



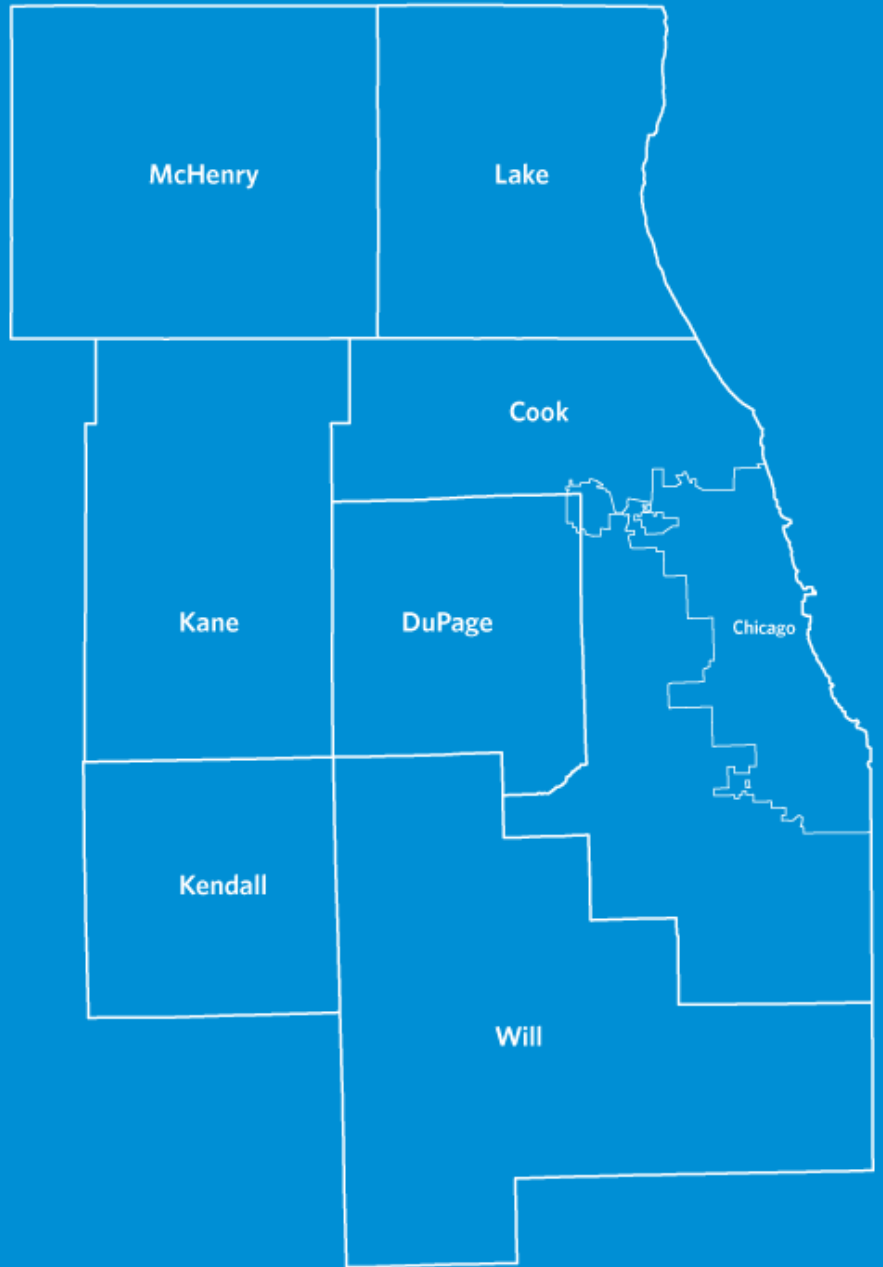
ON TO 2050

Stormwater strategies for a more resilient and inclusive Chicago region

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Chicago Metropolitan Agency for Planning

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Chicago Metropolitan Agency for Planning



ON



TO

2050

Resilience

Inclusive Growth

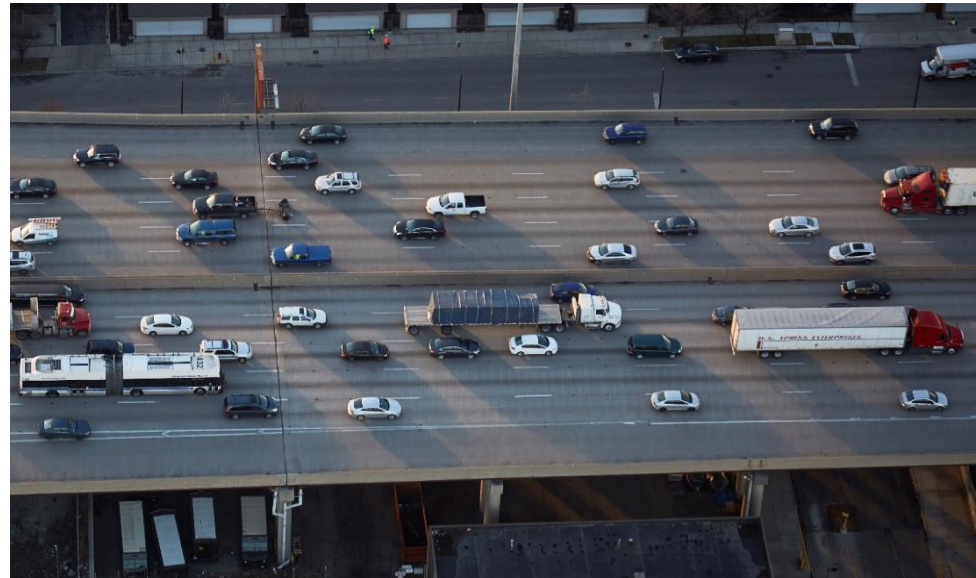
Prioritized Investment

Resilience

A diverse group of people, including men, women, and children, are walking and cycling on a paved path. The path is lined with greenery and trees. The scene is bright and sunny, suggesting a pleasant day outdoors. The people are dressed in casual summer attire, and some are wearing safety gear like helmets and reflective vests. The overall atmosphere is one of active, healthy living.

**Prepare for rapid changes,
both known and unknown**

Stresses and shocks



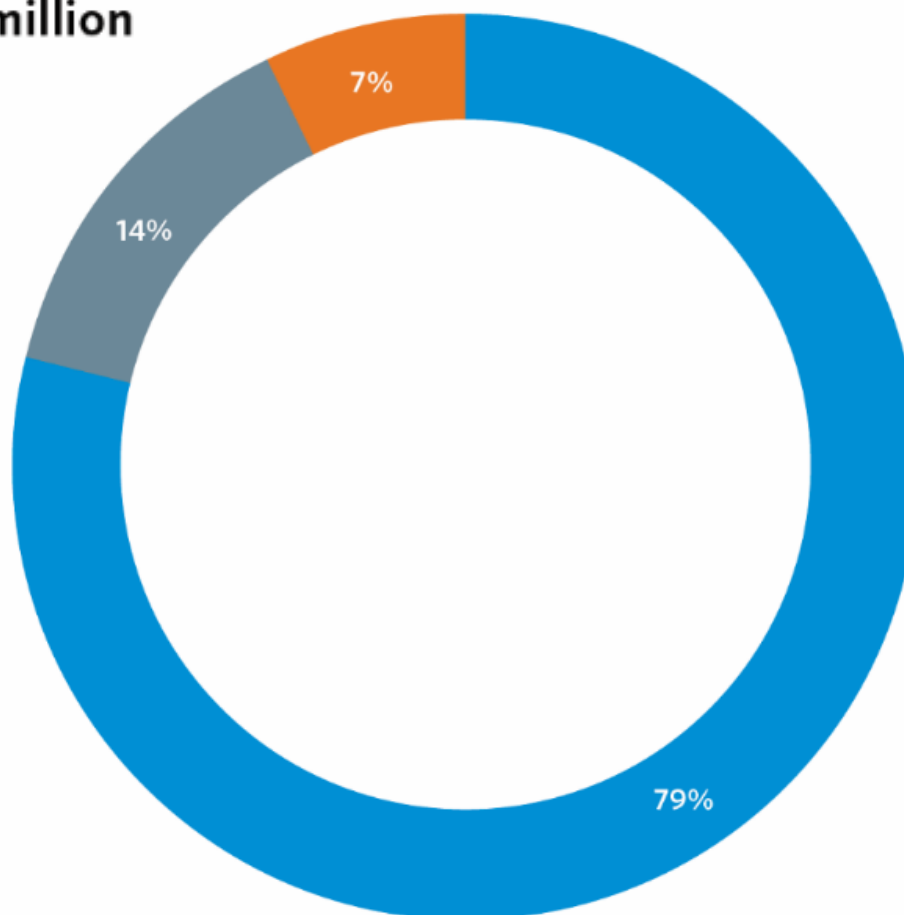
Stresses and shocks



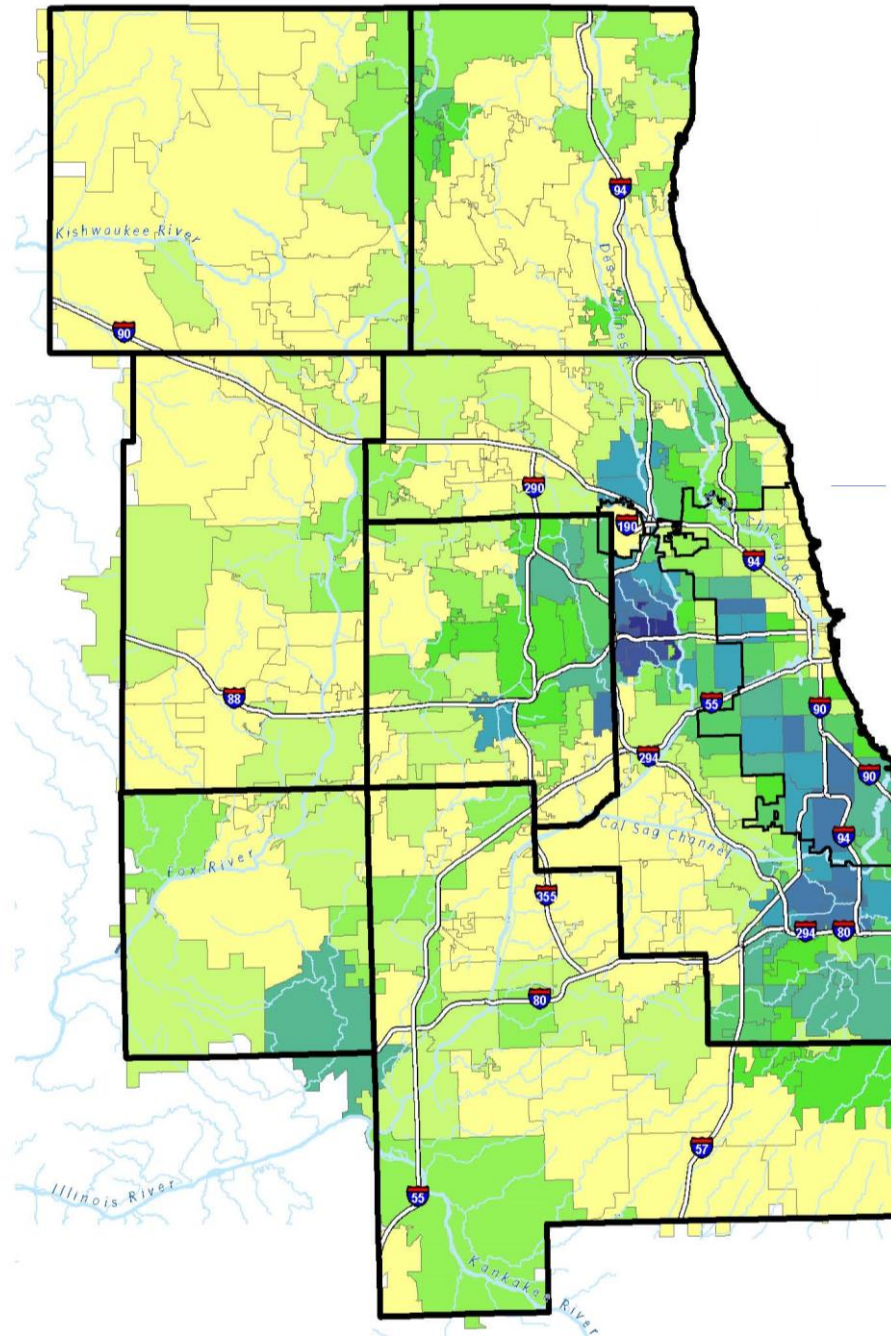
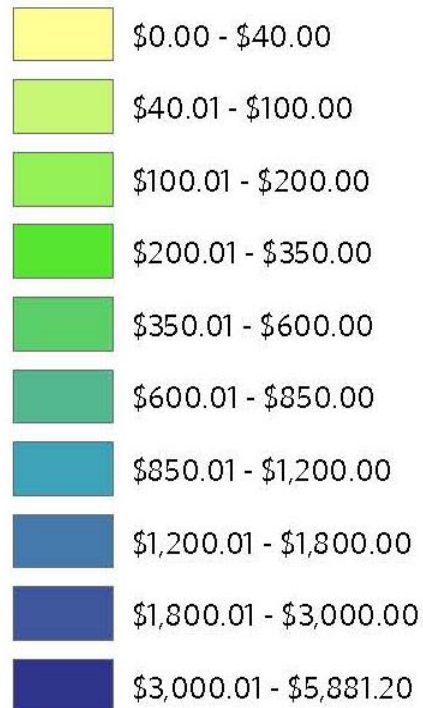
**Total insurance and disaster relief payouts,
by geography, 2007-14**

- CMAP region **\$1.8 billion**
- Rest of Illinois **\$325 million**
- Statewide **\$162 million**

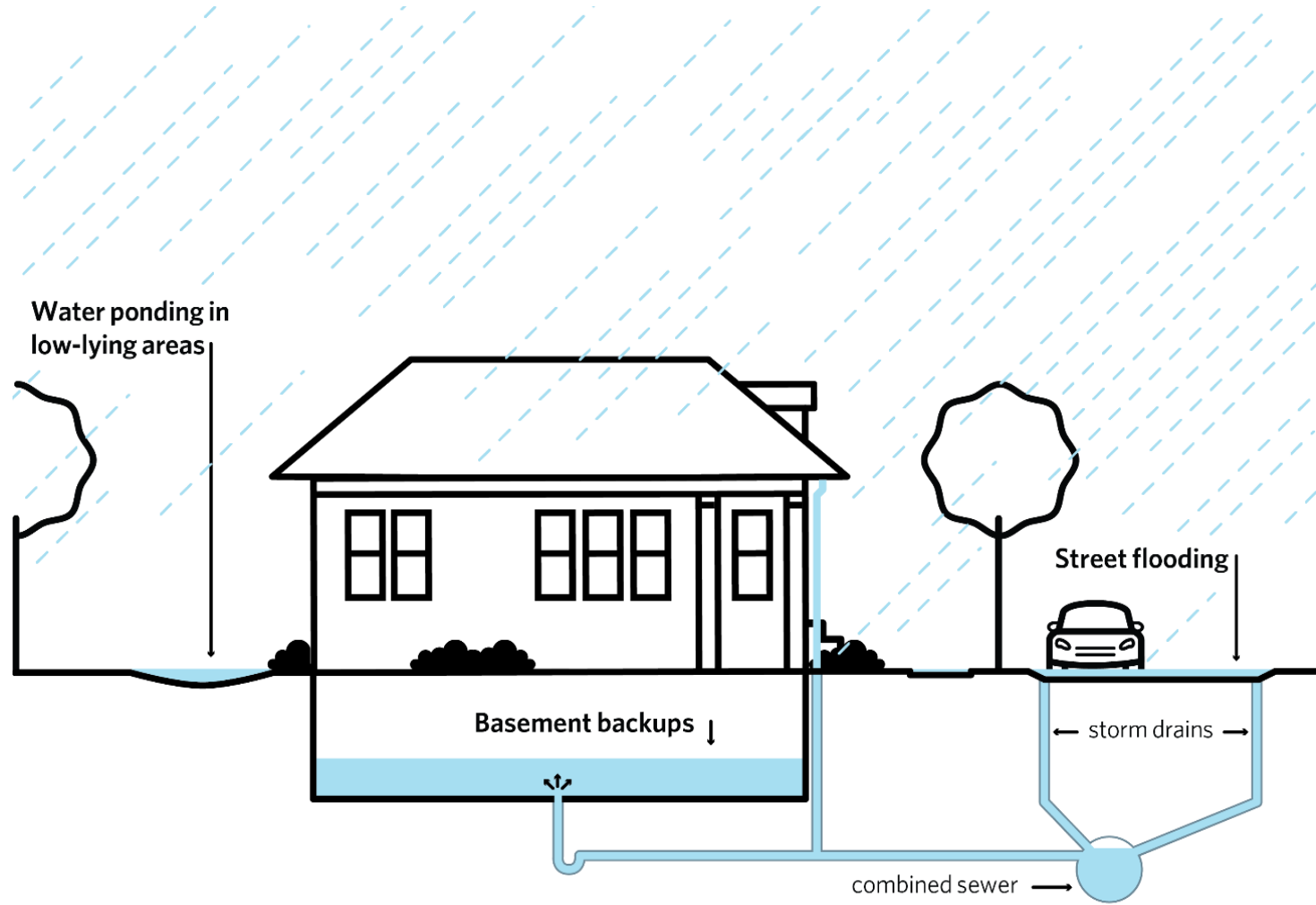
Source: Brad Winters, et al, "Report for the Urban Flooding Awareness Act," State of Illinois Department of Natural Resources, Office of Water Resources, June 2015, www.isws.illinois.edu/hilites/more.asp?id=ufaa&fr=hi



Damage costs per household by zipcode, 2003-2015



Urban flooding

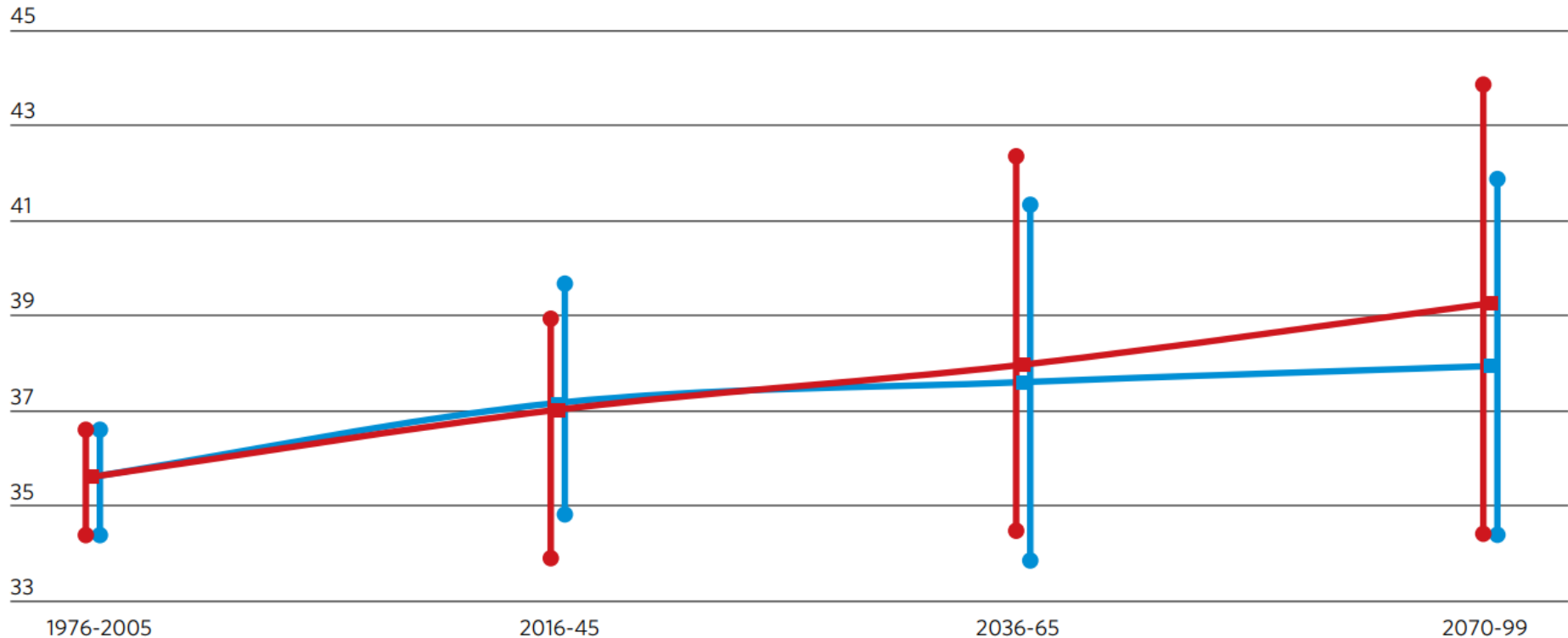


Moving target

**Range of projected annual total precipitation, in inches,
in northeastern Illinois**

Source: D.W. Pierce, D. R. Cayan, and B. L. Thrasher, 2014:
Statistical downscaling using Localized Constructed Analogs
(LOCA). Journal of Hydrometeorology, 15, 2558-85.

■ High-emissions scenario mean
■ Low-emissions scenario mean



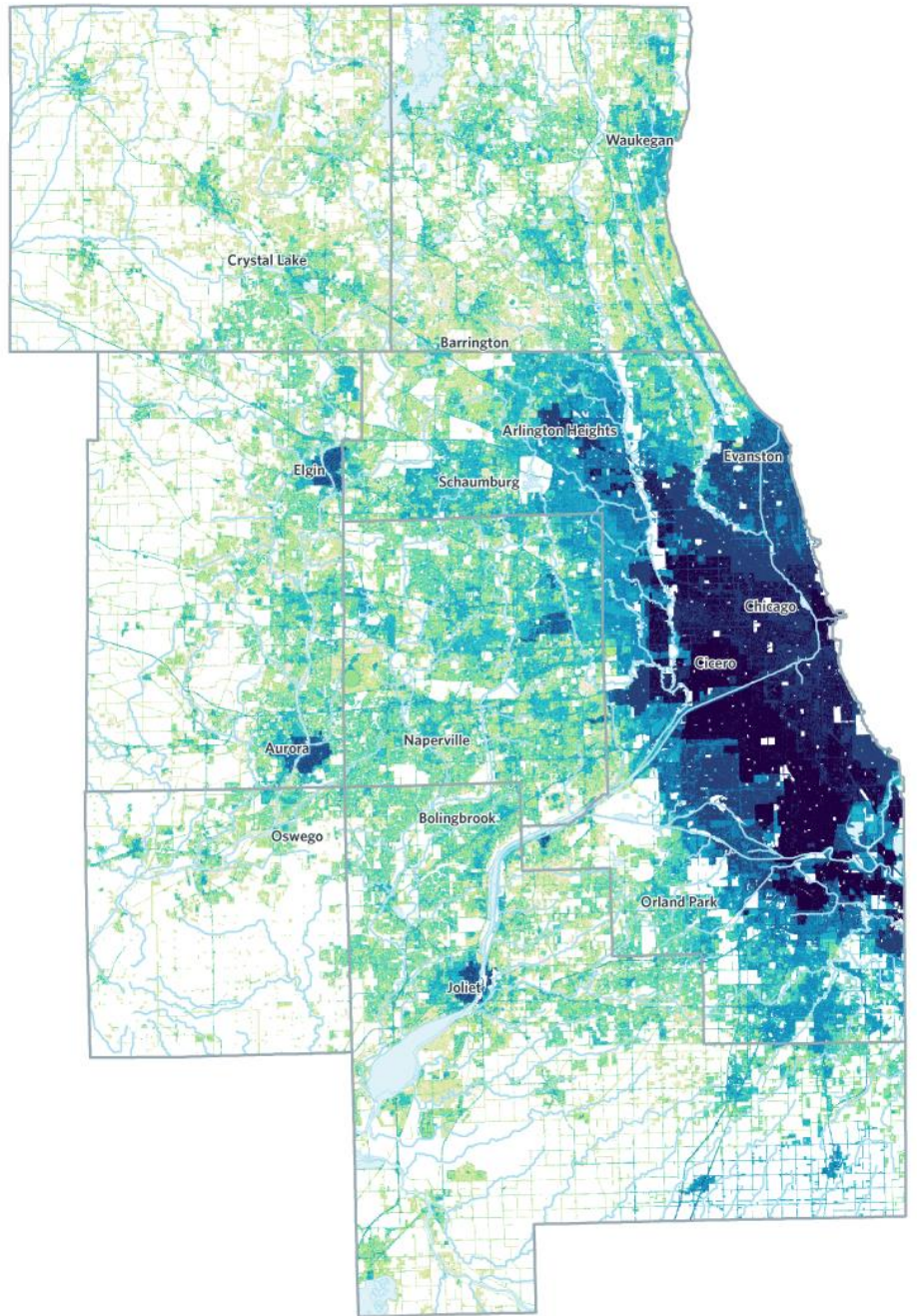
Identify and communicate flooding risk

Advance climate data

Collect local data

Update mapping and planning tools

10 (more susceptible)
 9
 8
 7
 6
 5
 4
 3
 2
 1 (less susceptible)



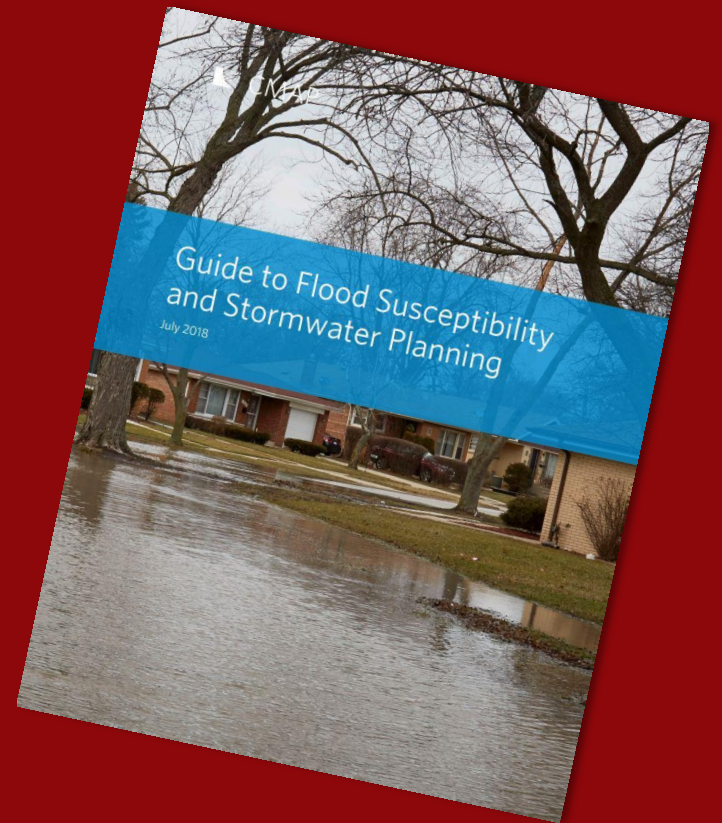
Integrate risk in planning and design

Update standards and design manuals

Integrate vulnerability into decision-making

Update plans to include stormwater management

Guide to Flood Susceptibility and Stormwater Planning

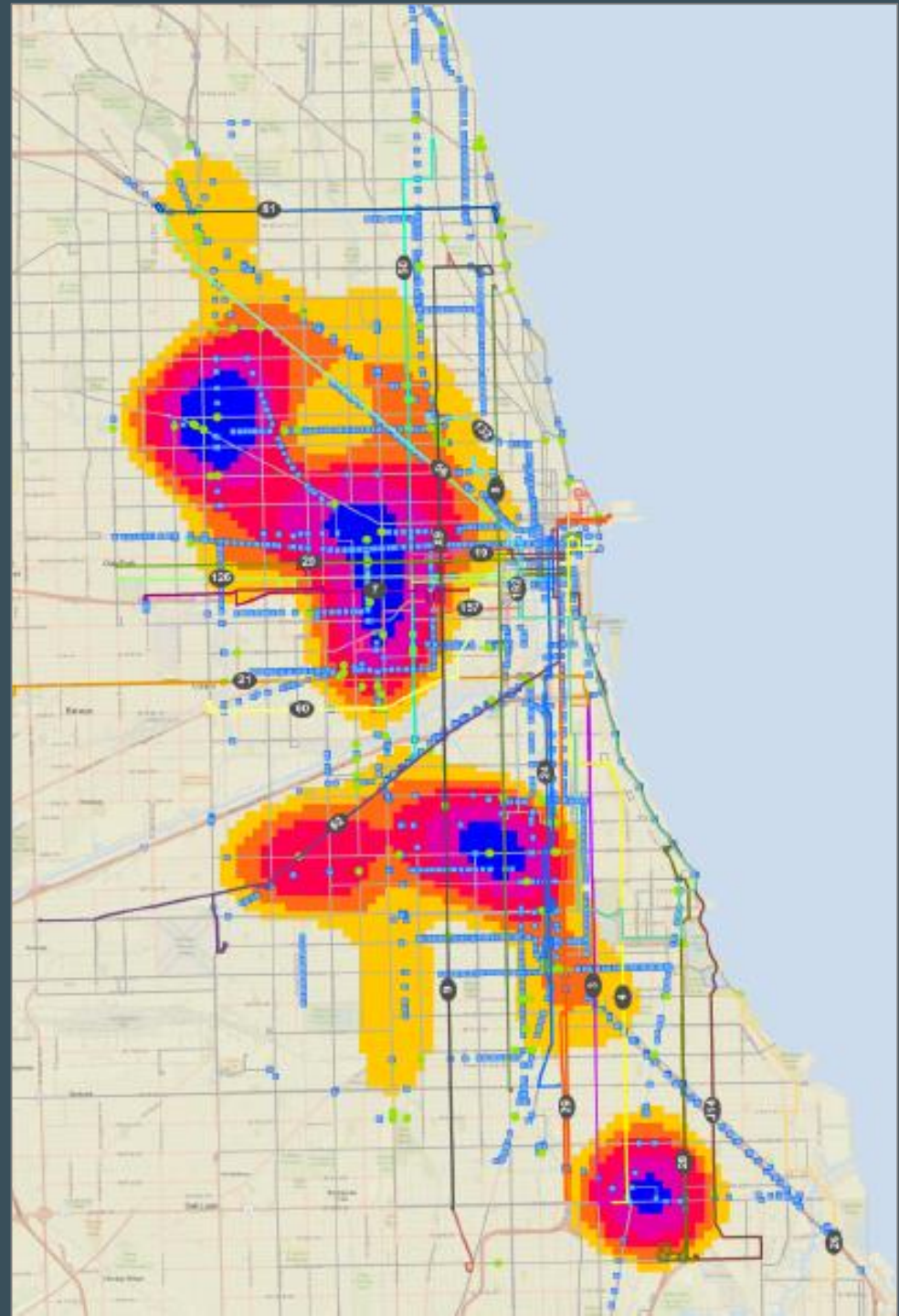


Enhance operations to maintain performance



RTA's Flooding Resilience Plan for Bus Operations

- Planned bus reroutes
- Advocate for infrastructure improvements
- Continue to collect transit-flooding data



An aerial night view of a city, likely Chicago, showing a dense grid of city lights and a prominent skyline silhouette against a twilight sky. The text 'Inclusive Growth' is overlaid in large white letters.

Inclusive Growth

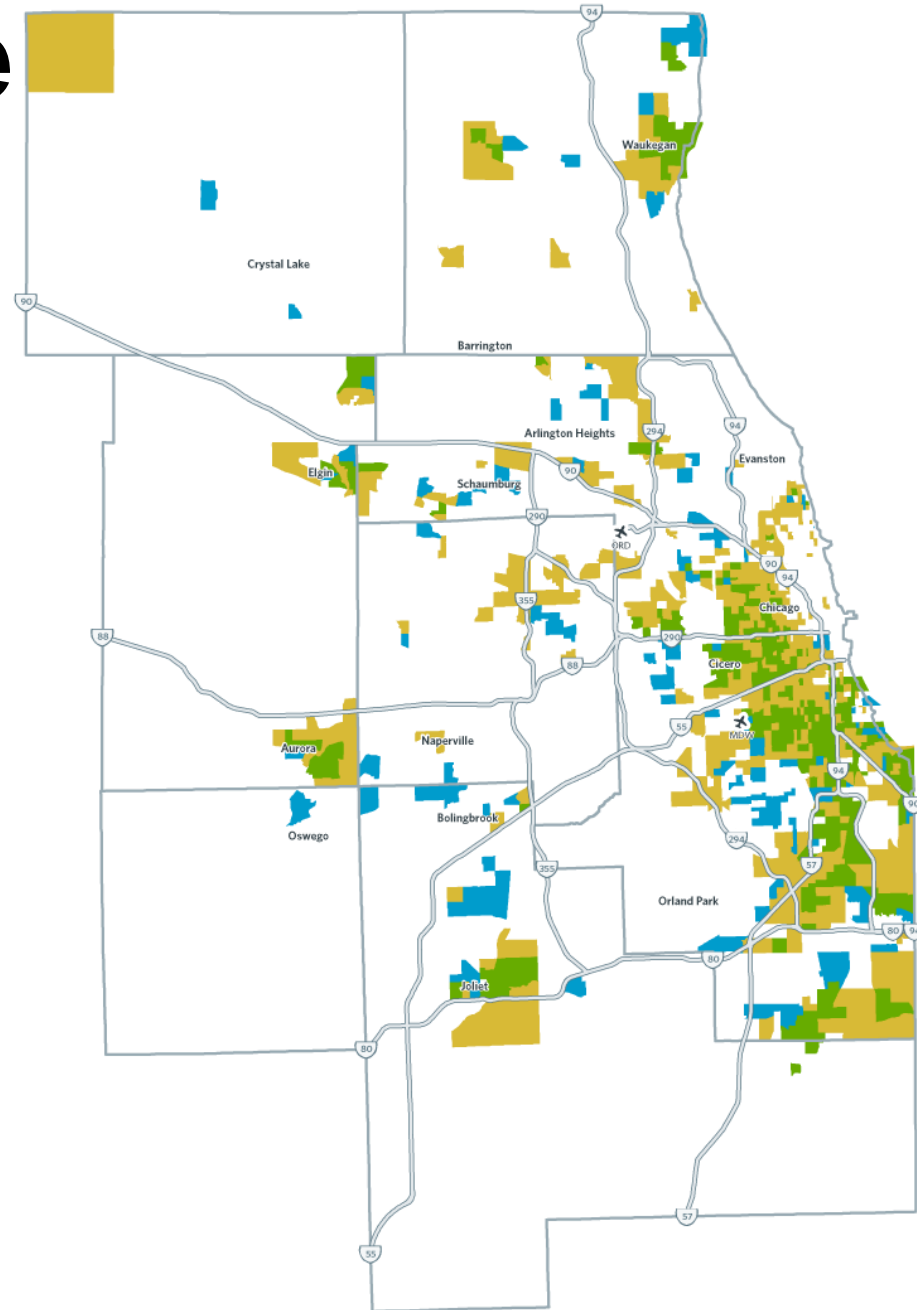
Grow the economy through opportunity for all

Disproportionate impacts

Economically Disconnected Areas (EDAs) and disinvested areas

- Disinvested and EDA
- Disinvested area
- EDA

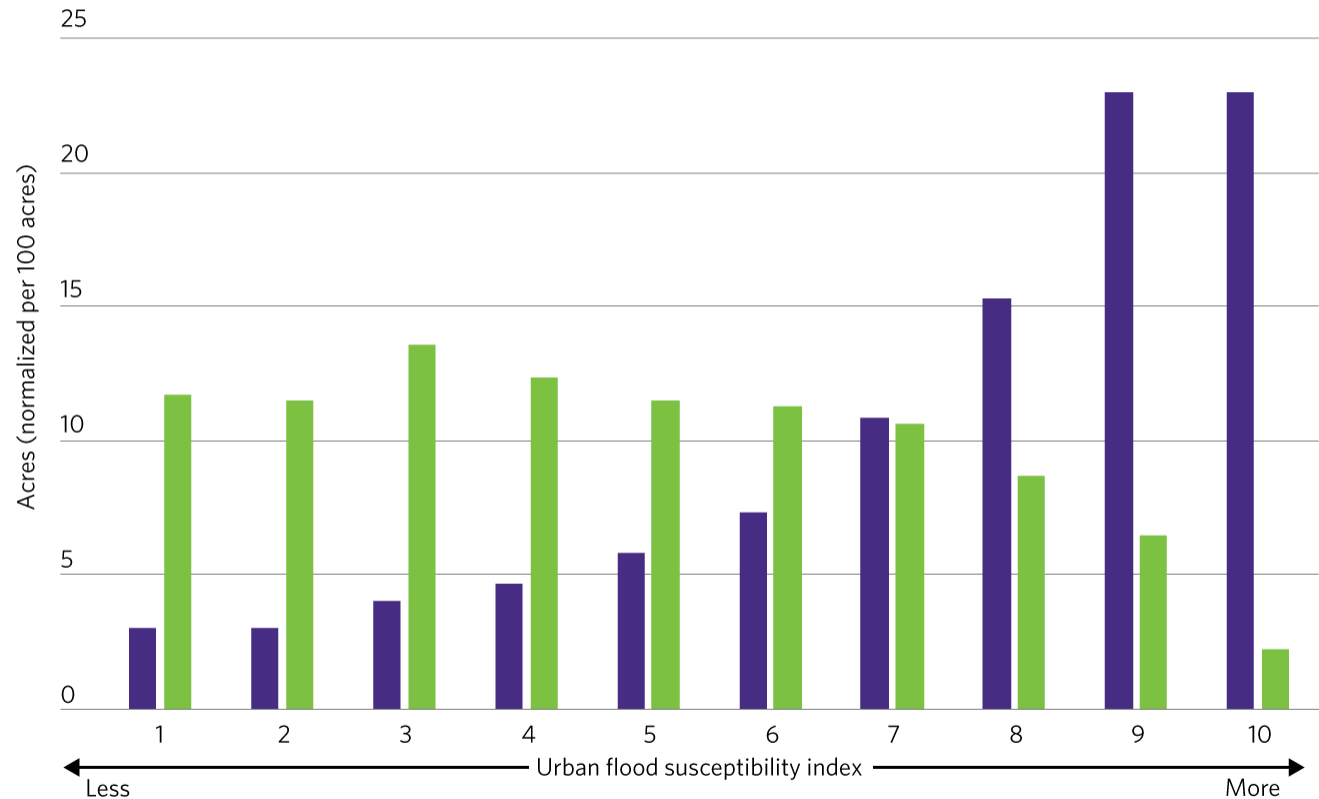
Source: Chicago Metropolitan Agency for Planning analysis of Illinois Department of Employment Security data, 1970, 1980, 1990, 2000, and 2015; Community Reinvestment Act (CRA) data on small loans made to businesses, 2007 and 2015 (accessed through the Woodstock Institute); county assessor data aggregated from parcel to tract level by property class, 2010 and 2015; and American Community Survey data, 5-year estimates, 2010-2014 and 2011-2015.



Disproportionate impacts

Urban flood susceptibility in disinvested and Economically Disconnected Areas (EDAs) compared with the rest of the region

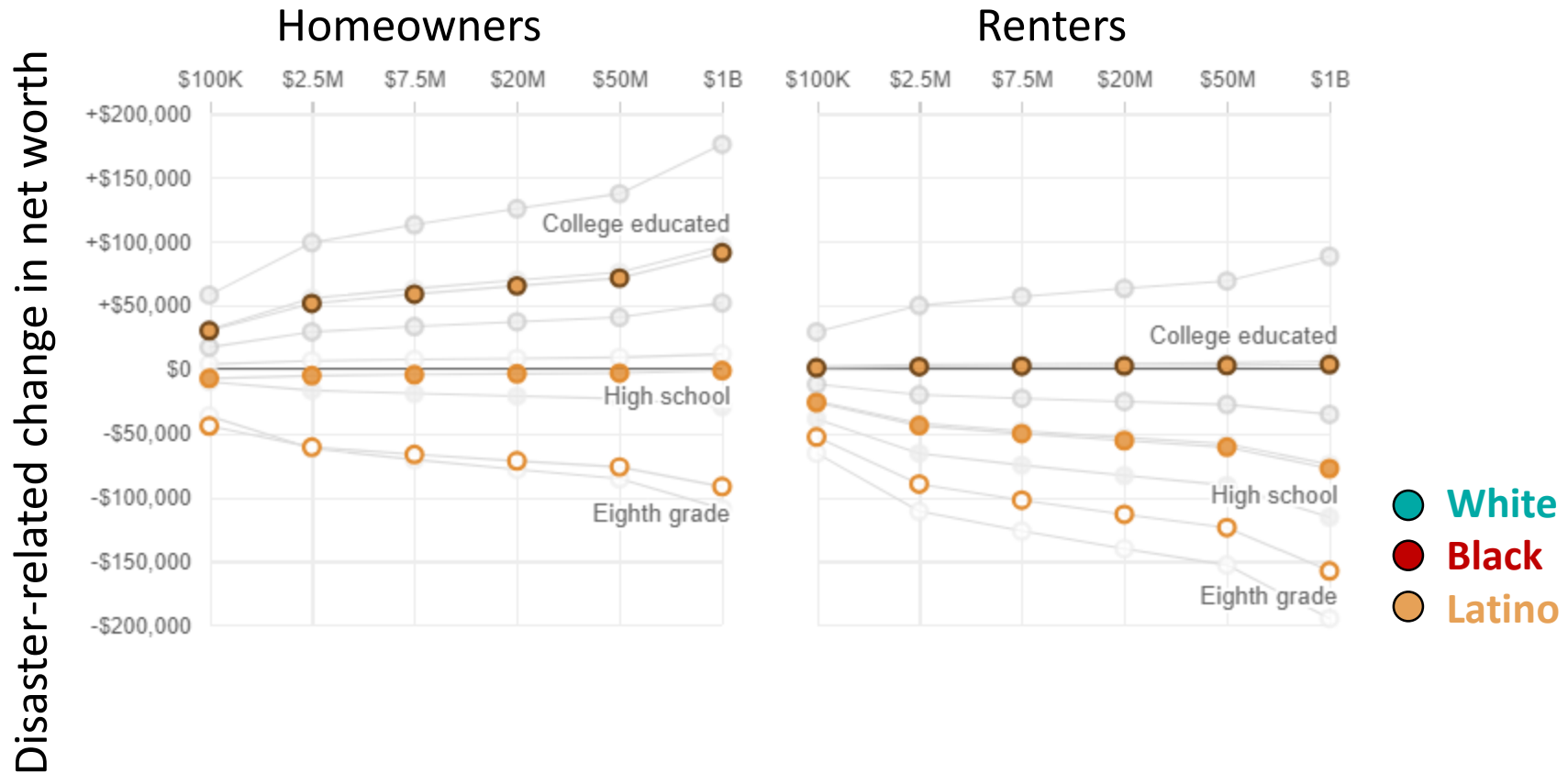
- Disinvested and EDAs
- Rest of region



Note: Economically Disconnected and disinvested areas are more likely to be in flood susceptible locations. However, this varies by county and is most significant in Cook, Kane, and Lake.

Source: Chicago Metropolitan Agency for Planning, 2018.

Access to assistance



Credit: Rebecca Hersher and Alyson Hurt/NPR

Engage vulnerable populations in planning

Meet people where they are

Develop relationships

Fear of disclosure

Target investments in disconnected areas

CDBG, Single Family Rehab (SFR) Loan

Cost share programs

Innovative funding and financing

Prioritized Investment

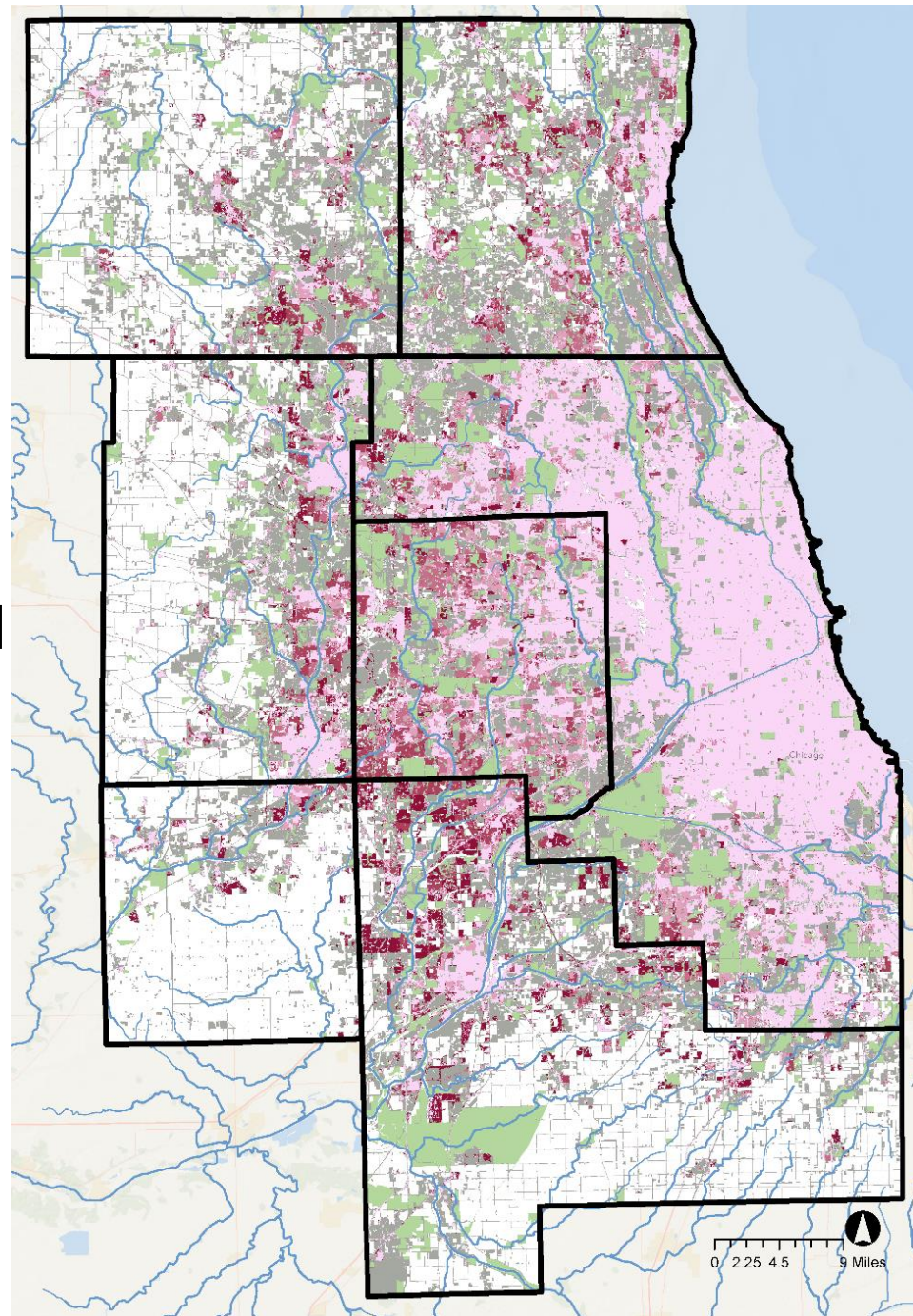


Target resources to maximize benefits

Older development lacking today's BMPs

42%

of developed acres
were first developed
prior to 1974



New development occurring on periphery

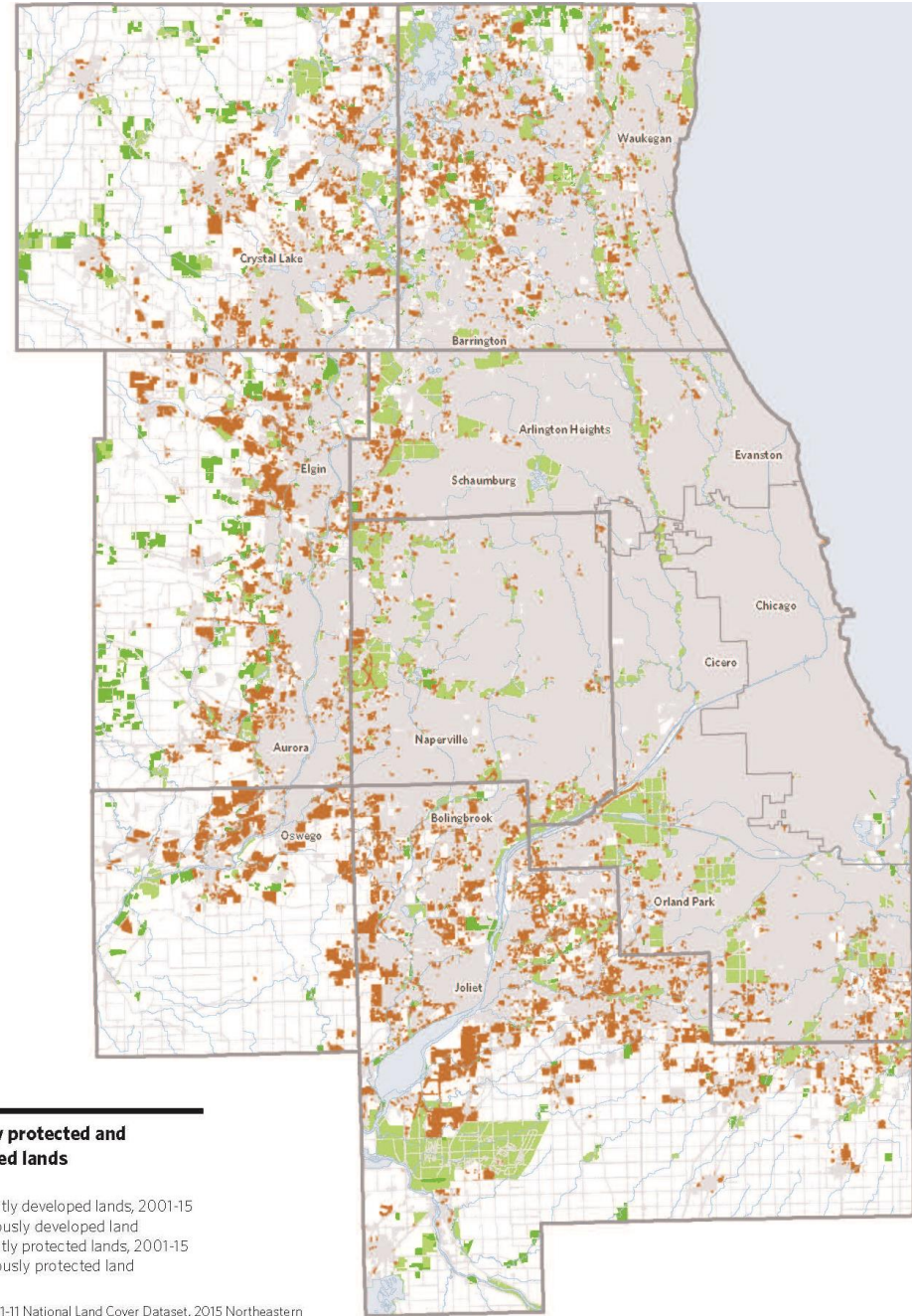
140,000
AC

of new development occurred in areas with limited infrastructure

Recently protected and developed lands

- Recently developed lands, 2001-15
- Previously developed land
- Recently protected lands, 2001-15
- Previously protected land

Source: 2001-11 National Land Cover Dataset, 2015 Northeastern Illinois Development Database, 2001/2005/2013 CMAP Land Use Inventory, 2012-15 National Conservation Easement Database, 2014 Kendall County Forest Preserve District Master Plan, 2016 Trust for Public Land Conservation Almanac, and 2016 I-View: Prairie State Conservation Coalition's database of Illinois protected natural lands.



Maintain and invest in gray and green infrastructure

Prioritize high need, high risk areas

Coordinate investments

Dedicated revenue streams



www.cmap.illinois.gov/onto2050

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