

Chicagoland Stormwater Collaborative



Models for Climate Resilience

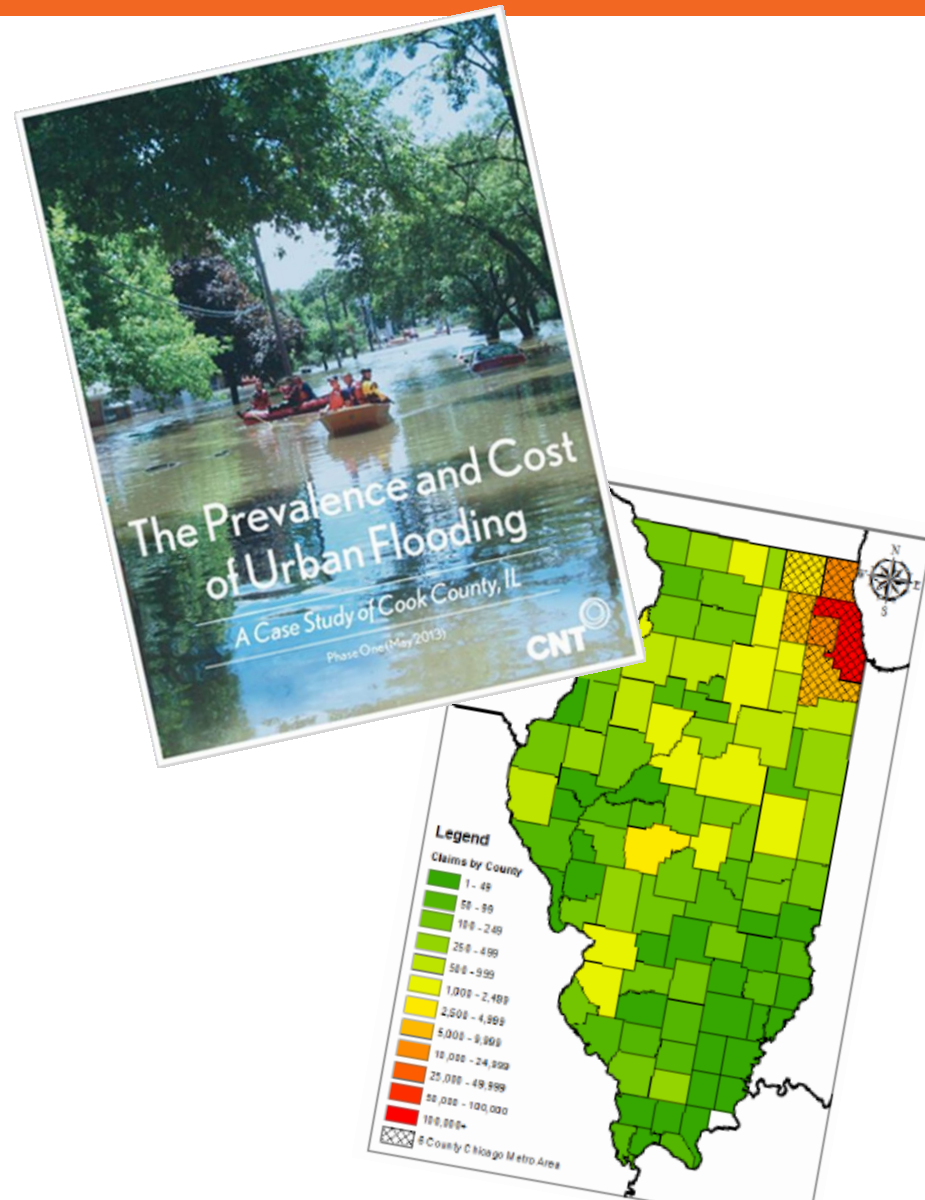
OVERVIEW OF ISSUE

The Issue and Impacts of Urban Flooding

CNT Prevalence and Cost of Urban Flooding

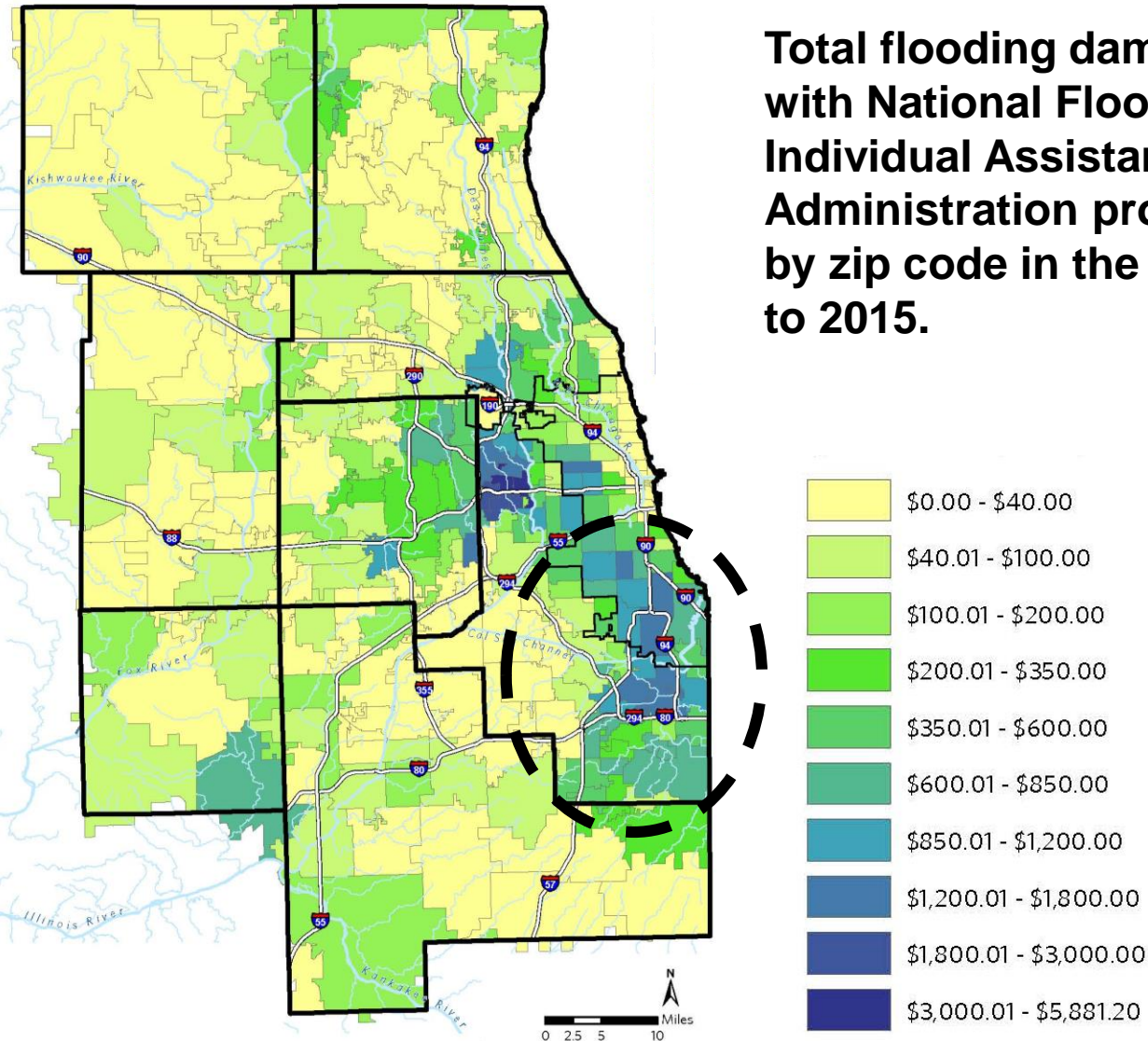
IDNR Urban Flooding Awareness Act Report

- Statewide damages: \$2.319 billion (2007-2014)
- 6-county region: 85%, or 1.975 billion
- Majority of payments connected to 5 specific storm events
- 90% of claims outside of mapped floodplain



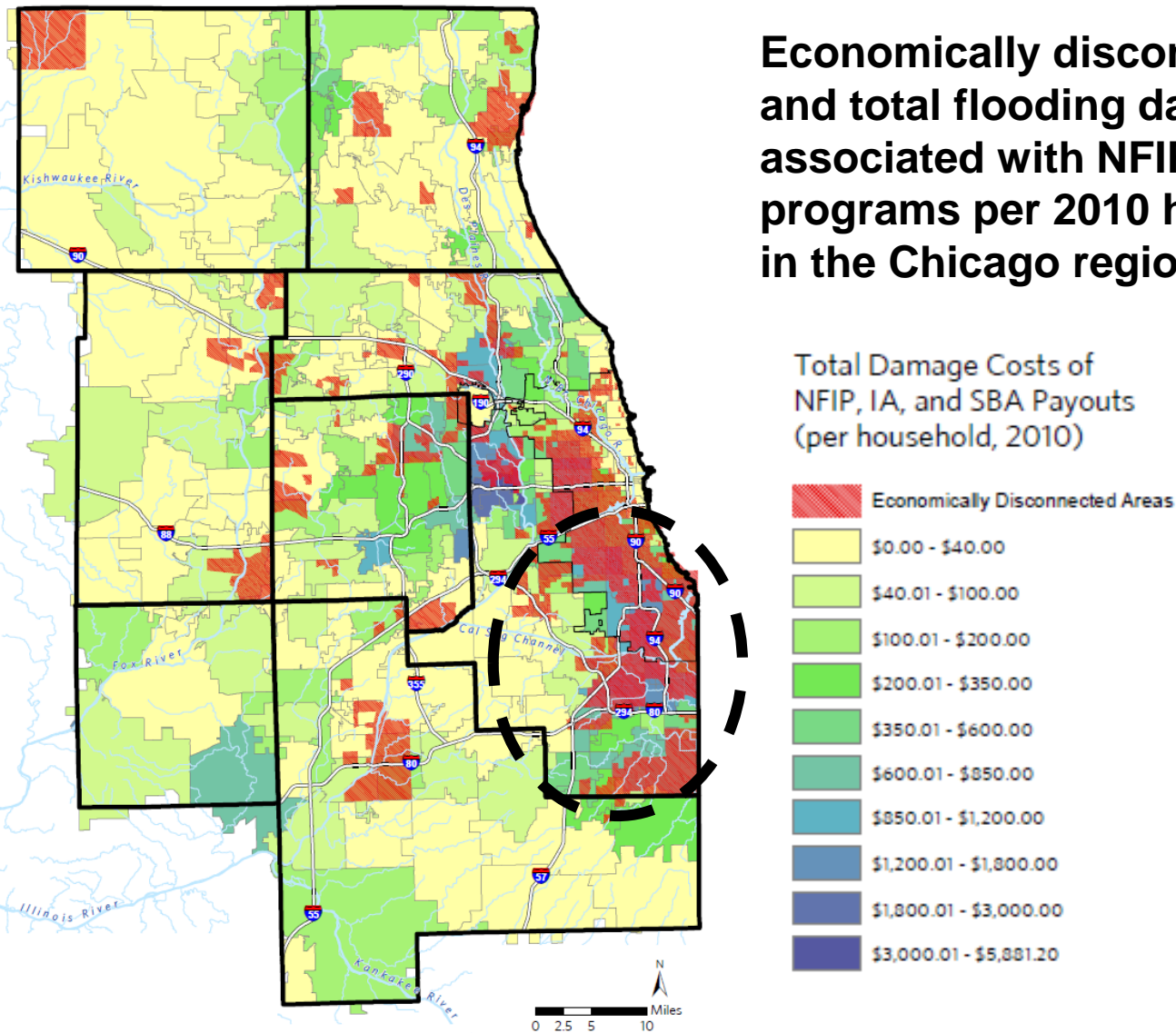
The Impacts: documented damages

Total flooding damage payments associated with National Flood Insurance Program, Individual Assistance, and Small Business Administration programs per 2010 household by zip code in the Chicago region from 2003 to 2015.

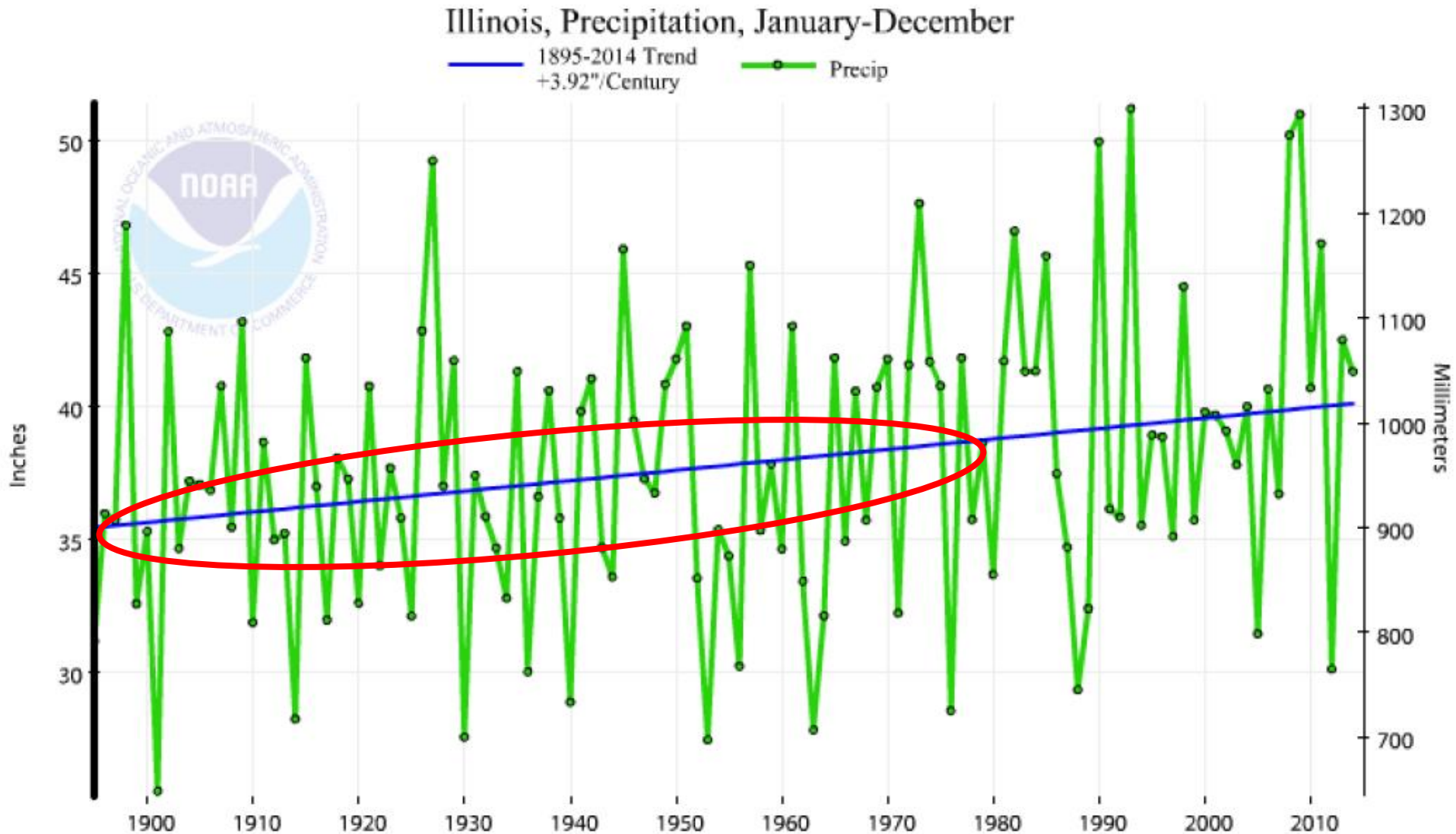


The Impacts: documented damages and community characteristics

Economically disconnected communities and total flooding damage payments associated with NFIP, IA, and SBA programs per 2010 household by zip code in the Chicago region, from 2003 to 2015.

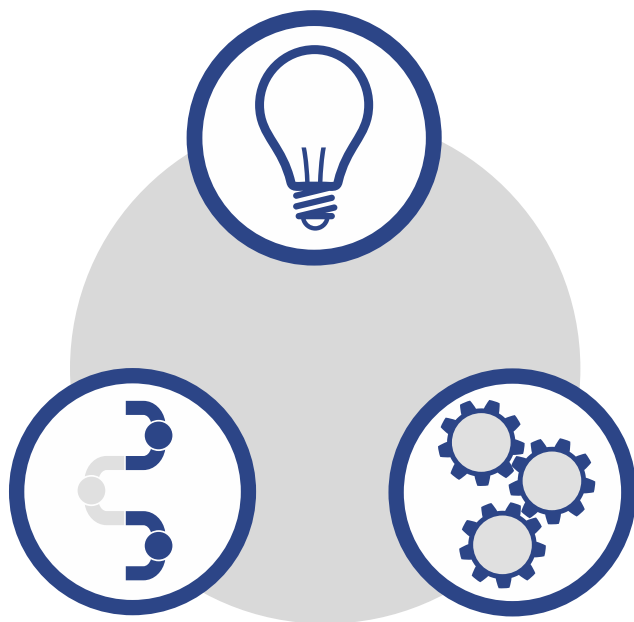


Climate Change: increasing precipitation



COLLABORATION APPROACH + SUCCESS

Metropolitan**Planning**Council



Immediate and long-term solutions

Connect region's assets

**Partnerships with governments,
communities and business**

Calumet Stormwater Collaborative (CSC)

Mission Statement

The Calumet Stormwater Collaborative builds intergovernmental and cross-sector *partnerships to increase the effectiveness of stormwater management initiatives* for the communities and ecosystems of the Calumet region through knowledge sharing, coordination and deployment of interventions at appropriate scales.

CSC Members

Government Agencies

Cook County
Cook County Land Bank Authority
Illinois Department of Natural Resources
Illinois Environmental Protection Agency
Illinois-Indiana Sea Grant
Illinois State Water Survey
Metropolitan Mayors Caucus
Metropolitan Water Reclamation District of Greater Chicago
South Suburban Mayors and Managers Association
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency

Planning, Land Managers + Academics

Argonne National Laboratory
Chicago Metropolitan Agency for Planning
Chicago Park District
Forest Preserves of Cook County
University of Illinois at Chicago and Urbana Champaign

Private Companies

Baxter & Woodman	Christopher B. Burke Engineering
Bluestem Communications	Environmental Design Intl.
CDM Smith	Geosyntec Consultants
CH2M	Robinson Engineering

NGOs

Center for Neighborhood Technology
Chicago Wilderness
Delta Institute
Elevate Energy
Faith in Place
Foresight Design Initiative
Friends of the Chicago River
Historic Chicago Bungalow Association
Metropolitan Planning Council
Morton Arboretum
OAI Chicago Southland/Highbridge
Openlands
The Nature Conservancy

Communities

Calumet City
City of Blue Island
City of Chicago
Village of Homewood
Village of Midlothian
Village of Park Forest
Village of Steger

CSC Overview + Structure

- Convening since April 2014
- Yearly work plans
- Regular monthly meetings of all stakeholders
- 4 work groups with specific initiatives

CALUMET STORMWATER COLLABORATIVE - YEAR ONE WORK PLAN



Introduction

Where We Started

The Calumet Stormwater Collaborative, convened by the Metropolitan Planning Council (MPC) with funding from The Chicago Community Trust, was formed to pursue the Millennium Reserve priority to "improve Stormwater Management through Investments in and Coordination of Green Infrastructure Solutions." [Read more about this Millennium Reserve priority and others here.](#) Stakeholders throughout the Millennium Reserve area (see map)—Illinois' portion of the Calumet Region and parts of the Illinois Lake Michigan coast—have to date independently identified a wide range of different stormwater management goals, strategies and tactics. The result has been a lot of activity, but not much impact.

At the outset, the Collaborative was designed to address three central problems: 1) Stormwater overwhelms current infrastructure; 2) Green infrastructure's role in stormwater management is still taking shape; and 3) Coordinated action between government units and other stakeholders controlling land, infrastructure, financing tools and regulatory powers is necessary to solve systemic problems in systemic ways.

Coordination between governments is a fundamental challenge to managing stormwater in any geography, be it a watershed or manmade sewershed. Government units have different regulatory and political pressures with varying financial and technical capacities—absent coordination, inconsistent goals, processes and investments will persist. Other non-government actors also manage land or financing tools, and are just as much a piece of the puzzle.

The Calumet Stormwater Collaborative is comprised of the key stakeholders controlling land, infrastructure, financing tools or regulatory powers related to stormwater. The initial purpose of the Collaborative is to foster awareness of the many ongoing stormwater management initiatives in the Calumet region, forge a shared understanding of terms, establish common goals and identify opportunities to align existing projects (or develop new ones) toward those goals.

The purpose is not to slow individual projects, but to determine whether their outcomes can be leveraged to benefit others—all for the collective good.

Where We've Been

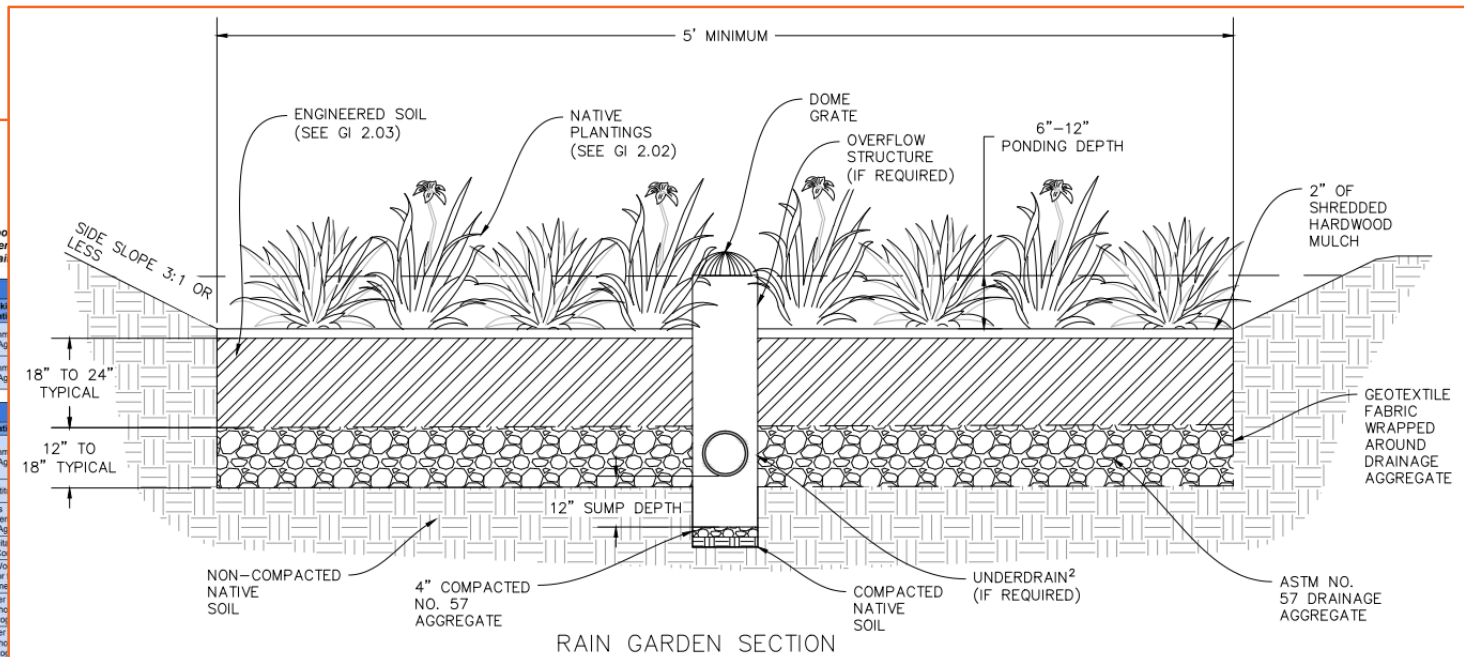
The negative impacts of precipitation, or "stormwater," in the Calumet region and southeast Chicago lakefront, from flooding to poor water quality, result from historic land use decisions, declining infrastructure sufficiency and increasingly severe



Achievements

1. Creating tools + sharing data

- Repository to capture joint knowledge of collaborative
- Regional mapping viewer + data extents layers
- Green infrastructure design guidelines



Calumet
COLLABORATIVE

The Calumet Stormwater Collaborative organizations pay for stormwater hyperlinked names to more detail

Grant Name	Grant-Making Organization
Brownfields Area-Wide Planning (BAWP) Grant Guidelines	U.S. Environmental Protection Agency
Technical Assistance to Brownfields Communities (TAB)	U.S. Environmental Protection Agency

Resource	Organization
Community-Based Public-Private Partnerships	U.S. Environmental Protection Agency
Green Infrastructure Designs	Delta Institute
State Revolving Fund	Illinois Environmental Protection Agency
Steady Streams	Metropolitan Planning Council
Tapping into Alternative Ways to Fund Innovative and Multi-Purpose Water Projects	Stanford Woods Institute for the Environment
Tree Asset Management in Portland, Oregon	The Center for Neighborhood Technology
The Value of Green Infrastructure	The Center for Neighborhood Technology
Water Finance Clearinghouse	U.S. Environmental Protection Agency

are two searchable data sets: 1) federal, state, and local funding sources for water infrastructure and 2) reports, tools, webinars, and other resources on financing mechanisms and approaches.

Boundaries
CHAP Counties



Achievements

2. Expanding education + engagement

- RainReady community engagement process + local community workshops
- Needs assessment for training + maintenance of green infrastructure
- Sharing lessons learned: tour + session at WEFTEC



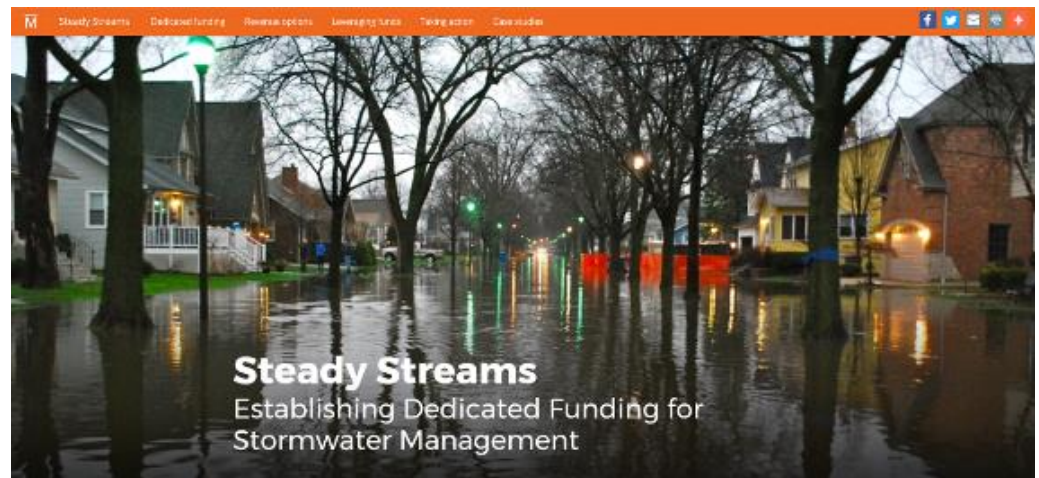
Achievements

3. Leveraging funding sources

- Complete Streets Project: local technical assistance grant
- Section 319 Watershed Plans: community eligibility for grants
- Local Revenue Funding: dedicated revenue streams



Village of Midlothian, 147th Street Project

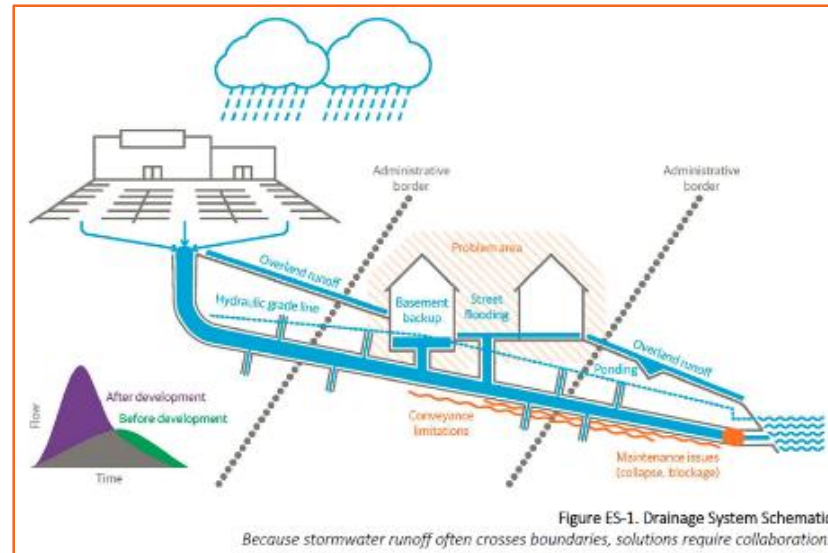
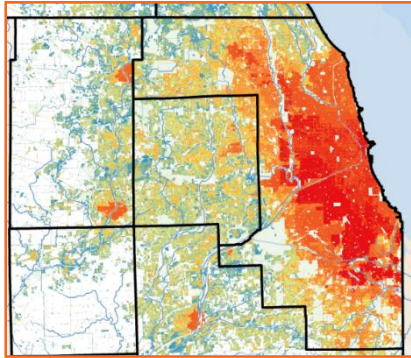


<https://www.metroplanning.org/steadystreams>

Achievements

4. Expert review of member initiatives

- Planning-level stormwater analysis
- Regional modeling framework
- Investigating stormwater detention credit trading
- RainReady Technical Advisory Committee



AGENCY INITIATIVES

Center For Neighborhood Technology



About Us

- Founded in 1978
- Sustainable Urban Solutions
- Climate
- Water
- Transportation
- Community Development

Community-Based Programs

- Outreach + Education
- Community Organizing
- Resilience Planning
- Program Administration

The RainReady Program and Approach

Principles

- Based on community needs + goals
- Incentivize community-wide benefits
- Offer evidence-based solutions
- Promote “fair share” approaches
- **Suite of solutions to fight urban flooding:**
 - RainReady Home
 - RainReady Community



Data Platform for Collaboration

Catchment: 420

Area: 962,156 sqft [view data](#)

Priority Score **7**

FLOOD RISK SCORE: 5 [expand](#)

OPPORTUNITY SCORE: 2 [expand](#)

AVERAGE ANNUAL RAINFALL

Annual Rainfall (in): 25.36 [edit](#)

Storm Rainfall (in): 1.04 [edit](#)

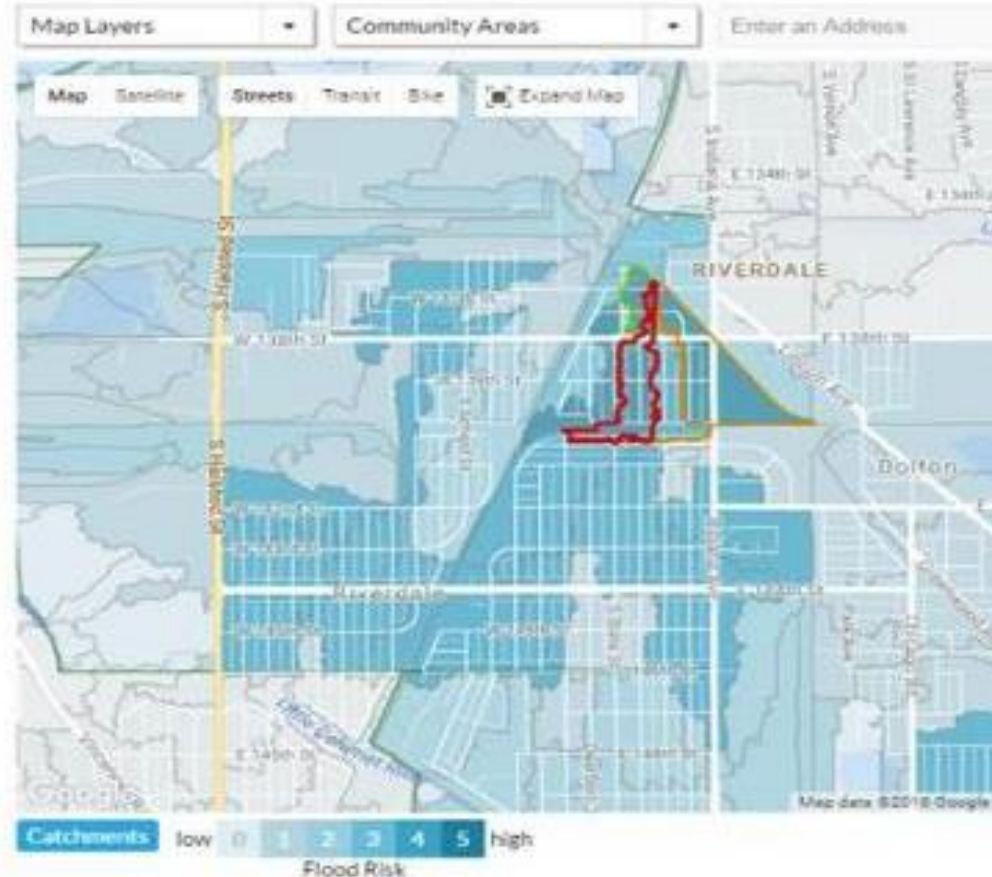
REDUCTION GOAL

Precipitation Depth Capture (in): **0.5**



GREEN IMPROVEMENTS

	Lifecycle Cost	% Towards Goal
<input type="checkbox"/> Green Roof	\$0	00.0%
<input type="checkbox"/> Planter Boxes	\$nn	nn%
<input type="checkbox"/> Rain Garden	\$nn	nn%
<input type="checkbox"/> Cisterns / Rain Barrels	\$nn	nn%
<input type="checkbox"/> Native Vegetation	\$nn	nn%
<input type="checkbox"/> Vegetation Filter Strips	\$nn	nn%
<input type="checkbox"/> Amended Soil		
<input type="checkbox"/> Roadside Swales (elimination of curb and gutter)		
<input type="checkbox"/> Trees		
<input type="checkbox"/> Swales in Parking Lots		
<input type="checkbox"/> Permeable Pavement		



RainReady Recommendations and Wins

SOLUTION DESIGN

Recommended Interventions:

- Individual Property
- Street and Neighborhood
- Village Wide
- Natalie Creek

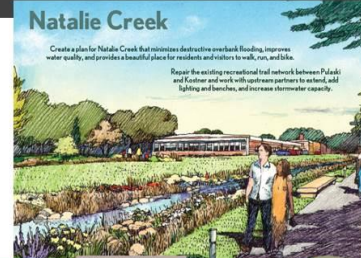


COMMUNITY OUTREACH AND EDUCATION



RainReady Open House

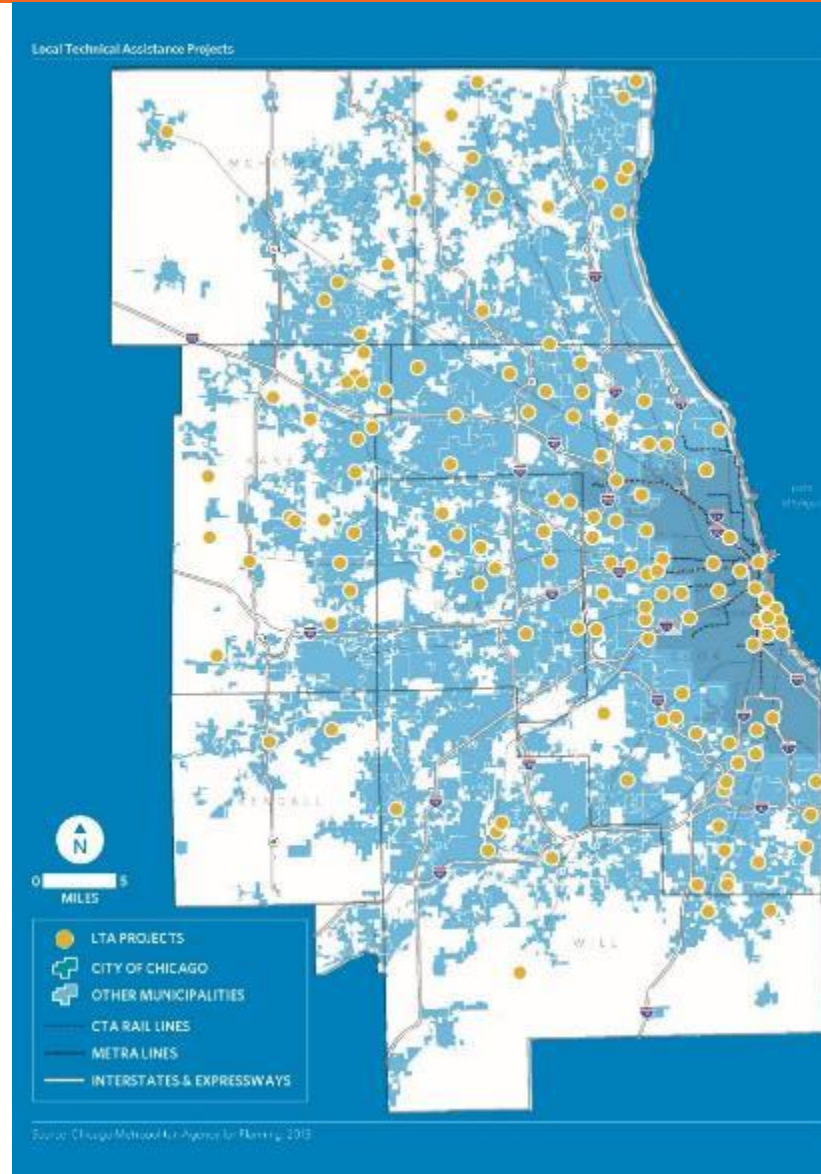
The RainReady Steering Committee invites you to a community Open House



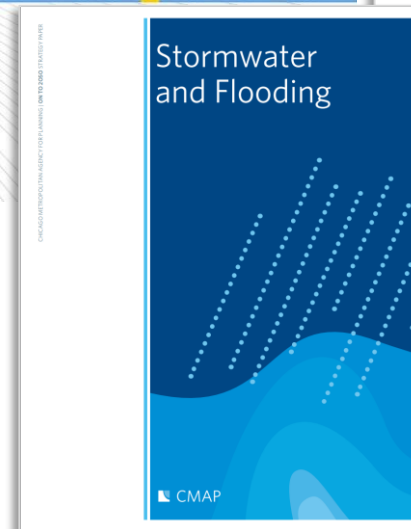
- ✓ **Complete Streets Project: local technical assistance grant**
Over \$10 million for flood mitigation projects

Chicago Metropolitan Agency for Planning

- Official regional planning organization and MPO for northeastern Illinois
- Adopted GO TO 2040 regional plan in 2010
- Local Technical Assistance Program
 - Collaborate with regional partners to provide planning support to local communities
 - Over 160 projects



Chicago Metropolitan Agency for Planning



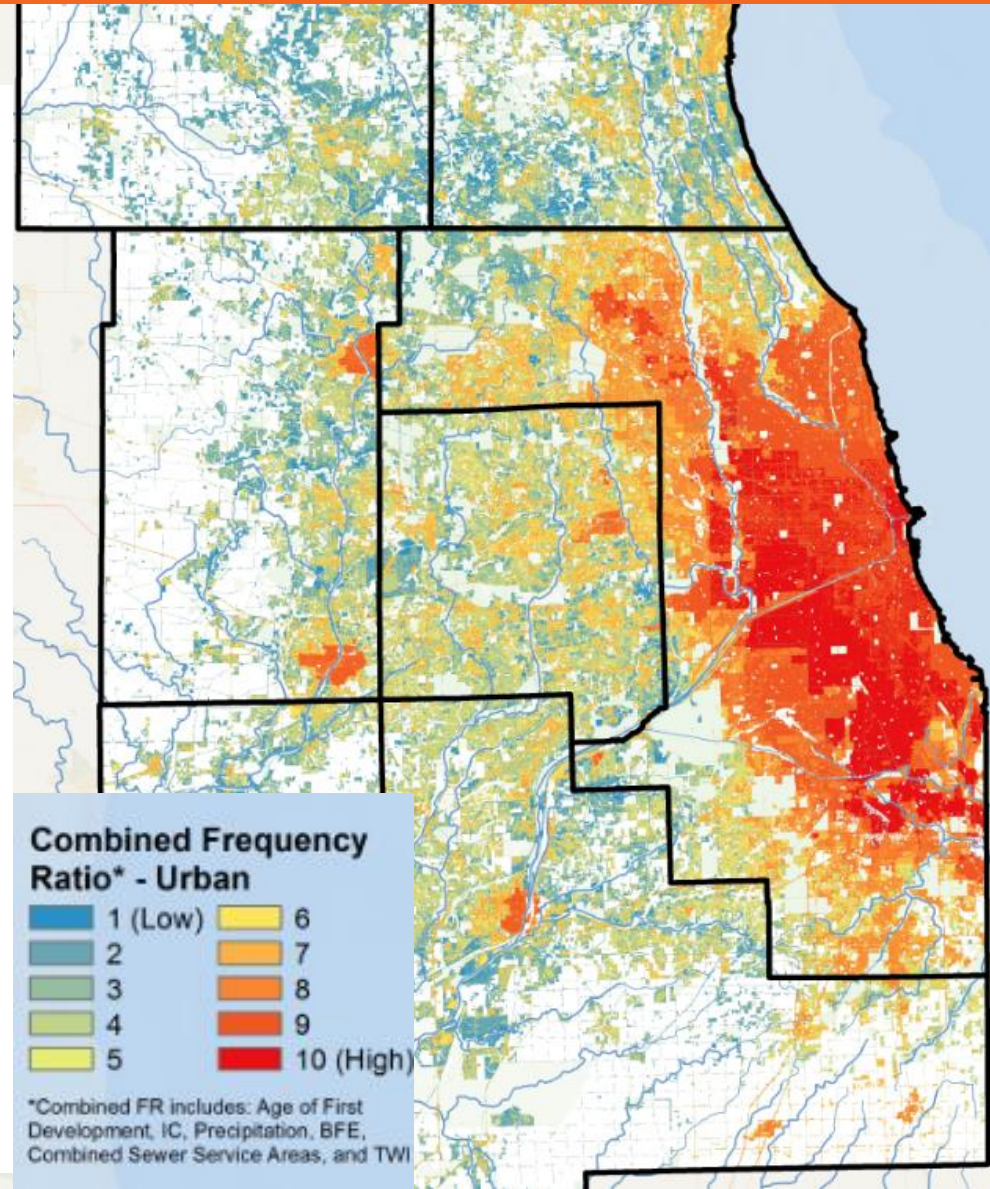
Stormwater and Flooding Initiatives

Regional flooding susceptibility index

Identify priority areas across the region for flooding mitigation activities

Applications

- Help CMAP focus Local Technical Assistance Projects
- May help coordinate activities by partners



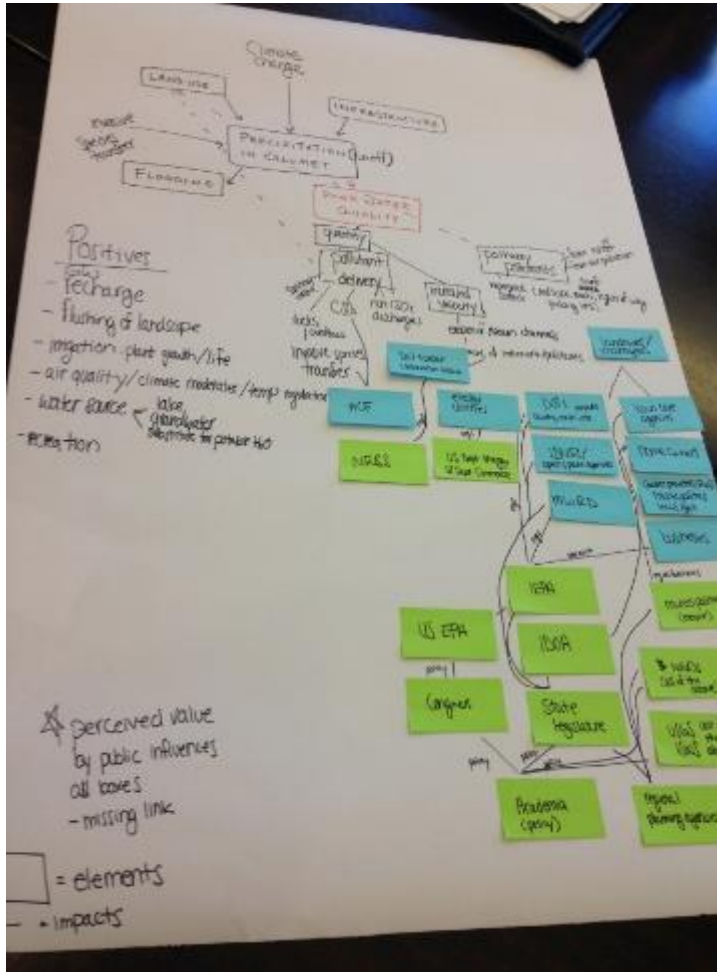


TIPS FOR BUILDING + SUSTAINING COLLABORATION

1. Have the right mix of stakeholders



2. Go slow to go fast



3. Fun & inspiring – create VALUE



Thank you!

Danielle Gallet

dgallet@metroplanning.org

Kate Evasic

kevasic@cmap.illinois.gov

Dawn Thompson

dthompson@cnt.org