



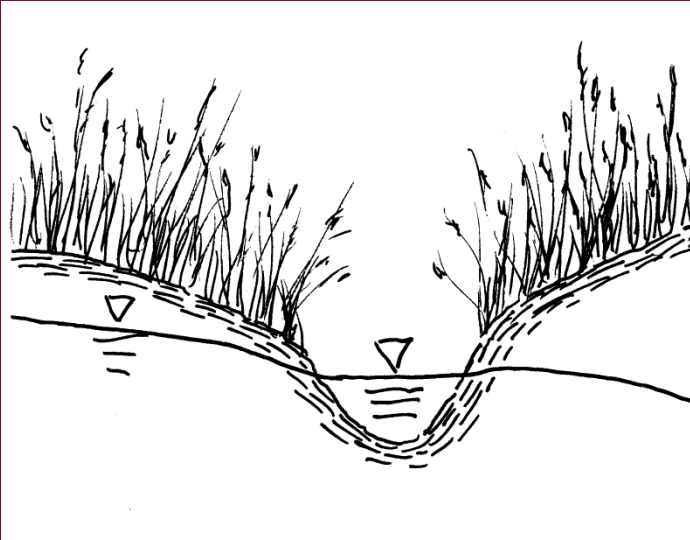
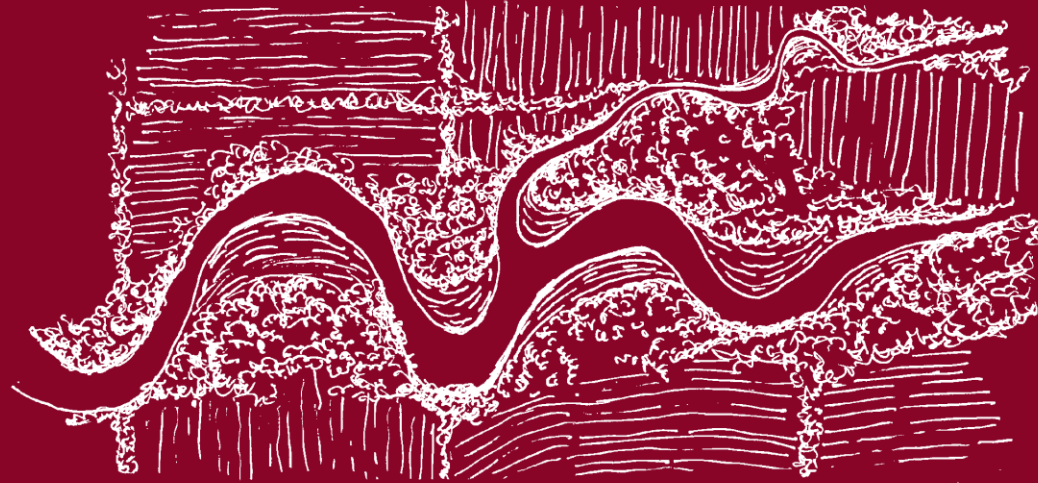
# MAYFAIR RESERVOIR EXPANSION PARTNERSHIP IN PRACTICE

IAFSM 2016



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Village of Westchester



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Director of Natural Resources  
V3 Companies

# Outline of Topics

**1. Village of Westchester Flood Impacts**

**2. Partnership In Practice**

**3. Phase I Mayfair Reservoir Expansion**

**4. Phase II Mayfair Reservoir Expansion**



# Existing Conditions



Spillway

Pump Station

Mayfair Reservoir

Salt Creek South Fork Tributary

Existing 42" Storm Sewer Under Carlisle St.

Salt Creek

Survey

31st St.

© 2014 Google

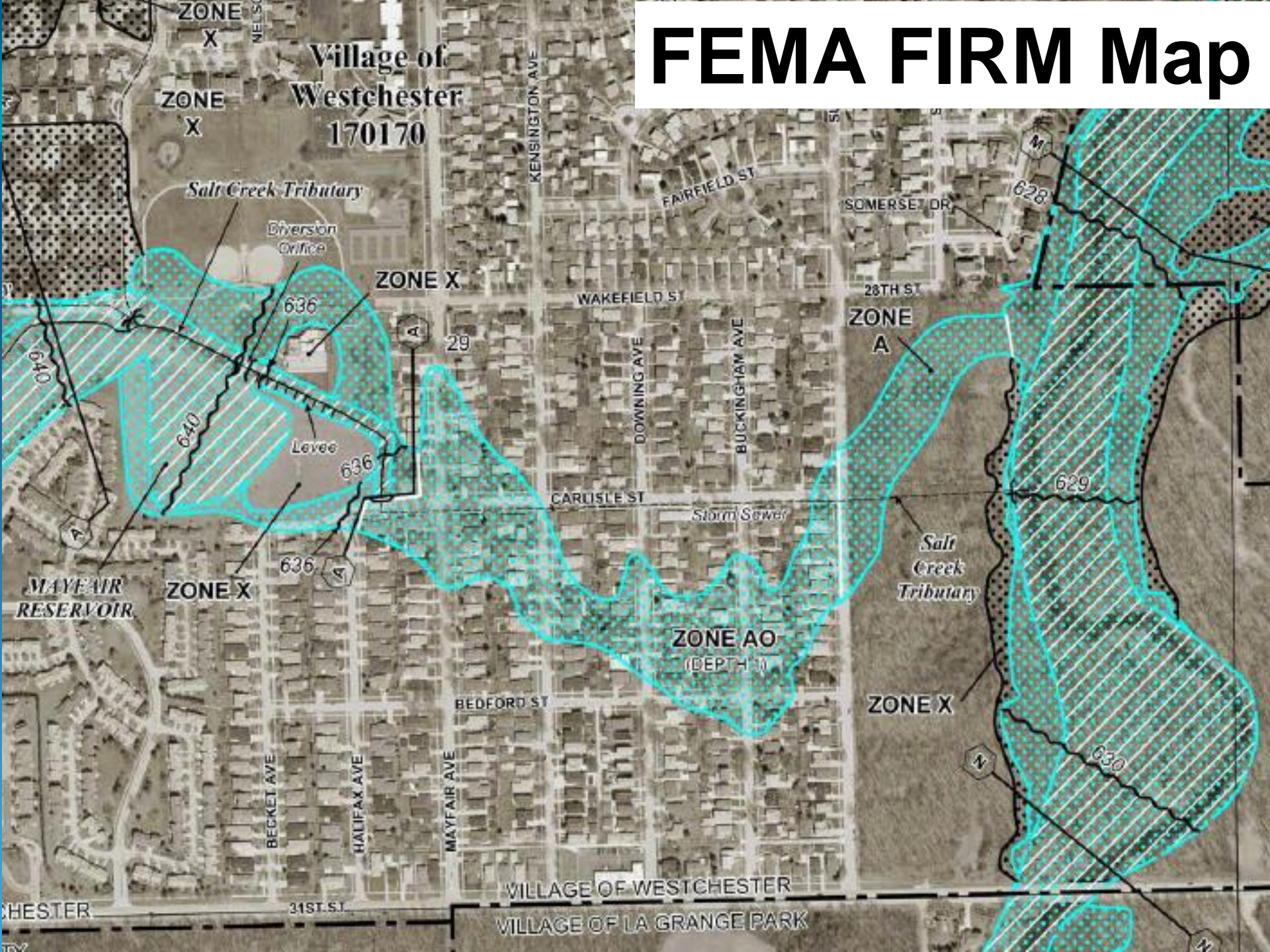
Google earth  
Earth Point

Imagery Date: 4/2/2013 41°50'20.11" N 87°53'45.67" W elev 636 ft eye alt 3910 ft

# July 2010 and April 2013 Floods

- Mayfair Reservoir reached its capacity
- Salt Creek South Fork Tributary overtopped Carlisle St.
- Severe street flooding
- Overflows through backyards
- Floods damaged basements of over 120 homes and first floors of over 30 homes in each of the storm events.

# FEMA FIRM Map















Halifax Ave. and Carlisle St., looking south





**Mayfair Ave., looking south towards Carlisle St.**

# Partnerships in Practice – Public Agencies

## Federal

- Federal Emergency Management Agency (FEMA)
- US Army Corps of Engineers (USACE)

## State

- Illinois Department of Transportation (IDOT)
- Illinois Department of Natural Resources (IDNR)
- Illinois Environmental Protection Agency (IEPA)

## Regional

- Cook County Forest Preserve District (CCFPD)
- Metropolitan Water Reclamation District (MWRD)

## Local

- Village of Westchester

# Partnership in Practice - Private

- V3 Companies (**Engineering**)
- Dudnik & Associates (**Building Inspections**)
- Copenhaver Construction (**Excavation**)
- Berger Excavating (**Storm Sewer**)
- Chicago Highlands Golf Course (**Takes Fill**)
- Chicago Archdioceses (**Allows Fill**)
- Businesses & Residents (**Use Infrastructure**)

# Purpose

>

# Function

- Permits: IDOT, IDNR, IEPA, CCFP, FEMA > *Permission*
- Funding: MWRD & Westchester > *Vision/Mission*
- Construction: Copenhaver, Berger, Archdioceses, Chicago Highlands Golf Course > *Enabling Use*
- Design/Inspection: V3 & Dudnik > *How To*
- Use: Business & Residents > *Benefits*



# Phase I Mayfair Reservoir Expansion

The Mayfair Reservoir Expanded from 82 Ac-Ft to 115 Ac-Ft



## Challenges:

1. Working in a 5700 sq ft area with 115 acres of land through a residential neighborhood



# Phase I Mayfair Reservoir Expansion



Challenges:

4. Sluggish Bottom Delay To Higher Grains Water Winter Hauling

# Phase I Mayfair Reservoir Expansion



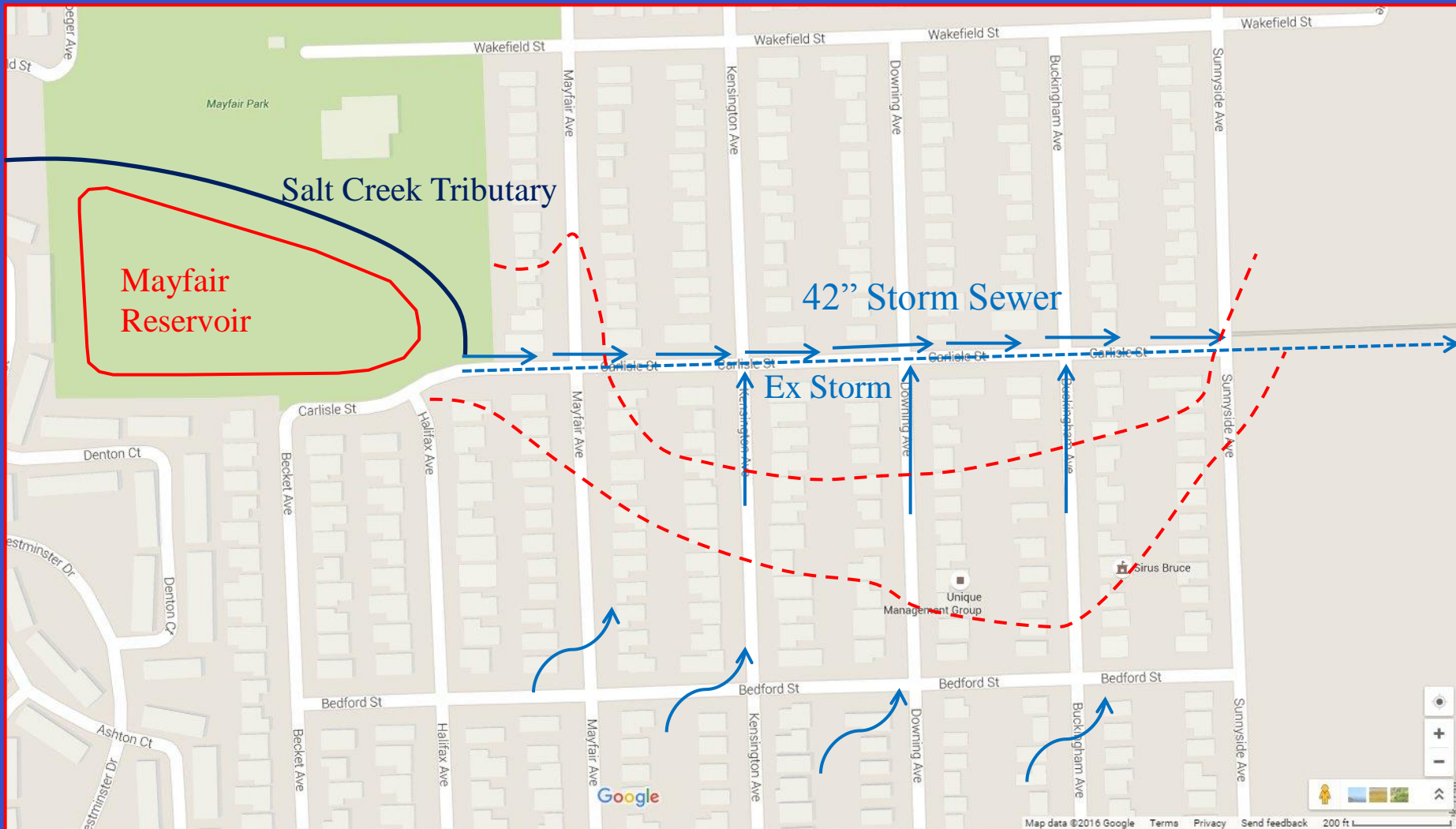
August 18, 2015

Following 4.5”  
rain event in 24  
hours.

August 26, 2015

Basin Recovery

# Phase II Mayfair Reservoir Expansion



# Phase II Mayfair Reservoir Expansion



## Challenges:

1. ~~Close to the Reservoir City Park & Play Area to be Shut Down~~

# Phase II Mayfair Reservoir Expansion



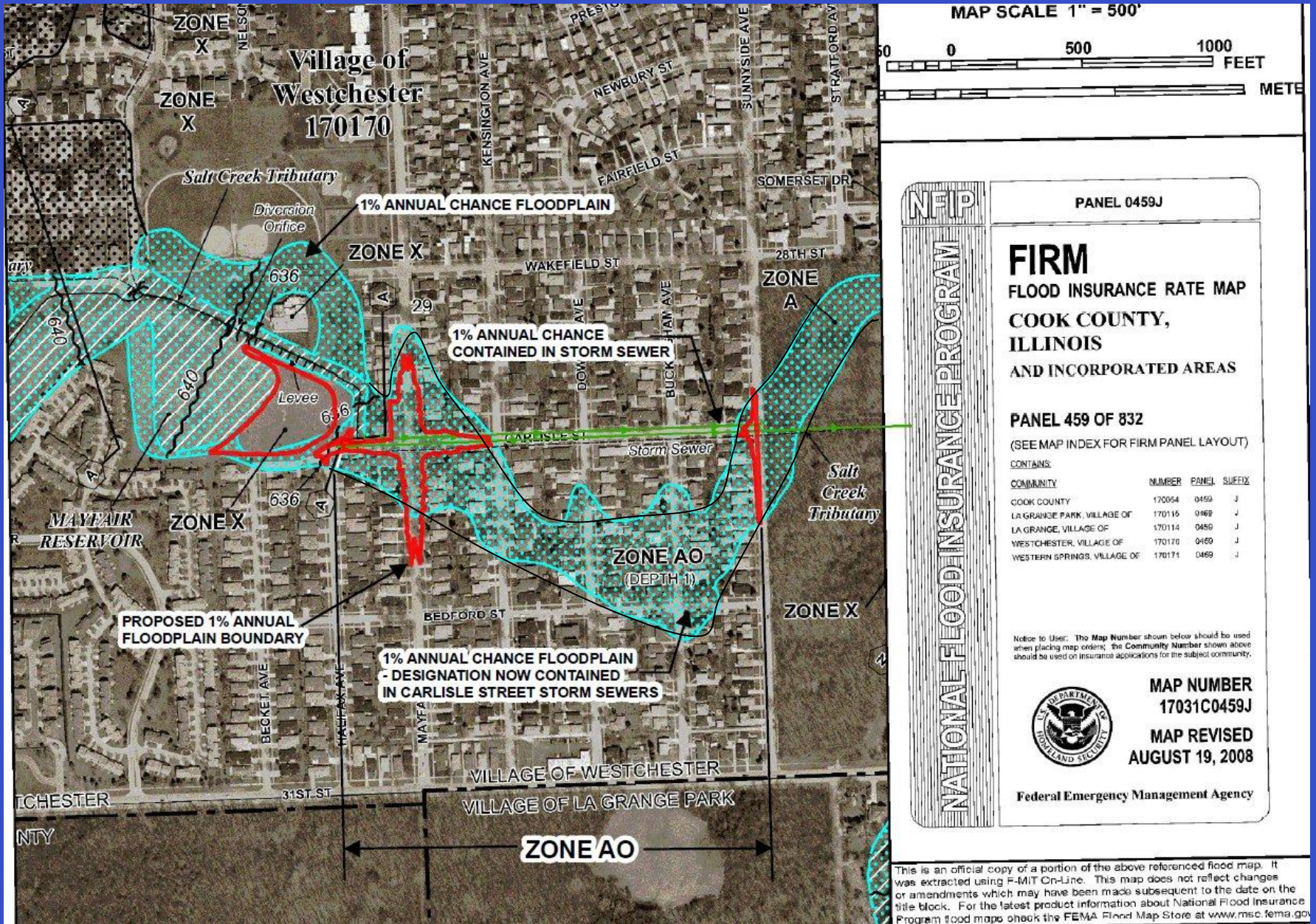
**Challenges:**

**4. Winter Subflows & House Connections**

# Phase II Mayfair Reservoir Expansion



# Phase II Mayfair Reservoir Expansion







# QUESTIONS?

