



Chicago Metropolitan Regional Climate Action



Workshop One
October 8, 2019



Welcome

Kevin Burns, Mayor, City of Geneva

Chairman, Metropolitan Mayors Caucus Environment
Committee and Energy Sub Committee



Introductions

Name

Organization

Your Role



Workshop One: Morning Agenda

- I. Our Regional Collaboration
- II. Global Covenant of Mayors Introduction
- III. Poll & Discussion
- IV. Project Overview
 - I. Reporting Framework
 - II. Greenhouse Gas Inventory
 - III. Risk & Vulnerability Assessment



ON TO 2050





A Regional Collaborative Ready for Climate Action

Edith Makra

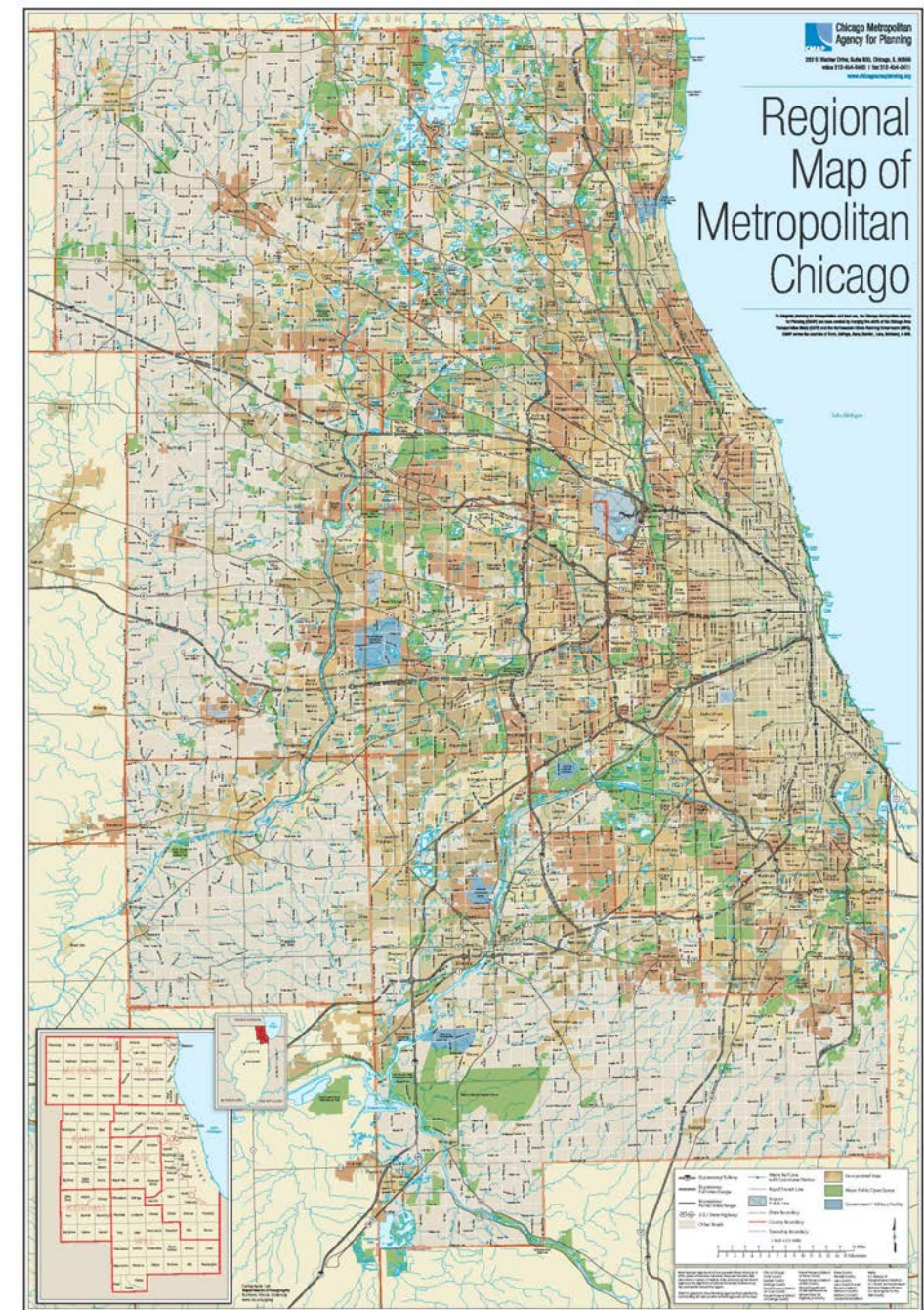
Metropolitan Mayors Caucus

Regional Municipal Sustainability

- 284 Diverse communities
- Fragmented service delivery
- Sustainability resources are limited
- Collaboration is key



CMAP



Greenest Region Compact Goal

To align environmental issues, resources, and actions at the local, regional and national levels to guide municipalities to achieve greater environmental sustainability.

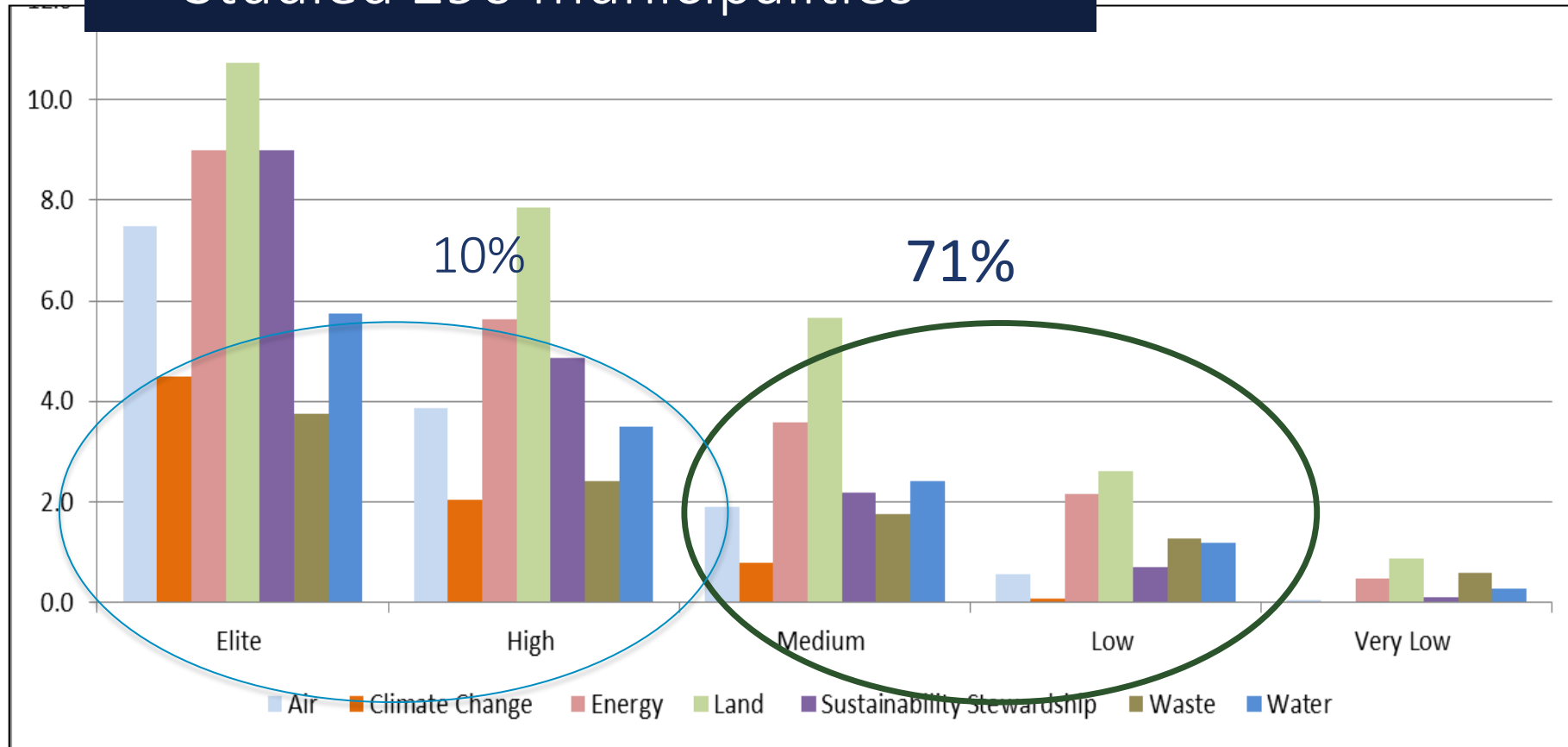


COLLABORATING FOR SUSTAINABLE COMMUNITIES

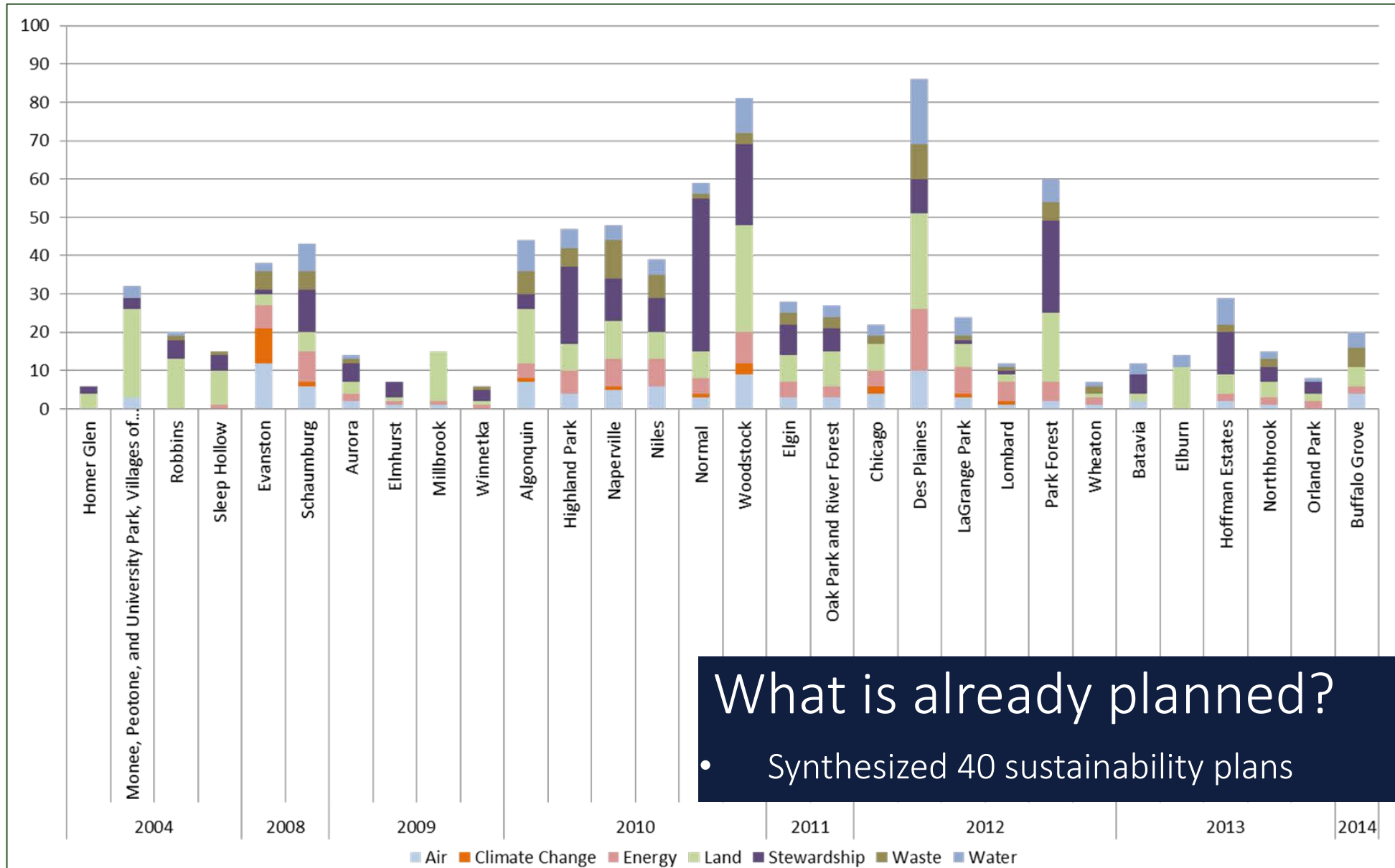
Building the GRC

What is already underway?

- Studied 290 municipalities



Building the GRC



What is already planned?

- Synthesized 40 sustainability plans



The Greenest Region Compact

Consensus Sustainability Goals in 10 Categories



Climate



Economic Development



Energy



Land



Leadership



Mobility



Municipal Operations



Sustainable Communities



Water



Waste

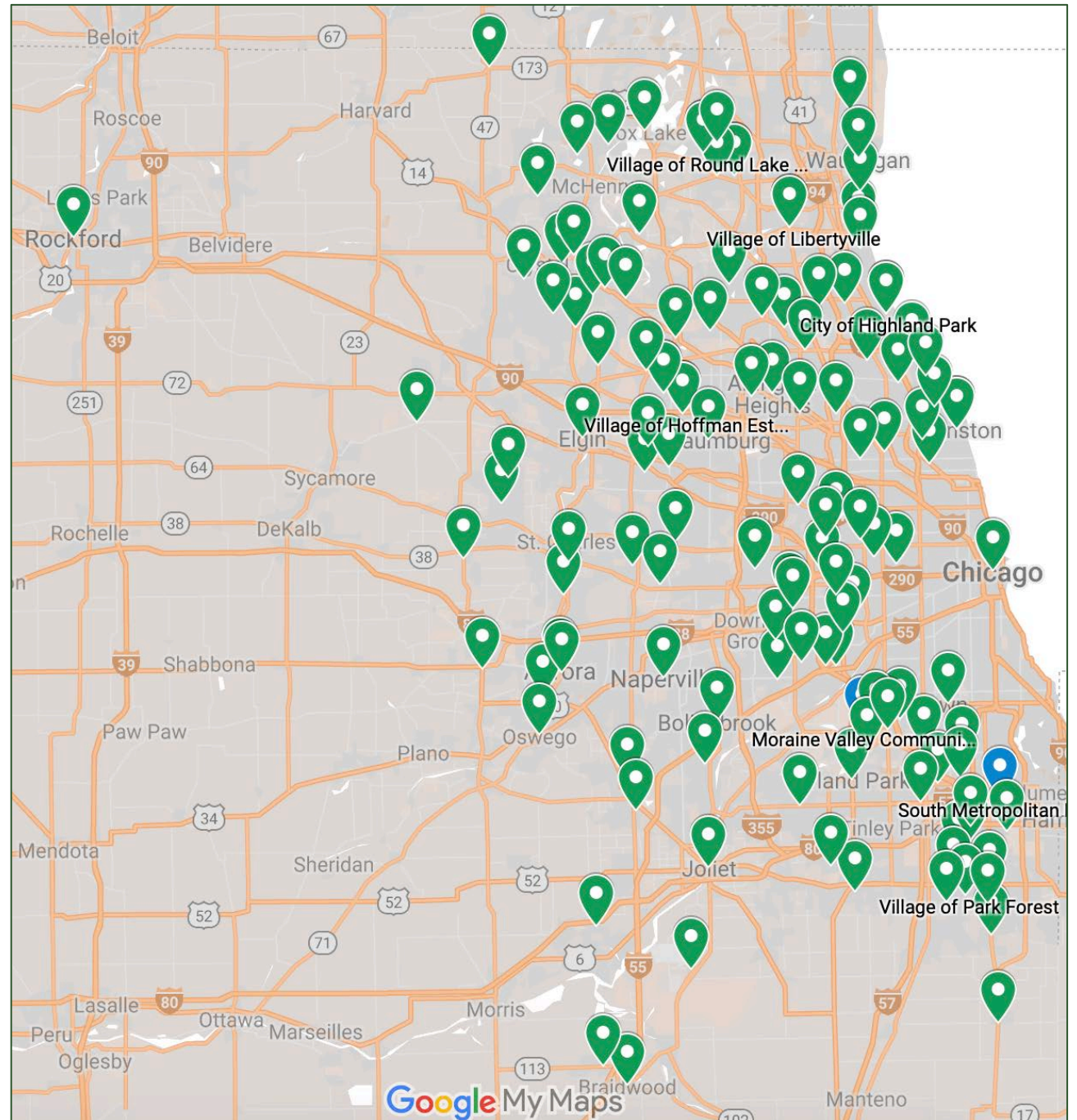
GRC Communities

124 municipalities

3 counties

10 COGS (council of gov'm't)

Have formally adopted the Greenest Region Compact



Addressing GRC Goals together



Advance renewable energy
35 local gov's streamlined
solar codes & policies



*Dedicate staff to
sustainability initiatives*
GRCorps provides talent



Evolving Focus for MMC Munis

Environment

Clean Air Counts (2006)
GRC (2007)

Sustainability

GRC2 (2016)

Climate

now

Municipal actions need to accelerate and focus



Goal - Use Energy for Public Facilities Efficiently

- Strategies Already Underway

1	Access to Parks/Open Space
	Solid Waste Agency
2	membership/Curbside Recycling
3	Energy Efficiency retrofits public bldgs
4	Urban Forest stewardship
5	Water Metering

- Already Planned

1	Land Preservation
2	Building Retrofits
	Stormwater Management & Green Infrastructure
3	
4	Sust Com Outreach & Engagement
5	Smart Growth & TOD

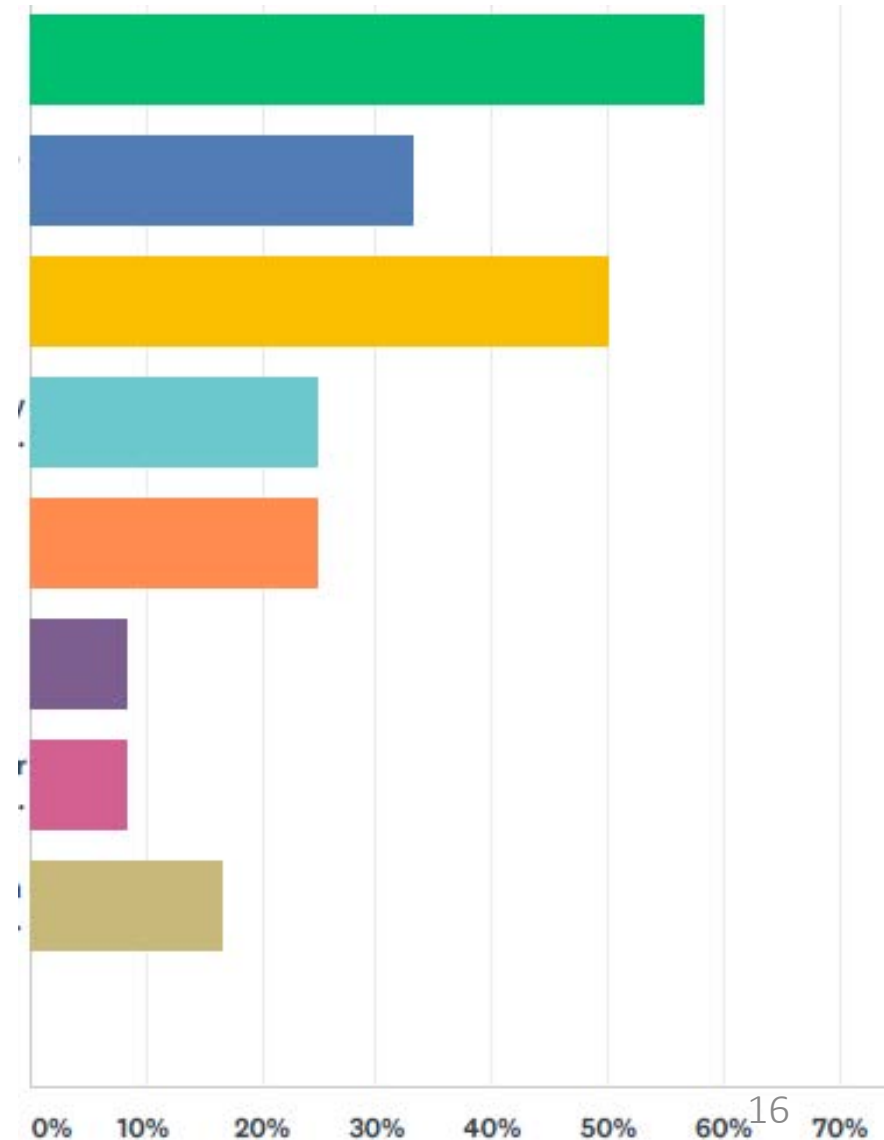


Stationary Energy

283 local governments
76.5 million lbs avoided CO2

Constituent Interest in Climate

1. Citizens groups raising climate concerns in public forums
2. Environment Commission is considering climate action
3. Citizens have individually raised concerns about climate
4. Board/Council has raised concerns about climate action
5. There have been one or more public events on climate



GRC Collaborative – Regional Climate Planning



- Powerful political will
- Suitable strategies & goals
- Successful collaboration
- Pioneer local Climate Action Plans (CAP)
- ON TO 2050 goal
- Capable partners



- Prior investment in big cities
- GRC strategies not prioritized
- No reporting platform nor metrics
- No funding
- CAP heavy lift for individual muni



Mayor's Climate Pledges

Paula McCombie

Mayor of South Barrington

Climate Events



Municipal Climate Pledges - Illinois



124 munis & 3 counties



12 munis



Chicago
Climate
Charter

12 munis



1 muni



5 munis*



4 munis

WE ARE STILL IN

4 munis & 1 county

American Cities Initiative

1 muni



Introduction to:

1. International Urban Cooperation
2. GCoM USA
3. 'Metro-scale Climate Leaders'

Ryan Glancy

IUC North America Technical Coordinator



EU Context and the International Urban Cooperation Program





International Urban Cooperation Program

The four-year *International Urban Cooperation* (IUC) program enables cities and regions to **learn and share** solutions to common urban challenges.

It is part of a long-term strategy by the European Union to foster **sustainable urban development** in cooperation with both the public and private sectors.

The program activities support the achievement of EU policy objectives as well as major international agreements on urban development and climate change, namely:

- **EU Urban Agenda**
- **Sustainable Development Goals**
- **The Paris Agreement**



Urban Agenda for the EU

The EU's vision of the future global "**New Urban Agenda**" is based on the understanding that an **integrated and place-based approach** to urban development, together with a **long-term vision**, is necessary in order to promote well-managed, socially inclusive and safe, resilient, resource-efficient and environmentally sustainable as well as economically prosperous cities.

12 PRIORITY THEMES



Integration of
Migrants & Refugees



Air Quality



Housing



Urban Poverty



Circular
Economy



Climate
Adaptation



Energy Transition



Urban Mobility



Digital Transition



Public
Procurement



Jobs and Skills
in Local
Economy



Sustainable
Land Use and
Nature-based
Solutions



IUC Program Components



1. City-to-city cooperation on sustainable urban development



2. Sub-national action under the Global Covenant of Mayors initiative

GCoM USA

WHY CITIES MATTER

More than 50% of the world's population live in cities

Cities account for more than 70% of global CO₂ emissions

Cities consume more than 66% of the world's energy

Global Covenant cities and local governments could collectively reduce ...

... 17 billion tons
CO₂e by

2030

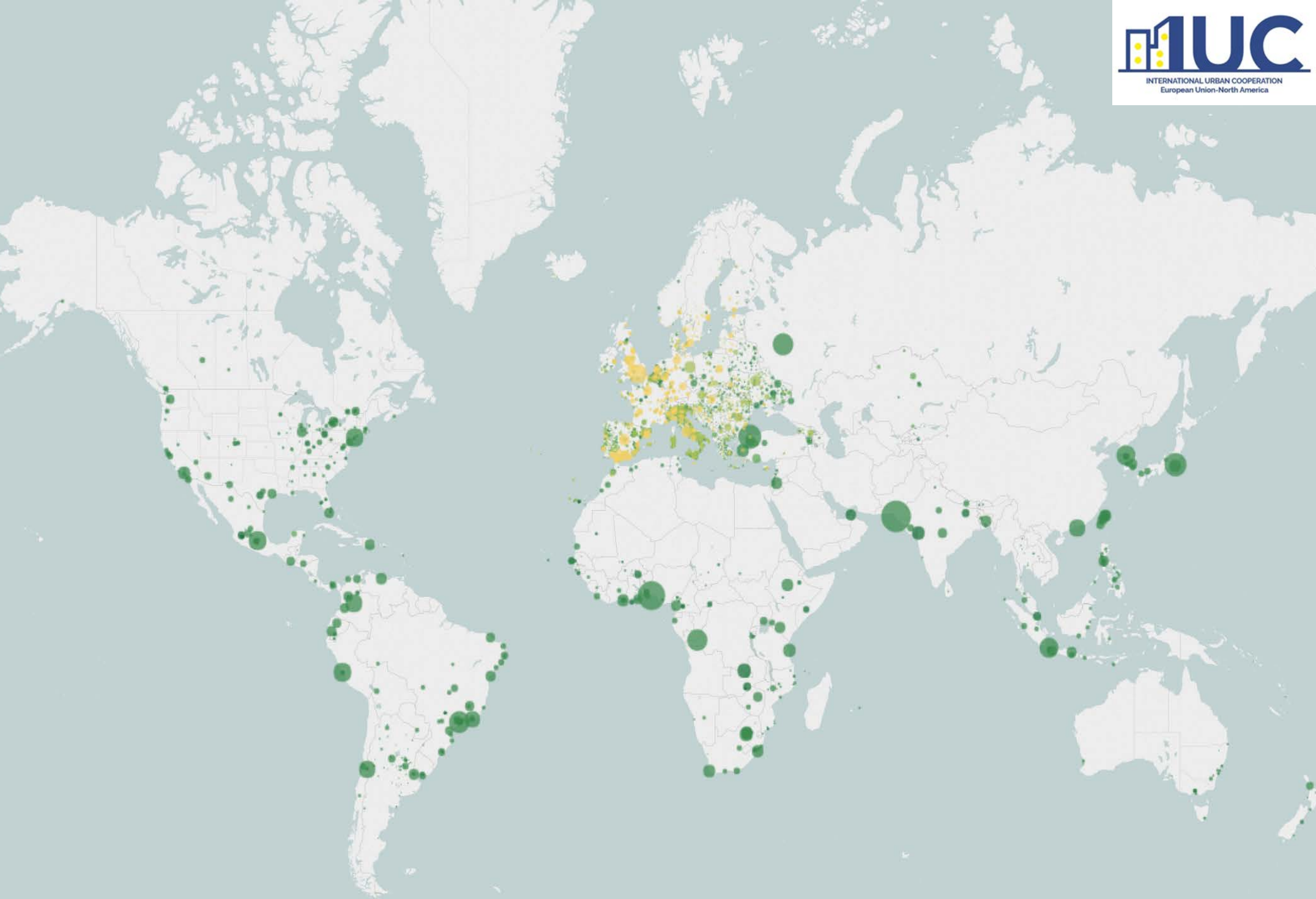
... 60 billion tons
CO₂e by

2050

What is the Global Covenant of Mayors for Climate and Energy?

“A first-of-its-kind and largest global alliance of cities leading the fight against climate change, with support from city networks and other partners”

- Recognizes that climate action is about improving quality of life, creating new jobs and economic opportunities, and ensuring a safe climate for future generations
- Values vertical alignment and collaboration across all levels of government to support local-level action
- Makes all city-level data on local climate actions publicly available on one consistent online platform – for the first time ever
- Creates an evidence base for increased investment in low-carbon urban infrastructure



9,200+ CITIES

130+ COUNTRIES

800+ MILLION
PEOPLE

100+ GLOBAL
PARTNERS (city
networks, private
partners, research
institutions)

10+% OF THE
GLOBAL
POPULATION

The GCoM Board sets the strategic direction for the initiatives and provides local and regionally specific perspectives



Co-Chairs and Vice Chair



VICE CHAIR
CHRISTIANA FIGUERES



CO-CHAIR
MAROŠ ŠEFČOVIČ



CO-CHAIR
MICHAEL BLOOMBERG

Ex-Officio Members

PATRICIA ESPINOSA
EXECUTIVE DIRECTOR
UNFCCC

MAIMUNAH MOHD SHARIF
EXECUTIVE DIRECTOR
UN-HABITAT

AMANDA EICHEL
EXECUTIVE DIRECTOR
GCoM GLOBAL SECRETARIAT

“Signatories become a part of a historical and powerful response by the world’s cities and communities and join the largest global coalition of local governments, supported by city networks and committed to greater climate impact and recognition.”

- Networking, cooperation and knowledge exchange
- Amplifying the voice of local governments at the global level
- Collaboration across all levels of government
- Support through the Data4Cities, Innovate4Cities, and Invest4Cities initiatives

Three Game-Changing Initiatives: Mobilizing Innovation & Resources for Scale



INNOVATE4CITIES

- Accelerating transformational innovation
- Addressing critical data, research and technology gaps
- Deploying for speed and scale

INVEST4CITIES

- Unlocking project pipelines
- Mobilizing innovative finance solutions
- Integrating urban issues into national climate investments

DATA4CITIES

- Standardizing city reporting to level the playing field
- Driving consistent and transparent progress reporting
- Enabling data-driven decision making

Innovate4Cities

THE INNOVATE4CITIES PROCESS



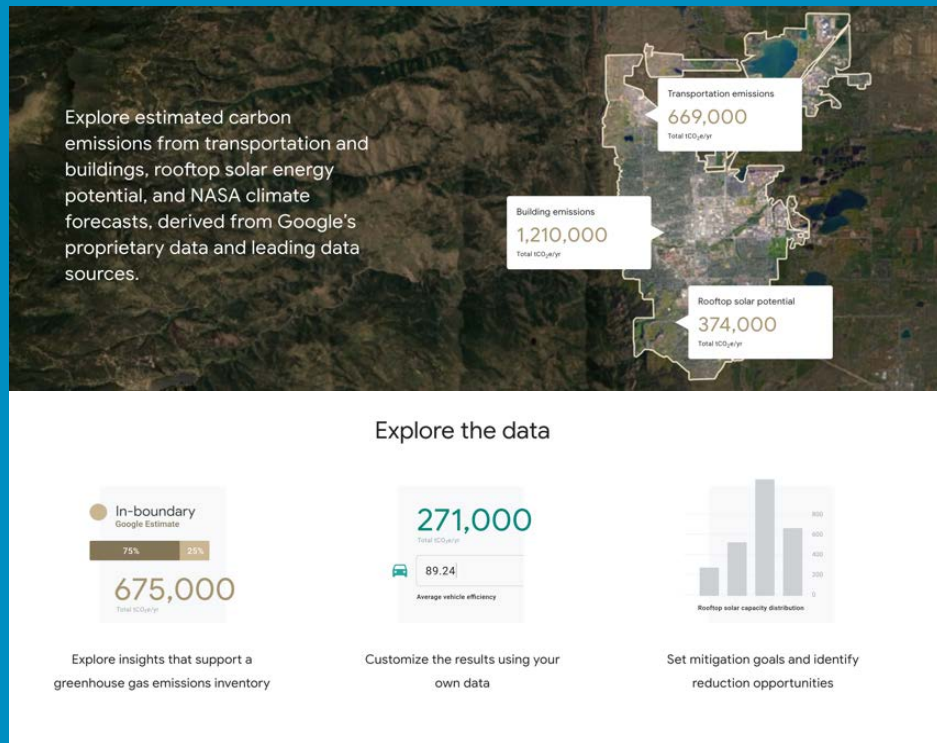
- Development of a **City Research and Innovation Agenda**
- Innovate4Cities will **catalyze the scientific advances** necessary to better equip cities with the intelligence and tools to take even more ambitious climate action, and reinforce the importance of cities' needs in national research agendas
- The **Edmonton Declaration** has galvanized the Innovate4Cities agenda with a bold call to action to seriously consider the role of research, innovation and data in building ambitious climate action plans
- Recent **partnership with Mission Innovation** to strengthen collaboration and build deeper engagement between cities and citizens, local governments, and national governments to deliver the research and innovation needed to help cities and governments accelerate the clean energy revolution

Invest4Cities



- **Recommendations** to remove barriers to adequate financial investment in city climate projects, using high-level advocates/surrogates to engage with decision makers and investors.
- **Leverage private capital** needed to raise the ambition of the NDCs using public funds as seed money.
- Call to action for **vertical integration of investment plans** to implement the Paris Climate Agreement
- Supporting the creation of **financing/funding opportunities for local climate action** such as the Global Climate City Challenge
- **City Climate Finance Gap** to fund early stage project development and project origination “gap” (EUR 50 million in grants to seed EUR 4 billion in infrastructure)

Data4Cities



- **Common reporting framework** for key data on city emissions, targets, risks and actions,
- **City data portal** for creating GHG inventories
- **Co-benefits** report and data visualization tool released for public use
- **Annual impact report** on the GCoM to showcase the total potential represented by all 9,200 + committed cities
- **Partnership with Google** to open their proprietary data for public benefit and to automate generation of GCoM-compliant emissions inventories

GCoM Commitment

- ✓ GHG emission inventory;
- ✓ An assessment of climate risks and vulnerabilities;
- ✓ Ambitious, measurable and time-bound target(s);
- ✓ Ambitious climate change adaptation vision and goals;
- ✓ A formally adopted plan addressing climate change mitigation, climate resilience and adaptation, and access to sustainable energy.



Global Covenant of Mayors for Climate & Energy Commitment of

[Name of City or Local Government (please include type of jurisdiction (e.g. city/town/village, etc.))]
[Name of country/region]
[Local Government Logo if applicable]

I, [Name], [Mayor and /or title of equivalent mandated representative] of [name of city or jurisdiction] commit to the Global Covenant of Mayors for Climate & Energy (GCoM), joining thousands of other cities and local governments around the world currently engaged in climate leadership.

GCoM envisions a world where committed mayors and local governments – in alliance with partners – accelerate ambitious, measurable climate and energy initiatives that lead to an inclusive, just, low-emission and climate resilient future, helping to meet and exceed the Paris Agreement objectives.

Whatever the size or location, the mayors and local leaders committed to GCoM stand ready to take concrete measures with long-term impact to tackle the interconnected challenges of climate change mitigation and adaptation, as well as access to sustainable energy.

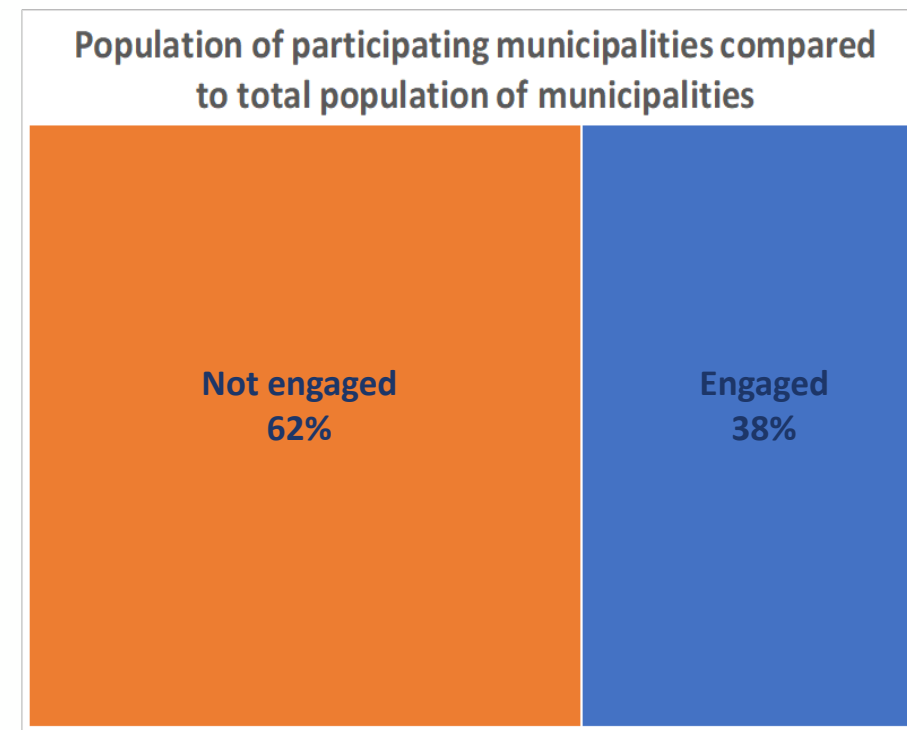
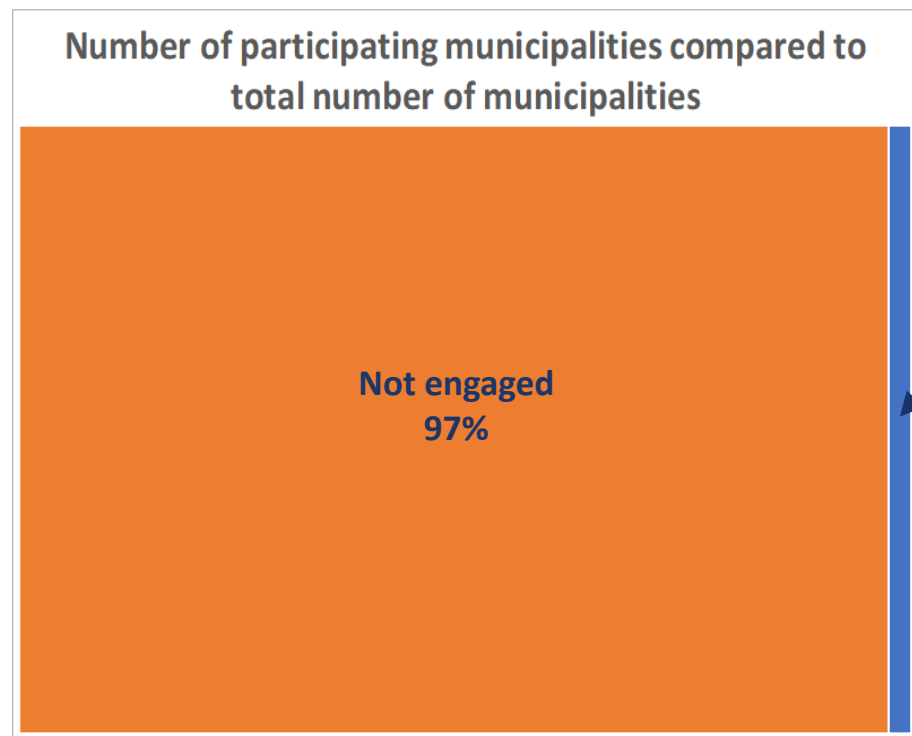
To implement this vision, we pledge to implement policies and undertake measures to (i) reduce / avoid¹ greenhouse gas (GHG) emissions, (ii) prepare for the impacts of climate change, (iii) increase access to sustainable energy, and (iv) track progress toward these objectives.

Specifically, within three years of this commitment², we pledge to develop, adopt³, use and regularly report on the following:

- A community-scale GHG emission inventory, following the recommended guidance;
- An assessment of climate risks and vulnerabilities;
- Ambitious, measurable and time-bound target(s) to reduce/avoid GHG emissions;
- Ambitious climate change adaptation vision and goals, based on quantified scientific evidence when possible, to increase local resilience to climate change;
- An ambitious and just goal to improve access to secure, sustainable and affordable energy; and
- A formally adopted plan(s) addressing climate change mitigation / low emission development, climate resilience and adaptation, and access to sustainable energy.

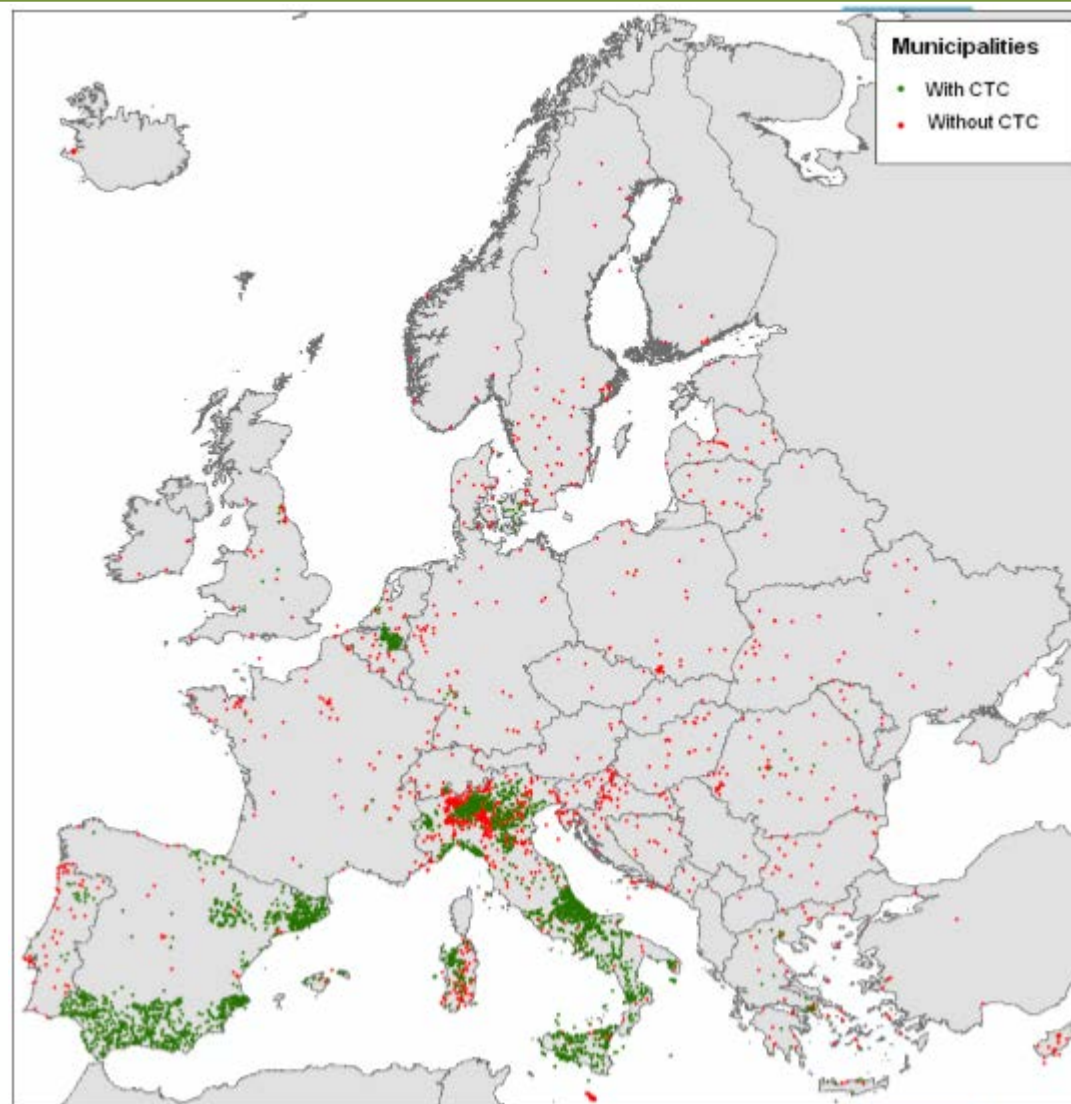
The targets and action plans for mitigation / low emission development must be quantified and consistent with or exceed relevant national unconditional⁴ commitments defined through the UNFCCC (Intended) Nationally Determined Contribution (NDC). The targets and action plans should be in line with National Adaptation Plans, where these exist; and should be consistent with the principles around energy access and urban sustainability embodied in the Sustainable Development Goals (SDGs).

‘Metro-scale Climate Leaders’



220 'Covenant Territorial Coordinators' (CTCs) in EU:

- ✓ Climate change must be mitigated at different levels of governance;
- ✓ Small and medium sized local authorities need support from other bodies such as regions and provinces acting as CTCs
- ✓ CTCs can help to create economies of scale in Climate Action Plan development and reporting activities

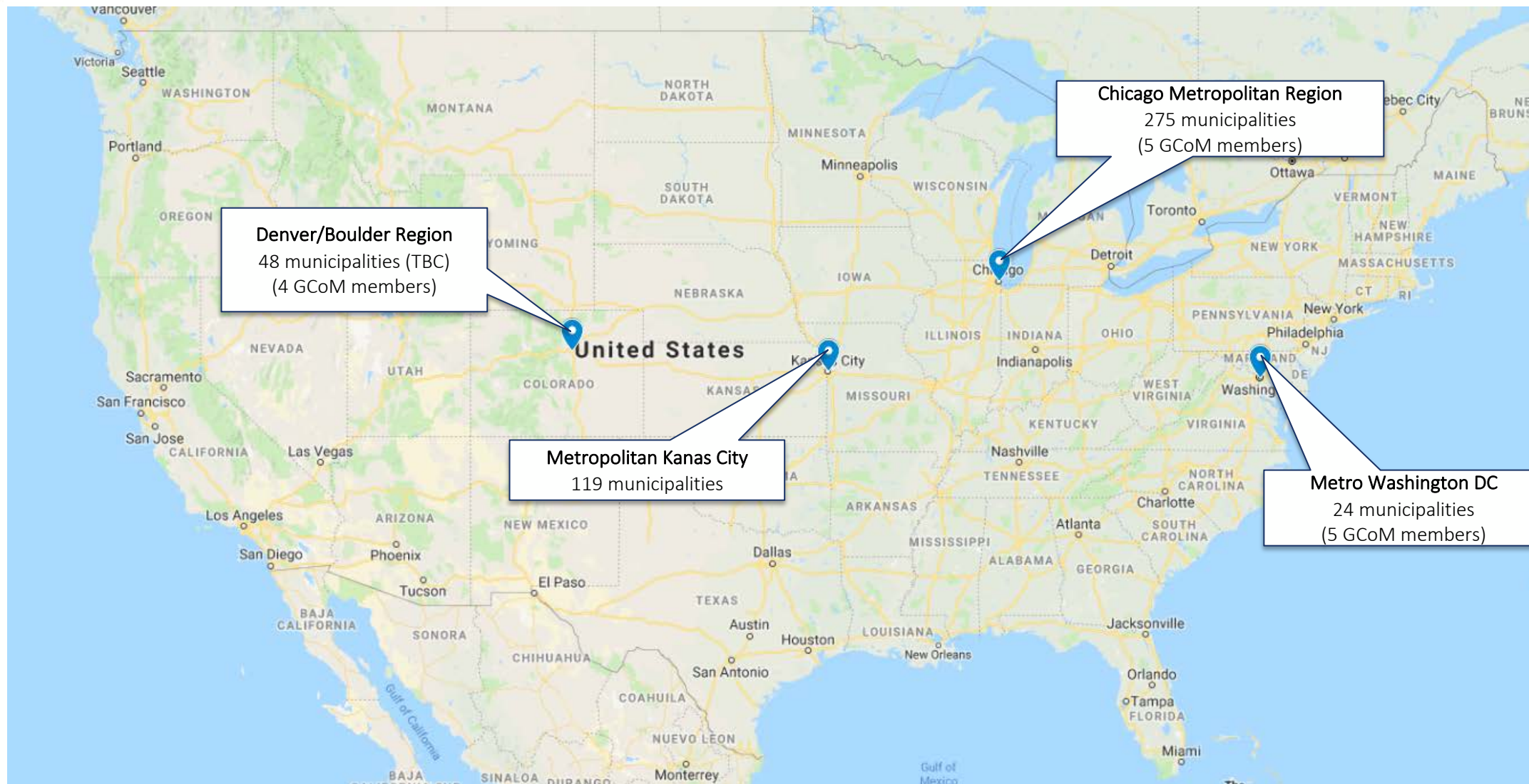


Source: European Commission Joint Research Centre

What is the Metro-scale Climate Leaders initiative?

- **Recognizes** that there is currently limited small and medium municipalities involved in climate action and an opportunity for regional/metro-scale coordination in the US
- **Aims** to provide technical support to 4 selected metro regions to progress through GCoM reporting process, share experience with other regions and demonstrate/ emphasize the added-value of trans-boundary coordination on climate change related issues
- **Outcomes** hoped to include 4 high-quality case studies of US metro regions which have successfully created regional Climate Action Plans and provided significant value to beneficiaries which can be promoted nationally and internationally

Metro-scale Climate Leaders Selected



Metro-scale Climate Leaders resources

- **Technical support** in the form of workshops and online assistance to develop:
 - ✓ GHG inventory
 - ✓ Climate risk & vulnerability assessment
 - ✓ Target setting and scenario development
 - ✓ Mitigation and adaptation action identification and prioritization
 - ✓ Drafting Climate Action Plan document
- **Knowledge exchange** between US regions and other regions internationally (i.e. Europe)
- **Promotion** of regional case studies through GCoM

Join us



GLOBAL COVENANT
of MAYORS *for*
CLIMATE & ENERGY



[@Mayors4Climate](https://twitter.com/Mayors4Climate)



www.globalcovenant-usa.org

www.globalcovenantofmayors.org



info@globalcovenant-usa.org



Keypad Polling

Jared Patton

CMAP



Break!



The GCoM Common Reporting Framework

Alex Stulc

BuroHappold Engineering





The GCoM Common Reporting Framework

The **Common Reporting Framework (CRF)** was developed to align city and regional climate action with global best practices and provide a standardized platform for reporting and tracking progress.



*The CRF provides
guidance for climate
action planning*

The CRF includes **measurement** and **reporting procedures** for:

- GHG Inventory
- GHG Reduction Targets
- Climate Risk and Vulnerability Assessment (CRVA)
- Subsequent Progress Reports

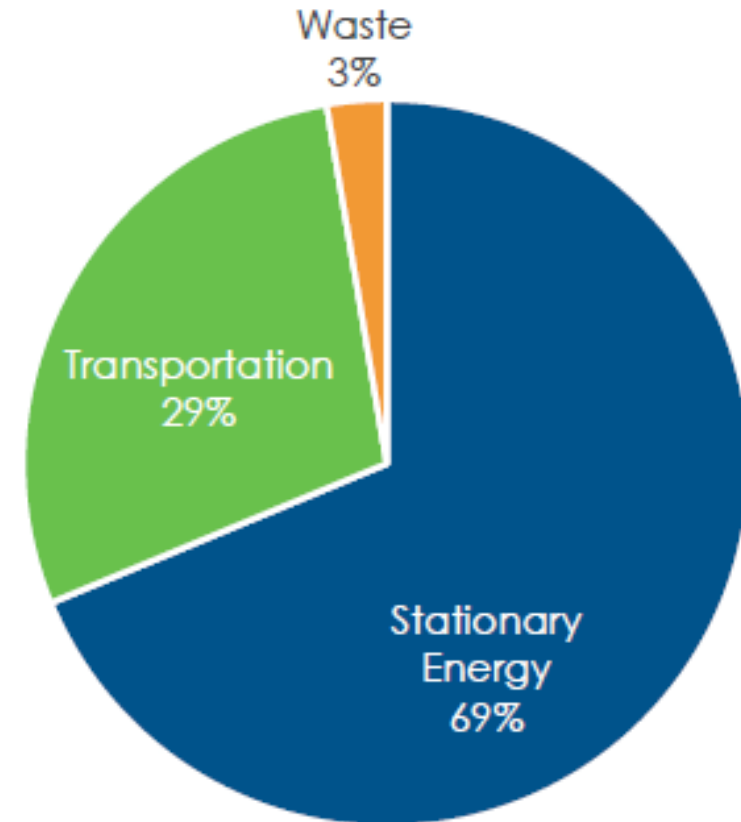


GHG Inventory

Purpose: enables governments to understand GHG emissions from different sources, determine where to best direct mitigation efforts, and more easily track progress.

Process: activity data collection and emissions modeling by sector.

2015 Regional Emissions by Sector



Source: Chicago Regional Inventory (2015)



Climate Risk and Vulnerability Assessment (CRVA)

Purpose: allows for a better understanding of climate risks and vulnerabilities and the development of a climate adaptation plan.

Process: evaluating changes in risk and vulnerability based on future climate projections.

Table 1. Summary of projected climate changes for Oregon and the Pacific Northwest

Climate variable	Seasonal patterns of projected change	Expected trend	Size of projected change
Increased temperature	Overall warming with more warming in the summer; higher highs and higher lows.	Increasing	+2.0 to +8.5 °F by mid-century (2041–2070). Lower end only possible with significant global carbon emission reductions.
Changing precipitation patterns	Annual precipitation	Near-zero	Mean change of 3% with a range from –4.7% to +13.5% by mid-century (2041–2070)
	Winter Precipitation (December–February)	Increasing	Mean change of 6.3%, but large range –5.6% to +19.8%
	Summer Precipitation (June–August)	Decreasing	Mean change of –6.5% by mid-century
Extreme weather events	Intense rainfall, heat events	Increasing	Extreme events may increase in frequency, magnitude, and duration.












Source: Portland Climate Change Preparation Strategy (2014)



Climate Action Plan

Purpose: organizes mitigation and adaptation goals (and associated actions) for implementation and tracking

Process: document inventory, and CRVA findings, develop and prioritize mitigation and adaptation actions.

ACTION	LEAD	GHG REDUCTIONS	CITY INVESTMENT	NON-CITY INVESTMENT
 Implement long-term energy intensity requirements in existing buildings	MOS		\$ \$ \$ \$ \$	\$ \$ \$ \$ \$
 Accelerate deep energy retrofits to achieve a 20% deeper reduction in energy consumption in City-owned buildings by 2025	DCAS		\$ \$ \$ \$ \$	\$
  Continue progress toward New York City Housing Authority's (NYCHA) climate commitments, including 20% reduction of energy use per square foot by 2025, installing 25 Megawatts (MW) of solar capacity by 2026, and 30% reduction of GHG emissions by 2027	NYCHA		\$ \$	\$ \$ \$
 Advocate for more stringent efficiency standards for appliances and vehicles at the regional and national levels	MOS		\$	not assessed
 Advocate for incentives to support deep energy retrofits focusing on preserving affordability	MOS		\$	not assessed

Source: NYC 1.5°C plan (2017)



GCoM Pledge Commitments

GCoM Pledge Commitments	Reduce/Limit GHG Emissions	Prepare for Climate Change Impacts	Increase Access to Sustainable Energy	Track Progress
CRF Reporting Elements	GHG Inventory			
	GHG Reduction Targets			
		CRVA		
	Climate Action Plan			
				Progress Report*



Reporting Timeline

CRF Reporting Timeline	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
GHG Inventory	Within 2 Years				Every 2-4 Years*	
GHG Reduction Targets	Within 2 Years					
CRVA	Within 2 Years					
Climate Action Plan	Within 3 Years					
Progress Report*					Every 2 Years	

* Guidance for North America to be determined.



What progress has the region made to date?

Already completed:

- GHG Inventory ✓
- BAU Projections ✓
- GHG Reduction Targets ↻
- Emissions Scenarios ↻
- GRC to inform action development ✓

To be completed:

- Climate Risk and Vulnerability Assessment
- Climate Action Plan



Questions?



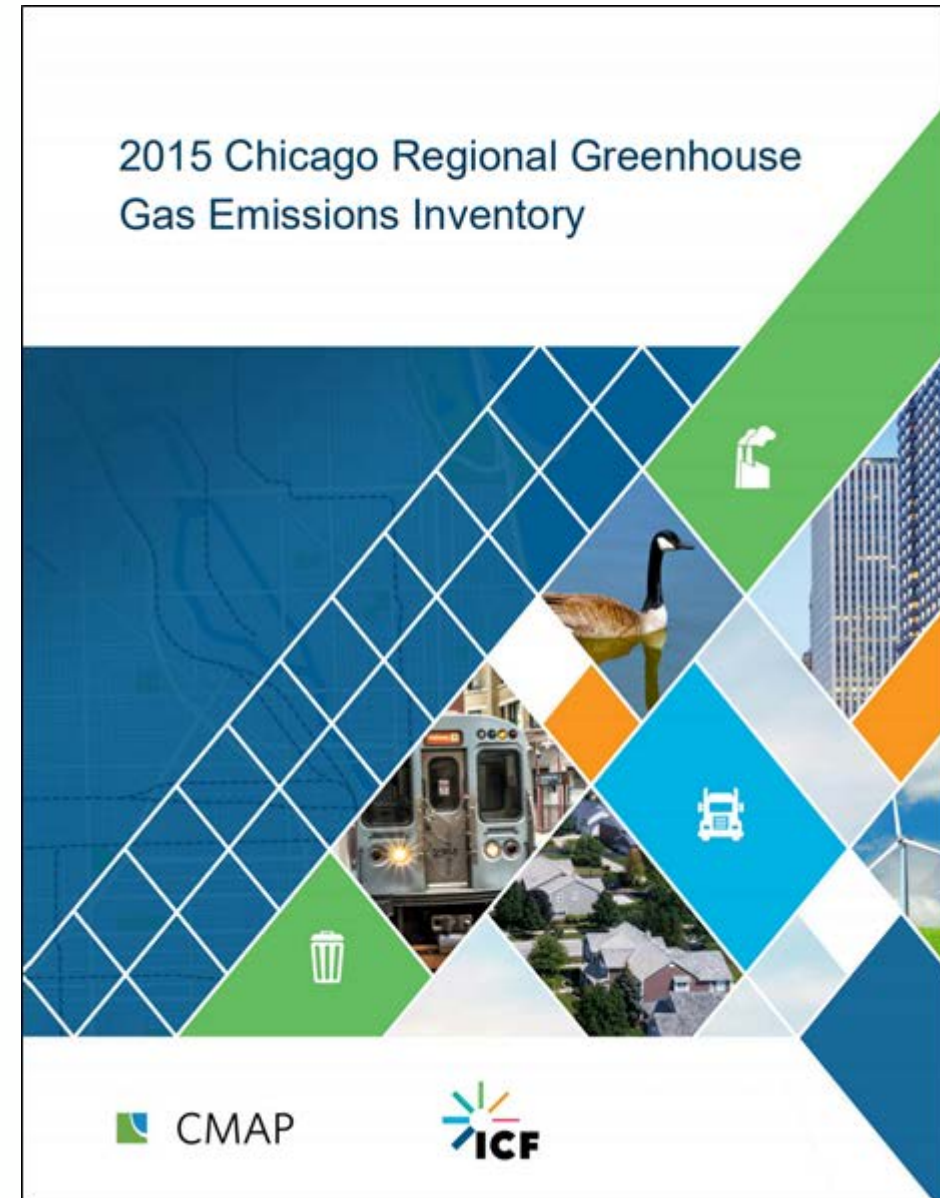
2015 Chicago Region GHG Emissions Inventory

Jared Patton

CMAP

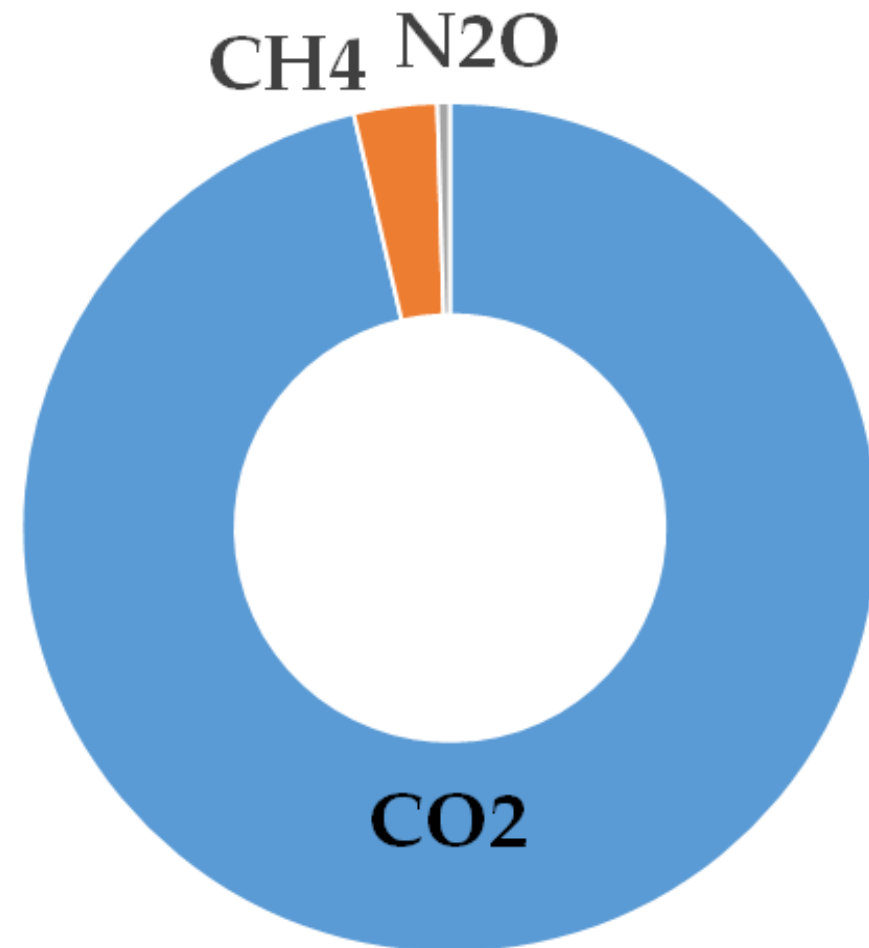
Background

- *New inventory for 2015*
- *Update 2010 inventory*
- *Basic forecasts*
- *Inform ON TO 2050*



Many types of GHGs

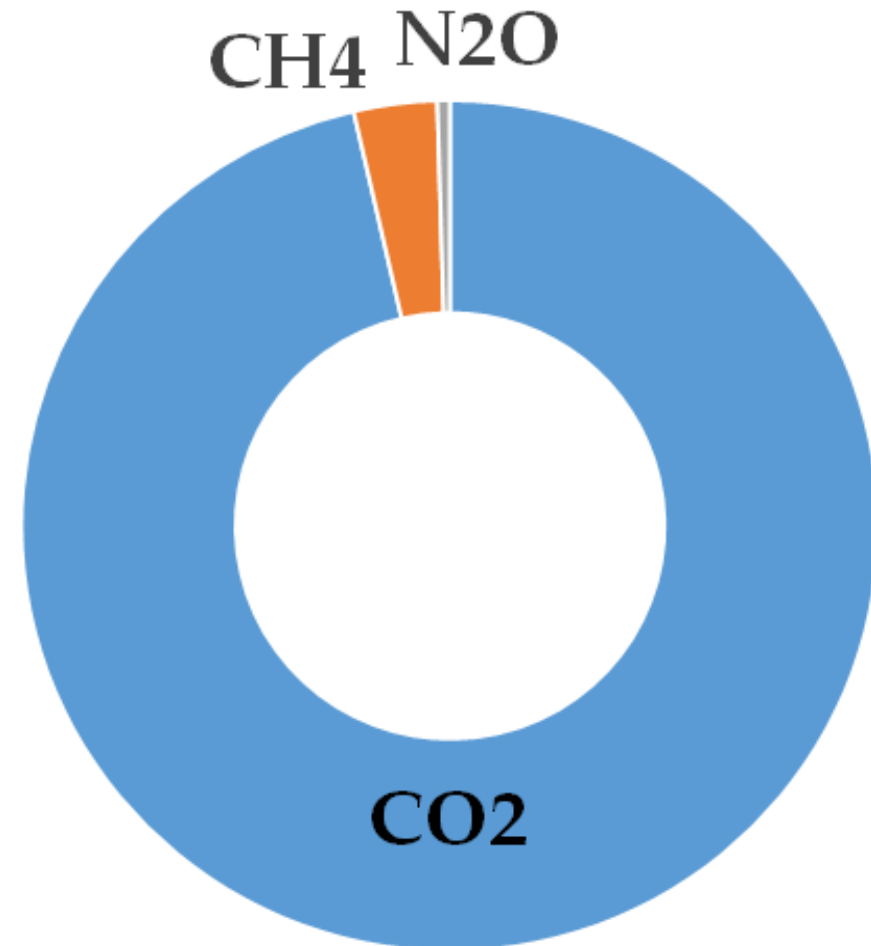
- Carbon dioxide (CO₂)
- Methane (CH₄)
- Nitrous oxide (N₂O)



Many types of GHGs

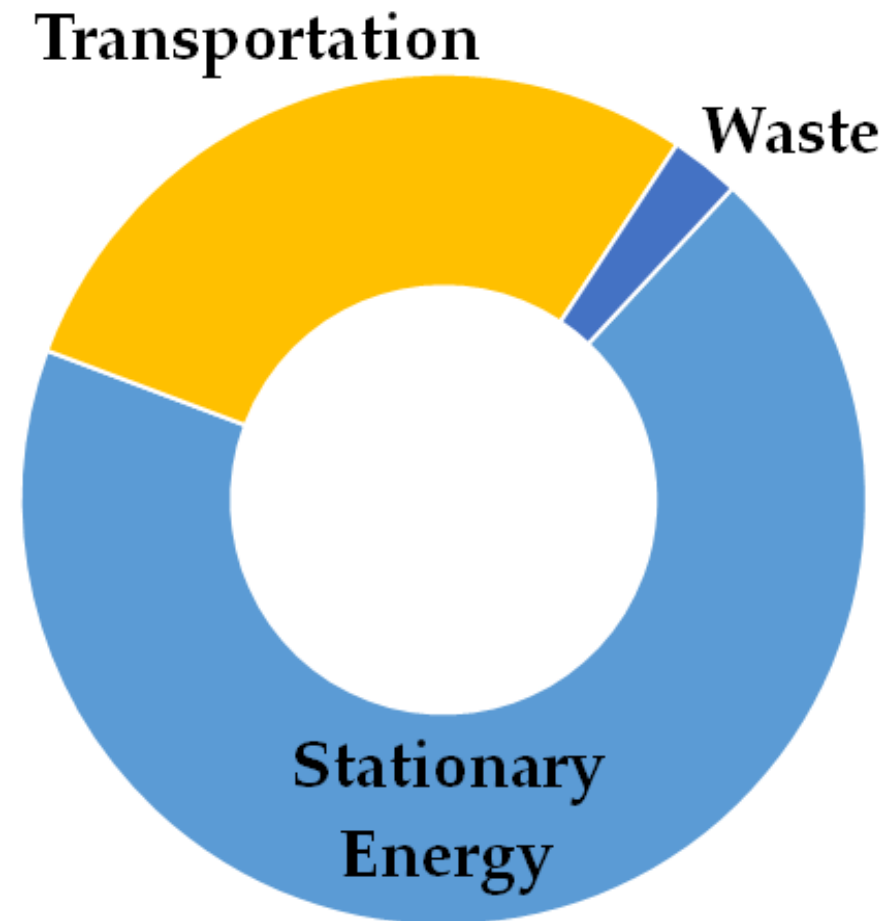
- Carbon dioxide (CO₂)*
- Methane (CH₄)*
- Nitrous oxide (N₂O)*

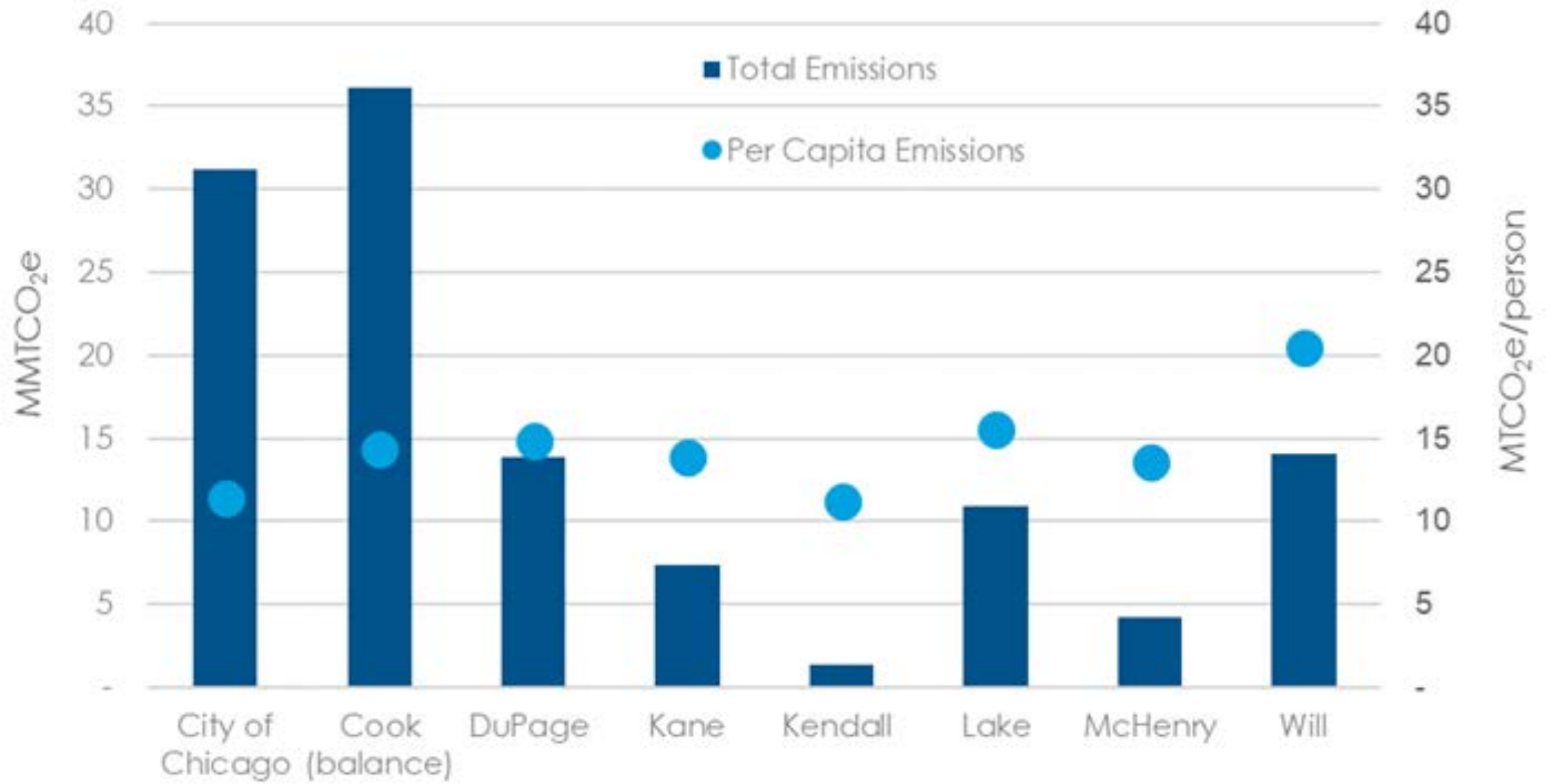
CO₂ equivalent



Three primary sectors

- *Stationary energy*
- *Transportation*
- *Waste*



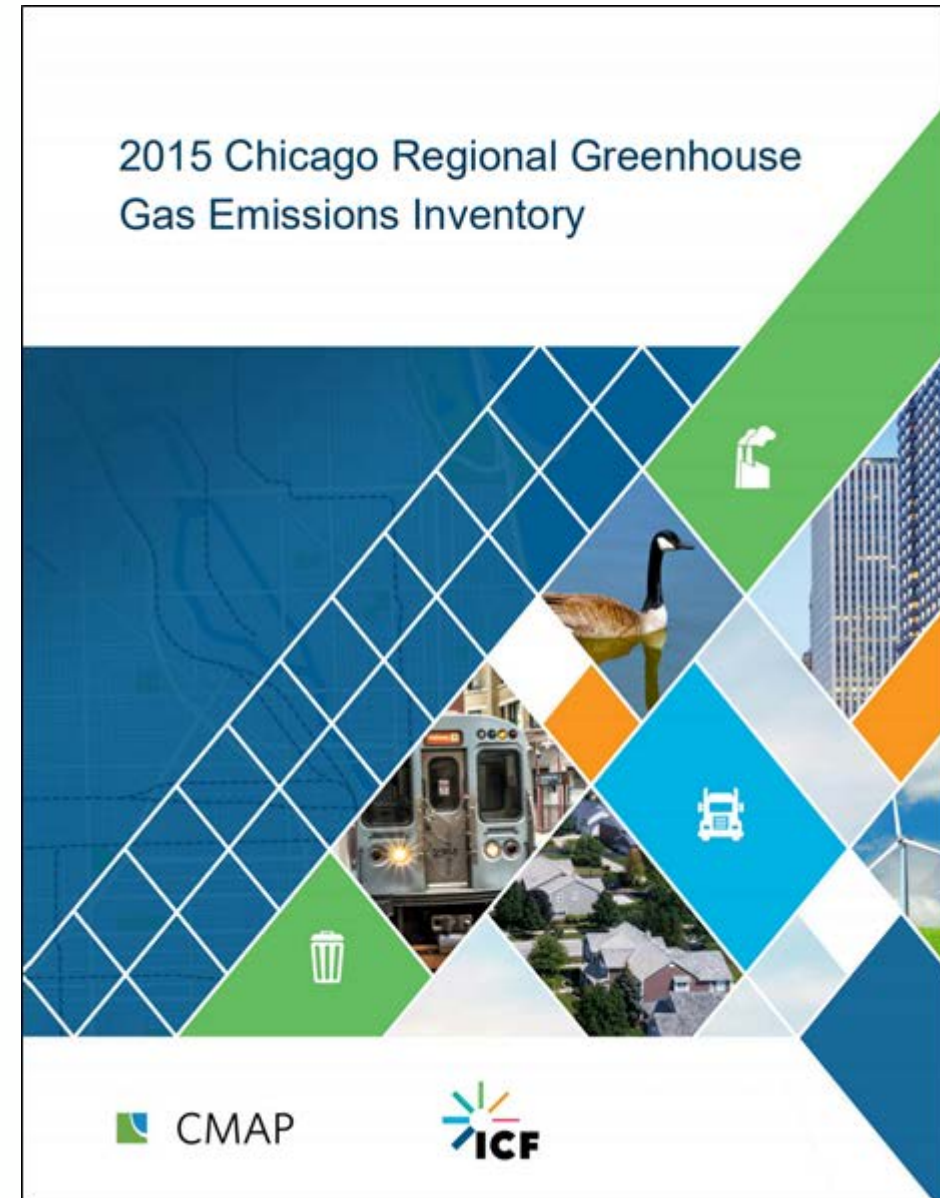


What is not included:

- *Interregional aviation*
- *Land use & agriculture*
- *Embedded emissions*

Additional notes:

*Not a count of actual emissions or
renewable energy capacity*





2015 Regional Emissions by Sector



Stationary Energy



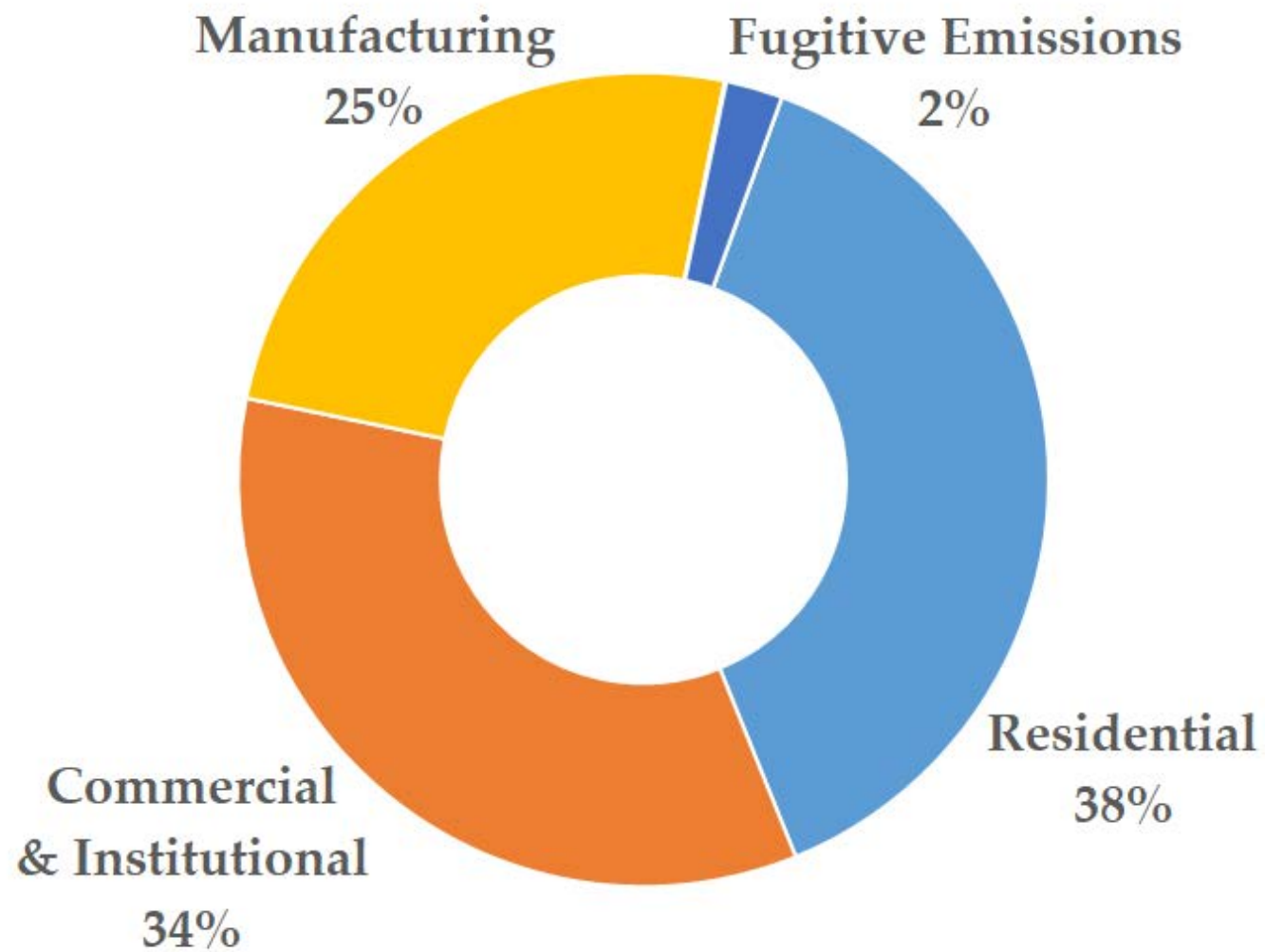
Waste



Transportation

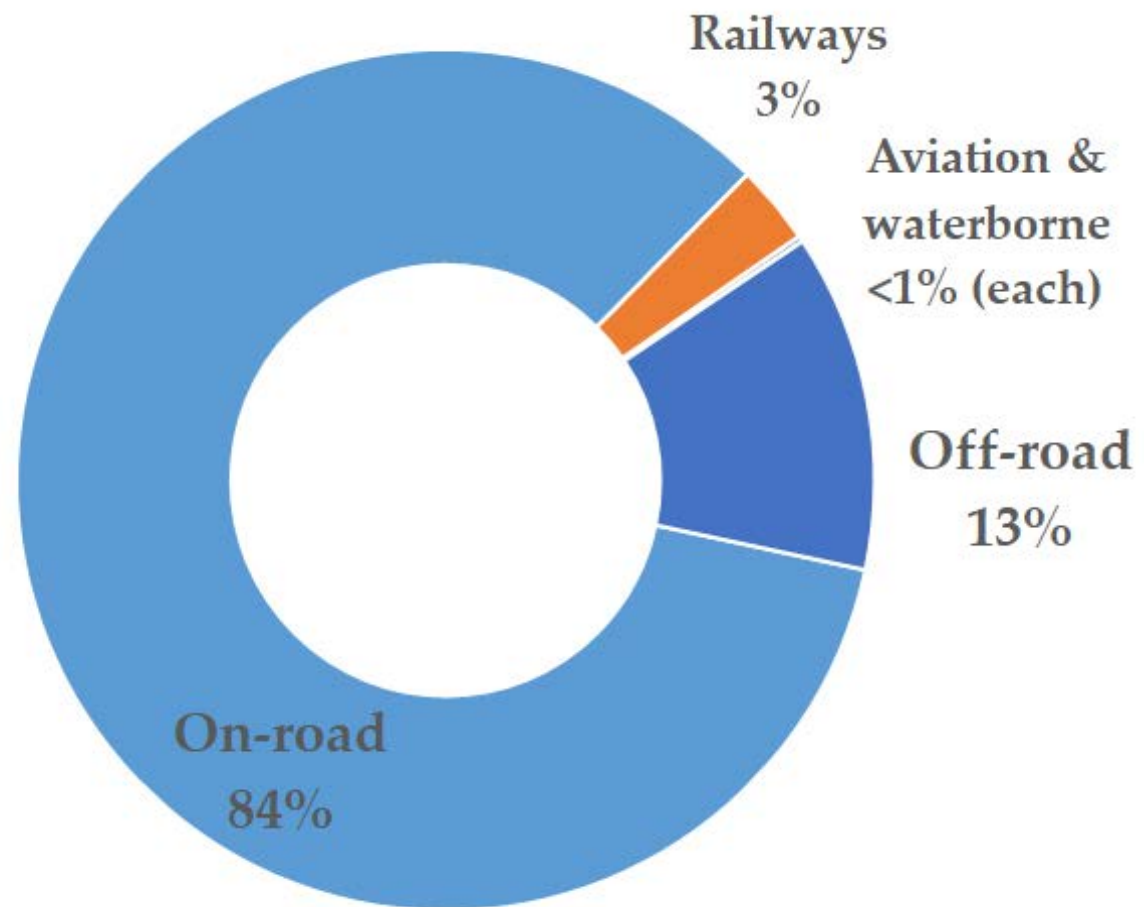


Stationary Energy



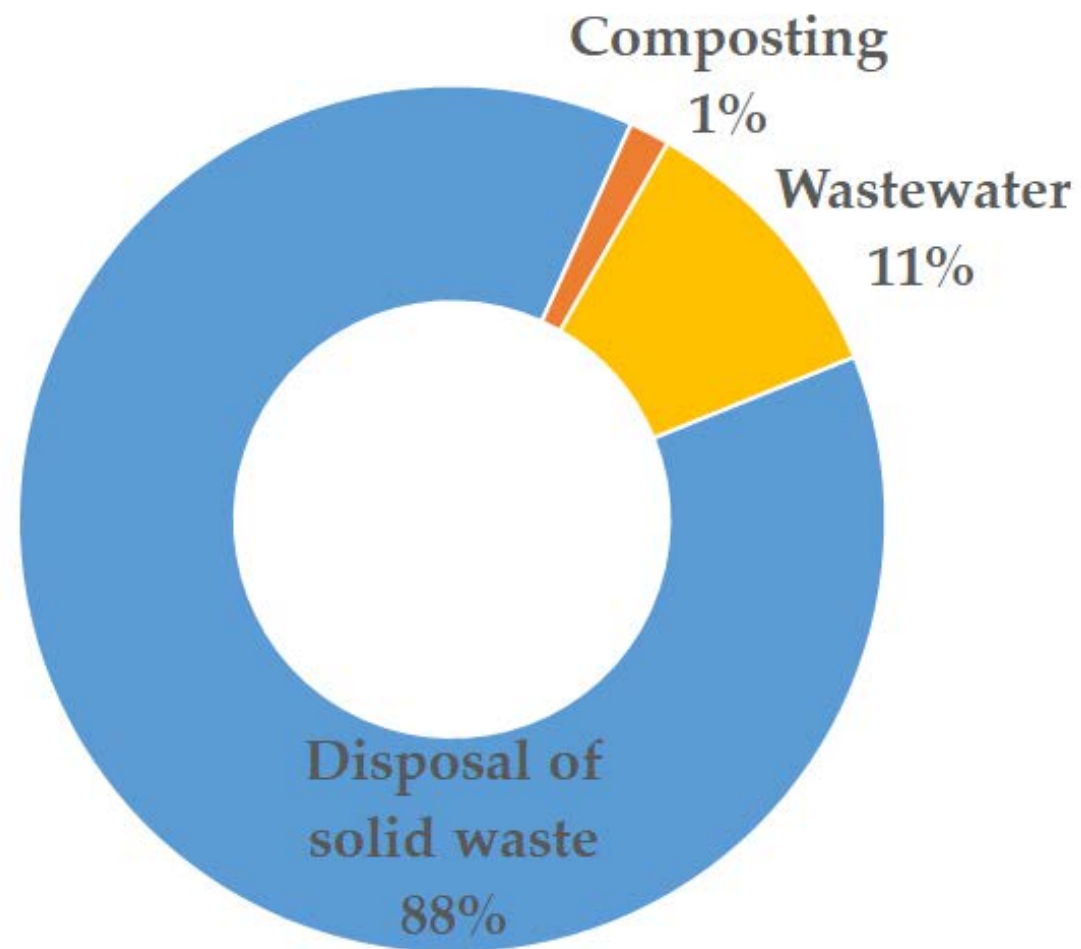


Transportation





Waste





TOTAL EMISSIONS

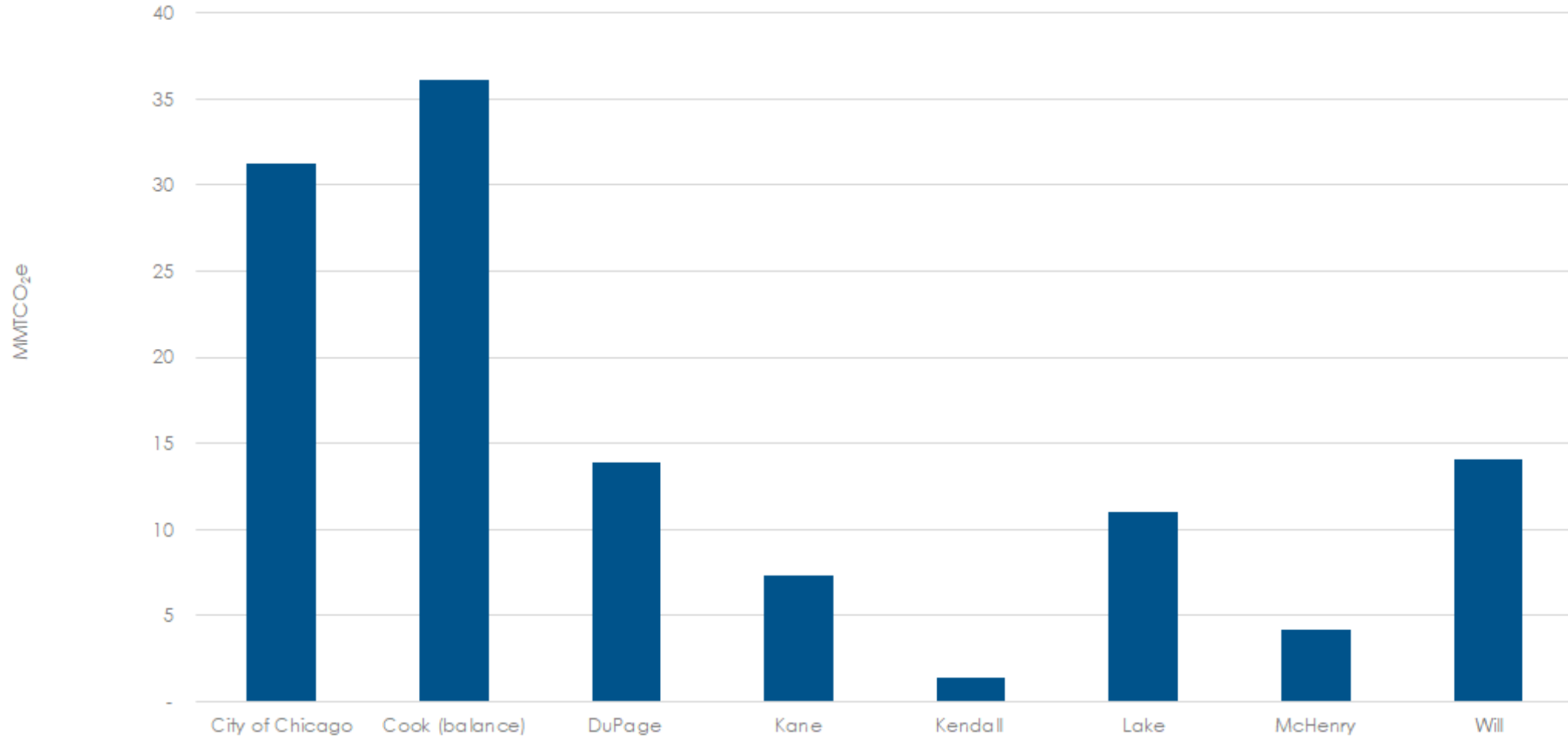
119
MMTCO₂e

PER CAPITA EMISSIONS

13.97
MTCO₂e/PERSON

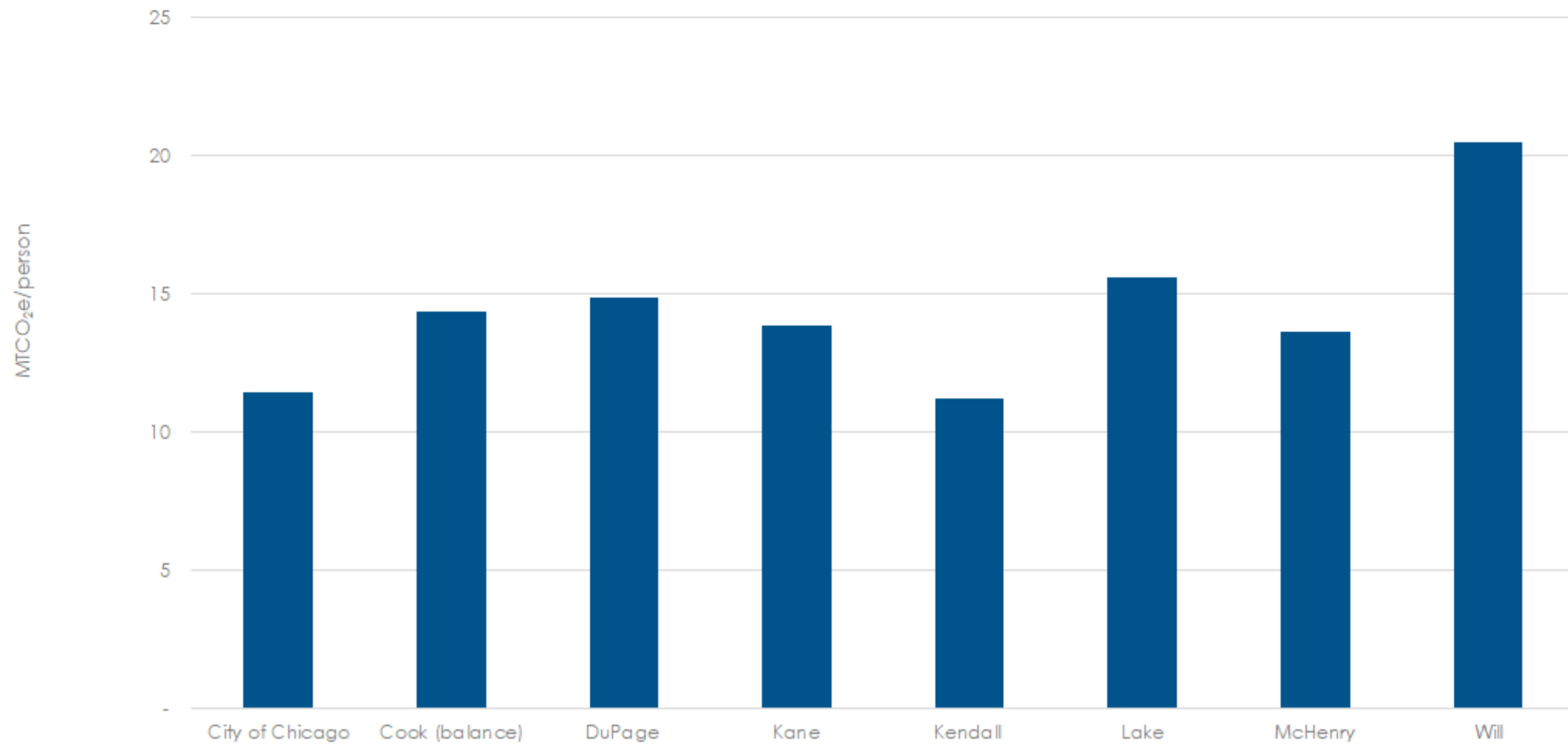


Total emissions (2015)





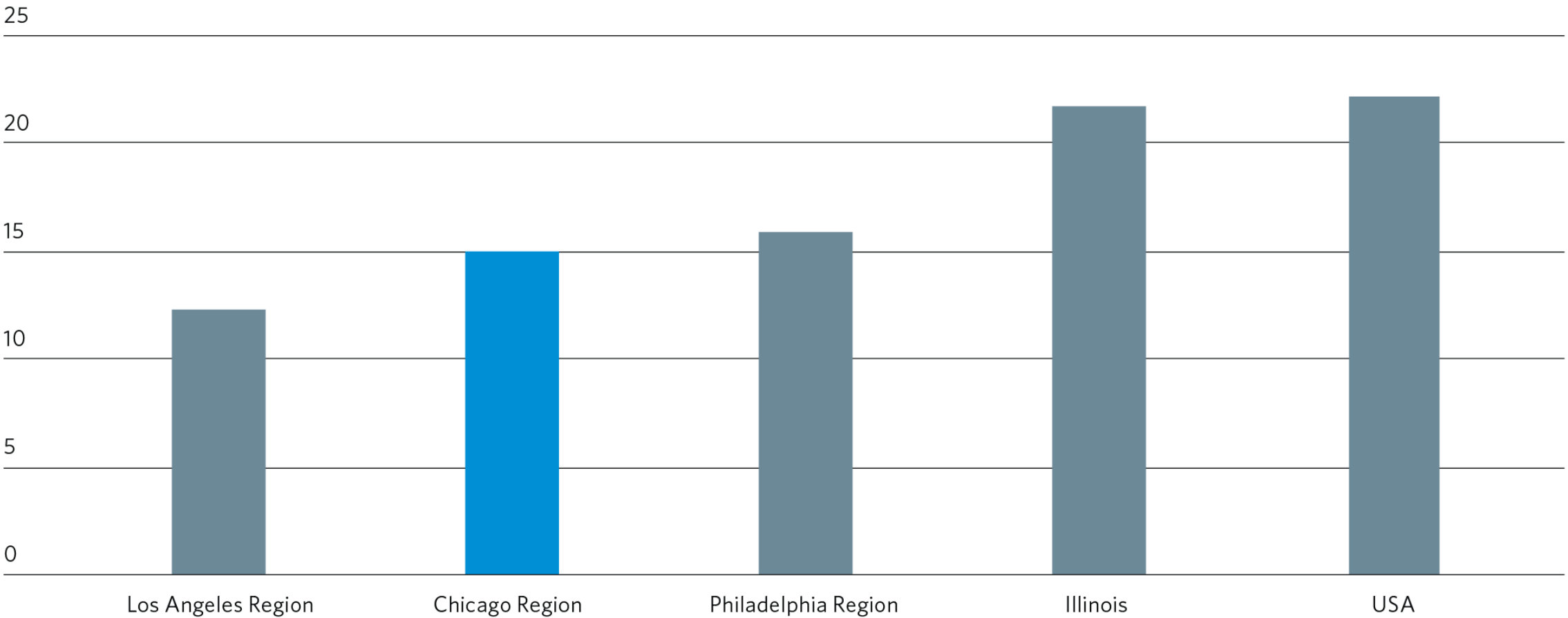
Per capita emissions (2015)





Per capita GHG emissions, CMAP region and select other geographies

Source: Chicago Metropolitan Agency for Planning 2012; Delaware Valley Regional Planning Commission, 2007; Southern California Association of Governments, 2012; World Resources institution, 2007; U.S. Environmental Protection Agency, 2010.

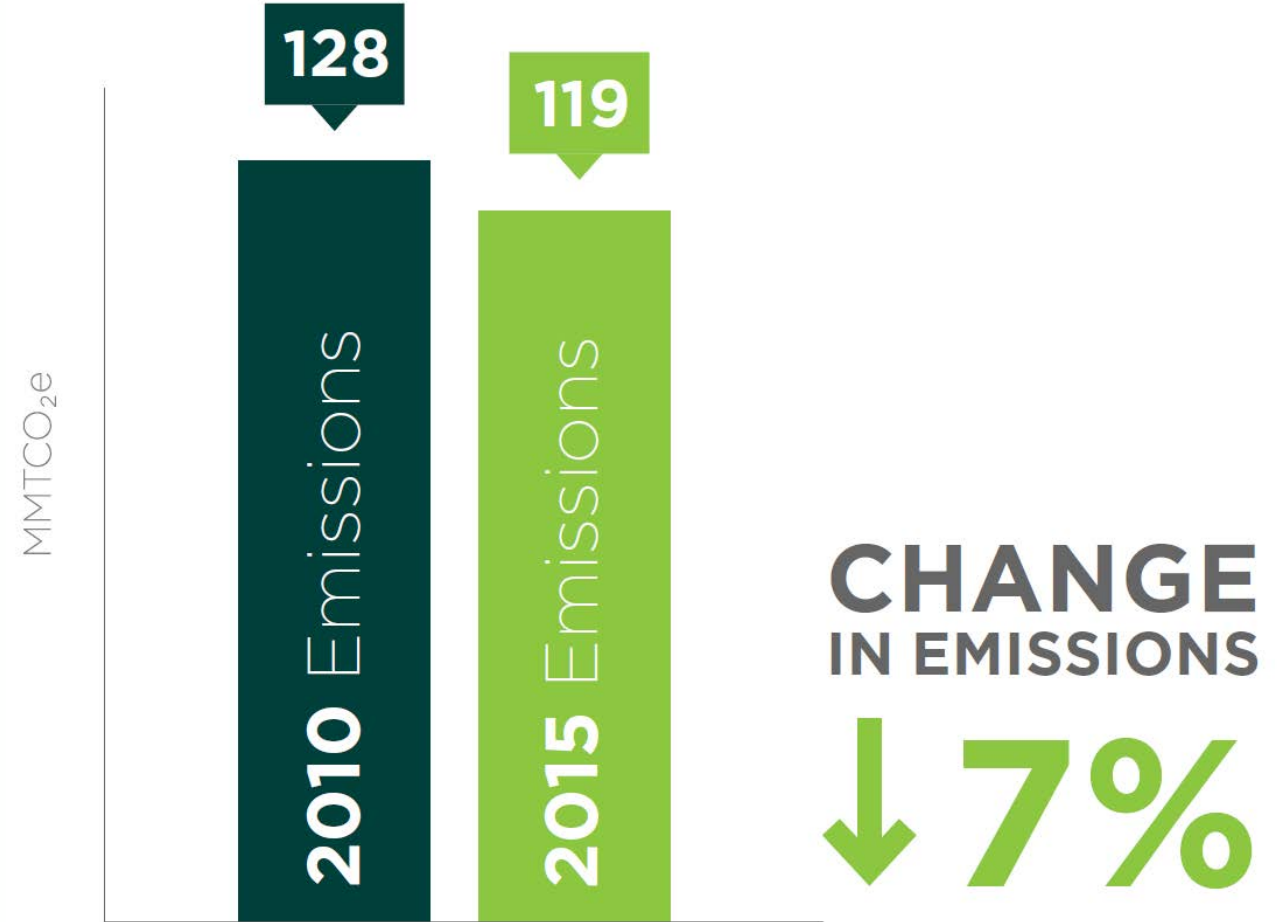


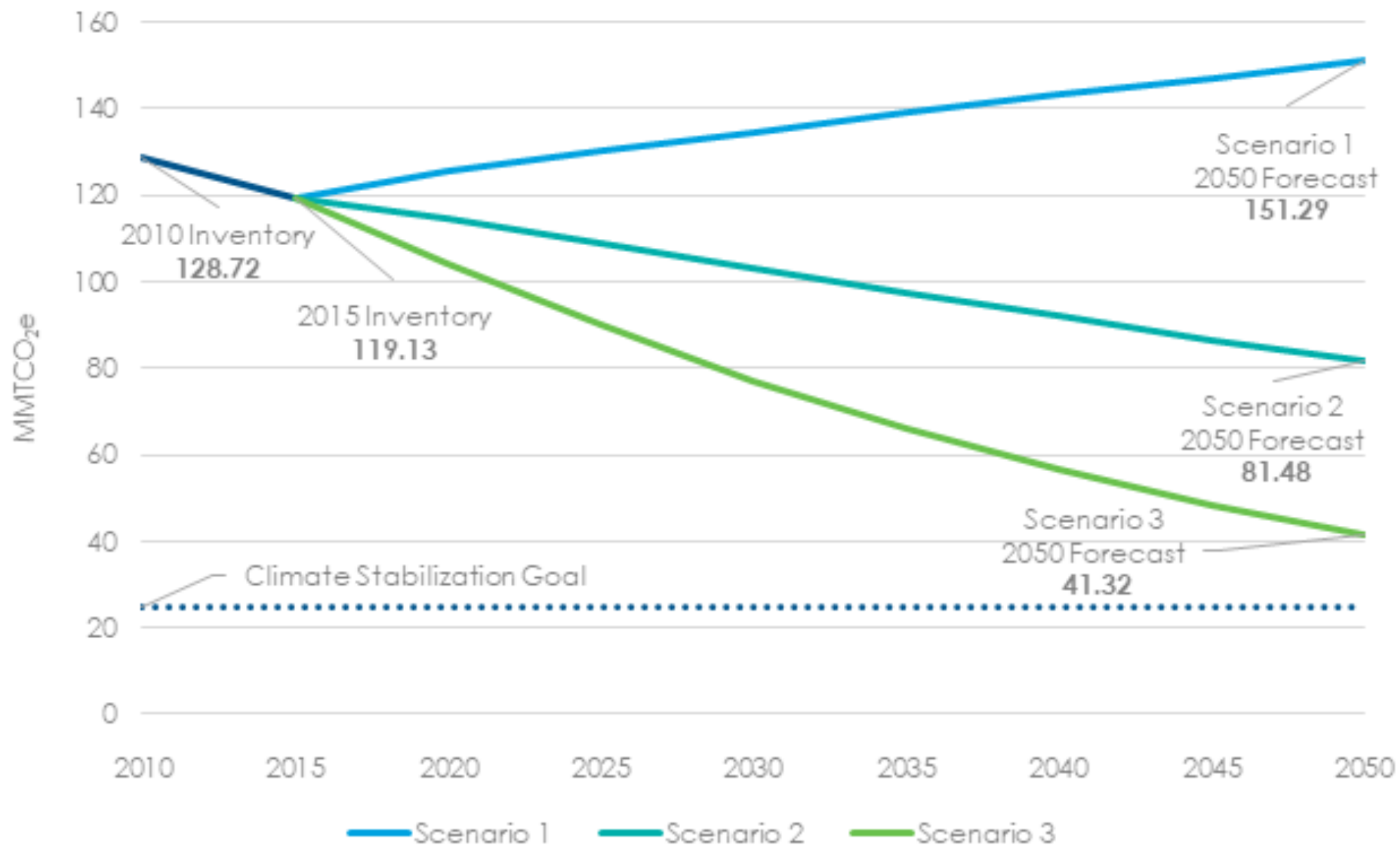
7% reduction 2010-2015

Waste: 50% reduction

Buildings: 8% reduction

Transportation: 1% increase







Questions?



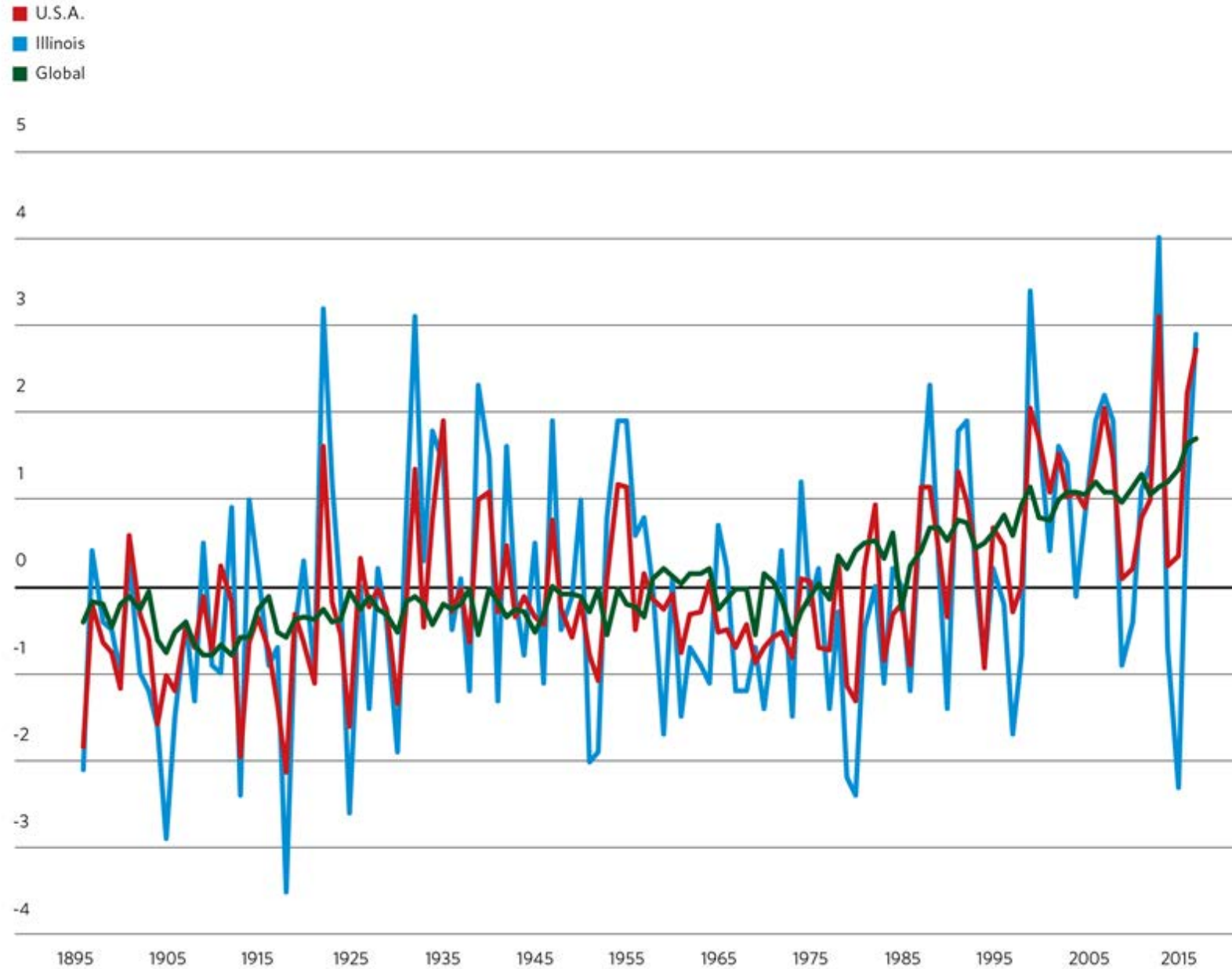
Climate vulnerability in Northeastern Illinois

Jared Patton

CMAP

Average temperature anomalies, in degrees Fahrenheit 1895-2015

Source: National Centers for Environmental Information, "Climate at a Glance," National Oceanic and Atmospheric Administration, 2017.



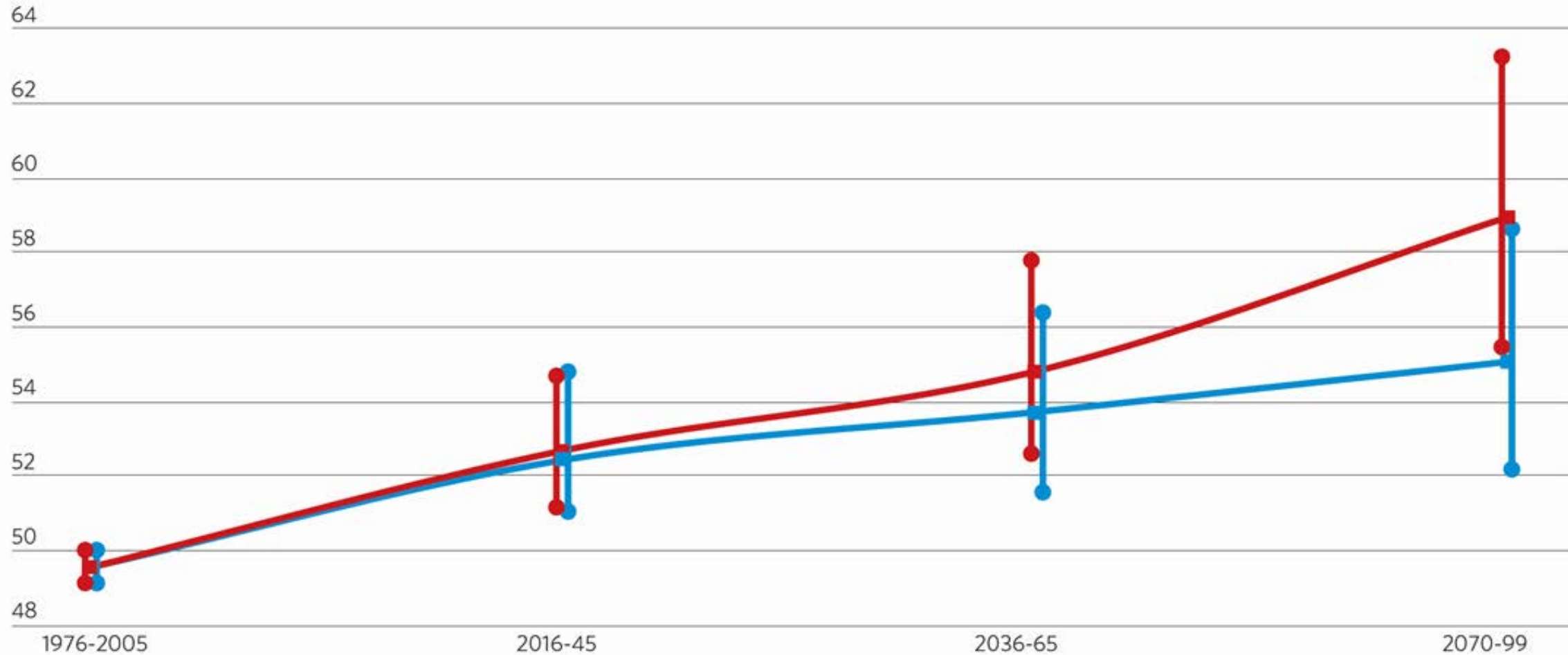


Range of projected daily average temperature, in degrees Fahrenheit, in northeastern Illinois

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

Note: Under a scenario that assumes emissions will continue to increase, regional temperatures are expected to increase by nine degrees Fahrenheit above historical levels. Under a lower emissions scenario, regional temperatures are expected to increase by five degrees above historical levels.

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.



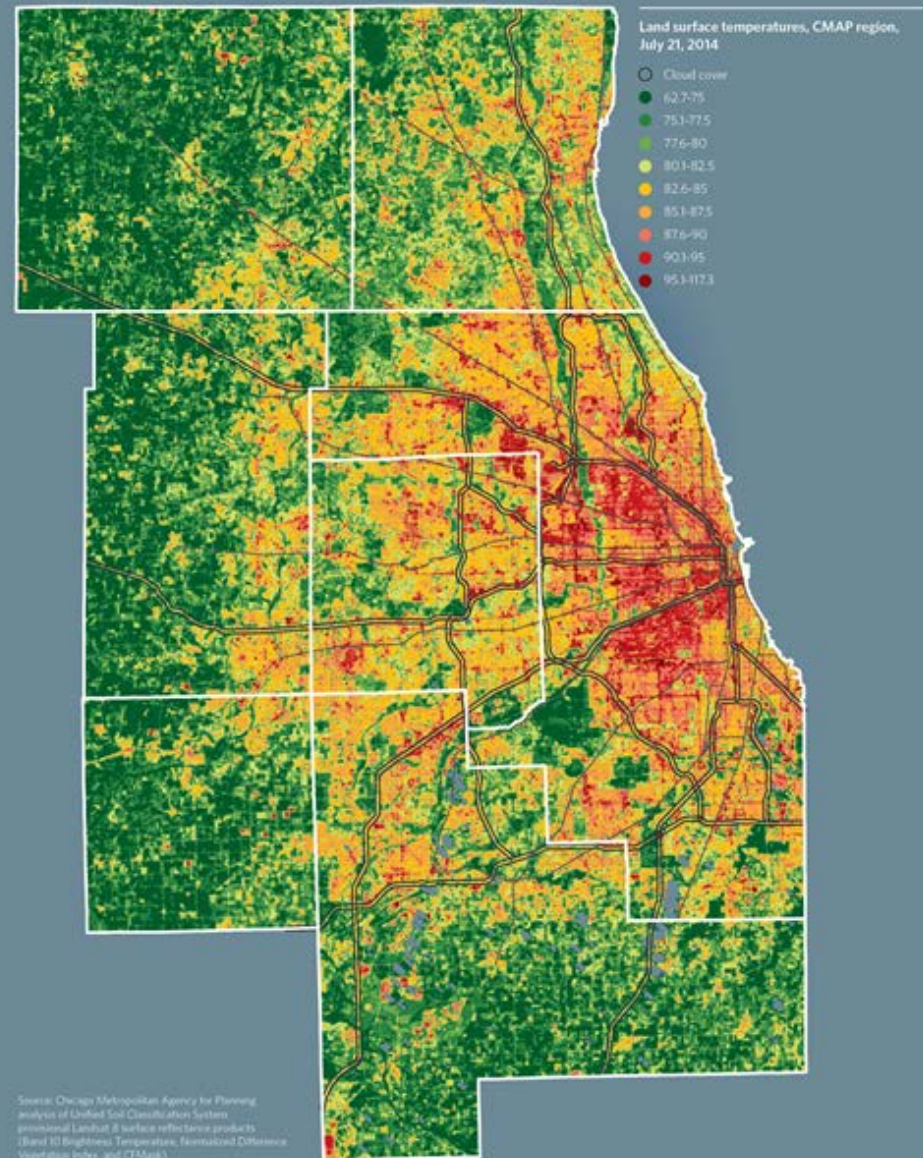


Temperatures

- Extreme heat
- Higher lows
- More freeze/thaw

Impacts

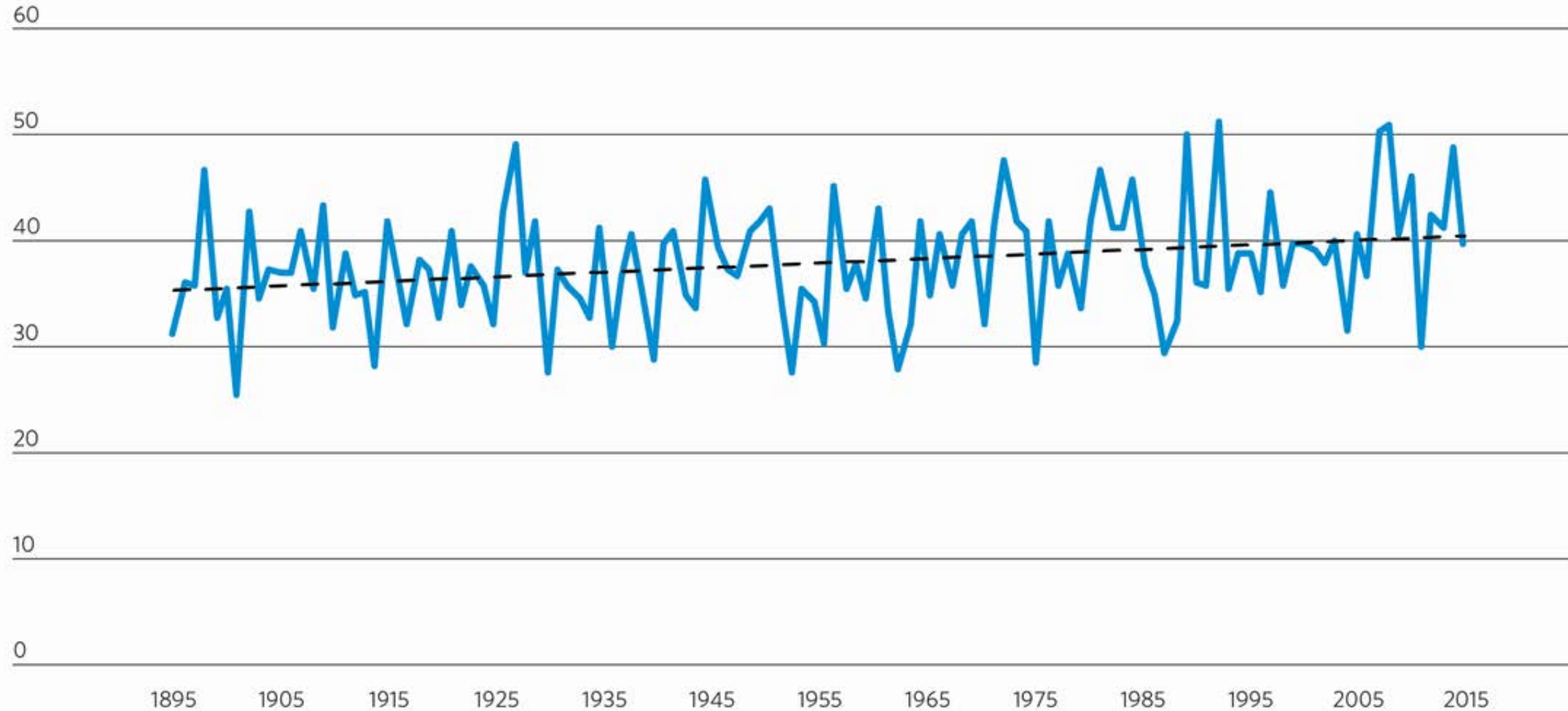
- Health/wellbeing
- Infrastructure
- Quality of life





Average annual precipitation, in inches, Illinois, 1895-2015

Source: National Centers for Environmental Information, "Climate at a Glance," National Oceanic and Atmospheric Administration, 2017.

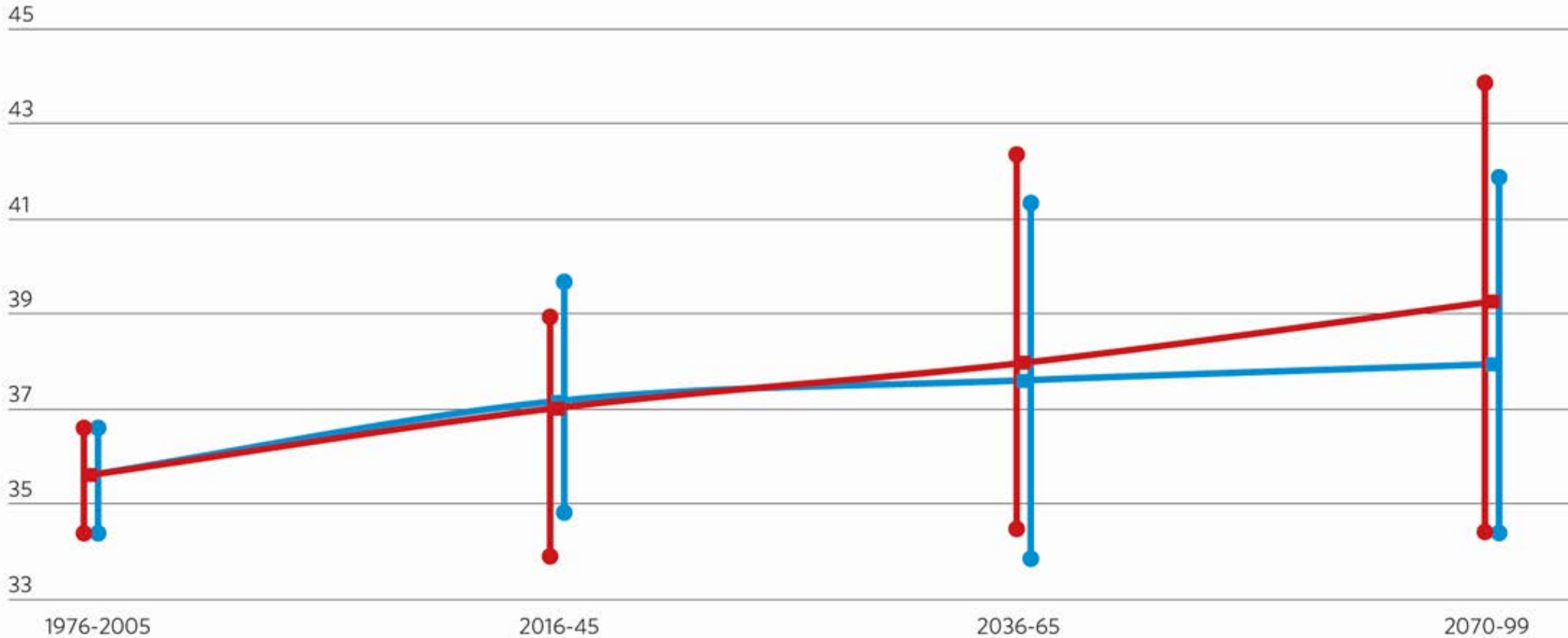




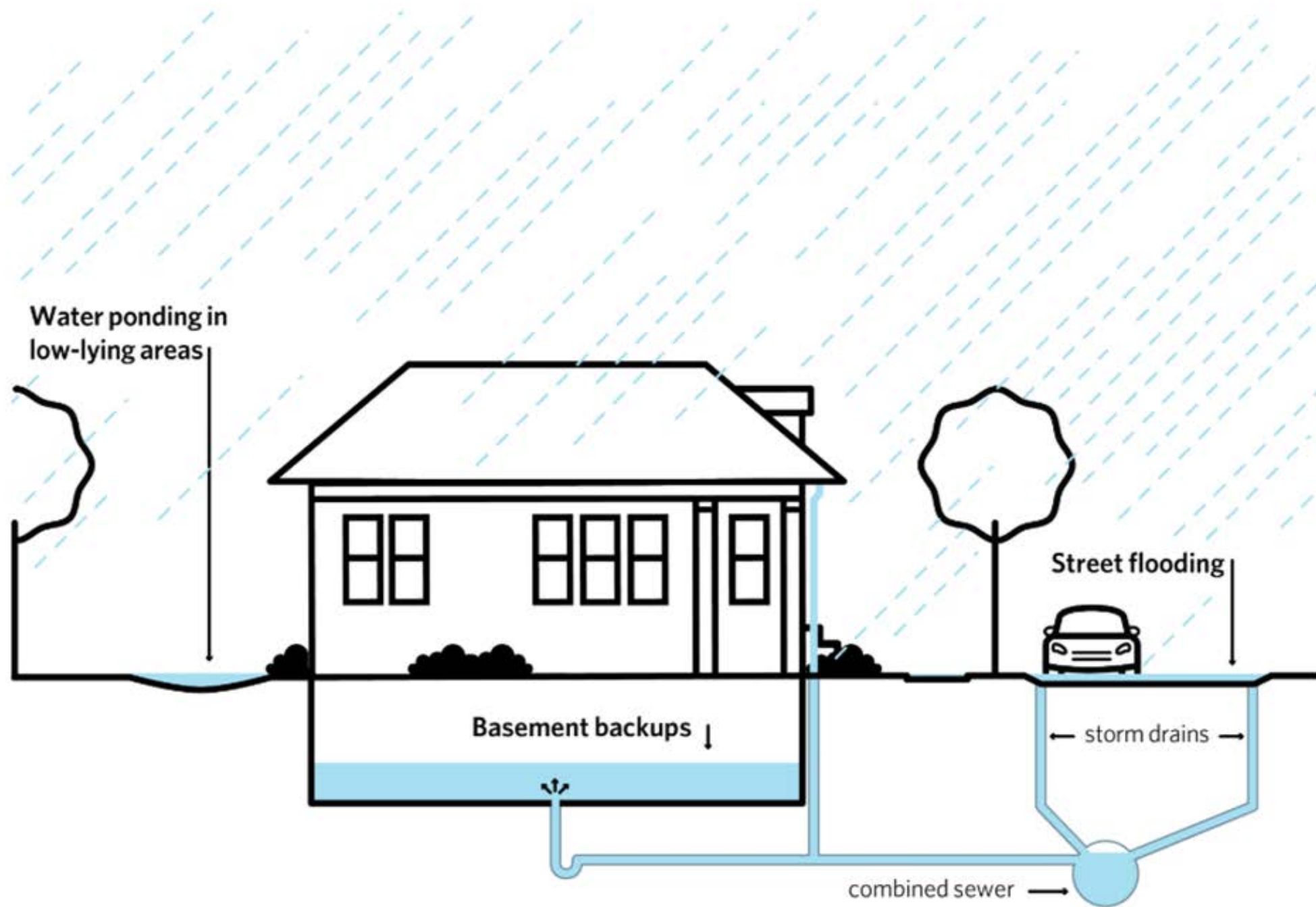
Range of projected annual total precipitation, in inches, in northeastern Illinois

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





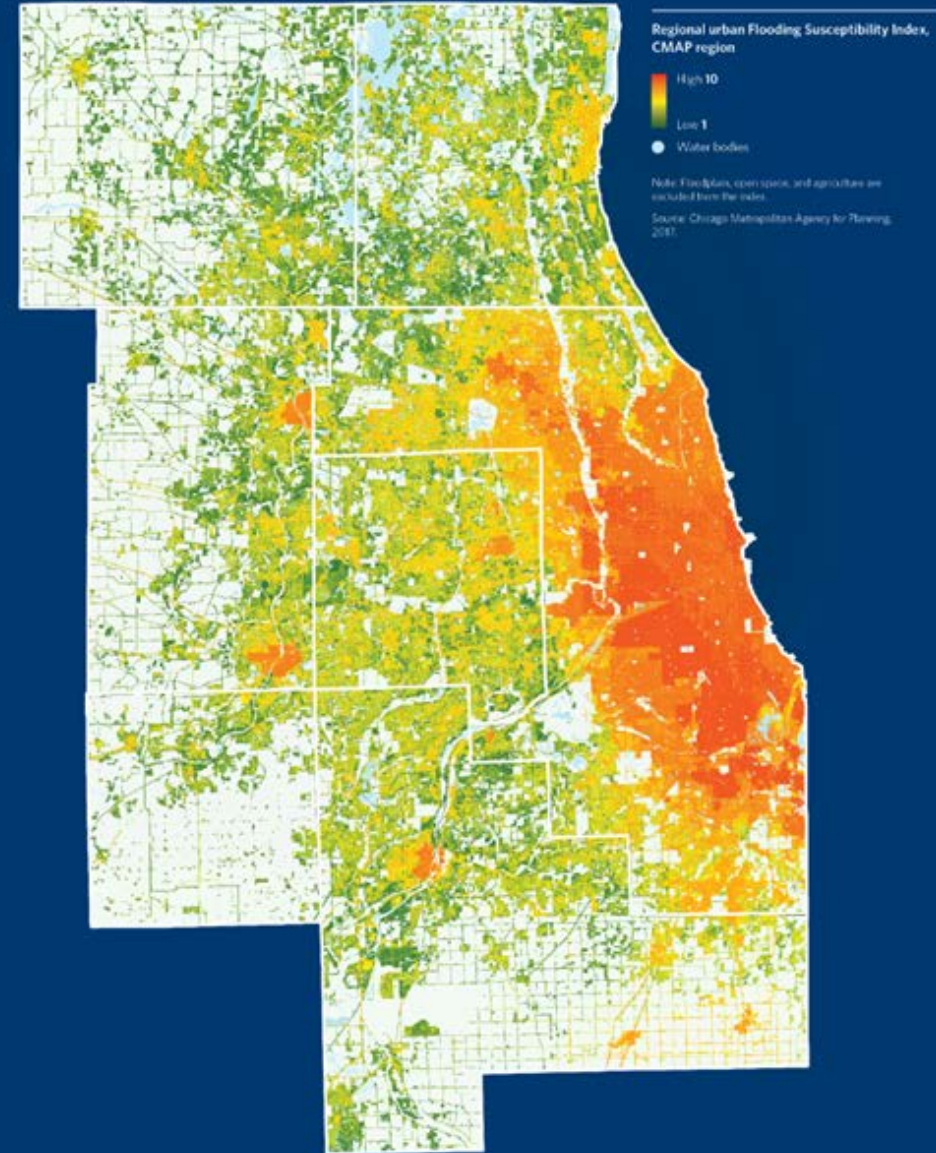


Precipitation

- More very heavy rains
- More periods of drought
- Seasonal changes

Impacts

- Property/infrastructure damage
- Economic impacts
- Quality of life

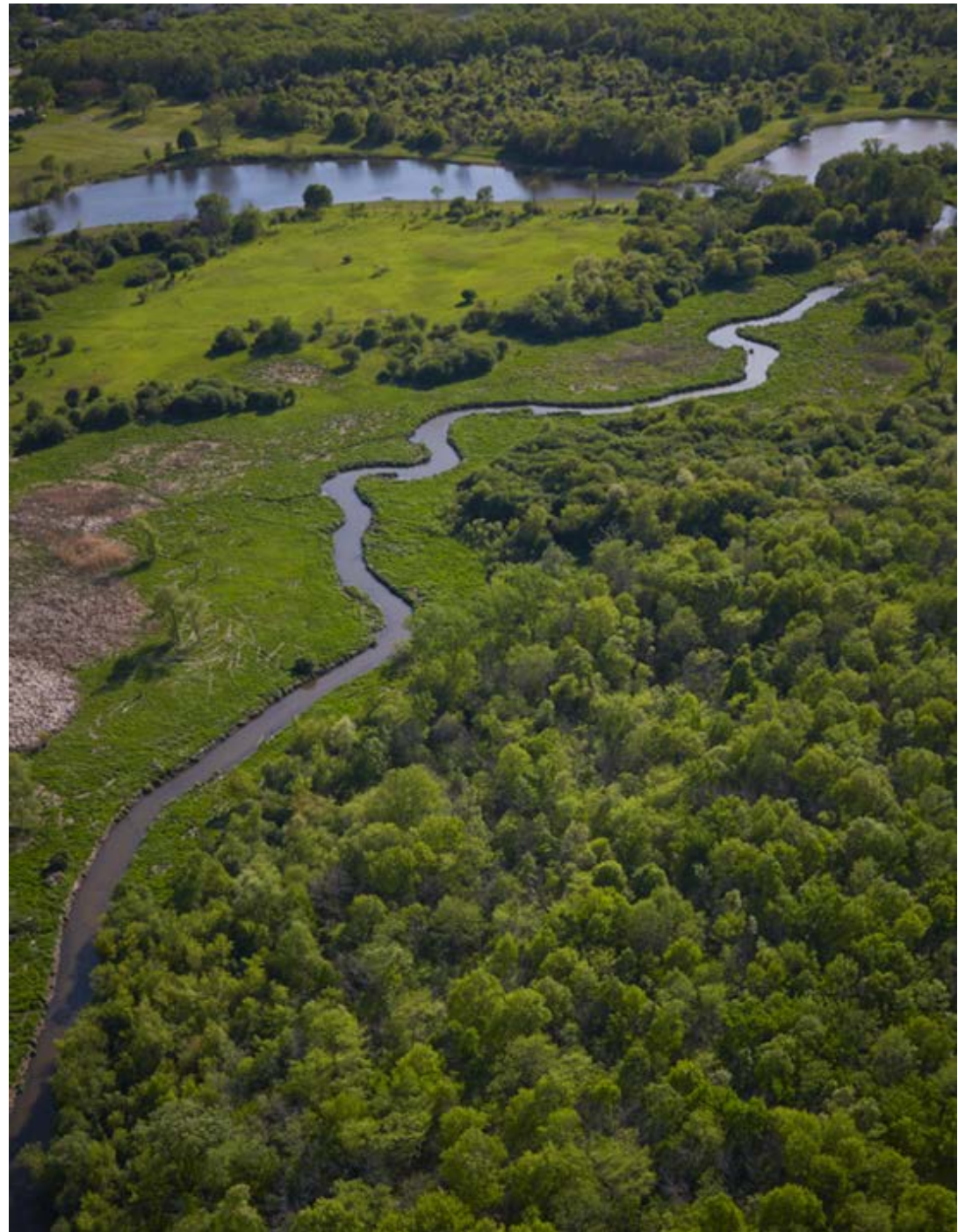






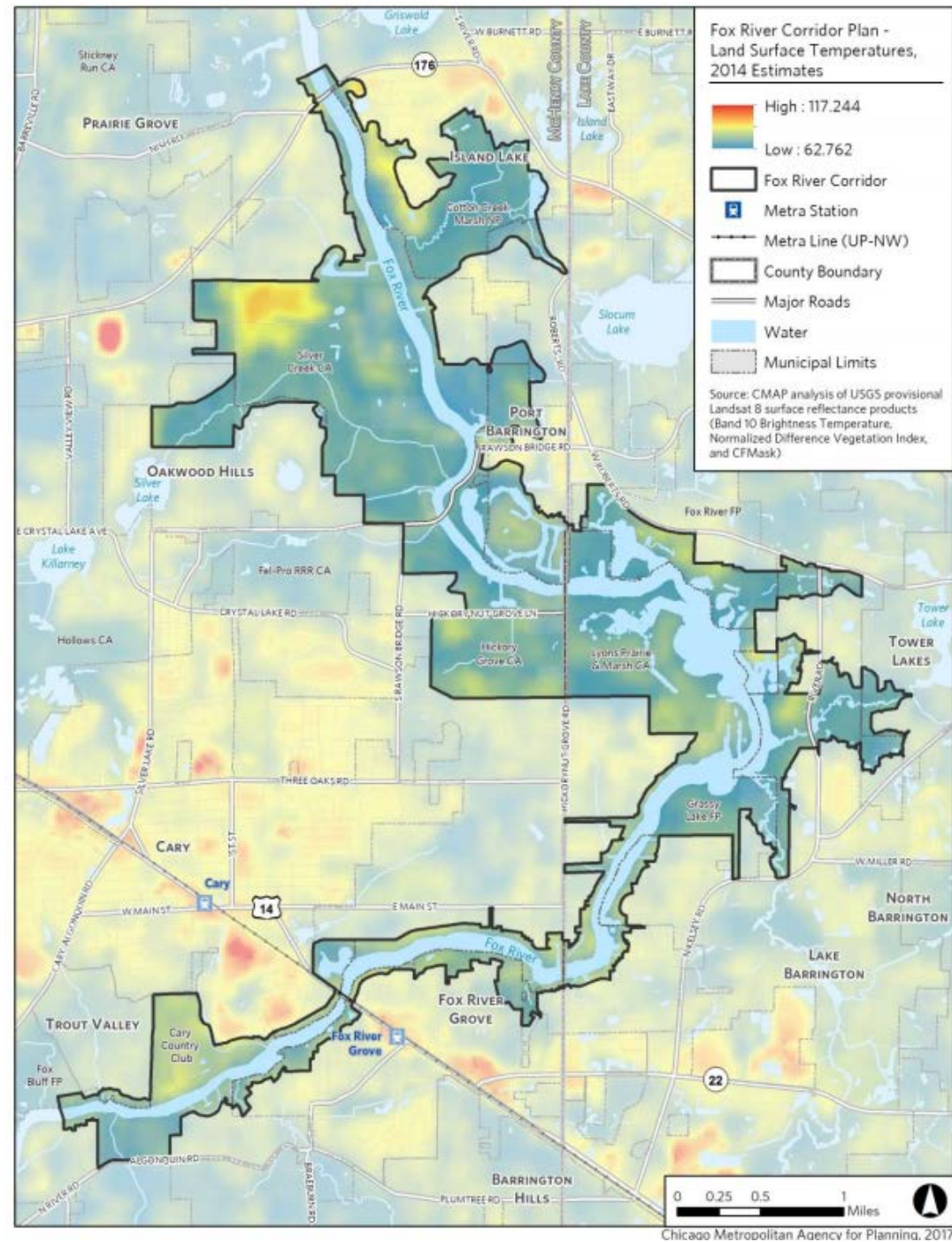
Other impacts

- Ecosystem services*
- Federal funding*
- Population growth*
- Others??*



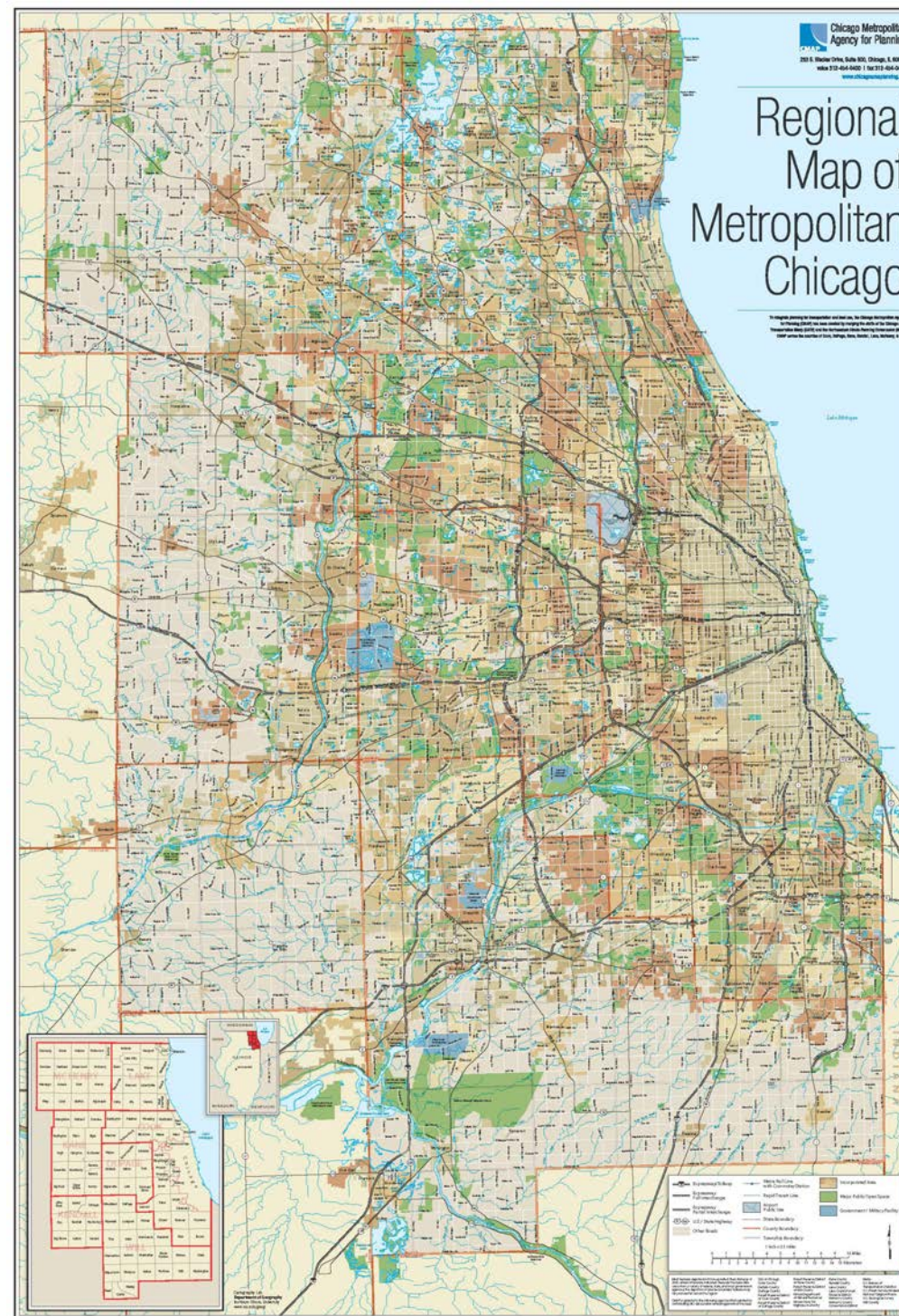
Climate vulnerability assessment

- Physical vulnerability
- Social vulnerability
- Piloted at the local level



Regional Boundary

7 county metropolitan region
284 municipalities
9 million residents





Climate Hazards

The potential occurrence of a natural or human-induced physical event or trend or physical impact that may cause loss of life, injury or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources. The term hazard usually refers to climate-related physical events or trends or their physical impacts.

GCoM Framework Requirements:

- Provide type of **Climate Hazards**
- Current and Future **Risk Level** of each hazard
- **Intensity** and **Frequency** of past/current hazards and expected change in Intensity and Frequency for future hazards
- Description of **Impacts** experienced in the past (required only for past/current hazards) and list of impacted **sectors** and the **magnitude** of impact for each sector (for both past/current and future hazards)



Equity

John Ostenburg

Fellow, Metropolitan Planning Council

Former Mayor, Village of Park Forest

Former MMC Environment Committee Chairman



Lunch!



Workshop 1: Afternoon Agenda

- I. Climate Action Plan (CAP)
- II. Greenest Region Compact Framework
- III. Activity: Connecting Local to Regional
- IV. Wrap Up & Next Steps



Climate Action Plan

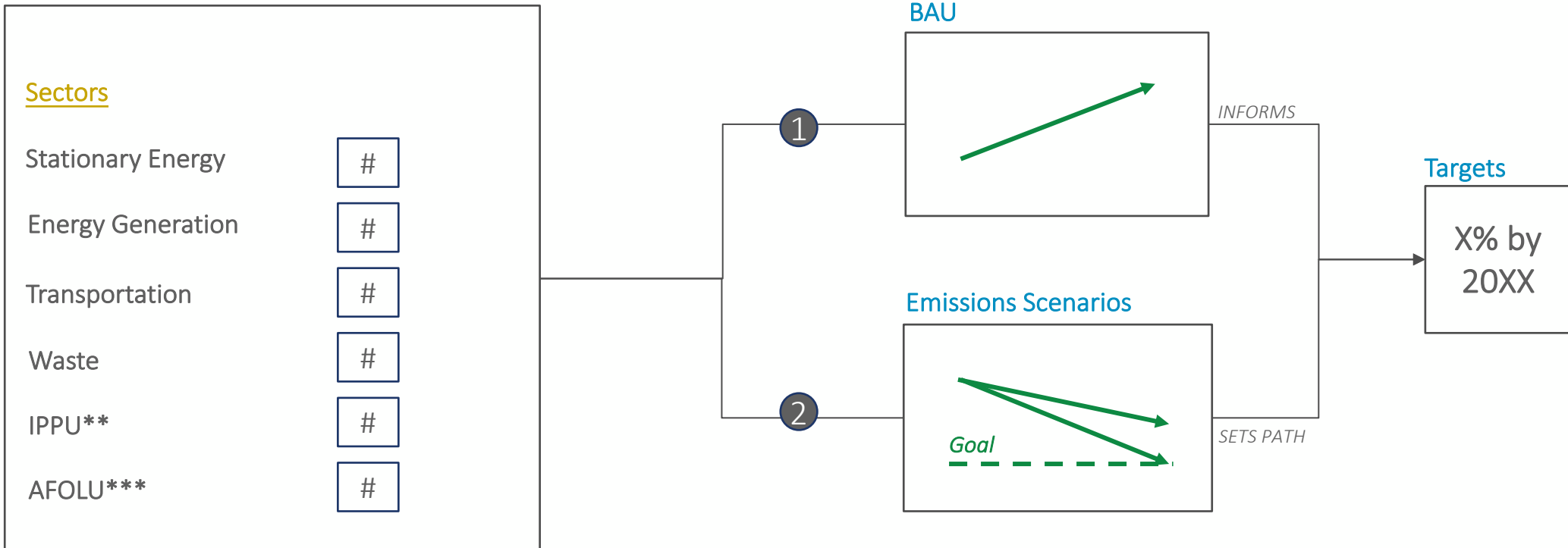
Mikayla Hoskins

BuroHappold Engineering



Climate Action Planning Process

GHG Emissions Inventory



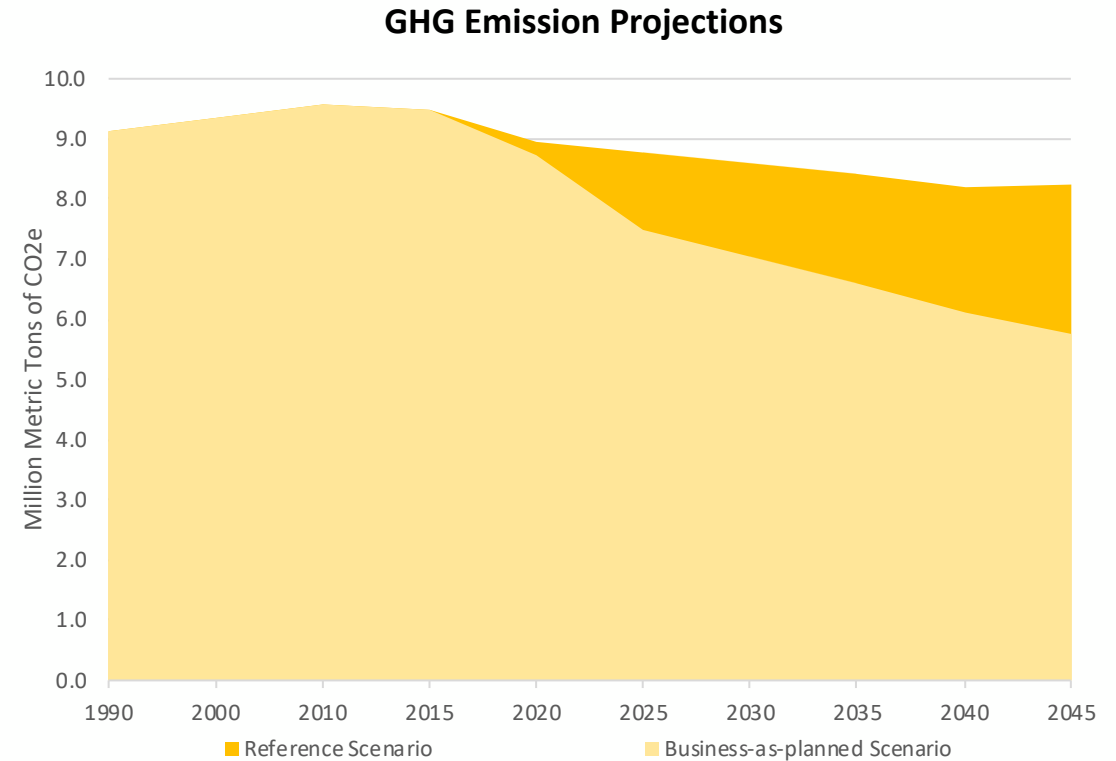
**IPPU: Industrial processes and product use (recommended, if significant – not required)

***AFOLU: Agriculture, forestry and other land use (recommended, if significant – not required)



1 BAU Projections

- **Purpose:** allows for the assessment of the impacts of emissions reduction actions by projecting emissions that would have otherwise occurred
- **Process:** emissions modelling accounting for trends in population, economy, and technology

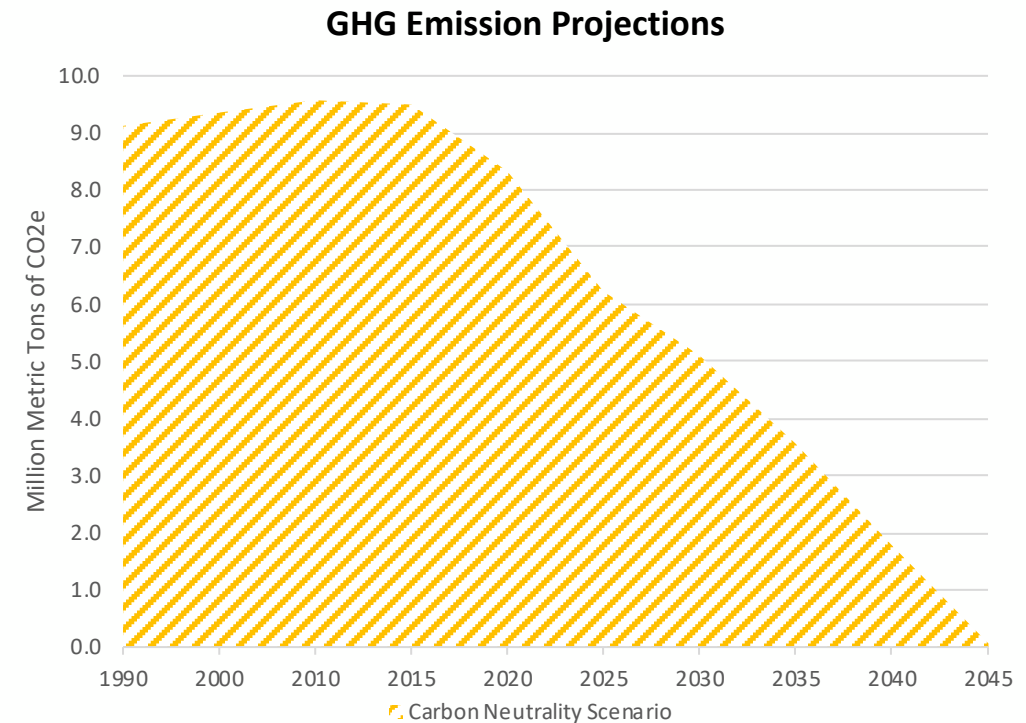


Data is representative



2 Mitigation Targets and Low Carbon Scenarios

- **Purpose:** establishes the emissions mitigation trajectory and informs action development
- **Process:** emissions projections that meet mitigation targets, accounting for impact of emissions reduction actions



Data is representative



Adaptation Goals

- **Purpose:** addresses the risks and vulnerabilities identified in the CRVA and sets the path for adaptation actions
- **Process:** developed based on CRVA results, informs adaptation actions

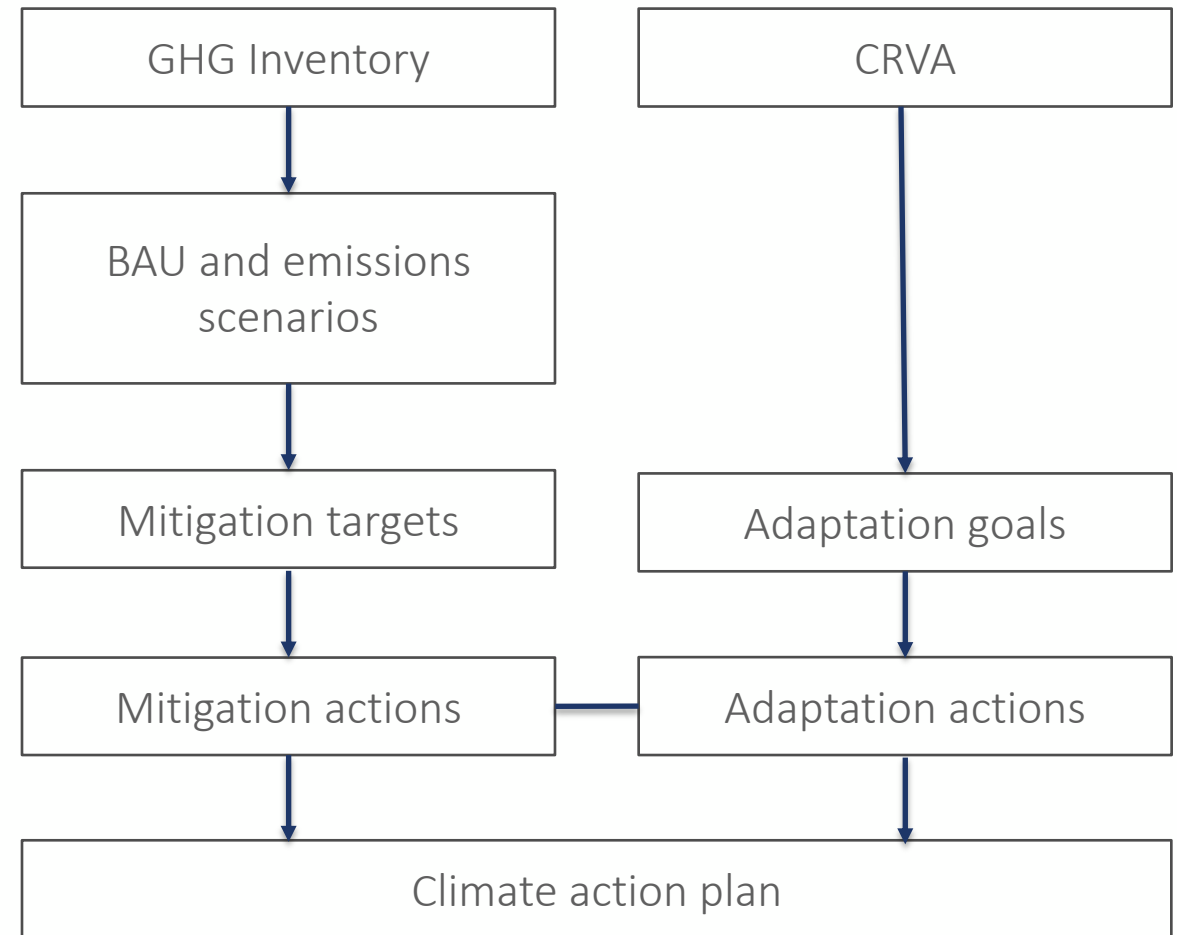


Source: Portland Climate Action Plan (2015)



Typical CAP components

- Vision statement
- Inventory and CRVA findings
- BAU and emissions scenarios
- GHG mitigation targets
- Goals and actions
- Action lead, feasibility, cost, and implementation timeline





Regional Climate Action Plan

The Chicago Metro **Regional Climate Action Plan** will be developed by MMC with support from the Global Covenant of Mayors (GCoM) and the European Union's International Urban Cooperation (IUC) program and technical assistance from BuroHappold Engineering.



What will the Climate Action Plan include?

The **Regional Climate Action Plan** will incorporate:

- Regional GHG inventory and “business as usual” (BAU) projections.
- GHG emissions mitigation targets and low-carbon scenarios for 2030.
- Climate risk and vulnerability assessment.
- Climate mitigation and adaptation actions.



Climate Action Plan Development Timeline	2019				2020									
	9	10	11	12	1	2	3	4	5	6	7	8	9	10
Regional GHG Inventory and BAU Projections		W												
Mitigation Targets and Low-Carbon Scenarios		W					W							
Climate Risk and Vulnerability Assessment		W					W							
Climate Mitigation and Adaptation Actions							W							

W = Workshops



Greenest Region Compact Framework

Edith Makra

Metropolitan Mayors Caucus

The GRC in 3 Parts



1. Compact
2. Framework
3. Collaboration to address GRC goals



Building the GRC

1. What actions are already underway in the region?

➤ **Inventoried environmental achievements for 290 municipalities**

2. What is already planned?

➤ **Analyzed existing sustainability plans**


- 30 local plans
- 9 regional/national plans
- 1149 specific sustainability goals



The GRC Framework

- Compilation of all Common Objectives, Strategies
 - Aligns with regional, national, global objectives
 - Links to resources & existing programs
- Adaptable Framework
- Use it to create a *community* sustainability plan
- Communities set priorities
- No metrics or reporting



SUSTAINABLE COMMUNITIES	Goal Category	 GOAL	OBJECTIVE		Department	Already achieved	In Progress	Planned-next 6 mos.	Planned-next 12-18 mos.	Interested in pursuing	Not planned	Not relevant
			> STRATEGY									
			+ ADVANCED STRATEGY									
			Schaumburg Initiative(s)									
Arts and Culture	Promote cultural vibrancy in the community	SC1	Preserve and maintain the community's historic assets									
			Purchase and maintenance of the Schweikher House; creation of the Schweikher House Foundation	CDD	X							
			Purchase of the Turret House which is used for Community Services Department.	CSD	X							
			The Olde Schaumburg Centre District protects historical buildings	CDD	X							
		SC2	Integrate historical and cultural assets through community programming									
			Guided tours of the Schweikher house, studio and grounds are offered throughout the year.	CDD	X							
			Oral History Series: Three, 30-minute video programs highlighting the 100+ year history of the area and featuring interviews with long-time residents and local historians 2001/2	CART	X							
		SC3	Formalize support for culture and the arts									
			Creation of the Department of Cultural Services, dedicated to bringing performing arts to the community	CART	X							
			Construction and operation of a performing arts center, the Prairie Center for the Arts	CART	X							
			The village formed the 1% for Art program in 2000.	CART	X							
		SC4	Engage community volunteers through an arts/culture-oriented citizen advisory group.									
			Schaumburg Cultural Commission comprised of staff and community members, to foster and develop arts & culture programming	CART	X							

COMMUNICATION

The City Council has indicated a preference for informing residents and businesses about opportunities to advance sustainability rather than actions. This elevates the act of communication as a strategic plan. Much of the work will be coordinated by departments and committees providing subject

2017 Actions

- The City Manager's Office will continue sustainability information and resource and government agencies are shared.

NATURAL AREAS

Highland Park is known for the proactive stewardship of its natural environment. The City has worked diligently to care for its trees, ravines, and other habitats through code protections and widespread public education efforts. Multiple departments and commissions have a role to play.

2017 Actions

City Manager's Office

- The Natural Resources Commission (education and communication, abatement), fertilizers, pesticide, and fertilizer Manager's Office of it should be undertaken.

Public Works

- The Public Works Department through the Million Poles Highland Park. Public Manager's Office.

2018-19 Actions

City Manager's Office

- Assist Natural Resources Commission reduction effort.
- City Council noted an gardening plots. In 20 new community garden Alliance members to d

- T

ECONOMIC DEVELOPMENT

The City of Highland Park has a robust commercial sector and an active Chamber of Commerce. The Chamber is a member of the Green Alliance however Green Alliance has been limited in recent years. The City Manager's Development Division conducts regular outreach with the City's business and Chamber's important roles in engaging the local business community.

LEADERSHIP

The City has received numerous awards, and accolades for the years, but there are always more to discover. Updating recognitions could better position it for grants. Recognition accomplishments and enhances the City's reputation for leadership.

Highland Park also has a strong history of collaborating with the GIS Consortium or the North Shore. The City's leadership on the election was a great success. New opportunities for savings while also achieving policy objectives.

Recognition efforts will be led by the City Manager's Office.

MOBILITY

Mobility is a broad subject including the City's own vehicle fleet as well as the bike and pedestrian network, alternative fuel vehicles, and mass transit. Highland Park has a very strong Bike/Walk Plan published in 2012, and Public Works is the lead department responsible for implementing its recommendations every year.

It drainage improvements in 2017 for the and signage plan will be completed in 2018.

WATER

Highland Park sits on the shore of Lake Michigan, and has its own water plant; the City understands the value of water. The City's efforts in this short term strategic plan will be to protect its surface and groundwater sources, with both the City Manager's Office and Public Works taking a leadership role.

2017 Actions

City Manager's Office

- The Natural Resources Commission has suggested that the City needs stronger enforcement of its phosphate ban, and to address the use of pesticides and salt, to regulations. The City Manager's Office will engage public leadership. Those departments have of new enforcement efforts on staff workload and

WASTE MANAGEMENT

Waste management can be a vexing subject for municipalities working to advance sustainability. On the one hand, the goals of reducing waste and increasing recycling have been active for decades. On the other hand, the goals have not yet been achieved and, in the case of Highland Park, there is room to expand participation in residential and commercial recycling and composting. The City Manager's office will lead the effort to reduce the City's volume of solid waste and to increase participation in recycling programs and composting.

2017 Actions

- In August, the City Manager's Office will discuss setting new, achievable goals with Lakeshore Recycling Systems (LRS) and the Solid Waste Agency of Lake County (SWALCO) to increase volume (higher percent of total waste is recycled and composted) and to increase participation (higher percent of residential and commercial accounts actively recycling and composting). The goals will address municipal operations, residents and businesses, and consider how to engage commercial units even though recycling is not mandated for these building types.
- The City Manager's Office will collaborate with LRS and SWALCO to increase the effectiveness of recycling at events by enabling composting and engaging volunteer guides and container monitors. The 2017 goal is to feature composting bins during at least one public event.

2018-19 Actions

- Collaborate with LRS and SWALCO to increase the City's recycling and composting rate by volume (% of total waste) and by participation (% of total accounts recycling/composting).

Additional Considerations

Solid Waste and Recycling

There are many gains to be had in reducing the city-wide volume of solid waste and increasing the volume of recycled waste and composted material. The City was an early leader in making curbside composting available to residents, but without a strong promotional campaign, households and businesses have been slow to participate. The City will coordinate with LRS to promote composting through printed recycling bin hangers and flyers distributed with invoices to all LRS customers within the City.

ENERGY

Energy management is a crucial component of any sustainability plan. The ultimate energy goals of the City are to increase the efficiency of our buildings and transportation network, and reduce reliance on fossil fuels by enabling and increasing access to renewable sources of energy. Multiple departments have a role to play in reducing Highland Park's energy consumption. Energy management extends beyond the borders of the City and is a regional matter. As such, the City will focus its efforts towards achieving its energy goals locally as regionally through intergovernmental councils of government, with sister government through neighbor community partnerships.

2017 Actions

City Manager's Office

- The Metropolitan Mayors' Caucus has developed a new Sustainability Network to address large infrastructure projects, and one of its first tasks is to work on the negotiation of the franchise agreement with ComEd. One objective will be to offer a lump sum payment option so that municipalities are encouraged to reduce their energy consumption and use the balance to finance clean energy projects. Highland Park's 2017 task is for the City Manager's Office to actively participate in the Sustainability Network on this specific issue. In July, the City will reach out to the Caucus for more information.
- The Natural Resources Commission has suggested the City should address vehicle idling at specific locations, i.e., Ravinia and schools. In September, the NRC at City Manager's Office will explore the subject in greater detail, specifically to develop a communication campaign for the public and private bus fleets to voluntarily reduce idling.
- Evaluate opportunities created by the Future Energy Jobs Act.

Community Development

- Community Development will complete the Lighting Code Amendments related to sky compliant lighting as directed by the City Council.

Public Works

- Highland Park is one of six cities selected to participate in a demand response program to reduce energy consumption at the Water Plant. The Public Works Department is leading the effort and will provide progress updates to the City Manager's Office.
- The Public Works Department will evaluate and if possible pursue green fleet options whenever vehicle purchases are necessary.

2018-19 Actions

City Manager's Office

- Participate in efforts by the Metropolitan Mayor's Caucus to negotiate the ComEd franchise agreement, as needed.
- Assist Natural Resources Commission as needed with its anti-idling effort.
- Explore opportunities related to community solar.



GRC Framework for *Regional* Climate Action Plan

Achievable Community Scale Strategies

GRC Goal – Advance renewable energy

GRC Strategy –

- Streamline solar codes & policies
- 35 SolSmart designees

Outcome

- 2400% increase in rooftop PV (photovoltaic)
- 9 MW capacity

Not Achievable Strategy –

- Host PV on municipal facilities



GRC Framework for *Regional* Climate Action Plan

Achievable Community Scale Strategies

GRC Goal – Reduce Greenhouse Gas Emissions

GRC Strategy –

Reduce emissions from municipal operations - asphalt

- Warm-mix asphalt vs hot-mix asphalt
- 30-40% less CO₂
- 60-70% less NO_x

Not Achievable Strategy –

- Electrify bus fleet

Evolving Focus for MMC Munis

Environment

Clean Air Counts (2006)
GRC (2007)

Sustainability

GRC2 (2016)

Climate

now

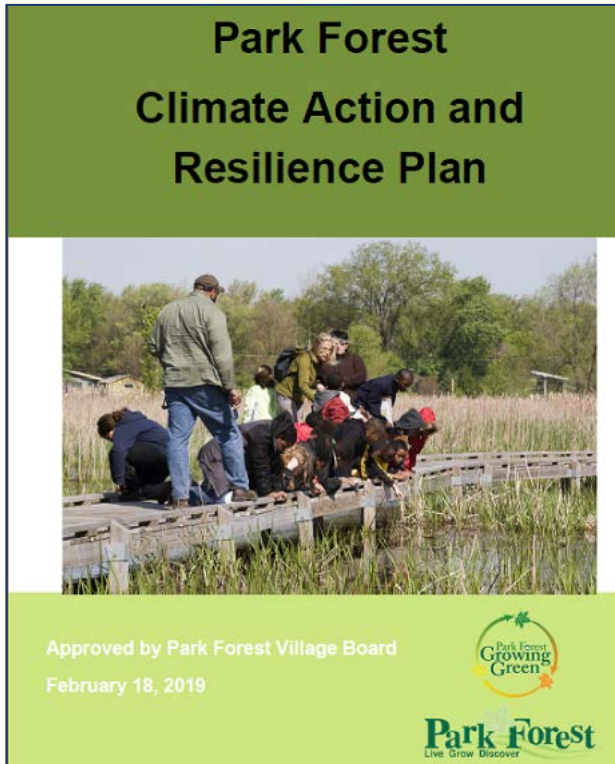
Municipal actions need to accelerate and focus



General Emissions Reduction Target:

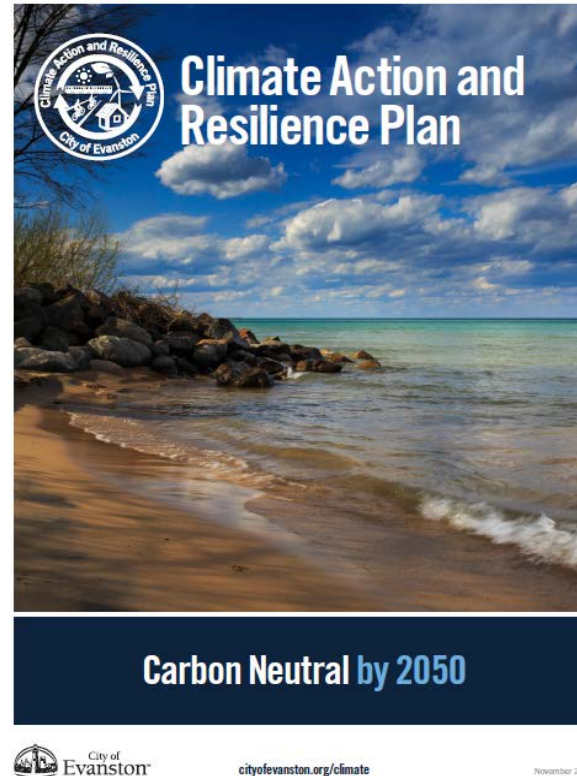
Uphold commitment to
the Paris Agreement -
26 to 28 percent relative
to 2005 levels by 2025,
and 80 percent by 2050





Park Forest

Reduce GHG 26% below
2010 levels by 2025



Evanston

Carbon neutrality by 2050



Chicago

Reduce GHG 80% below
1990 levels by 2050



Break!



Group Exercise

GRC Local to Regional Climate Actions

Choose GRC Goal of interest

1. Rank strategies for degree of difficulty for a municipality to address

- 1 easiest – 5 most difficult

Objective:

Identify top 1 or 2 strategies that municipalities can do now

2. For those strategies that are difficult at the municipal scale:

- a. What are the barriers?
- b. Which strategies could/should be addressed at a regional scale?

Objective:

Identify 1-2 strategies that need regional collaboration to work

3. Report Out

Choose a GRC Goal



1

Use energy for building and facilities efficiently



2

Advance renewable energy /Enact policies that support clean energy



3

Conserve restore and enhance natural features and ecosystems
Achieve greater livability through sustainable land use and housing policies



4

Support efficient transportation that uses resources wisely
Maintain a diverse, safe and efficient transportation network



5

Support sustainable material management



6

Stormwater management and green infrastructure



Moving Forward - Collaboratively

Kevin Burns, Mayor, City of Geneva

Chairman, Metropolitan Mayors Caucus Environment
Committee and Energy Sub Committee



2019

2020

2021

2022

2023



NEEDS:

GRC

Workshops

Socialize This Work

GHG

Climate Risk &
Vulnerability
Assessment

Additional Funding

ON TO 2050

Regional Climate
Action Plan

Reporting & Tracking Framework

Next Steps

- Materials from today
- Workshop 2 in spring 2020
- Identify a champion from another community to participate