow** areas shall be placed in an easement and maintained as a **native planting conservation area** in perpetuity. The **allowable release rate** for the **development** shall be based on the **development** area tributary to the **detention facility**.
7. **Detention facility** volume shall be calculated using either an event hydrograph routing method or the nomograph relating percent impervious to unit area as presented in the **TGM**. The nomograph shall not be used in any of the following scenarios:
  - A. The **allowable release rate** is affected by **depressional storage** on the **site** described in §504.5 of this **ordinance**;
  - B. The **allowable release rate** is affected by **unrestricted flow** as described in §504.6.B(2) or §504.6.B(3) of this **ordinance**;
  - C. When there are **upstream tributary flows** to the **detention facility** described in

- §504.10 of this **ordinance**; or
- D. When there are tailwater conditions on the **detention facility** outlet **structure**.
8. The **detention facility** volume calculated in §504.7 can be reduced by:
- A. The volume of the retention-based **control volume** provided in §503.3.A; and
- B. The volume of any **retention-based practice** listed in §503.3.A.(2) in excess of the **control volume** if all of the following conditions are met:
- (1) The storage volume of the **retention-based practice** is quantifiable;
  - (2) The storage volume of the **retention-based practice** is accessed under the 100-year **storm event**;
  - (3) The **development** complies with the **allowable release rate** specified in §504.3; and
  - (4) **Maintenance** responsibilities for the **retention-based practice** are delineated in the **maintenance** plan required in Article 9 of this **ordinance**.
9. Event hydrograph methods shall be HEC-1, HEC-HMS, TR-20, or a method approved by the **District**, using SCS curve number methodology and an outlet control routing option. Event hydrograph methods shall incorporate the following assumptions:
- A. Antecedent Moisture Condition II; and
- B. 100-year **storm event** with a 24-hour duration, as specified in **Bulletin 70** northeast sectional rainfall statistics and appropriate Huff time distribution of heavy storm rainfall.
10. **Developments** that have **upstream tributary flow** to the **site** shall provide one of the following **site runoff** measures:
- A. Provide **detention facility** volume for the **development** at the **allowable release rate** while bypassing **upstream tributary flows** described in §502.9 of this **ordinance (bypass flow)**;
- B. Provide **detention facility** volume to accommodate both the **runoff** for the **development** and the **upstream tributary flow** area on the **site** at the **site's allowable release rate**; or
- C. Provide sufficient **detention facility** volume to accommodate **runoff** from the **development** and the **upstream tributary flow** area at a release rate that

ensures that no adverse offsite impacts will occur and that a **water resource benefit** is provided. The **co-permittee** shall consider **runoff** from all **tributary areas** and demonstrate the impacts for 2-year, 10-year, and 100-year **storm events**, at a minimum, using **critical duration analysis** and the methodology provided in §504.9. The minimum **detention facility** volume required shall be based on the **site allowable release rate** as determined in §504.3 and §504.4 of this **ordinance**.

11. **Detention facilities** shall be designed and constructed to:
  - A. Function with a gravity outlet wherever possible;
  - B. Function without human intervention and under tailwater conditions with minimal **maintenance**;
  - C. Provide an overflow **structure** and overflow path that can safely pass a **design runoff rate** of at least 1.0 cfs/acre of **tributary area** to the **detention facility**;
  - D. Provide side slope **stabilization**;
  - E. Provide earth **stabilization** and armoring with riprap, concrete or other durable material when high erosive forces could lead to soil **erosion** or washout. Examples of where armoring may be required include:
    - (1) **Storm sewer** flared end sections; and
    - (2) Emergency overflows.
  - F. Be accessible and maintainable; and
  - G. Provide a **maintenance** agreement.
12. The outlet control device for **detention facilities** shall be:
  - A. Located within the property boundary when possible;
  - B. Durable and permanent;
  - C. Visible and accessible for **maintenance**;
  - D. Located on the outlet side of a manhole **structure**;
  - E. Designed to be self cleaning; and
  - F. Designed to incorporate a backflow prevention device if discharging to a

combined sewer.

13. **Detention facilities** in areas outside of the **regulatory floodway**, but within the **regulatory floodplain**, shall:
  - A. Conform to all applicable requirements specified in Article 6; and
  - B. Store the **site runoff** from the **development** such that the required post **development** release rate is not exceeded, assuming a zero release rate below the **BFE**.
  
14. If it is not practicable to provide a **detention facility** onsite, an **offsite detention facility** may be constructed if all of the following conditions are met:
  - A. The **control volume** required in § 503 of this **ordinance** is provided onsite;
  - B. The **co-permittee** demonstrates that **site** limitations prevent the **development** from providing the full volume of the **detention facility** onsite;
  - C. The **parcel** area is less than ten acres;
  - D. **Stormwater** detention is provided in accordance with the following hierarchy:
    - (1) Partially onsite in a **detention facility** with supplemental storage offsite in an **offsite detention facility** according to §504.14.D(2) through §504.14.D(4) of this **ordinance** ;
    - (2) Offsite in an **offsite detention facility** where the **development** conveys the 100-year **storm event** to the **offsite detention facility**;
    - (3) Offsite in an **offsite detention facility** in a location that is upstream or hydrologically equivalent to the **development** in the same **subwatershed**;  
or
    - (4) Offsite in an **offsite detention facility** within the same **subwatershed**;
  - E. The **offsite detention facility** shall:
    - (1) Meet all of the requirements of this Article 5;
    - (2) Obtain a **watershed management permit** separate from the **development**;
    - (3) Provide 100% percent of the deficient onsite volume exclusively for the

- associated **development**;
- (4) Capture **stormwater runoff** from a **parcel** that is not tributary to an existing **stormwater detention facility**;
  - (5) Be functional before the **co-permittee** requests final inspection of the associated **development**; and
  - (6) Encumber the underlying **parcel** to ensure perpetual existence, function, and **maintenance**.
- F. A **co-applicant** may collaborate with either the Cook County Land Bank Authority or the South Suburban Land Bank and Development Authority referenced in §300.7 of this **ordinance** to provide offsite **stormwater detention facilities**.
15. **Detention facilities** should be functional before occupancy permits are issued for residential and **non-residential subdivisions** or **sanitary sewers** are placed in service.
  16. **Detention facilities** shall be functional for **developments** before **building** or road construction begins.
  17. A **development** is not required to comply with the **site** detention requirements of §504 of this **ordinance** if the **development** satisfies all of the following conditions:
    - A. The **development** discharges **stormwater** to a **storm sewer** tributary to Lake Michigan;
    - B. The downstream receiving **storm sewer** has adequate capacity as determined by the governing **municipality**;
    - C. The **development** complies with the **site** volume control requirements of §503 of this **ordinance**; and
    - D. The **development** intercepts and treats all **stormwater runoff** onsite to improve water quality prior to discharge from the **development**.

## § 505. Allowances for Redevelopment

1. For **redevelopment** of a **site** tributary to an **existing detention facility** which will only require a marginal increase in the new total storage required in the same **existing detention facility**, the increase in storage may be waived if the following conditions are met:

- A. Actual storage volume is verified to meet or exceed the required detention volume based on a recent survey, signed and sealed by either a **Professional Engineer** or **Professional Land Surveyor**; and
  - B. The marginal increase in incremental required storage volume is less than one-tenth (0.10) of an acre-foot or within two-percent (2%) of the existing total storage.
2. Incidental disturbance to an **existing detention facility** to provide the new required additional detention volume may be considered **non-qualified development**.
3. Allowances noted below may be granted for the **redevelopment** of a **parcel** that was planned to be tributary or contains within the **parcel** an **existing detention facility** permitted under a **sewerage system permit**:
- A. If the **redevelopment** meets all of the following conditions:
    - (1) The design of the **existing detention facility** is documented and approved under an existing **sewerage system permit** (commonly referred to as Schedule D);
    - (2) Actual storage volume is verified to meet or exceed the required detention volume under the permit based on a recent survey, signed and sealed by either a **Professional Engineer** or **Professional Land Surveyor**;
    - (3) The **redevelopment** provides treatment of the **control volume** as required in §503 of this **ordinance**; and
    - (4) The **redevelopment** provides adequate capacity to convey **stormwater runoff** to the **existing detention facility** for all storms up to and including the 100-year **storm event**;
  - B. Then, the following **redevelopment** allowances may be granted:
    - (1) If the **redevelopment**'s composite **runoff** coefficient does not exceed the design composite **runoff** coefficient of the **existing detention facility** as designed and intended under the original permit, additional **stormwater** detention volume is not required;
    - (2) If the **redevelopment**'s composite **runoff** coefficient exceeds the design composite **runoff** coefficient of the **existing detention facility** as designed and intended under the original permit, additional **stormwater** detention volume shall be provided for the **redevelopment**. In such situations, the modified rational method using **Bulletin 70** rainfall data may be used to

calculate the additional required storage volume. The release rate for the **redevelopment** will be based as follows:

- (a) For **redevelopment** of areas within a permitted **parcel** intended to be tributary to an **existing detention facility**, the existing approved release rate and restrictor may be retained;
  - (b) For **redevelopment** of areas within a permitted **parcel**, which was never intended to be tributary to an **existing detention facility**, however, will be tributary upon **redevelopment**; the original release rate for the basin will be recalculated based on a pro rata area amount. The total new required storage volume will be updated based on the new required release rate and the restrictor may need to be replaced.
- C. For **redevelopment** of a **parcel** never planned to be tributary or that does not contain an **existing detention facility** permitted under a **sewerage system permit**, the **redevelopment** shall be subject to the standard **stormwater** management requirements described in §500 through §504 of this **ordinance**.

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## ARTICLE 6. REQUIREMENTS FOR FLOOD PROTECTION AREAS

### § 600. Flood Protection Areas

1. **Flood Protection Areas** include **floodplains, wetlands, wetland buffers, and riparian environments**. Requirements for determining **floodplains** are specified in §601. Requirements for delineating **wetlands** are specified in §603. Requirements for determining **riparian environments** are specified in §606 of this **ordinance**.
2. Any **development** within the **floodplain** shall comply with the requirements of §601 and §602 and the requirements of Article 4, Article 5, and Article 9 of this **ordinance**.
3. Any **development** within **wetlands** shall comply with the requirements of §603, §604, and §605 and the requirements of Article 4, Article 5, and Article 9 of this **ordinance**.
4. Any **development** within **riparian environments** shall comply with the requirements of §606 and §607 and the requirements of Article 4, Article 5, and Article 9 of this **ordinance**.
5. All **co-permittees** shall submit the documents specified in Article 3 to verify compliance with the requirements of this **ordinance**.
6. Compliance with Article 6 of this **ordinance** does not excuse the **co-permittee** from meeting all applicable federal, state, and local requirements including, but not limited to, the local **NFIP** regulations.
7. Any human-induced change in improved or unimproved real estate within the **regulatory floodplain** not considered to be **development** under this **ordinance** shall meet the requirements of the local jurisdiction's **NFIP** ordinance. Compliance with §601 and §602 of this **ordinance** does not excuse the **co-permittee** from meeting all local requirements for participation in the **NFIP**.

### § 601. Requirements for Floodplain, Regulatory Floodway, and Flood Protection Elevation Determination

1. **Development** within **floodplains** shall not:
  - A. Result in any new or additional expense to any **person** other than the **co-permittee** for **flood** protection or for lost environmental stream uses and functions;
  - B. Increase **flood** elevations or decrease **flood** conveyance capacity upstream or downstream of the area not under the **ownership** or control of the **co-permittee**;

- C. Pose any increase in **flood** velocity or impairment of the hydrologic and hydraulic functions of streams and **floodplains** unless a **water resource benefit** is realized;
  - D. Unreasonably or unnecessarily degrade surface or ground water quality; or
  - E. Violate any provision of this **ordinance** either during or after construction.
2. Any **co-permittee** proposing **development** shall identify the elevation and boundary of the **regulatory floodplain** and the limits of the **regulatory floodway** within the **development site**.
  3. The **regulatory floodplain** shall be determined by the **base flood** elevation (**BE**) as determined by the effective Cook County Flood Insurance Study (**FIS**) and associated **FIRMs**, including any Letter of Map Change (**LOMC**) that has been issued by the Federal Emergency Management Agency (**FEMA**). The **co-permittee** is responsible for utilization of the current applicable **FIRM** and any associated **LOMC**. A list of **FIRMs** for **Cook County** is provided in the **TGM**. **FIRMs** are available at **FEMA's** Map Service Center; a web link to **FEMA's** Map Service Center is provided in the **TGM**.
  4. Determination of the **BE** in **Special Flood Hazard Areas** shown on the **FIRM** associated with the effective **FIS** shall be determined for:
    - A. AE Zones by using the 100-year profile at the **development site**;
    - B. AH Zones by using the elevation noted on the applicable **FIRM**;
    - C. AO Zones by using the **highest adjacent grade** plus the depth number shown on the applicable **FIRM**, or two feet above the **highest adjacent grade** if no depth number is provided;
    - D. For areas shown as A Zones on the effective **FIS**, a **BE** shall be determined by a project-specific **floodplain** study approved by either the **District** or an **authorized municipality**. This study shall be approved by **OWR** in cases where both:
      - (1) The **drainage area** is one square mile or greater; and
      - (2) The **development** is associated with a permit that will be issued by **OWR**.
  5. When a known **flood** hazard is not identified as a **Special Flood Hazard Area** on the **FIRM**, the **District** or an **authorized municipality** may require the **co-permittee** to perform a project-specific **floodplain** study to determine the project-specific **100-year flood elevation**. This study shall be approved by **OWR** in cases where both:
    - A. The **drainage area** is one square mile or greater; and

- B. The **development** is associated with a permit that will be issued by **OWR**.
6. Project-specific **floodplain** studies shall be performed by a **Professional Engineer** using the appropriate models when applicable:
- A. TR-20, HEC-1, or HEC-HMS hydrologic model;
  - B. HEC-2 or HEC-RAS hydraulic model; or
  - C. A model or technique approved by the **District** and **OWR**.
7. The **co-applicant** shall observe the **regulatory floodway** as designated by **OWR**, which is delineated on the effective **FIRM**. If a **floodway** is not designated on the **FIRM** then the following shall apply:
- A. When the **drainage area** is greater than one square mile, then the **regulatory floodway** shall be deemed to be the limits of the **regulatory floodplain** and subject to all **floodway** requirements of this **ordinance** with the exception of the **appropriate use** criteria in §602.27 of this **ordinance**; or
  - B. When the **drainage area** is less than one square mile, then a **floodway** designation is not required.
8. The **regulatory floodway** may be re-designated by the **co-permittee**. For **floodways** where the **drainage area** is greater than one square mile, approval of the re-designation shall be required by **FEMA**, through a Conditional Letter of Map Revision (**CLOMR**) and/or Letter of Map Revision (**LOMR**). **OWR** concurrence is also required by **FEMA** where a **regulatory floodway** is re-designated.
9. The **co-permittee** shall determine the flood protection elevation (**FPE**). The **FPE** shall be two feet above the highest **100-year flood elevation** as determined by:
- A. The **BFE** associated with the effective **Cook County FIS**, including any **LOMC** that has been issued by **FEMA**; or
  - B. Project-specific **100-year flood elevation** developed in §601.5 of this **ordinance**.

## § 602. Requirements for Development within the Floodplain

1. For purposes of this §602, the **floodplain** shall be the area of the **regulatory floodplain** (§601.3 and §601.4) and any inundation areas resulting from the **100-year flood elevation** determined in §601.5. The **100-year flood elevation** in this §602 of this **ordinance** is the highest of the **BFE** or the project-specific **100-year flood elevation**.
2. For new **buildings** and additions to existing **buildings** in a **floodplain** and for **substantial improvements** to existing **buildings** in a **regulatory floodplain**, the **lowest floor** shall be elevated to at least the **FPE** in accordance with the requirements specified in §602.12, §602.13, and §602.14, unless protected in accordance with §602.3 of this **ordinance**.
3. For new **buildings**, additions to existing **buildings**, or **substantial improvements** to existing **buildings** in the **regulatory floodplain** and outside the **regulatory floodway**, the **lowest floor** below the **BFE** shall comply with the following:
  - A. The lowest adjacent grade to the foundation shall be at or above the **BFE** for a minimum distance of:
    - (1) Ten (10) feet beyond the outside face of the **structure** for **buildings** without **basements**; and
    - (2) Twenty (20) feet beyond the outside face of the **structure** for **buildings** with **basements**;
  - B. The lowest opening in the foundation wall, shall be at or above the **FPE**;
  - C. Provide **compensatory storage** per §602.9 and §602.10 of this **ordinance**;
  - D. Demonstrate that a **building** and **building site** are reasonably safe from **flooding** per design standards requirements in Technical Bulletin 10-01 issued by **FEMA**; and
  - E. Obtain a Letter of Map Revision Based on Fill (**LOMR-F**) if the **building site** is in the **regulatory floodplain**.
4. **Substantial improvements** to **buildings** in the **floodplain** may be **floodproofed**. **Floodproofing** shall meet the requirements listed in §602.12 or §602.14 of this **ordinance** and shall be operational without human intervention.
5. New **accessory structures** in the **floodplain** shall be regulated by the relevant **municipality** under its **NFIP** ordinance and elevated to at least the **BFE**.
6. Reserved.

7. Reserved.
8. New parking lots built below the **100-year flood elevation** shall clearly post the potential **flood** hazard.
9. **Compensatory storage** shall be required for any fill, **structure**, or other material above grade in the **regulatory floodplain** that temporarily or permanently displaces **floodplain** storage volume. In addition, **compensatory storage** shall:
  - A. Equal at least 1.1 times the volume of **flood** storage lost below the **BFE**;
  - B. Be operational prior to placement of fill, **structures**, or other materials temporarily or permanently placed in the **regulatory floodplain**;
  - C. Be provided in the immediate vicinity of the **flood** storage lost, where practicable;
  - D. Be provided in addition to the **site** detention volume; and
  - E. Drain freely and openly to the **waterway**.
10. **Compensatory storage** shall be provided incrementally as follows:
  - A. All **regulatory floodplain** storage lost below the existing regulatory 10-year **flood** elevation shall be replaced below the proposed regulatory 10-year **flood** elevation;
  - B. All **regulatory floodplain** storage lost above the existing regulatory 10-year **flood** elevation shall be replaced above the proposed regulatory 10-year **flood** elevation; and
  - C. The additional **compensatory storage** required beyond a one to one (1:1) ratio may be placed above or below the proposed regulatory 10-year **flood** elevation.
11. **Compensatory storage** is not required for the **floodproofing** of existing **buildings** for the **floodplain** volume displaced by the **building** and within the area of fill specified in §602.3.A of this **ordinance**.
12. New **structures** that are elevated, existing **structures** that are **floodproofed**, or **substantial improvements** shall:
  - A. Be anchored to prevent flotation, collapse, or lateral movement;
  - B. Use **flood** resistant materials below the **FPE**;

- C. Use construction methods and practices that do not increase the potential for increases in **flood** damage;
  - D. Elevate electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities to the **FPE** or higher;
  - E. Provide adequate access and drainage; and
  - F. Provide a backup power source that will activate without human intervention if electricity is required.
13. Any fill required to elevate a **building** must extend at least:
- A. Ten feet beyond the foundation before the grade slopes below the **100-year flood elevation** for **buildings** without **basements**; and
  - B. Twenty feet beyond the foundation before the grade slopes below the **100-year flood elevation** for **buildings** with **basements**.
14. When a **structure** is elevated by means other than filling:
- A. The **lowest floor** of any **building** and all electrical, heating, ventilating, plumbing, and air conditioning equipment of any **structure** shall be located at or above the **FPE**.
  - B. Elevation can be accomplished using stilts, piles, walls, or other foundations. Walls and foundations below the **lowest floor** that are subject to **flooding** shall be designed so that hydrostatic forces on exterior walls are automatically equalized by allowing for the entry and exit of floodwaters and shall be anchored and aligned in relation to **flood** flows and adjoining **structures** so as to minimize exposure to known hydrodynamic forces such as currents, waves, ice, and floating debris. Designs for meeting this requirement shall be prepared, signed, and sealed by a structural engineer or licensed architect in the State of Illinois and meet or exceed the following minimum criteria:
    - (1) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to **flooding**;
    - (2) The bottom of all openings shall be no higher than one foot above grade;
    - (3) Openings may be equipped with screens, louvers, valves, or other coverings, provided that such coverings do not impede the automatic entry and exit of floodwaters;

- (4) The grade interior to the foundation of the **structure** shall not be more than two feet below the lowest adjacent exterior grade;
  - (5) An adequate drainage system must be installed to remove floodwaters from the area interior to the **structure** foundation within a reasonable period of time after the floodwaters recede; and
  - (6) All materials and **structures** below the **FPE** shall be resistant to **flood** damage.
- C. **Compensatory storage** for elevation of **structures** allowed in §602.14 of this **ordinance** shall not be required.
15. All **CLOMR**, **LOMR**, and **LOMR-F** applications require the approval of the governing **municipality** and shall be submitted to either the **District** or an **authorized municipality** concurrently with the application to **FEMA**.
16. No filling, grading, dredging, excavating, or other proposed **development** within the **regulatory floodplain** that results in an increase to the **FIS** effective **BFE** or a modification to the **regulatory floodway** boundary shall take place until a **CLOMR** is issued by **FEMA** and a **floodway** construction permit is issued by **OWR**.
17. If a **LOMR** is required by **FEMA**, no **building** construction shall take place until the approved **LOMR** is received.
18. **Stormwater facilities** within the **regulatory floodplain**, such as culverts, bridges, and impoundments that have an associated backwater shall not be removed, replaced, or modified unless all of the following apply:
- A. All **structures** and their associated **lowest entry elevations** within the backwater of the existing **stormwater facility** are identified;
  - B. **Hydraulically equivalent compensatory storage** is provided to mitigate any potential increases in flow or **flood** elevations upstream or downstream of the **stormwater facility**; and
  - C. A **water resource benefit** is provided.
19. All proposed sanitary **structures** shall have above ground openings located above the **FPE** or be constructed with bolted watertight **structure** lids.
20. Lift station facilities (including mechanical and electrical equipment)
- A. Existing lift station facilities to be repaired or rehabilitated shall have all above ground equipment elevated above the **FPE**. Where possible, ground openings

and vents shall be adjusted above the **FPE** or be constructed with lock-type, watertight **structure** lids to protect against the **base flood**.

- B. New lift station facilities shall be located above the **FPE** and outside the limits of the **regulatory floodplain**. New lift stations facilities shall also be carefully located to ensure **maintenance** access at all times during the **base flood**.
21. New and replacement water supply systems and wells shall either have all above ground openings above the **FPE** or be watertight.
  22. New waste disposal systems on the **site** shall not be constructed within the **floodplain**.
  23. Construction of **detention facilities** within the **regulatory floodway** is strictly prohibited.
  24. **Detention facilities** located outside of the **regulatory floodway** but within the **floodplain** shall:
    - A. Store the required **site runoff** under all stream flow and backwater conditions up to the **100-year flood elevation**, assuming a zero release rate below the **100-year flood elevation**; and
    - B. Not allow design release rates to be exceeded under any stream elevation less than the **100-year flood elevation**.
  25. New or modified **storm sewer outfalls** shall meet the requirements of §501 and §502 of this **ordinance** and shall comply with **Illinois Department of Transportation's (IDOT)** minimum standards. Relevant **IEPA** and **NPDES** permits shall be required for all new **outfalls** to **waterways** and Lake Michigan. Copies of all such permit applications for **outfalls** located within the City of Chicago should be provided concurrently to the **District**.
  26. Temporary or permanent storage of items susceptible to **flood** damage is prohibited unless elevated or **floodproofed** to the **FPE**.
  27. **Development** shall preserve effective **regulatory floodway conveyance** such that there will be no increases in **flood** elevations, flow rates, or **regulatory floodway** velocity, unless these increases are contained in a **public flood easement**, a **water resource benefit** is provided, and a **CLOMR** is issued by **FEMA** prior to any work in the **regulatory floodway**.

28. For any proposed **development** within the **regulatory floodway** the **co-permittee** shall provide either the **District** or an **authorized municipality** with an evaluation of the hydrologic and hydraulic impacts of the **development**:
- A. Using the **regulatory floodplain** model, if available, or a study as directed by the **District** using the methodology provided in §601.6 of this **ordinance**;
  - B. For the 2-year, 10-year, and 100-year **storm events** for the 24-hour event, at a minimum; and
  - C. For existing and any future planned **watershed** conditions as directed by either the **District** or an **authorized municipality**.
29. Within the **regulatory floodway**, any proposed **development** shall meet the requirements of §602 of this **ordinance** and only the following **appropriate uses** shall be considered for permits:
- A. **Flood** control **structures**, dikes, **dams**, and other public works or private improvements relating to the control of drainage, **flooding**, or **erosion** or water quality or habitat for fish and wildlife that provides a **water resource benefit**;
  - B. **Structures** or facilities relating to the use of, or requiring access to, the water or shoreline, such as pumping and treatment facilities, and facilities and improvements related to recreational boating, commercial shipping, and other functionally dependent uses;
  - C. **Storm** and **sanitary sewer outfalls**;
  - D. Underground and overhead utilities;
  - E. Recreational facilities such as playing fields and trail systems including any related fencing built parallel to the direction of **flood** flows;
  - F. Detached garages, storage sheds, or other non-habitable **accessory structures** to existing **buildings** that will not block **flood** flows. This does not include the construction or placement of any other new **structures**, fill, **building** additions, **buildings** on stilts, fencing (including landscaping or plantings designed to act as a fence), and the storage of materials;
  - G. Bridges, culverts, roadways, sidewalks, railways, runways and taxiways, and any modification thereto;
  - H. Parking lots built at or below existing grade where either:
    - (1) The depth of **flooding** at the **BFE** will not exceed one foot; or

- (2) The parking lot is for short-term outdoor recreational use facilities where the **co-permittee** agrees to restrict access during overbank **flooding** events and agrees to accept liability for all damage caused by vehicular access during all overbank **flooding** events. Signs shall be posted to clearly identify the **flooding** hazard.
- I. Aircraft parking aprons built at or below ground elevation where the depth of **flooding** at the **BFE** will not exceed one foot;
  - J. **Regulatory floodway** re-grading without fill to create a positive slope toward the watercourse;
  - K. **Floodproofing** activities to protect existing **structures** including, but not limited to, constructing water tight window wells and elevating;
  - L. The replacement, reconstruction, or repair of a damaged **building**, provided that the outside dimensions of the **building** are not increased, and provided that, if the **building** is damaged to 50 percent or more of the **building's** market value before it was damaged, the **building** will be protected from **flooding** to or above the **FPE**; and
  - M. Modifications to an existing **building** that would not increase the enclosed floor area of the **building** below the **BFE**, and would not block **flood** flows to including, but not limited to, fireplaces, bay windows, decks, patios, and second story additions.
30. Transition sections are required for the calculation of effective **regulatory floodway conveyance** due to the modification or replacement of existing bridge and culvert **structures** or to compensate for lost conveyance for other **appropriate uses**. The following expansion and contraction ratios shall be assumed to determine transition sections:
- A. Water will expand at a rate no faster than one foot horizontal for every four feet of flooded stream length;
  - B. Water will contract at a rate no faster than one foot horizontal for every one foot of flooded stream length; and
  - C. Water will not expand or contract faster than a rate of one foot vertical for every ten feet of flooded stream length.

### § 603. Requirements for Wetland Boundary, Quality, and Buffer Width Determination

1. **Wetlands** provide the following functions:
  - A. Facilitate hydrologic functions, including infiltration, evaporation, and evapotranspiration;
  - B. Reduce **flood** flow rates, velocities, and volumes;
  - C. Provide **flood** control by storing **stormwater**;
  - D. Prevent **erosion** and promote bank stability of streams, **lakes**, and ponds;
  - E. Control **sediment** from upland areas reducing the impact of urbanization on stream habitat and water quality by filtering and assimilating nutrients discharged from surrounding uplands;
  - F. Serve as important areas for de-nitrification, which reduces growth of algal blooms and subsequent depressed levels of dissolved oxygen in-stream; and
  - G. Provide an effective mechanism for treatment of contaminated surface **runoff**.
  
2. Any **co-permittee** proposing **development** shall investigate the **site** for the presence of **wetlands**. The **co-permittee** shall use the following sources and methods to determine if **wetland** areas may exist on the **site**:
  - A. Onsite **wetland** investigation;
  - B. **National Wetland Inventory (NWI)** Maps from the United States Fish and Wildlife Service (USFWS);
  - C. National Resource Conservation Service (**NRCS**) wetland inventory maps; and
  - D. **Wetlands** identified in current and historical aerial photographs, United States Geological Survey (USGS) hydrological atlas, soil survey of **Cook County**, and USGS topographic maps.
  
3. The **co-permittee** shall identify the boundaries, extent, function, and quality of all **wetland** areas on the **site**. The presence and extent of **wetland** areas on the **site** shall be determined as the result of an onsite **wetland** delineation according to the following:
  - A. All onsite **wetland** delineations are required to use procedures in accordance with the current **Corps' Wetland Delineation Manual**; or

- B. **Farmed wetlands** located on the **site** in agricultural areas which are in production and which are not determined to be **wetlands** through the federal **wetland** methodology shall be delineated through the current National Food Security Act Manual methodology;
  - C. Agricultural areas that have been abandoned for five consecutive years shall be delineated in accordance with the **Corps Wetland Delineation Manual**.
4. The **co-permittee** shall request a **Corps jurisdictional determination** of any identified **wetland** areas on the proposed **site**.
  5. The approximate location, extent, and quality of offsite **wetlands** within 100 feet of the **site** shall be identified. Offsite **wetlands** shall be delineated using the **Corps Wetland Delineation Manual**, or if delineation is unavailable or cannot be performed, the approximate limits of **wetlands** shall be identified using one or more of the following resources:
    - A. **National Wetland Inventory (NWI)** Maps from the United States Fish and Wildlife Service (USFWS);
    - B. National Resource Conservation Service (**NRCS**) wetland inventory maps; and
    - C. **Wetlands** identified in current and historical aerial photographs, USGS hydrological atlas, soil survey of **Cook County**, and USGS topographic maps.
  6. The following **isolated wetland** areas are exempt from the **wetland** requirements of this **ordinance**:
    - A. **Wetlands** in roadside ditches created by excavation in upland areas;
    - B. **Wetlands** created by excavation or by other unfinished **development** activities in upland areas;
    - C. **Wetlands** created by artificial **hydrology** including, but not limited to, irrigation or **detention facility** outlets which would revert to upland areas if irrigation were to cease;
    - D. **Wetlands** created by the construction of **stormwater facilities** in upland areas, provided that the facility was not created for the purpose of **wetland mitigation**; and
    - E. **Wetlands** created by the construction of ponds in upland areas.
  7. Either the **District** or an **authorized municipality** shall verify all onsite **isolated wetland** determinations and delineations.

8. The **co-permittee** shall provide an assessment of any identified **isolated wetland** and classify it as either a **high quality isolated wetland** or a **standard isolated wetland** using the criteria described below. Either the **District** or an **authorized municipality** will make the final determination of **wetland** status. A **high quality isolated wetland** satisfies any one of the criteria listed below. An **isolated wetland** that does not meet any of the following criteria can be classified as a **standard isolated wetland**. The criteria to receive a **high quality isolated wetland** status are as follows:
- A. It has a **Swink and Wilhelm Floristic Quality Index (FQI)** value greater than or equal to 20 during a single season assessment or a native mean C-value of 3.5 or higher as calculated by the Swink and Wilhelm methodology; or
  - B. It is known to possess a federal- or state-listed threatened or endangered species based upon consultation with the Illinois Department of Natural Resources (IDNR) and the United States Fish and Wildlife Service (USFWS).
9. **Wetland buffers** for **isolated wetlands** shall be determined according to the functions of the **wetland**. Minimum **isolated wetland buffer** widths shall be as follows and as summarized in Table 3 of this Article 6 of this **ordinance**:
- A. Thirty feet from the boundary of **standard isolated wetlands** greater than or equal to one-tenth of an acre (0.10 acre) and less than one-half of an acre (0.5 acre) in area;
  - B. Fifty feet from the boundary of **standard isolated wetlands** greater than or equal to one-half of an acre (0.5 acre) in area; or
  - C. One-hundred feet from the boundary of **high quality isolated wetlands**.

Table 3. Wetland Buffer Determination for Isolated Wetlands				
Wetland Quality	Acreage	§603.9(A)	§603.9(B)	§603.9(C)
Standard Isolated Wetland	≥ 0.10 acre and < 0.50 acre	30 ft		
	≥ 0.50 acre		50 ft	
High Quality Isolated Wetland	No minimum			100 ft

- The **Wetland Buffer** width for **isolated wetlands** may be varied to a minimum of the greater of one-half the required buffer width or 30 feet, upon approval of either the **District** or an **authorized municipality**.

**§ 604. Requirements for Development Affecting the Function of Wetlands and Wetland Buffers**

- Requirements for **development** affecting the function of **wetlands** are summarized in Table 4 of this Article 6 of this **ordinance**.

Table 4. Wetland Impact Matrix					
Wetland Type	Wetland Area	§604.2	§604.3	§604.4	§604.5
Corps Jurisdictional Wetland	Any	X			
Standard Isolated Wetland	<0.10 acre				X
	≥0.10 acre			X	
High Quality Isolated Wetland	Any		X		

- Development** that impacts onsite **Corps jurisdictional wetlands** shall be prohibited unless a permit for all regulated activities is obtained from the appropriate federal and

state authorities.

3. **Development** that impacts onsite **high quality isolated wetlands** shall be prohibited unless documentation is submitted that demonstrates either of the following:
  - A. That the presence of **high quality isolated wetlands** precludes all economic use of the **site** and that no practicable alternative to **wetland** modification exists; or
  - B. That avoidance of **high quality isolated wetlands** would create a hazardous road condition and that no practicable alternative to **isolated wetland** modification exists.

Based upon a review of the submitted documentation and any other available resources, either the **District** or an **authorized municipality** will make the final determination as to whether the proposed **high quality isolated wetland** modification represents the least amount of **wetland impact** required to allow economic use of the **parcel** or to mitigate the road hazard; and a determination as to whether a permit should be granted.

4. **Development** that impacts onsite **standard isolated wetlands** that are equal to or greater than one-tenth of an acre (0.10 acre) in aggregate shall be prohibited unless documentation is submitted which demonstrates that no practicable alternative to **wetland** modification exists. Based upon a review of the submitted documentation and other available resources, either the **District** or an **authorized municipality** will make a determination as to whether the proposed **wetland** modifications will be permitted.
5. **Development** that impacts onsite **standard isolated wetlands** with a total acreage less than one-tenth of an acre (0.10 acre) in aggregate, including **contiguous Isolated Waters** less than one-tenth of an acre (0.10 acre), does not require documentation showing that no practicable alternatives to **wetland** modification exist and that the **development** meets the requirements of §605 of this **ordinance**.
6. **Development** will be permitted only when the indirect environmental impacts to onsite and offsite **wetlands** can be sufficiently evaluated, minimized, and mitigated as specified in §604 and §605 of this **ordinance**. The designed **hydrology** should be maintained as close to 100 percent of the existing **hydrology** as possible. An **indirect wetland impact** shall be assumed if the **development** activity causes the **wetland hydrology** to fall below 80 percent, or to exceed 150 percent, of the existing condition **storm event runoff** volume to the **wetland** for the 2-year, 24-hour **storm event**.
7. **Detention** is permissible in **standard isolated wetlands**. Detention is not permissible in **high quality isolated wetlands**. Detention is not permissible in **Corps jurisdictional**

**wetlands** when prohibited by the **Corps**. When detention is provided in a **standard isolated wetland**:

- A. The **wetland hydrology** should be maintained as close to 100 percent of the existing **hydrology** as possible;
  - B. The **wetland hydrology** shall not fall below 80 percent, nor exceed 150 percent, of the existing condition **storm event runoff** volume to the **wetland** up through the 2-year, **24-hour storm event**; and
  - C. The **Isolated wetlands** shall not be inundated with more than twelve inches of water longer than twenty four hours during **storm events** up to and including the 100-year, 24-hour **storm event**.
8. **Stormwater** outlets discharging into an **isolated wetland** will only be allowed provided that appropriate **water quality** and **erosion control practices** are implemented and that they discharge through proper energy dissipation and scour protection, such as a level spreader or vegetated swale.
9. Mitigation for **developments** that impact an **isolated wetland** shall provide for the replacement of the lost **wetland** environment according to Table 5 of this Article 6 of this **ordinance**:

Table 5. Isolated Wetland Mitigation Requirement Ratios					
Wetland Quality	Area	§604.9(A)	§604.9(B)	§604.9(C)	§604.9(D)
Standard Isolated Wetland	<0.10 acre	None			
	≥0.10 acre		1.5:1		
High Quality Isolated Wetland	Any			3:1	
Impacts Prior to Issuance of Permit					3:1

- A. **Standard isolated wetlands** less than one-tenth of an acre (0.10 acre) in aggregate do not require mitigation;
- B. **Standard isolated wetlands** greater than or equal to one-tenth of an acre (0.10

- acre) in aggregate at a minimum ratio of one-and-one-half acre of creation for each acre impacted (1.5:1);
- C. **High quality isolated wetlands** at a minimum ratio of three acres of creation for each acre impacted (3:1);
  - D. **Isolated wetland impacts** initiated after the effective date of this **ordinance** and prior to issuance of a **Watershed Management Permit**, or other unauthorized impact to a **wetland** at a minimum ratio of three acres of creation for each acre impacted (3:1); and
  - E. The **District**, federal, and state, and local authorities may require a greater compensation ratio where unique **wetland** functions are threatened.
10. When **development** impacts an **isolated wetland**, mitigation of said impacts shall be accomplished through one or more of the following options:
- A. Payment into a **Corps** approved **wetland mitigation bank** within the same **Watershed Planning Area** as the impact;
  - B. Payment into a **Corps** approved **wetland mitigation bank** that is closest to the **development** within the same **Corps** Watershed Service Area as the impact as shown in Appendix D of this **ordinance**;
  - C. Enhancement of an existing onsite **isolated wetland** from a **standard isolated wetland** to a **high quality isolated wetland**, subject to §604.14 of this **ordinance**;
  - D. Expansion of an existing onsite **isolated wetland**;
  - E. Onsite **wetland mitigation**; and
  - F. Offsite **wetland mitigation** within the same **Watershed Planning Area** as the impact.
11. **Wetland mitigation** for impacts to **Corps jurisdictional wetlands** shall not be credited toward **wetland mitigation** for impacts to **isolated wetlands**.
12. Mitigated **isolated wetlands** shall be designed to duplicate or improve the hydrologic and biologic features of the original **isolated wetland**.

13. Creation of **wetlands** for the mitigation of **development** impacts, within or affecting a **wetland**, may take place only within areas that are not currently **wetlands** and where there is reasonable expectation that **wetland mitigation** will succeed.
14. Either the **District** or an **authorized municipality** may allow an existing **isolated wetland** that is **contiguous** to a proposed **isolated wetland mitigation site** to be enhanced in quality from a **standard isolated wetland** to a **high quality isolated wetland** in exchange for a partial reduction in the mitigation area required. In no case shall there be a loss of **wetland** function. Either the **District** or an **authorized municipality** may reduce the total **wetland mitigation** area required by 0.75 acre for every one acre of such **wetland** enhancement; however, the area of creation of new **wetlands** to compensate for unavoidable **wetland** loss shall not be allowed to fall below a ratio of one acre of creation for each acre impacted (1:1).
15. An **isolated wetland mitigation** plan shall be developed by the **co-permittee**. This plan shall include design, construction, monitoring, and **maintenance** of the mitigation measures and shall meet the requirements of Article 9 of this **ordinance**.
16. **Development** in or affecting an **isolated wetland** shall be initiated only after the mitigation plan has been approved by either the **District** or an **authorized municipality**.
17. The design, analysis, and construction of all **wetland mitigation** shall comply with all applicable federal, state, and local regulations.
18. Either the **District** or an **authorized municipality** will require that the **co-permittee** provide annual monitoring reports on the status of the constructed mitigation measures for five years, or until such time that the performance criteria have been met. Either the **District** or an **authorized municipality** may also require the **co-permittee** to undertake remedial action to bring the area into compliance with the mitigation plan.
19. **Development** within an **isolated wetland buffer** shall not, without mitigation:
  - A. Adversely change the quantity, quality, or temporal and areal distribution of flows entering any adjacent **wetlands** or waters;
  - B. Adversely affect any **groundwater** infiltration functions; or
  - C. Destroy or damage vegetation that stabilizes **wetland** fringe areas or provides overland flow filtration to **wetlands**. The removal of invasive vegetation is not considered to be destruction or damage of vegetation.
20. Impacts to **buffer** areas shall be mitigated through the replacement or enhancement of impacted functions.

## § 605. Wetland Banking

1. **Isolated wetland mitigation** provided through a **wetland mitigation bank** shall abide by the following hierarchy unless the method is not available, or unless the next method is justified through avoidance and minimization sequencing:
  - A. Payment into a **Corps** approved **wetland mitigation bank** in the same **watershed planning area**; or
  - B. Payment into a **Corps** approved **wetland mitigation bank** that is closest to the **development** within the same **Corps** Watershed Service Area as the impact as shown in Appendix D.
2. The payment amount made into a **wetland mitigation bank** will be determined by multiplying the acres of required mitigation by the appropriate banking cost.
3. **Wetland mitigation bank** credits applied toward impacts to **Corps jurisdictional wetlands** may not be applied simultaneously to mitigate impacts to **isolated wetlands**.
4. **Wetland mitigation banks** shall be approved by the **Corps**.

## § 606. Riparian Environments Requirements

1. **Riparian environments** provide the following functions:
  - A. Reduce **flood** flow rates, velocities, and volumes;
  - B. Prevent **erosion** and promote bank stability of streams, **lakes**, ponds, or **wetland** shorelines;
  - C. Control **sediment** from upland areas, reducing the impact of urbanization on stream habitat and water quality by filtering and assimilating nutrients discharged from surrounding uplands;
  - D. Insulate and moderate daily and seasonal stream temperature fluctuations by maintaining cooler in-stream temperatures for areas with overhanging vegetation;
  - E. Serve as important areas for de-nitrification which reduces growth of algal blooms and subsequent depressed levels of dissolved oxygen in-stream; and
  - F. Provide an effective mechanism for treatment of contaminated surface **runoff**. and

2. Any **developments** involving **riparian environments** shall identify the boundaries of those **riparian environments** by using the following documents or procedures at the time of the **development** and which are summarized in Table 6 of this Article 6 of this ordinance:

<b>Table 6. Riparian Environment Determination</b>				
<b>Biological Stream Characterization</b>	<b>Waters Classification</b>	<b>§606.2 (A)</b>	<b>§606.2 (B)</b>	<b>§606.2 (C) or (D)</b>
All Other Streams	Jurisdictional Water of the U.S.	<i>50 feet from the <b>OHWM</b></i>		
	<b>Isolated Waters</b>		<i>30 feet from the <b>OHWM</b></i>	
<b>BSC</b> of "A" or "B" or <b>BSS</b> Streams	Jurisdictional Water of the U.S.			<i>100 feet from the <b>OHWM</b></i>
	<b>Isolated Waters</b>			<i>100 feet from the <b>OHWM</b></i>

- A. For any **Jurisdictional Waters of the U.S.** that does not qualify as a **wetland**, the **riparian environment** shall be 50 feet from the **OHWM**.
- B. For any **Isolated Waters** that does not qualify as a **wetland**, the **riparian environment** shall be 30 feet from the **OHWM**.
- C. For any **Jurisdictional Waters of the U.S.** or for any **Isolated Waters** that does not qualify as a **wetland**, and which have a **BSC** of "A" or "B", the **riparian environment** shall be 100 feet from the **OHWM**.
- D. For any **Jurisdictional Waters of the U.S.** or **Isolated Waters** that does not qualify as a **wetland** identified as a **BSS**, the **riparian environment** shall be 100 feet from the **OHWM**.

3. The following **Isolated Waters** are not considered to be **riparian environments** and shall be exempt from the **riparian environment** requirements of this **ordinance**:
  - A. Roadside ditches created by excavation for the purposes of **stormwater** conveyance;
  - B. Channels or bodies of water created by unfinished **development** activities; or
  - C. Channels or bodies of water created by the construction of **stormwater facilities** for the purposes of **stormwater** management.

### § 607. Requirements for Development That Affect the Function of Riparian Environments

1. **Development** that impacts **Jurisdictional Waters of the U.S.** on the **development site** shall be prohibited unless a permit for all regulated activities is obtained from the appropriate federal and state authorities.
2. To the extent practicable, the existing functions of a **riparian environment** as defined by §606.1 of this **ordinance** shall be protected.
3. Adverse impacts to **riparian environment** functions shall be defined as:
  - A. Modification or relocation of streams and channels;
  - B. Changes to quantity, quality, or distribution of flows draining to any adjacent **wetlands** or waters; or
  - C. Damage to vegetation that overhangs, stabilizes, and provides overland flow filtration, or shades stream channels, **wetlands**, or impoundments that normally contain water. The removal of invasive vegetation is not considered to be destruction or damage of vegetation. The removal of vegetation and downed trees impeding drainage is not considered to be damage to vegetation when included as part of a **District** recognized program or project for stream **maintenance**, or **stabilization**, restoration, or enhancement.
4. Adverse impacts to the existing functions of a **riparian environment** shall be mitigated and a mitigation plan shall be prepared.
5. The following requirements pertain to channel relocation and **stabilization** practices:
  - A. When practicable, impacts to natural streams and channels should be avoided;

- B. If a channel is completely or partially relocated, the newly created portion shall be constructed in a manner which will allow naturalizing to occur including, but not limited to, meandering, pools, or riffles;
  - C. New or relocated channels shall be built under dry conditions through the diversion of the normal flow within the channel. All items of construction (including establishment of vegetation) shall be completed prior to diversion of water into the new channel;
  - D. If a channel is modified, an approved and effective **erosion and sediment control practice** to minimize and control suspended **sediment** and degradation of downstream water quality must be installed before excavation begins. The installed means must be maintained throughout the construction period and conform to the requirements of Article 4 of this **ordinance**;
  - E. The length of any new or relocated channel shall be greater than or equal to the length of the disturbed channel;
  - F. Any channel modifications shall meet all other requirements in the **ordinance**, including the **floodplain** and **floodway** requirements described in §601 and §602 of this **ordinance**;
  - G. The **co-permittee** shall provide a plan and profile of the existing and proposed channel and supporting calculations for the channel width, depth, sinuosity, and riffle locations. Impacts on **flood** flows and **flood** elevations shall be evaluated using appropriate hydrologic and hydraulic methods;
  - H. Streams and channels shall be expected to withstand all events up to the **base flood** without increased **erosion**. Hard armoring of banks with concrete, bulkheads, riprap, and other man-made materials shall be avoided where practicable. Hard armoring shall be used only where **erosion** cannot be prevented by use of bioengineering techniques or gradual slopes. Such armoring shall not have any adverse impact on other properties, nor shall it have an adverse impact upon the existing land use; and
  - I. All **disturbed areas** must be replanted for stability with native vegetation where appropriate. The **TGM** provides examples of native vegetation that is appropriate in **riparian environments**.
6. Re-vegetation of **disturbed areas** within **riparian environments** shall take place as soon as possible. In accordance with §404.1 of this **ordinance**, **stabilization** practices shall be initiated as soon as practicable in portions of the **site** where construction activities have temporarily or permanently ceased.

7. **Stormwater** outlets discharging into a channel will only be allowed provided that appropriate **volume control practices** are implemented and that they discharge through proper energy dissipation, such as a level spreader or vegetated swale.
8. A riparian mitigation plan in accordance with §306 and §308.8 of this **ordinance** shall be developed. Mitigation of **riparian environment** impacts shall include design, construction, and continued monitoring and **maintenance** of the mitigation measures and shall meet the requirements of Article 9 of this **ordinance**.
9. The design, analysis, and construction of all **riparian environment** mitigation measures shall comply with all applicable federal, state, and local regulations.
10. **Development** in or affecting a **riparian environment** shall be initiated only after a mitigation plan has been approved by either the **District** or an **authorized municipality**.
11. Either the **District** or an **authorized municipality** will require that the **co-permittee** provide annual reports monitoring the status of the constructed mitigation measures for five years, or until such time that the performance criteria has been met. Either the **District** or an **authorized municipality** may also require the **co-permittee** undertake remedial action to bring the area into compliance with the mitigation plan.

#### § 608. Requirements for Outfalls

1. All new and reconstructed **outfalls** to any **waterways** within **Cook County**, including Lake Michigan, require a **watershed management permit**. For new and reconstructed **outfalls** to **waterways** located in the City of Chicago, a **facility connection authorization** is required.
2. All new and reconstructed **outfalls** must provide an appropriate energy dissipation **structure**. **Outfalls** constructed within **riparian environments** will be subject to the requirements of §607 of this **ordinance**.
3. Neither **erosion** nor downstream **flooding** shall result from discharge from a new or reconstructed **outfall**. In accordance with Article 4 of this **ordinance**, **stabilization** practices shall be initiated as soon as practicable in portions of the **site** where construction activities have temporarily or permanently ceased.
4. All new and reconstructed **outfalls** within **Cook County** for which a **watershed management permit** is required shall comply with the details, technical requirements, and design guidelines contained in the **TGM**.

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## ARTICLE 7. REQUIREMENTS FOR SEWER CONSTRUCTION

### § 700. General Sewer Construction Requirements

1. The intent of Article 7 of this **ordinance** is to supersede requirements of the repealed **Sewer Permit Ordinance** and the **Manual of Procedures**, as described in §104 of this **ordinance**, as these prior ordinances related to the regulation, permitting and enforcement of **qualified sewer construction**.
2. A **watershed management permit** is required for **qualified sewer construction** as defined in §701 of this **ordinance**.
3. A **watershed management permit** is not required for **non-qualified sewer construction**, as defined in §701.2 and §701.3 of this **ordinance**.
4. All **qualified sewer construction** shall meet the requirements specified under Article 7 of this **ordinance**.
5. Any **qualified sewer construction** planned in conjunction with general **site development** shall also meet the requirements specified under Article 4, Article 5, and Article 6 of this **ordinance** where applicable.
6. All **permittees** and **co-permittees** shall submit the documents specified in §307 to verify compliance with the requirements in Article 7 of this **ordinance**.
7. Design and performance standards of all **qualified sewer construction** shall be consistent with the **TGM**.
8. **Qualified sewer construction** installed under the provisions of this **ordinance** shall be maintained according to the criteria and guidelines established in Article 9 of this **ordinance**.
9. **Qualified sewer construction** shall be designed to comply with all Federal, State, and local laws and engineering standards pertaining to sewer construction, including but not limited to:
  - A. The **District's Sewage and Waste Control Ordinance**;
  - B. Title 35 of the Illinois Administrative Code;
  - C. **Illinois Pollution Control Board** Technical Releases and other applicable rules and regulations issued;
  - D. **Illinois Recommended Standards for Sewage Works**;

- E. **Standard Specifications for Water & Sewer Construction in Illinois;** and
  - F. **Recommended Standards for Wastewater Facilities.**
10. The **District** may enter into service agreements to provide an outlet for **sanitary sewer** service, for the following service area types:
- A. **Cook County municipalities** that are **contiguous** to the corporate limits of the **District**; or
  - B. **Multi county municipalities**, provided that the **municipality** is located partly within the corporate limits of the **District**.

When the area to be served by the service agreement is not within the corporate limits of the **District**, the terms and conditions of Article 7 of this **ordinance** apply to the area to be served.

11. **Connection impact fee** for annexing areas into the **District**.
- A. Any **permittee** and **co-permittee** that have not previously paid a **connection impact fee** for any permit project area that annexed to the **District** on or after July 9, 1998, shall pay a **connection impact fee** to the **District** at a time that such area or a portion thereof is the subject of a **watershed management permit**.
  - B. **Connection impact fees** are not required for:
    - (1) Publicly owned facilities performing a local governmental function that discharge only domestic **sewage** into the **District's** collection facility; or
    - (2) Real estate tax-exempt facilities that discharge only domestic **sewage** into the **District's** collection facility.
  - C. The **District** shall publish the value of its **connection impact fees** by ordinance.

## § 701. Qualified Sewer Construction

- 1. **Qualified Sewer Construction** is considered all public and private new sewers and new sewer connections, exterior to a **building envelope**, including sewer repair and sewer replacement. **Qualified sewer construction** includes any of the following:
  - A. New and replacement sewers including:
    - (1) **Sanitary sewer** (public and private);

- (2) Sanitary **service sewer** (exterior to **building envelope**);
  - (3) **Combined sewer**;
  - (4) **Storm sewer** within **combined sewer areas**;
  - (5) **Storm sewer** tributary to a **combined sewer** and/or a **District** collection or **water reclamation facility**;
  - (6) **Structures** and appurtenances to sewers listed above;
  - (7) Force main conveying any flows from sewer listed above;
  - (8) Repair of an existing lift station or sewer listed above;
  - (9) Reinstatement of an existing unpermitted sewer as listed above;
  - (10) Cured-In-Place-Pipe-Lining (CIPP) of existing public sewers; and
  - (11) Alterations to the conveyance capacity of a sewer system, as listed above.
- B. New and replacement sewer connections, including:
- (1) **Building** connections at the **building envelope**;
  - (2) Public sewer connections in the **right-of-way**;
  - (3) Direct connections to **District** interceptors or interceptor **structures**, (except for within the City of Chicago);
  - (4) Direct connections to **District TARP structures** or tunnels (except for within the City of Chicago);
  - (5) Direct connections to **District** owned reservoir, property or facility (pump stations, **water reclamation facility**, etc., except for within the City of Chicago); and
  - (6) Outfalls to **waterways** or Lake Michigan (except for within the City of Chicago).
- C. For direct connections and outfalls noted above, §701.1.B.(3-6), within the City of Chicago, refer to **Facility Connection Authorization** in §703 of this **ordinance**.
2. **Non-qualified sewer construction** includes any of the following:
- A. Private **single-family home service sewer** (less than three (3) units);

- B. Plumbing internal to any **building envelope**;
  - C. **Storm sewer** tributary to a **waterway** in **separate sewer areas**;
  - D. Septic system sewers;
  - E. Sewers and sewer connections constructed outside of **District** corporate limits or service agreement areas, at the time of permit application;
  - F. Private grey water, reclamation, or water harvesting sewers and associated connections located in **separate sewer areas** and not tributary to **District water reclamation facilities**; and
  - G. **Structure** footing drains.
3. **Sewer maintenance** is considered **non-qualified sewer construction** and includes any of the following:
- A. Cured-In-Place-Pipe-Lining (CIPP) of existing previously permitted private sewers;
  - B. Grouting of existing sewers; and
  - C. Jetting, cleaning, and root-treating of existing sewers.

## § 702. Qualified Sewer Construction Requirements

1. **Qualified sewer construction** shall not:
- A. Pollute public potable water supply systems (water mains);
  - B. Pollute **waterways**, water bodies or **groundwater**;
  - C. Discharge sanitary **sewage** without treatment:
    - (1) Into a **storm sewer** system in a **separate sewer area**;
    - (2) Onto the ground; or
    - (3) Into a receiving **waterway**;
  - D. Convey **industrial wastes** that qualify for pre-treatment;
  - E. Drain clean clear **groundwater** into a collection system tributary to a **water reclamation facility**;

- F. Increase **basement** backups, **sanitary sewer** overflows, or **combined sewer** overflows by disproportionately decreasing **sewage** capacity within the existing **sanitary sewer** system and/or **combined sewer** system;
  - G. Allow excessive infiltration and inflow into a collection system tributary to **water reclamation facilities**;
  - H. Allow **stormwater** to enter **sanitary sewer** systems in **separate sewer areas**;
  - I. Combine **storm sewer** flow with **sanitary sewage** within a **parcel** (including within **Combined Sewer Areas**). Complete separation of sewers shall be provided within a **parcel**, and **sewage** may only be combined at the property line, immediately prior to the public **combined sewer** main connection; and
  - J. Violate any provision of this **ordinance** either during or after construction.
2. **Qualified sewer construction** requirements by project type:
- A. **Single-Family Home**
    - (1) Private single-family residential **service sewer** (less than three (3) units) is exempt from these **ordinance** requirements, provided that:
      - (a) An extension of public **qualified sewer construction** is not required to obtain service access; and
      - (b) Wastes consist of domestic **sewage** only.
    - (2) Single family residential **service sewer** shall not run:
      - (a) Parallel to the **right-of-way**; or
      - (b) Extend beyond the ends of the **right-of-way** frontage.
  - B. **Residential Subdivision**
    - (1) Any extension of public **qualified sewer construction** within a **residential subdivision development** requires a **watershed management permit**.
    - (2) An application submittal for a **watershed management permit** shall include a plan and profile of all public sewers.
    - (3) Each residential single-family **service sewer** meeting conditions specified under §702.2.A(1) of this **ordinance** can be considered exempt from these requirements.

- (4) Refer to Table 2 in Article 5 of this **ordinance** to determine **site stormwater** management requirements.

**C. Multi-Family Residential Sewer**

- (1) Residential **service sewer** for a **building** with three (3) units or more requires a **watershed management permit**.
- (2) A **multi-family residential service sewer** may require an inspection manhole prior to the public **right-of-way**. The appropriate **District** inspection manhole detail is available from the **TGM** and shall be provided on the plans, when appropriate.
- (3) Refer to Table 2 in Article 5 of this **ordinance** to determine **site stormwater** management requirements.

**D. Non-Residential Service Sewer**

- (1) **Non-residential service sewer** requires a **watershed management permit**.
- (2) All **non-residential service sewer** requires an inspection manhole prior to the public **right-of-way**. The appropriate **District** inspection manhole detail is available from the **TGM** and shall be provided on the plans.
- (3) Refer to Table 2 in Article 5 of this **ordinance** to determine **site stormwater** management requirements.
- (4) Refer to the **TGM** for further design guidelines.
- (5) Objectionable Wastes. When the use of a **non-residential building** is such that it will produce objectionable wastes or heavily-loaded discharges, (e.g. auto service, garage, car wash, etc.), the **co-permittee** shall comply with all of the following requirements:
  - (a) Provide a triple basin, or similar settling **structure**, to treat all non-domestic flow, prior to discharging into the sewer main;
  - (b) Perform regularly scheduled **maintenance** to remove and properly dispose of all collected objectionable wastes; and
  - (c) Provide a detail of the triple basin (or settling **structure**) on the plans.
- (6) Fats, Oils and Grease. When the use of a **non-residential building** is such that Fats, Oils, and Grease are expected to be produced and discharged

(e.g. restaurants), the **co-permittee** shall comply with all of the following requirements:

- (a) Provide a grease separator, or similar device, to treat all non-domestic flow, except the discharge from an automatic dishwasher, prior to discharging to the sewer main;
  - (b) Perform regularly scheduled **maintenance** to remove and properly dispose of all collected fats, oils, and grease; and
  - (c) Provide a detail of the grease separator on the plans.
- (7) **Industrial Waste Potential.** When the use of a **non-residential building** does not involve processes or operations that will produce **industrial wastes** (e.g. warehouse), the **co-permittee** shall:
- (a) Provide a statement on the **owner's** letterhead describing the use of the **building**; and
  - (b) Certify that no **industrial waste** will be allowed to discharge into the sewer system.
- (8) **Industrial Waste Present.** When the use of a **non-residential building** involves processes or operations that will produce **industrial wastes** (e.g. chemical plating, industrial food processing, etc.), the **co-permittee** shall submit:
- (a) A statement on the **owner's** letterhead describing the use of the **building** and the processes used;
  - (b) The additional appropriate permit forms, disclosing the planned effluent characteristics of wastes;
  - (c) The additional appropriate permit forms for documenting the onsite treatment / pre-treatment facilities planned;

**E. Public Lift Station / Force Main**

- (1) Gravity sewers shall be used whenever practicable. Lift stations and force mains may only be used after all other alternatives have been exhausted.
- (2) Lift station pumping capacity shall be designed and justified on the basis of dry weather flow expected from the population to be served at the time of permit **development**, or derived from actual flow monitoring data.

- (a) Additional pumping capacity accommodations may be made for reasonable future build-out of undeveloped / underdeveloped areas within the tributary sewer shed. In such situations, a future service area exhibit and flow estimate must be provided to justify final lift station capacity.
  - (b) Lift stations shall be designed to operate with standby pumping capacity available for system redundancy in the event of a pump failure. Pumps will be designed to alternate operation to evenly distributed wear and to ensure the standby pump is regularly exercised. Double pumping (dual discharge of design flow rated pumps) in excess of the calculated peak capacity is prohibited.
  - (c) Unjustified excessive lift station capacity (including existing facilities under rehabilitation) is prohibited.
- (3) Discharge of force mains directly into another lift station is discouraged and is only allowed when it is impracticable to discharge into a gravity sewer. Where a force main or a lift system is designed to discharge into another lift station, a detailed report is required to justify such design and shall include:
- (a) A written statement that other methods were considered and exhausted;
  - (b) A written recommendation of the design supported by engineering considerations;
  - (c) Written approval of the **owner** of the receiving lift station acknowledging the risks and the need for additional **maintenance**; and
  - (d) A **maintenance** and operation agreement between the **co-permittee** and **owner** specifying the responsibilities of each in case of failure of either lift station.
- (4) Completion of the appropriate additional permit schedule for documentation of lift station design and capacity.
- (5) Refer to the **TGM** for further design guidelines.

F. **District Interceptor, TARP and other Direct Connections to District Facilities**

- (1) Excluding the City of Chicago, direct connections to **District** facilities require a **watershed management permit**. For direct connections within the City of Chicago refer to **Facility Connection Authorization** in §703 of this **ordinance**.
- (2) Refer to §701.1.B of this **ordinance** for a list of **District** facilities requiring a permit for direct connection.
- (3) Preliminary coordination with the **District** is recommended prior to submitting a permit application for proposed connections to **District facilities**. **The co-applicant shall** formally petition the **Director of Engineering**, or his/her designee, in writing to schedule a coordination meeting.
- (4) Written approval from the **District** shall be obtained prior to entering any **District** facilities (including **TARP** and interceptor manholes).
- (5) The appropriate **District** direct connection details, specification for connection, and proper construction requirements are available from the **TGM** and shall be provided on the plans. Refer to the **TGM** for further design guidelines.
- (6) Complete the appropriate additional permit schedule for documentation of direct connections to **District** facilities.

G. **Outfall Connections**

- (1) Excluding the City of Chicago, all new and reconstructed **outfalls** to **waterways** and Lake Michigan within **Cook County** require a **watershed management permit**. For outfalls within the City of Chicago refer to **Facility Connection Authorization** in §703 of this **ordinance**.
- (2) New and reconstructed **outfalls** shall comply with the requirements of §608 of this **ordinance**.
- (3) All new and reconstructed **outfalls** within **Cook County shall** comply with the details, technical requirements, and design guidelines contained in the **TGM**.
- (4) Completion of the appropriate additional permit schedule to document the **outfall** connections location.

#### H. Treatment and Pretreatment Facilities

- (1) Treatment and Pretreatment facilities include, but are not limited to, treatment processes, private treatment plants, oxidation ponds, and similar facilities.
- (2) Preliminary coordination with the **District** is recommended prior to submitting a permit application for proposed treatment facilities. The co-applicant shall formally petition the **Director of Engineering**, or his/her designee, in writing to schedule a coordination meeting.
- (3) Refer to the **TGM** for further design guidelines.

#### I. Septic Systems

- (1) The **District** does not regulate the design, construction, or **maintenance** of septic systems for **sewage** disposal serving a **single-family home or building**. When proposing septic systems, the **co-permittee** shall obtain permits from all relevant local and state authorities.
- (2) Septic systems shall not discharge effluent to a sewer tributary to the **District's** interceptors or **water reclamation facilities**.
- (3) When septic systems are disconnected and a sanitary service connection is made, existing septic systems shall be removed or abandoned by completely filling the tank with granular material. Connections and piping to the new **sanitary sewer** system shall be watertight and made upstream of the septic tank. All existing septic systems and tank connections to be abandoned shall be plugged with non-shrink mortar or cement.
- (4) **Non-residential** projects on septic systems or private treatment plant systems that propose connection to a **sanitary sewer** system shall provide **stormwater** detention for all proposed **development**. Refer to Table 2 in Article 5 of this **ordinance** to determine **site stormwater** management requirements.
- (5) Refer to the **TGM** for further design guidelines.

#### J. Sewer Construction in Floodplain

- (1) All proposed sanitary **structures** shall have above ground openings located above the **FPE** or shall be constructed with watertight bolt down **structure** covers/lids.

- (2) Refer to Article 6 of this **ordinance** for further requirements regarding **development** within **flood protection areas**.
- (3) Refer to the **TGM** for further design guidelines.
- (4) Lift station facilities (including mechanical and electrical equipment) **flood** protection requirements are distinguished based on the following type of work:
  - (a) Existing lift station facilities to be repaired or rehabilitated shall have all above ground equipment elevated above the **FPE**. Where possible, ground openings shall be adjusted above the **FPE** or be constructed with watertight bolt down **structure** covers/lids to protect against the **base flood**.
  - (b) New lift station facilities shall be located above the **FPE** and outside the limits of the **regulatory floodplain**. New lift stations facilities shall also be carefully located to ensure **maintenance** access at all times during the **base flood**.

### § 703. Facility Connection Authorization

- 1. Within the City of Chicago, a **facility connection authorization** application is necessary to track the following types of connections to **District** owned, operated, and maintained facilities, and for impact to **District** owned or Leased property:
  - A. **District Interceptor, TARP and other Direct Connections to District Owned Sewer Collection Facilities**
    - (1) Preliminary coordination with the **District** is recommended prior to submitting a **facility connection authorization** application for proposed connections to **District** facilities. The co-applicant shall formally petition the **Director of Engineering**, or his/her designee, in writing to schedule a coordination meeting.
    - (2) Written approval from the **District** shall be obtained prior to entering any **District** facilities including **TARP** and interceptor manholes.
    - (3) The appropriate **District** direct connection details, specification for connection, and proper construction requirements are available from the **TGM** and shall be provided on the plans. Refer to the **TGM** for further design guidelines.
  - B. **District Property Impact**

- (1) All impacts, including new planned improvements, on **District** owned or leased property within **City of Chicago** must first obtain a **facility connection authorization**.
- (2) Preliminary coordination with the **District** is recommended prior to submitting a **facility connection authorization** application for proposed improvements to **District** property or facilities. The co-applicant shall formally petition the **Director of Engineering**, or his/her designee, in writing to schedule a coordination meeting.
- (3) Written approval from the **District** shall be obtained prior to entering any **District** facilities including **TARP** and interceptor manholes.

C. **Outfall** connections to the **Chicago Area Waterway System** and Lake Michigan

- (1) All new and reconstructed **outfalls** connections either direct or indirect to the **Chicago Area Waterway System** or Lake Michigan within the City of Chicago must first obtain a **facility connection authorization**.
- (2) New and reconstructed **outfalls** structures shall comply with the requirements of §608 of this **ordinance**.
- (3) All new and reconstructed outfalls shall comply with the details, technical requirements, and design guidelines contained in the **TGM**.

**ARTICLE 8. RESERVED**

**§ 800. Reserved**

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## ARTICLE 9. MAINTENANCE

### § 900. General Maintenance Requirements

1. A **maintenance** plan shall be required under a **watershed management permit** to provide for the perpetual **maintenance** of all of the following systems as required by §308:
  - A. **Erosion and sediment control practices;**
  - B. **Stormwater detention facilities;**
  - C. **Stormwater** collection facilities including both **major** and **minor stormwater systems;**
  - D. Volume control facilities;
  - E. **Native planting conservation areas;**
  - F. **Qualified Sewer Construction** including service on grease basins, triple basins, and private pre-treatment facilities;
  - G. **Wetland mitigation;** and
  - H. **Riparian environment** mitigation.
2. The **maintenance** plan provisions shall describe inspection, **maintenance**, and monitoring activities that occur after the construction phase and continue into perpetuity.
3. Guidance on inspection, **maintenance**, and monitoring is provided in the **TGM**.
4. **Maintenance** is the responsibility of the **co-permittee** and **permittee** of the **development**. The **co-permittee** and **permittee** may delegate **maintenance** responsibility to an entity acceptable to the **permittee**; however, ultimate responsibility for **maintenance** of the facilities listed under §900.1, lies with the **permittee**.
5. Any amendment to the **maintenance** plan shall be submitted to and approved by the **District's Director of Engineering**.

**§ 901. Qualified Sewer Operation and Maintenance**

1. Constructed sewer facilities must be permanently operated and maintained by the **permittee** and **co-permittee** in accordance with the issued **watershed management permit** and special conditions.
2. Qualified sewer facilities shall not be modified, extended, replaced, eliminated or abandoned without written permission from the **District's Director of Engineering**.
3. It shall be the duty and responsibility of every **permittee** to whom a **watershed management permit** has been issued for the construction and operation of any facility or connection under Article 7 of this **Ordinance** to keep said facility or connection in a proper state of repair and **maintenance** after same has been completed and placed in operation.
4. No permits shall be issued for the construction, extension, operation and **maintenance** of private **sewage** treatment plants, oxidation ponds or other treatment facilities unless accompanied by a bond with sufficient surety for proper construction, extension, operation and **maintenance** of any such treatment plant, oxidation pond, or other **sewage** treatment facility located within the corporate boundaries of the **District**. The bond shall conform to all of the following requirements:
  - A. The bond shall terminate upon connection of said **sewage** treatment plant, oxidation pond, or other **sewage** treatment facility to an intercepting sewer, or treatment plant of the **District**;
  - B. The bond shall be a condition for issuing a **watershed management permit**;
  - C. The **co-permittee** shall provide any additional security required by the **Director of Engineering** for the life of the permit, to guarantee full and complete performance, including the execution of any and all documents that may be required in support thereof;
  - D. The form and legality of the bond must be approved by the Law Department of the **District**; and
  - E. The engineering details of the bond must be approved by the **Director of Engineering**.

## ARTICLE 10. INSPECTIONS

### § 1000. General

1. The **District** may periodically inspect any **development** or **qualified sewer construction** under the **District's** scope of regulation as outlined in §200 of this **ordinance**.
2. The **District** may periodically inspect any **development** or **qualified sewer construction** requiring a **watershed management permit** in §201 of this **ordinance**.
3. An **authorized municipality** shall periodically inspect any **development** requiring a **watershed management permit** in §201.1 of this **ordinance**.
4. Inspections shall verify compliance with this **ordinance** and issued **watershed management permits**. Typical inspections may occur on the following milestones:
  - A. After mobilization and installation of initial **erosion and sediment control practices**, prior to any soil disturbance;
  - B. During excavation for the construction of **qualified sewer construction, major stormwater systems** and **detention facilities**;
  - C. Completion of the **development** or **qualified sewer construction**.
5. The **District** may enter upon any **development** subject to this **ordinance** to conduct inspections as outlined in §205.1 of this **ordinance**.

### § 1001. Inspection Requirements to be met by Development

1. Prior to commencement of construction under a **watershed management permit**, the **co-permittee** shall give, or cause to be given, to the **District** or relevant **authorized municipality**, an advance notice of at least two (2) working days of the milestones described in §1000.4 of this **ordinance**.
2. All construction shall be in accordance with the plans and specifications made part of a **watershed management permit**. The **watershed management permit** together with a set of the plans and specifications for the project shall be kept on the job **site** at all times during construction, until final inspection and approval by the **District** or relevant **authorized municipality**
3. All construction shall be inspected and approved by a **Professional Engineer** acting on behalf of the **permittee** or the **owner** of the project, or by the duly authorized representative of the **Professional Engineer**

4. No sewer trenches or **major stormwater systems** shall be backfilled except as authorized by the inspection engineer and the **District** Inspector after having inspected and approved the sewer installation.
5. Construction records may be inspected at any time during the project to demonstrate ongoing compliance with this **Ordinance** and any issued **watershed management permits**. Such records may include, but are not limited to:
  - A. The stormwater pollution prevention plan with associated inspection reports;
  - B. A copy of the latest revised construction drawings;
  - C. The project construction schedule;
  - D. Project construction photography; and
  - E. Copies of other federal, state, and local permits.
6. Where construction is performed without advance notice to the **District** or relevant **authorized municipality**, as required in §1001.1 of this **ordinance**, the **District** or relevant **authorized municipality** will assume that the construction does not comply with the applicable **ordinance** requirements. Any portion of the construction performed without the requisite advance notice shall be exposed by the **owner**, at his expense, in at least one location between every two manholes, two terminal points or as directed by the **District** for visual inspection by the **District** to insure compliance with applicable requirements as to materials and workmanship.

#### § 1002. Special Requirements for Qualified Sewer Construction

1. In addition to the inspection requirements of §1001 of this **ordinance**, the requirements of this section shall apply to **qualified sewer construction**.
2. **Testing** - All sewers constructed under the **permit** issued by the **District** shall be subject to inspection, testing and approval by the **District** to insure compliance with the **Ordinance**. All testing shall be made, or caused to be made, by the **permittee** or **co-permittee** at no cost to the **District** and in the presence of the **District** inspector or representative.
3. **Backfilling** - No sewer trenches shall be backfilled except as authorized by the **District** inspector after having inspected and approved the sewer installation. The inspector shall signify his approval and authorization for backfilling on the inspection report. The inspection report shall be on the job site at all times, and shall bear the signature of the engineer, identifying those portions of the sewer inspected and approved by him. The inspection report shall be made available for review by the **District** representative.

**§ 1003. Request for Final Inspection**

1. Prior to completion of construction, the **permittee** shall submit to the **District** a properly executed Request for Final Inspection and approval on the form prescribed by the **District**.
2. The **co-permittee** shall provide the **District** inspector an advance notice of at least two (2) working days prior to final inspection.
3. No sewer shall be put in service until it has been approved by the **District** (as detailed under §1001.3 of this **ordinance**), and until all facilities (excluding landscaping) required as conditions of the **watershed management permit** are satisfactorily constructed and completed.
4. Refer to the **TGM** for further details regarding the administration of the request for final inspection.
5. Record Drawings. Prior to final inspection and approval by the **District**, the **permittee** or **co-permittee** shall furnish or cause to be furnished to the **District**, a set of **record drawings**.
6. Recordation. Prior to final inspection and approval, the **co-permittee** shall provide a copy of the recorded documents described under §308.9 and §309 of this **ordinance**. In the event the **co-permittee** does not provide a copy of the recorded documents described under §308.9 and §309 of this **ordinance**, the **District** may record such document at the cost of the **co-permittee**.

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## ARTICLE 11. VARIANCES

### § 1100. Authority

1. Only the **District** may grant **variances** from the requirements of this **ordinance** as set forth herein; an **authorized municipality** cannot grant **variances** from the requirements of this **ordinance**.
2. The **variance** procedure is intended to provide a narrowly circumscribed means by which relief may be granted from the requirements of this **ordinance**.

### § 1101. Petition for Variance

1. A request for a **variance** shall be filed as a petition by the **co-permittee** and shall be filed with the Clerk of the **District**, at 100 East Erie Street, Chicago, Illinois 60611.
2. At the time of filling the petition, the **co-permittee** shall pay a **variance** filing fee. The **District** shall publish the value of its permit fees, including **variance** filing fees, by ordinance.
3. All **variance** petitions shall contain the following information including, but not limited to:
  - A. The **co-permittee's** notarized signature on the petition;
  - B. A letter of no objection to the **variance** request from the **permittee** or, if the **development** is located in an unincorporated area, from the appropriate unit of local government;
  - C. The names and addresses of all professional consultants advising the **co-permittee** regarding the petition;
  - D. The address(es), plat of survey, and legal description of the **site**;
  - E. The names and address(es) of all **owners** of record within two-hundred fifty (250) feet of the **site**;
  - F. The specific feature(s) of the proposed **development** that requires a **variance**;
  - G. The specific provision(s) of this **ordinance** from which a **variance** is being requested and the precise variation being sought;
  - H. A detailed statement of the characteristics of the **development** that prevent it from complying with this **ordinance**;

- I. A detailed statement of the minimum **variance** from the provisions of this **ordinance** that would be necessary to permit the proposed construction or **development**; and
- J. A detailed statement of how the submitted **variance** application satisfies each of the criteria provided in §1103.1 of this **ordinance**.

### § 1102. Co-Permittee's Notice of Petition

1. Within seven (7) calendar days after the petition for **variance** is filed with the Clerk of the **District**, the **co-permittee** shall publish at least one notice of such petition in a newspaper that is published in **Cook County** with a general circulation in the vicinity of the **site** of the proposed **development** for which a **variance** is requested.
2. Within seven (7) calendar days after the petition for **variance** is filed with the Clerk of the **District**, the **co-permittee** shall mail notice via certified mail, return receipt requested, of such petition to all **owners** of record located within two-hundred fifty (250) feet of the **site** of the proposed **development** for which a **variance** is requested, and to any other **persons** in the vicinity of the proposed **development** that the **co-permittee** has knowledge of or believes may potentially be affected by the requested **variance**.
3. Within seven (7) calendar days after the petition for **variance** is filed with the Clerk of the **District**, the **District** shall publish such petition for **variance** on its website.
4. All notices required by this section shall include the following:
  - A. The street address of the **development**, or if there is no street address, then the legal description and the location with reference to any well-known landmarks, highway, road or intersection;
  - B. A description of the requested **variance**;
  - C. A statement that any **person** may submit written comments regarding the petition for **variance** to the Clerk of the **District** within twenty-one (21) calendar days after the publication and mailing of notice; the notice shall include mailing information for said comments as follows:
 

Metropolitan Water Reclamation District of Greater Chicago,  
Clerk of the District, 100 East Erie Street, Chicago, Illinois 60611;
  - D. A statement that copies of the petition for **variance** are available upon request from the **co-permittee**;

- E. A statement that any and all documents that concern the petition for **variance**, which are subject to public disclosure, will be made available for inspection by the **co-permittee** at a readily accessible location; the notice will include the address where said inspection of documents will take place together with the name and telephone number of the **person** responsible for making the records available for inspection; and
  - F. Any additional information considered necessary or proper.
5. Within seven (7) calendar days after the publication of notice, the **co-permittee** shall submit to the Clerk of the **District** a certification of publication and shall attach a copy of the published notice.
  6. Within seven (7) calendar days after mailing of notice to **owners** of record as described in §1102.2 of this **ordinance**, the **co-permittee** shall submit to the Clerk of the **District** a notarized affidavit listing the addresses to which notices were mailed and certifying to the completeness of the list to the best of the **co-permittee's** knowledge and belief.

### § 1103. Standards

1. The **District** may grant a **variance** when it is consistent with the general purpose and intent of this **ordinance** and when the **development** meets the requirements as specified in §501.1 of this **ordinance** and all of the following conditions:
  - A. Granting the **variance** shall not alter the essential character of the area involved, including existing stream uses;
  - B. Failure to grant the **variance** would create an exceptional hardship on the **co-permittee**; economic hardship of the **co-permittee** alone shall not constitute exceptional hardship;
  - C. The relief requested is the minimum necessary and there are no means other than the requested **variance** by which the alleged hardship can be avoided or remedied to a degree sufficient to permit the reasonable continuation of the **development**;
  - D. The **co-permittee's** circumstances are unique and do not represent a general condition or problem;
  - E. The **development** is exceptional when compared to other **developments** that have met the provisions of this **ordinance**;

- F. A **development** proposed within a **flood protection area** could not be constructed if it were located outside the **flood protection area**;
  - G. The **co-permittee's** circumstances are not self-imposed; and
  - H. Granting the **variance** shall not result in any of the following:
    - (1) Increase in the **regulatory floodplain** elevation, unless a **CLOMR** is issued by **FEMA**;
    - (2) Additional threats to public safety;
    - (3) Extraordinary public expense;
    - (4) Nuisances, fraud, or victimization of the public, or;
    - (5) Conflict with existing laws or ordinances.
2. The **District** shall not grant **variances** for any **development** that is within a **regulatory floodway, jurisdictional wetland, or Jurisdictional Water of the U.S.** unless such **variance** meets or exceeds federal and/or state required minimum standards for **development** in such areas. The **co-permittee** shall be responsible for obtaining all applicable federal and/or state permits before any such **variance** is granted.
  3. The **District** shall not grant **variances** that would violate the minimum standards for **floodplain** management established by the **OWR** and the requirements of **FEMA** for participation in the **NFIP**.

#### § 1104. Submission of Written Comments

1. Any **person** may submit written comments regarding the petition for **variance** to the Clerk of the **District** within twenty-one (21) calendar days after the publication and mailing of notice by the **co-permittee**.
2. Written comments should be mailed to: Metropolitan Water Reclamation District of Greater Chicago, Clerk of the District, 100 E. Erie Street, Chicago, Illinois 60611.
3. The **District** shall take into consideration all written comments receives regarding a petition for **variance**.

#### § 1105. Determination by the District

1. After closure of the written comment period specified in §1104 of this **ordinance**, and once all of the following items are received, the Clerk of the **District** shall forward to

the **Director of Engineering**:

- A. The petition for **variance**;
  - B. Copies of all notices; and
  - C. Copies of all written comments received.
2. The **Director of Engineering** shall review the petition for **variance** and prepare a report recommending one of the following actions:
- A. Grant the petition for **variance**; or
  - B. Grant the petition for **variance** with conditions; or
  - C. Deny the petition for **variance**.

The report must also include the items listed under §1104 of this **ordinance**, and the **Director of Engineering** must forward the report to the **Board of Commissioners** for consideration.

- 3. Within thirty (30) calendar days after the **Board of Commissioners'** receipt of the petition for **variance**, the **Board of Commissioners** shall review the petition for **variance** and determine whether the petition for **variance** shall be heard by the **Board of Commissioners** itself or by its designee in a **variance** hearing.
- 4. The Clerk of the **District** shall promptly notify the **co-permittee** in writing of the **Board of Commissioners'** determination regarding who shall hear the petition for **variance**.
- 5. The **Board of Commissioners** shall promulgate procedural rules that will govern hearings pursuant to this Article. All hearings conducted pursuant to this Article will also follow the requirements for show cause hearings as set forth in §1204.2 through §1204.5 of this **ordinance**.
- 6. All **variance** hearings shall be concluded as soon as practicable.
- 7. When a **variance** hearing is conducted by the designee of the **Board of Commissioners**, the designated hearing officer shall submit the following at the conclusion of the hearing:
  - A. A written report to the **Board of Commissioners** containing the designated hearing officer's findings with respect to the petition for **variance**; and
  - B. A complete record of the **variance** hearing if requested by either the **Board of Commissioners** or by the **co-permittee** at its own expense.

8. The **Board of Commissioners** shall either approve or reject the report of the designated hearing officer. If the report is rejected, the **Board of Commissioners** shall remand the matter to the hearing officer for further proceedings. If the report is accepted by the **Board of Commissioners**, it shall constitute the final order of the **Board of Commissioners**.
9. The Clerk of the **District** shall notify the **permittee** and **co-permittee** of the determination of the **Board of Commissioners** by certified mail, return receipt requested within thirty (30) calendar days of the **Board of Commissioners'** determination. A denial of a **variance** request shall specify the requirements and conditions of this **ordinance** forming the basis of the denial.
10. The Clerk of the **District** shall notify all **persons** who submitted written comments of the determination of the **Board of Commissioners** by certified mail, return receipt requested within thirty (30) calendar days of the **Board of Commissioners'** determination.
11. The Administrative Review Law of the State of Illinois, and the rules adopted under such law, shall govern all proceedings for judicial review of final orders of the **Board of Commissioners** issued under this Section.

#### § 1106. Conditions

1. The **District** may grant a **variance** that differs from the relief requested when supported by the record.
2. The **District** may impose specific conditions and limitations on the **development** receiving a **variance** as the **District** deems necessary to meet the intent of this **ordinance**.
3. Whenever a **variance** is authorized with conditions and limitations, the **permittee** and **co-permittee** shall both file a notarized affidavit with the **District**, indicating acceptance of the conditions and limitations and their agreement to comply therewith.

## ARTICLE 12. PROHIBITED ACTS, ENFORCEMENT, AND PENALTIES

### § 1200. Prohibited Acts

1. It shall be unlawful for any **person** to undertake any **development** within **Cook County** that requires a **watershed management permit** under this **Ordinance** without first securing a **watershed management permit**.
2. It shall be unlawful for any **person** to install **qualified sewer construction** within the **District's** corporate limits or service agreement areas that requires a **watershed management permit** under this **Ordinance** without first securing a **watershed management permit**.
3. It shall be unlawful for any **person** to fail to maintain systems, in whole or in part, as required:
  - A. Within a **watershed management permit**; and
  - B. Within the **maintenance** plan of the permit as required in §900.1.
4. It shall be unlawful for any **person** to violate, disobey, omit, fail to maintain, or refuse to comply with or to resist enforcement of any provision of this **Ordinance** or any condition of a **watershed management permit** required by this **Ordinance**.

### § 1201. Administrative Proceedings: Notice of Violation

1. Whenever it shall appear to the **Director of Engineering** that a violation of a provision of this **Ordinance** exists, the **Director of Engineering** shall, as soon as practical, issue a written **Notice of Violation (NOV)** to the **permittee/co-permittee**, and/or the **person** responsible for the apparent violation (**respondent**). The **NOV** shall advise the **respondent** of the nature of the noncompliance and shall require the **respondent** to investigate the alleged violation, determine remediation measures, and develop a schedule to correct the noncompliance. The **NOV** may be sent via Certified Mail, Return Receipt Requested, or may be served personally by a representative of the **District** at the **site**, on the **respondent** or its representative.
2. The **Director of Engineering** may request a conciliation meeting concurrent with the issuance of a **NOV** for the purpose of investigating the **NOV** and for establishing a compliance schedule. In the event a conciliation meeting is not requested by the **Director of Engineering**, the **respondent** may request a conciliation meeting within seven (7) calendar days of receipt of a **NOV**. The **Director of Engineering** shall use his best efforts to convene the conciliation meeting within forty-five (45) calendar days of issuance of the **NOV**. During conciliation proceedings, the **respondent** may be

required to furnish the **District** with such information as is reasonably necessary to demonstrate compliance with the **Ordinance** or with a **watershed management permit** issued thereunder. The **Director of Engineering** may continue the conciliation meeting from time to time as deemed necessary to further compliance with this **Ordinance**.

3. A **respondent** engaging in conciliation proceedings with respect to a **NOV** shall submit a **compliance report and schedule** to the **Director of Engineering** within thirty (30) calendar days after the conciliation meeting, or upon such further date as determined appropriate by the **Director of Engineering**. In the event no conciliation meeting is held, the **respondent** shall submit the **compliance report and schedule** within forty-five (45) calendar days after the receipt of the **NOV**. The **compliance report and schedule** shall be executed by the **respondent** or its authorized representative and shall be certified as to accuracy and completeness by a **Professional Engineer**. The **compliance report and schedule** shall include a schedule that establishes a final compliance date, representing a date certain upon which all violations and conditions contained in the **NOV** are remedied. Within twenty-one (21) calendar days after receipt of the **compliance report and schedule**, the **Director of Engineering** shall accept the **compliance report and schedule** as filed or shall request such further amendments to the **compliance report and schedule** as deemed necessary to insure compliance with the requirements of the **Ordinance** or **watershed management permit**.
4. Representatives of the **District** may, during reasonable hours, enter upon the **site** of any **development** subject to a **NOV** for purposes of inspecting the **development** that is the subject of the **NOV** and/or for verifying compliance with a **compliance report and schedule** submitted pursuant to §1201.3. Inspections shall be conducted in accordance with the provisions of this **Ordinance** concerning Right of Access as set forth in §205. An inspection fee of \$250.00 shall be charged by the **District** for each onsite inspection made by the **District** pursuant to this section.
5. No later than twenty-one (21) calendar days after the final compliance date, the **Director of Engineering** shall review the compliance status of the **respondent** and shall advise the **respondent** in writing whether **respondent** has adequately remedied the violation(s) contained in the **NOV**.
6. If it appears to the **Director of Engineering** that a **person** subject to a **NOV** has failed to respond within thirty (30) calendar days after service, or has failed to submit a **compliance report and schedule** acceptable to the **Director of Engineering**, or has failed to achieve compliance on or before the final compliance date, the **Director of Engineering** may at his discretion either issue an amendment to the **NOV** or make a Recommendation for Show Cause to the **Executive Director**.

7. Upon receipt of an **NOV**, the **respondent** shall cease all actions that are related to or in furtherance of the alleged noncompliant activity until such time as the **NOV** is finally resolved.

<b>Table 7 Notice of Violation (NOV)</b>			
<b>Section</b>	<b>Action</b>	<b>By</b>	<b>When</b>
1201.1	Issuance of <b>NOV</b>	<b>Director of Engineering</b>	Apparent violation of <b>Ordinance</b> or <b>watershed management permit</b> .
1201.3	Submission of <b>compliance report and schedule</b>	<b>Respondent</b>	Within 45 calendar days after issuance of <b>NOV</b> .
1201.5	Review of <b>compliance report and schedule</b>	<b>Director of Engineering</b>	Within 21 calendar days after receipt of <b>compliance report and schedule</b> .
1201.6	Issuance of amendment to <b>NOV</b>	<b>Director of Engineering</b>	<b>Respondent:</b> 1) Does not respond 30 calendar days after service, 2) Fails to submit an acceptable <b>compliance report and schedule</b> , or 3) Fails to achieve compliance on or before the final compliance date.
1201.6	Recommendation for Show Cause to <b>Executive Director</b>	<b>Director of Engineering</b>	<b>Respondent:</b> 1) Does not respond 30 calendar days after service, 2) Fails to submit an acceptable <b>compliance report and schedule</b> , or 3) Fails to achieve compliance on or before the final compliance date.

### **§ 1202. Administrative Proceedings: Proceedings for Show Cause Before the Board of Commissioners**

1. Upon recommendation of the **Director of Engineering** as set forth in §1201.6, the **Executive Director** may order the **respondent** to appear before the **Board of Commissioners** or its duly designated representative and show cause why the **respondent** should not be found in violation of this **Ordinance**.
2. The **Board of Commissioners** shall promulgate procedural rules governing administrative proceedings pursuant to this Article.

### **§ 1203. Notice of Show Cause**

1. Notice to the **respondent** shall specify the date, time and location of a hearing to be held by the **Board of Commissioners** or its designee. The notice of the hearing shall be served personally or by registered or certified mail at least ten (10) working days before said hearing. In the case of a **municipality** or a corporation, said service shall be upon an officer or agent thereof.

**§ 1204. Show Cause Hearing and Imposition of Civil Penalties by Board of Commissioners**

1. The **Board of Commissioners** or its designee may conduct a Show Cause hearing.
2. The **Board of Commissioners** shall establish a panel of independent hearing officers, from which a designee must be selected, to conduct all hearings not presided over by the **Board of Commissioners**. All hearing officers shall be attorneys licensed to practice law in the State of Illinois.
3. All hearings shall be on the record and any testimony taken at a hearing shall be under oath and recorded stenographically. The transcripts so recorded must be made available to any member of the public or to the **respondent** or party to such hearing upon payment of the usual charges for transcripts. At the hearing, the hearing officer may issue in the name of the **Board of Commissioners** notices of hearing requesting the attendance and testimony of witnesses and the production of evidence relevant to any matter involved in the hearing.
4. The **Board of Commissioners**, or the hearing officer, shall conduct a full and impartial hearing on the record, with an opportunity for the presentation of evidence and cross-examination of the witnesses.
5. For hearings conducted by a hearing officer, after all evidence has been presented, the hearing officer shall issue a report based upon the preponderance of the evidence in the record, which includes findings of fact, conclusions of law, an order, and, if violations are proved, recommended penalties as detailed under §1204.8. The Report shall be transmitted to the **Board of Commissioners**, along with a complete record of the hearing if so requested by the hearing officer or the **Board of Commissioners**.
6. The **Board of Commissioners** shall either approve or reject the report. If the report is rejected, the **Board of Commissioners** shall remand the matter to the hearing officer for further proceedings. If the report is accepted by the **Board of Commissioners**, it shall constitute the final order of the **Board of Commissioners**.
7. The final determination regarding the imposition of penalties, and the amount thereof, rests within the sole discretion of the **Board of Commissioners**.
8. Penalties and costs shall be assessed as follows:
  - A. Civil penalties shall be assessed at the level of \$100.00 and no more than \$1,000.00 per day of violation; each day's continuation of such violation or failure to abide by the terms of this **Ordinance** is a separate offense;

- B. An inspection fee of \$250.00 shall be assessed by the **District** for each onsite inspection made by the **District** to ascertain or confirm compliance by a violator hereunder with the construction, operation and **maintenance** provision of this **Ordinance** or permit issued pursuant to this **Ordinance**; such inspection(s) shall be made when requested by the **permittee/co-permittee**, or if no such request(s) is (are) made, then upon the compliance date established by an order of the hearing officer and thereafter as circumstances may reasonably require; and
  - C. After a hearing on an alleged violation the hearing officer or **Board of Commissioners** may, in addition to any other penalties imposed, order any **person** found to have committed a violation to reimburse the **District** for the costs of the hearing, including any expenses incurred for the inspection, sampling, analysis, document preparation, administrative costs, and court reporter and attorney fees.
9. All penalties specified by the **District** shall be paid within thirty (30) days after the party on whom it is imposed receives a written copy of the order of the **Board of Commissioners**, unless the **person** to whom the order is issued seeks judicial review of the order, and obtains a stay of the decision from the circuit court in accordance with the Administrative Review Act.
  10. All unpaid penalties shall be considered in arrears thirty (30) days after the order.
  11. The Administrative Review Act of the State of Illinois, and the rules adopted under such act, shall govern all proceedings for judicial review of final orders of the **Board of Commissioners** issued under this section.

### § 1205. Revocation of Watershed Management Permits

1. In addition to the provisions for administrative and legal proceedings contained in this Article 12, whenever the **Executive Director** determines that a **person** to whom a **watershed management permit** has been issued has wholly failed to remedy the violations stated in a **NOV** issued pursuant to this **Ordinance**; or whenever a **person** has failed to comply with an order of the **Board of Commissioners** issued pursuant to this **Ordinance**; or has failed to comply with a substantive order of a court entered in litigation initiated by the **District**, the Office of the State's Attorney or the United States Attorney, against such **person** for noncompliance with this **Ordinance**; or has failed to promptly pay all civil penalties, inspection fees, or other costs assessed against such **person** in any action taken by the **District**, the **Executive Director** may order such **person** to show cause before the **Board of Commissioners** why the **watershed management permit** should not be revoked, except in circumstances where a properly filed appeal is pending.

## § 1206. Stop-Work Order

1. The **District**, upon the **Director of Engineering's** determination, as set forth herein, is authorized to issue an order requiring the suspension of construction of a **development** that is subject to this **Ordinance**.
2. A stop-work order shall:
  - A. Be in writing;
  - B. Indicate the reason for its issuance; and
  - C. Order the action, if any, necessary to resolve the circumstances requiring the stop-work order.
3. One copy of the stop-work order shall be posted on the property in a conspicuous location and one copy shall be delivered by Registered Mail, Return Receipt Requested, or personal delivery to the **permittee/co-permittee**, and/or to the property **owner** or his/her agent.
4. The stop-work order shall state the conditions under which the construction of the subject **development** may be resumed.
5. The **District** shall issue a stop-work order if the **Director of Engineering** determines that:
  - A. **Development** is proceeding in a manner which creates imminent hazard of severe harm to **persons**, property, or the environment on or off the **site**;
  - B. **Development** is occurring in violation of a requirement of this **Ordinance**, or of a **watershed management permit**, and the **District** has determined it is necessary to halt ongoing **development** activity to avoid continuing or additional violations and where significant costs and effort would be incurred should the offending **development** activity be allowed to continue; or
  - C. **Development** for which a **watershed management permit** is required is proceeding without issuance of a **watershed management permit**. In such instance, the stop-work order shall state that the order terminates when the required **watershed management permit** is properly obtained.
6. Any **permittee / co-permittee**, and/or property **owner** aggrieved by the issuance of a stop-work order may appeal the stop-work order as outlined in Article 13.

### § 1207. Additional Remedies for Flood Protection Areas

1. Upon the unauthorized excavation, filling, or modification of a **flood protection area** by any **person**, the **District** may petition the circuit court for an order to restore the **parcel** to its prior condition in order to lessen or avoid the imminent threat to public health, safety, or welfare, or damage to property or the environment resulting from the accumulation or **runoff** of **stormwater** or floodwater, or loss of beneficial function.
2. When, after a diligent search, the identity or whereabouts of the **owner(s)** of any such **parcel(s)**, including lien holders of record, are not ascertainable, notice mailed to the **person** in whose name the real estate was last assessed for taxes, constitutes sufficient notice.
3. The reasonable costs of restoration of the **flood protection area** that are incurred by the **District** shall be recoverable from the **owner** of such real estate in a civil action, together with court costs and other expenses of litigation.

### § 1208. Legal and Equitable Relief

1. The **General Counsel** of the **District** shall take such action deemed necessary to enforce collection and payment of all costs and penalties, to restrain violations of, and to compel compliance with the provisions of this **Ordinance** and with the conditions of any **watershed management permit** issued hereunder.
2. In the enforcement of this **Ordinance**, the **District** shall have the authority to institute, or cause to be instituted, any and all actions, legal or equitable, including appeals, which are required for the enforcement of this **Ordinance** without first exhausting the administrative remedies set forth herein.

### § 1209. Injunctive Relief

1. In addition to the penalties provided in Article 12, whenever a **person** violates any provision of this **Ordinance** or fails to comply with any order of the **Board of Commissioners**, the **District**, acting through the **Executive Director**, may apply to the Circuit Court of **Cook County**, or other Court having jurisdiction, for the issuance of an injunction restraining the **person** from violating this **Ordinance** or failing to comply with the Board Order from making further violations.
2. Notwithstanding any remedies that the **District** may have by statute, common law, or this **Ordinance**, when, in the determination of the **Executive Director**, the construction, operation, **maintenance, ownership** or control of any **development** subject to this **Ordinance** presents an imminent danger to the public health, welfare or safety, presents or may present an endangerment to the environment, is in violation of

this **Ordinance**, or threatens to interfere with the operation of the sewerage system of a **water reclamation facility** under the jurisdiction of the **District**, the **District**, acting through the **Executive Director**, may apply to the Circuit Court of **Cook County**, or other Court having jurisdiction, for injunctive relief to cease and desist such activities without first exhausting administrative remedies set forth herein.

## ARTICLE 13. APPEALS

### § 1300. Right to Appeal

1. Any **person** subject to this **ordinance**, or his/her authorized representative, shall have a right to appeal the following to the **Director of Engineering**:
  - A. The denial of a **watershed management permit**;
  - B. The conditions imposed in a **watershed management permit**; and
  - C. The issuance of a stop-work order.
2. Any **person** contesting any final decision, order, requirement, or determination of the **Director of Engineering** made pursuant to §1300.1 of this **ordinance** shall have the right to appeal to the **Board of Commissioners**.

### § 1301. Appeals to the Director of Engineering

1. All appeals to the **Director of Engineering** shall be made in writing and shall specify the reasons for the appeal. For appeals regarding permit denials or permit conditions, the appeal must be served upon the **Director of Engineering** within sixty (60) calendar days from the date of denial or conditional issuance of a **watershed management permit**. An appeal of the issuance of a stop-work order must served upon the **Director of Engineering** within fourteen (14) calendar days from the date of posting of the stop-work order.
2. The **Director of Engineering** will use his/her best efforts to respond in writing to a request for an appeal within thirty (30) calendar days of the receipt of a request from the **appellant** and shall schedule an appeal meeting in the letter responding to the request. In the case of an appeal of the issuance of a stop-work order, the **Director of Engineering** shall use his/her best effort to schedule and conduct an appeal meeting within thirty (30) calendar days of receipt of the request for appeal.
3. When a meeting is scheduled by the **Director of Engineering**, the **appellant** must submit all information pertinent to the appeal. This information must be submitted to the **Director of Engineering** at least fourteen (14) calendar days prior to the scheduled appeal meeting. In the case of an appeal of the issuance of a stop-work order, the **appellant** must submit all information pertinent to the appeal contemporaneously with the request for appeal.
4. The **Director of Engineering** will conduct an appeal meeting and attempt to resolve any bona fide claims, disputes, or inquiries the **appellant** may have. All determinations made by the **Director of Engineering** shall be in writing and a copy thereof transmitted

to the **appellant**. The **Director of Engineering** will use his/her best efforts to transmit these determinations to the **appellant** within sixty (60) calendar days of the appeal meeting. Determinations regarding the appeal of the issuance of a stop-work order shall be transmitted to the **appellant** within fourteen (14) days of the appeal meeting.

5. Should the **appellant** fail to appear at the scheduled appeal meeting, another appeal meeting will not be scheduled unless the **appellant** requests such a meeting, in writing to the **Director of Engineering**, not later than thirty (30) calendar days after the date of the initially scheduled appeal meeting. A second appeal meeting may be granted at the discretion of the **Director of Engineering** upon a finding of good cause as to why the initial appeal meeting was missed. If a properly filed request for a second appeal meeting under this section is denied by the **Director of Engineering**, the **appellant** may file an appeal to the **Board of Commissioners** for the sole purpose of determining the propriety of the **Director of Engineering's** denial. If the **Board of Commissioners** grant the **appellant's** request, then the matter shall be remanded for an appeal by the **Director of Engineering** under the provisions of this section.
6. Any **person** who has been issued a **watershed management permit**, and who appeals a condition contained in that permit, may commence construction of the subject **development** prior to a resolution of the appeal. However, any commencement of construction must comply with all of the terms and conditions of the **watershed management permit** as issued to said **person**, and not otherwise in violation of this **ordinance**.
7. Any **person** whose request for a **watershed management permit** was denied by the **District** or by an **authorized municipality** is prohibited from commencing construction of the subject **development** during the pendency of an appeal. Under no circumstances can construction commence prior to the issuance of a **watershed management permit**.
8. Any **person** who requests an appeal of the issuance of a stop-work order must suspend construction of the subject **development** while the appeal is pending.

### § 1302. Appeals to the Board of Commissioners

1. In the event that the **appellant** does not concur with the determination of the **Director of Engineering**, the **appellant** may petition the **Board of Commissioners** for a hearing. Any petition requesting a hearing by the **Board of Commissioners** shall be made by the **appellant** within thirty (30) calendar days after receipt of the determination by the **Director of Engineering** pursuant to §1301 of this **ordinance**.
2. This petition must be in writing by the **appellant** and sent to the **President of the Board of Commissioners**, at 100 East Erie Street, Chicago, Illinois 60611, with a copy to the **Director of Engineering**. Within thirty (30) calendar days after receipt of this petition, the **Director of Engineering** will advise the **appellant** in writing regarding the

date on which the **Board of Commissioners** will consider the petition made by the **appellant**.

3. The **Board of Commissioners** shall review this petition and determine whether the petition for an appeal shall be heard by the **Board of Commissioners** itself or by its designee.
4. The **Board of Commissioners** shall establish a panel of independent hearing officers, from which a designee must be selected, to conduct all hearings not presided over by the **Board of Commissioners**. All hearing officers shall be attorneys licensed to practice law in the State of Illinois.
5. The **Director of Engineering** will promptly notify the **appellant** in writing of the **Board of Commissioners'** determination of who shall hear the appeal.
6. The **Board of Commissioners** shall not grant an appeal if the **appellant** failed to timely file an appeal with the **Director of Engineering**.
7. When an appeal hearing is conducted by the designee of the **Board of Commissioners**, the designated hearing officer shall submit a written report of his or her findings to the **Board of Commissioners** with respect to such appeal. The hearing officer must also submit a complete record of the appeal hearing if requested by the **Board of Commissioners** or by the **District** or by the **appellant**, at its own expense.
8. The **Board of Commissioners** shall either approve or reject the report of the designated hearing officer. If the report is rejected, the **Board of Commissioners** shall remand the matter to the hearing officer for further proceedings. If the report is accepted by the **Board of Commissioners**, it shall constitute the final order of the **Board of Commissioners**.
9. The scope of any hearing conducted under this section shall be limited to the issues raised by the **appellant** in the **Director of Engineering's** appeal meeting. Technical information that was not submitted by the **appellant** to the **Director of Engineering** under §1301 of this **ordinance** shall not be utilized in a hearing before the **Board of Commissioners** or its designee.
10. All appeal hearings before the **Board of Commissioners** or the designated hearing officer shall be concluded as soon as practicable.
11. Determinations by the **Board of Commissioners** or its designee shall be effective immediately. The **District** shall provide the final decision and order of the **Board of Commissioners** in writing to the **appellant** within thirty (30) calendar days of entry.
12. Final decisions of the **Board of Commissioners** are subject to the Administrative Review Act.

13. Any **person** who requests an appeal to the **Board of Commissioners** under this section must maintain the status quo during the pendency of the appeal and shall not take any action in contravention of the determination of the **Director of Engineering**.
14. The **Board of Commissioners** shall promulgate procedural rules governing administrative proceedings pursuant to this **Article**.

## ARTICLE 14. ADMINISTRATION

### § 1400. Responsibility for Administration

1. The **District** has the authority and responsibility for the administration of this **ordinance**.

### § 1401. Role of the District

1. The role of the **District** in the administration of this **ordinance** shall include all of the following:
  - A. Supervise the execution of this **ordinance**;
  - B. Review and issue **watershed management permits**;
  - C. Develop and maintain the **TGM**, which will serve as a companion reference to this **ordinance**;
  - D. Notify **Cook County** governmental agencies, **municipalities, authorized municipalities, FEMA, OWR, Corps, and IEPA** of any amendments to this **ordinance**;
  - E. Provide inspections to ensure proper compliance with this **ordinance**;
  - F. Investigate complaints of violations of this **ordinance**;
  - G. Grant **variances**;
  - H. Enforce this **ordinance**;
  - I. Hear appeals;
  - J. Advise, consult with, and cooperate with other governmental entities to promote the purposes of this **ordinance**; and
  - K. Supervise **authorized municipalities**.
2. The **District** shall timely review **watershed management permit** applications and respond within:
  - A. Fifteen (15) working days of an initial submittal for **developments** not involving **flood protection areas**;

- B. Thirty (30) working days of an initial submittal for **developments** involving **flood protection areas**; and
- C. Ten (10) working days of a resubmittal.

## § 1402. Role of an Authorized Municipality

1. The role of an **authorized municipality** in the administration of this **ordinance** shall include the following:
  - A. Issue **watershed management permits** for **development** activities listed in §201.1 and within its corporate boundaries in conformance with this **ordinance**;
  - B. Provide inspections to ensure proper compliance with this **ordinance**;
  - C. Investigate complaints of violations of the **ordinance**; and
  - D. Advise, consult with, and cooperate with other governmental entities to promote the purposes of this **ordinance**.
2. An **authorized municipality** must:
  - A. Have legal authority to:
    - (1) Perform all requirements of an **authorized municipality** under this **ordinance**; and
    - (2) Adopt this **ordinance** by reference;
  - B. Adopt this **ordinance**, including all amendments, by reference;
  - C. Participate in the regular phase of the **NFIP**;
  - D. Have the ability to review and issue **watershed management permits** for **development** activities in **separate sewer areas** listed in §201.1 and within its corporate boundaries in conformance with this **ordinance**;
  - E. Employ or retain by contract, adequate staff for all of the following positions:
    - (1) An **enforcement officer**;
    - (2) **Professional Engineer(s)**; and
    - (3) **Wetland specialist(s)**;

- F. Timely review **watershed management permit** applications and respond within:
    - (1) Fifteen (15) working days of an initial submittal for **developments** not involving **flood protection areas**;
    - (2) Thirty (30) working days of an initial submittal for **developments** involving **flood protection areas**; and
    - (3) Ten (10) working days of a resubmittal;
  - G. Maintain all of the following records;
    - (1) **Watershed management permits**;
    - (2) **Record drawings**;
    - (3) **Structure** improvement data;
    - (4) **Elevation certificates**;
    - (5) **Base flood** data and **base flood** maps; and
    - (6) **LOMC, LOMR**;
  - H. Transmit all records specified in §1402.2.G of this **ordinance** to the **District** upon receipt;
  - I. Issue **watershed management permits** for **development** activities listed in §201.1 within its corporate boundaries in conformance with this **ordinance**;
  - J. Inspect the construction of all **developments** which require a **watershed management permit** from the **authorized municipality**;
  - K. Notify the **District** promptly for any violation within the **authorized municipality**;
  - L. Issue local stop work orders for all **violations**, when appropriate; and
  - M. Establish **watershed management permit** fees for **watershed management permits** reviewed and issued by the **authorized municipality**.
3. An **authorized municipality** shall not:
- A. Issue **watershed management permits** inconsistent with the provisions of this **ordinance**;

- B. Issue **watershed management permits** for **development** activities listed in §201.2 of this **ordinance**;
- C. Issue **watershed management permits** for **development** within **combined sewer areas** or **separate sewer areas** that are tributary to **combined sewers**;
- D. Issue **variances**; or
- E. Hear appeals.

### § 1403. Procedure for Authorization

1. A **municipality** seeking to become an **authorized municipality** shall formally petition the **District** through a letter of intent. The letter of intent shall contain all of the following:
  - A. A statement of intent to adopt this **ordinance** by reference;
  - B. A legal opinion indicating the **authorized municipality** has legal authority to perform all obligations required by this **ordinance** including:
    - (1) The regulation of **erosion** and **sediment** control, **stormwater** management, **floodplains**, **isolated wetlands**, and **riparian environments**;
    - (2) The ability to conduct inspections;
    - (3) The issuance of **watershed management permits**;
    - (4) The enforcement of this **ordinance**; and
    - (5) The ability to enter into an intergovernmental agreement with the **District**.
  - C. A verified statement of financial capability to perform and adequately fund the obligations of the **authorized municipality**;
  - D. Designation of an **enforcement officer**;
  - E. An implementation plan; and
  - F. Proposed staffing.
2. An intergovernmental agreement between a **municipality** and the **District** shall effectuate the status of a **municipality** as an **authorized municipality**. The intergovernmental agreement shall remain effective unless terminated.

## § 1404. District Oversight of Authorized Municipalities

1. The **District** may inspect any **development** within an **authorized municipality**.
2. The **District** may audit an **authorized municipality** periodically. During an audit, the **District** may:
  - A. Inspect and copy pertinent records kept by an **authorized municipality**;
  - B. Inspect **watershed management permits** issued by an **authorized municipality**;
  - C. Meet with staff of an **authorized municipality**;
  - D. Conduct field inspections of **developments** permitted by an **authorized municipality**;
  - E. Request and copy financial records of the **authorized municipality**;
  - F. Verify that an **authorized municipality** complies with all requirements listed in §1402.2 of this **ordinance**; and
  - G. Verify that an **authorized municipality** does not violate any provision listed in §1402.3 of this **ordinance**.
3. The **Director of Engineering** shall promptly notify an **authorized municipality** of any of the following deficiencies:
  - A. Failure to comply with any provision of §1402.2 of this **ordinance**;
  - B. Violation of any provision of §1402.3 of this **ordinance**; or
  - C. Breach of the intergovernmental agreement;
4. An **authorized municipality** shall remedy any deficiency listed in §1404.3 of this **ordinance** within thirty (30) calendar days of notice of the deficiency. In cases where a deficiency cannot be remedied within thirty days, the **Director of Engineering** may grant an extension.
5. The **Director of Engineering** may either suspend or terminate a **municipality's** status as an **authorized municipality** if the **municipality** fails to remedy a violation in accordance with §1404.4 of this **ordinance**. If a **municipality's** status as an **authorized municipality** is either suspended or terminated, the **municipality** may petition the **Director of Engineering** for reauthorization after all deficiencies are remedied.

**§ 1405. Representative Capacity**

1. Any action to enforce any provision of this **ordinance** by an elected official, officer, agent, or employee of the **District** shall be taken in the name of and on behalf of the **District** and said elected official, officer, agent, or employee shall not be rendered personally liable.
2. Any action to enforce any provision of this **ordinance** by an elected official, officer, agent, or employee of an **authorized municipality** shall be taken in the name of and on behalf of the **authorized municipality** and said elected official, officer, agent, or employee shall not be rendered personally liable.
3. Any action to enforce any provision of this **ordinance** by an **authorized municipality** shall be taken in the name of and on behalf of the **authorized municipality** and not in the name of and on behalf of the **District**.

## APPENDIX A. DEFINITIONS

### Interpretation of Terms and Words

The terms and words used in this **Ordinance** shall be interpreted as follows:

1. Verbs and phrases in the present tense shall be presumed to include the future tense;
2. Parts of speech used in the singular shall be presumed to include the plural, and those used in plural shall be presumed to include the singular;
3. The words "shall," "will," and "must" are understood as mandatory, not permissive; and
4. All distances shall be measured horizontally unless otherwise stated.
5. A masculine, feminine or neuter pronoun shall not exclude the other genders.

### Definitions

Words and terms not defined herein shall be understood by their common dictionary definition.

Within the context of this **Ordinance**, the following words and terms shall be defined as follows (except where otherwise specifically indicated):

#### 100-Year Flood Elevation

The 100-year flood elevation is highest elevation of the **BFE**, a project-specific 100-year flood elevation, or the 100-year inundation elevation used in §601.9.

#### Accessory Structure

A detached, non-habitable **building** without sanitary facilities that is an accessory to an existing **building** and that is less than 500 square feet in area. Accessory **structures** include, but are not limited, to garages and sheds.

#### Allowable Release Rate

The maximum or actual post-development release rate from a required **detention facility** as specified in §504.3 or §506.3, which is adjusted by existing **depressional storage** and/or **unrestricted flow** areas on the **site**.

#### Appellant

A **co-permittee** who appeals the **District's** denial and/or imposition of conditions of a **Watershed Management Permit** or of a **variance** request.

**Appropriate Use**

The only types of **development** within the **regulatory floodway** that are eligible for a **Watershed Management Permit** as specified in §602.27.

**Authorized Municipality**

A **Cook County municipality** authorized by the **District** to issue **watershed management permits** within its corporate boundaries.

**Base Flood**

The **flood** having a one percent probability of being equaled or exceeded in a given year. The **base flood** is also known as the “100-year flood.”

**Basement**

Any area of a **building** having its floor below grade (below grade level) on all sides.

**BFE**

**Base Flood Elevation**. The height of the **base flood** in relation to the North American Vertical Datum of 1988 that is associated with the **Special Flood Hazard Area** on the effective **FIRM**. The **BFE** shall be determined by the effective Flood Insurance Study (**FIS**) for a **development site** at the time of application as determined by the criteria provided in §601.3 and §601.4.

**Board of Commissioners**

The nine-member Metropolitan Water Reclamation District of Greater Chicago’s **Board of Commissioners** who are elected by the public.

**BSC**

**Biological Stream Characterization**. A program developed by the Illinois Environmental Protection Agency (**IEPA**) in conjunction with biologists from the Illinois Department of Natural Resources (**IDNR**) to aid in the classification of streams throughout the **watersheds** of Illinois. The **BSC** utilizes the Alternative Index of Biotic Integrity (**AIBI**) to classify streams as A, B, C, D, or E. The ratings use fish, macroinvertebrates, crayfish, mussels, and threatened and endangered species information to generate an overall score of biological diversity and integrity in streams.

**BSS**

**Biologically Significant Stream**. Streams with a Biological Diversity or Integrity of “A”, “B”, or “C” according to the latest edition of the Illinois Department of Natural Resources (**NRCS**) Office of Resource Conservation: Biological Stream Ratings for Diversity, Integrity, and Significance.

**Building**

A **structure** that is constructed and is enclosed by walls and a roof, including **manufactured homes**. This term does not include **accessory structures**.

**Building Envelope**

The delineation **between the interior and the exterior environments of a building** and often depicted as the **building** foundation.

**Bulletin 70**

Huff, F.A., and J.R. Angel, 1989. "Rainfall Distributions and Hydroclimatic Characteristics of Heavy Rainstorms in Illinois" (**Bulletin 70**), Illinois State Water Survey.

**CCSMP**

The **C**ook **C**ounty **S**tormwater **M**anagement **P**lan adopted by the Metropolitan Water Reclamation District of Greater Chicago **Board of Commissioners** on February 15, 2007, as amended from time to time.

**CLOMA**

**C**onditional **L**etter **o**f **M**ap **A**men<sup>d</sup>ment. 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 **BFEs**.

**CLOMR**

**C**onditional **L**etter **o**f **M**ap **R**evisi<sup>o</sup>n. A letter that indicates that **FEMA** will revise **BFEs**, **flood** insurance rate zones, **flood** boundaries, or **floodways** as shown on an effective **FIRM** after the **record drawings** are submitted and approved.

**Co-Permittee**

A **person** applying for a **Watershed Management Permit**, who must be the **owner** of the land specified in the application, the **owner's** representative, or a developer with the owner's authorization. In the event, the **co-permittee** is a beneficiary of a land trust that owns the land specified in the application, the **co-permittee** must have power of direction.

**Combined Sewer**

Sewers intended for the combined conveyance of **stormwater runoff** and wastewater flows. [*Compare combined sewer with sanitary sewer and storm sewer*].

**Combined Sewer Area**

Areas within the **District's** corporate boundaries that have sewers intended for the combined conveyance of **stormwater runoff** and wastewater flows to a **District** wastewater storage or treatment facility. This regulatory limit should be considered the high water mark **of combined sewer area** service limits, and was established in the past to limit further expansion of areas served by **combined sewers**. This area does not represent the actual effective boundaries between combined and separate sewer sheds. Consult local sewer system atlas information for that level of detail. [*Compare combined sewer area with separate sewer area*].

**Compensatory Storage**

An excavated volume of storage used to offset the loss of existing **flood** storage capacity when fill or **structures** are placed with the **floodplain**.

**Compliance Report and Schedule**

A report that specifies a schedule and final compliance date for which all violations and conditions contained in a **NON – Stormwater** are remedied.

**Connection Impact Fee**

Fee for annexing to the **District**.

**Contiguous**

Adjacent to and touching at one point or more; if the lands are separated by an easement or a dedicated right-of-way, it shall be considered contiguous.

**Control Volume**

The first inch of **runoff** from the **impervious area of development** on the **site**.

**Corps**

United States Army Corps of Engineers.

**Corps Jurisdictional Determination**

Procedure by which the **Corps** determines whether it has jurisdiction over a subject water as a waters of the United States. The purpose of a jurisdictional determination is to determine whether a wetland is a **Corps** jurisdictional wetland. For the purposes of this **Ordinance**, a wetland not under the jurisdiction of the **Corps** shall be considered an **isolated wetland**.

**Corps Jurisdictional Wetlands**

All **wetlands** that are under the jurisdiction of the **Corps**.

**Corps Wetland Delineation Manual**

The current Corps Wetland Delineation Manual, including any relevant regional supplements, or superseded and as authorized under Section 404 of the Clean Water Act.

**Cook County**

Cook County is defined as the land area within the boundaries of Cook County, Illinois.

**Critical Duration Analysis**

Study that determines which **storm event** duration results in the greatest peak **runoff** rate.

**Dam**

Any obstruction, wall embankment, or barrier, including the related abutments and appurtenant works, that is constructed to store, direct, or impound water. An underground water storage tank is not classified as a **dam**.

**Depressional Storage**

The volume potentially contained below a closed contour on a one-foot contour topographic map, with the upper elevation determined by the invert of a surface-gravity outlet.

**Design Runoff Rate**

The **runoff** rate, or flow rates, used to design **major stormwater systems** and determine offsite flow rates. **Design runoff rates** are calculated by using event hydrograph methods.

**Detention Facility**

A manmade **structure** providing temporary storage of **stormwater runoff** from a **development** with a release rate specified by this **Ordinance**. The **Detention Facility** includes a stormwater storage basin, control structure (or restrictor), and the basin outlet, overflow and inflow pipes.

**Development**

Any human-induced activity or change to real estate (including, but not limited to, grading, paving, excavation, dredging, fill, or mining; alteration, subdivision, change in land use or practice; **building**; or storage of equipment or materials) undertaken by private or public entities that affects the volume, flow rate, drainage pattern or composition of **stormwater**, or the **substantial improvement** of an existing **building** in a **Special Flood Hazard Area**. The term **development** shall include **redevelopment** and shall be understood to not include **maintenance**.

**Director of Engineering**

The Director of Engineering of the Metropolitan Water Reclamation District of Greater Chicago, and his or her designee.

**District**

Metropolitan Water Reclamation **District** of Greater Chicago. A special-purpose district established by the State of Illinois to, among other things, manage wastewater for an area largely corresponding to **Cook County**, and **stormwater** in **Cook County**. The **District** is an independent unit of local government with an elected nine member **Board of Commissioners**.

**Disturbed Area**

Actual land surface area disrupted by construction activity.

**Drainage Area**

The land area tributary to a given point that contributes **runoff** from rainfall and/or snowmelt.

**DWP**

Detailed Watershed Plans. A study and evaluation by the **District** to assess the specific conditions and needs for each of the following **watersheds**: Calumet-Sag Channel, the Little Calumet River, the Lower Des Plaines River, the North Branch Chicago River, Poplar Creek, and the Upper Salt Creek.

**DWP Inundation Map**

A map delineating the **100-year flood elevation** as modeled in the most current version of a **DWP**.

**Elevation Certificates**

A form published by **FEMA** that is used to certify the **BFE** and the lowest elevation of a **building's lowest floor**.

**Enforcement Officer**

A municipal official having actual authority from an **authorized municipality** to issue **watershed management permits**, administer this **Ordinance**, and enforce this **Ordinance**.

**Erosion**

The process of soil particle detachment from the land surface by the forces of wind, water, or gravity.

**Erosion and Sediment Control Practice**

A temporary or permanent measure that stabilizes soil by covering and/or binding soil particles in order to prevent soil particles from becoming detached by the forces of wind, water, or gravity and intercepts **sediment** in **runoff**.

**Erosion Control Practice**

A temporary or permanent measure that stabilizes soil by covering and/or binding soil particles in order to prevent soil particles from becoming detached by the forces of wind, water, or gravity.

**Executive Director**

The **Executive Director** of the Metropolitan Water Reclamation District of Greater Chicago.

**Existing Detention Facility**

A **detention facility** either permitted under the **Sewer Permit Ordinance** or constructed as of the effective date of this **Ordinance**.

**Existing Development Plans List**

A list of proposed **development** projects submitted by a **municipality** to the **District** for which the **municipality** has granted formal preliminary approval.

**Existing Manufactured Home Park or Subdivision**

A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the **manufactured homes** are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final **site** grading or the pouring of concrete pads) is completed before the effective date of this **Ordinance**.

**Expansion to an Existing Manufactured Home Park or Subdivision**

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

**Facility Connection Authorization**

Within the City of Chicago, an authorization for planned connection to **District** owned, operated, and maintained facilities located within the City of Chicago, and for impacts to **District** owned or leased property. Examples of **District** owned facilities may include (but are not limited to): **District** interceptor, **TARP** structure or **District** tunnel, **District** Lift Station or force main, **District** reservoir, a new or reconstructed outfall to a Chicago Area Waterway within the City of Chicago, new or reconstructed outfall to Lake Michigan from property located within the City of Chicago. Formerly known as a Sewer Connection Authorization. Refer to §703 for more information.

**Farmed Wetland**

A **wetland** that is farmed currently or has been farmed within five years previous to the permit application date.

**FEMA**

**F**ederal **E**mergency **M**anagement **A**gency. The federal agency whose primary mission is to reduce the loss of life and property and protect the nation from all hazards (including natural disasters, acts of terrorism, and other man-made disasters) by leading and supporting the nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation.

**FIRM**

**F**lood **I**nsurance **R**ate **M**ap. The current version of a map issued by **FEMA** that is an official community map on which **FEMA** has delineated both the special hazard areas and the risk premium zones applicable to a community together with any amendments, additions, revisions, or substitutions issued by **FEMA** at any time.

**FIS**

**F**lood **I**nsurance **S**tudy. The current version of a study of **flood** discharges and **flood** profiles for a community adopted and published by **FEMA**, together with any amendments, additions, revisions or substitutions issued by **FEMA** at any time. The **FIS** also includes its associated **FIRMs**.

**Flood or Flooding**

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

**Flood Protection Areas**

**Regulatory floodplains, regulatory floodways, riparian environments, wetlands, and wetland buffers.**

**Floodplain**

The area adjacent to and including a body of water where ground surface elevations are at or below a specified **flood** elevation.

**Floodproof or Floodproofing**

Additions, changes, or adjustments to **structures** or land that prevent the entry of **flood** water in order to protect property from **flood** damage.

**Floodway**

The channel and portion of the **floodplain** adjacent to a stream or watercourse that is needed to convey the **base flood** without cumulatively increasing the water surface elevation more than a tenth of a foot.

**Floodway Conveyance**

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

**Flow-Through Practices**

Permanent **volume control practices** designed to treat **stormwater runoff** from **impervious areas** of a **development** after permanent **stabilization** is achieved.

**FPE**

**Flood Protection Elevation**. The highest **100-year flood elevation** as determined in §601.9 plus two foot of freeboard.

**General Counsel**

The General Counsel of the Metropolitan Water Reclamation District of Greater Chicago.

**Green Infrastructure**

Practices aimed to mimic functions of the hydrologic cycle including infiltration, interception, depression storage, evapotranspiration, and evaporation.

**Groundwater**

Subsurface water occupying the saturation zone, from which wells and springs are fed. Water found below the normal water table.

**High Quality Isolated Wetland**

**Isolated wetlands** that are of the highest value due to their uniqueness, scarcity, function, and/or value as determined by §603.8.

**Highest Adjacent Grade**

The highest natural elevation of the ground surface next to the proposed walls of a **building** prior to construction.

**Hydraulically Equivalent Compensatory Storage**

**Compensatory storage** that can be shown by hydrologic and hydraulic analysis to off-set the increase in **flood** elevations due to **development**.

**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.

**IDOT**

**I**llinois **D**epartment **o**f **T**ransportation.

**IEPA**

**I**llinois **E**nvironmental **P**rotection **A**gency.

### Illinois Pollution Control Board

A quasi-legislative and quasi-judicial body created under the Illinois Environmental Protection Act. The Illinois Pollution Control Board adopts environmental regulations and hears contested cases.

### Illinois Recommended Standards for Sewage Works

The Illinois Recommended Standards for Sewage Works as included in the Illinois Administrative Code. 35 Ill. Adm. Code 370.

### Illinois Urban Manual

This manual contains design guidance for a **development site** to meet this **Ordinance's** performance standards for **erosion** and **sediment** control.

### Impervious Area

Surfaces that do not readily allow for the penetration of rain into the ground, and include but are not limited to rooftops, paved areas and graveled areas. 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 non-compacted gravel areas, porous/permeable pavement areas, and bioretention areas (rain gardens and bioswales, composed of an engineered soil mix) shall not be considered impervious.

### Indirect Wetland Impact

A **development** activity that causes the **wetland hydrology** to fall below eighty percent (80%), or exceed one-hundred fifty percent (150%), of the existing condition **storm event runoff** volume to the **wetland** for the 2-year, 24-hour **storm event**.

### Industrial Waste

The solids, liquid, or gaseous wastes resulting from any industrial, manufacturing, trade or business process or from the **development**, recovery or processing of natural resources.

### Interest

The property interest or contractual interest, legal or equitable, directly or indirectly, in part or in full, and includes options to buy. In the case of a shareholder interest, the shareholder shall be deemed to have an interest if he owns or controls 5% or more of the shares.

### Isolated Waters

All waters including **lakes**, ponds, streams, intermittent streams, and ephemeral pools that are not under the **Corps'** jurisdiction. The limits of the **Isolated Waters** in **Cook County** extend to the **OHWM**.

### Isolated Wetland

All **wetlands** that are not under the jurisdiction of the **Corps**.

### Isolated Wetland Buffer

The vegetated area adjacent to **isolated wetlands** left open for the purpose of eliminating or minimizing adverse impacts to such areas.

**Isolated Wetland Submittal**

Submittal required under §305.

**Jurisdictional Waters of the U.S.**

All waters including **lakes**, ponds, streams, intermittent streams, and ephemeral pools that are under the jurisdiction of the **Corps**.

**Jurisdictional Wetlands**

All **wetlands** that are under the jurisdiction of the **Corps**.

**Lake**

A natural or artificial body of water encompassing a surface area of two or more acres that retains water throughout the year.

**LOMA**

Letter of Map Amenament. The official determination by **FEMA** that a specific **structure** or **parcel** of land is not in a **regulatory floodplain**. A **LOMA** amends the effective **FIRM**.

**LOMC**

Letter Of Map Change. A letter from **FEMA** which reflects an official revision to an effective **NFIP** map. **LOMCs** are issued in place of the physical revision and republication of the effective map.

**LOMR**

Letter Of Map Revision. A letter from **FEMA** that revises **BFEs**, **flood** insurance rate zones, **flood** boundaries, or **floodway** as shown on an effective **FIRM**.

**LOMR-F**

Letter Of Map Revision Based on Fill. A letter from **FEMA** which officially revises an effective **NFIP** map. A **LOMR-F** provides **FEMA's** determination concerning whether a **structure** or **parcel** has been elevated on fill above the **BFE** and excluded from the **Special Flood Hazard Area**.

**Lowest Entry Elevation**

The elevation at which water can enter a **building** through any non-water tight opening such as a doorway threshold, windowsill, or **basement** window well.

**Lowest Floor**

The **lowest floor** of the lowest enclosed area (including **basement**). An unfinished or **flood** resistant enclosure, used solely for parking of vehicles, **building** access, or storage in an area other than a **basement** area is not considered a **building's lowest floor**; provided, that such enclosure is not built so as to render the **structure** in violation of the applicable non-elevation design requirement of the Code of Federal Regulations (44 CFR 60.3).

**Maintenance**

The action required to preserve the original function and prevent failure of systems, which include but are not limited to, **sewage** systems, **major stormwater systems**, constructed **wetlands**, or **green infrastructure**.

**Maintenance Activities**

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

**Major Stormwater System**

That portion of a **stormwater** system needed to store and convey flows for the 100-year **storm event**.

**Manual of Procedures**

The **District's** Manual of Procedures for the administration of the **Sewer Permit Ordinance** as amended November 5, 1988.

**Manufactured Home**

A **building** that is transportable in one or more sections, built on a permanent chassis, and designated for use with or without a permanent foundation when connected to the required utilities. The term **manufactured home** includes park trailers, travel trailers, and other similar vehicles placed on a **site** for more than 180 consecutive days.

**Manufactured Home Park or Subdivision**

A **parcel** or **contiguous parcels** of land divided into two or more **manufactured home** lots.

**Material Change**

Any deviation from the approved plans or specifications accompanying an application for which a **watershed management permit** has been issued under this **Ordinance**, that would affect the **runoff**, capacity, flow, or operation of sewerage and/or **major stormwater systems** constructed under said **watershed management permit**.

**Minor Stormwater System**

All infrastructure including curb, gutter, culverts, roadside ditches and swales, **storm sewers**, tiles, subsurface drainage systems, and other practices intended to convey or capture **stormwater runoff** from **storm events** less than a 100-year **storm event**.

**Multi County Municipality**

A **municipality** containing corporate area within both **Cook County** and an Illinois county located **contiguously** adjacent to **Cook County**.

**Multi-Family Residential**

Residential **parcel** where any **building** contains three (3) dwelling units or more. [*Compare multi-family residential with residential subdivision.*]

**Municipality**

A city, village, or incorporated town in the State of Illinois, but, unless the context otherwise provides does not include a township, town when used as the equivalent of a township, incorporated town that has superseded a civil township, county, school district, park district, sanitary district, or any other similar governmental district.

**Native Planting Conservation Area**

Area planted with native deep-rooted vegetation, as approved by the **District**, and maintained in perpetuity to address **unrestricted flow** areas of a **development site**.

**New Construction**

For the purpose of determining insurance rates, **structures** for which the **start of construction** commenced on or after the effective date of an initial **FIRM** or after December 31, 1974, whichever is later, and included any subsequent improvements to such **structures**.

For the purpose of **floodplain** management, **new construction** means **structures** for which the **start of construction** commenced on or after the effective date of the **floodplain** management regulation adopted by a community and includes any subsequent improvements to such **structures**.

**New Impervious Area**

**Impervious areas** that result from **development** or **redevelopment** including new **structures** or **buildings** associated with **development**, new impervious surfaces, and impervious surfaces that are being replaced as part of **redevelopment**.

**New Manufactured Home Park or Subdivision**

A **manufactured home park** or subdivision for which the construction of facilities for servicing homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final **site** grading or the pouring of concrete pads) is completed on or after the effective date of this **Ordinance**.

**NFIP**

**National Flood Insurance Program**. The requirements of the **NFIP** are codified in Title 44 of the Code of Federal Regulations.

**Non-Residential**

Land uses other than **residential subdivisions**, **multi family residential**, **right-of-way**, or **open space**. **Non-residential** land use may include, but is not limited to, commercial land use and industrial land use.

**Non-Qualified Development**

**Redevelopment** area excluded from the **allowable release rate** calculation specified in §504.2 and **detention facility** volume calculation specified in §504.7.

**Non-Qualified Sewer Construction**

**Non-qualifying sewer construction** is defined in §700.6 and §700.7.

**NOV**

**Notice of Violation**. Notice given to an **permittee**, **co-permittee**, and/or any other **person** responsible for an apparent violation of this **Ordinance**.

**NPDES**

The **National Pollution Discharge Elimination System**.

**NRCS**

The United States Department of Agriculture **N**atural **R**esources **C**onservation **S**ervice.

**NWI**

**N**ational **W**etland **I**nventory. The **wetland** mapping program created by the U.S. Fish and Wildlife Service to provide information on the characteristics, extent, and status of the nation's **wetlands**, deepwater habitats, and other wildlife habitats.

**Offsite Detention Facility**

A manmade **structure** providing temporary storage of **stormwater runoff** intended to mitigate hydrologic impacts of **development** elsewhere in the **watershed**.

**OHW**

**O**rdinary **H**igh **W**ater **M**ark. The point on a bank or shore at which the presence and movement of surface waters is continuous, leaving a distinctive mark. The mark may be caused by **erosion**, destruction or prevention of terrestrial vegetation, a predominance of hydrophytic vegetation, or other recognized factors.

**Open Space**

Pervious land to be retained as pervious land which is not part of a larger **development**. **Open space** may include sidewalk, bike path, nature or walking trail **development** less than or equal to fourteen feet in width. [*Compare open space with right-of-way.*]

**Ordinance**

The Cook County Watershed Management Ordinance.

**Other Wastes**

All decayed wood, sawdust, shavings, bark, lime, refuse, ashes, garbage, offal, oil, tar, chemicals, and all other substances except **sewage** and **industrial wastes**.

**Outfall**

The end point of any **storm**, **sanitary**, or **combined sewer**, providing a point source discharge into a defined **waterway**, or Lake Michigan. **Outfalls** do not include culverts or open conveyances systems connecting two segments of a **waterway**.

**Owner**

The record title holder or a beneficiary of a land trust which is the record title holder, and includes singular and plural; if the owner is other than an individual, the term includes beneficiaries, agents, shareholders, officers, and directors.

**Ownership**

The holding or record title or any beneficial **interest**.

**OWR**

The Illinois Department of Natural Resources **O**ffice of **W**ater **R**esources.

**Parcel**

**Contiguous** land area under single **ownership** or control, under an affidavit of **ownership**, or under a single legal description on record with the **Cook County** Recorder of Deeds Office.

**Permittee**

Any **municipality**, municipal corporation, sanitary district, utility company, township government, or any other governmental body required to jointly sign a **Watershed Management Permit** application.

**Person**

Any individual, partnership, firm, school, district, company, corporation, municipal corporation, association, joint stock company, trust, estate, unit of local government, sanitary district, special taxing district, school district, public utility, political subdivision, county agency, state agency, federal agency, or any other legal entity, or **owner**, or any legal representative, agent, or assign thereof.

**Professional Engineer**

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

**Professional Engineering**

The application of science to the design of engineering systems and facilities using the knowledge, skills, ability, and professional judgment developed through professional engineering education, training, and experience.

**Professional Land Surveyor**

A **person** licensed under the laws of the State of Illinois to practice land surveying.

**Public Flood Easement**

An easement acceptable to the appropriate jurisdictional body that meets the regulation of the **OWR**, the **District**, and the **municipality**, that provides legal assurances that all areas subject to **flooding** in the created backwater of the **development** will remain open to allow **flooding**.

**Qualified Sewer Construction**

All public and private new sewers and new sewer connections, exterior to a **building envelope**, including sewer repair and sewer replacement. See 701 for a complete list.

**Recommended Standards for Wastewater Facilities**

The current edition of the **Recommended Standards for Wastewater Facilities**, also known as the Ten States Standards, as published by the Great Lakes—Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers.

**Record Drawings**

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

**Redevelopment**

Any human-induced activity or change to an existing developed property (including, but not limited to, grading, paving, excavation, dredging, fill, or mining; alteration, subdivision, change in land use or practice; **building**; or storage of equipment or materials) undertaken by private or public entities that affects the volume, flow rate, drainage pattern, or composition of the **site stormwater runoff** on the previously developed land. The term shall not be understood to include **maintenance**.

**Regulatory Floodplain**

The **floodplain** as determined by the **BFE** used as the basis for regulation in this **Ordinance**.

**Regulatory Floodway**

**Floodway** under the jurisdiction of the Illinois Department of Natural Resources (17 Ill. Adm. Code 1700.30), which consists of portions of the **floodplain** depicted as **floodway** on maps recognized by **OWR**.

**Residential Subdivision**

Residential **parcel** that is planned to be subdivided for **development**, and where each sub-parcel contains a **building** with less than three (3) dwelling units. [*Compare residential subdivision with multi-family residential and single-family home*].

**Respondent**

**Permittee, co-permittee**, and/or any other **person** responsible for an apparent violation of this **Ordinance**.

**Retention-Based Practices**

Permanent **water quality control practices** designed to capture, retain, infiltrate and treat **stormwater runoff** from **impervious areas** of a **development** after permanent **stabilization** is achieved.

**Right-of-Way**

Public **right-of-way** dedicated as of the effective date of this **Ordinance** including features such as roads and sidewalks. [*Compare right-of-way with open space*].

**Riparian Environment**

The vegetated area between aquatic and upland ecosystems adjacent to a **waterway** or body of water that provides **flood** management, habitat, and water quality enhancement or other amenities dependent upon the proximity to water.

**Runoff**

The water from melting snow and/or precipitation falling within a **watershed** that exceeds the infiltration capacity of the soil of that basin.

**Sanitary Sewer**

Sewers intended for the conveyance of wastewater. [*Compare sanitary sewer with storm sewer and combined sewer*].

**Sediment**

The suspended soil particles that are transported after **erosion** has occurred.

**Sedimentation**

The process when the velocity of wind or water is slowed sufficiently to allow the suspended soil particles to settle.

**Sediment Basin**

A **structure** or area that allows for the **sedimentation** of **stormwater runoff**.

**Sediment Control Practice**

A **structure** that is designed to intercept **sediment** in **runoff**.

**Separate Sewer Area**

An area where **stormwater runoff** is intended to be collected and conveyed in a **separate sewer**, pipe and/or ditch system to a point of discharge in a receiving natural or man-made **waterway** or other **stormwater facility**. This regulatory limit was established in the past to limit further expansion of areas served by **combined sewers**. This area does not represent the actual effective boundaries between combined and separate sewer sheds. Consult local sewer system atlas information for that level of detail. [*Compare separate sewer area with combined sewer area*].

**Service Sewer**

A sewer pipe constructed on private property, except for street crossing, that receives flow from a single **building** and connects to a sewer main or lateral.

**Sewage**

The water-carried human wastes or a combination of water-carried waters from residences, business **buildings**, institutions and industrial establishments, together with such ground, surface, storm or **other wastes** as may be present.

**Sewage and Waste Control Ordinance**

The **District's** current **Sewage and Waste Control Ordinance**.

**Sewer Permit Ordinance**

The **District's Sewer Permit Ordinance** as amended in July of 1999.

**Sewerage System Permit**

A permit required under the **District's Sewer Permit Ordinance**.

**Silt Fence**

A temporary **sediment** control barrier consisting of entrenched geotextile filtering fabric attached to supporting posts that is designed to prevent **sediment-laden runoff** from leaving a **site**. The application of a **silt fence** is limited to containment of sheet flow **runoff** from small **drainage areas**.

**Single-Family Home**

Residential **parcel** containing less than three (3) dwelling units. **Single-family home parcels** subdivided after the effective date of this **Ordinance** are considered as **residential subdivision**. [*Compare single family home with residential subdivision and multi-family residential*].

**Site**

**Parcel** or **parcels** associated with a **development** or **redevelopment**.

**Special Flood Hazard Area**

An area having special **flood**, mudslide, mudflow, or flood-related **erosion** hazards and which is identified on a **FIRM** as Zone A, AO, A1-30, AE, A99, AH, VO, V1-30, VE, V, M, or E.

**Stabilization or Stabilized**

Establishment of vegetative cover, riprap, or other means that minimizes **erosion** on **disturbed areas**.

**Standard Isolated Wetland**

All **isolated wetlands** other than **high quality isolated wetlands**.

**Standard Specifications for Water & Sewer Construction in Illinois**

The current edition of the Standard Specifications for Water & Sewer Construction in Illinois published by the Illinois Society of Professional Engineers.

**Start of Construction**

The date the **building** or **development** permit was issued, provided the actual **start of construction**, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a **structure** on a **site**, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a **manufactured home** on a foundation. For **substantial improvements**, the actual **start of construction** means the first alteration of any wall, ceiling, floor, or other structural part of a **building** whether or not that alteration affects the external dimensions of the **building**.

**Storm Event**

The frequency rainfall event as published in **Bulletin 70**.

**Storm Sewer**

A sewer intended for the conveyance of only **stormwater runoff**. [*Compare storm sewer with combined sewer and sanitary sewer*].

**Stormwater**

Precipitation that falls to the ground that does not naturally infiltrate into the subsurface soil.

### Stormwater Facility

**Structures** and measures both natural and artificial which serve as a means of draining surface and subsurface water from land including, but not limited to, ditches, channels, conduits, bridges, culverts, levees, ponds, natural and man-made impoundments, **wetlands, wetland buffers, riparian environment, tile, swales, storm sewers, and waterways.**

### Structure

A **structure** is anything that is erected or constructed on or below ground including, but not limited to, **buildings, manufactured homes, accessory structures, fences, sheds, tanks, dams, sewers, manholes, drop shafts, constructed channels, outfalls, parking lots, driveways, roads, sidewalks, and concrete patios.**

### Substantial Damage

Damage of any origin sustained by a **building** whereby the cost of restoring the **building** to its before damaged condition would equal or exceed 50 percent of the market value of the **building** before the damage occurred.

### Substantial Improvement

Any repair, reconstruction, rehabilitation, addition, or other improvement of a **building**, the cost of which improvement equals or exceeds, individually or in the aggregate, 50 percent of the fair market value of the **building**, determined from the equalized assessed value of the **building** before the **start of construction** of the improvement. This term includes **buildings** which have incurred "**substantial damage**", regardless of the actual repair work performed. The term "cost of improvement" includes the market value of volunteer labor and donated materials. The term "cost of improvement" does not, however, include either (a) any project for improvement of a **building** to correct existing violations of state or local health, sanitary, or safety code specifications that have been identified by the local code enforcement official and that are the minimum necessary to assure safe living conditions or (b) any alteration of a historic **building** or a historic district that will not preclude the **building's** continued designation as a historic **building**.

### Subwatershed

Major **watershed** division of a **watershed planning area** as identified in the **District's** Detailed Watershed Plans.

### Swink and Wilhelm Mean Coefficient of Conservatism ( $\hat{c}$ )

The mean coefficient of conservatism ( $\hat{c}$ ) in an inventory group calculated by the sum of all coefficients in an inventory unit divided by the number of species (N).

### Swink and Wilhelm Floristic Quality Index (FQI)

The index derived from floristic inventory data. The index is the arithmetic product of the average coefficient of conservatism ( $\hat{c}$ ) and the square-root of species richness ( $\sqrt{N}$ ) of an inventory unit.

### TARP

The **District's** **T**unnel **A**nd **R**eservoir **P**lan including all associated **structures** and appurtenances.

**TGM**

**T**echnical **G**uidance **M**anual. A manual prepared in conjunction with this **Ordinance** that provides technical information and guidance on how to comply with the provisions of this **Ordinance**.

**Tributary Area**

All land drained by or contributing water to the same stream, **lake**, or **stormwater facility**, or which drains to a common point.

**Unrestricted Flow**

**Stormwater runoff** from a **development** which is not directed to the required **detention facility** is unrestricted or uncontrolled release or flow. The areas generating unrestricted flow are referred to as unrestricted or uncontrolled release rate areas.

**Upstream Tributary Flow**

**Stormwater runoff** or **groundwater** flows from **tributary areas** upstream of a **development site**. **Upstream tributary flows** can be **bypass flows**.

**Variance**

A grant of relief by the **District** from the terms of this **Ordinance**.

**Volume Control Practices**

Permanent practices designed to capture, retain, and infiltrate **stormwater runoff** from **impervious areas** of a **development** after permanent **stabilization** is achieved.

**Watershed**

**Tributary areas** discharging to a common point.

**Watershed Management Permit**

A permit established by this **Ordinance** that is issued by the **District** prior to the approval of a **building** or construction permit by the appropriate unit of local government. The issuance of a **Watershed Management Permit** signifies that the proposed **development** is in compliance with the provisions of this **Ordinance**.

**Watershed Planning Area**

The area considered in a specific **DWP** and depicted on the attached Exhibit A.

**Water Reclamation Facility**

Facility designed to treat **sewage**.

**Water Resource Benefit**

A decrease in **flood** elevations, a reduction in **flood** damages to **structures** upstream or downstream of the **development site**, a reduction in peak flow rates, and/or enhancement of existing water-related environmental resources created by the **development** which is greater than the minimum **Ordinance** requirements.

**Waterway**

Navigable body of water such as a stream, creek, canal, or river.

**Wetlands**

Areas which are inundated or saturated by surface or ground water (**hydrology**) at a frequency and duration sufficient to support, under normal circumstances, a prevalence of vegetation (hydrophytes) typically adapted for life in saturated soil conditions (hydric soils). **Wetlands** generally include swamps, marshes, bogs, and similar areas.

**Wetland Buffer**

The vegetated area adjacent to **wetlands** left open for the purpose of eliminating or minimizing adverse impacts to such areas.

**Wetland Impact**

**Wetlands** that are directly or indirectly disturbed or otherwise adversely affected, whether temporarily or permanently, by filling, excavation, **flooding**, or drainage which results from implementation of a **development** activity.

**Wetland Mitigation**

The process of offsetting **wetland impacts** through the restoration, creation, enhancement, and preservation of **wetlands**.

**Wetland Mitigation Bank**

A **site** where **wetlands** are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for authorized impacts. In general, a mitigation bank sells compensatory mitigation credits (acres) to the **co-permittee(s)**, whose obligation to provide compensatory mitigation is then transferred to the mitigation bank sponsor.

**Wetland Specialist**

A **person** having skill in the art and science of identifying, delineating, and assessing **wetlands**.

<b>Table 1. Applicability Summary</b>			
<b>Activity</b>		<b>Permitting Authority</b>	<b>See Section</b>
<b>Development Activities</b>	Disturbances more than 0.5 acre*	<b>Village of Winnetka</b>	§ 201.1.D
	Reconfiguration of existing <b>major</b> or <b>minor stormwater systems</b> which alters the service area of a permitted or <b>existing detention facility</b>	<b>MWRD</b>	§ 201.2.E
	Modifications to a permitted or <b>existing detention facility</b>	<b>MWRD</b>	§ 201.2.F
<b>Flood Protection Areas</b>	<b>Development</b> within a <b>flood protection area</b>	<b>Village of Winnetka</b>	§ 201.1.A
	Indirect impacts to a <b>wetland</b>	<b>Village of Winnetka</b>	§ 201.1.B
	Alteration of an existing <b>building</b> which constitutes a <b>substantial improvement</b> in the <b>regulatory floodplain</b>	<b>Village of Winnetka</b>	§ 201.1.C
<b>Qualified Sewer Construction</b>	Sewers, drainage, or detention in <b>combined sewer areas</b> tributary to <b>combined sewers</b>	<b>MWRD</b>	§ 201.2.A
	<b>Qualified sewer construction</b> including lift stations	<b>MWRD</b>	§ 201.2.B
<b>MWRD Impacts</b>	Direct connections to <b>MWRD</b> interceptors, reservoirs, facilities, or <b>TARP Structures</b>	<b>MWRD</b>	§ 201.2.C & § 201.3.A
	<b>Stormwater</b> discharges directly to <b>MWRD</b> Property	<b>MWRD</b>	§ 201.2.G & § 201.3.B
	New or reconstructed sewers, drainage, or detention <b>outfalls</b> to <b>waterways</b> or Lake Michigan	<b>MWRD</b>	§ 201.2.D & § 201.3.C

\*unless the **development** solely involves one or more activity listed in §201.1.D

Comparison Table

	Village of Winnetka	Cook County Watershed Management Ordinance	Recommendations
Administrative Requirements			
Size of regulated development	Any	Any qualified sewer construction <sup>1</sup> , any development in a flood protection area or impacting a wetland, any substantial improvements to buildings in the floodplain, and development disturbing more than 0.5 acre	Maintain existing Village regulations, but the submittal requirements should be appropriate for the size and type of development. The Village's existing submittal requirements should remain unchanged for smaller projects outside the floodplain and wetlands. The submittal requirements for projects regulated by the Cook County Watershed Management Ordinance (WMO) would have to match the WMO requirements at a minimum.
Types of regulated development	Any construction activity on any property in the Village	Any human-induced activity or change to real estate	Maintain existing Village regulations
Exempted projects	Ordinary repairs	Agriculture or gardening, installation/renovation/replacement of utilities, maintenance of lawns and impervious areas, improvements to buildings in the floodplain which are not a substantial improvement	Maintain existing Village regulations
Projects requiring MWRD/County approval	Construction of sewer serving a non-residential building or a residential building with 25 or more units, connection to MWRD facilities, disturbance of an area tributary to an MWRD permitted detention facility, or disturbance of an area subject to an MWRD encumbrance for detention	Development in combined sewer areas, qualified sewer construction <sup>1</sup> , connection to MWRD facilities, development draining to waterways or Lake Michigan, development modifying an existing detention basin or the service area of an existing detention basin, new sewer connections for existing non-residential development	Match new Cook County Watershed Management Ordinance

Comparison Table

	Village of Winnetka	Cook County Watershed Management Ordinance	Recommendations
Allowances for re-development	<p>For improvements to an existing home causing an increase in impermeable lot coverage <math>\geq</math> 25%, detention is required for only the incremental volume of runoff from the new impervious area.</p> <p>For new home construction on a previously developed lot, detention is required for the incremental volume of runoff from the maximum impermeable lot coverage compared to the existing condition. <sup>2</sup></p>	<p>Reduce the retention requirements<sup>3</sup> and waive the requirements for additional detention<sup>4</sup> under certain circumstances</p>	<p>Maintain existing Village regulations</p>
Permit term	<p>15 months after the permit is issued</p>	<p>3 years after the permit is issued</p>	<p>Maintain existing Village regulations</p>
Long-term maintenance	<p>Not required</p>	<p>Required for detention ponds, sewer construction, wetland mitigation, and riparian area mitigation</p>	<p>Match new Cook County Watershed Management Ordinance (WMO) requirements for projects regulated by the WMO and consider applying these requirements (or a modified version of the requirements) to projects that are not regulated by the WMO</p>
Variances	<p>Village can amend or vary its standards and conditions whenever it is in the best interest of the public health, safety, and welfare</p>	<p>MWRD may issue a variance based on certain criteria<sup>5</sup></p>	<p>Only the MWRD will be allowed to issue a variance for projects regulated by the new Cook County Watershed Management Ordinance (WMO). The Village should reserve the right to issue variances for all other regulated projects.</p>

Comparison Table

Village of Winnetka		Cook County Watershed Management Ordinance	Recommendations
Runoff Requirements			
Protection of off-site properties	No new building, structure, or addition is allowed which will result in an increase in runoff onto an adjacent property without making adequate provision for the additional runoff. No grading is allowed which will cause water to be diverted, detained, or concentrated onto an abutting or nearby property.	No increase of flood elevations or decrease flood conveyance capacity upstream or downstream	Maintain existing Village regulations
Development requiring detention	Infill development, re-development of individual lots increasing impermeable lot coverage $\geq 25\%$ , single family residential subdivisions, multi-family residential development and commercial developments	Residential subdivisions on 5-acres or more, 0.5 acres or more of multi-family residential and non-residential development on 3-acres or more, and right-of-way development totaling 1-acre or more new impervious area	Maintain existing Village regulations and consider crediting the storage volume within stormwater best management practices toward the required detention volume
Allowable release rate	Undeveloped 3-year runoff rate	100-year = 0.30 cfs/ac until January 1, 2019 and 0.15 cfs/ac after January 1, 2019	Match new Cook County Watershed Management Ordinance (WMO) requirements for projects regulated by the WMO and consider applying these requirements to projects that are not regulated by the WMO
Rainfall data	Bulletin 70	Bulletin 70	Maintain existing Village regulations
Protection of depressional storage	Not required	Required	Match new Cook County Watershed Management Ordinance (WMO) requirements for projects regulated by the WMO and consider applying these requirements to projects that are not regulated by the WMO. Small projects that do not require submittal of a grading plan should be exempt from these requirements.

Comparison Table

	Village of Winnetka	Cook County Watershed Management Ordinance	Recommendations
Water quality	Design practices required whenever possible	Incorporated into runoff volume reduction requirements	Match new Cook County Watershed Management Ordinance (WMO) requirements for projects regulated by the WMO and consider applying these requirements to projects that are not regulated by the WMO. Small projects that do not require submittal of plans prepared by a professional engineer should be exempt from these requirements.
Runoff volume reduction	Not required	Retain and infiltrate the first inch of runoff from the impervious area of development	Match new Cook County Watershed Management Ordinance (WMO) requirements for projects regulated by the WMO and consider applying these requirements to projects that are not regulated by the WMO. Small projects that do not require submittal of plans prepared by a professional engineer should be exempt from these requirements.
<b>Floodplain Requirements</b>			
Flood protection elevation	100-year flood elevation plus 1 foot of freeboard	100-year flood elevation plus 2 feet of freeboard	Match new Cook County Watershed Management Ordinance (WMO) requirements for all regulated projects
Compensatory storage	1 to 1	1.1 to 1	Match new Cook County Watershed Management Ordinance (WMO) requirements for all regulated projects

Comparison Table

	Village of Winnetka	Cook County Watershed Management Ordinance	Recommendations
National Flood Insurance Program compliance	Yes	No. The new Cook County Watershed Management Ordinance does not require a permit for every improvement to buildings in the floodplain. Instead it only requires a permit for substantial improvements to buildings in the floodplain.	Maintain existing Village regulations
<b>Natural Area Requirements</b>			
Buffer areas	U.S. Army Corps of Engineers requirements	U.S. Army Corps of Engineers requirements and 30- to 100-feet <sup>6</sup> for isolated wetlands	Match new Cook County Watershed Management Ordinance (WMO) requirements for projects regulated by the WMO, but do not apply these requirements to other projects regulated by the Village
Wetland mitigation	U.S. Army Corps of Engineers requirements	U.S. Army Corps of Engineers requirements and 1.5:1 to 3:1 <sup>7</sup> for isolated wetlands	Match new Cook County Watershed Management Ordinance (WMO) requirements for projects regulated by the WMO, but do not apply these requirements to other projects regulated by the Village
Riparian areas	U.S. Army Corps of Engineers requirements	U.S. Army Corps of Engineers requirements and 30-feet to 100-feet <sup>8</sup> for isolated wetlands	Match new Cook County Watershed Management Ordinance (WMO) requirements for projects regulated by the WMO, but do not apply these requirements to other projects regulated by the Village
<b>Construction Site Requirements</b>			
Inspection frequency	IEPA requirements for construction sites over 1 acre and prior to backfilling a new pipe trench	IEPA requirements for construction sites over 1 acre, after mobilization and installation of initial erosion and sediment control practices, during excavation, and at the completion of the development	Match new Cook County Watershed Management Ordinance (WMO) requirements for projects regulated by the WMO and consider applying these requirements to projects that are not regulated by the WMO

Comparison Table

	Village of Winnetka	Cook County Watershed Management Ordinance	Recommendations
Site stabilization	Within 30 days of removal of existing vegetation	Within 14 days after construction activities have ceased	Adopt both requirements as a dual-performance standard for all regulated development.

**Footnotes:**

1. Qualified sewer construction includes all public and private new sewers and new sewer connections exterior to a building envelope, except: sewer services serving less than three private single-family homes, storm sewer tributary to a waterway in separate sewer areas, septic system sewers, footing drains, grey water harvesting sewers, and sewers and sewer connections outside MWRD boundaries.
2. These allowances are not made for redevelopment of a site with a different use (single family to multi-family or commercial)
3. For redevelopment with site constraints that prevent use of retention-based practices to retain the control volume in full, a co-applicant may reduce existing impervious area within the
4. Refer to Article 5, Section 505 of the Cook County Watershed Management Ordinance.
5. Refer to Article 11 of the Cook County Watershed Management Ordinance.
6. Minimum isolated buffer widths are as follows: 30-feet from the boundary of standard isolated wetlands greater than or equal to 0.10-acre and less than 0.5-acre in area; 50-feet for standard
7. Mitigation impacting an isolated wetland must replace the lost wetland environment as follows: standard isolated wetlands less than 0.10-acre in aggregate do not require mitigation; standard isolated wetlands greater than or equal to 0.10-acre in aggregate at a minimum ratio of 1.5:1 for each acre impacted; high quality isolated wetlands at a minimum ratio of 3:1 for each
8. The boundaries of riparian environments are established as follows: for any jurisdictional Waters of the U.S. that does not qualify as wetlands, the riparian environment shall be 50-feet from

**MINUTES**  
**WINNETKA VILLAGE COUNCIL RESCHEDULED STUDY SESSION**

November 14, 2013

(Approved: December 3, 2013)

A record of a legally convened meeting of the Council of the Village of Winnetka, which was held in the Village Hall Council Chambers on Thursday, November 14, 2013 at 7:00 p.m.

1) Call to Order.

President Greable called the meeting to order at 7:02 p.m. Present: Trustees Joe Adams, Jack Buck, Patrick Corrigan, Richard Kates and Stuart McCrary. Absent: Trustee Arthur Braun. Also in attendance: Village Manager Robert Bahan, Assistant to the Village Manager Megan Pierce, Village Attorney Katherine Janega, Director of Public Works/Village Engineer Steve Saunders, Finance Director Edward McKee, and approximately four persons in the audience.

2) Stormwater Master Plan: Review of Development Regulations.

Director of Public Works and Village Engineer Steve Saunders explained the ongoing development of the Village's Stormwater Master Plan and the need for strategies to update the Village's stormwater management regulations. The Metropolitan Water Reclamation District of Greater Chicago (MWRD), the County-wide stormwater authority, adopted a Watershed Management Ordinance (WMO) in October that will become effective May 1, 2014. Since the WMO allows authorized municipalities to issue local Watershed Management Permits, Mr. Saunders said Staff recommends becoming an authorized municipality to maintain a simplified review process for its permit applicants. The Stormwater Master Plan development also brought about a review of Winnetka's Engineering Guidelines so that the Village can decide which best practices to include from its existing ordinance and which to include from the MWRD. Lastly, Mr. Saunders said Winnetka's Zoning Ordinance was reviewed to identify sections that have significant stormwater management implications.

Mark Phipps, the Village's Master Plan consultant from Baxter & Woodman (B&W), described the difference in focus between the Village's existing regulations and those contained in the countywide WMO. Generally, the Village's standards are focused on a much smaller, neighborhood-scale development. Mr. Phipps first reviewed the development regulations where the Village has regulations in place that are more restrictive than the new WMO. In these cases, it was recommended the Village maintain its regulations rather than adopt those of the WMO. Trustee McCrary asked if these rules impose any requirements on existing developments. Mr. Phipps said adoption of the new standards would not impact prior development. It was noted that developments already in the works would also be regulated under existing standards.

Mr. Phipps next reviewed regulations in the WMO that are more restrictive than current Village regulations. In these instances, B&W recommended the Village change its regulations to match the WMO.

Trustee McCrary and President Greable asked for clarification about the ability of new developments to construct basements within the floodplain. Mr. Saunders explained there is a process by which residents can apply through FEMA to have the floodplain revised and allow for

basement construction. President Greable asked how many new homes have been constructed in the floodplain; Mr. Saunders estimated it is on average about two to three per year.

Mr. Phipps then presented standards where it was recommended the Village match the new WMO for regulated projects and then determine whether the same requirements be extended to other projects. Mr. Saunders said Staff is seeking policy direction from the Council so that the Village can create a hybrid of development regulations that best suit Winnetka, given what has been put forth in the WMO. Trustee Adams asked about the Village's authority to grant variations for projects regulated by the WMO. It was noted that the MWRD has maintained its authority to issue variances for projects regulated under the WMO, but that this is not likely to apply where the Village adopts a more restrictive standard.

A final area of standards reviewed by Mr. Phipps included regulations where the Village should match the WMO for required projects, but not extend those regulations to others. Mr. Saunders noted these additional requirements would just become part of the existing review process, except for things that must be submitted to the MWRD. He said it is not a choice of whether or not to follow the WMO. Certain development will be regulated by it, but the Village can take direction on additional best practices to manage stormwater.

Mr. Saunders summarized the four areas from the current Village Zoning Ordinance that were identified as having stormwater implications and said Staff can further evaluate whether change is desirable in these areas to integrate zoning and stormwater management. The areas identified and reviewed included: encouragement of detached garages in the rear quarter of a lot; maximum impermeable surface coverage; treatment of semi-permeable surfaces; and construction of deep basements.

Staff recommended that the Village become an authorized municipality to allow administration and enforcement of the countywide WMO. Trustee Corrigan said the Village should absolutely be authorized to simplify the permit process and make it less time consuming. Trustee McCrary clarified that the Village would be authorized to issue the permit itself rather than requiring both a permit from the Village and the MWRD.

Staff also recommended that the Village adopt the countywide WMO and then update the Village's current regulations to match. Mr. Saunders said Staff would bring back a new subsection of the Village Code containing the necessary changes and additional regulations sometime in 2014. Trustee Adams expressed support for adopting the countywide WMO, so as not to start from scratch with an existing extensive document.

The Council and Mr. Saunders then discussed the recommendation to further evaluate the four areas of zoning requirements with stormwater runoff implications. Trustee Kates asked for more specificity about how the zoning requirements might be changed. Mr. Saunders said they each need to be further investigated and then brought back to the Council for direction. Mr. Kates also expressed concern about encouraging semi-permeable surfaces and the true positive impact of the materials on properties. Trustee Kates inquired about the monitoring and regulation of sump pumps and what is done to ensure one property is not just pumping water onto a neighbor.

Trustee Adams said the Council often hears resident concerns about new development and was supportive of studying these areas further. Trustee Kates also supported studying these four areas as well as any other areas identified along the way. President Greable estimated that there might be more than four areas that could be addressed at the same time.

Ann Wilder, 1096 Spruce Street. Ms. Wilder said she understands the goal of the discussion to be to control stormwater runoff to reduce or control flooding. Even though a letter of map revision can be obtained, Ms. Wilder said FEMA does not recommend constructing a basement on floodplain land. She thinks the Village should disallow the building of basements on lots that have obtained a letter of map revision for fill. She stated federal flood insurance has very limited coverage for basements, so if they exist, they are a risk. If these basements flood, it will likely add to uninsured losses. In cases of new construction, the Village should be stricter than FEMA and at least not allow construction of deep basements.

The Council then noted its consensus on the following recommendations from Staff and B&W:

1) The Village should petition to become an authorized municipality under the MWRD's WMO and 2) The Village should review and re-write necessary stormwater management regulations to fit together with the WMO.

3) Fiscal Year 2014 Budget Follow-up Items.

Finance Director Ed McKee noted that during the budget process, issues were raised that required additional information. The budget follow-up items were reviewed, noting timelines and action steps, including: Westlaw/legal reference resources; independent civil engineering review; building, business, and liquor license fee comparison; street program; floral program; revised stormwater fund cash-flow; evaluation of refuse funding; and updated pension information. Trustee Kates asked if the road program would be brought back to the Council since the road condition assessment will not be completed before the budget is adopted. Mr. McKee confirmed that the Council will authorize the items individually even if they are included in the budget. Trustee Kates clarified that this also applied to items previously discussed, such as the recycling containers recommended by the EFC.

Trustee Kates inquired if anything additional was being contributed for the pension funding this year. Mr. McKee explained that the current year budget includes an additional amount to make-up for the short, nine-month fiscal year. The Village is making supplemental transactions in the current fiscal year.

The Council concurred with the recommendations outlined in the budget follow-up schedule.

4) Public Safety Pension Funding.

Mr. McKee presented draft actuarial reports for the Village's Firefighter and Police Pension Funds. Because the Village's actuary made a change in the mortality table employed, the life expectancy of the people in the fund has been increased, and thus an additional \$94,364 would be required in the Village's tax levy. He said the changes in computations for both Fire and Police will be reflected in the proposed tax levy and would put additional funds in both pensions next year.

Trustee Kates asked if Mr. McKee thought the allocations are sufficient, given the Village's rating in the most recent bond issuance. Mr. McKee said the Village's assumptions are very conservative, but that the Council could make a policy decision to allocate more to pension contributions. He advised once the surplus for the current year is known it may make more sense to consider an additional, supplemental contribution. Trustee Corrigan noted that the only

negative on our bond rating was a slight underfunding of the pension funds. He said the Village should be using reserves rather than raising taxes and that the problem is not going away.

The Council discussed whether there would be any adverse impacts of using reserves to allocate additional funds for pensions. Mr. McKee noted there is not a direct negative impact on the reserves, but it does reduce the Village's flexibility to use those reserves for other items that may arise. President Greable asked what the actuary is recommending. Mr. McKee said based on the assumptions and the 20-year amortization, the numbers from the draft report are what the actuary would recommend. President Greable advocated sufficiently funding the pensions but felt a five-year plan would be helpful to determine the best approach. Trustee McCrary described the changes in legislation that changed the calculation that determines pension funding levels.

Responding to a question from Manager Bahan, Mr. McKee said the Village would have an initial impression of the closing fiscal year 2013 numbers in March, 2014. He said there would be more information at that time to understand what is available for additional contributions to pensions. Trustee Buck said he believes it is more than evaluating pension funding—also looking at the elimination of other taxes and fees that would also affect the levy and the reserves. He advocated getting rid of the natural gas tax, the vehicle stickers, and the animal registration.

The Council agreed to accept the recommendation to increase the portion of the levy related Public Safety Pension Funds \$96,000 to reflect the change in the actuary's mortality table, with a corresponding reduction in the Village's General Fund Corporate Levy.

Ann Wilder, 1096 Spruce Street: Ms. Wilder asked if the mortality tables from the actuary were broad or based only on the people in Village's pension funds. Mr. McKee responded that the actuary uses national tables that are not specific to the Village.

5) Public Comment.

Ann Wilder, 1096 Spruce Street: Ms. Wilder asked about the status of a report requested by Trustee Braun related to stormwater impact on the Lake. She inquired as to if and when a report would be done. Manager Bahan responded that the environmental impact on the Lake would come from the design engineering for the Willow Road Tunnel project and that a report will not be possible until the engineering has progressed.

6) Executive Session:

None.

7) Adjournment.

Trustee Adams, seconded by Trustee Buck, moved to adjourn the meeting. By voice vote, the motion carried. The meeting adjourned at 8:45 p.m.

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Recording Secretary



## Agenda Item Executive Summary

**Title:** Coal Tar Policy

**Presenter:** Robert M. Bahan, Village Manager

**Agenda Date:** 04/08/2014

**Consent:**  YES  NO

<input type="checkbox"/>	Ordinance
<input type="checkbox"/>	Resolution
<input type="checkbox"/>	Bid Authorization/Award
<input checked="" type="checkbox"/>	Policy Direction
<input type="checkbox"/>	Informational Only

### Item History:

None.

### Executive Summary:

During review of the Stormwater Master Plan, a Trustee raised consideration of a ban on the use of coal tar-based sealants as a potential local environmental regulation. As a result, Staff has conducted preliminary research on the nature of coal tar as well as local, county and state government bans on the use of the product.

The Village does not use coal tar sealcoats on any of the asphalt surfaces it maintains. Further, local home improvement stores (Home Depot and Lowe's) no longer carry coal tar-based sealants. Research only found one community in Illinois that has a ban on coal tar: the Village of South Barrington. Restrictions and/or bans are also not prominent nationally, possibly due to some practical difficulties Staff research uncovered in both regulation processes and enforcement. The agenda report that follows outlines the research conducted to-date as well as some considerations for either regulation or educational opportunities.

Staff seeks policy direction on a coal tar policy from the Village Council.

### Recommendation / Suggested Action:

- Should the Village pursue regulation of the use of coal tar-based sealants?
- If so: 1) Should permitting or licensing be further investigated as the regulatory mechanism?  
2) What additional information would the Council like to review?
- Does the Council wish to develop educational materials about the environmental hazards of PAHs?
- Should the matter be referred to the EFC for further study and to make recommendations to the Council?

### Attachments:

- 1) Agenda Report
- 2) City of Des Plaines proposed coal tar ordinance
- 3) Chicago Tribune article on coal tar industry
- 4) Minnesota Pollution Control Agency coal tar information
- 5) City of Chicago proposed coal tar sealant amendment
- 6) McHenry County model coal tar sealant ordinance
- 7) Village of South Barrington coal tar product ban

## **AGENDA REPORT**

TO: Village Council

PREPARED BY: Robert M. Bahan, Village Manager  
Megan E. Pierce, Assistant to the Village Manager

DATE: April 2, 2014

SUBJECT: Coal Tar Policy

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### **Background**

During the review of the Stormwater Master Plan and related stormwater improvement projects, a Trustee raised consideration of a ban on the use of coal tar sealants as a potential local environmental regulation. As a result, Staff has conducted preliminary research on the nature of coal tar as well as on local, county and state governments that have considered or passed bans on the use of this product.

Sealants are used on asphalt driveways and parking lots as a means of protecting the asphalt surface from weathering. Generally, sealcoats come in two basic varieties: coal tar-based and asphalt-based. Coal tar-based sealants are more resilient, but contain much higher levels of a class of chemical compounds known as polycyclic aromatic hydrocarbons (PAH), which can harm fish, and with prolonged exposure, pose a risk of cancer in humans. The asphalt based products contain significantly less PAH's than coal tar-based sealants. An Austin, Texas study determined that sealcoat products based in coal tar contained up to 1,000 times more PAH's than asphalt-based products.

Coal tar is a waste material generated in the conversion of coal to coke. Manufacturers choose coal tar for sealants because of its resistance to petroleum products like gasoline and oil, which drip from cars and deteriorate asphalt surfaces. In time, sunlight and vehicle traffic wears down sealcoating, and sealcoat flakes are washed away by rain or carried away by wind.

### **Research**

The Village of Winnetka does not use coal tar sealants on any of the asphalt surfaces it maintains. Further, we have learned that the larger, local home improvement stores, such as Home Depot and Lowe's, no longer carry coal tar-based sealants. However, it is unknown what type of sealant is used by commercial vendors that specialize in providing sealcoating services to local residents.

Attached to this agenda report, please find the research conducted to-date, including:

- Agenda materials from the City of Des Plaines, Illinois, including a proposed ordinance banning the sale or use of coal tar-based asphalt sealants and related information compiled by their staff. Our review of meeting agendas and minutes indicates that Des Plaines did not approve the ordinance.
- A Chicago Tribune article drawing on the Des Plaines process and the coal tar industry.
- Summary information from the Minnesota Pollution Control Agency listing governments that have taken actions to restrict or discontinue the use of coal tar-based sealants in the United States, and a fact sheet from the same agency stating environmental concerns about the use of coal tar-based sealants.
- A proposed amendment to Chapter 7-28 of Municipal Code of the City of Chicago, Illinois, prohibiting the sale and use of coal tar sealants. To our knowledge, this amendment has not been approved.
- Information from the County of McHenry, Illinois, regarding a model ordinance on coal tar sealants.
- An ordinance from Village of South Barrington, Illinois, banning the use of coal tar sealcoating products in the Village.

While some governmental units in Illinois, such as the Villages of Lake in the Hills and Spring Grove, and the Counties of DuPage (Salt Creek Watershed) and McHenry, have prohibited use of coal tar-based sealants at government facilities, the only ban in Illinois our research revealed was implemented by South Barrington in 2012. Outside of Illinois, the only governments found with either some restrictions or a ban include: Austin, Texas; Washington, D.C.; the State of Washington; the State of Minnesota; Dane County, Wisconsin; Montgomery County, Maryland; and Suffolk County, New York.

### **Policy Considerations**

As the Council reviews the background and research, there are some regulatory considerations to assess.

The threshold decision is to determine how much regulation the Village wishes to impose to assure the effectiveness of a ban. In general, the regulatory framework would consist of any one or more of the following components: permits, licenses, inspections and citations for violations. As the following discussion indicates, each method brings some administrative challenge. Even though there are 7 PAHs that are probable human carcinogens and there are potential negative environmental/water quality impacts related to coal tar, it may well be that the challenge of effectively regulating and enforcing a coal tar ban has prevented many jurisdictions from approaching the issue.

Permit regulation would require a property owner to seek a permit prior to doing the work, whether they are doing the sealcoating themselves or are hiring a service. To issue

a permit, the Village would need to determine how to verify that the applicant would not use a coal tar-based product.

On the other hand, licensing of service providers would involve developing a list of the companies that perform sealcoating locally, and then creating a licensing process before they would be allowed to perform work in the Village. The Village does not currently require any such licensing of any types of contractors. Compliance in the course of the work would also require inspections, as is done with building construction.

Both permitting and licensing would also need to be supported by an enforcement mechanism to ensure that only permitted products are used and to determine violations. Enforcement would be done by either Community Development or the Police Department. However, while it is easy to observe sealcoating, there is no quick way to definitively determine whether someone is using an asphalt or coal tar-based product, unless one has a material safety data sheet for the actual product. Even if a ban is implemented without a permit mechanism and violations are purely complaint driven, as in the case of South Barrington, there are no field testing kits available for use in enforcement. Therefore, like a complainant, the enforcement officers would have no way to know – or prove – if a violation has occurred. In addition, in the time it takes to respond and act upon the complaint, sealcoating work might already be underway and, once it has been applied, the sealcoat cannot be removed.

Thus, permitting, licensing, inspections and enforcement would each involve additional staff time. Any new regulation with such widespread potential impact would need to be broadly communicated to the community before it goes into effect.

There is, however, an opportunity to pursue an educational rather than regulatory path, focusing on developing information and communications that offer alternatives to coal tar sealants. Since coal tar-based products are not readily available in the area, property owners doing the sealcoating themselves are not a high concern. However, property owners may unintentionally hire a service that uses these products, and that information is not likely provided by the contractor. With the assistance of those more knowledgeable about environmental concerns, such as the Environmental & Forestry Commission (EFC), educational materials could be developed and communicated to property owners, to help residents select products and services that are not harmful to the environment. Staff believes this could also be part of a larger communication initiative that would identify other local environmental concerns such as the use of fertilizers, picking up after pets, etc., that also impact water quality and pollution in stormwater runoff.

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### **Recommendation**

Staff seeks policy direction from the Village Council on the following items:

- Should the Village pursue regulation of the use of coal tar-based sealants?
- If yes:
  - Should permitting or licensing be further investigated as the regulatory mechanism?
  - What additional information would the Council like to more fully understand the issues and the complexity of enforcement?
- Does the Council wish to pursue development of educational materials about the health risks and environmental hazards of PAHs, as found in coal tar-based sealants?
- Should the matter be referred to the Environmental & Forestry Commission for further study, with recommendations provided directly back to the Village Council?



**City of Des Plaines**  
City Manager's Office  
1420 Miner Street  
Des Plaines, IL 60016  
Tel: 847-391-5488  
Fax: 847-391-5451

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**MEMORANDUM**

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Date: March 9, 2011  
To: Mayor and Aldermen of the City Council  
From: Jason T. Slowinski, Acting City Manager  
Subject: Ordinance Banning Sale or Use of Coal Tar Based Asphalt Sealants

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**Issue:** The Public Safety Committee requested that Staff present information to the Committee on coal tar based asphalt sealants and their health impacts. On February 22, 2011, the Public Safety Committee met to consider the issue and recommended 2-0 (1 absent) that Staff draft an ordinance banning the use or sale of coal tar based sealants in the City of Des Plaines and present the ordinance to the City Council in Committee of the Whole for consideration.

**Analysis:** Coal tar based sealants are used on asphalt driveways and parking lots as a means to protect the asphalt surface from weathering. They contain a chemical compound that is recognized as a potential carcinogen. The staff report sent to the Committee dated February 18<sup>th</sup> is attached for your review and contains additional information from the U.S. Department of Health and Human Services and the United States Geological Survey regarding coal tar based sealants and its effect on humans.

Staff conducted some additional research at the request of the Committee whether the Environmental Protection Agency (EPA) has taken an official position on coal tar based sealants. It has been reported that the EPA has initiated a study in late 2009 and the report from that study is still pending. To date, the EPA has not banned the use of coal tar sealants.

The Committee also inquired into the difference in cost and performance between coal tar based sealants and asphalt based sealants. Essentially, the cost of the two products is the same; however, the cost of petroleum based sealants will vary with the cost of oil. Regarding performance between the two products, contractors have reported that the life of a coal-tar sealant application is approximately four years while a petroleum based sealant application is approximately one year. Please see the attached letter from an area contractor, Pavement Systems, Inc.

Staff has also attached for your review a recent article published in the *Chicago Tribune* discussing the safety of coal tar sealants.

Finally, as a result of articles generated in the local press regarding the Committee's review of this issue, Staff was contacted by Anne LeHuray, Executive Director of the Pavement Coatings Technology Council—the trade organization representing manufacturers and supplies of asphalt

**RE: Ordinance Banning Sale or Use of Coal Tar Based Asphalt Sealants**

March 9, 2011

Page 2 of 2

sealers. Ms. LeHuray has submitted a letter, which is attached for your review, requesting that this matter be tabled until she can be present to make a presentation to the City Council.

Generally, environmental policy is established at the federal and state levels, although there is recent evidence that some local jurisdictions around the country have adopted local measures banning the sale or use of coal tar based sealants. Since the EPA has not banned the use of coal tar based sealants and Staff does not have the adequate expertise to develop environmental policy, this item is being forwarded to the City Council with a neutral Staff recommendation. It has received a recommendation of approval from the Public Safety Committee.

**Recommendation:** This item is presented to the Council with a recommendation for approval from the Public Safety Committee.

Attachments:

February 22, 2011 Staff Report

Letter from Pavement Systems, Inc.

January 18, 2011 Chicago Tribune article

Letter from Anne LeHuray, Pavement Coatings Technology Council

Ordinance



**City of Des Plaines**  
**City Manager's Office**  
1420 Miner Street  
Des Plaines, IL 60016  
Tel: 847-391-5488  
Fax: 847-391-5451

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**MEMORANDUM**

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Date: February 18, 2011  
To: Public Safety Committee  
From: Jason T. Slowinski, Acting City Manager  
Subject: Discussion of Ban on Coal Tar Sealant

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**Issue:** The Chairman of the Public Safety Committee requested that the Committee discuss whether a local ordinance should be passed that would ban the use or sale of coal tar sealant in the City of Des Plaines.

**Analysis:** Sealants are typically used on asphalt parking lots and driveways as a means to protect the asphalt surface from elements thereby prolonging the life of the asphalt. Some sealants are coal tar based, which are known to consist of a chemical compound known as polycyclic aromatic hydrocarbons (PAH). The U.S. Department of Health & Human Services recognizes that some PAHs have been known to cause cancer.

Several cities have passed local ordinances that ban the sale or use of coal tar asphalt sealants within the local jurisdiction. The City of Austin, Texas is the largest recognized city to have enacted a similar ban.

Staff has attached reports from the U.S. Department of Health and Human Services as well as the U.S. Geological Survey (Department of the Interior) that provides additional background information on PAHs and parking lot sealants. In addition, Staff has attached an ordinance from a Minnesota municipality that has banned the use or sale of coal tar sealants for your consideration.

**Recommendation:** This is presented to the Committee as an item for discussion and, as such, no recommendation is being made at this time.

w/ Attachments: Report: Polycyclic Aromatic Hydrocarbons (USDHHS)  
Report: Parking Lot Sealcoat (USGS)  
Model Ordinance—City of White Bear Lake

cc: Tim Oakley, Director of Public Works and Engineering  
David Wiltse, City Attorney

Attachment 1

This fact sheet answers the most frequently asked health questions (FAQs) about polycyclic aromatic hydrocarbons (PAHs). For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

**SUMMARY:** Exposure to polycyclic aromatic hydrocarbons usually occurs by breathing air contaminated by wild fires or coal tar, or by eating foods that have been grilled. PAHs have been found in at least 600 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

### What are polycyclic aromatic hydrocarbons?

(Pronounced pŏl'ī-sī'klīk ār'ə-māt'īk hī'drə-kar'bənz)

Polycyclic aromatic hydrocarbons (PAHs) are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat. PAHs are usually found as a mixture containing two or more of these compounds, such as soot.

Some PAHs are manufactured. These pure PAHs usually exist as colorless, white, or pale yellow-green solids. PAHs are found in coal tar, crude oil, creosote, and roofing tar, but a few are used in medicines or to make dyes, plastics, and pesticides.

### What happens to PAHs when they enter the environment?

- PAHs enter the air mostly as releases from volcanoes, forest fires, burning coal, and automobile exhaust.
- PAHs can occur in air attached to dust particles.
- Some PAH particles can readily evaporate into the air from soil or surface waters.
- PAHs can break down by reacting with sunlight and other chemicals in the air, over a period of days to weeks.

- PAHs enter water through discharges from industrial and wastewater treatment plants.
- Most PAHs do not dissolve easily in water. They stick to solid particles and settle to the bottoms of lakes or rivers.
- Microorganisms can break down PAHs in soil or water after a period of weeks to months.
- In soils, PAHs are most likely to stick tightly to particles; certain PAHs move through soil to contaminate underground water.
- PAH contents of plants and animals may be much higher than PAH contents of soil or water in which they live.

### How might I be exposed to PAHs?

- Breathing air containing PAHs in the workplace of coking, coal-tar, and asphalt production plants; smoke-houses; and municipal trash incineration facilities.
- Breathing air containing PAHs from cigarette smoke, wood smoke, vehicle exhausts, asphalt roads, or agricultural burn smoke.
- Coming in contact with air, water, or soil near hazardous waste sites.
- Eating grilled or charred meats; contaminated cereals, flour, bread, vegetables, fruits, meats; and processed or pickled foods.
- Drinking contaminated water or cow's milk.

## POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html>

- ☐ Nursing infants of mothers living near hazardous waste sites may be exposed to PAHs through their mother's milk.

### How can PAHs affect my health?

Mice that were fed high levels of one PAH during pregnancy had difficulty reproducing and so did their offspring. These offspring also had higher rates of birth defects and lower body weights. It is not known whether these effects occur in people.

Animal studies have also shown that PAHs can cause harmful effects on the skin, body fluids, and ability to fight disease after both short- and long-term exposure. But these effects have not been seen in people.

### How likely are PAHs to cause cancer?

The Department of Health and Human Services (DHHS) has determined that some PAHs may reasonably be expected to be carcinogens.

Some people who have breathed or touched mixtures of PAHs and other chemicals for long periods of time have developed cancer. Some PAHs have caused cancer in laboratory animals when they breathed air containing them (lung cancer), ingested them in food (stomach cancer), or had them applied to their skin (skin cancer).

### Is there a medical test to show whether I've been exposed to PAHs?

In the body, PAHs are changed into chemicals that can attach to substances within the body. There are special tests that can detect PAHs attached to these substances in body tissues or blood. However, these tests cannot tell whether any

health effects will occur or find out the extent or source of your exposure to the PAHs. The tests aren't usually available in your doctor's office because special equipment is needed to conduct them.

### Has the federal government made recommendations to protect human health?

The Occupational Safety and Health Administration (OSHA) has set a limit of 0.2 milligrams of PAHs per cubic meter of air (0.2 mg/m<sup>3</sup>). The OSHA Permissible Exposure Limit (PEL) for mineral oil mist that contains PAHs is 5 mg/m<sup>3</sup> averaged over an 8-hour exposure period.

The National Institute for Occupational Safety and Health (NIOSH) recommends that the average workplace air levels for coal tar products not exceed 0.1 mg/m<sup>3</sup> for a 10-hour workday, within a 40-hour workweek. There are other limits for workplace exposure for things that contain PAHs, such as coal, coal tar, and mineral oil.

### Glossary

**Carcinogen:** A substance that can cause cancer.

**Ingest:** Take food or drink into your body.

### References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Toxicological profile for polycyclic aromatic hydrocarbons. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html>. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



Prepared in cooperation with the City of Austin, Texas

## Parking Lot Sealcoat: A Major Source of Polycyclic Aromatic Hydrocarbons (PAHs) in Urban and Suburban Environments

By Peter C. Van Metro<sup>1</sup>, Barbara J. Mahlor<sup>1</sup>, Malco Scoggins<sup>2</sup>, and Pixie A. Hamilton<sup>1</sup>

Collaborative studies by the City of Austin and the U. S. Geological Survey (USGS) have identified coal-tar based sealcoat—the black, shiny emulsion painted or sprayed on asphalt pavement such as parking lots—as a major and previously unrecognized source of polycyclic aromatic hydrocarbon (PAH) contamination. Several PAHs are suspected human carcinogens and are toxic to aquatic life. Studies in Austin, Texas, showed that particles in runoff from coal tar based sealcoated parking lots had concentrations of PAHs that were about 65 times higher than concentrations in particles washed off parking lots that had not been sealcoated. Biological studies, conducted by the City of Austin in the field and in the laboratory, indicated that PAH levels in sediment contaminated with abraded sealcoat were toxic to aquatic life and were degrading aquatic communities, as indicated by loss of species and decreased numbers of organisms. Identification of this source of PAHs may help to improve future strategies for controlling these compounds in urban water bodies across the Nation where parking lot sealcoat is used.



Particles in runoff from coal-tar based sealcoated parking lots had concentrations of PAHs that are about 65 times higher than concentrations in particles washed off parking lots that had not been sealcoated.

### What are PAHs, coal tar, and sealcoat?

Polycyclic aromatic hydrocarbons (or PAHs) are a group of organic contaminants that form from the incomplete combustion of hydrocarbons, such as coal and gasoline. PAHs are an environmental concern because they are toxic to aquatic life and because several are suspected human carcinogens.

Coal tar is a byproduct of the coking of coal, and can contain 50 percent or more PAHs by weight.

Sealcoat is a black liquid that is sprayed or painted on asphalt pavement in an effort to protect and beautify the asphalt. Most sealcoat products are coal-tar or asphalt based. Many coal-tar sealcoat products contain as much as 30 percent coal tar by weight. Product analyses by the City of Austin indicated that coal-tar sealcoat products have median concentrations of total PAHs about 70 times higher than concentrations in asphalt-based sealcoat products.

Sealcoat is used commercially and by homeowners across the Nation. It is applied to residential driveways and to parking lots associated with commercial businesses (including strip malls and shopping centers), apartment and condominium complexes, churches, schools, and business parks. The City of Austin, Texas, estimates that about 600,000 gallons of sealcoat are applied every year in the greater Austin area. National use numbers are not available, but commercial availability suggests that asphalt-based sealcoat is commonly used on the West Coast and coal-tar based sealcoat is commonly used in the Midwest, the South, and on the East Coast.

## How did USGS study parking lot runoff?

USGS researchers sampled runoff at 13 parking lots in Austin. They also took scraping samples of parking lot surfaces to compare source materials to particles in the runoff. Scraping samples and the water and particles in the runoff samples were analyzed for a suite of PAHs, major elements, and trace elements. The researchers sprayed water on four different types of parking lot surfaces: lots sealed with coal-tar based sealcoat (top photo), lots sealed with asphalt-based sealcoat, unsealed asphalt lots, and unsealed concrete lots. The runoff was collected behind spill berms, pumped into containers (middle photo) and filtered through Teflon filters to collect the particulates for analysis (bottom photo). The particulates, the filtered water, and samples of sealcoat scraped from the parking lot surfaces were analyzed for PAHs at the USGS National Water Quality Laboratory in Denver, Colorado. Concentrations and yields (the amount of PAHs coming off a parking lot per unit area) were used to determine levels of contamination in runoff from each type of parking lot and the importance of sealed lots as a source of PAHs to urban streams.



## How does sealcoat get from parking lots into the environment?

Vehicle tires abrade parking lot sealcoat into small particles. These small particles are washed off parking lots by precipitation and into storm sewers and streams. Sealcoat "wear and tear" is visible in high traffic areas within a few months after application. Sealcoat manufacturers recommend reapplication every 2 to 3 years.

## What are potential environmental and human-health concerns?

PAHs are toxic to mammals (including humans), birds, fish, amphibians, invertebrates, and plants. Aquatic invertebrates, the insects and other small animals that live in streams and lakes, are particularly susceptible to PAH contamination, especially the bottom dwellers (benthic invertebrates) that live in the mud where PAHs tend to accumulate. They are an important part of the food chain and are often monitored as indica-

tors of stream quality (analogous to the "canary in the coal mine" concept). Possible effects of PAHs on aquatic invertebrates include inhibited reproduction, delayed emergence, sediment avoidance, and mortality, and possible adverse effects on fish include fin erosion, liver abnormalities, cataracts, and immune system impairments. PAHs tend to attach to sediment; the Probable Effect Concentration (PEC)—a widely used sediment-quality guideline that is the concentration of a contaminant in bed sediment expected to adversely affect benthic (or bottom-dwelling) biota—is 22.8 mg/kg (milligrams per kilogram) for total PAHs.

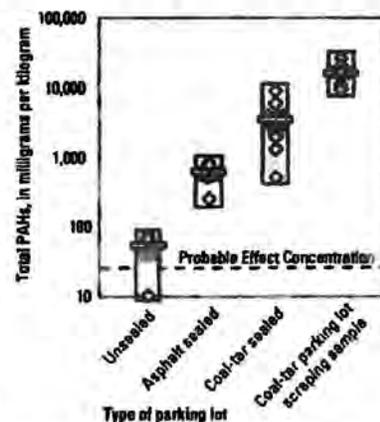
Studies by USGS and City of Austin did not evaluate human-health risk from exposure to sealcoat. Human-health risk from environmental contaminants is often evaluated in terms of exposure pathways. For example, people could potentially be exposed to PAHs in sealcoat through skin contact with abraded particles from parking lots, inhalation of wind-blown particles, and inhalation of fumes that volatilize from sealed parking lots. PAHs in streams and lakes rarely pose a human-

health risk via drinking water because of their tendency to attach to sediment rather than dissolve in water. In addition, because PAHs do not readily bioaccumulate within the food chain, possible human-health risks associated with consumption of fish are low.

## What are the concentrations of PAHs in runoff from sealed and unsealed parking lots?

Concentrations of PAHs in particles (including abraded sealcoat along with urban dust and other sediment) washed off from each of the different surface types—including the unsealed parking lots—were greater than the PEC of 22.8 mg/kg. The average concentration in particles washed off parking lots that were not sealcoated was 54 mg/kg. This is not surprising because runoff from parking lots is likely to contain PAHs from many sources, including leaking motor oil, tire particles, vehicle exhaust, and atmospheric deposition.

Concentrations of PAHs were much higher in particles in runoff from parking lots sealed with coal-tar based sealcoat than from all other types of parking lot surfaces. Specifically, the average concentration of PAHs from coal-tar sealed lots was 3,500 mg/kg, about 65 times higher than the average concentration in particles washed off unsealed parking lots. The average concentration in par-



Concentrations of total PAHs in particles in runoff from sealed parking lots greatly exceeded concentrations from unsealed parking lots. The bar on each graph is the mean concentration. The y-axis is logarithmic.

ticles washed off parking lots sealed with asphalt-based sealcoat was 620 mg/kg, about 10 times higher than the average concentration from unsealed parking lots and 6 times less than the average concentration from coal-tar sealed lots.

The large differences between concentrations associated with sealed and unsealed parking lots indicate that abraded sealcoat is a major and previously unrecognized contributor to PAH contamination.

### How do PAHs from sealcoat affect the quality and biology of streams?

Studies by USGS scientists demonstrated possible connections between PAHs in particles washed off sealed parking lots and PAHs in suspended sediment in four streams in Austin and Fort Worth, Texas. The total mass of PAHs (or "load") expected to wash off sealed parking lots was compared to the load of PAHs measured in suspended sediment in the four streams after rainstorms. The load of PAHs estimated to come from the sealed parking lots was comparable to the measured load in the streams, indicating that runoff from sealed parking lots could account for the majority of PAHs in these streams. Findings also showed that PAHs in suspended sediment in the streams were chemically similar to those in particles washed off parking lots sealed with coal-tar based sealcoat. What would be the effect on PAH loading to the streams if parking lots were not sealed? Estimates

### How did City of Austin scientists conduct biological studies?

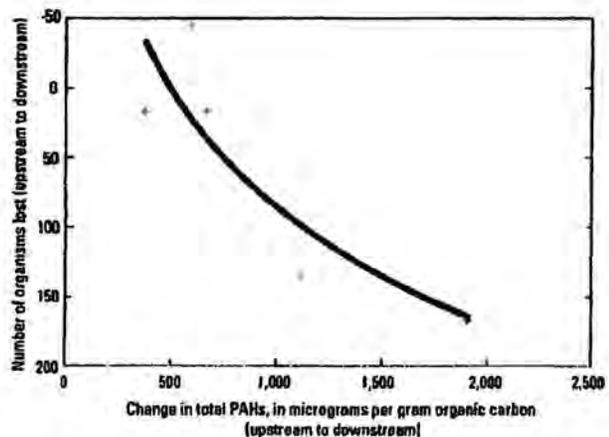
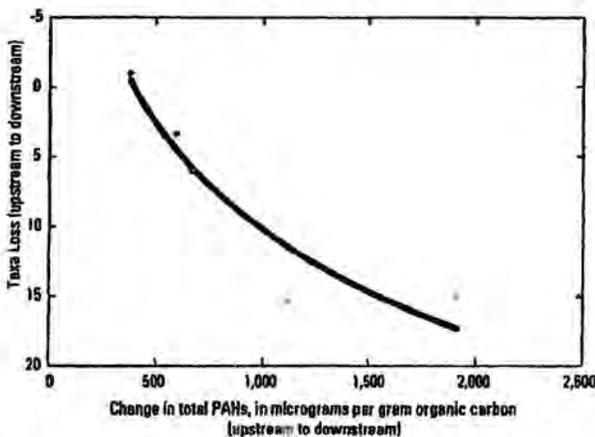
City of Austin biologists conducted laboratory and field studies to evaluate the effects of sealcoated parking lots on aquatic communities in area streams. These studies included toxicity testing in controlled laboratory experiments that exposed organisms to sediment spiked with coal-tar and asphalt-based sealcoat (left photo); controlled experiments that used aquariums with diverse natural biological communities to which sealcoat was added (middle photo); and field assessments of aquatic communities in streams upstream and downstream from inflows of runoff from sealcoated parking lots (right photo).



from the USGS study indicate that total loads of PAHs coming from parking lots in the studied watersheds would be reduced to about one-tenth of their current levels if all of the parking lots were unsealed.

Studies by City of Austin biologists showed that PAHs in sediment contaminated with abraded sealcoat could be adversely affecting aquatic communities. Specifically, toxicity testing of organisms in the laboratory showed large increases in mortality as sealcoat amounts and PAH concentrations were increased, and that sediment contaminated with coal-tar sealcoat was toxic to aquatic life at PAH concentrations observed in Austin water-

ways. Controlled experiments that used aquariums with diverse natural biological communities showed significant biological degradation in response to the addition of sealcoat particles. Finally, field assessments in selected Austin streams showed loss of species and decreases in the number of aquatic organisms downstream from inflows of runoff from coal-tar sealcoated parking lots. These effects coincided with increases in concentrations of PAHs in stream sediment below sealcoated parking lots. Overall, City of Austin scientists have reported PAH contamination at levels predicted to be toxic to benthic invertebrates in about 13 percent of sampled Austin creeks.



Field assessments in five selected Austin streams showed loss of species (taxa) and decreases in the number of aquatic organisms downstream of coal-tar sealcoated parking lots that can be, in large part, explained by increases in total PAHs.

## How do these findings apply to urban lakes and reservoirs?

The concentrations of PAHs in lakes and reservoirs across the Nation are increasing, as indicated by USGS studies of 38 reservoirs and lakes conducted in 18 metropolitan areas across the country (Van Metre and Mahler, 2005). Sediment cores (vertical tubes of mud) were collected from reservoir and lake bottoms (see photo below); analysis of these cores provides a reconstruction of historical water quality over time, much like using tree rings to reconstruct historical climate. Runoff carries soil, debris, and attached contaminants to lakes and reservoirs, which settle to the bottom; as the sediment builds up, changes in water quality are recorded in the successive sediment layers.

USGS findings show that concentrations of total PAHs in the majority of lakes and reservoirs in urban and suburban areas across the Nation increased significantly from 1970 to 2001. The increases were greatest in lakes with rapidly urbanizing watersheds (urban sprawl); for example, over the last 10 years, the concentrations of PAHs in



Lake in the Hills (suburban Chicago, Illinois) increased ten-fold as the watershed was rapidly developed. Further study is needed to assess direct links between the use of sealcoat and PAH trends in these urban lakes and reservoirs across the Nation.

## What are the implications of these studies?

The study of parking lot surfaces by the USGS and the City of Austin show that abraded sealcoat could be a major source of PAHs to urban and suburban water bodies in watersheds across the Nation where sealcoat is used. Such findings have implications that extend beyond Texas as sealcoat is used nationwide; further studies would help to evaluate

the potential impacts of sealcoat on the aquatic environment in other parts of the country. Identification of this source may influence future strategies for controlling PAHs in urban environments. In the past, sources of PAHs in urban watersheds were thought to be dominated by numerous nonpoint sources, such as leaking motor oil, tire wear, vehicular exhaust, and atmospheric deposition. Such sources are difficult to quantify or control because of their diffuse nature. In contrast, sealcoated parking lots are specific areas that contribute directly to urban stormwater runoff (see photo below), and the use of sealcoat is voluntary and controllable. To address PAH contamination in streams, the City of Austin Council banned the use of coal-tar based sealcoat, effective January 2006 (Nancy McClintock, written communication, City of Austin, November 2005).



Possible alternatives to coal-tar based sealcoating of parking lots and driveways include the use of concrete and unsealed asphalt pavement, and the use of asphalt-based sealcoat that contains lower levels of PAHs.

Currently, the use of coal-tar based sealcoat is not federally regulated. In 1992, the U.S. Environmental Protection Agency excluded coke product residues, including coal tar, from classification as hazardous wastes if they are recycled. Under the Resource Conservation and Recovery Act, coal-tar based pavement sealants are products that contain recycled coal tar and, therefore, are not regulated.

## Contacts for additional information

**Peter Van Metre and Barbara Mahler**  
U.S. Geological Survey  
8027 Exchange Drive  
Austin, Texas 78754-4733  
(512) 927-3506 or pcvanmet@usgs.gov  
(512) 927-3566 or bjmahler@usgs.gov

## Mateo Scoggins

City of Austin  
Watershed Protection and Development  
Review Department  
505 Barton Springs Road, 11<sup>th</sup> Floor  
Austin, Texas 78704  
(512) 974-1917 or  
mateo.scoggins@ci.austin.tx.us

## Links to related publications, data and maps

### City of Austin Coal Tar Sealant Information—

[http://www.ci.austin.tx.us/watershed/hs\\_coaltar.htm](http://www.ci.austin.tx.us/watershed/hs_coaltar.htm)

### USGS frequently asked questions—

[http://water.usgs.gov/nawqa/asphalt\\_sealers.html](http://water.usgs.gov/nawqa/asphalt_sealers.html)

### Basic information on the toxicity of PAHs to biological organisms, U.S. Environmental Protection Agency (USEPA)—

<http://www.epa.gov/R5Super/ecology/html/toxprofiles.htm#pahs>

### General information on PAH exposure, Agency for Toxic Substances and Disease Registry (ATSDR)—

<http://www.atsdr.cdc.gov/toxprofiles/tps69.html>

## References

Mahler, B.J., Van Metre, P.C., Bashara, T.J., Wilson, J.T., and Johns, D.A., 2005. Parking lot sealcoat: An unrecognized source of urban PAHs: Environmental Science and Technology, vol. 39, no. 15, p. 5560-5566.

Van Metre, P.C. and Mahler, B.J., 2005. Trends in hydrophobic organic contaminants in urban and reference lake sediments across the United States, 1970-2001: Environmental Science and Technology, vol. 39, no. 15, p. 5567-5574.

City of Austin, 2005. PAHs in Austin, Texas. ([http://www.ci.austin.tx.us/watershed/downloads/coaltar\\_draft\\_pah\\_study.pdf](http://www.ci.austin.tx.us/watershed/downloads/coaltar_draft_pah_study.pdf))

<sup>1</sup> U.S. Geological Survey

<sup>2</sup> City of Austin

**V. PROHIBITING THE USE AND SALE OF COAL TAR-BASED SEALANTS****§511.101. PURPOSE.**

The City of White Bear Lake highly values lakes, rivers, streams and other bodies of water as natural assets which enhance the environmental, recreational, cultural and economic resources and contribute to the general health and welfare of the community.

The use of sealers on asphalt surfaces is a common maintenance practice. However, scientific studies on the use of pavement sealers have demonstrated a relationship between stormwater runoff and certain health and environmental conditions, including the presence of Polycyclic Aromatic Hydrocarbons, a known carcinogen.

The purpose of this ordinance is to regulate the use of sealer products within the City of White Bear Lake, in order to protect, restore, and preserve the quality of its waters. Further, it is the purpose of this ordinance to enhance compliance with the application prohibition through regulating sale of certain products.

**§501.020. DEFINITIONS.**

Except as may otherwise be provided or clearly implied by context, all terms shall be given their commonly accepted definitions. For the purpose of this ordinance, the following definitions shall apply unless the context clear indicates or requires a different meaning:

**ASPHALT-BASED SEALER.** A petroleum-based sealer material that is commonly used on driveways, parking lots, and other surfaces and which does not contain coal tar.

**COAL TAR.** A byproduct of the process used to refine coal.

**COAL TAR-BASED SEALER.** A sealer material containing coal tar and is for use on an asphalt or concrete surface, including a driveway or parking area.

**CITY.** The City of White Bear Lake.

**PAHs.** Polycyclic Aromatic Hydrocarbons. A group of organic chemicals formed during the incomplete burning of coal, oil, gas, or other organic substances. Present in coal tar and believed harmful to humans, fish, and other aquatic life.

**§511.030. USE OF COAL TAR-BASED SEALER PROHIBITED.**

Subd. 1. No person shall apply any coal tar-based sealer to any driveway, parking lot, or other surface within the City of White Bear Lake.

Subd. 2. No person shall contract with any commercial sealer product applicator, residential or commercial developer, or any other person for the application of any coal tar-based sealer to any driveway, parking lot, or other surface within the City.

Subd. 3. No commercial sealer product applicator, residential or commercial developer, or other similar individual or organization shall direct any employee, independent contractor, volunteer, or other person to apply any coal tar-based sealer to any driveway, parking lot, or other surface within the City. A person who owns property on which a coal tar-based sealer is used is presumed to have used a coal tar-based sealer in violation of this section.

**§511.040. SALE OF COAL TAR-BASED SEALER RESTRICTED**

Subd. 1. A person may not sell a coal tar-based sealer product within the City, unless:

- a) The sale is to a person who intends to use the coal tar-based sealer outside the City's planning jurisdiction; and
- b) The seller requires the purchaser to complete and sign a form provided by the City that includes:
  1. The name, address, and phone number of the purchase,
  2. The date of the purchase,
  3. The quantity of coal tar-based sealer purchased,
  4. A statement that the coal tar-based sealer will not be used within the City of White Bear Lake, and
  5. An affirmation by the purchaser that the information on the form is correct, and
  6. The seller retains the completed form for a period of not less than two years and allows the City to inspect or copy of the form upon request.

**§511.050. ASPHALT-BASED SEALCOAT PRODUCTS.**

The provisions of this ordinance shall only apply to use of coal tar-based sealer in the City and shall not affect the use or sale of asphalt-based sealer products within the City.

**§511.060**

**PUBLIC HEALTH, WELFARE AND SANITATION**

**§511.070**

**§511.060. PENALTY.**

Any person convicted of violating any provision of this ordinance is guilty of a misdemeanor and shall be punished by a fine not to exceed one thousand dollars (\$1,000.00) or imprisonment for not more than ninety (90) days, or both, plus the costs of prosecution in either case.

**§511.070. SEVERABILITY.**

If any provision of this ordinance is found to be invalid for any reason by a court of competent jurisdiction, the validity of the remaining provisions shall not be affected. (Ref. Ord. 10-4-1069, 4/27/10)

The recent article in the Chicago Tribune regarding coal tar based pavement sealers has raised questions regarding its safety. After reading the article and a number of rebuttals I can only say that I am not certain what the exact truth is. Our suppliers are telling us that the product is safe to use and that the Tribune article misrepresents many of the facts about the product. Some of their arguments against the article make sense. For example the first paragraph points out that if I dumped the coal tar sealer "behind a factory" I would "violate all sorts of environmental laws and face an expensive hazardous-waste cleanup." The same is true for latex house paint that we all use in our homes on a daily basis as well as asphalt based sealers. This statement helps the article start with an impressive impact, but really doesn't tell us anything. I will not go into detail on other points of contention, but will tell you some of the things I know about the material:

I know that the polycyclic aromatic hydrocarbons in question are a byproduct of many common and every day processes such a burning fuels and gasoline. I know that the refined coal tar used to make pavement sealer is also used in many consumer products including some applied directly to our bodies such as dandruff shampoo. I know that my material suppliers have a strongly vested interest in protecting their product and that I cannot be certain their product is safe simply because they tell me so. I know that the EPA has regulated and banned other products our industry uses and I see no reason that they would not do the same with this product if they concluded it was not safe.

We have used and investigated other pavement sealers in the past and found that the durability and life-span of the coal tar based sealer is significantly superior. My brothers and I have worked directly with the coal tar sealer for 30 years and at this point we plan to continue to use it unless we receive notice from the EPA that they deem it unsafe. However, we will gladly use an asphalt based sealer at the request of any of our customers. The difference in the cost of the material is nominal, but the asphalt based sealer will be more temperature sensitive and will not last as long as the coal tar sealer.

Attached is a copy of a response to the Tribune Article written by the Pavement Coatings Technology Council. Please feel free to call me with any questions you might have.

Sincerely,

Jay Land  
President  
Pavement Systems, Inc.  
13820 S. California Ave.  
Blue Island, Illinois 60406  
Phone: 708-396-8888, ext-17  
Fax: 708-396-8893

Attachment

2

www.chicagotribune.com/health/ct-met-toxic-coal-tar-sealant-20110115,0,2601922.story

# chicagotribune.com

## New doubts cast on safety of common driveway sealant

### Extremely high levels of toxic chemical in coal tar found in booming suburb

By Michael Hawthorne, Tribune reporter

2:07 PM CST, January 18, 2011

If a company dumped the black goop behind a factory, it would violate all sorts of environmental laws and face an expensive hazardous-waste cleanup.

But playgrounds, parking lots and driveways in many communities are coated every spring and summer with coal tar, a toxic byproduct of steelmaking that contains high levels of chemicals linked to cancer and other health problems.

Nearly two decades after industry pressured the U.S. Environmental Protection Agency to exempt coal tar-based pavement sealants from anti-pollution laws, a growing number of government and academic studies are questioning the safety of the widely used products. Research shows that the tar steadily wears off and crumbles into contaminated dust that is tracked into houses and washed into lakes.



In Lake in the Hills, a fast-growing McHenry County suburb about 50 miles northwest of Chicago, researchers from the U.S. Geological Survey found that driveway dust was contaminated with extremely high levels of benzo(a)pyrene, one of the most toxic chemicals in coal tar. The amount was 5,300 times higher than the level that triggers an EPA Superfund cleanup at polluted industrial sites.

High levels also were detected in dust collected from parking lots and driveways in Austin, Texas; Detroit; Minneapolis; New Haven, Conn., and suburban Washington, D.C. By contrast, dramatically lower levels were found in Portland, Ore.; Salt Lake City and Seattle, Western cities where pavement sealants tend to be made with asphalt instead of coal tar.

The findings raise new concerns about potential health threats to people and aquatic life that went undetected for years.

"This is a real eye-opener, even for scientists who work frequently with these chemicals," said Barbara Mahler, a USGS researcher involved in the studies. "Such high concentrations usually are found at Superfund sites, but this could be your church parking lot or your school playground or even your own driveway."

About 85 million gallons of coal tar-based sealants are sold in the United States each year, according to

industry estimates. There are no comprehensive figures on where it is applied, but in Lake in the Hills, researchers determined that 89 percent of the driveways are covered in coal tar.

Manufacturers promote the sealants as a way to extend the life of asphalt and brighten it every few years with a fresh black sheen. Contractors spread a mixture of coal tar, water and clay using squeegee machines and spray wands, or homeowners can do it themselves with 5-gallon buckets bought at hardware stores.

The makers of coal tar sealants acknowledge that the products contain high levels of benzo(a)pyrene and other toxic chemicals known collectively as polycyclic aromatic hydrocarbons, or PAHs. But they deny their products are responsible for the chemical contamination found in government studies, saying it could be coming from vehicle exhaust or factory emissions that travel long distances and eventually settle back to earth.

As more research identifies coal tar sealants as a top source of PAH-contaminated driveway dust and lake sediment, manufacturers have started to fund their own research to question the findings. Lobbyists also are offering contractors free admission to an upcoming seminar that promises to show them ways to "protect the industry," including a promotional DVD they can use to "help market sealcoating to your customers."

"Nobody in our industry wants to hurt anybody," said Anne LeHuray, executive director of the Pavement Coatings Technology Council, an industry trade group. "The science is still evolving. If our products are a source, they are a very localized source."

The supply chain for the sealants begins at about two dozen factories, most of them around the Great Lakes or in western Pennsylvania, that bake coal into high-energy coke used in steel production. Companies figured out a century ago that much of the waste could be refined and sold to make other products, and they started adding it to pavement sealants after World War II.

One of the biggest suppliers is Koppers, a Pittsburgh-based company that processes coal tar at a plant in west suburban Stickney. The plant made about a third of the nation's refined coal tar in 2007, most of it used in aluminum production, according to an industry slide presentation. A company spokesman declined to comment.

Coal tar remains in widespread use even though its dangers have been known for centuries. During the late 1700s, many chimney sweeps exposed to tar in coal-heated London developed scrotal cancer, and decades later doctors determined that workers who coated railroad ties with tar-based creosote had high rates of skin cancer.

More recently, federal and state officials have prosecuted dozens of companies for illegally dumping coal tar and fouling neighboring areas with PAHs. At least 40 percent of the polluted industrial sites on the EPA's Superfund cleanup list have problems with PAH contamination, as do scores of other sites that haven't made the list.

Major cleanups in the Chicago area include a site in west suburban Oak Park, where a factory that turned coal into natural gas during the late 1800s dumped coal tar on property that later became a village park. Utilities spent at least \$50 million digging 40 feet down into Barrie Park during the mid-2000s to haul out more than 300,000 tons of contaminated soil.

In 2007, the U.S. EPA ordered a company to dig up the yards of more than three dozen homes in Chicago's Little Village neighborhood where coal tar had oozed from an abandoned roofing plant

nearby. The agency also urged residents to prevent their children from playing in dirt around their houses and to avoid gardening.

The amount of PAHs that triggered the Oak Park and Little Village cleanups was substantially lower than what researchers found in driveway dust in Lake in the Hills — 0.3 and 10 parts per million, respectively, compared with up to 9,600 parts per million.

Despite the EPA's long-standing worries about the chemicals, industry successfully lobbied to exempt coal tar pavement sealants when the agency tightened hazardous-waste rules for coke ovens during the early 1990s. The little-noticed change made it easier for manufacturers to keep selling the products, which can contain as much as 50 percent PAHs by weight.

Agency spokesmen declined to make anyone available to discuss the exemption, but said in a statement there are no plans to revise it. "EPA regulations allow for the legitimate recycling of coal tar under certain specified parameters," the statement said.

Scientists started to track the movement of coal tar sealants into homes and lakes about a decade ago, after pinpointing the source of alarmingly high levels of PAHs in Barton Springs, a popular swimming hole in Austin, the Texas capital. Tom Bashara, an environmental investigator, noticed that pollution hotspots in a creek flowing into the pool were near parking lots coated with coal tar.

The finding led Mahler and her colleagues at a USGS center in Austin to expand the research to other communities around the nation, including Lake in the Hills, where the number of households more than quadrupled between 1990 and 2006.

Among other things, they found rising amounts of PAHs in the sediment of lakes where coal tar sealants are commonly used, but dramatically lower amounts in areas where asphalt-based sealants are preferred.

In Austin, the scientists also found that dust inside apartments next to parking lots coated with coal tar was 25 times more contaminated than the dust in units next to lots coated with asphalt or left unsealed. Young children could be the most vulnerable to exposure, the researchers concluded, because they play on or near floors where dust collects.

After industry lawyers challenged the findings, arguing that other sources were to blame, the USGS scientists published another peer-reviewed study late last year that traced the contamination back to coal tar sealants.

By analyzing several feet of sediment, they determined that concentrations in the biggest lake in Lake in the Hills, known as Woods Creek Lake, didn't begin to spike until the area was more intensely paved with parking lots and driveways in the early 1990s. They spotted similar trends in other cities, including Orlando, Fla., and suburban Washington.

"You just don't otherwise see these kinds of concentrations in a typical urban, residential environment," said Peter Van Metre, another USGS scientist working on the research.

Coal tar sealants have been banned in Austin; Dane County, Wis.; Washington, D.C., and several Minnesota cities. Home Depot and Lowe's have pulled coal tar-based sealants from their shelves, though they remain widely available elsewhere.

In Lake in the Hills, officials posted a one-page brochure at Village Hall outlining the difference between coal tar- and asphalt-based sealants. The village stopped using coal tar sealants on its own

property but declined to ban them outright.

"We've already solved the problem," said Gerald Sagona, the village administrator.

PAHs are of particular concern because they don't break down easily. The USGS found that although concentrations of banned chemicals like DDT and PCBs are slowly declining in the environment, levels of PAHs are increasing.

"There is a very clear connection between the use of these sealants and high levels of contamination downstream," said Alison Watts, a University of New Hampshire researcher whose own studies tracked PAH-contaminated runoff from parking lots. "The problem isn't going to go away if you keep putting this stuff down every three years."

[mhawthorne@tribune.com](mailto:mhawthorne@tribune.com)

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## Jason Slowinski

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**From:** alehuray [alehuray@pavementcouncil.org]  
**Sent:** Monday, March 14, 2011 3:40 PM  
**To:** Jason Slowinski  
**Subject:** Pavement Coatings Technology Council  
**Importance:** High

Jason Slowinski  
Miner Street  
Des Plaines, Illinois 60016  
[jslowinski@desplaines.org](mailto:jslowinski@desplaines.org)  
(847) 391-5300

Dear Mr. Slowinski -

Thank you again for returning my phone call last week. I am the Executive Director of the Pavement Coatings Technology Council (PCTC), a trade association with member companies involved in manufacturing pavement sealer materials. A web-based media monitoring system alerted PCTC that the City of Des Plaines is considering an ordinance concerning the use of refined tar-based sealers on paved surfaces in Des Plaines. Based on our telephone conversation, it is my understanding that the City Council is planning to consider the issue at a meeting on the evening of Monday March 21, and Ms. Mendoza called last Thursday to ask that PCTC's comments or other submissions be made by today, Monday March 14. Since we spoke last week, I have visited and searched the City's web site (<http://www.desplaines.org>) several times (most recently, just a minute ago) in hopes that an agenda for the March 21 meeting or the minutes of a previous meeting or a draft resolution or ordinance would be posted that would help me understand and appropriately address the City's concerns. Unfortunately, I'm unable to find any reference at all on the City's web site. Thus, I write with two requests:

- (1) Please send or provide a web link to any materials related to the pavement sealer issues of concern to the City of Des Plaines, and
- (2) As I explained last week on the phone, I have a previous commitment that will not allow me to be present for the Des Plaines City Council meeting on March 21. Based both on this unbreakable commitment and the fact that it is unclear to the potentially impacted business community what the City's concerns are and what is being proposed to address those concerns, please ask the City Council to defer discussion of whatever the issue may be until the business community is given a chance to understand and respond to the City's concerns.

You can learn more about PCTC at the organization's web site: <http://www.pavementcouncil.org/>. For your information, PCTC members have manufacturing facilities located in Cook County, Illinois and surrounding areas. PCTC is in the process of gathering information about members' business activities in and around Des Plaines.

Thank you for your consideration,  
Anne

Anne P. LeHuray, Ph.D.  
Pavement Coatings Technology Council

Attachment

4

**CITY OF DES PLAINES**

**ORDINANCE M - 6 - 11**

**AN ORDINANCE AMENDING TITLE 5, "PUBLIC HEALTH AND SAFETY," OF THE DES PLAINES CITY CODE BY ADDING CHAPTER 7, "PROHIBITING THE USE AND SALE OF COAL TAR-BASED SEALANTS."**

**BE IT ORDAINED** by the City Council of the City of Des Plaines, Cook County, Illinois in the exercise of its home rule powers, as follows:

**SECTION 1:** That Title 5, "Public Health and Safety," of the Des Plaines City Code be amended by adding Chapter 7, "Prohibiting the Use and Sale of Coal Tar-Based Sealants" and read as follows:

**CHAPTER 7**  
**PROHIBITING THE USE AND SALE OF COAL TAR-BASED SEALANTS**

**5-7-1: PURPOSE:**

The City of Des Plaines highly values lakes, rivers, streams and other bodies of water as natural assets which enhance the environmental, recreational, cultural and economic resources and contribute to the general health and welfare of the community.

The use of sealers on asphalt surfaces is a common maintenance practice. However, scientific studies on the use of pavement sealers have demonstrated a relationship between stormwater runoff and certain health and environmental conditions, including the presence of Polycyclic Aromatic Hydrocarbons, a possible carcinogen.

The purpose of this ordinance is to regulate the use of sealer products within the City of Des Plaines, in order to protect, restore, and preserve the quality of its waters. Further, it is the purpose of this ordinance to enhance compliance with the application prohibition through regulating sale of certain products.

**5-7-2: DEFINITIONS:**

Except as may otherwise be provided or clearly implied by context, all terms shall be given their commonly accepted definitions. For the purpose of this ordinance, the following definitions shall apply unless the context clear indicates or requires a different meaning:

**ASPHALT-BASED SEALER:** A petroleum-based sealer material that is commonly used on driveways, parking lots, and other surfaces and which does not contain coal tar.

**COAL TAR:** A byproduct of the process used to refine coal.

**COAL TAR-BASED SEALER:** A sealer material containing coal tar and is for use on an asphalt or concrete surface, including a driveway or parking area.

**CITY:** The City of Des Plaines.

**PAHs:** Polycyclic Aromatic Hydrocarbons. A group of organic chemicals formed during the incomplete burning of coal, oil, gas, or other organic substances. PAHs are present in coal tar are harmful to humans, fish, and other aquatic life.

**5-7-3: USE OF COAL TAR-BASED SEALER PROHIBITED:**

- A. No person shall apply any coal tar-based sealer to any driveway, parking lot, or other surface within the City of Des Plaines.**
- B. No person shall contract with any commercial sealer product applicator, residential or commercial developer, or any other person for the application of any coal tar-based sealer to any driveway, parking lot, or other surface within the City.**
- C. No commercial sealer product applicator, residential or commercial developer, or other similar individual or organization shall direct any employee, independent contractor, volunteer, or other person to apply any coal tar-based sealer to any driveway, parking lot, or other surface within the City. A person who owns property on which a coal tar-based sealer has been applied presumed to have used a coal tar-based sealer in violation of this section.**

**5-7-4: SALE OF COAL TAR-BASED SEALER RESTRICTED:**

- A. A person may not sell a coal tar-based sealer product within the City, unless:**
  - 1) The sale is to a person who intends to use the coal tar-based sealer outside the City's jurisdiction; and**
  - 2) The seller requires the purchaser to complete and sign a form provided by the City that includes:**
    - a) The name, address, and phone number of the purchase;**
    - b) The date of the purchase;**
    - c) The quantity of coal tar-based sealer purchased;**
    - d) A statement that the coal tar-based sealer will not be used within the City of Des Plaines;**
    - e) An affirmation by the purchaser that the information on the form is correct; and**
    - f) The seller retains the completed form for a period of not less than two years and allows the City to inspect or copy of the form upon request.**

**5-7-5: ASPHALT-BASED SEALCOAT PRODUCTS:**

The provisions of this ordinance shall only apply to the sale or use of coal tar-based sealer in the City and shall not affect the use or sale of asphalt-based sealer products within the City.

**5-7-6: PENALTY:**

Any person convicted of violating any provision of this ordinance is guilty of a misdemeanor and shall be punished by a fine not to exceed seven hundred fifty dollars (\$750.00).

**SECTION 2:** If any paragraph, section, clause or provision of this Ordinance is held invalid, the remainder shall continue in full force and effect without affecting the validity of the remaining portions of the Ordinance.

**SECTION 3:** That this Ordinance shall be in full force and effect from and after its passage, approval and publication in pamphlet form according to law.

PASSED this \_\_\_\_ day of \_\_\_\_\_, 2011.

APPROVED this \_\_\_\_ day of \_\_\_\_\_, 2011.

VOTE: AYES \_\_\_\_ NAYS \_\_\_\_ ABSENT \_\_\_\_

\_\_\_\_\_  
MAYOR

ATTEST:

\_\_\_\_\_  
CITY CLERK

Published in pamphlet form this  
\_\_\_\_ day of \_\_\_\_\_, 2011.

Approved as to form:

\_\_\_\_\_  
CITY CLERK

  
\_\_\_\_\_  
David R. Wiltse, City Attorney

*Note: New language is underlined.*

# Coal tar industry fights bans on sealants

## Lobbying group funds research, argues products are safe despite government studies linking them to pollution

March 28, 2013|By Michael Hawthorne, Chicago Tribune reporter

A plant in west suburban Stickney processes coal tar pitch. Koppers Inc., the Pittsburgh-based company that owns the plant, helped sponsor a February presentation that offered advice to contractors on how to defend the use of coal tar sealants. Mike Juba, a Koppers official, urged contractors to stress the industry-funded science in conversations with customers. (Zbigniew Bzdak, Chicago Tribune)

When officials in suburban Des Plaines read about the hazards of spreading cancer-causing coal tar on playgrounds, parking lots and driveways, they moved to join other communities across the nation that have banned pavement sealants made with the industrial byproduct.

A City Council committee ordered staff to research the issue, drafted an ordinance to outlaw the widely used products and recommended its passage. Aldermen cited federal, state and academic studies showing that coal tar sealants contain high levels of toxic chemicals, steadily wear off and crumble into dust tracked into houses and washed into waterways.

But the coal tar industry was ready for a fight. After Austin, Texas, in 2005 became the first U.S. city to ban coal tar sealants, industry leaders formed a tax-exempt lobbying group and started funding their own research — all in an effort to convince homeowners and elected officials that coal tar sealants are safe.

Industry representatives have cited their studies in presentations arguing that bans on coal tar sealants would do little to eliminate toxic chemicals in the environment. Promotional materials from contractors and manufacturers say the papers show that government studies are flawed, or "lies" as one brochure describes them.

"My members don't want to sell a product that causes harm," Anne LeHuray, executive director of the Pavement Coatings Technology Council, the industry lobbying group, said in an interview.

The industry's efforts have worked in some cases. Since 2010, cities including Des Plaines and Springfield, Mo., and the states of Illinois, Michigan and Maryland have rejected coal tar-related legislation after LeHuray and local contractors intervened.

"It seemed too confusing," said Patricia Haugeberg, a Des Plaines alderman who moved to table the Cook County suburb's proposed 2011 ban.

In a February presentation to contractors, a top industry representative boasted that they are beating government scientists "on their own turf."

Yet a Tribune review of the two industry-funded studies published in a peer-reviewed scientific journal in recent years found they fall short of proving their authors' contention that coal tar sealants pose few, if any, threats to human health and wildlife. And, the Tribune found, the industry has at times overstated the findings supporting coal tar.

Manufacturers promote coal tar pavement sealants as a way to extend the life of asphalt and brighten it every few years with a fresh black sheen. The products are most commonly used in states east of the Continental Divide; in the West, contractors tend to use asphalt-based sealants that contain significantly lower levels of worrisome chemicals.

Coal tar sealants contain up to 35 percent coal tar pitch, partially refined waste from steelmaking that the National Toxicology Program and the International Agency for Research on Cancer consider a known carcinogen. Among the chemicals of concern in the products are polycyclic aromatic hydrocarbons, or PAHs, which not only pose a cancer risk but can trigger developmental problems and impair fertility, according to the U.S. Environmental Protection Agency.

Peer-reviewed studies by government scientists have found that coal tar sealants are a major source, and sometimes the dominant source, of PAH contamination in urban areas. Other sources of the chemicals include vehicle exhaust and factory emissions.

In response to the growing body of federal research and regulatory pressures, the coal tar industry turned to a pair of consulting firms frequently hired by corporations dealing with environmental, health or safety issues — Exponent Inc. and Environ International. The industry-funded papers, published in a minor journal called Environmental Forensics, contend that coal tar sealants are at best a minor source of pollution.

The Exponent study, for instance, concludes that vehicle exhaust and industrial pollution are far bigger sources of PAHs than coal tar. But the finding is largely based on an older scientific model that does not include coal tar sealants as a potential source, leading the researchers to conclude that PAHs in the environment "can be explained in the absence of any contribution" from pavement sealants.

Kirk O'Reilly, an Exponent senior scientist and the study's chief author, said government researchers have overstated their conclusions and failed to consider "the large body of literature" about the chemicals. The government research, O'Reilly said in email response to questions, "does not prove that sealers are a source."

But at the end of his paper, O'Reilly acknowledges that coal tar sealants "cannot be eliminated as a PAH source."

The Environ International study, meanwhile, tested whether PAHs declined in Austin after the city's 2005 coal tar ban took effect. In a 2010 paper, the researchers reported they found that little had changed 21/2 years later, and industry representatives continue to cite the study as evidence that banning their products would not reduce PAHs in homes and waterways.

But coal tar pavement sealants weren't used in some areas where sediment samples were collected, including roadways and parking lots built after the Austin ban took effect, according to the text of the study. Austin also didn't require existing coal tar to be stripped from pavement, meaning many potential sources of pollution remained after the ban.

The researchers state that it could take more than two years to determine whether the Austin coal tar ban worked. One of the most dangerous PAHs, benzo(a)pyrene, is federally listed as a persistent chemical like DDT and PCBs, which were banned during the 1970s but took years to decline in the environment.

Robert DeMott, an Environ toxicologist and the study's chief author, has told contractors and elected officials that Austin's move to eliminate coal tar sealants failed to make a difference, largely because there are so many other sources of PAHs. But in an interview he acknowledged that his study didn't reach such a definitive conclusion.

"The question boils down to how much of a change is a meaningful change," DeMott said. "If you remove one part out of thousands of contributors, will you ever be able to see a difference? That is a question that remains unanswered."

Asked if industry funding affected their conclusions, the Exponent and Environ researchers said their opinions are their own.

Barbara Mahler, one of the government scientists who first identified coal tar sealants as a major source of PAH contamination, said industry representatives haven't accurately represented her [research](#) findings in their presentations.

"They make very misleading statements, and if you don't know any better it can all sound convincing," Mahler said in an interview. "The conclusions of their [studies](#) are they can't reach any conclusions. But you wouldn't know that from what they say to the public."

During the past decade, Mahler and Peter Van Metre of the U.S. Geological Survey roiled the coal tar industry with a series of peer-reviewed studies that found high levels of PAH contamination in areas where coal tar sealants are used. Dramatically lower levels were found in Western cities.

In Lake in the Hills, about 50 miles northwest of Chicago, they found levels of benzo(a)pyrene in dust from coal tar-covered driveways that were up to 5,300 times higher than the level that triggers an EPA Superfund cleanup at polluted industrial sites.

The USGS scientists also found that parking lots with 3- to 8-year-old sealant released 60 times more PAHs into the air than parking lots without sealant. Other researchers from the EPA and the University of New Hampshire have found significantly higher PAH levels in runoff from parking lots sealed with coal tar than in runoff from asphalt-sealed lots.

"This is a common-sense issue," said Judy Crane, a scientist for the Minnesota Pollution Control Agency who determined that coal tar sealants are the leading source of PAH contamination in Minneapolis-St. Paul stormwater ponds. "You can see the stuff flaking off and being tracked inside or washed into waterways."

New research from Baylor University adds to that troubling picture. The study, published two months ago in the peer-reviewed scientific journal Environmental Science and Technology, found that exposure to coal tar-contaminated dust during the first six years of life significantly increases the risk of developing cancer.

"It's very difficult to attribute environmental cancers to any one source, and PAHs are everywhere," said Spencer Williams, a Baylor research toxicologist and the study's chief author. "But these coal tar sealers are a big dollop of PAHs that you wouldn't get anywhere else."

A month after the study came out, the industry lobbying group hosted an hourlong Web presentation that promised to teach contractors "how you can be successful in defense and what to say to customers, media, and even state and local officials who have questions about the lifeblood of your [business](#)." One of the sponsors was Koppers Inc., a Pittsburgh-based company that processes coal tar at a plant in west suburban Stickney.

Mike Juba, a Koppers [health](#) and safety official, urged contractors to stress the industry-funded science in conversations with customers. He also advised them to talk about their contributions to local economies.

"To eliminate a useful product and put the businesses and jobs of real people at risk ... hurts more people than it helps," Juba said during the presentation. Koppers and Juba did not return calls seeking comment.

There are signs that the industry's initial successes in places like Des Plaines might be fading. Coal tar sealants have been banned in suburban South Barrington, the state of Washington, counties in Maryland, New York and Wisconsin, and more than two dozen Minnesota cities. More than 40 contractors in the Minneapolis-St. Paul area and 25 others in Wisconsin have signed pledges to not sell the [products](#).

"Once people are educated about this, they realize it just makes sense to stop adding hazardous materials to the environment when there are other options that don't pose the same hazards," said Al Innes, a Minnesota state official who oversees an EPA-funded [program](#) that seeks to reduce the use of coal tar sealants.

Officials in Springfield, Mo., rejected a coal tar ban in 2010 after industry officials and the scientists they funded gave presentations saying the proposal was misguided. One of the opposition's key arguments was that there was no proof that PAH contamination was a problem in local streams.

But in November, a researcher from Missouri [State University](#) reported to local officials that he had found high levels of PAHs in nearly half of the two dozen samples he collected from

Springfield-area waterways. The highest concentrations were found near parking lots covered in coal tar sealants.

"The industry pulled out all the stops because they didn't want us to set a precedent for other cities," said Cindy Rushefsky, a Springfield councilwoman. "We've got our own [data](#) and the data is strong. Austin is not unique and neither are we. They should see the writing on the wall."

She plans to reintroduce the proposal later this year.

[mhawthorne@tribune.com](mailto:mhawthorne@tribune.com)

*Twitter @scribeguy*



# Actions to restrict or discontinue the use of Coal Tar-Based Sealants in the United States

Current as of January 1, 2014

## Governments

Action	State/District	Jurisdiction* and 2010 Population**	
Ban or Ordinance	District of Columbia	Washington	601,723
	Illinois	South Barrington	4,565
	Kansas	Winfield	12,301
	Maryland	Montgomery County	971,777
	Minnesota	Statewide	5,303,925
	New York	Suffolk County	1,493,350
	South Carolina	Greenville	59,306
	Texas	Austin	790,390
		Bee Cave	3,925
		Edwards Aquifer, Comal and Hays Counties	265,579
	Washington	Statewide	6,724,540
Wisconsin	Dane County	488,073	
Restricted use jurisdictions	Massachusetts	Andover Wetlands	
		Commonwealth Wetlands	
		Sudbury	
	North Carolina	Boone	
Government use restrictions <sup>†</sup>	California	California Department of Transportation	
	Illinois	City of Lake in the Hills	
		City of Spring Grove	
		DuPage County/Salt Creek Watershed	
		McHenry County	
	Minnesota	All State Agencies	
Missouri	City of Springfield		

## Companies

Action	Area	Company*
Home Improvement Stores Which Have Stopped Selling Coal Tar-Based Sealants	Nationwide Distribution	Ace Hardware, Do It Best††, Lowe's††, The Home Depot, True Value
	Regional Distribution	Agway, Menards, United Hardware (Hardware Hank and Trustworthy)
Applicators Committed to Phase-Out	In WI, MI, ND, IA, IL, and MN (pledged prior to 1/1/14 state ban)	See interactive map and listing at <a href="http://www.pca.state.mn.us/uu4yx6y">http://www.pca.state.mn.us/uu4yx6y</a>

## Universities and schools

Action	Institution
Formal institutional governance ending use	University of Michigan San Diego Unified School District

Note: A large number of school districts around the country have informal policies not to use coal tar-based sealcoats. However, these actions are not currently feasible to track.

\*sources: combination of Google searches, accessing Coal Tar Free America Blog (<http://coaltarfreeamerica.blogspot.com/p/bans.html>), personal interviews, evaluating Material Safety Data Sheets for sealant products, in-store visits conducted by [Judy L. Crane, Ph.D.](#), and contacts to and outreach by Minnesota Pollution Control Agency (MPCA) staff under the Great Lakes Coal Tar Sealcoat/PAH Reduction Project, funded by U.S. Environmental Protection Agency's (EPA) Great Lakes Restoration Initiative.

\*\*source: 2010 Census Interactive Population Search webpage (<http://www.census.gov/2010census/popmap/ipmtext.php>).

†most state Departments of Transportation no longer use coal tar-based sealants (AASHTO 2011; [http://environment.transportation.org/pdf/communities\\_of\\_practice/stormwatercopjan2011.pdf](http://environment.transportation.org/pdf/communities_of_practice/stormwatercopjan2011.pdf))

††contact with Do It Best and Lowe's is ongoing since coal tar-based sealants have recently been found in some of their stores (EPA communications, 1/4/13 and 1/22/13)

**DISCLAIMER:** This table was originally prepared by [Judy Crane, Ph.D.](#) to support a feature article in *Environmental Science and Technology* on "[Coal-tar-based pavement sealcoat and PAHs: Implications for the environment, human health, and stormwater management](#)" (Mahler et al. 2012). MPCA will attempt to update this document in as timely a fashion as is possible within resource constraints. Due to the difficulty involved with tracking restricted use jurisdictions and government use restrictions of coal tar-based sealants, however, this information may not be fully complete. If readers have questions or would like to pass along information on new coal tar sealcoat restrictions, call 651-296-6300 or 800-657-3864 and ask for Pollution Prevention/Green Chemistry staff.



Minnesota  
Pollution  
Control  
Agency

# Coal Tar-based Sealcoat

## Environmental concerns

wq-strm4-12 • September 2009

If you decide to sealcoat your asphalt driveway this year, there are a few things you should know. Sealcoating makes old asphalt look new and protects its surface, but there are serious environmental concerns with its use.

Sealcoat comes in two basic varieties: coal tar-based and asphalt-based. The coal tar variety is more resilient, but it contains much higher levels of a class of chemicals called PAHs (polycyclic aromatic hydrocarbons) that harm fish, and with prolonged exposure, pose a risk of cancer in humans (see Figure 1).

### Environmental problems

Coal tar is a waste material generated in the conversion of coal to coke. Manufacturers choose coal tar for sealcoat because of its resistance to petroleum products like gasoline and oil, which drip from cars and deteriorate asphalt surfaces. In time, sunlight and vehicle traffic wears down sealcoat and sealcoat flakes are washed away by rain or carried away by wind, contaminating stormwater ponds, streams and lakes with PAHs.

PAHs cause tumors in some fish, disrupts the reproduction of aquatic organisms, and causes some water-bottom species to avoid sediment altogether. Health risks to humans related to PAHs are based on the length of exposure to vapors or sediments contaminated with PAHs.

### PAH Concentrations

Coal tar contains as much as 30 percent PAHs by weight. A study in Austin, Texas, compared the level of PAHs in water coming off parking lots without sealcoat to

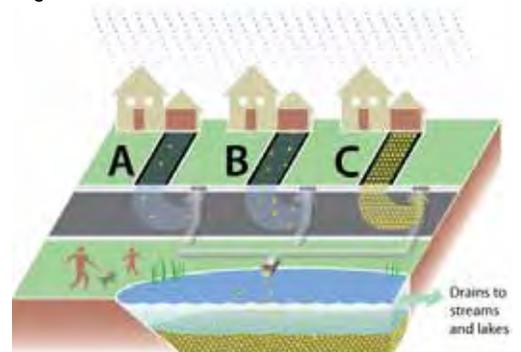
water coming off parking lots coated with asphalt- and coal-tar sealcoat (Figure 2).

Figure 1: Relative amounts of PAHs in sealcoat products



An Austin, Texas, study determined that sealcoat products based on coal tar contained up to 1,000 times more PAHs than asphalt-based products. Consider asphalt-based sealcoat if you choose to coat your driveway.

Figure 2: Concentrations of PAHs in runoff



Asphalt-based sealcoat runoff (B) can contain 10 times more PAHs than an uncoated driveway (A) and runoff from a coal-tar sealcoated driveway (C) may have concentrations of PAH 65 times higher than an uncoated driveway.

The study revealed that the asphalt-based sealcoat runoff contained 10 times more PAH than the uncoated parking lot and the coal-tar sealcoat runoff had concentrations of PAH that were 65 times higher than the uncoated lot.

### Maintenance expenses

Besides the health effects and the danger to the environment, PAHs are making routine maintenance of stormwater ponds by cities and townships many, many times more expensive because sediment with high-enough concentrations of PAHs must be disposed of differently.

In Minnesota, when some cities removed sediment from their stormwater ponds as part of regular maintenance, they found elevated levels of PAHs. This discovery required them to find special disposal areas, costing them many thousands of dollars more.

### Current regulation

Because of the environmental problems associated with PAHs, the City of Austin, Texas, Dane County, Wisconsin, and Washington D.C. have banned use of coal tar-based sealcoat in their jurisdictions (asphalt-based sealcoat may still be used).

Recent legislation passed in Minnesota bans the purchase of coal-tar sealcoat products by state agencies by July 1, 2010. Recently, two national home-

improvement retailers, Lowe's and Home Depot, took coal tar-based sealcoat off their shelves. Check with your local unit of government to see if there are any restrictions.

### Make the right choice

The best choice may be to not sealcoat your driveway at all. But if you do choose to sealcoat, study labels carefully to be sure to find an asphalt-based product. Lower concentrations of PAHs in waterways will prevent costly maintenance for your city and keep waterways safe for fish and other aquatic organisms.

If you have leftover material after sealing your driveway, you can re-use or recycle it at your community's household hazardous waste facility. To find your local facility, visit: [www.pca.state.mn.us/waste/hhw](http://www.pca.state.mn.us/waste/hhw)

### References

Van Metre, P.C., Mahler, B.J., Scoggins, M., and Hamilton, P.A., 2006. Parking Lot Sealcoat: A Major Source of Polycyclic Aromatic Hydrocarbons (PAHs) in Urban and Suburban Environments. A USGS report prepared in cooperation with the City of Austin, Texas.



# Office of the City Clerk



O2013-2557

Office of the City Clerk

## City Council Document Tracking Sheet

<b>Meeting Date:</b>	4/10/2013
<b>Sponsor(s):</b>	Burke, Edward M. (14) Burns, William D. (4)
<b>Type:</b>	Ordinance
<b>Title:</b>	Amendment of Chapter 7-28 of Municipal Code by adding new Section 634 to prohibit sale and use of coal tar sealants
<b>Committee(s) Assignment:</b>	Committee on Finance



**ORDINANCE**

**WHEREAS**, the City of Chicago is a home rule unit government pursuant to the 1970 Illinois Constitution, Article VII, Section 6(a); and

**WHEREAS**, pursuant to its home rule power, the City of Chicago may exercise any power and perform any function relating to its government and affairs, including the power to regulate for the protection of the public health, safety, morals, and welfare; and

**WHEREAS**, coal tar sealants are used on asphalt driveways and parking lots to protect surfaces from weathering; and

**WHEREAS**, coal tar contains high levels of benzo(a)pyrene and other toxic chemicals known collectively as polycyclic aromatic hydrocarbons, or PAHs, which have been linked to cancer and other health problems; and

**WHEREAS**, in Lake of the Hills, approximately 50 miles northwest of Chicago, researchers from the U.S. Geological Survey found levels of benzo(a)pyrene, one of the most toxic chemicals in coal tar, in the dust from coal tar-covered driveways that were up to 5,300 times higher than the level that triggers a U.S. Environmental Protection Agency Superfund cleanup at polluted industrial sites; and

**WHEREAS**, other researchers have found significantly higher PAH levels in runoff from parking lots sealed with coal tar than in runoff from asphalt-sealed lots; and

**WHEREAS**, coal tar sealants have been banned in the state of Washington, counties in Maryland, New York and Wisconsin, the cities of Austin, Texas, South Barrington, Illinois, and over two dozen Minnesota cities; and

**WHEREAS**, the City Council of the City of Chicago hereby finds that it is in the best interest of the public health, safety and welfare to prohibit the sale and use of sealants containing coal tar; NOW THEREFORE

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHICAGO:**

**SECTION 1.** The above recitals are expressly incorporated herein and made part hereof as though fully set forth herein.

**SECTION 2.** Chapter 7-28 of the Municipal Code of Chicago is hereby amended by inserting a new section 7-28-634 as follows:

**7-28-634 Coal tar sealants – Prohibition on sale and use.**

(a) As used in this section, the term “coal tar sealer” shall mean a sealer material containing coal tar for use on an asphalt or concrete surface, including a playground, driveway, or parking area.

(b) It shall be unlawful for any person to sell, offer or expose for sale, give or furnish any coal tar sealer within the City of Chicago.

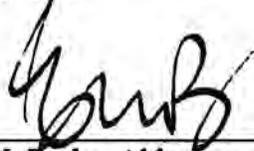
(c) It shall be unlawful for any person to apply any coal tar sealer to any playground, driveway, parking lot, or other surface within the City of Chicago.

(d) It shall be unlawful for any person to contract for the application of any coal tar sealer to any playground, driveway, parking lot or other surface within the City of Chicago.

(e) It shall be unlawful for any person to direct any employee, independent contractor, volunteer, or other person to apply any coal tar sealer to any playground, driveway, parking lot, or other surface within the City of Chicago.

(f) Any person violating this section shall be fined not less than \$100.00 nor more than \$300.00 for the first offense, and not less than \$300.00 nor more than \$500.00 for the second and each subsequent offense. Each day that a violation continues shall constitute a separate and distinct offense.

**SECTION 3.** This ordinance shall be in full force and effect 30 days after its passage and publication.



Edward M. Burke, Alderman, 14<sup>th</sup> Ward



William Burns, Alderman, 4<sup>th</sup> Ward

## “Model” Ordinance on Coal Tar Sealants

### Overview

Parking lots and driveways dominate the urban landscape across McHenry County, and sealcoating these surfaces is widely recommended. Among the most widely used sealcoats, are those containing refined coal tar<sup>1</sup>. Coal tar sealants contain high levels of polycyclic aromatic hydrocarbons (PAHs), which are toxic to fish and other aquatic life. In addition, PAH's are a known carcinogen<sup>2</sup>.

Recent studies<sup>3</sup> show that coal tar sealcoat products used as a means to protect asphalt pavement is a significant source of PAH contamination in our lakes and streams. Studies<sup>4</sup> in Austin, TX and Puget Sound near Olympia, WA demonstrate that the PAH compounds run off into lakes and streams and are toxic to fish. Additional information shows that PAHs can be detected in blood or urine soon after exposure<sup>5</sup>.

The model ordinance prohibits the use, sale or retail display of sealcoat products within McHenry County (applies to all unincorporated McHenry County and all municipalities that have adopted this ordinance) that are labeled as containing coal tar. It also requires retailers to prominently display information about the ordinance where customers make their driveway sealant purchases. There is an ordinance exemption for those who intend to apply sealcoat products on a surface that is not located within McHenry County. Sellers must require purchasers seeking the exemption to complete an exemption form<sup>6</sup>.

The proposed ordinance regulating the use and sale of coal tar sealants within McHenry County is attached. The associated fact sheet and exemption form are also attached and available at [www.mchenryh2o.com](http://www.mchenryh2o.com).

<sup>1</sup> Van Metre, P.C.; Mahler, B.J.; Wilson, J.T.; Burbank, T.L. *Collection and Analysis of Samples for Polycyclic Aromatic Hydrocarbons in Dust and Other Solids Related to Sealed and Unsealed Pavement from 10 Cities Across the United States, 2005-07*; USGS Data Series 361; U.S. Geological Survey: Denver, CO, 2008; 5 pp; <http://pubs.usgs.gov/ds/361/>. (accessed November 2008)

<sup>2</sup> U.S. Department of Health and Human Services. *Report On Carcinogens*, 10<sup>th</sup> ed.; National Toxicology Program, Public Health Service : Washington, DC, December 2002.

<sup>3</sup> Van Metre, P.C.; Mahler, B.J.; Wilson, J.T.; 2008, *PAHs Underfoot: Contaminated Dust from Coal-Tar Sealcoated Pavement is Widespread in the United States*. Downloaded from <http://pubs.acs.org> on November 19, 2008.

<sup>4</sup> Lake In The Hills, Illinois was a study site for footnotes 1 and 3. “Concentrations of PAHs in soil and street dust near sealcoated pavement in Lake in the Hills exceeded those near unsealcoated pavement by a factor ofr from 6.4 to 39 (street dust) and 2.3 to 14 (soil).” (see Table 2 from footnote 3). In addition, 29/30 driveways samples had coal tar and 15-20% of sub-watershed was impacted by coal tar.

<sup>5</sup> Wisconsin Department of Health Services. Chemical Fact Sheet: *Polycyclic Aromatic Hydrocarbons*. <http://dhs.wisconsin.gov/eh/chemfs/fs/PAH.htm>

<sup>6</sup> Exemption form is available at [www.mchenryh2o.com](http://www.mchenryh2o.com)

# Polycyclic Aromatic Hydrocarbon (PAHs)

## Quick Facts

### Polycyclic Aromatic Hydrocarbon Compounds Are Harmful to Aquatic and Human Life

- Several PAHs are suspected human carcinogens.
- PAHs are very persistent in the environment.
- Austin, Texas biological studies revealed a loss of species and decreased number of organisms.
- Puget Sound Ambient Monitoring Program found the following related to the presence of PAHs:
  - o Liver lesions and tumors in fish.
  - o Liver problems led to reproductive impairment
  - o Malformations in fish embryos and embryonic cardiac dysfunction.
  - o Reduction in aquatic plants (Eelgrass) that provide fish habitat.

### Coal Tar Sealcoat a Significant Source of PAHs

- Coal Tar Sealcoat products contain as much as 30% coal tar by weight.
- Coal tar contains 50% or more PAHs by weight.
- Friction of automobile tires causes sealcoat to flake off. Precipitation running off surfaces carries the particles into storm sewers that empty into lakes and streams.
- City of Austin, TX and USGS collaborated on study: Parking lots with coal-tar sealcoat yielded 65 times more PAH than on unsealed lots in simulated rain events.

### Coal Tar and PAHs are Prevalent in McHenry County

- It takes about 450 gallons of sealcoat to apply a single coat to one acre of parking lot. Typically two coats are applied.
- Applicators suggest reapplication of sealcoat every two to three years.
- The city of Madison, Wisconsin estimates that about 300,000 gallons of sealcoat are applied every year in the Madison area. Austin, Texas estimates 600,000 gallons are used.

### Actions Taken:

- Lowes and Home Depot Home Improvement stores have discontinued the sale of Coal Tar Sealants nationwide.
- The City of Austin, TX passed an ordinance in 2005 prohibiting the use and sale of CTS
- Dane County, WI passed similar ordinance in 2007

### Alternative Products Available

- Asphalt sealcoat
- Latex modified asphalt sealer (Master Guard®)

### Resources on the Web

- <http://pubs.usgs.gov/fs/2005/3147>
- [www.ci.austin.tx.us/watershed/coalatar\\_main.htm](http://www.ci.austin.tx.us/watershed/coalatar_main.htm)
- <http://198.238.33.67/fish/psamp/study.htm>
- [http://www.esw.org/news/archives/2005/08/cars\\_replacing\\_industry\\_as\\_lea.php](http://www.esw.org/news/archives/2005/08/cars_replacing_industry_as_lea.php)
- <http://www.nwfsc.noaa.gov/research/divisions/ec/ecotox/fishneurobiology/cardio.cfm>
- [http://water.usgs.gov/nawqa/asphalt\\_sealers.html](http://water.usgs.gov/nawqa/asphalt_sealers.html)

**ORDINANCE NO. XXX**

**AMENDING CHAPTER XXX OF THE (County or Municipality) CODE OF ORDINANCES  
REGULATING THE APPLICATION AND SALE OF  
COAL TARE SEALCOAT PRODUCTS**

WHEREAS, the (County or Municipality), finds that McHenry County's water resources are a natural asset, which enhance the environmental, recreational, cultural and economic resources of the area and contribute to the general health and welfare of the public.

WHEREAS, finds that polycyclic aromatic hydrocarbons (PAHs), which are contained in coal tar sealants, can be carried by stormwater and other run off into the water resources of McHenry County.

WHEREAS, PAHs are an environmental concern because they are toxic to aquatic life, resulting in a loss of species and a decreased number of organisms.

WHEREAS, environmental impacts can be minimized and pavements can be maintained by utilizing alternative products, absent PAHs.

WHEREAS, the (County or Municipality) finds that regulating the amount of contaminants, including Polycyclic Aromatic Hydrocarbons (PAHs) contained in coal tar sealcoat products, entering the water resources of the (County or Municipality) will improve and protect the water quality of (County or Municipality) and neighboring water resources.

NOW, THEREFORE, BE IT ORDAINED by the (insert title of elected representative) and Board of Trustees of the (County or Municipality), McHenry County, Illinois, as follows:

**SECTION 1:** Title (insert number) of the (County or Municipality) Code is amended to add a new Chapter (insert number) to read:

**CHAPTER XXX. COAL TAR PAVEMENT PRODUCTS**

**XXX-1: DEFINITIONS**

- (1) COAL TAR is a byproduct of the process used to refine coal. Coal tar contains high levels of polycyclic aromatic hydrocarbons (PAHs).
- (2) COAL TAR PAVEMENT PRODUCT means a material that contains coal tar and is for use on an asphalt or concrete surface, including a driveway or parking area.

- (3) POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) are a group of organic chemicals that are present in coal tar and are an environmental concern because they are toxic to aquatic life.
- (4) SEALCOAT is a black liquid that is sprayed or painted on asphalt pavement in an effort to protect and beautify the asphalt. Most sealcoat products are coal-tar or asphalt based.
- (5) DIRECTOR means the director of the (insert department name).

**XXX-2 ENFORCEMENT.**

Violations of this ordinance will be enforced by the (County or Municipality).

**XXX-3 REGULATION OF THE APPLICATION AND SALE OF SEALCOAT PRODUCTS CONTAINING COAL TAR.**

- (A) Except as provided in Section XXX-4 (*Exemptions*), No person shall apply any sealcoat product within (County or Municipality) that is labeled as containing coal tar.
- (B) No person shall sell, offer to sell, or display for sale any sealcoat product within (County or Municipality) that is labeled as containing coal tar.
- (C) Any person who sells pavement sealcoat products shall prominently display, in the area where such pavement sealcoat products are sold, a notice that contains the following language: “The application of coal tar sealcoat products on driveways, parking lots and all other paved surfaces in (County or Municipality) is prohibited by Chapter XXX of the (enter name) Code of Ordinances. Coal tar is a significant source of Polycyclic Aromatic Hydrocarbons (PAHs), a group of organic chemicals that can be carried by stormwater and other run off into the water resources of McHenry County. PAHs are an environmental concern because they are toxic to aquatic life.”
- (D) A person who owns property on which a coal tar pavement product is used is presumed to have used a coal tar pavement product in violation of this section.
- (E) Any person, who applies, sells, offers to sell or displays for sale any sealcoat product within (County or Municipality) that is labeled as containing coal tar is presumed to have applied, sold, offered to sell or displayed the product in violation of this section.

**XXX-4: EXEMPTIONS.**

The director may exempt a person from a requirement of this chapter if the director determines that:

- (1) The sale of a sealcoat product containing coal tar to a person who intends to apply the product on a surface that is not located within (County or Municipality) is permitted under the following conditions:
  - a. The seller requires the purchaser to complete and sign a form, to be provided by the Water Resource Division of the County of McHenry, that includes the purchaser's name, address, phone number, date of purchase, quantity purchased and a statement that the coal tar sealcoat product will not be applied on a surface that is located within (County or Municipality).
  - b. The seller retains the completed form for a period of not less than three (3) years from the date of sale and allows the inspection and copying of the form by (County or Municipality) staff upon request.
- (2) The Director of (insert title of appropriate department) may exempt a person from the requirements of section XXX-3 if the person is conducting *bona fide* research concerning the effects of a coal tar sealant product on the environment and the use of the coal tar product is required for said research.

**XXX-5: PENALTY.**

- (A) Any person who violates XXX-3 by applying a coal tar sealant product at his or her residence shall be subjected to a fine not to exceed \$500.
- (B) Each day that a violation occurs or continues is a separate offense and subject to an additional fine.
- (C) Any commercial sealcoat product applicator, residential or commercial developer, industrial or commercial owner, or any other person, other than a person identified under sub. (A) above who violates XXX-3, shall be subject to a fine of \$100 for the first violation within a twelve month period, \$300 for the second violation within a twelve month period, and \$500 for the third and each subsequent violation within a twelve month period.

**SECTION 2:** If any section, paragraph, subdivision, clause, sentence or provision of this Ordinance shall be adjudged by any Court of competent jurisdiction to be invalid, such judgment shall not affect, impair, invalidate or nullify the remainder thereof, which remainder shall remain and continue in full force and effect.

**SECTION 3:** All ordinances or parts of ordinances in conflict herewith are hereby repealed to the extent of such conflict.

**SECTION 4:** This ordinance shall be in full force and effect ten (10) days after its passage, approval, and publication in pamphlet form, as provided by law.

Ayes:

Nays:

Absent:

Abstain:

APPROVED:

\_\_\_\_\_

(SEAL)

ATTEST: \_\_\_\_\_

Passed: \_\_\_\_\_

Approved: \_\_\_\_\_

Published: \_\_\_\_\_

## Chapter 17

# COAL TAR PAVEMENT PRODUCTS

### 4-17-1: DEFINITIONS:

COAL TAR: A byproduct of the process used to refine coal. Coal tar contains high levels of polycyclic aromatic hydrocarbons (PAHs).

COAL TAR PAVEMENT PRODUCT: A material that contains coal tar and is for use on an asphalt or concrete surface, including a driveway or parking area.

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs): A group of organic chemicals that are present in coal tar and are an environmental concern because they are toxic to aquatic life.

SEAL COAT: A black liquid that is sprayed or painted on asphalt pavement in an effort to protect and beautify the asphalt. Most seal coat products are coal tar or asphalt based. (Ord. 2012-961, 4-12-2012)

### 4-17-2: ENFORCEMENT:

Violations of this chapter will be enforced by the village of South Barrington. (Ord. 2012-961, 4-12-2012)

### 4-17-3: REGULATION OF THE APPLICATION OF SEAL COAT PRODUCTS CONTAINING COAL TAR:

A. No person shall apply any coal tar containing seal coat product within the village of South Barrington.

B. A person who owns property on which a coal tar pavement product is used is presumed to have used a coal tar pavement product in violation of this section. (Ord. 2012-961, 4-12-2012)

### 4-17-4: VIOLATION AND PENALTY:

Any violation of any provision of this chapter shall constitute a municipal civil infraction subject to the remedies specified in [title 1, chapter 4](#), "General Penalty", of this code. (Ord. 2012-961, 4-12-2012)