

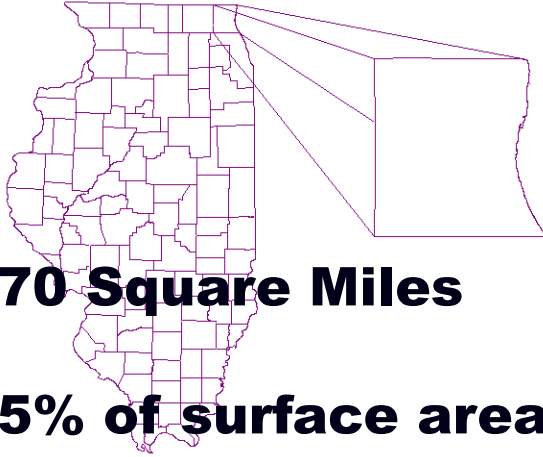
Sustainable Stormwater Management Case Studies

Barry Burton – County Administrator – Lake County, Illinois

Mike Warner - Director - Lake County Stormwater Management
Commission



Lake County, Illinois

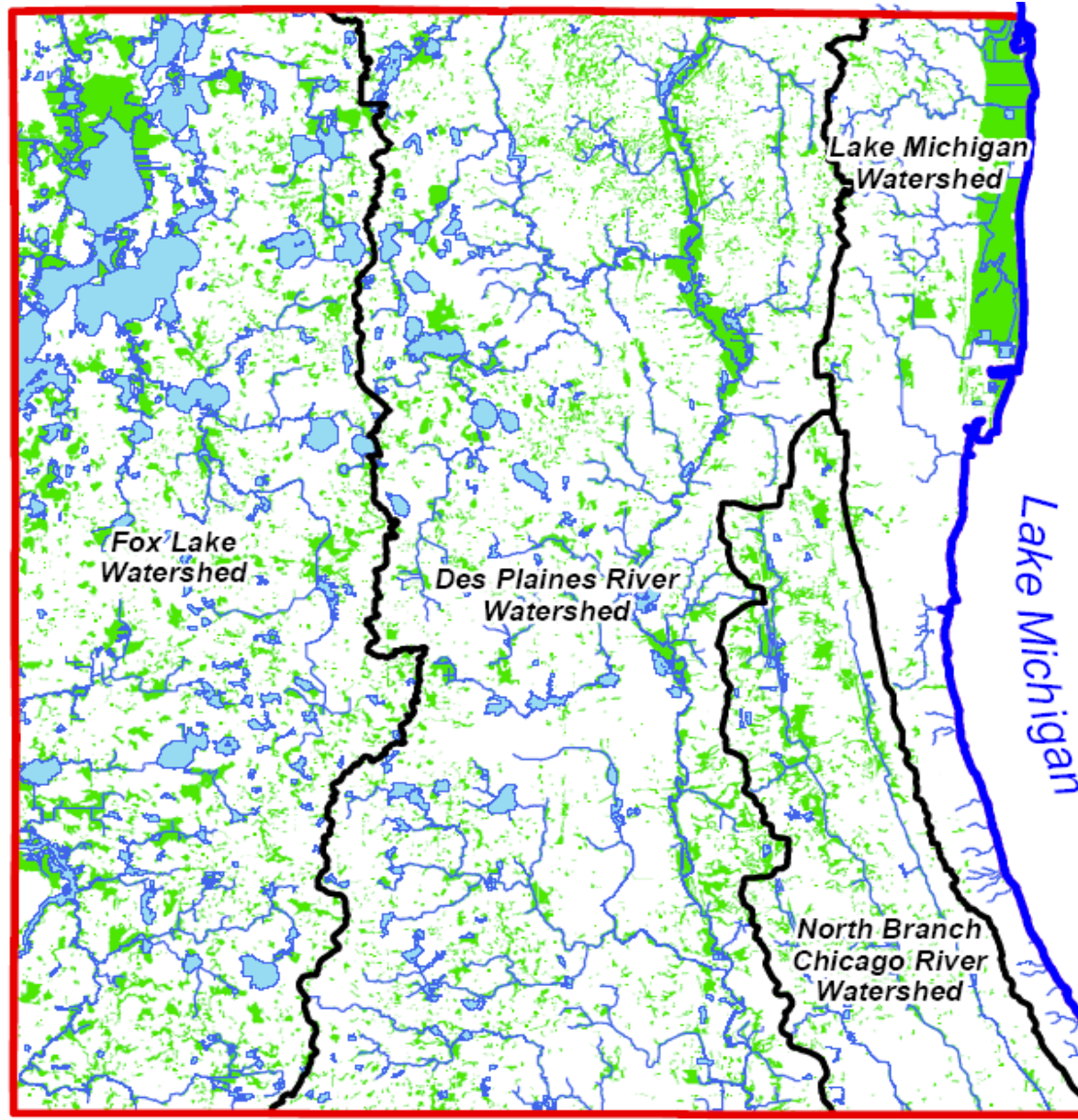


470 Square Miles

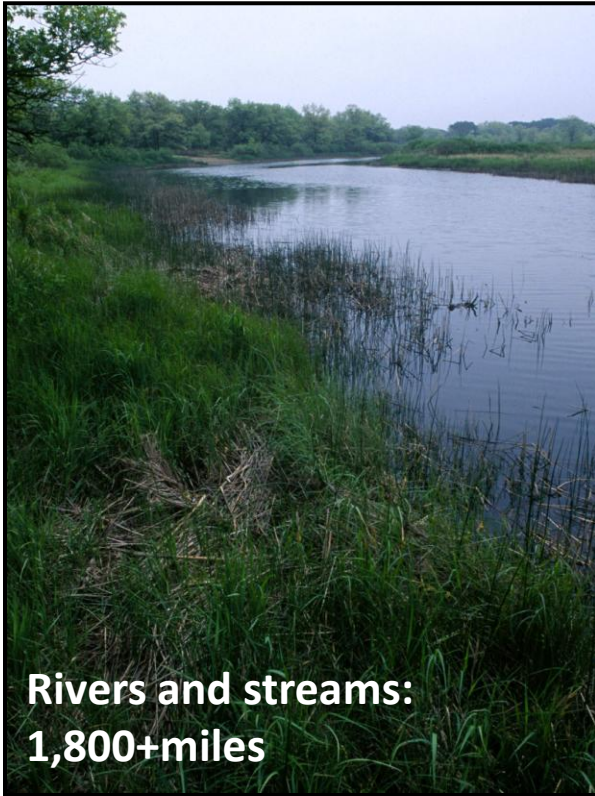
**25% of surface area is
a water resource**

**2020 Projected
Population: 786,478
(^22%)**

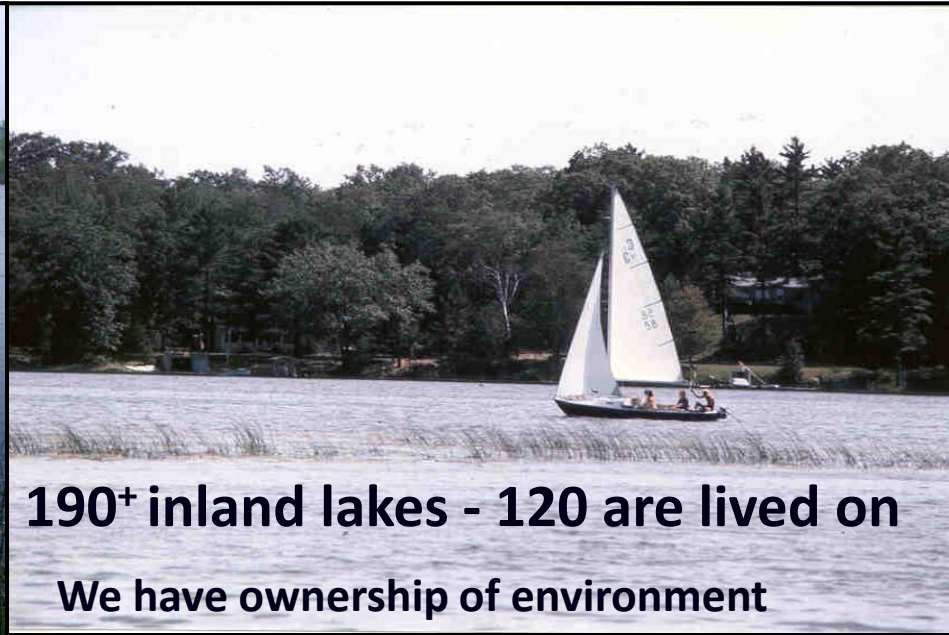
**Municipalities: 53,
>100 Units of Local
Government**



As we know - water does not respect political boundaries



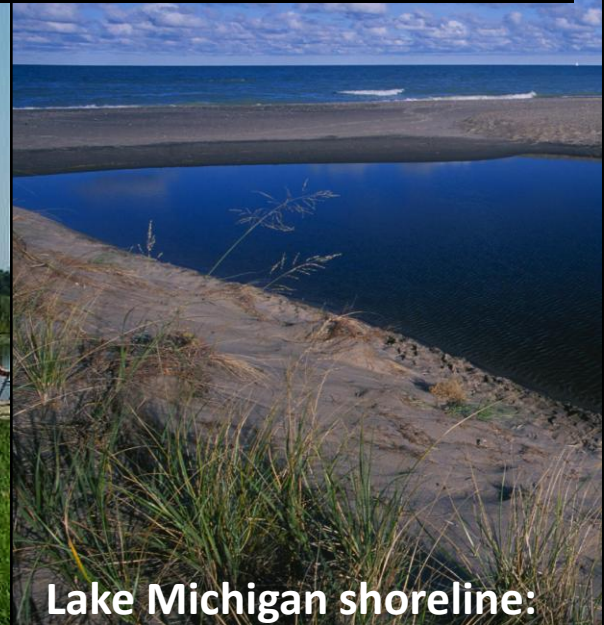
**Rivers and streams:
1,800+miles**



**190+ inland lakes - 120 are lived on
We have ownership of environment**



Wetlands: 61,000+ acres



Lake Michigan shoreline:

Formation of Countywide Stormwater Management Commission

History

- As rapid development occurred in the '80's, Lake County experienced increased flooding
- **1986** - A presidentially declared flood disaster inundated Lake County causing \$40 million in damage. This, along with other severe flooding events at this time, led to the creation of taskforce to explore regional coordinated stormwater management system
- **1987** - State Legislature passed legislation that established countywide stormwater programs for northeastern Illinois counties
- **1987** - The Lake County Board passed a resolution forming the Lake County Stormwater Management Planning Committee (SMPC) and approved funds to begin developing a countywide stormwater management plan
- **1991** – Lake County SMPC officially opens and changes name to the Lake County Stormwater Management Commission (SMC).

SMC Regulatory Charge:

- Develop Watershed Development Ordinance (WDO)
- Enforce WDO directly, or certify communities to enforce

**Severe
Flooding**
'86, '87,
'93, '96,
'98,
2000,
'03, '04,
'07, '08,
'09

**Disaster
Declar-
ations**
(Since
'91) '93,
'96, '98,
'03, '08

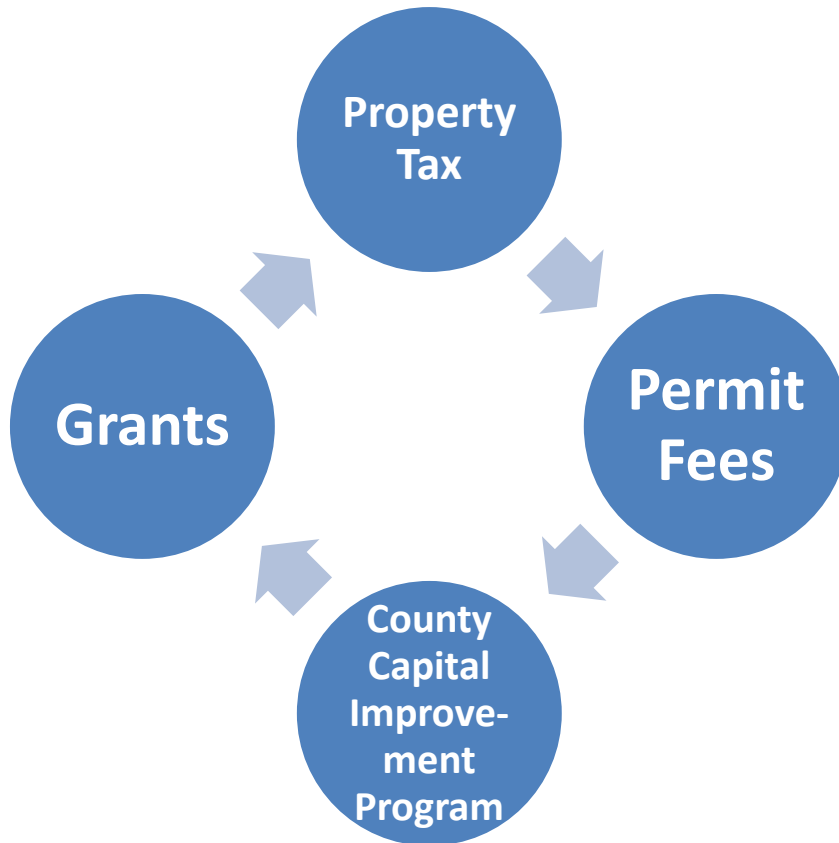
Stormwater Management Commission Structure

- 1988 legislation authorized a countywide property tax levy up to .02 mil
- County Board approved levy at .005 mil
- In 1991, the Illinois legislature passed the Property Tax Extension Limitation Law (“Tax Caps Law”) in response to a concern from Illinois residents about the rapid increase in their property tax bills.
- This law limits increases in property tax funds to CPI or 5%, whichever is lower
- Referendum required to increase amount

**SMC Property Tax
Generates
Approximately \$1.2
Million Annually**

Stormwater Management Commission Structure

Revenue breakdown:



SMC is a Partnership

- 6 municipal members
- 6 county board members
- Projects and plans require match and participation with local community
- SMC has 18 staff members

Return on Investment:
For every \$1 SMC invests, it leverages \$6 in project value.

Lake County's Comprehensive Stormwater Program

SMC Mission Statement

- *Provide community services toward the primary goals of flood damage reduction and surface water quality improvement.*
- *True Countywide Authority - Coordinate stormwater activities and regulations among all local units of government*

Flood Damage

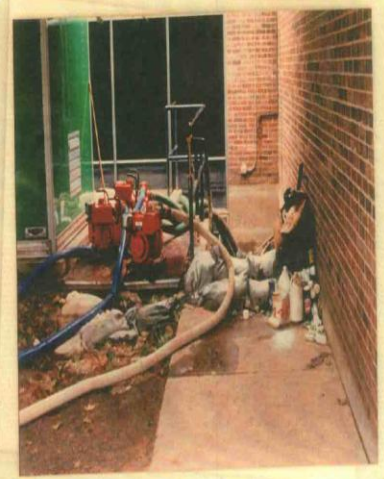
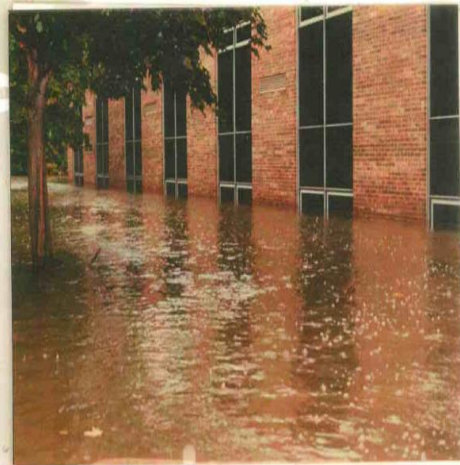
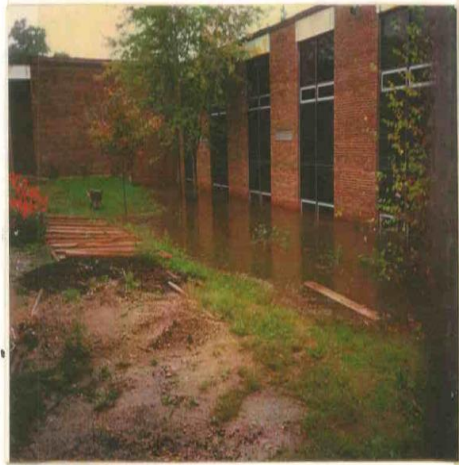
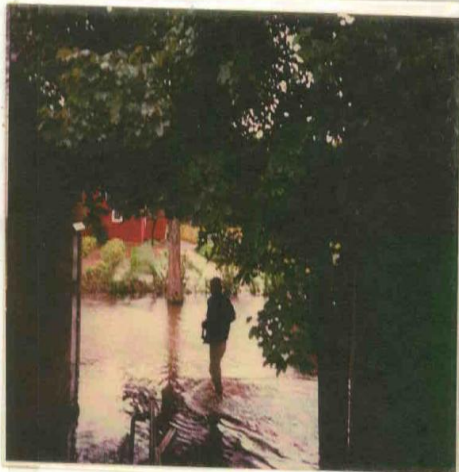
\$5.2 million per year estimated average annual damages



August 2007



1986 Flood



Gurnee Grade School - Ground zero for Des Plaines River problems - 2004



2004



2007



Flood fighting - Volunteers

nteers



The navy came from Great lakes to help us finish the long day of work.



Homeland Security helped

2008 Flood, Mayor of Gurnee, IL - (I am a believer!.....In Wetlands)

News Sun

'Giant sponge' saved Gurnee from flooding

June 18, 2008 - BY ED COLLINS (annotated)

GURNEE -- Residents here dodged another bullet thanks to years of careful flood-control planning, according to officials.

While severe flooding took place along the Chain O'Lakes, [Village Manager] Jim Hayner said Gurnee had very little flooding and no property damage after last week's heavy rains.

"These wetlands serve as a giant sponge for us in controlling the flow of the Des Plaines River" Mayor Kristina Kovarik said.

She attributed this to preventive flood mitigation measures that were initiated by county officials and municipalities more than a decade ago.

She particularly praised the effectiveness of the Des Plaines Wetlands Project upriver in the Wadsworth area.

Wadsworth Wetland Complex (Green) – Gurnee Grade School (Red)



- **SMC/School District/Village - Gurnee Grade School Hazard Mitigation Buyout Grant**
- **\$2.5 mil for project includes (\$60k admin revenue)**
- **25 years after the flood (1986) that spurred legislation allowing creation of the SMC**

Gurnee Grade School Referendum Launch - November 2010 Election

- **Proposition To Issue \$28,500,000 School Building Bonds**
- **w/FEMA Grant to demolish current building**
- **≈65% of Voters say 'yes' to bonds for new Gurnee school**



Fox Chain O' Lakes – Busiest Inland Waterway in US

Economic Impact = Loss of Business! ↑\$2Mil per major flood

Blarney Island has been called "The Key West of The Midwest".



Stormwater Program Value Added – NPDES Phase 2

- **SMC Provides base level of service for all 53 communities**
- **Communities provide 2 of 6**
- **Coop program saves municipal redundancy/duplication of services**

Municipal Services - NPDES Phase 2

Countywide Approach ≈ 0.25 FTE + \$20k/YR Consulting

4 of 6 Minimum Control measures met by SMC

1. Public Education/Outreach
2. Public Participation/Involvement
3. Construction Runoff Control
4. Post-Construction Runoff Control

2 of 6 Handled by Municipalities

5. Illicit Detection & Elimination –
6. Municipal Good Housekeeping –



SMC's Current Activities

≈0.25 FTE + \$20k/YR Consulting

1. Public Education and Information

- Training workshops, homeowners workshops, brochures, teacher/student education, videos, etc.

2. Public Participation and Involvement

- Monthly public meetings, Municipal Advisory Committee, Technical Advisory Committee, citizen watershed planning committees, Watershed Management Boards, volunteer support.

3. Construction Site Runoff Control – Countywide Ordinance

4. Post-Construction Runoff Control – Countywide Ordinance

Municipal Participation

(w/SMC Support)



5. **Illicit Discharge Detection and Elimination** – outfall map, ordinance, detection methodology, disconnection enforcement.



6. **Pollution Prevention / Good Housekeeping** – run-off pollution source control plan for municipal activities, employee training.

Stormwater Value Added - Regional Grantsmanship

SMC: Package Grant Applications with local partners

❖ Implement Watershed Plans

❖ Fund Program Initiatives

❖ Perform Additional Planning

Partnerships = long term success through buy-in and ownership

Expands funding possibilities

319 Program Alone has generated 72 projects worth \$15mil+



Grantsmanship at the Local Level

▶ Internal grant funding sources

- ▶ Small Projects Grants Program
- ▶ Capital Improvement Program
- ▶ CDBG

▶ External grant funding sources

- ▶ USEPA STAG, EPM, 319 – 72 Projects , \$15mil+ over 10 years
- ▶ NRCS planning grant
- ▶ National Fish & Wildlife Foundation
- ▶ Great Lakes Commission
- ▶ FEMA HMGP, PDM
- ▶ Newest Grant Addition – USEPA GLRI (3 projects \$1.5mil+)

Most Recent: IEPA/USEPA 319 Grant Application

- Request for Proposals sent ahead of deadline
- 9 projects countywide – 7 local government partners
- \$2.5mil total project cost, \$1.25mil grant app
- \$150k administrative revenue

Measuring Success – Performance Measurement

Project management objectives met:

- *On-time*
- *On-budget, % of Budget*
- *Monitoring and Reporting*
- *Education Component Achieved*
- *Local acceptance*
- *Ownership and Maintenance Going Forward*



Lake County Stormwater Management Commission

500 W Winchester Road, Suite 201

Libertyville, IL 60048

(847) 377-7700



Visit us at:
www.co.lake.il.us/smc/

