

Planning, Building and Zoning Committee March 7, 2018



Resiliency

“the ability to recover from adversity”



Flood mitigation



Natural drainage
systems
enhancements



Water quality
improvements

*A smooth sea never made a skilled sailor –
Franklin D. Roosevelt*

2017 Project Leveraging

Funding Ratio

\$4.1:1

\$4.1 for every \$1 of SMC cash and in-kind

\$2,468,354 Total Project Costs

\$595,700 SMC Funding and In-Kind

27 Projects Completed

25:1

Project/Program Partnerships

5 Municipalities

1 Park District

5 Townships

7 Not-for-Profits

5 Homeowners Associations

County, FPD

All-Natural Hazards Mitigation Plan (ANHMP)

ANHMP Update 2017

- Completed in **August 2017** & approved by IEMA & FEMA
- Adopted by 46 municipalities
- ANHMP is required to be eligible for FEMA mitigation grant funds

ANHMP Planning Process

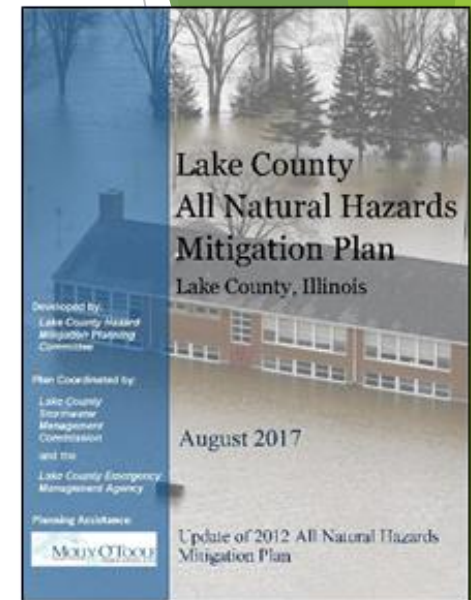


Key Issues for Lake County

- Moderate-high risk for severe summer storms/flooding
- Increasing rainfall intensities, frequency of flooding, & erosion
- Continue public information activities addressing impacts of natural hazards

ANHMP Recap

- ANHMP is multi-jurisdictional plan required by FEMA & updated every **5 years**
- ANHMP examines natural hazards, establishes mitigation goals, evaluates & highlights mitigations activities underway, & recommends mitigation actions for the next **5 years**



Flood-Prone Property Buyout Program

➤ **Acquisition** is the *most cost-effective* mitigation strategy for flooding

➤ Average Benefit-Cost-Ratio (BCR) for acquisitions is **7:1**

➤ BCR up from 5:1 reported in 2005¹

➤ **July 2017 Severe Storms & Flood Event:**

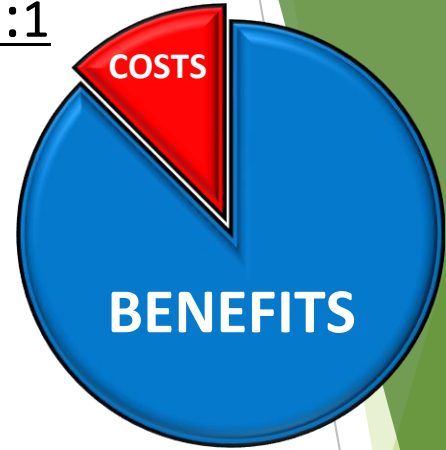
➤ Impacted property owners & residents county-wide

➤ Damaged public facilities & **1000 +** structures

➤ IL denied Presidential Major Disaster Declaration

➤ **FY17 Flood Mitigation Assistance (FMA) & Pre-Disaster Mitigation (PDM)**

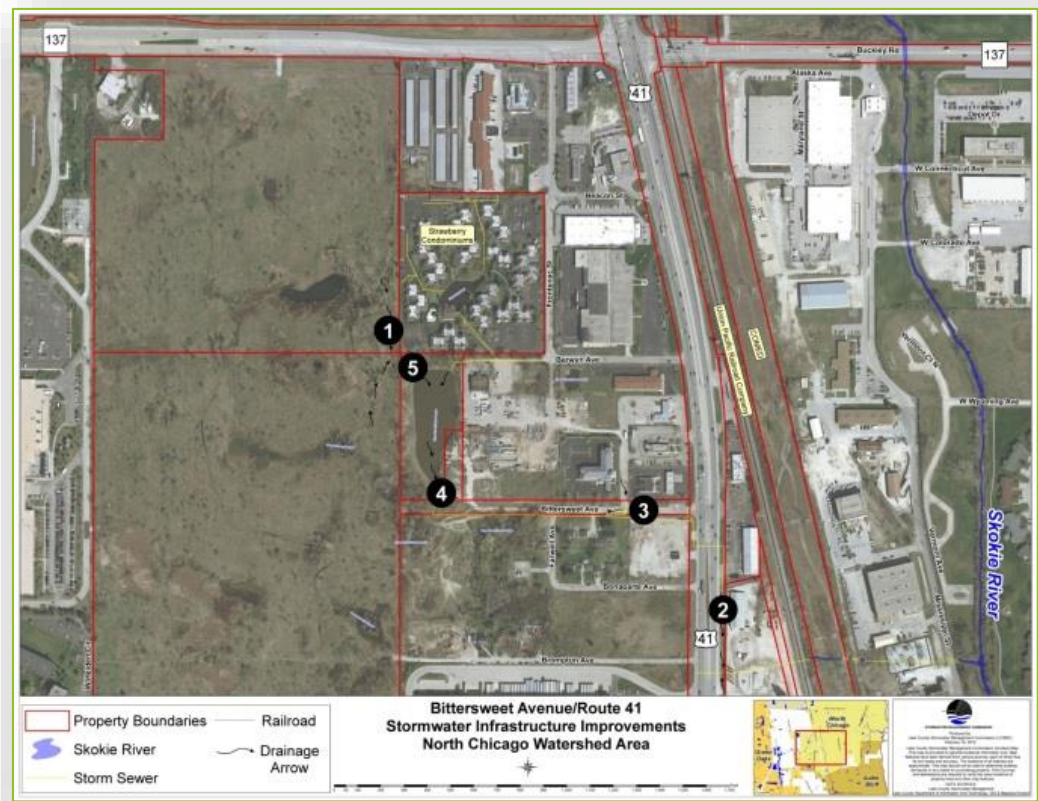
➤ FMA & PDM grant applications requesting **\$6.5 million** dollars to acquire **15** properties county-wide were submitted November 2017



Since 1998, Lake County has received **\$15.7 million** of grant funding to acquire **220** flood-prone properties

¹ "Natural Hazard Mitigations Saves: 2017 Interim Report" published by the Multi-hazard Mitigation Council (2017).

Completed Projects: Strawberry Condo drainage improvements North Chicago



**East Skokie
Drainage District**



Provides additional storage and flow capacity

- 1 - Flowpath cleanup in wetland mitigation bank
- 2 - Route 41 ditch cleanup by IDOT
- 3 - Stormsewer cleanout along Bittersweet Avenue
- 4/5 - Detention berm/Outlet reconstruction

May 2014 vs. July 2017 Storm Events

Larger storm event in 2017 with fewer damaged units

However, needs/efforts continue for collaborative solutions

Regulatory

Community Re-Certification

Permitting System Integration

- ▶ System went live - March 2017!
- ▶ Provides enhanced:
 - ▶ Process flow (internal and external)
 - ▶ Financial Tracking
 - ▶ Public Record Access
 - ▶ Operational efficiencies e.g., inspections
 - ▶ Online permitting



Lake County now offers an online permit and inspection system - [Check it out!](#)

eReviews 2.0 coming soon

Utilizing Drone Technology

DRONE FLIGHT STATS DURING FLOOD RESPONSE

July 2017 Flood Event

- Stream real-time video back to EOC
- Damage Assessment for inaccessible areas
- Observe river flow characteristics

35

total
flights

3

total
hours

20

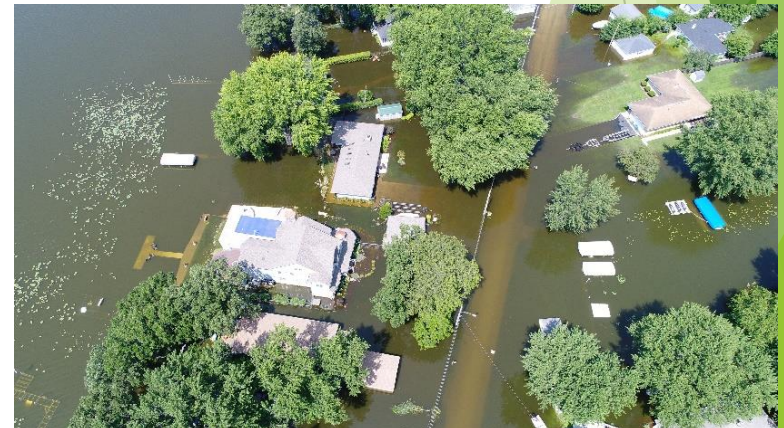
total
miles

Shared Services

- LCDOT - Washington Street Underpass
- LCPW - Water Tower Demolition
- LC Sheriff - Radio Tower Inspections

SMC Flood Mitigation Projects

- Real-time site progress imagery
- 3-D rendering and analysis
- Safer and more efficient field operations.

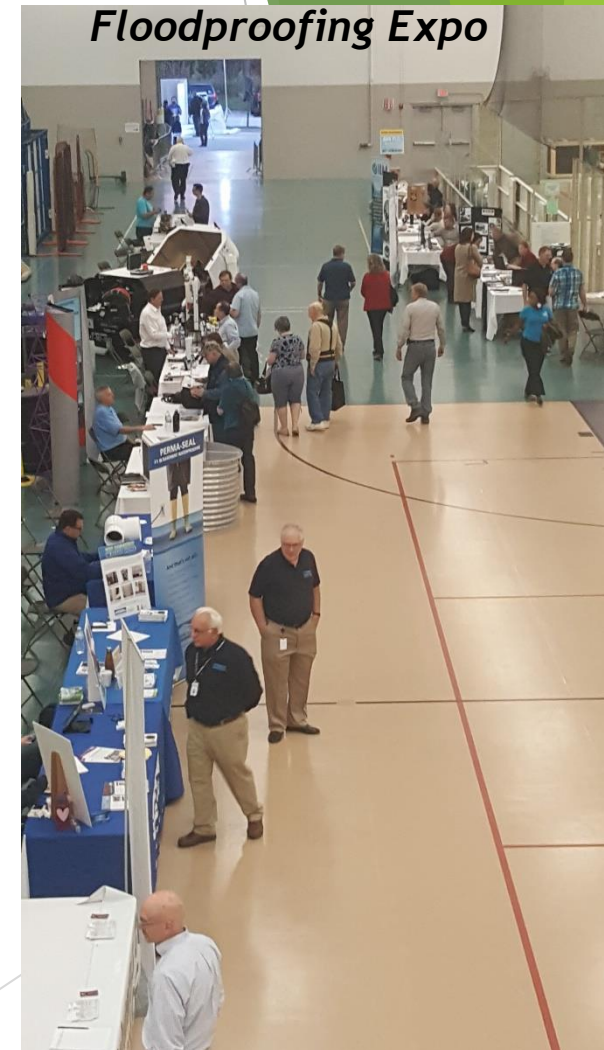


Training: Workshops, Outreach & Education

- Floodproofing Expo & Workshop
- ASCE Permitting Workshop
- Designated Erosion Control Inspector workshop
- Homeowners Association stormwater facility maintenance workshop
- De-icing Practices Workshop (3 days!)
- Co-sponsored 4 watershed stream clean-ups



DECI workshop at CLC drew 250



Watershed Planning

Des Plaines River Watershed

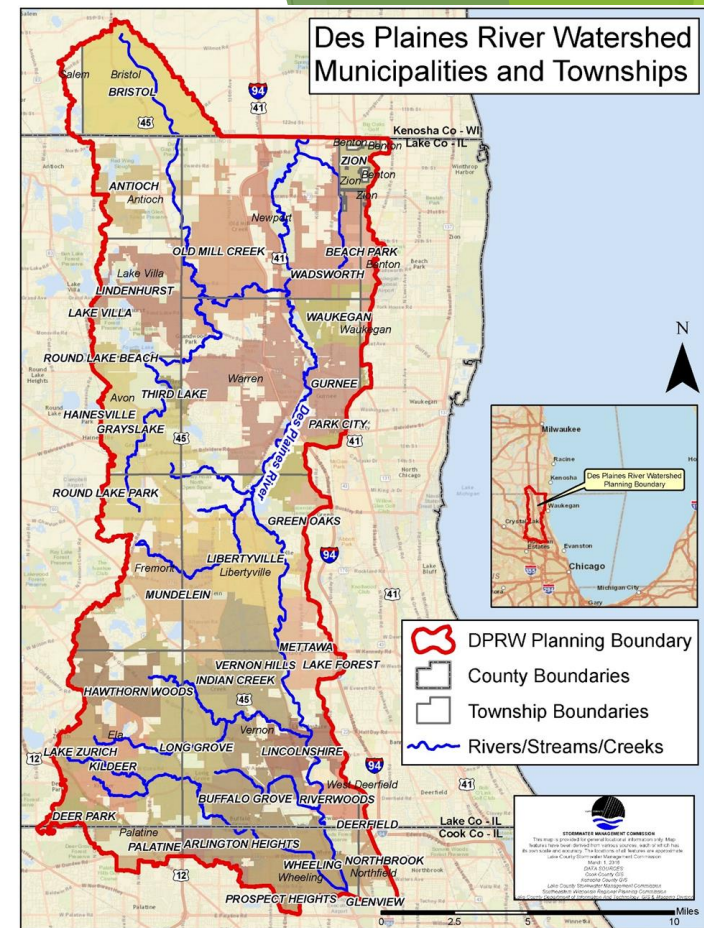
- 235 square mile planning area
- Lake, portions of Cook & Kenosha Counties
- 39 Municipalities, 15 townships
- 2 Small Watershed Action Plans
- Des Plaines River Watershed Workgroup water quality study

Plan completion scheduled June 2018

Water Quality Grant Funding Recieved Illinois EPA Section 319 Grant Program

3 Stormwater Green Infrastructure projects included

- Libertyville Township - Wetland Restoration
- Grayslake Park District - Pond Restoration
- University of St. Mary's of the Lake - Bull Creek Restoration



Watershed Project Implementation

Bull Creek Stream Restoration

- Village of Beach Park, 10 private landowners
- Targeted areas within 1,800-ft. section of Bull Cr.
- Completed October 2017
- Grant funding sources:
 - U.S. EPA Great Lakes Restoration Initiative
 - National Fish and Wildlife Federation
- Recommended project in Dead River Watershed Plan



Wetlands/Watershed Workgroup Support

Wetland Restoration and Preservation Plan

- Provides planning tool for restoring wetlands
- Identifies potential mitigation and restoration sites
- Help target funding and strengthen grant prospects
- Interactive and data intensive on-line tool



Watershed Workgroups

- Des Plaines River
- North Branch Chicago River (New)
- SMC reimbursed for program support



Stormwater Awards/New Staff

Stormwater Awards Program

- 12th Year!
- Recognizes individuals, communities, groups and others whose efforts reflect SMC's core mission of flood damage reduction, water quality improvements, and natural resource protection and enhancement.



We are excited to welcome two new talented staff to SMC!



Angela Panateri — *Associate Communications Specialist:* Assists with all communication needs including: website edits and recommendations; managing social media accounts; evaluating all associated analytics; and providing media/public relations counsel, direction, and oversight.



Jacob Jozefowski — *Associate Water Resources Professional:* Assists with watershed assessment and planning; stormwater and watershed management program development; and surface water monitoring.

2018 Major Initiatives

- Des Plaines River Watershed planning and projects
- Wetland Restoration and Preservation Plan completion
- Increase Online Permitting and eReviews
- Complete Community Re-Certification
- New WMB/SIRF projects (12)
- Skokie River wetland/flood mitigation projects and studies (Jaime, Dady, Corps PAS, buyouts)
- 5 grants in process

Thank You!