



ST. CHARLES
SINCE 1834

AGENDA ITEM EXECUTIVE SUMMARY

Title: Recommendation to Approve Memorandum of Understanding between Illinois Department of Natural Resources and the City of St. Charles for the 7th Avenue Creek Tributary Floodplain

Presenter: Peter Suhr

Please check appropriate box:

<input type="checkbox"/>	Government Operations	<input checked="" type="checkbox"/>	Government Services – 08.25.14
<input type="checkbox"/>	Planning & Development	<input type="checkbox"/>	City Council
<input type="checkbox"/>	Public Hearing	<input type="checkbox"/>	

Estimated Cost:	N/A	Budgeted:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
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If NO, please explain how item will be funded:

Executive Summary:

The technical review of the new flood insurance study for 7th Avenue Creek and Tributary was completed by the Illinois Department of Natural Resources (IDNR) in March. This has gotten us a step closer to FEMA having their mapping contractor prepare the new Flood Insurance Rate Maps (FIRM's) for this corridor. The Memorandum of Understanding (MOU) - Conveyance Floodway Agreement we are seeking approval of will allow the new FIRM's to depict a narrower floodway path, specifically from Tyler Road to Indiana Avenue. Once this agreement is approved by the City and signed by the Director of the IDNR, FEMA will receive the green light to produce the new FIRM's. It should be noted that the new FIRM's will not become effective until after the mandatory public review process. The attached exhibit illustrates the differences between the two floodway definitions. The design criteria set forth in the MOU is essentially what we currently use to develop within the floodway / floodplain since we have adopted the Kane County storm water ordinance.

Attachments: *(please list)*

Memorandum of Understanding – Conveyance Floodway Agreement
7th Avenue Creek Timeline – September 2008 to present
Excerpts from State of Illinois Floodway Regulations

Recommendation / Suggested Action *(briefly explain):*

Recommendation to approve the Memorandum of Understanding – Conveyance Floodway Agreement between the City of St. Charles and the Illinois Department of Natural Resources, for 7th Avenue Creek and 7th Avenue Creek Tributary.

For office use only: Agenda Item Number: 6.b

MEMORANDUM OF UNDERSTANDING
between the
ILLINOIS DEPARTMENT OF NATURAL RESOURCES
and the
City of St. Charles

OWR-310

ALLOWING STORAGE TO BE ELIMINATED AS A FACTOR IN THE DELINEATION OF FLOODWAYS AS
DEFINED IN THE DEPARTMENT'S FLOODWAY CONSTRUCTION RULES

THIS MEMORANDUM OF UNDERSTANDING is made between City of St. Charles, Kane County, Illinois, hereinafter referred to as the "**CITY**," and the Department of Natural Resources, acting for and on behalf of the State of Illinois, hereinafter referred to as the "**DEPARTMENT**."

This **MEMORANDUM OF UNDERSTANDING** may only be modified, assigned, supplemented, or amended by mutual agreement, in writing, by the principal parties hereto and may be terminated at any time at the discretion of the DEPARTMENT.

Whereas, the CITY and the DEPARTMENT are legal entities organized and existing under the laws of the State of Illinois, having among their powers the authority to contract with one another to perform such undertakings as described herein; and

Whereas, the DEPARTMENT has determined that the execution of this agreement is not subject to the signature requirements of the "State Finance Act," 30 ILCS 105/9.02 (2004 State Bar Edition).

Whereas, both the DEPARTMENT and the CITY desire to protect the health, safety and welfare of the citizens of the CITY by regulating construction in the community's floodplains and floodways to prevent the construction of facilities which would either be subject to flood damage from flooding or would cause or contribute to increased flooding to other facilities or property; and

Whereas, the DEPARTMENT's rules for Floodway Construction in Northeastern Illinois (17 Illinois Administrative Code, Part 3708) require that the floodway be defined to preserve both storage and conveyance, as well as limit the increase in velocity; and

Whereas, the DEPARTMENT's rules for Floodway Construction in Northeastern Illinois (17 Illinois Administrative Code, Part 3708) also provide for the waiver of the flood storage component of the floodway definition when local communities agree to require effective compensatory storage for all floodplain storage lost due to construction and fill in a hydraulically significant reach of the watershed; and

Whereas, the CITY has floodplain regulations which meet or exceed the minimum requirements of both the National Flood Insurance Program and the DEPARTMENT, and which require that floodplain storage lost due to construction or fill be compensated on a one-to-one or greater ratio; and

Whereas, the DEPARTMENT has determined that the CITY has jurisdiction over a hydraulically significant portion of the floodplain(s) of 7th Avenue Creek and 7th Avenue Creek Tributary; and

Whereas, the CITY hereby agrees that it will not grant any variances to the floodplain storage mitigation requirement of their ordinance to less than 100% of the storage lost due to fill or construction; and

Whereas, the CITY hereby agrees that compensatory storage will be provided, at no cost to the DEPARTMENT, at the same flood frequency elevation band as the storage being removed, including, at least the elevation band between the normal water level and the 10-year flood and the elevation band between the 10-year flood and the 100-year flood; and

Whereas, the CITY hereby agrees to assure that compensatory storage areas are directly connected to the floodplain from which storage is lost at the elevations for which the compensatory storage area is designed to be effective and will assure that such compensatory storage will remain directly connected to the floodplain in perpetuity; and

Whereas, the CITY hereby agrees to require that legal assurances, such as properly recorded permanent easements, are provided in perpetuity for each compensatory storage area utilized; and

Whereas, the CITY hereby agrees to maintain eligibility in the National Flood Insurance Program and will continue to adopt and enforce appropriate ordinances to satisfy the Federal Emergency Management Agency's and the DEPARTMENT's requirements relative to the regulation of development in floodplains under the jurisdiction and control of the CITY; and

Whereas, the CITY will be responsible for updating any Flood Insurance Studies related to this Memorandum of Understanding; and

Whereas, the CITY hereby agrees to maintain adequate records and supporting documents of all 7th Avenue Creek and 7th Avenue Creek Tributary floodplain activities approved by the CITY, for a minimum of 5 years after approval by the CITY, to demonstrate that adequate storage was provided per the Memorandum. The CITY agrees to cooperate fully with any audit conducted by the Auditor General and/or the DEPARTMENT and to provide all relevant materials; and

Whereas, the CITY hereby acknowledges that violation of any of the terms of this MOU will void this MOU and the DEPARTMENT and the CITY will revert to regulating a storage based floodway as the DEPARTMENT determines to be appropriate at the time.

Now therefore, the DEPARTMENT and the CITY agree as follows:

1. For regulatory purposes, the floodway shall be defined on map entitled: "Effective FIRM Comparison," Sheets 1 through 3 of 3, undated, included in the "Engineering Report, Lower Fox River Watershed – 7th Avenue Creek and its Tributary," dated August 17, 2012, revised July 2, 2013, received September 13, 2013. If, in the future, this agreement is violated or otherwise voided, the CITY and the DEPARTMENT agree to revert to regulating the floodway as defined in accordance with the DEPARTMENT's rules for floodway construction in Northeastern Illinois (17 Illinois Administrative Code, Part 3708), using map sheets 17089C0266H, 17089C0268H, and 17089C0270H of the Federal Emergency Management Agency Flood Insurance Rate Map Panels for Kane County Unincorporated and Incorporated Areas, dated August 3, 2009, or such replacement mapping as the DEPARTMENT determines to be appropriate at the time.
2. If FEMA or the DEPARTMENT regulatory maps are updated or revised for 7th Avenue Creek and 7th Avenue Creek Tributary within the City of St. Charles, subsequent to the effective date of this agreement, then the revised floodplain and floodway map will become the new standard to be used for regulatory purposes. At that time, the CITY will be given opportunity to revise the floodway delineations without the storage component, subject to review and approval by the DEPARTMENT.

Community Commitment

I hereby agree to all the guidelines and requirements of this agreement and the 17 Illinois Administrative Code, Part 3708. As a representative of this community, I realize the importance of preserving floodplain storage. This agreement is entered into in good faith as a means to reduce undue hardship on community property owners located within the floodway. I will work with the DEPARTMENT on any special projects that may require extraordinary design measures not considered in this agreement.

Effective Date

This Memorandum of Understanding takes effect when it is dated and executed by the Director of the DEPARTMENT.

STATE OF ILLINOIS

RECOMMENDED:

APPROVED:

Arlan Juhl, Director
Office of Water Resources

Marc Miller, Director
Department of Natural Resources

Date: _____

APPROVED:

Jeffrey P. Smith
Chief Legal Counsel
Date: _____

THE CITY OF ST. CHARLES

APPROVED:

Raymond Rogina, Mayor

Date: _____

**Seventh Avenue Creek FIS Timeline:
July 10, 2014**

September 2008

100 year rain event, serious flooding along 7th Avenue Creek at convergence of 7th Avenue Creek Tributary and across Tyler Road at old redi-mix plant.

Spring / Summer 2009

New flood insurance study (FIS) between Tyler and Kirk Roads to delineate floodplain east of Tyler and to verify 100 year flow at Tyler Road culvert crossing. New data indicates the 100 year flow for the current FIS is not correct. Current study = 226 CFS. New study = 405 CFS.

December 2009

New flood insurance study between Tyler and Kirk Roads approved by IDNR.

September 2010

New restrictor structure installed at northwest corner of CMD storm water detention area.

December 2010

City acquires vacant parcel along 7th Avenue Creek at the southeast corner of 7th and South Avenues.

Spring / Summer 2011

Field survey work from Fox River to Tyler Road and tributary by FEMA subcontractor

May 2012

Received draft work maps for updated flood insurance study from Fox River to Tyler Road and Tributary

August 2012

Flood insurance study engineering report for Tyler Road to Fox River, and tributary.
City acquires home in floodplain at 807 Illinois Avenue, structure demolished in November.

September 2012

City acquires Outlot "A" in Tyler Production Subdivision, future drainage channel

April 2013

Flood event along 7th Avenue Creek
Storage vs. conveyance floodway exhibits received from FEMA

July 2013

Flood insurance study engineering report for Tyler to Fox River and Tributary, revision

October 2013

Community Assessment Visit from IDNR, to establish eligibility for a floodway conveyance only map update and agreement
Tyler Road culvert crossing and drainage channel work

November 2013

Received documentation from IDNR regarding Conveyance Floodway Agreement
IDNR public review notice

March 2014

IDNR technical review of flood insurance study complete

June 2014

City acquires vacant parcel along 7th Avenue Creek at 7th and Ohio Avenues

Received Memorandum of Understanding - Conveyance Floodway Agreement for 7th Avenue Creek from IDNR, needs approval from City Council

Excerpts from State of Illinois Floodway Regulations

Illinois Floodplain Management Desk Reference – 2006

11.3 Northeastern Illinois

There are some special requirements for floodway construction in northeastern Illinois. These were implemented following the severe flooding in the area in 1986 and 1987

Section 11.3.3 Compensatory Storage

The NFIP floodway standard in CFR 60.3(d) restricts new development from obstructing the flow of water and increasing flood heights. However, this provision does not address the need to maintain flood storage.

Especially in flat areas, the floodplain provides a valuable function by storing floodwaters. When fill or buildings are placed in the flood fringe, the flood storage areas are lost and flood heights will go up because there is less room for the floodwaters. This is particularly important in smaller watersheds which respond sooner to changes in topography.

For this reason, IDNR/OWR requires compensatory storage in an northeastern Illinois regulatory floodway if storage will be lost from fill or structures (including flood control projects) placed in the floodway. The developer is required to offset new fill put in the floodplain by excavating an additional floodable area to replace the lost flood storage area.

Section 13.5.2 Compensatory Storage

As discussed in Section 11.3.3, the floodplain provides a valuable function by storing floodwater, especially in flat areas. When fill or buildings are placed in the fringe, the flood storage areas are lost and flood heights increase because there is less room for the floodwaters.

Compensatory storage in the flood fringe is not mandatory. However, IDNR/OWR and the Northeastern Illinois Planning commission highly recommend compensatory storage with a safety factor equal to at least 1.5 times the volume of storage lost to compensate for uncertainties in the estimate of the BFE and in the determination of project impacts. If a community does not include compensatory storage within the flood fringe, IDNR/OWR requires that all future mapping will have storage floodways rather than floodways based on conveyance only.

Illinois Administrative Code

Section 3708.60 Delineation of the Regulatory Floodway



d) The need to preserve storage when defining the regulatory floodway will be waived by the Department if all the municipalities and counties along a hydraulically significant portion of the watershed require effective compensatory storage for all construction and fill in the 100-year frequency flood plain. Effective compensatory storage requires flood plain storage volumes be replaced at the same flood frequency event as previously existed. Additionally, legal assurances such as easements must be provided so that the compensatory storage site will remain open to the stream system in order to allow flood waters to reach it.



STORAGE FLOODWAY NOT SHOWN FOR 7TH AVENUE CREEK TRIBUTARY

Map Legend

DRAFT

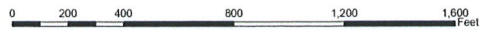
-  STREAM CENTERLINE
-  "CONVEYANCE ONLY FLOODWAY" (CURRENT STUDY)
-  REVISED "STORAGE FLOODWAY" (CURRENT STUDY)
-  EFFECTIVE FLOODWAY

**7th Avenue Creek
Kane County, IL
Draft Floodway Comparison Workmap**

DRAFT

Date: 4/5/2013

1:2,400
1 in = 200 ft



*Note: For clarity, past floodways are depicted here. Comparison of other flood recurrence intervals are included with the Engineering Report for 7th Avenue Creek.

