



**Winnetka Environmental and Forestry Commission
Notice of Regular Meeting
October 13, 2021**

The Winnetka Environmental and Forestry Commission will convene on Wednesday, October 13, 2021 in the Police Station Classroom, 410 Green Bay Road, Winnetka, IL at 7:00 p.m.

Agenda

Call to Order

- | | |
|--|------------------|
| 1) Introduction & Chair's Remarks | Presenter Kunkle |
| 2) Public Comment | |
| 3) Review and Approval of Minutes | |
| a. Approval of the September 8, 2021 Regular Meeting Minutes | Presenter Kunkle |
| 4) New Business/Old Business Updates | |
| a. Mayor's Monarch Pledge | |
| i. Status of Sustainable Pollinator Garden | Presenter Essig |
| b. Climate Action Plan for the Chicago Region (CAP) & Resolution | |
| c. Sustainability Chapter for Winnetka Futures 2040 Plan Review | |
| i. CAP | Presenter Kunkle |
| ii. CEJA - Climate and Equitable Jobs Act | |
| iii. Lakota Group 12 Pillars | |
| d. Sustainable Materials Management | |
| i. Materials Management Advisory Committee Recommendations | Presenter Kunkle |
| 5) Communications | |
| a. Approval of November Communication Items | Presenter Puga |
| b. Discussion of December Communication Items | Presenter Puga |
| 6) Committee/Staff Reports | |
| 7) Open Forum | |
| 8) Adjournment | |

Posted Time and Date

NOTICE

All agenda materials are available at villageofwinnetka.org (**Government > Council Information > Agenda Packets & Minutes**); **the Reference Desk at the Winnetka Library; or in the Manager's Office at Village Hall (2nd floor)**. The Village of Winnetka, in compliance with the Americans with Disabilities Act, requests that all persons with disabilities who require certain accommodations to allow them to observe and/or participate in this meeting or have questions about the accessibility of the meeting or facilities, contact the Village ADA Coordinator, at 510 Green Bay Road, Winnetka, Illinois 60093, 847-716-3543; T.D.D. 847-501-6041.

WINNETKA ENVIRONMENTAL AND FORESTRY COMMISSION
REGULAR MEETING MINUTES
September 8, 2021

A record of a legally convened meeting of the Environmental and Forestry Commission of the Village of Winnetka, which was held in the Council Chambers at Village Hall, 510 Green Bay Road, Winnetka, Illinois, Wednesday, September 8, 2021, at 7:00 pm.

Call to Order:

Chairperson Dowding called the meeting to order at 7:01 p.m.; Voting Members present: Chairperson Chuck Dowding, Commissioners Chris Foley, David Varca, Roseann Park-Jones, Ted Wynnychenko, and Liz Kunkle. Voting Members absent: Commissioners Barry Sylvester. A quorum of presently appointed members was present. Village Council Representative present: Kim Mancini. Student Representatives absent: Scarlett Harper and Marcus Buccellato. Staff Representative present: Diana Puga, Public Works Analyst. Public present: No members of the public were present.

1) Introduction & Chair's Remarks:

Chairperson Dowding called the meeting to order at 7:01 p.m. and welcomed all Commission members and the public. Staff Representative Puga took roll call for attendance.

2) Public Comment:

No Public Comment

3) Review and Approval of Minutes:

a) Approval of the August Regular Meeting Minutes

Chairperson Dowding asked for a motion to approve the August 11, 2021, minutes. The motion was moved by Commissioner Wynnychenko and seconded by Commissioner Kunkle.

AYES:	FOLEY, VARCA, PARK-JONES, WYNNYCHENKO, KUNKLE
ABSENT:	SYLVESTER
NAYS:	NONE

4) New Business, Old Business/Updates:

a) Mayor's Monarch Pledge

Chairperson Dowding provided a brief update regarding the butterfly pollinator garden. Eagle Scout Candidate Michael Essig planted the garden on August 28th at the Public Works facility, he states that approximately 20 individuals came out to assist in the planting. Essig is currently working to send out calendars to all involved groups, have all

but one month filled on the sustainability plan, and reports the garden is in a prominent location. Essig also reported there is a challenge with the watering schedule at the moment, Chairperson Dowding requested that Staff Liaison Puga discuss the issues with the Village Forester and report back to the Commission.

b) Sustainability Chapter for 2040 Comprehensive Plan Review

Chairperson Dowding reported that he and Commissioner Wynnychenko would be attending the joint Plan Commission and Village Council study session to act as a resource. Chairperson Dowding provided President Rintz a copy of the Sustainability Chapter for the 2040 Comprehensive Plan.

c) Sustainable Materials Management

i) Food Scrap & Composting

Commissioner Kunkle states she would like this agenda item to be a placeholder for future and further discussions on how the Village can pursue reduction, diversion, and compost organic including potentially developing incentives for businesses and residents.

Chairperson Dowding shared with Commissioner Kunkle an article about the pros and cons of using a cloth versus a reusable plastic bag. This conversation led the Commission to discuss the lack of education and communication to encourage more businesses to recycle.

The Commission inquired about tipping reports and requested a graph or report comparing residential and commercial refuse and recycling tonnage collections for 2019 and 2020 for comparison with 2021 tonnage after rollout of the new system.

Chairperson Dowding and Commissioner Kunkle attended a meeting in August and commented on the need for increased interaction on sustainable issues of mutual interest. One of the possibilities is creating pollinator friendly gardens on golf courses.

5) Communications:

a) Approval of October Communication Items

Staff Liaison Puga informed the Commissioners that the Public Works department had some concerns with rebranding the Pumpkin Composting event to include the verbiage “Pumpkin Smash” as it could be misinterpreted and could be a potential liability. Commissioner Kunkle believes the decision to maintain current branding is ridiculous and beyond disappointing, she states it is word play, but doesn’t change the operations. The Commission discussed amending the communication item to mitigate liability concerns

and proposed including the “Please note: residents will not actually smash their own pumpkins!”. Chairperson Dowding asked for a motion to approve the October communication items which was moved by Commissioner Wynnychenko and seconded by Commissioner Park-Jones.

AYES: FOLEY, VARCA, PARK-JONES, WYNNYCHENKO, KUNKLE
ABSENT: SYLVESTER
NAYS: NONE

b) Discussion of November Communications Items

The Commissioners made minor grammatical and date changes to the November Communications Items.

6) Commission/Staff Reports:

Staff Liaison Puga informed the Commission of a plan for Lakota Group to attend at the meeting to be held on Wednesday, October 13, 2021. The commission discussed this possibility and requested that Dowding seek to delay the visit until November when he could attend.

7) Open Forum: None.

8) Adjournment:

There being no further business, Chairperson Dowding asked for a motion to adjourn which was moved by Commissioner Foley and seconded by Commissioner Varca. The motion passed; the meeting adjourned at 8:25 pm.

AYES: FOLEY, VARCA, PARK-JONES, WYNNYCHENKO, KUNKLE
ABSENT: SYLVESTER
NAYS: NONE

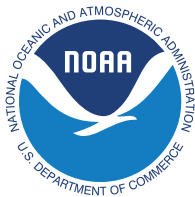
CLIMATE ACTION PLAN FOR THE CHICAGO REGION

2021

SUMMARY DOCUMENT

Metropolitan Mayors Caucus | NOAA





Co-funded by
the European Union



Chicago Metropolitan
Agency for Planning

This document is a condensed version of the 2021 Climate Action Plan for the Chicago Region.
The full plan can be viewed at: <https://mayorscaucus.org/climate-change/>

How to cite the 2021 Climate Action Plan for the Chicago Region:
Makra, Edith and Ned Gardiner, 2021. *Climate Action Plan for the Chicago Region*,
Metropolitan Mayors Caucus, NOAA, and U.S. Climate Resilience Toolkit.

Cover image credit: Ann Hilton Fisher

SUMMARY DOCUMENT

TABLE OF CONTENTS

Climate Action Plan for the Chicago Region

INTRODUCTION	4
Executive Summary	4
How to Use This Plan	6
CLIMATE MITIGATION	8
Mitigation Objectives and Strategies	8
Demonstrate Leadership to Reduce Emissions	9
Decarbonize Energy Sources	11
Optimize Building Energy	13
Implement Clean Energy Policies	15
Decarbonize Transportation	17
Reduce Vehicle Miles Traveled	19
Manage Water and Waste Sustainably	21
Sustain Ecosystems to Sequester Carbon	23
CLIMATE ADAPTATION AND RESILIENCE	25
Steps to Resilience	25
Adaptation Objectives and Strategies	26
Overarching Actions to Build Resilience	27
Flooding and Homes	28
Flooding and Transportation	29
Stormwater and Infrastructure	30
Heat and Health	31
Air Quality, Flooding and Public Health	32
Drought and Water Supply	33
Adaptation Strategies	34
Engage and Educate the Community About Climate Resilience and Adaptation	34
Incorporate Equity and Inclusion Into Climate Adaptation Efforts	35
Collaborate and Build Capacity For More Resilient Community	36
Enact Plans and Policies Focused on Adaptation and Resilience	37
Adapt Operations and Investments For Future Climate Conditions	38
CROSS-CUTTING OBJECTIVES AND CO-BENEFITS	39
CONCLUSION	40

This document is a condensed version of the 2021 Climate Action Plan for the Chicago Region.
The full plan can be viewed at: <https://mayorscaucus.org/climate-change/>

EXECUTIVE SUMMARY

Climate Action Plan for the Chicago Region

We have begun the **decisive decade**: climate action must reduce greenhouse gas emissions, and we must adapt equitably to changes that are inevitable. This plan for the Chicago metropolitan region—one of the first regional climate plans in the United States—is our call to action. We will address global and local climate challenges via municipal leadership.

Over a 16-month period, beginning in August 2019, **the Caucus brought together 270 people from 175 organizations, including representatives of 53 municipalities and counties.** Three workshops demonstrated how the Greenest Region Compact (GRC) can help municipalities reduce greenhouse gas (GHG) emissions. Four workshops focused on identifying and adapting to regionally important climate-related hazards, especially flooding and heat, using the U.S. Climate Resilience Toolkit's *Steps to Resilience*³ and while centering actions on social equity. As a result of these engagements, **the GRC has augmented its library of municipal-scale actions for both climate mitigation and adaptation.**

The strategies contained in this plan are specifically tailored for action at the municipal scale. Municipal governments are uniquely positioned to **lead, enact** policies, and **encourage** others to take action. These three roles are prominent throughout the plan because they reflect actions that municipalities can take independently. The Caucus will work with its membership, starting with its 136 GRC signatories, to immediately undertake these common sense strategies so that, **collectively, we may address the depth and complexity of the climate crisis.**

A multi-jurisdictional approach is needed for addressing the climate crisis. Each community must link its work to that of others to address the regional and global scope of the global climate challenge. If one municipality reduces GHG emissions but the larger region makes no progress, climate change and its related impacts will accelerate. The same can be said at broader scales. If Chicagoland reaches net zero emissions but the state and nation take no action, the climate crisis will worsen. **This plan positions us as leaders in the national effort to mitigate that crisis.**

Climate adaptation also requires coordination. Building resilience must address social inequity to meet our shared objectives across all communities. **Municipalities must urgently coordinate action to both mitigate and adapt to climate change.**

Our region begins its mitigation efforts with a clean energy advantage, but **we must swiftly complete the transition to 100% clean energy sources. The greatest opportunities to reduce GHG emissions come from electrifying transportation, optimizing building energy, and enacting clean energy policies.**

Fostering healthy ecosystems to capture and store carbon will enhance quality of life, recreation, flood protection, and a multitude of other benefits. **Mitigation and adaptation go hand-in-hand.**

Planners, scientists, and engagement with GRC signatories spotlighted **six high-priority climate hazards and their potential impacts to people, assets, and resources: Heat and Health; Flooding and Homes; Flooding and Infrastructure; Flooding and Transportation; Drought and Water Supply; and Air Quality, Flooding, and Public Health.**

This plan identifies particular municipal strengths in community engagement and collaboration to address hazards for equitable outcomes. Overarching actions to confidently build community resilience, such as local assessment and planning, require cooperation across the region. The impacts and strategies in this plan are important, but **building resilience is an iterative process that will require sustained effort** given the fact that the climate system will continue to vary (for natural reasons) and to change (due to past decisions).

Municipal leaders may now take strategic actions to build cohesive, resilient communities and meet urgent targets to halt greenhouse gas emissions. Strategies are anchored in the Greenest Region Compact, informed by dozens of preceding climate action plans and tools, and ultimately aligned with global targets through the powerful Global Covenant of Mayors for Climate and Energy.

The Climate Action Plan for the Chicago Region encompasses two goals, each with its own interim targets and objectives, to reduce future impacts and adapt to a changing climate: **(1) net zero GHG emissions** and **(2) persistent, equitable climate adaptation**.

CLIMATE MITIGATION GOAL

Net zero greenhouse gas emissions

INTERIM TARGETS

2030 Reduce GHG emissions
50% from 2005 levels

2040 Reduce GHG emissions
65% from 2005 levels

2050 Reduce GHG
emissions at least 80% from
2005 levels

MITIGATION OBJECTIVES

1. Demonstrate leadership to reduce emissions.
2. Decarbonize energy sources.
3. Optimize building energy.
4. Implement clean energy policies.
5. Decarbonize transportation.
6. Reduce vehicle miles traveled.
7. Manage water and waste sustainably.
8. Sustain ecosystems to sequester carbon.

CLIMATE ADAPTATION GOAL

Persistent, equitable climate adaptation

INTERIM TARGETS

2030 Climate-resilient
governance

2040 Resilience across
jurisdictions

2050 Cohesive, resilient
communities

ADAPTATION OBJECTIVES

1. Engage and educate the community about climate resilience and adaptation.
2. Incorporate equity and inclusion into climate adaptation efforts.
3. Collaborate and build capacity for a more resilient community.
4. Enact plans and policies focused on adaptation and resilience.
5. Adapt operations and investments for future climate conditions.

HOW TO USE THIS PLAN

This Climate Action Plan identifies common objectives for regional stakeholders to consider, though strategies are scaled for municipal action.

The regional GHG inventory and emissions models are likely of great value to municipal leaders embarking on local climate action. This assessment will help local leaders prioritize actions related to building and transportation energy, the two greatest sources of GHG emissions. Individual communities need not undertake their own local GHG inventories to exercise their authority and influence to help the region mitigate climate change.

Proposed mitigation solutions necessarily span a wide range—from actions that are relatively simple and affordable, like making buildings energy efficient, to actions that are complex and formidable, like district energy systems. Municipalities may **lead** by demonstrating low-carbon operations and choices within their own operations. Municipalities may **enact** policies, like streamlining solar codes and processes that accelerate the transition to clean energy, or they may **encourage** others to reduce GHG emissions with investments and behaviors, like creating paths and infrastructure that encourage people to walk or bike instead of drive. Mitigation strategies are framed for municipalities to effect change using these three primary levers, when they can.

The value in the regional climate risk and vulnerability assessment is to focus actions to protect people, places, and things that are increasingly in harm's way given a changing climate. Through diverse stakeholder input, this plan prioritizes climate hazards and impacts threatening communities in the region, primarily heat and flooding. The plan's adaptation objectives leverage municipal strengths and authorities and underscore the importance of equity. It presents strategies that municipalities can take independently and in the near term to begin adapting to climate change. It does not, however, provide a ranked set of priorities for each of the 284 municipalities in the region. In an ideal world, adaptation would ensue from each local government taking the *Steps to Resilience*²⁷ to understand its own climate-related exposure, vulnerability, and risk. We recognize that resources for such an effort may not be available in all communities. Nonetheless, each government will need to prioritize its own concerns prior to planning and taking adaptation actions that may require substantial resources in their own right.

The mitigation and adaptation strategies proposed in this plan are not exhaustive, but they do reflect priority actions that will effectively support adaptation and mitigation goals in the short term and using ideas that have been tested elsewhere. Strategies dovetail with Greenest Region Compact goals and should inform local sustainability plans. They are anchored in the region's comprehensive plan, ON TO 2050, and build on that plan's recommendations around community, prosperity, environment, governance, and mobility.

The mitigation and adaptation strategies proposed in this plan are not exhaustive, but they do reflect priority actions that will effectively support adaptation and mitigation goals in the short term and using ideas that have been tested elsewhere.



LEAD

Municipalities take actions within their own operations and decisions.



ENCOURAGE

Influence constituents and partners to change behaviors or take action through education, collaboration, direct investment, and incentives.



ENACT

Municipalities enact policies or support other jurisdictions in enacting policies.

²⁷ Op. cit. <https://toolkit.climate.gov/#steps>. Accessed February 2021.

LEAD



ENCOURAGE



ENACT



2021

1960

CO₂

CO₂

CO₂

CO₂

CO₂

CO₂

MITIGATION OBJECTIVES AND STRATEGIES



DEMONSTRATE LEADERSHIP TO REDUCE EMISSIONS

Direct emission reductions are not possible without local leadership, public engagement and the supportive actions of local government. This objective supports all other mitigation objectives in reaching the overall GHG reduction target. Municipalities must lead in sustainability planning by engaging residents and articulating a shared vision and plan. Municipal operations can be smart and sustainable by conserving energy and resources.



LEAD

- Build and support a resilient local economy that supports climate objectives.
- Integrate smart technology into operations to effectively manage resource consumption (also *Encourage* others to do so).
- Demonstrate sustainability in municipal operations, purchasing and through public events.



ENACT

- Adopt the Greenest Region Compact and a GRC-based sustainability plan aligned with regional climate objectives.
- Establish local sustainability targets that support the regional climate objectives.

EQUITY CONSIDERATIONS

- Engage diverse civic leaders in target-setting and implementation.
- Tailor plans to benefit vulnerable communities.

OUTCOMES & CO-BENEFITS

- Leading by example inspires followers and cooperation across sectors.
- Alignment of local energy, water conservation, and waste reduction targets.
- Effective local plans guide action.
- Collaborative and accelerated GHG reduction.
- Local green jobs and sustainable businesses.
- Informed and engaged constituents.
- 'Smart' operations perform better.



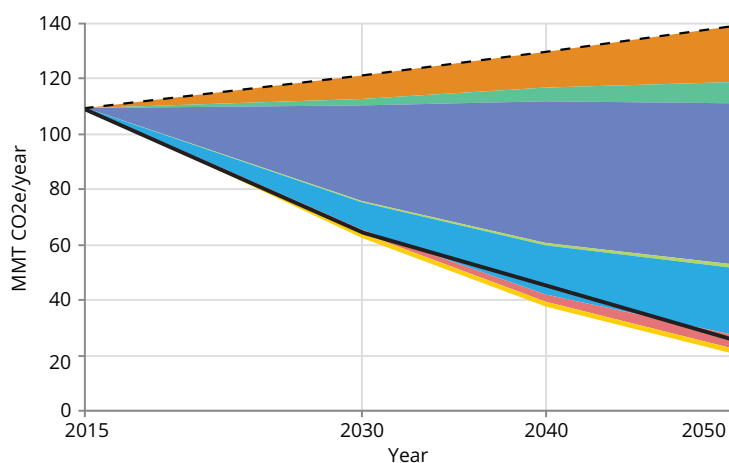
**Greenest
Region
Compact**

COLLABORATING FOR SUSTAINABLE COMMUNITIES

Four counties and 132 municipalities support consensus sustainability goals within the Greenest Region Compact (GRC) to guide action and citizen engagement. With this plan, the GRC will now address the climate crisis.

1. DEMONSTRATE LEADERSHIP TO REDUCE EMISSIONS

	Strategy	Municipal Role	Solution Status	GHG Reduction Potential	Cost	Effort Required	Lead Partners & Resources	Achieve Equity	Outcomes (Co-benefits)
a	Establish local sustainability targets that support regional climate objectives.	 ENACT	Proven	Enabling	¢	Med	Constituents, nonprofits	Engage diverse civic leaders in target-setting and implementation.	Local energy, water conservation, and waste reduction targets aligned; collaborative and accelerated GHG reduction
b	Build and support a resilient local economy that supports climate objectives.	 LEAD	Proven		\$\$	High	Economic development organizations, businesses, academia	Provide access to green jobs; preserve local retail and services in disadvantaged communities.	Local green jobs and sustainable businesses; local production and consumption; reduced transportation costs
c	Integrate smart technology into operations to effectively manage resource consumption.	 LEAD ENCOURAGE	Evolving		\$\$\$	High	Gas and electric utilities, tech industry, EMAs, transit agencies	Prioritize smart technology investments in vulnerable communities.	Improved operational performance through 'smart' technology
d	Adopt the Greenest Region Compact and a GRC-based sustainability plan aligned with the regional climate objectives.	 ENACT	Proven		\$	Med	MMC, StR, nonprofits	Tailor plans to the needs of vulnerable communities	Local plans guide effective action
e	Demonstrate sustainability in municipal operations, purchasing, and through public events.	 LEAD	Proven		\$	High	Constituents, COGs, vendors	Prioritize small and minority-owned vendors.	Leading by example inspires followers and cooperation across sectors; informed and engaged constituents



MUNICIPAL ROLES IN CLIMATE ACTION



LEAD:

municipalities take actions within their own operations and decisions



ENCOURAGE:

influence constituents and partners to change behaviors or take action through education collaboration, direct investment and incentives



ENACT:

municipalities enact policies or support other jurisdictions in enacting policies

DECARBONIZE ENERGY SOURCES

Switching from fossil-fuel to cleaner sources to generate energy presents the greatest opportunity to meet our GHG reduction target. While 80% of energy generated regionally is already clean, this continued transition must include large utility-scale solar, wind, and nuclear power generation systems, and infrastructure to transmit, store and supply electricity to the grid when needed. The transition must be affordable for all consumers and support reliability. Smaller distributed energy resources, like rooftop solar, provide clean energy close to where they are used. District energy systems connect multiple buildings to highly efficient sources of heating and cooling energy.



LEAD

- Procure clean energy for municipal operations
- Build renewable energy and energy storage capacity to meet the clean energy needs of the region



ENCOURAGE

- Engage the community and policymakers to support existing clean energy and choose renewable clean energy through procurement, aggregation, financing, community solar, and other collaborative programs
- Partner with utilities to complete the decarbonization of the local grid and collaborate to decarbonize the multi-state regional grid
- Explore renewable district energy solutions

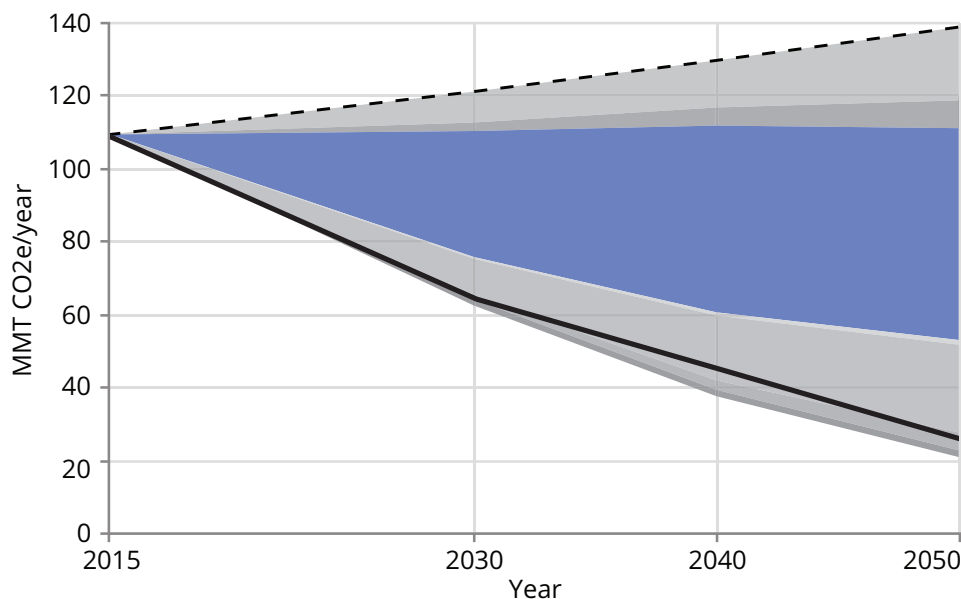
See also: *Implement Clean Energy Policies*

EQUITY CONSIDERATIONS

- Replace fossil fuel-fired power to improve air quality
- Demonstrate long-term utility cost savings
- Make clean energy options available to low-income households through incentives and collaborative procurement

OUTCOMES & CO-BENEFITS

- Thriving renewable energy industry
- Modern, efficient electric grid
- Resilient energy systems
- Informed clean energy consumers
- Reduce long-term costs



Decarbonize Energy Sources reduction targets (MMT CO₂e)

2030 **34.5**

2040 **51.1**

2050 **57.9**

--- Business As Usual
— Target

2. DECARBONIZE ENERGY SOURCES

	Strategy	Municipal Role	Solution Status	GHG Reduction Potential	Cost	Effort Required	Lead Partners & Resources	Achieve Equity	Outcomes (Co-benefits)
a	Procure clean energy for municipal operations. Build renewable energy and energy storage capacity.	 LEAD	Evolving	High	\$\$\$	High	Clean energy industry, property owners, investors	Prioritize access to clean energy jobs in disadvantaged communities.	Modernized, efficient electric grid; resilient distributed generation; thriving renewable energy industry; reduced long-term utility costs; create clean energy jobs
b	Engage the community to choose clean energy through procurement, aggregation, financing, community solar, and other collaborative programs	 ENCOURAGE	Evolving	Enabling	\$	Low	Clean energy industry, nonprofits, electric utility, regulators	Provide access to affordable, clean energy.	Expanded market demand for clean energy; informed energy consumers
c	Partner with utilities to complete decarbonization of the local grid, collaborate to decarbonize the multi-state regional grid	 ENCOURAGE	Aspirational	High	\$\$\$	High	Electric utility, investors, regulators, clean energy industry	Replace coal-fired and gas-fired power to improve air quality. Support clean energy jobs training for displaced fossil fuel workers.	Elimination of fossil-fuel generated electricity; utility-scale solar, wind, and nuclear power generation
d	Explore renewable district energy solutions	 ENCOURAGE	Aspirational	High	\$\$\$	High	Clean energy industry, utilities, developers, property owners	Reduce long-term energy burden.	Increased resilience and efficiency, reduced long-term costs

OPTIMIZE BUILDING ENERGY

Energy used for heating and cooling buildings is currently the largest source of regional GHG emissions. Operational and behavioral changes and more efficient equipment can reduce energy use. Growing numbers of policy and finance mechanisms support increased energy efficiency investments. Options to power buildings with zero-carbon energy sources, generate and store renewable energy are technically accessible to building owners. Electrifying heating, cooling, cooking and other operations allows emissions from the building sector to fall as the energy grid decarbonizes.



LEAD

- Retrofit municipal buildings, facilities, and streetlights for maximum efficiency.



ENCOURAGE

- Support electric space and water heating through demonstration, education, and incentives.
- Engage residential and commercial property owners to optimize building efficiency. Leverage programs such as demand response, energy efficiency incentives, and PACE financing.

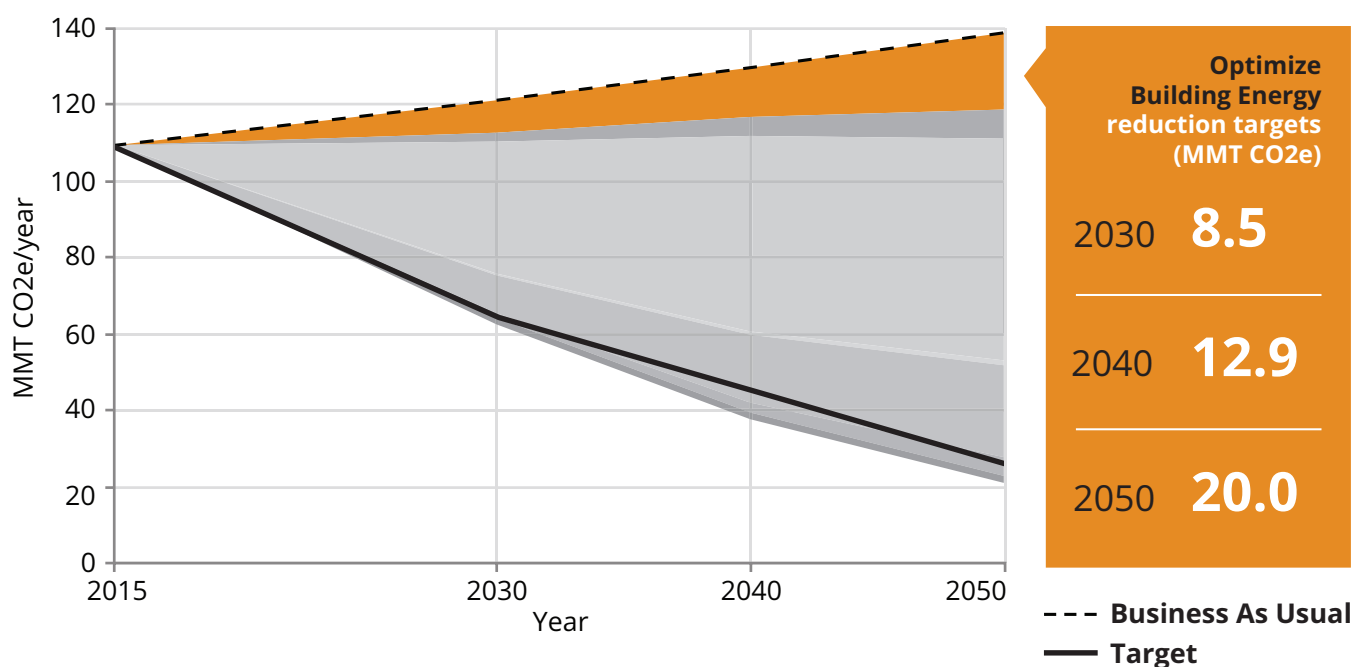
See also: *Implement Clean Energy Policies*

EQUITY CONSIDERATIONS

- Invest in multi-family housing
- Reduce household energy burden
- Make homes safer, and more comfortable

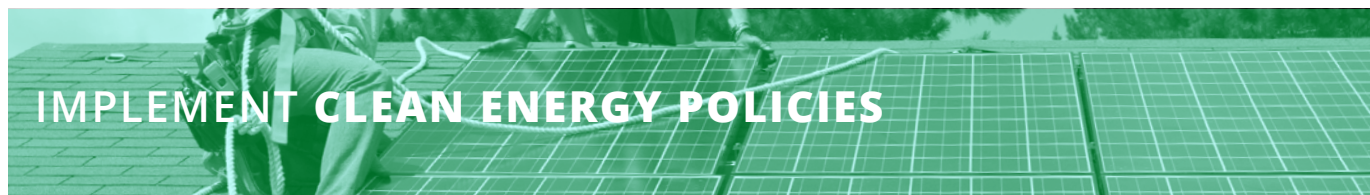
OUTCOMES & CO-BENEFITS

- Reduce energy costs
- Improve building performance
- Improve heating and cooling
- Improve indoor air quality
- Create clean energy jobs



3. OPTIMIZE BUILDING ENERGY

	Strategy	Municipal Role	Solution Status	GHG Reduction Potential	Cost	Effort Required	Lead Partners & Resources	Achieve Equity	Outcomes (Co-benefits)
a	Retrofit municipal buildings, facilities, and streetlights for maximum efficiency.	 LEAD	Proven	Low	\$\$	Low	Electric and gas utilities, clean energy industry	Prioritize access to clean energy jobs in disadvantaged communities.	Reduced energy costs; improved building performance; resilient facilities
b	Support electric space and water heating through demonstration and education.	 ENCOURAGE	Aspirational	High	\$\$\$	Med	Electric and gas utilities, building owners	Invest in areas vulnerable to poor indoor air quality.	Improved indoor air quality; increases impact of grid decarbonization
c	Engage residential and commercial property owners to optimize building efficiency. Leverage programs such as demand response, energy efficiency, and PACE financing.	 ENCOURAGE	Proven	High	\$	Low	Homeowners, CAAs, building owners, electric and gas utilities, clean energy industry, IECA, nonprofits	Invest in multi-family housing; reduce household energy burden. Provide energy savings information in all languages and formats.	Reduced energy costs; reduced peak demand; improved building performance; leveraged private investment; resilient buildings; safe and comfortable homes



Policies that promote building efficiency and support renewable energy can reduce GHG emissions over the long term. Local governments can set and support clean energy policies, though policies that are aligned with local, state and federal levels are most impactful. When possible, buildings should be net zero, generating at least as much renewable energy as the building efficiently consumes.



ENACT

- Support robust building energy conservation codes, benchmarking, and building performance standards to optimize energy efficiency for retrofit projects
- Require high performance, all-electric, and net zero new building construction
- Modernize municipal franchise agreements to leverage investment in clean energy and reduce costs to residents
- Adapt zoning codes and streamline development processes to accelerate investment in solar and other renewable energy systems



ENCOURAGE

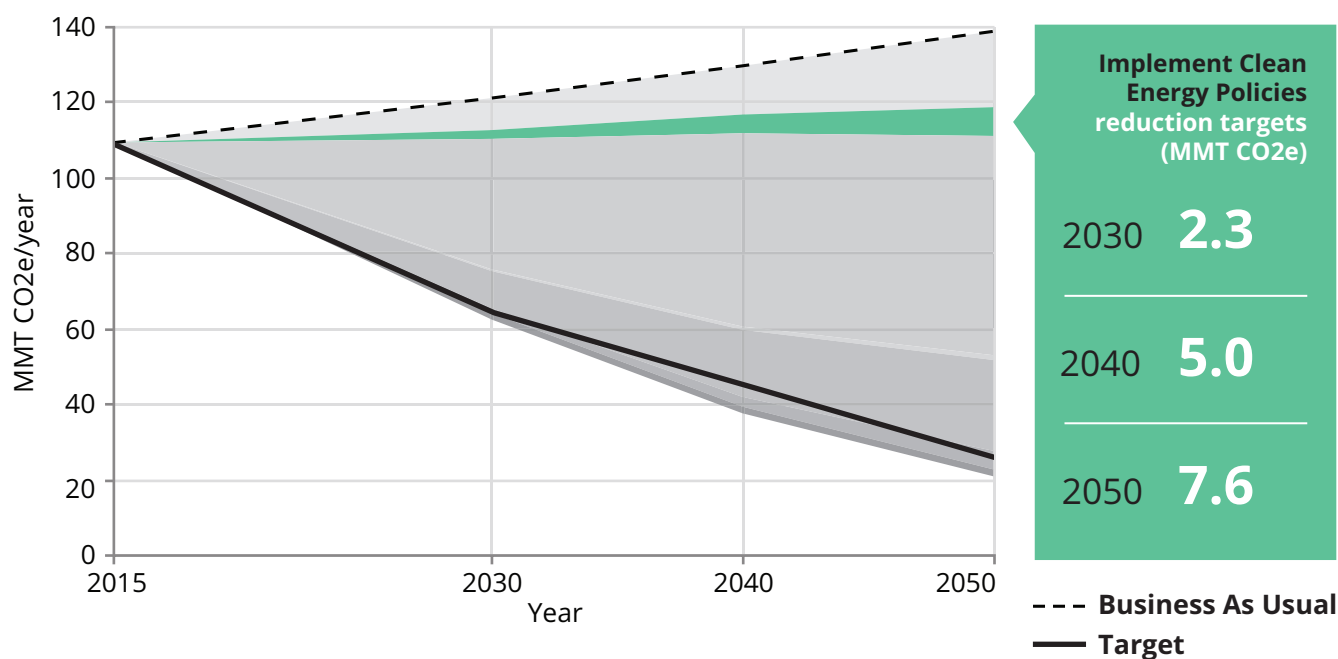
- Support state and federal policies to advance clean energy

EQUITY CONSIDERATIONS

- Ensure benefits are shared equitably
- Reduce long term energy burden
- Eliminate utility franchise cost to residents
- Make rooftop solar more accessible by reducing soft costs
- Support retrofits and code compliance for low-income property owners

OUTCOMES & CO-BENEFITS

- Reduce energy and water costs
- Improve long-term building performance
- Leverage private investment in buildings
- Demonstrate technology and design to achieve net-zero
- Create operational resilience
- Create clean energy jobs



4. IMPLEMENT CLEAN ENERGY POLICIES

	Strategy	Municipal Role	Solution Status	GHG Reduction Potential	Cost	Effort Required	Lead Partners & Resources	Achieve Equity	Outcomes (Co-benefits)
a	Support robust building energy conservation codes, benchmarking, and building performance standards to optimize energy efficiency for retrofit projects.	 ENACT	Evolving	Enabling	\$	Med	ICC, IGA	Reduce long-term energy burden. Support retrofits and code compliance for low-income property owners.	Reduced energy and water costs; improved long-term building performance; operational resilience; leveraged private investment; demonstration of technology and design to achieve net-zero
b	Require high performance, all-electric, and net zero new building construction.	 ENACT	Evolving	High	\$\$\$	High	Developers, building owners, clean energy industry, gas and electric utilities		
c	Modernize municipal franchise agreements to leverage investment in clean energy and reduce costs to residents.	 ENACT	Contingent	Enabling	\$\$\$	Med High	Gas and electric utilities	Eliminate franchise cost to residents.	Investment in public facilities enabled
d	Adapt zoning codes and streamline development processes to accelerate investment in solar and other renewable energy systems.	 ENACT	Proven	Enabling	\$	Med	Clean energy industry, MMC	Make rooftop solar more accessible by reducing soft costs.	Accelerated investment in solar; more affordable, safe and effective renewable energy systems; grid dependency lessened
e	Support state policies to advance clean energy	 ENCOURAGE	Evolving	Enabling	c	Low	ICC, IGA	Assure clean energy investments benefit vulnerable communities	Thriving clean energy industry

DECARBONIZE TRANSPORTATION

Vehicles used for transportation and freight are a major source of emissions in the region. Switching to electric vehicles (EVs) and improving fuel efficiency reduces these emissions significantly. Converting high-mileage transit and fleet vehicles to cleaner EVs can drive market demand for EVs and accelerate broad adoption in other vehicle markets. New networks of accessible EV charging infrastructure must support this expansion.



LEAD

- Create accessible and reliable networks of electric vehicle chargers
- Transition fleets to low- and zero-emission vehicles



ENCOURAGE

- Support strong national fuel efficiency standards
- Encourage other public and private fleet operators to switch to low- and zero-emission vehicles
- Encourage residents to transition to electric vehicles through policies and infrastructure investment



ENACT

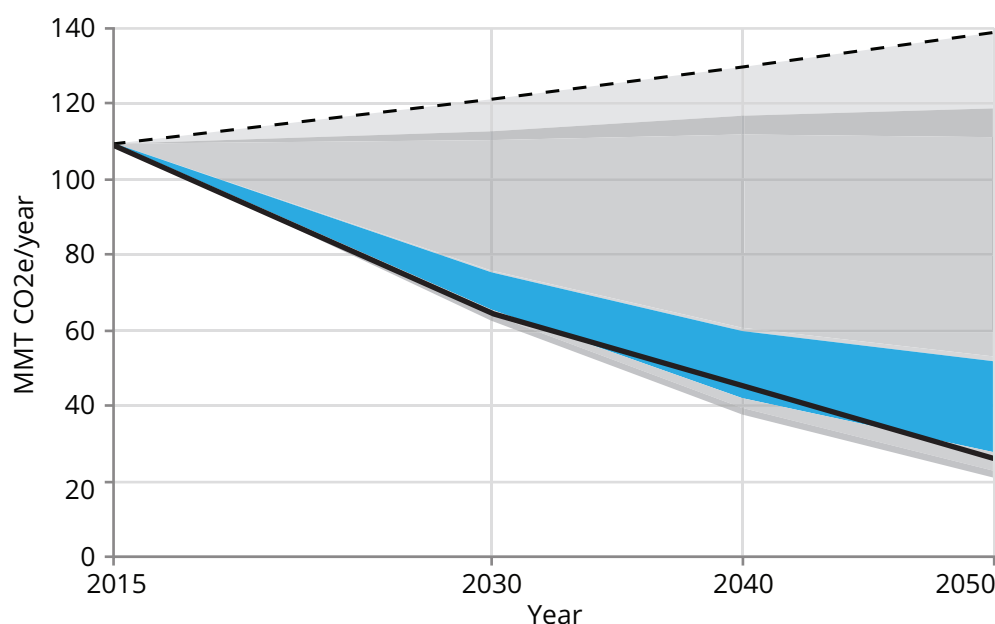
- Enact and enforce anti-idling policies
- Adapt development processes to accelerate investment in EV charging infrastructure

EQUITY CONSIDERATIONS

- Support access to clean transportation for all
- Invest in EV charging for multi-family dwellings
- Reduce health impacts from tailpipe emissions
- Reduce long-term fuel costs

OUTCOMES & CO-BENEFITS

- Reduce tailpipe emissions and pollution
- Clean, quiet transit and service vehicles
- Reduce fuel cost over the long-term
- Reduce soft costs of installing EV charging
- Accelerate private investment in EVs and EV charging infrastructure
- Build safe and effective EV charging networks
- Create clean energy jobs



Decarbonize Transportation reduction targets (MMT CO₂e)

2030 **9.8**

2040 **17.7**

2050 **24.0**

--- Business As Usual
— Target

5. DECARBONIZE TRANSPORTATION

	Strategy	Municipal Role	Solution Status	GHG Reduction Potential	Cost	Effort Required	Lead Partners & Resources	Achieve Equity	Outcomes (Co-benefits)
a	Create accessible and reliable networks of electric vehicle (EV) chargers.	 LEAD	Evolving	Enabling	\$\$	High	IEPA, IDOT, CMAP, electric utility, EV industry, employers, property owners, businesses	Provide access to clean transportation for all, focus on EV infrastructure for workplace and multi-family dwellings; protect vulnerable residents from tailpipe emissions.	Electric vehicles displace internal combustion vehicles
b	Transition fleets to low- and zero-emission vehicles and encourage others to do so. Encourage the switch to electric passenger vehicles.	 LEAD  ENCOURAGE	Evolving	High	\$\$\$	Med High	IEPA, CTA, Pace, Metra, school districts, public and private fleet operators, nonprofits		Clean, quiet transit and service vehicles; reduced long-term fuel costs; reduced tailpipe emissions
c	Support strong national fuel efficiency standards.	 ENCOURAGE	Proven	High	¢	Low	Federal government		Reduced health impacts of tailpipe emissions
d	Enact and enforce anti-idling policies.	 ENACT	Proven	Low	\$	Low	School districts, transit agencies, institutions and venues		
e	Adapt development processes to accelerate investment in EV charging infrastructure.	 ENACT	Evolving	Enabling	\$	Med	IDOT, electric utility, EV industry, MMC		Accelerated investment in EV charging infrastructure; reduced soft costs; safe and effective EV charging systems



Whenever possible, walking, biking and public transit should replace trips made using single occupancy vehicles (SOVs). To encourage sustainable transportation choices, safe, accessible infrastructure like bike lanes, sidewalks, and multi-use paths are needed. Development anchored by access to transit, and collaboration to support robust transit service will reduce dependence on SOVs for the long-term.



LEAD

- Build and maintain safe, resilient, and accessible active transportation infrastructure (also *Encourage* others to do so)



ENCOURAGE

- Collaborate to enhance regional transit and expand capacity
- Encourage walking, biking and transit use through education, incentives, and collaboration



ENACT

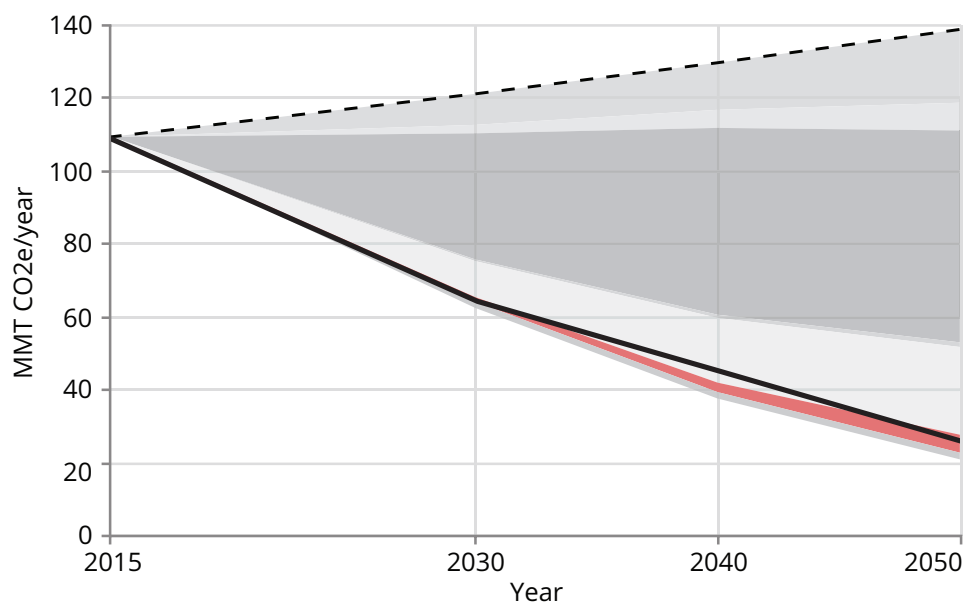
- Prioritize transit-oriented and transit-supportive development and curtail sprawl
- Plan and design roadways and corridors to benefit all road users and promote active transportation
- Strategically manage parking policies to promote active and public transportation
- Promote multi-family housing development near transit stations and along transit routes

EQUITY CONSIDERATIONS

- Focus on safe and accessible transportation for vulnerable communities
- Reduce burden of owning and maintaining personal vehicles
- Better health outcomes
- Greater mobility to improve access to opportunity

OUTCOMES & CO-BENEFITS

- Development of more compact, accessible neighborhoods
- More walking and biking strengthens community cohesion
- Improve health and wellness
- Reduce infrastructure needed to support SOVs
- Reduce traffic congestion
- Improve air quality



Reduce Vehicle Miles Traveled reduction targets (MMT CO₂e)

2030 **1.3**

2040 **2.6**

2050 **4.9**

--- Business As Usual
— Target

6. REDUCE VEHICLE MILES TRAVELED

	Strategy	Municipal Role	Solution Status	GHG Reduction Potential	Cost	Effort Required	Lead Partners & Resources	Achieve Equity	Outcomes (Co-benefits)
a	Prioritize transit-oriented development and transit-supportive development.	 ENACT	Evolving	High	\$\$	High	RTA, CMAP, developers, property owners, economic development organizations	Focus on safe and accessible transportation for vulnerable communities.	Development of more compact, accessible neighborhoods; community cohesion strengthened; burden of owning and maintaining personal vehicle lessened
b	Promote multi-family housing development near transit stations and along transit routes.	 ENACT	Proven		\$	Med			Reduced traffic congestion; improved air quality; improved access to economic opportunity through greater mobility
c	Collaborate to enhance regional transit and expand capacity.	 ENCOURAGE	Proven	Combined High	\$\$\$	High	CTA, RTA, Pace, Metra	Provide safe and accessible transportation for all.	Safe active transportation; connected communities; reduced tailpipe emissions; improved health and wellness; reduced infrastructure demands for personal vehicles
d	Plan and design roadways and corridors to benefit all road users and promote active transportation.	 ENACT	Proven		\$\$	High	IDOT, RTA, counties		
e	Build and maintain safe, resilient, and accessible active transportation infrastructure.	 LEAD ENCOURAGE	Proven		\$\$	High	IDOT, counties, forest preserve districts, park districts, nonprofits, COGs	Target disadvantaged communities for investment and education.	Reduced use of personal vehicles, increased active transportation
f	Encourage walking, biking and transit use through education, incentives, and collaboration.	 ENCOURAGE	Proven		\$	Low	School districts, nonprofits, employers, local businesses, institutions, CTA, RTA, Metra, Pace		
g	Strategically manage parking policies to promote active and public transportation.	 ENACT	Evolving		\$	Med	Local businesses, economic development organizations, CTA, RTA, Metra, Pace	Provide safe and accessible transportation for all.	

MANAGE WATER AND WASTE SUSTAINABLY

Managing waste sustainably requires actions ranging from smart consumer choices to waste systems and markets. A circular economy keeps material in use to reduce GHG emissions over the life-cycle of materials and products. Robust community recycling and composting, and strong markets for using these commodities is needed. Methane and other potent GHG emissions from landfills and wastewater systems can be captured and utilized.



LEAD

- Increase composting and biological treatment of waste
- Utilize compost and biosolids in landscaping
- Reduce energy used to process and deliver safe drinking water
- Reduce energy needed to manage wastewater
- Shift both drinking and wastewater operations to clean energy sources
- Conserve water and operate efficient water utilities to reduce energy demands
- Capture and convert wastewater biogas to energy (also *Encourage* others to do so)



ENCOURAGE

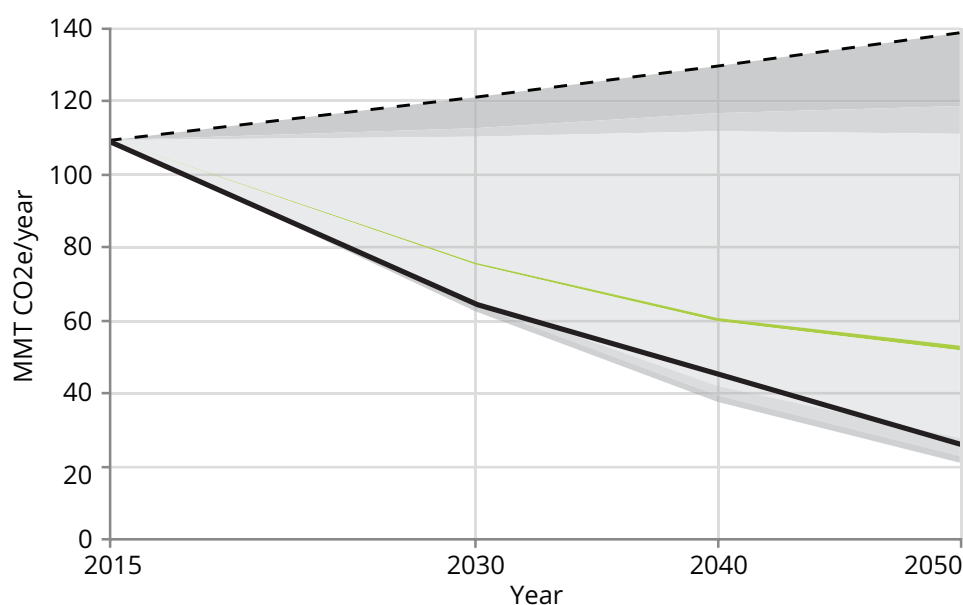
- Capture landfill emissions and eliminate pipeline methane
- Support circular economies
- Increase the volume of waste that is recycled and composted
- Encourage water conservation

EQUITY CONSIDERATIONS

- Reduce exposure to litter and illegal dumping
- Smart purchasing reduces waste
- Replace lead service lines for safe drinking water delivery
- Site landfills and waste operations to avoid harm to low-income and communities of color

OUTCOMES & CO-BENEFITS

- Reduce methane gas emissions
- Reduce embedded energy and emissions from production, transport, and disposal of materials
- Reduce persistent waste like plastic
- Grow recycling and organic waste industries
- Capture value from waste stream and operations



Manage Waste and Water Sustainably reduction targets (MMT CO₂e)

2030 **0.5**

2040 **0.9**

2050 **1.3**

--- Business As Usual
— Target

7. MANAGE WATER AND WASTE SUSTAINABLY

	Strategy	Municipal Role	Solution Status	GHG Reduction Potential	Cost	Effort Required	Lead Partners & Resources	Achieve Equity	Outcomes (Co-benefits)
a	Capture landfill emissions and eliminate pipeline methane emissions.	 ENCOURAGE	Proven	Medium	\$\$	Med High	Landfill operators, clean energy industry	Reduce exposure of vulnerable residents. Site landfills and waste operations to avoid harm to low-income and communities of color.	Reduced methane gas emissions
b	Capture and convert wastewater biogas to energy.	  LEAD ENCOURAGE	Proven	Medium	\$\$\$	High	MWRD, POTW		Displacement of fossil fuels
c	Increase composting and biological treatment of waste. Utilize compost and biosolids in landscapes.	  LEAD ENCOURAGE	Proven	Low	\$\$\$	High	SWAs, waste industry		Expanded recycling and organic waste industries; value from waste captured
d	Support circular economies.	 ENCOURAGE	Evolving	Combined High	\$\$	High	Economic development organizations, businesses, waste industry	Reduce exposure to litter and illegal dumping. Site landfills and waste operations to avoid harm to low-income and communities of color.	Reduced embedded energy from production, transport, and disposal of materials; reduced persistent waste like plastic; value from waste stream and operations captured; household budgets stretched through smart purchasing
e	Increase the volume of waste that is recycled and composted.	 ENCOURAGE	Contingent		\$\$\$	Med	Constituents, employers, local businesses, institutions, waste industry		
f	Reduce energy needed to deliver safe drinking water and shift operations to clean energy sources.	 LEAD	Proven	Low	\$\$	High	Water supply industry	Eliminate lead pipes. Provide access to safe, clean, and affordable water to all.	Modern, resilient, and efficient water utilities
g	Reduce energy needed to manage wastewater and shift operation to clean energy sources.	 LEAD	Proven	Low	\$\$	High	Utilities, POTW	Provide access to safe, clean and affordable water utilities to all.	
h	Encourage water conservation.	 ENCOURAGE	Proven	Low	\$	Low	Nonprofits, water utilities	Reduce water burden.	Conserve water supply

SUSTAIN ECOSYSTEMS TO SEQUESTER CARBON

Growing and sustaining urban forests and natural ecosystems is a nature-based solution that will help meet the region's climate mitigation target. All other mitigation objectives aim to rapidly reduce GHG emissions, while thriving trees, robust landscapes, and the soils that support them, capture CO₂. All communities can plant and protect trees and both public and private property owners can contribute by growing and sustaining healthy urban ecosystems at any scale.



LEAD

- Manage public and private landscapes to optimize ecosystem services and support biodiversity
- Plant trees and sustain the urban forest (also *Encourage* others to do so)



ENCOURAGE

- Encourage citizen tree stewardship
- Encourage property owners to install and maintain sustainable and native landscapes



ENACT

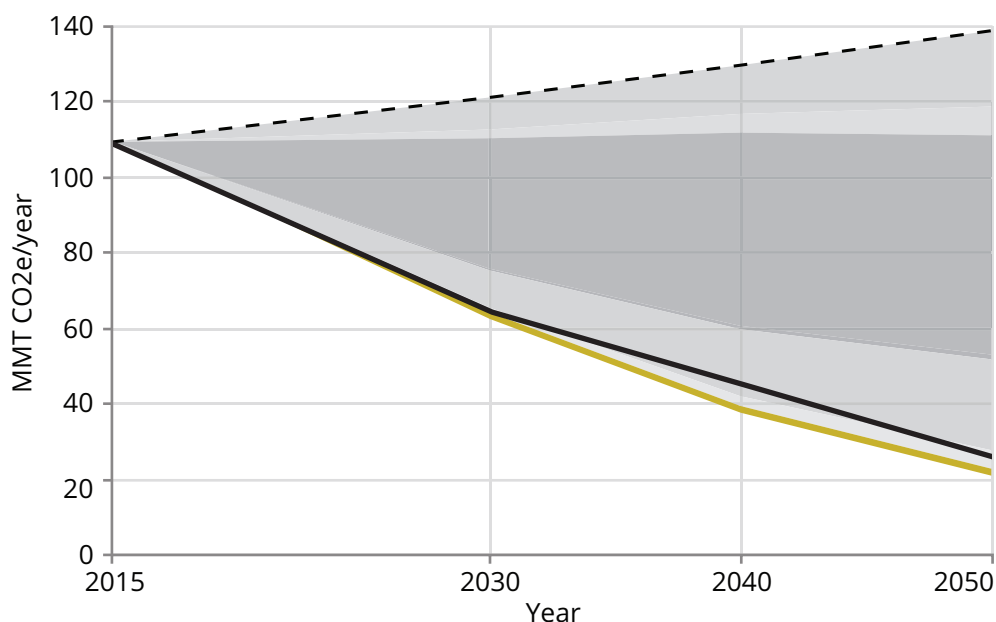
- Preserve soil through low-impact development and restore soil integrity

EQUITY CONSIDERATIONS

- Maintain accessible open space to invite safe and healthful activity
- Sustain tree canopy for cooling benefits in vulnerable communities
- Mitigate and restore nature on contaminated sites in environmental justice communities

OUTCOMES & CO-BENEFITS

- Improve air quality
- Sustainably manages stormwater
- Cooling shade mitigates heat islands
- Low impact construction preserves soil and water quality
- Shade reduces cooling energy demands
- Quality open space encourages active transportation and lifestyles
- Enhances livability and community character
- Supports pollinator and wildlife habitat



Sustain Ecosystems to Sequester Carbon reduction targets (MMT CO₂e)

2030 **1.7**

2040 **1.8**

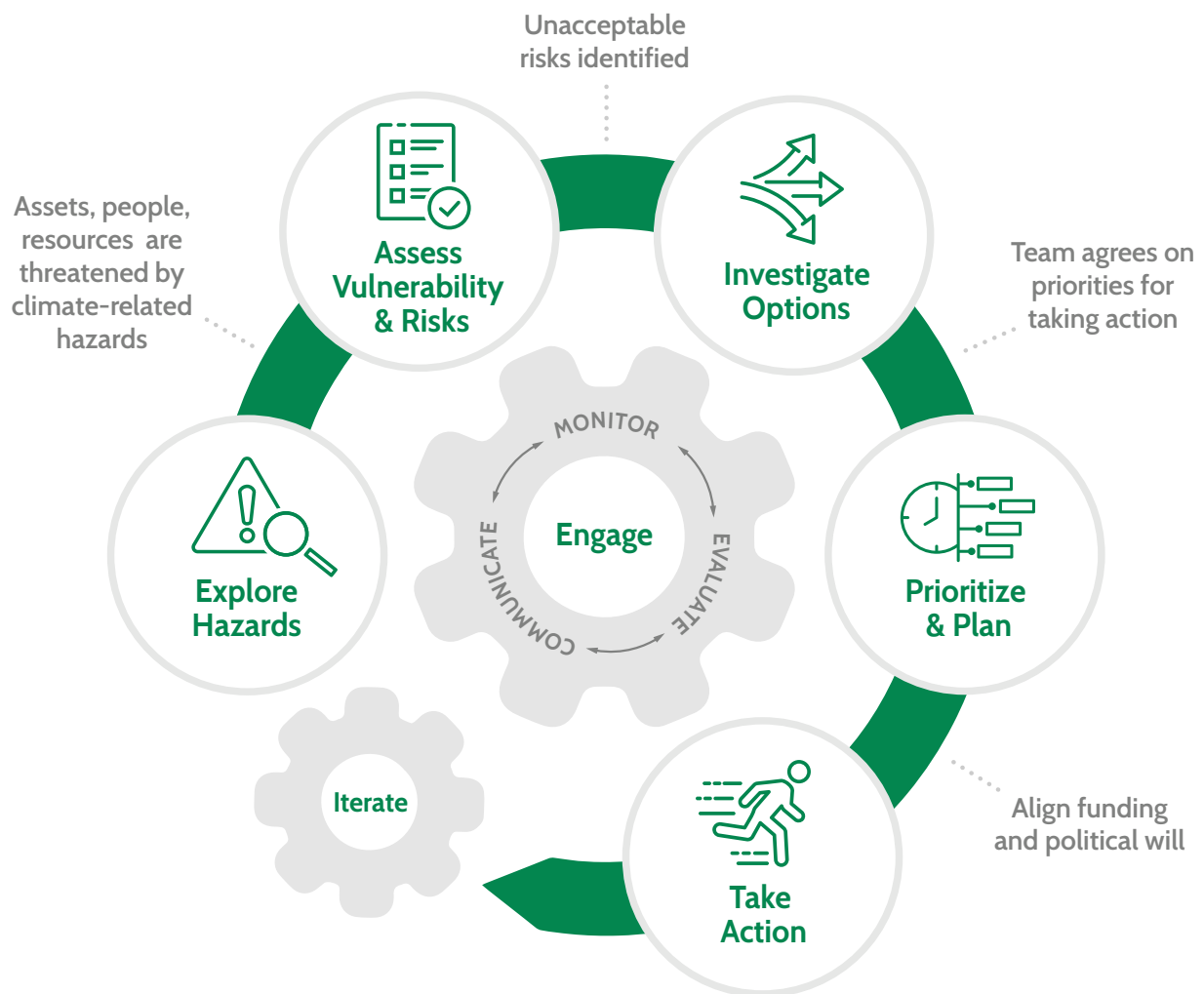
2050 **1.8**

--- Business As Usual
— Target

8. SUSTAIN ECOSYSTEMS TO SEQUESTER CARBON

	Strategy	Municipal Role	Solution Status	GHG Reduction Potential	Cost	Effort Required	Lead Partners & Resources	Achieve Equity	Outcomes (Co-benefits)
a	Grow and manage public landscapes to optimize ecosystem services and support biodiversity.	 LEAD ENCOURAGE	Proven	Sequestration	\$\$	High	IDNR, forest preserve & park districts, property owners, businesses, institutions, nonprofits, MWRD	Maintain accessible open space to invite safe and healthful activity.	Stormwater managed sustainably; pollinator and wildlife habitat supported; quality open space encourages active transportation and lifestyles
b	Encourage property owners to install and maintain sustainable and native landscapes.	 ENCOURAGE	Proven		\$	Med	Constituents, property owners, park districts, IDOT	Sustain tree canopy and gardens for desired cooling benefits in vulnerable communities.	
c	Plant trees and sustain the urban forest.	 LEAD ENCOURAGE	Proven		\$	Med			
d	Encourage citizen tree stewardship.	 ENCOURAGE	Proven		¢	Med	Nonprofits, public gardens, MWRD, POTW, compost industry	Improved air quality; cooling shade mitigates heat islands; reduced cooling energy demands; enhanced livability	
e	Preserve soil through low-impact development and restore soil integrity.	 ENACT ENCOURAGE	Aspirational		\$\$\$	High	Developers, counties, MWRD, POTW, compost industry	Remediate contaminated soils and restore nature to sites in vulnerable communities.	Clean water; healthy ecosystems

STEPS TO RESILIENCE



Populations, infrastructure, and resources will never be completely “resilient”, and there will always be some chance of an acute hazard. Therefore, communities, regional planners, and state government should commit to persistent adaptation, revisiting the *Steps to Resilience* continually, over time.

ADAPTATION OBJECTIVES AND STRATEGIES



OVERARCHING ACTIONS TO BUILD RESILIENCE



ENGAGE AND EDUCATE THE COMMUNITY:

- ◆ Inform the community about changing weather hazards and risks.
- ◆ Encourage families to prepare an emergency response plan.
- ◆ Foster community spirit to recover, adapt and “bounce forward” from disaster.
- ◆ Employ an effective early warning and response system.



INCORPORATE EQUITY AND INCLUSION:

- ◆ Collaborate to ensure residents most vulnerable to heat, air pollution and flooding are connected to emergency relief services.
- ◆ Include vulnerable populations in planning and prioritize investments to protect them.
- ◆ Assure community education messages are accessible in all languages and formats.



COLLABORATE AND BUILD CAPACITY:

- ◆ Coordinate resiliency efforts with federal, state, and regional agencies.
- ◆ Access and share timely weather data.
- ◆ Manage public and private landscapes to optimize ecosystem services and support biodiversity
- ◆ Strengthen emergency and adaptive response skills among staff, civic leaders, and allied organizations.



ENACT PLANS AND POLICIES:

- ◆ Assess climate vulnerability and risks to local infrastructure.
- ◆ Adopt and integrate county hazard mitigation plan into local plans and policies.
- ◆ Integrate climate impacts and vulnerability into relevant plans and regulations.
- ◆ Proactively update codes to reflect evolving climate conditions.
- ◆ Incentivize or require resilient building design.
- ◆ Reduce sprawl by promoting infill development.
- ◆ Prioritize transit-oriented development and transit-supportive land uses.
- ◆ Participate in the Community Rating System and National Flood Insurance Program.
- ◆ Guide future development plans to conserve and restore open space, soil, trees, and native landscapes to preserve ecosystem services.



ADAPT OPERATIONS AND INVESTMENTS:

- ◆ Integrate climate resiliency into decision-making about capital expenditures.



FLOODING AND HOMES

In the Chicago region, heavy rainfall events are increasingly frequent and severe, causing more flooding. Flooding is the climate-related hazard most residents and leaders want to address.

Some neighborhoods experience flooding after less than two inches of rain—small storms that, over time, result in significant harm to property and quality of life.

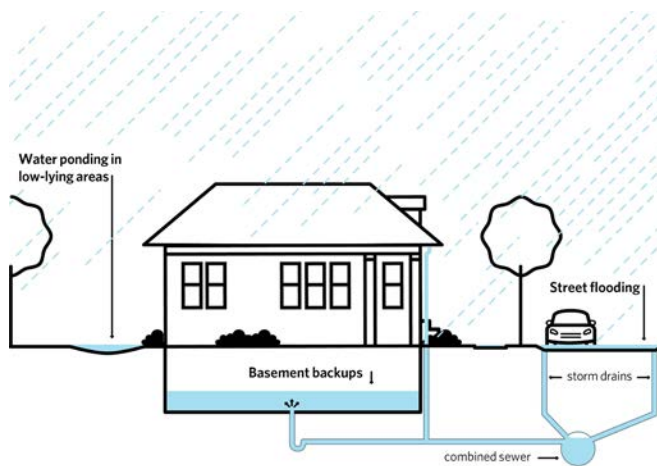
ON TO 2050

It will take all of us to build resilience to this growing hazard, from individuals to neighborhoods and local governments. Efforts should be focused to help vulnerable communities “bounce forward” from flooding events. Homeowners and renters must be aware of their flood risk so they can take steps to build personal resilience.



MITIGATION CO-BENEFITS:

Managing stormwater using green infrastructure saves energy.



Source: CMAP

ACTIONS TO BUILD RESILIENCE



ENGAGE AND EDUCATE THE COMMUNITY:

Inform the community about weather hazards, flood risk, and encourage preparation at home. Promote green infrastructure practices. Promote IDPH standards for post-flood clean up. Incentivize overhead basement sewer conversion. Foster community spirit to bounce forward from disaster.



INCORPORATE EQUITY AND INCLUSION:

Include vulnerable residents in planning and prioritize investments to protect them. Collaborate to ensure residents most vulnerable to flooding are connected to relief services.



COLLABORATE AND BUILD CAPACITY:

Coordinate resiliency efforts with federal, state, and regional planning agencies. Access and share timely weather data. Strengthen emergency and adaptive response skills among staff, civic leaders and allied organizations.



ENACT PLANS AND POLICIES:

Participate in the Community Rating System and National Flood Insurance Programs. Guide future development to reduce sprawl, conserve land and protect ecosystem services. Incentivize or require resilient building design. Optimize tree planting and protect existing trees for maximum stormwater benefits. Acquire and remove flood-prone homes.

Many of our sewers are connected to our storm drains, so when the streets flood, our homes and basements can too. A couple of things that we can do to help—disconnect our downspouts from the stormwater system, and install overhead basement plumbing.



FLOODING AND TRANSPORTATION

Flooding limits emergency access to neighborhoods. Roads provide vitally important access for safety, essential goods, and emergency services, and many neighborhoods and businesses can become isolated during flood events.

Of course, roads are also essential for people to move from where they live to where they work and meet with others. Flooding can be both acute due to heavy precipitation or chronic due to failing infrastructure. Both issues need to be addressed to create a truly resilient community.

MITIGATION CO-BENEFITS:

Resilient transit systems reduce vehicle miles traveled.



Image credit, above: CMAP, Image credit, right: Lake County Stormwater Management Commission

ACTIONS TO BUILD RESILIENCE



INCORPORATE EQUITY AND INCLUSION:

Assure transit along routes serving vulnerable populations is accessible and operable during a flood. Include vulnerable residents in planning and prioritize investments to protect them.



COLLABORATE AND BUILD CAPACITY:

Coordinate resiliency efforts with federal, state, county, and regional planning agencies. Collaborate on emergency transportation and logistics plans to move vital resources. Monitor and share real-time roadway conditions.



ENACT PLANS AND POLICIES:

Conduct climate vulnerability assessment and risks to local transportation infrastructure. Adopt and integrate county hazard mitigation plan into local plans and policies. Promote connected and walkable neighborhoods. Prioritize transit-oriented development.



ADAPT OPERATIONS AND INVESTMENTS:

Assess and adapt vulnerable transportation infrastructure to be responsive to changing climate conditions. Integrate stormwater management into transportation projects. Respond to weather events to ensure mobility.





STORMWATER AND INFRASTRUCTURE

Floods are the most common and most costly disasters in Illinois. Heavy rainfall events are increasing in frequency and severity, pushing existing bridges and culverts beyond capacity and causing more flooding across the region. Cities and towns struggle to maintain that infrastructure, let alone replace it. Many structures are in floodplains and urban flood risk areas.

Stormwater management must be part of regional planning. Green infrastructure includes preserved habitat, open space, and wetlands, each of which buffers these problems and improves quality of life. Gray infrastructure includes basins, sewers, and other engineering solutions, such as those included in the Tunnel and Reservoir Plan (TARP).



Image credit: CMAP

ACTIONS TO BUILD RESILIENCE



ENGAGE AND EDUCATE THE COMMUNITY:

Foster community spirit to recover, adapt and “bounce forward” from disaster. Encourage residents and businesses to disconnect downspouts from sewers and adopt water efficient behaviors.



INCORPORATE EQUITY AND INCLUSION:

Include vulnerable populations in planning and prioritize investments to protect them.



COLLABORATE AND BUILD CAPACITY:

Coordinate with federal, state, and regional agencies to manage stormwater.



ENACT PLANS AND POLICIES:

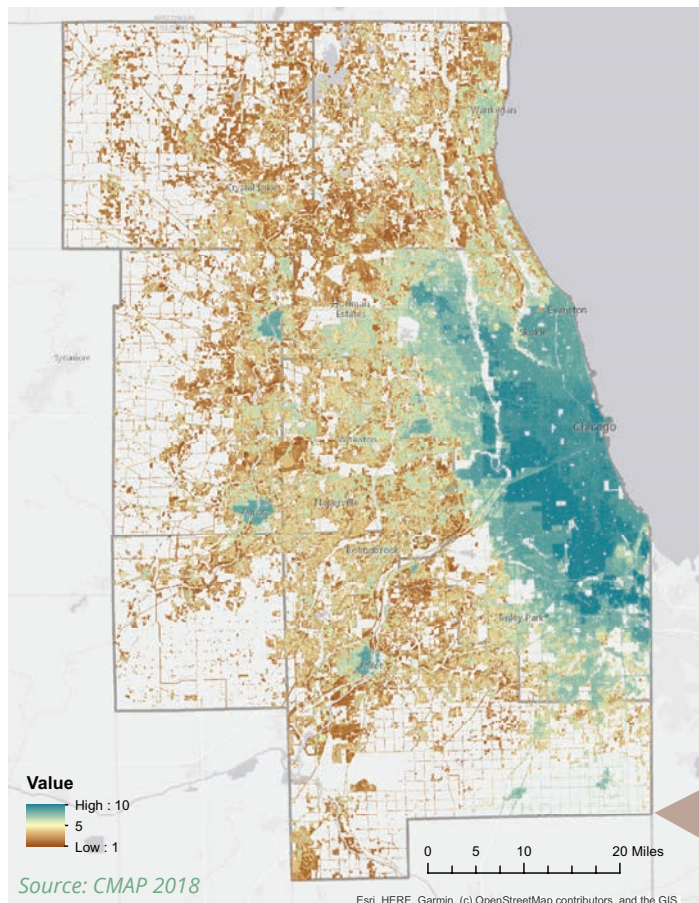
Integrate climate impacts and vulnerability into relevant plans and regulations. Adopt and integrate county hazard mitigation plan into local plans and policies. Participate in the Community Rating System and National Flood Insurance Programs. Guide development to conserve land and ecosystem services. Allow developments flexibility to meet stormwater requirements.



ADAPT OPERATIONS AND INVESTMENTS

Assess and adapt stormwater systems to respond to future rainfall projections. Establish green infrastructure and include maintenance in capital improvement plans.

URBAN FLOOD SUSCEPTIBILITY INDEX 2017



The Urban Flood Susceptibility Index highlights areas with attributes associated with an elevated risk of urban flooding.



HEAT AND HEALTH

Average temperatures in the Chicago region are increasing, not only during the day but also at night. This trend is projected to increase, with heat waves becoming more prevalent. This is adding stress to people, regional power supply, water resources, and ecosystems.

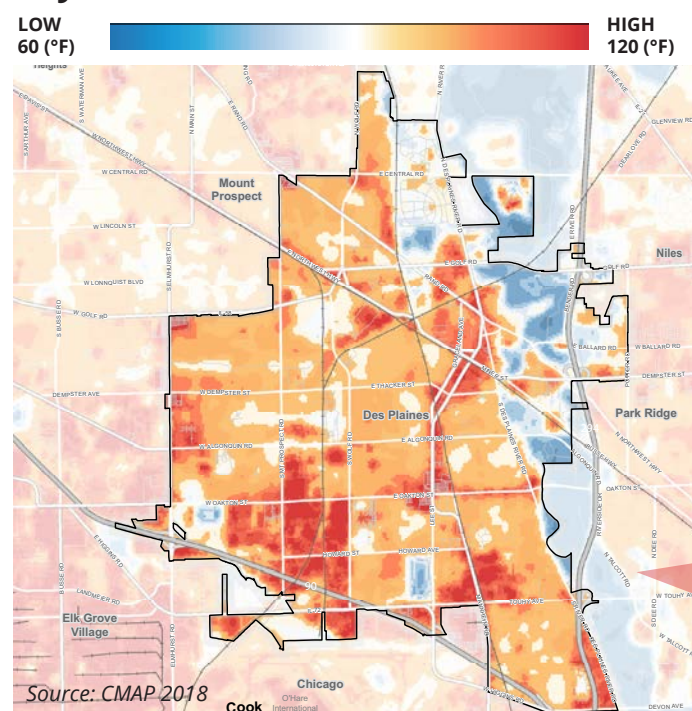
Residents need to cool their homes for longer each day, further burdening household budgets. This may be particularly difficult for socially vulnerable populations, including people on fixed incomes and families living below the poverty line.

Communities may need to provide more places and ways for these vulnerable populations to stay well—urban shade, splash pads, parks in neighborhoods, or community cooling centers. Home owners may build adaptive capacity by replacing dark roof materials with light-colored shingles or green roofs.

MITIGATION CO-BENEFITS:

Cooler neighborhoods and homes save energy, especially during very hot weather when energy demands are high.

City of Des Plaines Land Surface Temperature (LST)



ACTIONS TO BUILD RESILIENCE



ENGAGE AND EDUCATE THE COMMUNITY:

Inform the community about changing heat hazards and risks; encourage preparation. Foster social cohesion. Engage residents with services that support health and wellness.



INCORPORATE EQUITY AND INCLUSION:

Collaborate to ensure vulnerable residents are connected to relief services. Include vulnerable residents in planning, and prioritize investments to protect them. Provide effective, accessible, and desired cooling interventions to vulnerable communities. Assure vital messages are accessible in all languages and formats.



COLLABORATE AND BUILD CAPACITY:

Strengthen emergency and adaptive response skills among staff, civic leaders, and allied organizations. Identify and mitigate urban heat islands. Facilitate compliance with federal air quality standards by businesses.



ENACT PLANS AND POLICIES:

Promote connected, complete and walkable neighborhoods. Optimize tree planting. Protect existing trees for maximum shading. Reduce sprawl by promoting infill development. Incentivize or require resilient building design. Proactively update building codes to reflect evolving conditions.

Areas with more concrete absorb and hold heat, increasing the impact for heat waves on vulnerable populations.



AIR QUALITY, FLOODING AND PUBLIC HEALTH

Epidemiologists evaluate many factors that either diminish or improve public health. Climate-related hazards can multiply with one another as well as non-climate factors to exacerbate health impacts. For example, poor air quality compounds the effects of flooding on mold, respiratory health, allergies, waterborne disease, and other consequences. Flood damage to homes can impact mental health due to stress from the loss itself, the resulting displacement, or ongoing problems managing recovery from a flood.

The underlying causes of climate change from greenhouse gas emissions bring a number of additional stressors to air quality, which, in turn, diminish quality of life and life expectancy, particularly for residents of urban and suburban areas.

MITIGATION CO-BENEFITS:

Preventing mold often involves securing the building envelope, insulation, and healthy outdoor air exchange. Reducing air pollution and lowering GHG emissions go hand-in hand.



Image credit: Neighborhood Housing Services



*Image credit: @macnifying_glass on Instagram
A dust cloud covered Little Village in April 2020, after a smokestack at the Crawford Coal Plant was demolished.*

ACTIONS TO BUILD RESILIENCE



ENGAGE & EDUCATE:

Inform the community about air pollution action days. Educate residents about maintaining healthy indoor air quality and about services that support health and wellness. Promote the Illinois Department of Public Health standards for post-flood clean up.



INCORPORATE EQUITY AND INCLUSION:

Assess local air quality and take action to protect vulnerable populations from pollution. Collaborate to ensure vulnerable residents are connected to and utilizing human services.



COLLABORATE AND BUILD CAPACITY:

Facilitate compliance with federal air quality standards by businesses. Collaborate with public health and emergency management agencies to strengthen adaptive response skills among staff, civic leaders, and allied organizations. Manage public and private landscapes to provide accessible recreation and optimize ecosystem services.



ENACT PLANS AND POLICIES:

Integrate climate impacts and vulnerability into relevant plans and regulations.



DROUGHT AND WATER SUPPLY

Sustaining water supply is critical to both climate adaptation and mitigation. Some communities in the region are facing water supply limitations within the next decade. Surface and groundwater supplies are vulnerable to drought. Regional water supply planning is essential to help communities adapt and sustain water resources.

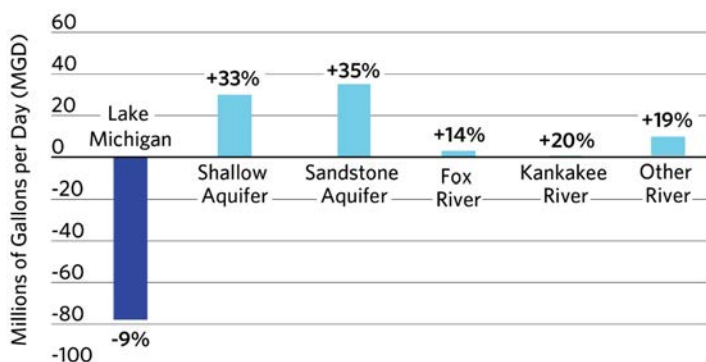
Water conservation policies like outdoor watering regulations, sustainable landscaping and conservation practices by water customers are important solutions. Affordable access to safe drinking water for all protects public health and eases household utility burden.

Low water levels and higher temperature yield drought. Both can reduce water quality, driving up energy demands and costs for water supply.

MITIGATION CO-BENEFITS:

Modernizing water delivery systems for efficiency and resilience reduces energy demands.

PROJECTED CHANGES IN WATER DEMAND BY WATER SOURCE 2011 - 2050



Source: CMAP



Image credit: CMAP

ACTIONS TO BUILD RESILIENCE



ENGAGE & EDUCATE:

Encourage residents and businesses to conserve water and adopt green infrastructure practices.



INCORPORATE EQUITY AND INCLUSION:

Assure affordable access to safe drinking water for all. Include vulnerable populations in planning and prioritize investments to protect them. Replace lead service lines for safe drinking water delivery.



COLLABORATE AND BUILD CAPACITY:

Coordinate resiliency efforts with federal, state, and regional planning agencies to sustainably manage water supply. Monitor and protect water quality in private wells



ENACT PLANS AND POLICIES:

Adopt a water conservation plan. Enact and enforce outdoor watering regulations responsive to drought conditions. Protect surface and groundwater from contamination.



ADAPT OPERATIONS AND INVESTMENTS

Create resilient water utilities through efficiency, conservation, demand management, technology, and flexible operations. Assess and adapt vulnerable infrastructure to be responsive to changing climate.

1.



ENGAGE AND EDUCATE THE COMMUNITY ABOUT CLIMATE RESILIENCE AND ADAPTATION

Strategy		Overarching resilience	Heat & Health	Flooding & Homes	Stormwater & Infrastructure	Flooding & Transport	Drought & Water	Air Pollution & Health	Municipal Role	Solution Status	Cost	Effort Required	Lead Partners & Resources	Outcomes (Co-benefits)
a	Inform the community about changing weather hazards and risks. Encourage preparation.	x	x	x				x	ENCOURAGE	Proven	¢	Low	NOAA, GLISA, IEMA, State Climatologist, StR, BRACE, DRSC, APWA, stormwater agencies	Prepared and engaged constituents; community cohesion; positive health outcomes; private assets preserved; safe and healthy constituents
b	Engage the community about services that support health and wellness.		x					x	ENCOURAGE	Proven	\$	Med	Public health agencies, hospitals, BRACE	
c	Encourage families to prepare an emergency response plan.	x	x	x					ENCOURAGE	Proven	¢	Med	IEMA, Ready.gov	
d	Foster community spirit to recover, adapt and “bounce forward” from disaster.	x	x	x	x	x			ENCOURAGE	Proven	¢	Med-High	Constituents, CBO, FBO	
e	Educate the community about air pollution action days and maintaining healthy indoor air quality.							x	LEAD	Proven	¢	Low	IEPA, IDPH, U.S. EPA	
f	Engage residents and businesses in conserving water.						x		ENCOURAGE	Proven	\$	Low	AWWA, JAWA, U.S. EPA Water Sense, CMAP, IISG	Reduced water costs, water supply conserved
g	Promote green infrastructure practices.			x			x		ENCOURAGE	Proven	\$	Med-High	U.S. EPA Water Quality scorecard, IISG, CNT, stormwater agencies, nonprofits	Reduced energy use for processing stormwater, assets preserved, safe and healthy constituents
h	Encourage residents and businesses to disconnect downspouts from sewers.				x				ENCOURAGE	Proven	\$	Med	Stormwater agencies, POTW	
i	Promote IDPH standards for post-flood clean up.			x				x	ENCOURAGE	Proven	¢	Low	IDPH	
j	Support and incentivize overhead sewer conversion in basements.			x					LEAD	Proven	\$\$	Med-High	MWRD, POTW	

2. INCORPORATE EQUITY AND INCLUSION INTO CLIMATE ADAPTATION EFFORTS

		Overarching resilience	Heat & Health	Flooding & Homes	Stormwater & Infrastructure	Flooding & Transport	Drought & Water	Air Pollution & Health							
	Strategy								Municipal Role	Solution Status	Cost	Effort Required	Lead Partners & Resources	Outcomes (Co-benefits)	
a	Collaborate to ensure residents most vulnerable to heat, air pollution and flooding are connected to relief services.	x	x	x		x	x	x	 	Proven	\$	Med	CAA, BRACE, public health organizations, CBO, FBO, IEMA	Health & well-being of most vulnerable residents protected; equitable access to health, services, and opportunity; equitable investment; positive health outcomes	
b	Include vulnerable populations in planning and prioritize investments to protect them.	x	x	x	x	x	x	x		Proven	\$	Med	CMA, CBO, public health organizations, BRACE		
c	Ensure that high quality essential human services programs are available and utilized.		x				x	x		Proven	\$\$	Med	CBO, FBO, public health organizations		
d	Assess local air quality and take action to protect vulnerable populations from pollution.							x		Contingent	\$	Med	IEPA, public health agencies, BRACE, RHA		
e	Provide effective and accessible cooling interventions to vulnerable residents.		x						 	Evolving	\$\$	Med	Park districts, public health agencies, cultural venues, transit services		
f	Assure community education messages are accessible in all languages and formats.	x	x	x	x	x	x	x		Proven	\$	Low	Nonprofits, ADA coordinators		
g	Assure affordable access to safe drinking water for all.						x			Proven	\$\$\$	High	AWWA, JAWA, U.S. EPA, ISWS, CMA, MPC	Water burden lessened, safe and healthy constituents	
h	Assure transit routes serving vulnerable populations are accessible and operable during weather events.					x				Evolving	\$\$	High	RTA, CTA, Metra, Pace, BRACE, public health agencies	Mobility; access to economic opportunity	

3. COLLABORATE AND BUILD CAPACITY FOR MORE RESILIENT COMMUNITY

Strategy		Overarching resilience	Heat & Health	Flooding & Homes	Stormwater & Infrastructure	Flooding & Transport	Drought & Water	Air Pollution & Health	Municipal Role	Solution Status	Cost	Effort Required	Lead Partners & Resources	Outcomes (Co-benefits)
a	Coordinate resiliency efforts with federal, state and regional agencies.	x		x	x	x	x			Contingent	\$\$	High	FEMA, IEMA, EMA, MABAS, NIMS, IDNR, IDOT, CMAP, counties, public health agencies, park and forest preserve districts, utilities, StR, DRSC	Shared and leveraged resources; optimized efficiency and outputs; greater adaptive capacity; assets preserved
b	Strengthen emergency and adaptive response skills among staff, civic leaders, and allied organizations.	x	x	x				x		Proven	\$	Med	FEMA, IEMA, NIMS, IAFSM, APWA, AWWA, MABAS, public health agencies	
c	Develop an emergency transportation and logistics plan to move vital resources.					x				Evolving	\$\$	High	IEMA, IDOT, counties, EMA, APWA, public health agencies	Vital services and economy protected
d	Monitor and share real-time roadway conditions.					x				Evolving	\$	Low	IDOT, counties, townships, APWA	Timely and targeted response to climate hazards
e	Access and share timely weather data.	x		x						Proven	¢	Low	NOAA, NWS, State Climatologist	
f	Facilitate compliance with federal air quality standards by businesses.		x					x		Contingent	\$	Med-High	IEPA, U.S. EPA	Constituents protected from extreme heat
g	Identify and mitigate urban heat islands.		x							Evolving	\$\$\$	High	U.S. EPA, USFS, GLISA, IEPA, State Climatologist utilities, park & forest preserve districts, public health agencies	
h	Manage public and private landscapes to optimize ecosystem services and support biodiversity.	x						x		Proven	\$\$\$	High	USFS, IDNR, park & forest preserve districts, SWCD, CW, watershed organizations, nonprofits	Natural systems optimized for resiliency and public well-being; air and water quality protected; threats from stormwater and heat islands managed
i	Collaborate to sustainably manage regional water supply.						x			Evolving	\$\$\$	High	ISWS, IDNR, CMAP, MPC	Water supply protected and conserved
j	Monitor and protect water quality in private wells.						x			Evolving	\$\$	Med	BACOG, ISWS	
k	Collaborate to sustainably manage stormwater.				x					Evolving	\$\$\$	High	U.S. EPA, FEMA, IEMA, IAFSM, stormwater agencies, SWCS, IDNR, counties, townships, park & forest preserve districts, IDOT & transportation agencies	Resources shared and leveraged; greater adaptive capacity; flood impacts reduced; assets preserved

4.



ENACT PLANS AND POLICIES FOCUSED ON ADAPTATION AND RESILIENCE

		Overarching resilience	Heat & Health	Flooding & Homes	Stormwater & Infrastructure	Flooding & Transport	Drought & Water	Air Pollution & Health						
	Strategy								Municipal Role	Solution Status	Cost	Effort Required	Lead Partners & Resources	Outcomes (Co-benefits)
a	Adopt and integrate county hazard mitigation plan into local plans and policies.	x			x	x				Proven	\$\$	Med-High	FEMA, BRIC, IEMA, ISI, counties, APA, CMAP	Assets and operations prepared; greater adaptive capacity; investments protected; safe and healthy constituents
b	Integrate climate impacts and vulnerability into relevant plans and regulations.	x			x			x		Evolving	\$\$	High	APA, APWA, stormwater agencies, CMAP	
c	Proactively update codes and standards to reflect evolving climate conditions.	x	x					x		Evolving	\$\$	Med	CMAP, ICC, IDNR, ISI, GLISA, stormwater agencies	
d	Incentivize or require resilient building design.	x	x	x					 	Evolving	\$\$	Med	APA, ISI	
e	Guide future development to conserve land and ecosystem services.	x	x	x	x				 	Proven	\$\$\$	High	CMAP, APA	Landscapes preserved and optimized for ecosystem services; more pervious surfaces; more sustainable transportation systems; energy and resources conserved; positive health outcomes; greater adaptive capacity; planning for prioritized investment; assets protected; safe and healthy constituents
f	Promote connected, complete, and walkable neighborhoods.		x			x			 	Evolving	\$\$\$	Med-High	CMAP, APA	
g	Prioritize transit-oriented development and transit-supportive development.	x				x			 	Evolving	\$\$\$	High	CMAP, APA, RTA	
h	Participate in the Community Rating System and National Flood Insurance Program.	x		x	x				 	Proven	\$\$	Med-High	FEMA, IEMA, IDNR, CRS, NFIP, IAFSM	
i	Protect surface and groundwater from contamination.						x		 	Proven	\$\$\$	High	IEPA, IDNR, ISWS, counties, watershed organizations	Water supply protected and conserved; safe and healthy constituents
j	Allow developments flexibility to meet stormwater requirements.				x				 	Proven	\$\$	Med-High	APA, counties, stormwater agencies	Landscapes conserved for ecosystem services; energy and resources conserved
k	Adopt a water conservation plan.						x			Evolving	\$\$	High	CMAP, AWWA, U.S. EPA WaterSense, IISG	Water supply protected and conserved; energy for water distribution conserved; costs reduced
l	Enact and enforce outdoor watering regulations responsive to drought conditions.						x			Proven	\$	Med	CMAP, NWPA, MPC, IISG	
m	Optimize tree planting and protect existing trees for maximum shading and stormwater benefits.		x	x					  	Proven	\$\$	High	USFS, IDNR, utilities, public gardens, watershed organizations, stormwater agencies, SWCD, park & forest preserve districts	Heat and flooding hazard lessened; cooling energy demand lessened; air and water quality improved

5. ADAPT OPERATIONS AND INVESTMENTS FOR FUTURE CLIMATE CONDITIONS

		Overarching resilience	Heat & Health	Flooding & Homes	Stormwater & Infrastructure	Flooding & Transport	Drought & Water	Air Pollution & Health							
	Strategy								Municipal Role	Solution Status	Cost	Effort Required	Lead Partners & Resources	Outcomes (Co-benefits)	
a	Integrate stormwater management into transportation projects.				x	x				Evolving	\$\$\$	Med-High	IDOT, counties, townships, GLISA, RTA, CTA, Metra, Pace	Assets and operations prepared; greater adaptive capacity; assets protected; services and economy protected; mobility maintained	
b	Assess and adapt vulnerable infrastructure to be responsive to changing climate conditions.	x			x	x	x			Evolving	\$\$\$	Med-High	StR, IDOT, counties, townships, ISI, APWA		
c	Acquire and remove floodprone homes			x						Proven	\$\$\$	High	Counties, FEMA, IEMA, IDNR		
d	Respond to weather events to ensure mobility					x				Proven	\$\$	High	IDOT, counties, townships, RTA, CTA, Metra, Pace		
e	Manage public and private landscapes to provide accessible recreation and optimize ecosystem services.	x	x					x		Proven	\$\$\$	High	Park & forest preserve districts, SWCD, watershed organizations, IAFSM	Greater adaptive capacity, community cohesion, natural systems optimized for resiliency and public well-being; air and water quality improved; threats from stormwater and heat islands managed	
f	Establish green infrastructure and include maintenance in capital improvement plans.				x					Proven	\$\$\$	High	MWRD, stormwater agencies, IEPA, IISG	Water quality protected; assets protected; flood impacts reduced	
g	Assess and adapt stormwater systems to respond to future rainfall projections.				x					Evolving	\$\$\$	High	ISWS, IEPA, state climatologist, IAFSM, stormwater agencies, POTW, APWA		
h	Create resilient water utilities through efficiency, conservation, demand management, technology, and flexible operations.						x			Proven	\$\$\$	High	AWWA, JAWA, U.S. EPA, CMAP, MPC		Water supply protected and conserved; energy conserved

CROSS-CUTTING OBJECTIVES

Table 2. All Mitigation and Adaptation Objectives and Corresponding Adaptation and Mitigation Benefits

<i>Mitigation Objective</i>	<i>Outcome/Co-benefits</i>	<i>Adaptation Benefit</i>
Demonstrate Leadership to Reduce Emissions	Engaged constituents, public support, green jobs, efficiencies and cost-savings	More resilient communities
Decarbonize Energy Sources	Cleaner air and water, renewable energy, potential improvements to energy security	More resilient electric grid
Optimize Building Energy	Improved building performance, lower energy costs/energy burden, cleaner air	More resilient buildings
Implement Clean Energy Policies	Clean energy jobs, leveraged investment	Economic development
Decarbonize Transportation	Cleaner air, lower long-term fuel costs, reduced noise pollution, beneficial electrification	Less reliance on vulnerable fuel supply chain
Reduce Vehicle Miles Traveled	Less congestion, less reliance on single-occupancy vehicles, more connected communities, more social cohesion, more walking and biking and better health outcomes, lower transportation costs, reduced injuries/fatalities from road accidents	More resilient transportation systems
Manage Water and Waste Sustainably	Cleaner air and water, less waste	More resilient water and wastewater systems
Sustain Ecosystems to Sequester Carbon	Enhanced ecosystems, preserved biodiversity, improved quality of life and mental health, active and healthy lifestyles	Reduced flooding, cooler communities

<i>Adaptation Objective</i>	<i>Outcome/Co-benefits</i>	<i>Mitigation Benefit</i>
Engage and educate the community about climate resilience and adaptation	Prepared and engaged constituents, community cohesion, better health outcomes, private property and well-being preserved	Awareness of hazards and impacts builds support for climate mitigation actions
Incorporate equity and inclusion into climate adaptation efforts	Prepared and engaged constituents, community cohesion, improved health equity, private property preserved	
Collaborate and build capacity for more resilient community	Shared and leveraged resources, greater efficiency and outputs, greater adaptive capacity. Property, water supply, and other assets preserved	
Enact plans and policies focused on adaptation and resilience	Prepared assets and operations, greater adaptive capacity. Improved nature, quality of life	Reduced energy demands for water utilities. Healthy ecosystems help sequester carbon
Adapt operations and investments for future climate conditions	Prepared assets and operations, nature, quality of life, property, water supply and other assets preserved	Reduced energy demands for operations

CONCLUSION

This regional climate plan, and the process on which it is built, has revealed a need for urgent, coordinated action to both mitigate and adapt to climate change. Encouragement and assistance from NOAA's Climate Program Office and International Urban Cooperation has also spotlighted our region as a leader in collaborative climate planning. Our culture of cohesion and the collective expertise of stakeholders position us well to meet this challenge.

The climate mitigation objectives and strategies in this plan are tailored to address the greatest sources of greenhouse gas emissions and the most promising opportunities to meet the goal of **net zero emissions by 2050**. This plan also suggests strategies to address a set of high-priority climate impacts and offers targeted objectives and strategies to commit to **persistent, equitable adaptation**. The next steps for municipalities require an iterative approach to using the *Steps to Resilience*.

Municipal governments are uniquely positioned to engage constituents to bring about meaningful actions in both climate mitigation and adaptation. They have tools and expertise that can bolster community resilience. For example, capital planning can guide investments in infrastructure that can adapt to changing weather patterns. Municipal leaders can also cultivate cohesive and prepared communities that can endure and bounce forward from disasters.

Join us in working toward the goals and objectives of the Climate Action Plan for the Chicago Region. We recognize that hard work and a challenging shift to a new direction lies ahead on our journey. Regardless, we must begin movement toward a better future and begin now.



Template Municipal Resolution

Endorsing the 2021 Climate Action Plan for the Chicago Region

WHEREAS, on July 13, 2021, the Metropolitan Mayors Caucus launched the 2021 Climate Action Plan for the Chicago Region in partnership with the National Oceanic and Atmospheric Administration (NOAA) and the Global Covenant of Mayors for Climate and Energy, and with support from the European Union, the Chicago Metropolitan Agency for Planning, and the Metropolitan Planning Council; and

WHEREAS, on August 9, 2021, the Intergovernmental Panel on Climate Change issued the Sixth Assessment Report authored by 234 scientists from 66 countries containing dire warnings about the state of the planet but showing that human actions have the potential to determine the future for climate; and

WHEREAS, more than 250 individuals from 175 stakeholder organizations including 53 municipalities throughout Northeastern Illinois invested two years of work through in-person and virtual collaboration and developed a comprehensive, municipally focused and regional impactful climate action plan that is anchored in equity with the well-being of people at its core; and

WHEREAS, the Climate Action Plan for the Chicago Region invites collaboration from all regional, state and federal agencies and the private sector; and

WHEREAS, the Climate Action Plan for the Chicago Region identifies the following science-based goals and objectives for the region and identifies strategies for municipalities to take measurable and meaningful action to both dramatically reduce greenhouse gas emissions and develop resiliency to climate-related hazards that threaten the community, economic health and the natural environment:

CLIMATE MITIGATION GOAL: Net zero greenhouse gas emissions

MITIGATION TARGETS:

By 2030 Reduce GHG emissions 50% from 2005 levels

By 2040 Reduce GHG emissions 65% from 2005 levels

By 2050 Reduce GHG emissions at least 80% from 2005 levels

MITIGATION OBJECTIVES:

1. Demonstrate Leadership to Reduce Emissions.
2. Decarbonize Energy Sources.
3. Optimize Building Energy.
4. Implement Clean Energy Policies.
5. Decarbonize Transportation.
6. Reduce Vehicle Miles Traveled.
7. Manage Water and Waste Sustainably.
8. Sustain Ecosystems to Sequester Carbon.

CLIMATE ADAPTATION GOAL: Persistent, equitable climate adaptation

ADAPTATION TARGETS

By 2030 Climate-resilient governance

By 2040 Resilience across jurisdictions

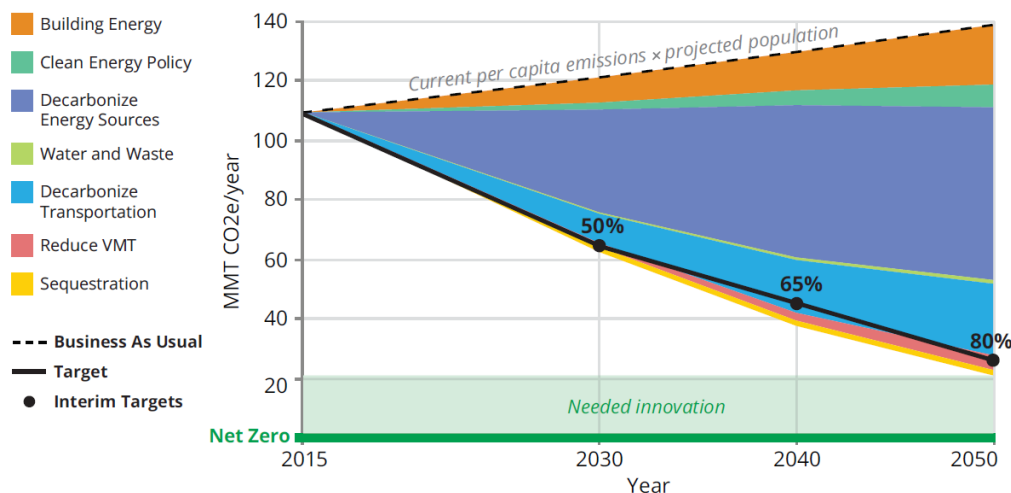
By 2050 Cohesive, resilient communities

ADAPTATION OBJECTIVES

1. Engage and educate the community about climate resilience and adaptation.
2. Incorporate equity and inclusion into climate adaptation efforts.
3. Collaborate and build capacity for a more resilient community.
4. Enact plans and policies focused on adaptation and resilience.
5. Adapt operations and investments for future climate conditions; and

WHEREAS municipal governments have unique strengths in developing community resiliency and in taking long-term action to mitigate climate change that are amplified through regional collaboration.

NOW, THEREFORE, BE IT RESOLVED that the City Council/Village Board of _____, Illinois, hereby expresses its support for the the goals and objectives of the **2021 Climate Action Plan for the Chicago Region** proposed by the Metropolitan Mayors Caucus and pledges to take strategic action to achieve these goals for a more resilient, equitable and healthy future.



Leadership



LEAD

- Build and support a resilient local economy that supports climate objectives.
- Integrate smart technology into operations to effectively manage resource consumption (also *Encourage* others to do so).
- Demonstrate sustainability in municipal operations, purchasing and through public events.



ENACT

- Adopt the Greenest Region Compact and a GRC-based sustainability plan aligned with regional climate objectives.
- Establish local sustainability targets that support the regional climate objectives.



LEAD

- Procure clean energy for municipal operations
- Build renewable energy and energy storage capacity to meet the clean energy needs of the region



ENCOURAGE

- Engage the community and policymakers to support existing clean energy and choose renewable clean energy through procurement, aggregation, financing, community solar, and other collaborative programs
- Partner with utilities to complete the decarbonization of the local grid and collaborate to decarbonize the multi-state regional grid
- Explore renewable district energy solutions

See also: *Implement Clean Energy Policies*



LEAD

- Create accessible and reliable networks of electric vehicle chargers
- Transition fleets to low- and zero-emission vehicles



ENCOURAGE

- Support strong national fuel efficiency standards
- Encourage other public and private fleet operators to switch to low- and zero-emission vehicles
- Encourage residents to transition to electric vehicles through policies and infrastructure investment



ENACT

- Enact and enforce anti-idling policies
- Adapt development processes to accelerate investment in EV charging infrastructure



LEAD

- Retrofit municipal buildings, facilities, and streetlights for maximum efficiency.



ENCOURAGE

- Support electric space and water heating through demonstration, education, and incentives.
- Engage residential and commercial property owners to optimize building efficiency. Leverage programs such as demand response, energy efficiency incentives, and PACE financing.

See also: *Implement Clean Energy Policies*



ENACT

- Support robust building energy conservation codes, benchmarking, and building performance standards to optimize energy efficiency for retrofit projects
- Require high performance, all-electric, and net zero new building construction
- Modernize municipal franchise agreements to leverage investment in clean energy and reduce costs to residents
- Adapt zoning codes and streamline development processes to accelerate investment in solar and other renewable energy systems



ENCOURAGE

- Support state and federal policies to advance clean energy



LEAD

- Increase composting and biological treatment of waste
- Utilize compost and biosolids in landscaping
- Reduce energy used to process and deliver safe drinking water
- Reduce energy needed to manage wastewater
- Shift both drinking and wastewater operations to clean energy sources
- Conserve water and operate efficient water utilities to reduce energy demands
- Capture and convert wastewater biogas to energy (also *Encourage* others to do so)



ENCOURAGE

- Capture landfill emissions and eliminate pipeline methane
- Support circular economies
- Increase the volume of waste that is recycled and composted
- Encourage water conservation



LEAD

- Build and maintain safe, resilient, and accessible active transportation infrastructure (also *Encourage* others to do so)



ENCOURAGE

- Collaborate to enhance regional transit and expand capacity
- Encourage walking, biking and transit use through education, incentives, and collaboration



ENACT

- Prioritize transit-oriented and transit-supportive development and curtail sprawl
- Plan and design roadways and corridors to benefit all road users and promote active transportation
- Strategically manage parking policies to promote active and public transportation
- Promote multi-family housing development near transit stations and along transit routes



LEAD

- Manage public and private landscapes to optimize ecosystem services and support biodiversity
- Plant trees and sustain the urban forest (also *Encourage* others to do so)



ENCOURAGE

- Encourage citizen tree stewardship
- Encourage property owners to install and maintain sustainable and native landscapes



ENACT

- Preserve soil through low-impact development and restore soil integrity



2. DECARBONIZE ENERGY SOURCES

	Strategy	Municipal Role	Solution Status	GHG Reduction Potential	Cost	Effort Required	Lead Partners & Resources	Achieve Equity	Outcomes (Co-benefits)
a	Procure clean energy for municipal operations. Build renewable energy and energy storage capacity.	 LEAD	Evolving	High	\$\$\$	High	Clean energy industry, property owners, investors	Prioritize access to clean energy jobs in disadvantaged communities.	Modernized, efficient electric grid; resilient distributed generation; thriving renewable energy industry; reduced long-term utility costs; create clean energy jobs
b	Engage the community to choose clean energy through procurement, aggregation, financing, community solar, and other collaborative programs	 ENCOURAGE	Evolving	Enabling	\$	Low	Clean energy industry, nonprofits, electric utility, regulators	Provide access to affordable, clean energy.	Expanded market demand for clean energy; informed energy consumers
c	Partner with utilities to complete decarbonization of the local grid, collaborate to decarbonize the multi-state regional grid	 ENCOURAGE	Aspirational	High	\$\$\$	High	Electric utility, investors, regulators, clean energy industry	Replace coal-fired and gas-fired power to improve air quality. Support clean energy jobs training for displaced fossil fuel workers.	Elimination fossil-fuel generated electricity; utility-scale solar, wind, and nuclear power generation
d	Explore renewable district energy solutions	 ENCOURAGE	Aspirational	High	\$\$\$	High	Clean energy industry, utilities, developers, property owners	Reduce long term energy burden.	Increased resilience and efficiency; reduced long-term costs

5. DECARBONIZE TRANSPORTATION

	Strategy	Municipal Role	Solution Status	GHG Reduction Potential	Cost	Effort Required	Lead Partners & Resources	Achieve Equity	Outcomes (Co-benefits)
a	Create accessible and reliable networks of electric vehicle (EV) chargers.	 LEAD	Evolving	Enabling	\$\$	High	IEPA, IDOT, CMAP, electric utility, EV industry, employers, property owners, businesses	Provide access to clean transportation for all, focus on EV infrastructure for workplace and multi-family dwellings; protect vulnerable residents from tailpipe emissions.	Electric vehicles displace internal combustion vehicles
b	Transition fleets to low- and zero-emission vehicles and encourage others to do so. Encourage the switch to electric passenger vehicles.	 LEAD ENCOURAGE	Evolving	High	\$\$\$	Med High	IEPA, CTA, Pace, Metra, school districts, public and private fleet operators, nonprofits		Clean, quiet transit and service vehicles; reduced long-term fuel costs; reduced tailpipe emissions
c	Support strong national fuel efficiency standards.	 ENCOURAGE	Proven	High	¢	Low	Federal government		Reduced health impacts of tailpipe emissions
d	Enact and enforce anti-idling policies.	 ENACT	Proven	Low	\$	Low	School districts, transit agencies, institutions and venues		
e	Adapt development processes to accelerate investment in EV charging infrastructure.	 ENACT	Evolving	Enabling	\$	Med	IDOT, electric utility, EV industry, MMC		Accelerated investment in EV charging infrastructure; reduced soft costs, safe and effective EV charging systems

**Joint Study Session Meeting of
Winnetka Village Council
Plan Commission
Village Hall
510 Green Bay Road
September 14, 2021
7:00 PM**

AGENDA

- 1) Call to Order
 - Village Council
 - Plan Commission
- 2) Public Comment
- 3) Comprehensive Plan Working Session.....2
- 4) Closed Session
- 5) Adjournment

NOTICE

All agenda materials are available at [villageofwinnetka.org](https://www.villageofwinnetka.org) (Governance > ***Agendas & Minutes***); the Reference Desk at the Winnetka Library; or in the Manager’s Office at Village Hall (2nd floor). Webcasts of the meeting may be viewed on the Internet via a link on the Village’s web site:
<https://www.villageofwinnetka.org/AgendaCenter>.

The Village of Winnetka, in compliance with the Americans with Disabilities Act, requests that all persons with disabilities who require certain accommodations to allow them to observe and/or participate in this meeting or have questions about the accessibility of the meeting or facilities, contact the Village ADA Coordinator at 510 Green Bay Road, Winnetka, Illinois 60093, 847-716-3546; T.D.D. 847-501-6041.



Agenda Item Executive Summary

Title: Comprehensive Plan Working Session

Presenter: David Schoon, Community Development Director

Agenda Date: 09/14/2021

Consent: ☐ YES ☒ NO

☐	Ordinance
☐	Resolution
☐	Bid Authorization/Award
☐	Policy Direction
☒	Informational Only

Item History:

11/5/2019 - Council adopted Resolution No. R-84-2019, Approving an Agreement with The Lakota Group for the Preparation of a Comprehensive Plan
Spring 2020 - Work on the Comprehensive Plan was put on hold due to the pandemic.
08/17/2021 - Council adopted Resolution No. R-71-2021, Approving an Addendum to the Agreement with The Lakota Group, which action authorized work to restart on the Comprehensive Plan.

Executive Summary:

On September 14, 2021, the Village Council and the Plan Commission will hold a joint meeting at which The Lakota Group will re-engage with the Council and Commission to continue our work on the Comprehensive Plan.

During the joint working session, the following items will be discussed:

- Goals of a comprehensive plan. How do we make it work for the community?
- What are the roles of the Village Council and Plan Commission?
- Why is community engagement critical?
- Where have we been this past year and where do we want to go?
- Lessons learned and new themes to be consider (community preparedness, housing needs, etc.)

The Lakota Group has prepared the attached outline and materials for the working session.

Recommendation:

The purpose of the working session is to allow the consultant team to touch base and re-engage with the Plan Commission, who will make the formal recommendation regarding the new Comprehensive Plan, and the Village Council, who will ultimately adopt the new Comprehensive Plan.

Attachments:

Attachment A: Meeting Outline and Materials for September 14, 2021, Joint Village Council-Plan Commission Meeting

116 West Illinois Street
Floor 7
Chicago, Illinois 60654
p 312.467.5445
f 312.467.5484

thelakotagroup.com

WINNETKA COMPREHENSIVE PLAN AGENDA:

Joint Winnetka Village Council - Plan Commission Meeting

DATE: September 14, 2021
TIME: 7:00-8:30 pm
LOCATION: Winnetka Village Hall, Council Chambers

ITEMS TO BE DISCUSSED:

1. Introductions (10 min)
2. Project Overview (10 min)
3. Key Themes Exercise
 - a. Introduction to exercise (5 min)
 - b. Community Pillars (30 min)
 - c. Other issues - open discussion (20 min)
4. Strengths and Weaknesses Exercise (15 min)
5. Next Steps (5 min)

Project Overview

WINNETKA FUTURES 2040 IS BACK ON TRACK

In November of 2019, the Village of Winnetka started a comprehensive planning process, asking residents what community means to them, among many other questions. The process was paused in March of 2020 and re-initiated in September of 2021. Winnetka Futures 2040 Plan will be re-engaging community members to better understand and address the changing times, including shifting retail environments, transportation innovation, environmental issues/sustainability, shifting population, housing preferences, and changing work and commuting habits.

PROJECT TIMELINE



NEXT STEPS?



WHAT IS A COMPREHENSIVE PLAN?

The Comprehensive Plan is the Village's blueprint for growth and is the foundation upon which development and land use decisions are based. This plan will provide Village leadership with a policy toolkit to make informed decisions moving forward. It contains long term goals and short term strategies to make progress on these goals. Policies and decisions about parks, paths, road improvements, business vitality, housing choices, and public safety are just some of the community issues shaped by the Comprehensive Plan. **In short, it's about our future! The best plan for the next 20 years is a plan developed by a community that works together to define a common vision and framework to achieve it.**



Community Pillars

VITAL COMMERCIAL AREAS

VARIETY OF HOUSING

HEALTHY & ENGAGING LIFESTYLES

SUSTAINABILITY AND CLIMATE ACTION



Community Pillars

CULTURE AND COMMUNITY CHARACTER

EDUCATIONAL EXCELLENCE

PARKS AND OPEN SPACE

STORMWATER AND INFRASTRUCTURE



Community Pillars

TECHNOLOGY

OPERATIONAL EFFICIENCIES

COMMUNITY INVOLVEMENT

REGIONAL COORDINATION



Present Conditions

OTHER KEY THEMES TO CONSIDER?

HOW DID YOUR **UNDERSTANDING OF COMMUNITY** CHANGE OVER THE LAST YEAR AND A HALF?

WHAT ARE WINNETKA'S GREATEST **STRENGTHS**?

CHOOSE UP TO THREE

SCHOOLS	
VILLAGE CHARACTER	
LAKEFRONT	
WALKABILITY	
COMMUNITY	
SAFETY	
PARKS/OPEN SPACE	
ACCESS TO CHICAGO	
COMMERCIAL AREAS	
VARIETY OF HOUSING CHOICES	

WHAT ARE WINNETKA'S GREATEST **CHALLENGES**?

CHOOSE UP TO THREE

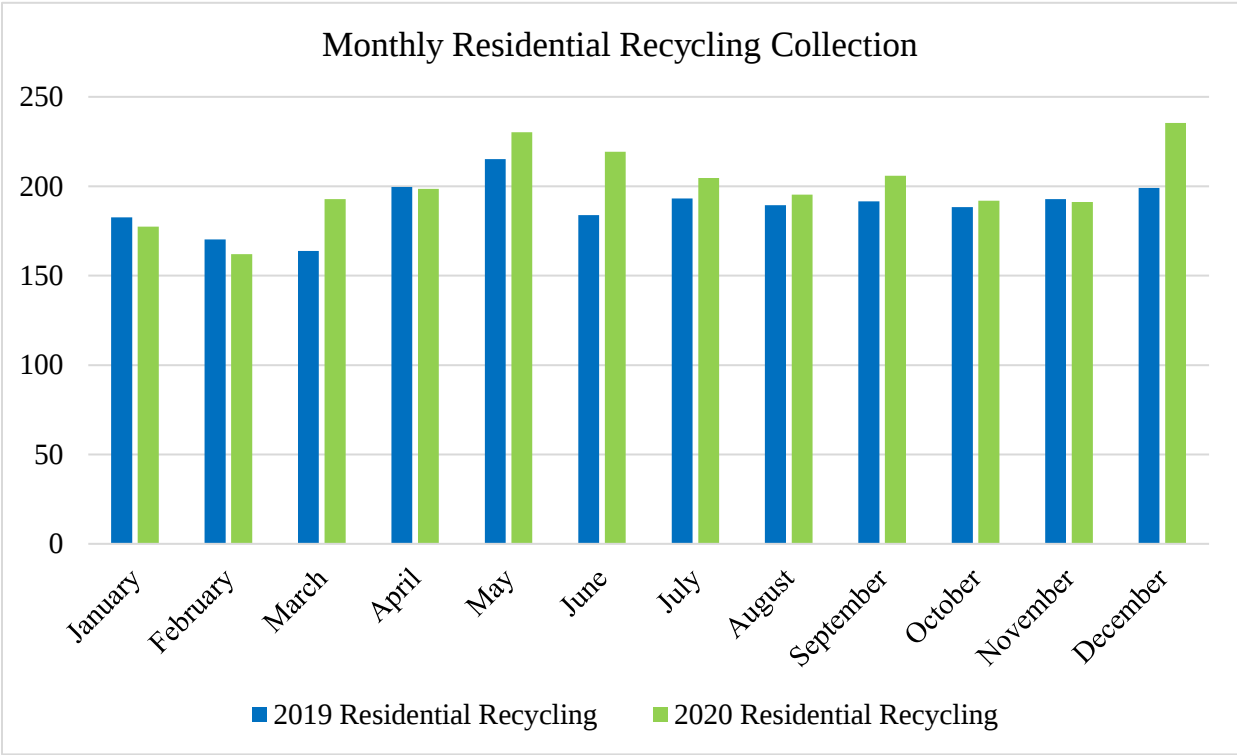
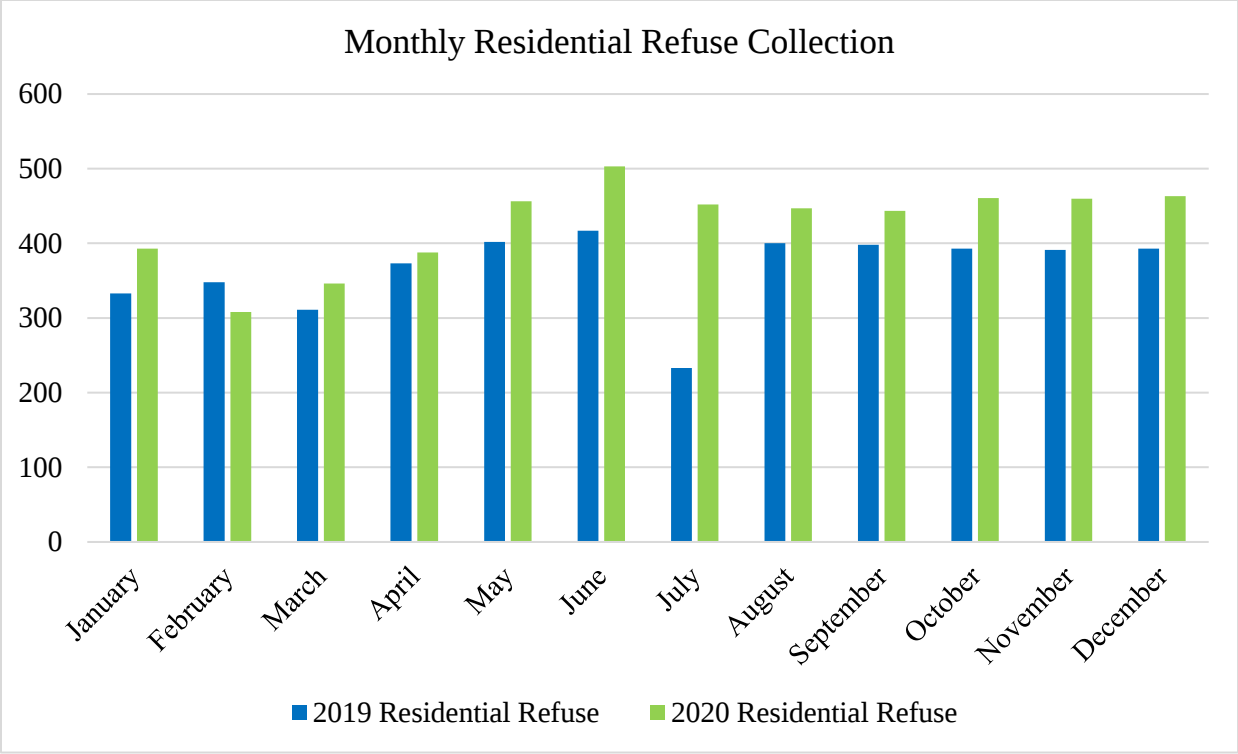
VACANT STOREFRONTS	
BUREAUCRACY	
LACK OF DIVERSITY	
AFFORDABILITY	
RESISTANCE TO CHANGE	
ADAPTING TO CLIMATE CHANGE	
COMMUNITY ENGAGEMENT	
CHANGING RESIDENTIAL CHARACTER	
FLOODING	
LACK OF HOUSING CHOICES	Agenda Packet 8

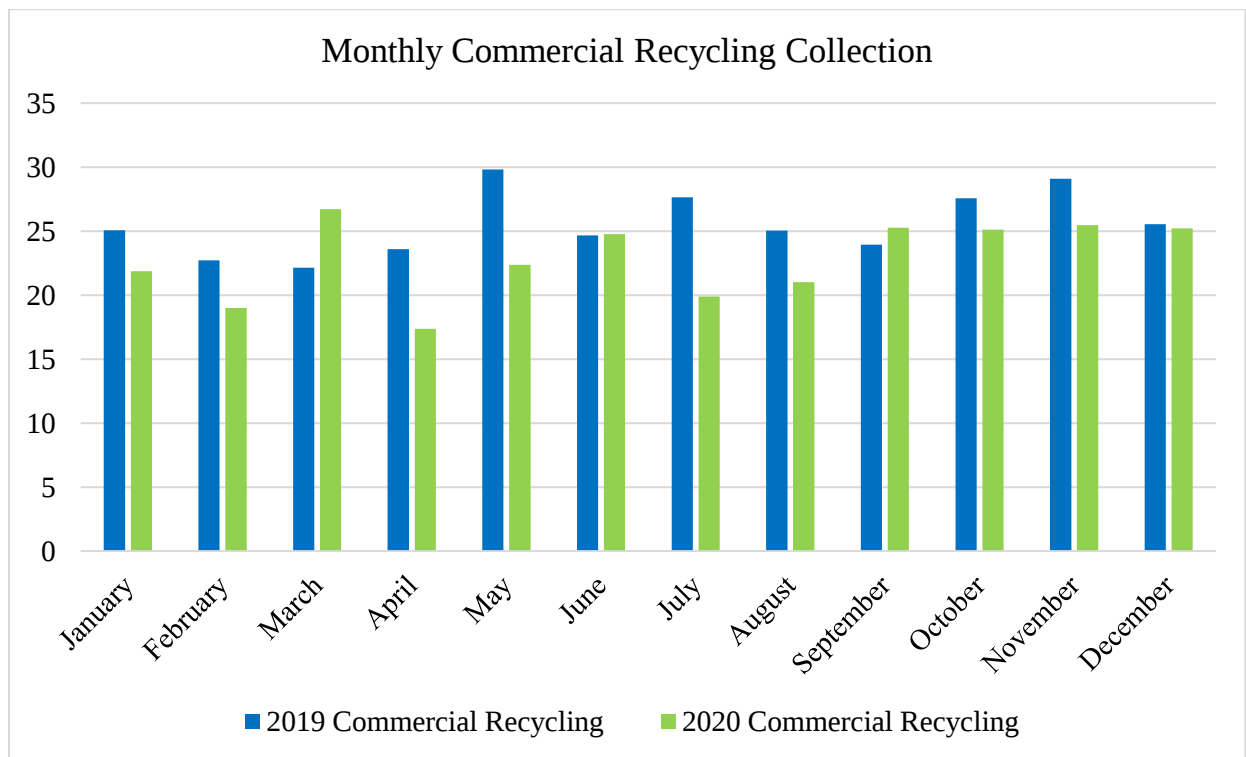
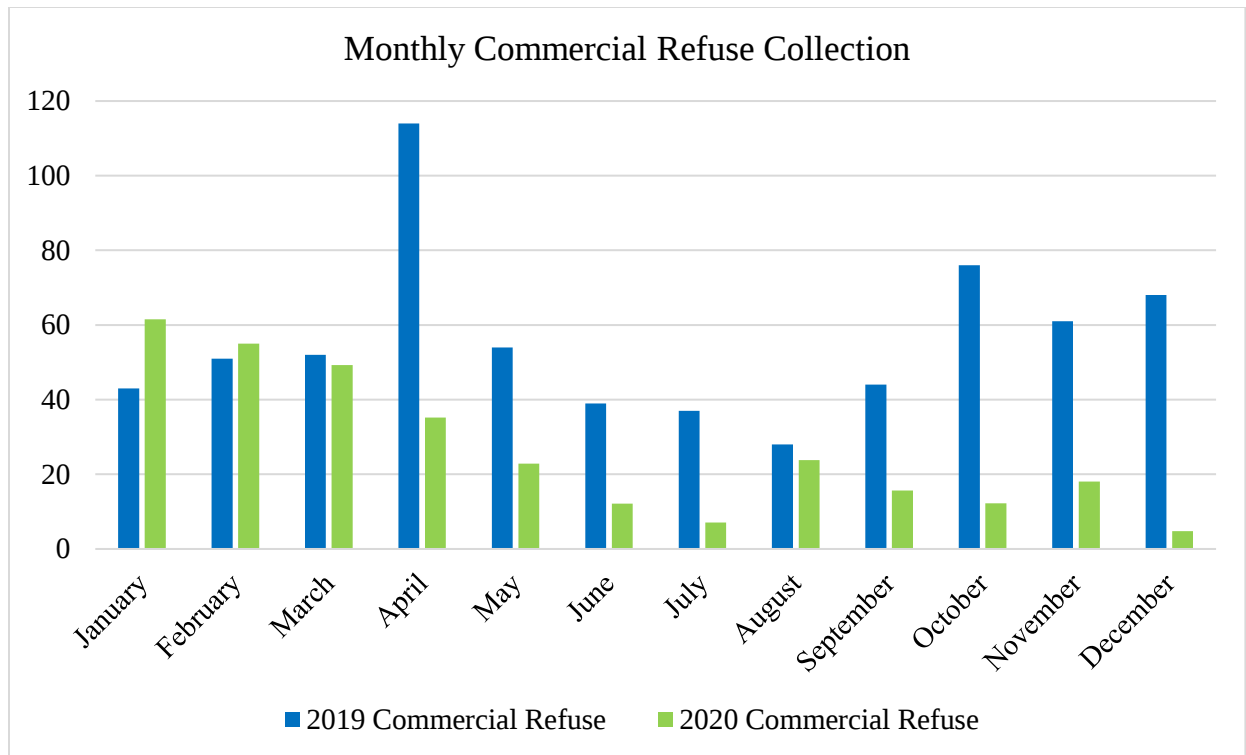
Monthly Refuse Collection Totals 2019-2020

Year	Activity	January	February	March	April	May	June	July	August	September	October	November	December	Total
2019	Residential Refuse	333	348	311	373	402	417	233	400	398	393	391	393	4392
2020	Residential Refuse	393	308	346.31	387.87	456.17	503.02	451.88	447.09	443.54	460.66	459.89	463.41	5120.84
2019	Commercial Refuse	43	51	52	114	54	39	37	28	44	76	61	68	667
2020	Commercial Refuse	61.5	55.05	49.25	35.21	22.83	12.16	7.1	23.8	15.65	12.19	18.09	4.77	317.6

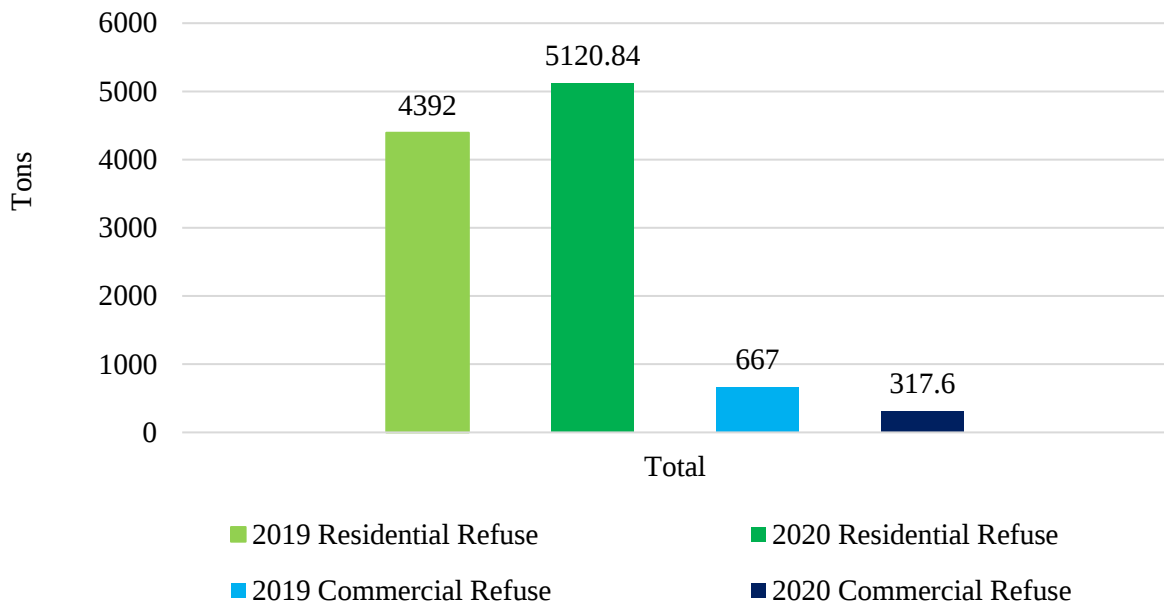
Monthly Recycling Collection Totals 2019-2020

Year	Activity	January	February	March	April	May	June	July	August	September	October	November	December	Total
2019	Residential Recycling	182.59	170.25	163.76	199.62	215.25	183.8	193.1	189.41	191.5	188.25	192.85	199.13	2269.51
2020	Residential Recycling	177.32	162.03	192.74	198.57	230.15	219.35	204.53	195.26	205.88	191.88	191.25	235.39	2404.35
2019	Commercial Recycling	25.06	22.72	22.13	23.58	29.83	24.67	27.65	25.04	23.95	27.58	29.1	25.55	306.86
2020	Commercial Recycling	21.87	19	26.73	17.37	22.36	24.77	19.89	21.01	25.26	25.12	25.46	25.21	274.05

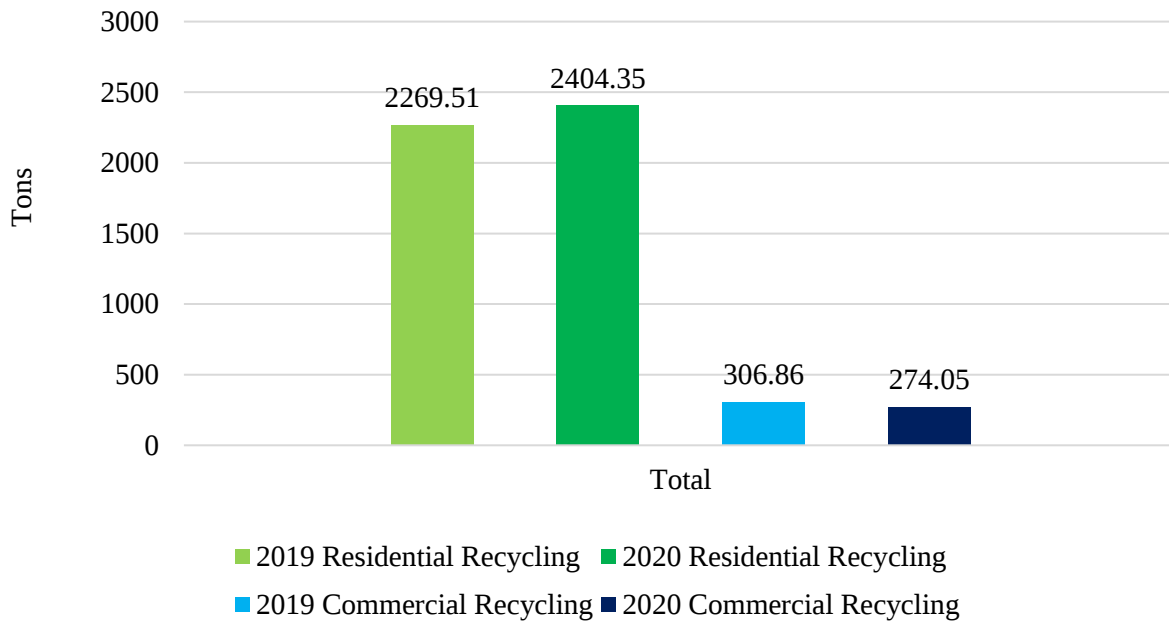




2019-2020 Refuse Collection Totals



2019-2020 Recycling Collection Totals



November 2021 EFC Communications Content

1. **Holiday Lights Recycling**

Fall Winnetka Report & E-Winnetka Newsletter

As the holiday season approaches, a reminder that residents may bring holiday lights and other wires to the Public Works Yards for recycling year round. Drop off times are during normal business hours, Monday through Friday, 7:30 am through 4:00 pm. For more information, please contact the Public Works Department at 847-716-3568.

2. **America Recycles Day is November 15, 2021**

E-Winnetka Newsletter

This year, America Recycles Day is Monday, November 15, 2021. America Recycles Day is a nationally-recognized day that is dedicated to promoting and celebrating recycling in the United States by promoting environmental citizenship and taking action to increase and improve recycling. For more information and to learn about taking the pledge, please visit <https://americarecyclesday.org/>.

3. **Battery Recycling**

E-Winnetka Newsletter

About Alkaline Batteries:

According to the Illinois Environmental Protection Agency, single-use, non-rechargeable alkaline batteries AAA, AA, C, D 6v & 9v are classified as "non-hazardous" and may be safely disposed of with normal household waste.

About Rechargeable Batteries:

Rechargeable batteries Nickel Cadmium (NiCd), Nickel Metal Hydride (NiMh), Lithium, Zinc-Air, Silver-oxide, and Small Sealed Lead Acid contain mercury and other heavy metals and should be recycled. There are many retail stores (Ace Hardware, Best Buy, IKEA, Lowe's, Staples, Target, etc.) that accept rechargeable batteries. Call retail stores to confirm acceptable batteries. To avoid the risk of cross-contact of battery terminals, which can cause a spark and create a fire, place a piece of tape over each terminal or contact point.

About Lead Acid Batteries:

Lead acid batteries (automotive, marine, and sump pump) are prohibited by Illinois state law from being disposed of in the trash. Gas stations, auto parts stores, and other retail stores provide outlets for disposing of these batteries.

Why do the contact points of rechargeable batteries need to be taped?

The contact points of each rechargeable battery should be covered with masking tape before being taken to a drop-off location. It is important that the end points on batteries do not touch each other during collection or transportation because contact can cause a spark and ignite a fire.

For a list of retailers who recycle rechargeable and lead acid batteries visit SWANCC's **Battery Recycling** web page.

4. Plastic Bag, Film and Wrap Recycling

E-Winnetka Newsletter

A reminder that plastic bags, film, and wrap are not included in the Village's curbside recycling program offered by Lakeshore Recycling Systems. Plastic film – also known as plastic film packaging – is soft, flexible polyethylene (PE) packaging such as grocery, food, zip-top, and dry cleaning bags. It is also the clear plastic that comes wrapped around many paper products. Bags and film wrap are considered “contamination” at facilities where recyclables are processed, because they get tangled in the equipment. Clean and dry plastic bags, film, wrap can be recycled at many grocery and retail stores. Be sure to completely empty the bags, film, and wrap of all food and liquid waste before taking them to your nearest participating store. A list of plastics that may be recycled at most stores is below:

- Grocery bags
- Bread bags
- Case overwrap (e.g. water, soda and juice bottles)
- Dry cleaning bags
- Newspaper sleeves
- Ice bags
- Wood pellet bags
- Ziplock/reclosable bags
- Produce bags
- Bubble wrap
- Salt bags
- Cereal bags

5. Environmental and Forestry Commission Recycling Tip: Textile Recycling

Before getting rid of your old clothes, consider recycling or donating them to a textile recycling organization in the area. Check with your local community organizations, church, shelter, hospital, schools or libraries for available programs. Some of these organizations that offer textile recycling programs include: Christ Church of Winnetka, Winnetka Thrift Shop, Amvets, Goodwill Industries, Avenues to Independence, Winnetka Congregational Church, Salvation Army, Chicago Textile Recycling and USAgain.

6. Environmental and Forestry Commission Tip: Use of Natural Light During Winter

Many of us crave more sunlight during winter's doldrums. Here are some ideas to let more light into a home and make the most of what meager sunshine is available during a midwest winter.

Try cleaning or power-washing your windows to remove summer pollen and other buildup, which allows much more light to come in. Make sure your window coverings aren't sabotaging your efforts to capture more of the sun's rays. If you have drapes, hang them high to the ceiling and wide enough that they only cover the window trim, and not the actual window itself. Use the same outside-mount approach with Roman shades, installing them high enough so that the bottom of the shade, when raised, covers the trim but not much of the actual window, which tricks the eye into thinking the window is taller than it actually is.

Clearing obstructions works on both sides of the glass. Trimming shrubs or low branches outside south-facing windows can immediately let more precious winter sunbeams into your home. But you can also plant and prune with a longer-term plan in mind. The trees that surround your house should not only play their part in the landscape, but in the environmental conditions of your house. For instance, on the south side of your house in the midwest, views notwithstanding, you should have deciduous trees that provide shade in the summer and when they lose their leaves allow light and warmth in the winter.

December 2021 EFC Communications Content

1. Christmas Tree Pick-Up

E-blast Newsletter

Christmas trees will be picked up from the curbside for shredding, chipping, and composting beginning **TBD through TBD**. After TBD, a \$2.30 refuse sticker will be required to ensure pickup. Please remove everything from trees, including plastic bags or wraps, ornaments, tinsel, wires, and the stand, as these will clog and damage the shredder. If you have questions about the program, please call 847-716-3568.

2. EFC Green Awards Application Reminder

E-blast Newsletter

The Village of Winnetka's Environmental and Forestry Commission invites nominations for the third-annual Green Awards Program. The purpose of the program is to recognize properties and households within Winnetka that demonstrate exceptional commitment to sustainable and environmentally-friendly practices. Residents, businesses and other organizations are encouraged to nominate their house, property, building or project that has been completed within the past five years. The award categories include: Green Building, Recycling/Waste Reduction, Land, Air, Water/Stormwater, Energy, and Innovation/Other.

If you believe your recent project has helped make Winnetka a more environmentally-friendly or sustainable community, the Commission asks that you consider applying. Applications are available through the Public Works Department at 1390 Willow Road, or by clicking here (<http://www.villageofwinnetka.org/government/boards-and-commissions/environmental-and-forestry-commission/>). The application deadline is **TBD**. Category winners will be announced on Earth Day (**April 22, 2022**). If you have any questions about the program, contact **TBD**.

3. Holiday Lights Recycling

E-blast Newsletter

As you decorate for the holidays, you may discover that some old lights and extension cords don't work. Recycle them with the Village's year-round light recycling program! All types of holiday lights and cords are accepted for recycling at the Public Works Yards, 1390 Willow Road, weekdays from 7:30 AM – 4:00 PM. The Village cannot accept garland, live greens, wreathes, or other non-recyclable items. If you have questions about the program, please call 847-716-3568.

4. Commercial District Business Lighting

E-blast Newsletter

Chamber of Commerce

Economic Development Newsletter

Many businesses in Winnetka keep their interior lighting on throughout the night for safety and crime prevention purposes. Although this may provide more security, it also uses excess electricity. The use of LED or other energy efficient bulbs can help reduce energy consumption and lower electric bills. Businesses are encouraged to use LED lighting in their stores to reduce their electricity use.

5. Use of Natural Light During Winter

E-blast Newsletter

The way your home is oriented should inform your decisions about where to install new windows or skylights — perhaps the most obvious way to harvest more natural light. How is the house positioned in terms of north, south, east, west is the place to start, because anything done with windows or skylights is going to be impacted by that. Adding glass on the south side of a home, where the sun spends most of its daytime arc, will generally provide the most brightness for your buck.

Consider experimenting with your home's layout as it relates to the sun. If your living room feels trapped in perpetual twilight, but a seldom-used, south-facing dining room is drenched in sun, try swapping their functions.

EFC Communications Calendar		
Month	Item	Winnetka Report Deadline
<i>November</i>	Holiday Lights Recycling America Recycle Day Battery Recycling Plastic Bag, Film, and Wrap Recycling EFC Recycling Tip: Textile Recycling and Natural Light During Winter	Winter: November 13
<i>December</i>	Holiday Tree Pick-Up Holiday Lights Recycling Commercial District Business Lighting Use of natural light during winter Recycling – Styrofoam	
<i>January 2022</i>	EFC Green Awards Application Reminder Reduce Energy Use & Costs in Your Home & Business Make the Switch from Incandescent Bulbs to LED Holiday Lights Recycling Ways to Avoid Using Poisonous Mouse Bait	