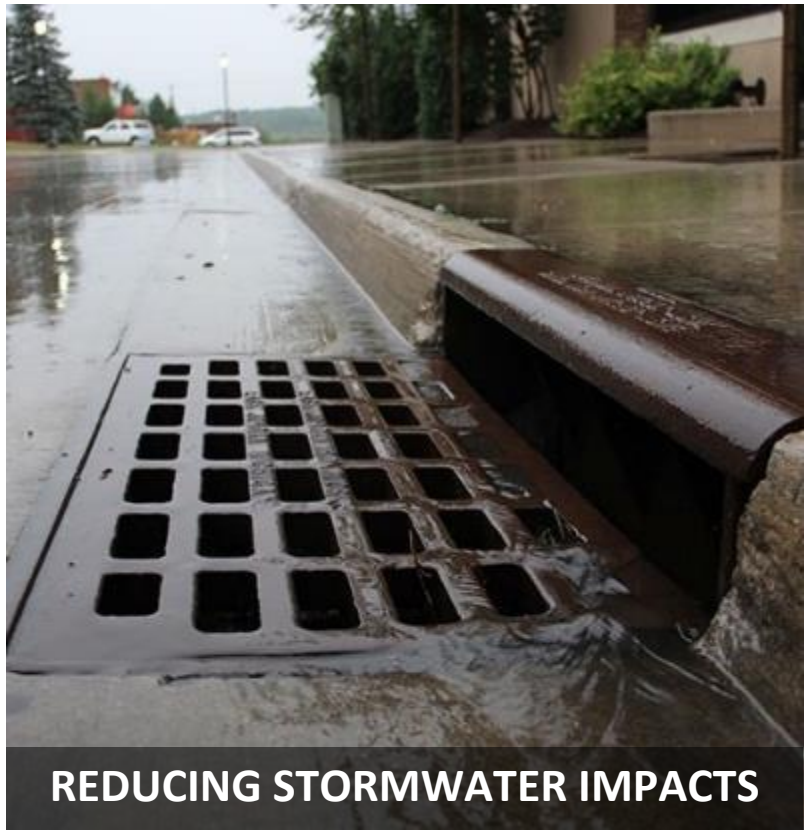

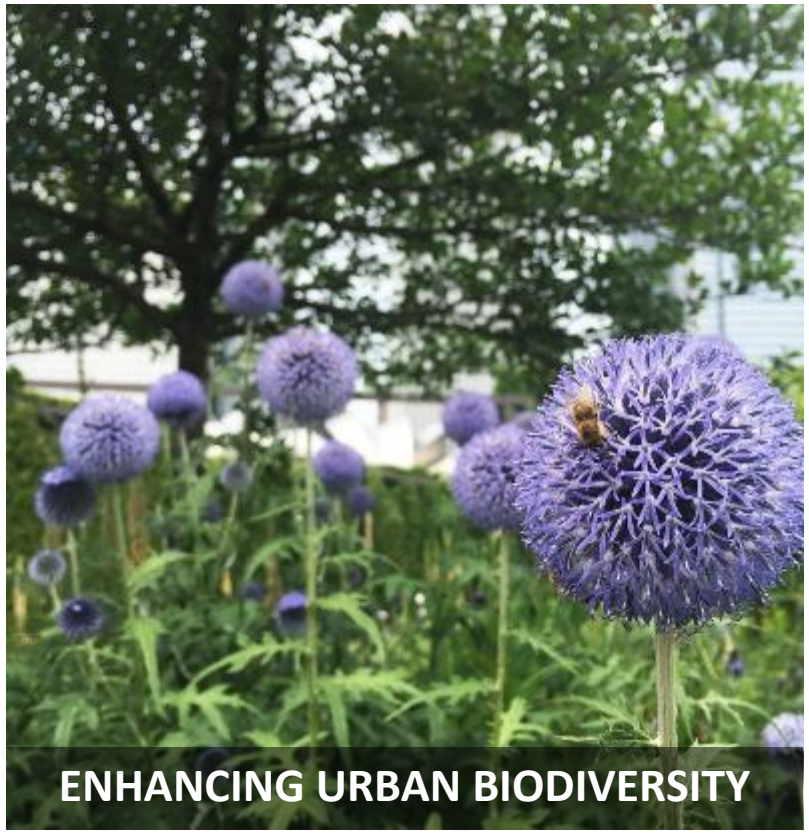

Climate Risk, Equity, and Natural Infrastructure

John Legge

The Nature Conservancy

Chicago Greenprint:
Identifying Community Climate Vulnerability

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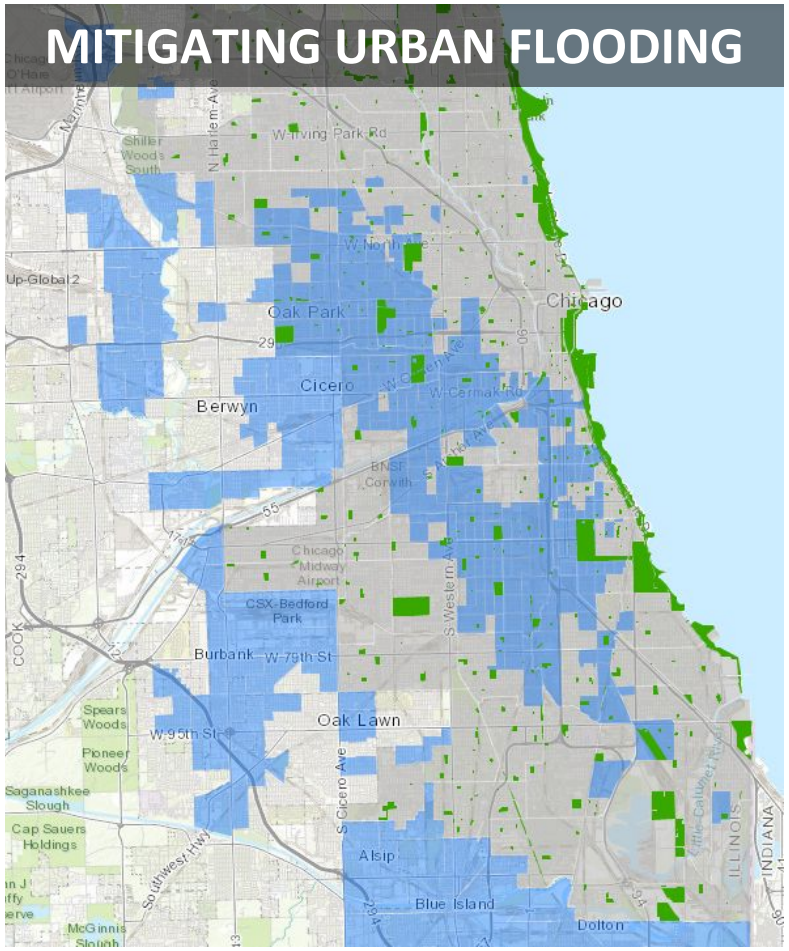
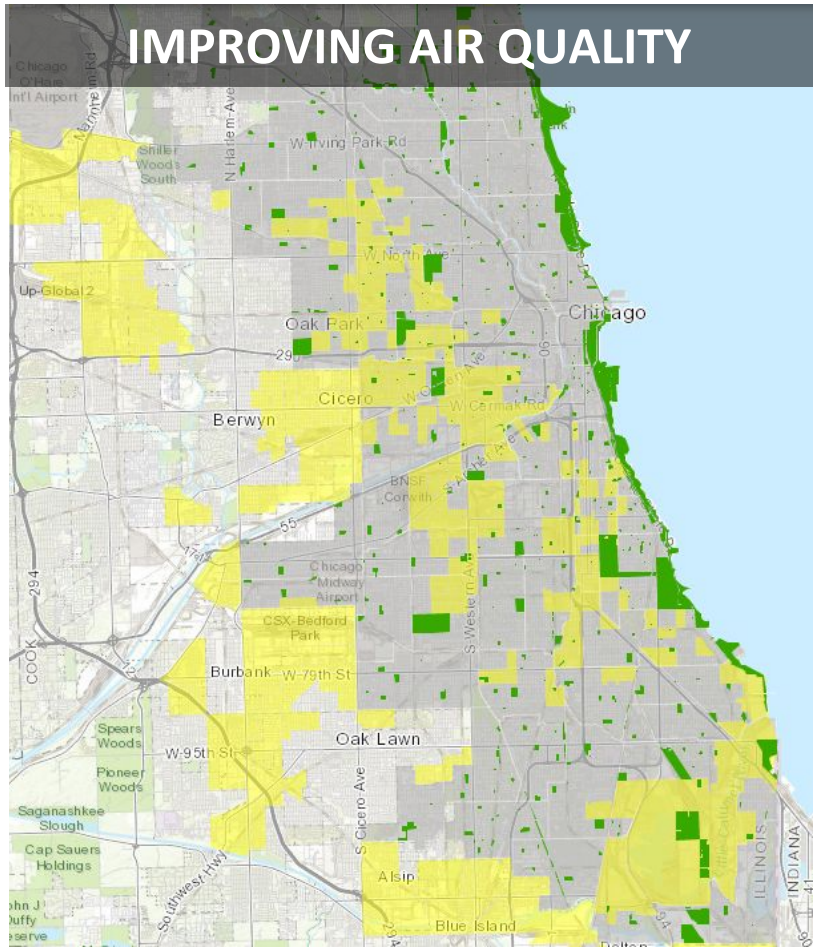
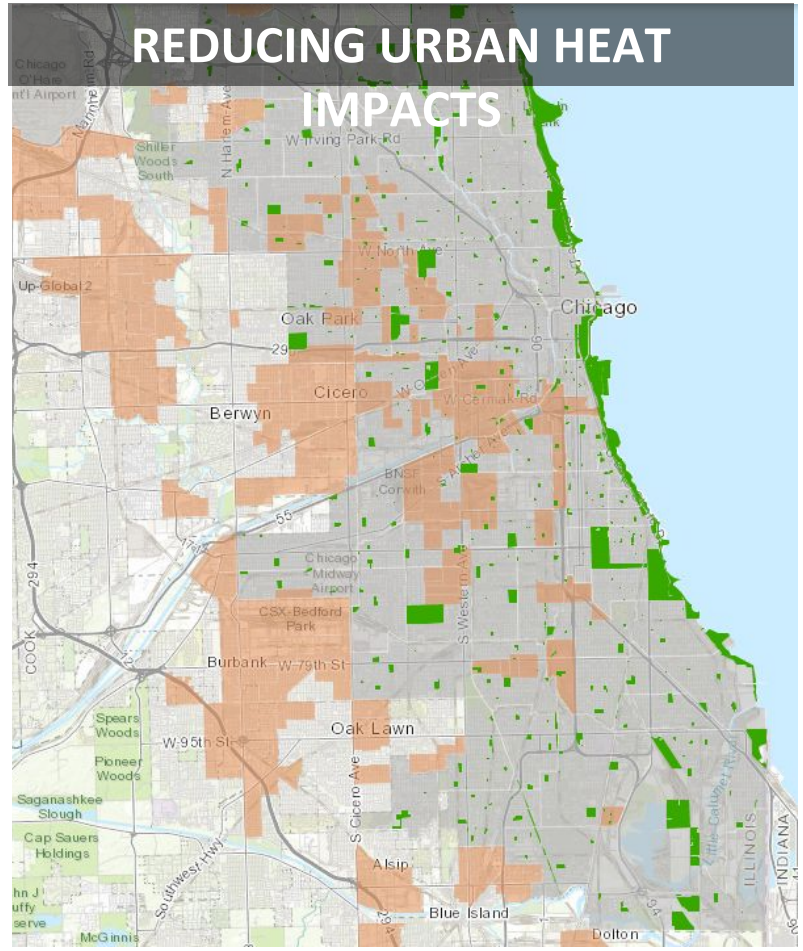
All Data Layers Used

- **Lower Tree Canopy Density** (Source: Morton Arboretum)
- **Higher Percentage of Impervious Surfaces** (Morton Arboretum)
- **Higher Median Summer Temperature** (Source: USGS LANDSAT)
- **Higher Flood Susceptibility** (Source: Chicago Metropolitan Agency for Planning)
- **Higher Air Toxins and Cancer Risk** (Source: US EPA)
- **Higher Average Daily Vehicle Traffic** (Source: IL Department of Transportation)
- **US Census Data**
    - Lower Median Household Income
    - Higher Percentage of Youth Under 18
    - Higher Percentage of Adults Over 65

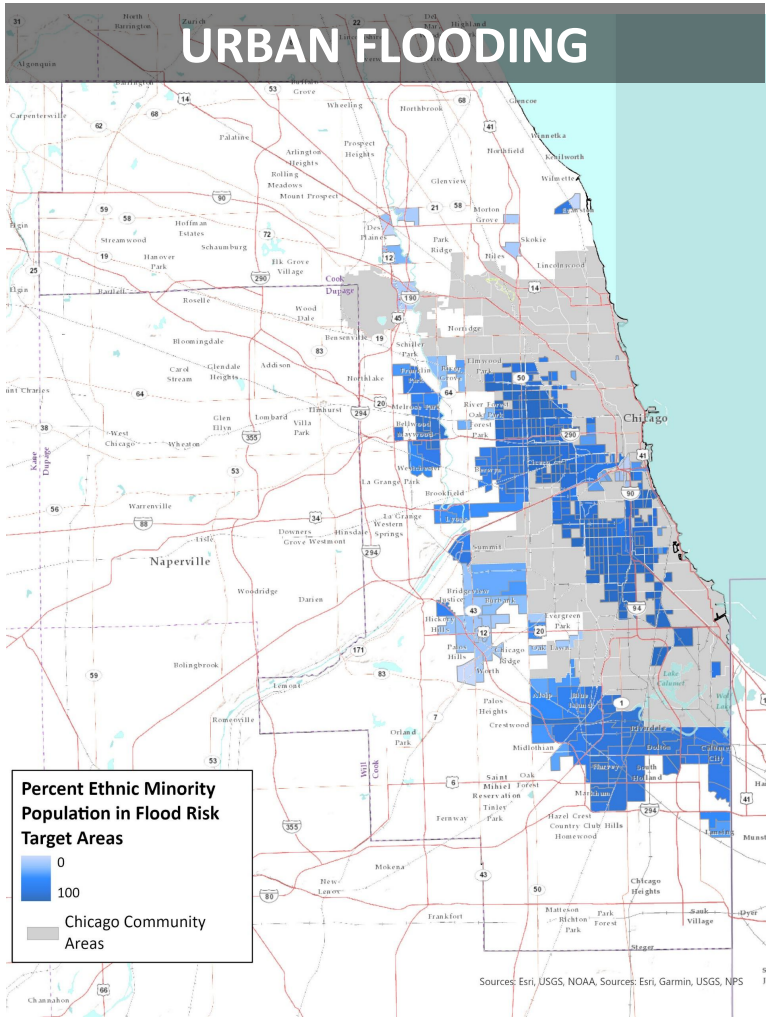
Identifying where Natural Infrastructure will benefit communities at greatest risk

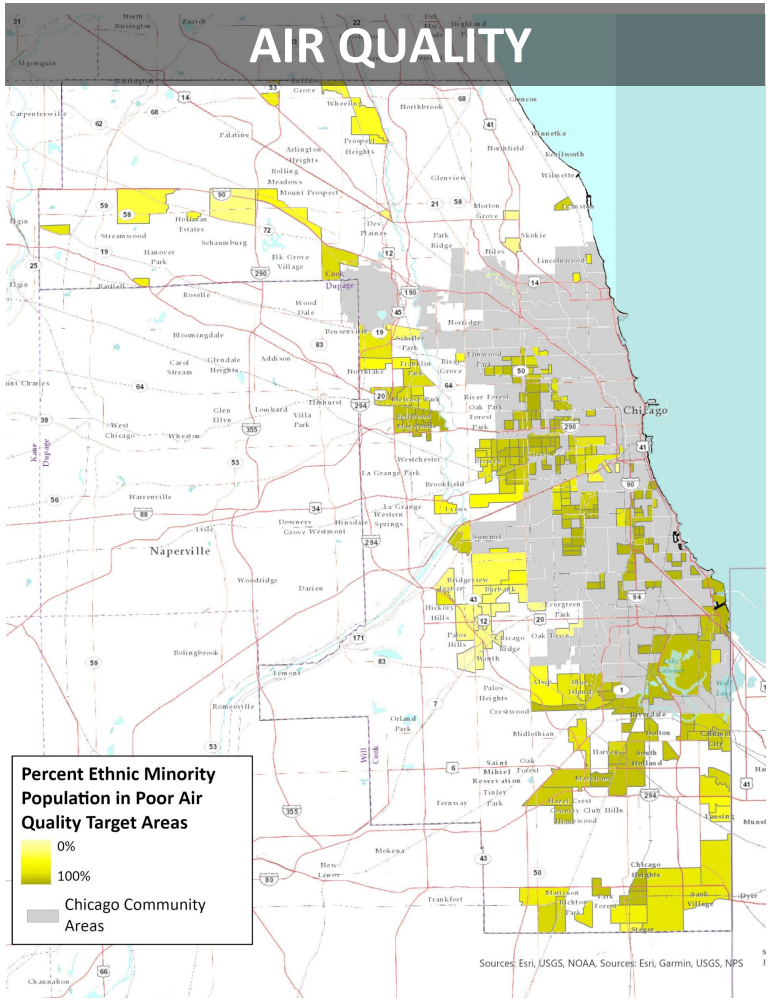


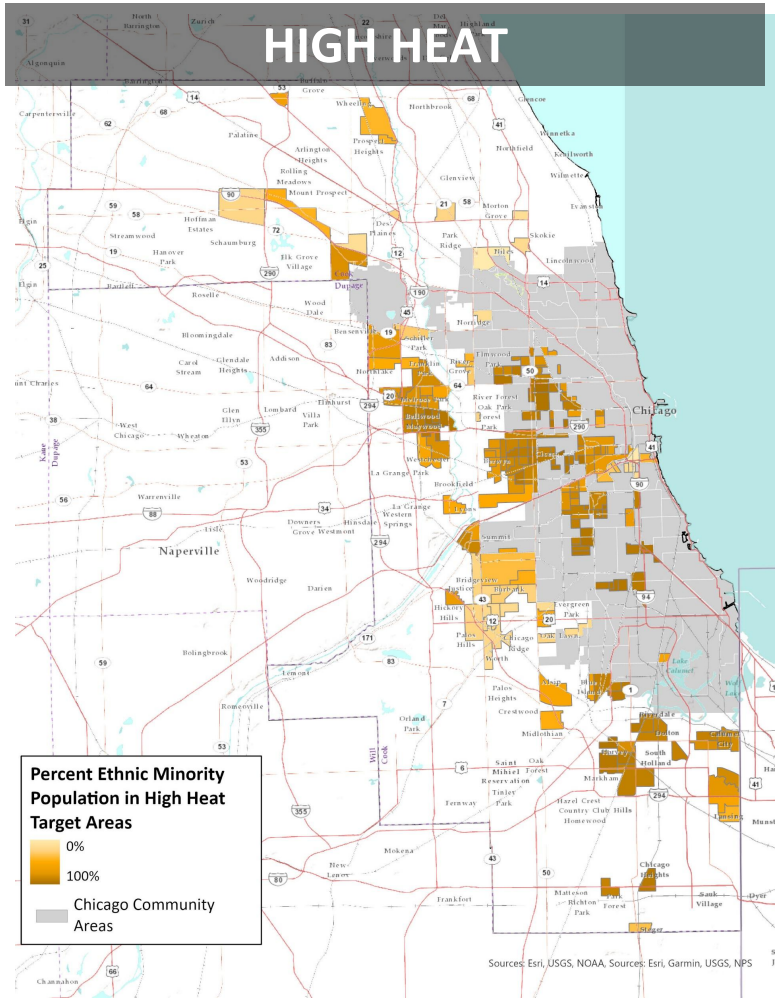


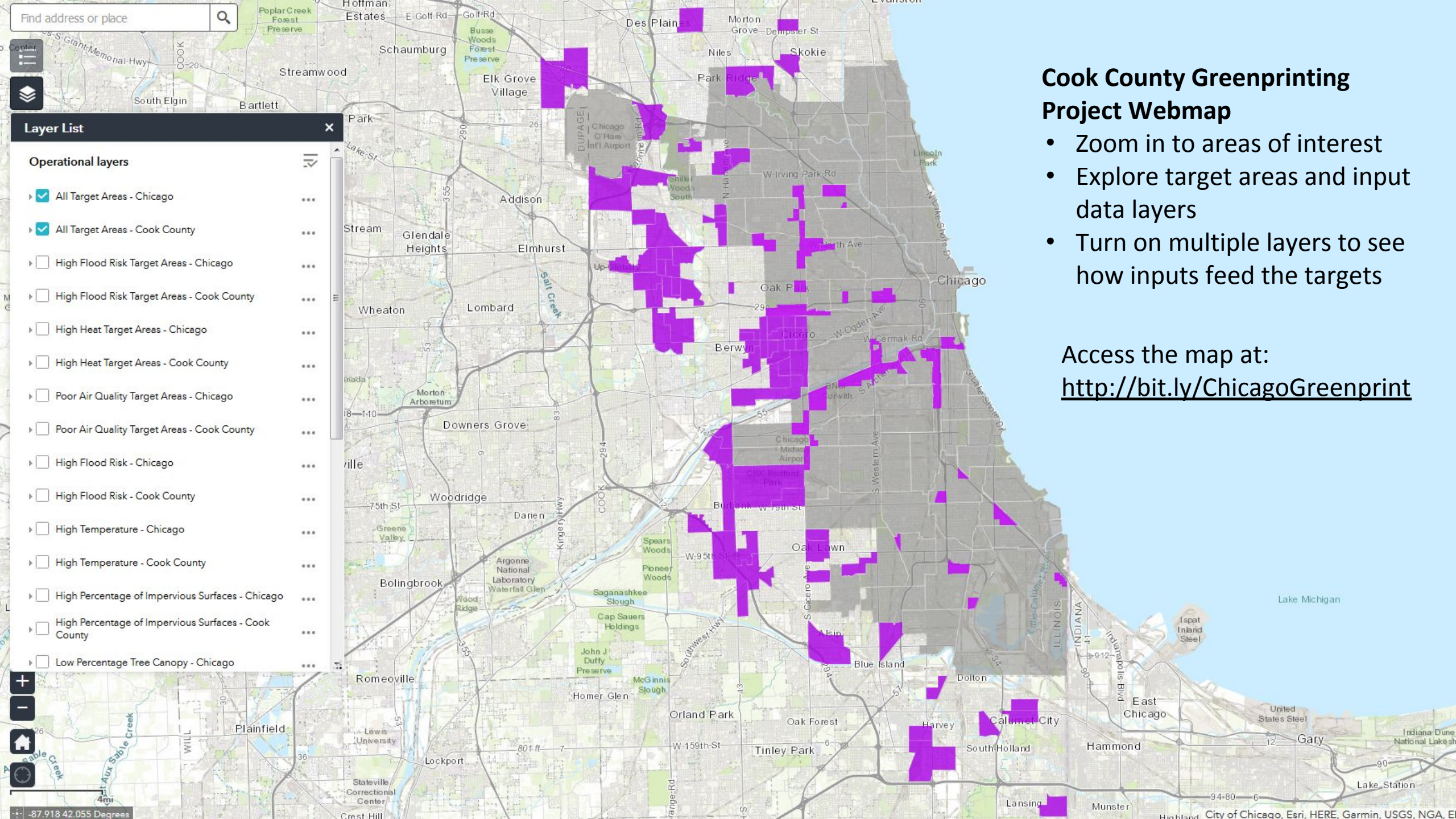


Racial Equity and Climate Risk









Cook County Greenprinting Project Webmap

- Zoom in to areas of interest
- Explore target areas and input data layers
- Turn on multiple layers to see how inputs feed the targets

Access the map at:
http://bit.ly/ChicagoGreenprint

Building Nature-Based Stormwater Storage

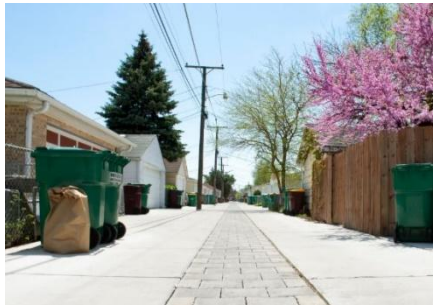
RAIN GARDENS/BIOSWALES

CONSTRUCTED WETLANDS

DETENTION BASINS

GREEN ROOFS

GREEN STREETS



PERMEABLE PAVEMENT

NATIVE PLANTING

TREES

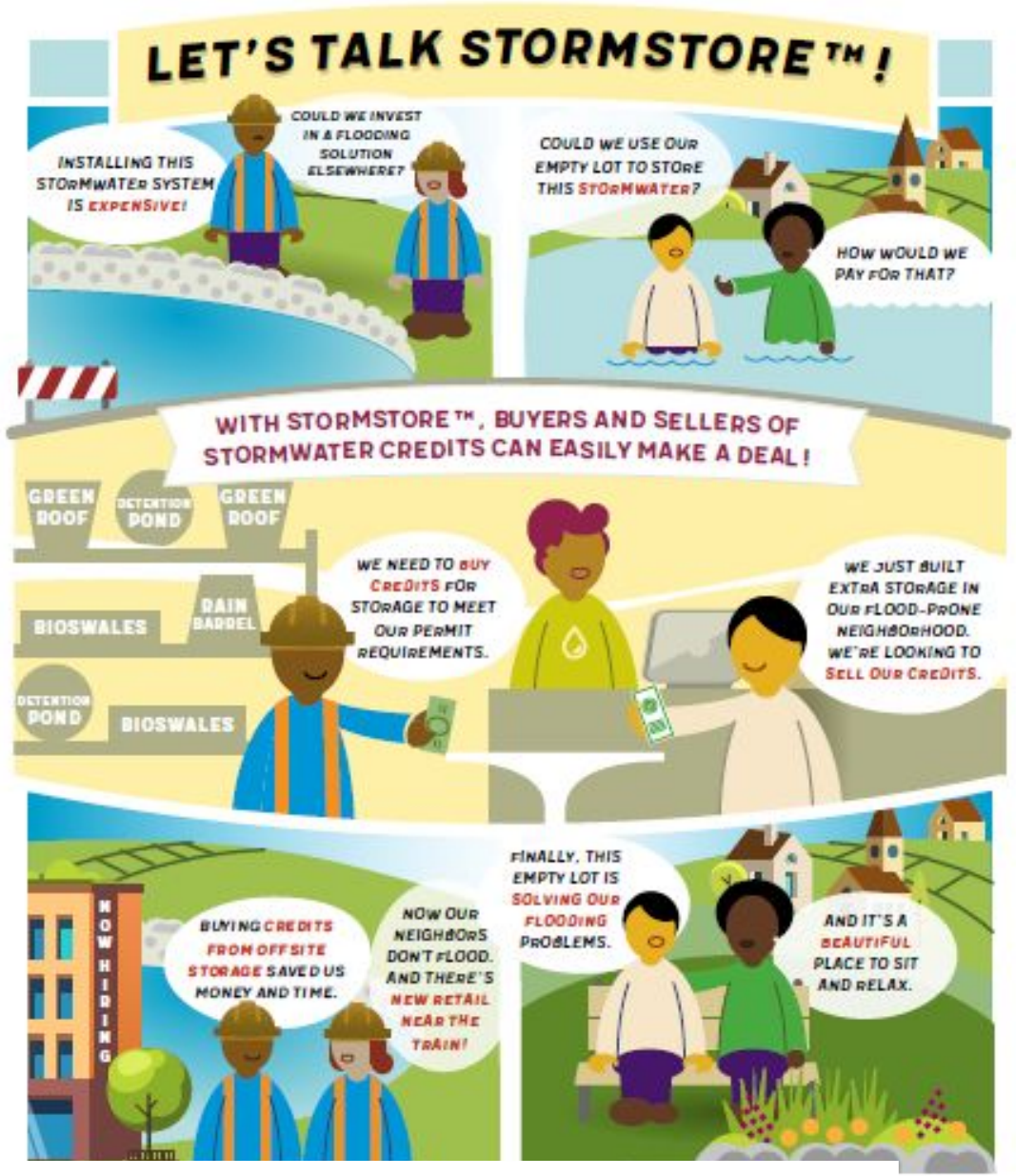
PAVEMENT REMOVAL

What is StormStore?

Partnership between TNC and the Metropolitan Planning Council (MPC)

A model **marketplace for stormwater credit trading** that aims to:

- **Lower costs** of reducing urban flooding
- Help communities + landowners to **achieve co-benefits of natural infrastructure**
- **Improve community resiliency** + opportunities for economic development
- **Provide greater flexibility** for developers
- **Optimize placement** of stormwater infrastructure and nature-based solutions



MetropolitanPlanningCouncil

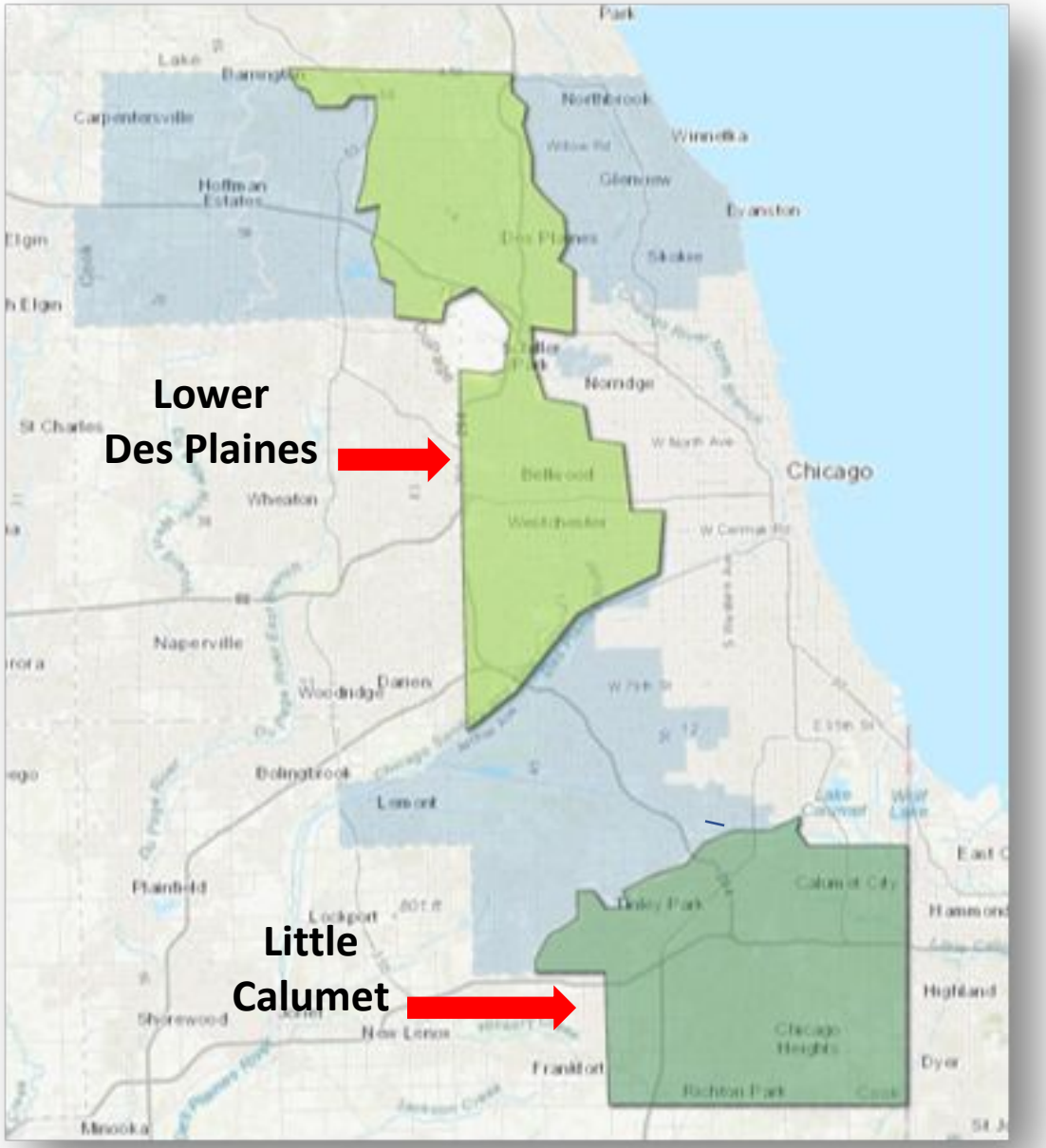
The Nature Conservancy

New Credit Trading Pilot Study in Cook County

This **5-year Pilot Program** will allow…

- Developers an alternative path to stormwater compliance in **Little Calumet** and **Lower Des Plaines** watershed planning areas
- A portion of required stormwater controls to be met offsite;
- Metropolitan Water Reclamation District staff 5 years to study the benefits and impacts of trading

…We intend to use this pilot period to prototype the StormStore marketplace



Thank you!

John Legge
Chicago Conservation Director
john.legge@tnc.org

The Nature Conservancy

RESOURCES MENTIONED

Greenprint mapping tool:
www.bit.ly/ChicagoGreenprint

Greenprint story map:
www.bit.ly/ChiStorymap

StormStore Information (Metropolitan Planning Council):
https://www.metroplanning.org/work/project/48/subpage/2

Photo © Emanuel Love