



Village of Winnetka

Environmental, Forestry, & Sustainability Commission Meeting

July 8, 2026 at 7:00 PM
Winnetka Village Hall Council Chambers - 510
Green Bay Road

AGENDA

1. **Introduction & Chair's Remarks**
2. **Public Comments**
3. **Review and Approval of Minutes**
 - a. June 10 EFSC Meeting Minutes
4. **Old Business Updates**
5. **New Business**
 - a. Mid-year review
 - b. Climate Action Plan
 - c. Solar Power Hour
 - d. Farmer's Market and Trail Day
 - e. Bike Bus - <https://www.youtube.com/watch?v=Tmve0d0y4R0>
6. **Communications**
7. **Committee/Staff Reports**
8. **Open Forum**
9. **Adjournment**

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 FORESTRY, AND SUSTAINABILITY
COMMISSION
REGULAR MEETING MINUTES
May 13, 2026**

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, June 10, 2026, at 7:00 p.m.

Call to Order:

Commissioner Tim Ring called the meeting to order at 7:04 p.m.

Voting Members present: Commissioners Tim Ring, Dave Varca, King Poor, Ben Dietz. Members absent: Peter Eck, Liz Kunkle, Stacy Lucier. A quorum of presently appointed members was present. Village Council Representative absent: Kim Handler. Student Representative Present: Scarlett Harper. Student Representative Absent: Louisa Hernandez. Park District Liaison present: Christina Codo. Staff Liaison present: Elyse Steiner.

1) Introduction & Chair's Remarks:

Commissioner Tim Ring filled in for Chair Peter Eck.

Commissioners welcomed Park District Liaison Christine Codo and did a round of introductions.

2) Public Comment:

Ellie Dunn returned to speak about the buckthorn problem throughout the Village and to ask Village leaders to enact policies to encourage eradication.

3) Review and Approval of Minutes

a) Approval of the April Regular Meeting Minutes

A motion was made by Commissioner Poor, seconded by Commissioner Varca to approve the minutes as presented.

AYES: RING, DIETZ, VARCA, POOR.

NAYS: NONE

ABSENT: ECK, KUNKLE, LUCIER

4) New Business Updates:

a) Solar Power Hour

The event has been scheduled for Saturday September 19 from 1-3 PM at the Winnetka Library. Next steps are to meet with Grace from the Citizens Utility Board (CUB) to learn

more about the Power Hour format. We also need to secure speakers/ panelists and homeowners. Scarlett volunteered to help with designing posters or marketing materials.

The event will be promoted in the next Winnetka Report, on social media, and in person at the Farmer's Market in the weeks leading up to September 19.

b) Mid-Year Review

Commissioners decided to postpone this discussion until July when more members are present.

c) Climate Action Plan

The Climate Action Plan has been delayed again until July 21. A draft will be distributed to EFSC members and Trustees in advance.

5) **Communications:**

6) **Commission/Staff Reports:**

Staff are planning to introduce free Home Energy Assessments for Winnetka residents. The contract with a selected vendor is in progress.

Green Bay Trail Day is July 25. Hopefully, EFSC members will be available to staff the Winnetka table.

7) **Open Forum:**

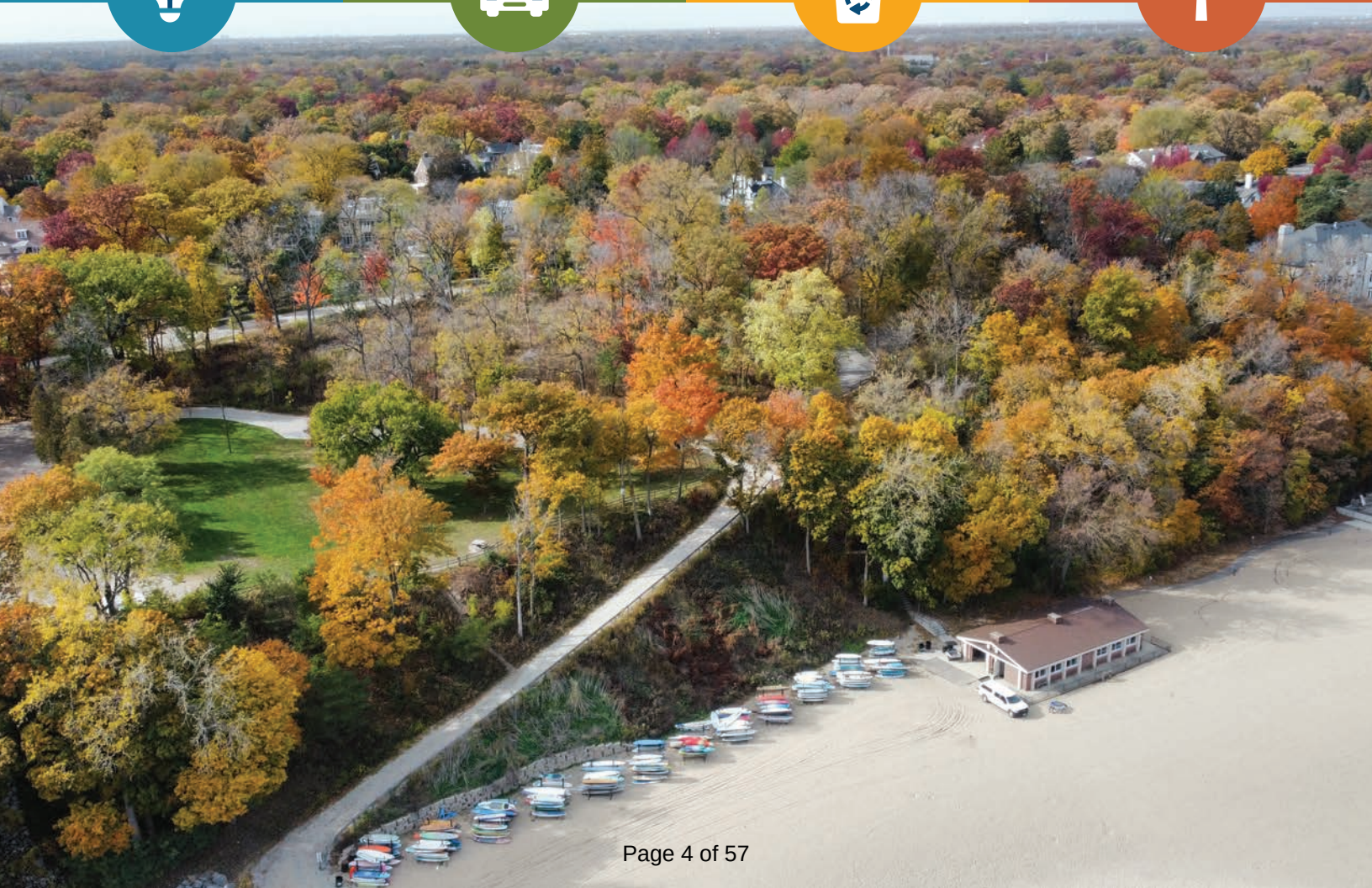
8) **Adjournment:**

There being no further business, Chair Eck asked for a motion to adjourn which was moved by Commissioner Varca and seconded by Commissioner Poor. The motion passed unanimously on a voice vote; the meeting adjourned at 7:55 p.m.



Winnetka

CLIMATE ACTION PLAN



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Acknowledgments

The Village of Winnetka, Illinois, also referred to as “Winnetka” or “the Village,” would like to thank all residents, community groups, local businesses, and Village staff who participated in developing this Climate Action Plan (CAP). Your time, insights, and feedback were invaluable in shaping a CAP that reflects the community’s priorities, needs, and vision for a sustainable future.

We also extend our gratitude to the subject matter experts (SMEs) for providing technical guidance, research, and support in the planning process. The collaboration among residents, Village departments, and project partners ensured this CAP is both practical and ambitious, grounded in data, and responsive to our community’s lived experiences.

Environmental, Forestry and Sustainability Commission

- Brendan Andrew
- Peter Eck
- Greg Frezados
- Scarlett Harper
- Louisa Hernandez
- Liz Kunkle
- E. King Poor
- Tim Ring
- David Varca

Community Subject Matter Experts

- Patrick Dawson
Winnetka School District 36
- Monica Dombrowski
Winnetka Public Library
- Costa Kutulas
Winnetka Park District
- Heather Oliver
New Trier Township
- Tom Dawlidowicz
New Trier Township High School

Village Council

- Robert Dearborn
Village Council – Village President
- Kimberly Handler
Village Council – Trustee, EFSC Liaison

Village Staff

- Jim Bernahl
Engineering Department
- Sam Carrasco
Water & Electric Department
- Erik Jensen
Public Works Department
- Kristin Kazenas
Village Manager’s Office
- Hannah Lipman
Village Manager’s Office
- Ann Klaassen
Community Development Department
- Anita Lichterman
Community Development Department
- Andrew Lueck
Forestry Division (Public Works)

Project Team

- Livable Cities Team
KERAMIDA Inc.



- Andy Malkowski
Transportation Division
(Public Works)
- Scott Mangum
Community Development Department
- Nick Narhi
Water & Electric Department
- Tom Powers
Public Works Department
- Kathy Sarapuk
Finance Department
- Tim Sloth
Finance Department
- Elyse Steiner
Sustainability / Village
Manager’s Office

Acronyms

ACS	American Community Survey
AMI	Advanced Metering Infrastructure
BAU	Business As Usual
CAP	Climate Action Plan
CO ₂ e	Carbon Dioxide Equivalent
CRTI	Chicago Region Trees Initiative
DC	Direct Current
EIA	Environmental Impact Assessment
EV	Electric Vehicle
FEMA	Federal Emergency Management Agency
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GIS	Geographic Information System
HVAC	Heating, Ventilation, and Air Conditioning
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
ILCS	Illinois Compiled Statutes
IMEA	Illinois Municipal Electric Agency

kW	Kilowatt
kWh	Kilowatt-hour
LED	Light Emitting Diode
Metra	Metropolitan Rail (Chicago commuter rail system)
MT	Metric Tons
MWh	Megawatt-hour
MWRD	Metropolitan Water Reclamation District
NLCD	National Land Cover Database
NOAA	National Oceanic and Atmospheric Administration
NLR	National Laboratory of the Rockies
PACE	Suburban Bus Division of the Regional Transportation Authority (Pace Bus)
PPA	Power Purchase Agreements
REC	Renewable Energy Certificates
RM	Reduction Measure
SME	Subject Matter Expert
SolSmart	National Solar Technical Assistance Partnership Program
VMT	Vehicle Miles Traveled
YoY	Year-over-Year

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Introduction

Winnetka's Climate Action Plan acknowledges that the issue of climate change is evolving in terms of understanding and defining the range of impacts over time. The Village of Winnetka recognizes that it is a small part of this overall challenge and aspires to implement the recommendations included in the plan with this understanding of our limited influence. Winnetka has a number of unique characteristics that define the town, including, but certainly not limited to: 1) a nationally recognized tree canopy that covers 52% of the village, 2) a housing stock that is relatively old as compared to newer residential construction, 3) ageing infrastructure that will require significant capital investment in coming decades, and 4) ongoing financial and other considerations that will compete for resources with certain of the recommendations of this plan. This plan attempts to reflect the uniqueness of Winnetka and ascertain the progress that can be reasonably expected.

An overarching objective of the plan is to influence operating procedures and behavioral actions throughout the village. The plan is in certain respects aspirational, while also seeking to identify actions that can be pursued and implemented in the near, intermediate, and longer terms. In addition, measuring tangible progress, and providing educational support to the community, are key goals. In coming years, new technologies will be developed that will support the implementation of some of the aspirational objectives. In sum, today's Climate Action Plan establishes a foundation to move forward with this important initiative, recognizing that the specifics of the plan will evolve as circumstances change and knowledge evolve.

Through a partnership with KERAMIDA Inc.'s Livable Cities Team, the Village formed a Project Team that provided technical expertise and ongoing support to guide the planning process. Throughout 2025, the Project Team worked closely with Village departments, engaged residents and community groups, reviewed existing plans and operations, and analyzed data to ensure the CAP reflects Winnetka's unique priorities and values.

The scope of this plan is limited to climate threats and actions. Other important but non-climate related topics such as water and air quality or wildlife habitat are outside the scope of this plan.

Winnetka's CAP serves as a data-driven, community-centered roadmap for reducing emissions while remaining grounded in feasibility and accountability. To make this vision a reality, we recognize that climate action is a shared responsibility. This CAP reflects a collective commitment to protecting our environment, strengthening resilience, and enhancing the quality of life for current and future generations in Winnetka. The Village looks forward to working together with the community to implement the CAP and advance shared climate goals for Winnetka's future. Thank you for being an essential part of this effort.

Building a Sustainable Winnetka: Progress Since 2000

Winnetka's commitment to environmental stewardship has driven more than 25 years of meaningful progress. This timeline highlights key investments and achievements that reflect the Village's legacy of sustainability and climate action.

These examples illustrate progress to date but are not exhaustive of all efforts underway or completed.

**2000
–2009**



Passed a tree preservation ordinance

Converted traffic signal and streetlights to more efficient light-emitting diode (LED) technology

Established the Environmental & Forestry Commission to support Village Council priorities

**2010
–2014**



Developed a stormwater management plan to reduce flooding impacts from severe storms

Expanded downtown recycling infrastructure

Celebrated the Park District facility achieving LEED Gold certification and North Shore Country Day School achieving LEED Silver certification.

**2015
–2019**



Adopted the Greenest Region Compact framework

Deployed public electric vehicle (EV) charging stations

New Trier High School advanced construction projects, HVAC upgrades, EV charging, and achieved LEED Gold certification for a building addition

Conducted walkability and mobility planning

Launched the Green Awards program

Achieved SolSmart Bronze

**2020
–2026**



Implemented municipal LED facility upgrades

Integrated a Sustainability Pillar into the Winnetka Futures 2040 Comprehensive Plan

District 36 completed school building modernization and HVAC and electrical upgrades

Broadened the Winnetka utility clean energy and energy efficiency rebate program

Expanded the solar demonstration project at Public Works to reduce 95% of the energy use and streamlined residential rooftop solar permitting process

Rooftop solar was installed at New Trier High School, Winnetka Campus, and the New Trier Township building

Existing Efforts



Deploy additional public EV charging infrastructure and transition to municipal fleet EVs



Conduct a leaf-blower feasibility study into extending a year-round ban on gas-powered blowers



Launch a heat pump education and incentive program to complement appliance rebates



Achieve 100% LED lighting across municipal buildings, schools, and park district facilities



Explore opportunities to expand urban greening, native habitat, organic composting, and reuse/recycling



Climate Change in Winnetka

Greenhouse gases—carbon dioxide, methane, water vapor, and nitrous oxide—are naturally occurring gases in the atmosphere that trap heat and help regulate the Earth’s temperature. Climate change occurs when human activities increase the concentration of these gases beyond natural levels.

Familiar sources of greenhouse gas emissions include burning fossil fuels for electricity and heating, driving gasoline- and diesel-powered vehicles, and generating waste. As greenhouse gas (GHG) levels rise, they disrupt natural systems and contribute to long-term changes in temperature, precipitation, and weather patterns.

To better understand how climate change is already affecting Winnetka, residents were asked to identify the environmental impacts they experienced over the past five years that most disrupted their daily activities.

While residents’ feedback highlights the climate impacts most noticeable in daily life, broader climate-related risks vary by hazard and may not always be immediately apparent. Some hazards occur less frequently but can pose a risk due to their potential impacts on people, infrastructure, and essential services.

Resident Feedback



Residents most frequently identified extreme heat and poor air quality as disrupting their daily routines, reflecting ongoing climate-related stressors in everyday life.



Many residents reported severe storms as a concern, noting increasing disruptions from more intense and unpredictable weather events.



Some residents reported flooding in specific areas of the community, highlighting localized impacts that continue to disrupt daily activities for those affected.



Risk of Inaction

To provide a broader context, the table below summarizes Cook County's relative risks using the Federal Emergency Management Agency's (FEMA) National Risk Index. The ratings indicate how the overall risk of each hazard compares to that of other counties nationwide, based on a combination of event likelihood, potential impacts, and community vulnerability. These categories are intended to support understanding and to highlight areas of elevated concern, rather than to predict specific events.

TABLE 1
FEMA Hazard Ratings - Cook County

Hazard	Rating
Heatwave	Very High
Cold Wave	Very High
Ice Storm	Very High
Winter Weather	Very High
Lighting	Very High
Strong Wind	Very High
Tornado	Very High
Inland Flood	Very High
Hail	Relatively High
Coastal Flooding	Relatively Low
Drought	Very Low
Hurricane	Very Low
Landslide	Very Low
Wildfire	Very Low

Local Impact

The impacts of climate change vary by location, but no community is unaffected. Changes in climate can appear as more frequent and intense heatwaves, poorer air quality, stronger storms, periods of drought, and increased flooding. These impacts affect public health, infrastructure, land and water systems, and daily life, and they can place added strain on local resources and services.

FIGURE 1
2040 Climate Change Impacts in Winnetka, Cook County, IL¹



Average temperature (°F)

+4.6–5.3°



Days above 90°F

25–31



Total precipitation (in.)

+1–1.25"



Cooling demand (%)

+56–67%



Days of growing/allergy season

+29–35%

Understanding these local impacts and their effects on community members highlights the need for solutions and mitigation. Recognizing these risks allows municipalities and residents to plan ahead and implement protective measures. Proactive strategies, like those in this CAP, reduce risks before they escalate and turn awareness into action that protects people and the environment. Climate change is a global phenomenon that demands local action to collectively mitigate the potential costs to human health, property, and society.

Our Approach

A CAP is a strategic roadmap that helps a community understand, manage, and reduce its GHG emissions.

It measures current emissions, identifies solutions to lower them, and provides step-by-step guidance for implementing changes. The CAP also tracks progress toward established goals and highlights additional community benefits, including improved public health, and new economic opportunities.

The Village of Winnetka developed this CAP to align with the goals of the Winnetka 2040 Plan and the priorities identified by the Winnetka Caucus Surveys. The CAP was developed in three phases to ensure the process incorporated technical expertise, community input, and practical strategies to reduce GHG emissions and build a more sustainable future.

GHG Inventory



Data Collection and Verification

GHG Inventory Calculations

Target Setting

Reduction Modeling

Community Outreach



Environmental, Forestry, and Sustainability Commission Meeting

Community Open House

Community Survey

Village Council Presentation

Reduction Planning



Reduction Measure Feasibility Exercise

Subject Matter Expert Interviews

Action Identification

Implementation Elements (Co-benefits, Relative Costs, Targets, etc.)

Phase 1

Greenhouse Gas Inventory

The Village of Winnetka conducted both a community-wide and a municipal GHG inventory, establishing a baseline for 2022 emissions.

The community-wide inventory captured all GHG emissions within the Village boundary, including buildings, transportation, waste treatment, and carbon sequestration from trees. The municipal inventory captured all GHG emissions from village-owned operations, including buildings, fleet and transit, streetlights and traffic lights, and water and power plants.

The community-wide GHG inventory process accounted for GHG emissions and sinks (sources that absorb more carbon from the atmosphere than they release) from four sectors:



Buildings & Energy

Stationary fuel combustion and grid-supplied electricity



Transportation

On-road light- and heavy-duty vehicles, and rail travel



Waste

Treatment of solid waste and wastewater



Forestry & Land

Carbon removal attributed to tree canopy and forest preservation (not included in the total emissions and are shown as negative totals from sequestration)





FIGURE 2
**Winnetka 2022
Community-
Wide GHG
Inventory**

Community-Wide GHG Inventory Results

	55% Residential buildings
	16% Commercial buildings
	3% Industrial buildings
	1% Institutional buildings
	23% Transportation
	2% Waste

The Village of Winnetka emitted 161,842 metric tons (MT) of carbon dioxide equivalents (CO₂e) in 2022. Residential buildings accounted for the largest share of GHG emissions in the Village (55%), followed by transportation (23%) and commercial buildings (16%).

The Village emits 13.2 MT of CO₂e per person, 11% lower than the national average of 14.9 MT CO₂e per person.²

FIGURE 3
GHG Inventory Results - Comparative Statistics

TOTAL GHG EMISSIONS

161,842
MT CO₂e

That's equivalent to:



→ **37,750**

Gasoline-powered cars driven for one year



→ **700**

Round-trip flights between Chicago and New York City



→ **21,735**

Average U.S. homes' energy use for one year



Buildings & Energy

GHG emissions from the Buildings & Energy sector were 121,917 MT CO₂e in 2022, contributing 75% of the Village's total emissions.

Residential buildings accounted for 73% of building emissions, with the vast majority being single-family housing units. The mix of older and newer housing stock and building types means a variety of solutions and policies are needed.

EMISSIONS FROM
BUILDINGS & ENERGY

121,917
MT CO₂e

FIGURE 4

GHG Emissions by Building Type

- 73% Residential Buildings**
Single-family and multi-family homes
- 22% Commercial Buildings**
Businesses, schools, places of worship, library, and park district buildings
- 3% Industrial Buildings**
Electric Power Plant and Water Plant
- 2% Institutional Buildings**
Municipal buildings and streetlights



Transportation

GHG emissions from the Transportation sector totaled 36,580 MT CO₂e in 2022, encompassing 22% of the Village's total emissions.

On-road transportation accounted for 99% of the Transportation sector, with rail emissions making up only 1%.

EMISSIONS FROM
TRANSPORTATION

36,580
MT CO₂e

FIGURE 5

On-Road GHG Emissions Distribution

- 65% Passenger Vehicles**
Electric, gasoline, and hybrid cars, as well as light-duty trucks (includes SUVs)
- 33% Commercial Vehicles**
Diesel light-duty and heavy-duty trucks
- 2% Public Transit**
PACE bus and Metra train



Waste

3,345 MT CO₂e

EMISSIONS FROM WASTE

Emissions from the Waste sector accounted for 3,345 MT CO₂e in 2022, encompassing only 2% of the Village's total emissions.

Solid waste accounted for 97% of the Waste sector's emissions, with the remaining 3% from wastewater. Winnetka residents produced 80% of the recycled waste, while the remaining 20% came from commercial operations.

28%

of the total waste generated in Winnetka is recycled.



Forestry & Land

Emissions from the Forestry & Land sector were calculated for the Village of Winnetka; however, as there is no livestock or crop farming in Winnetka, the Village reported only the emissions removed by trees in urban spaces and forests. These removals are not subtracted from the Village's total emissions to ensure accurate accounting.

5,603 MT CO₂e

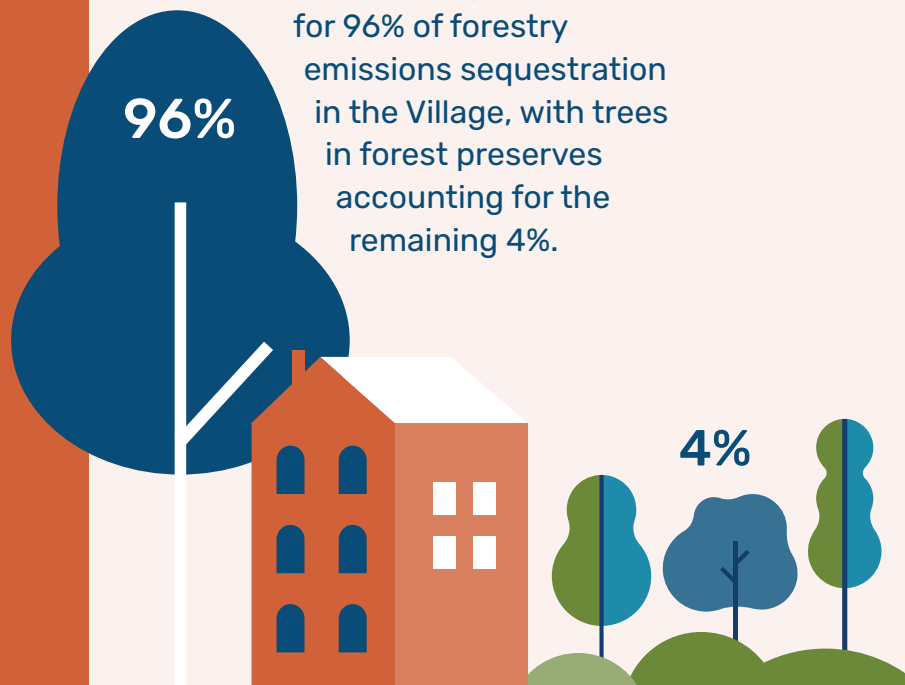
EMISSIONS REMOVED BY TREES

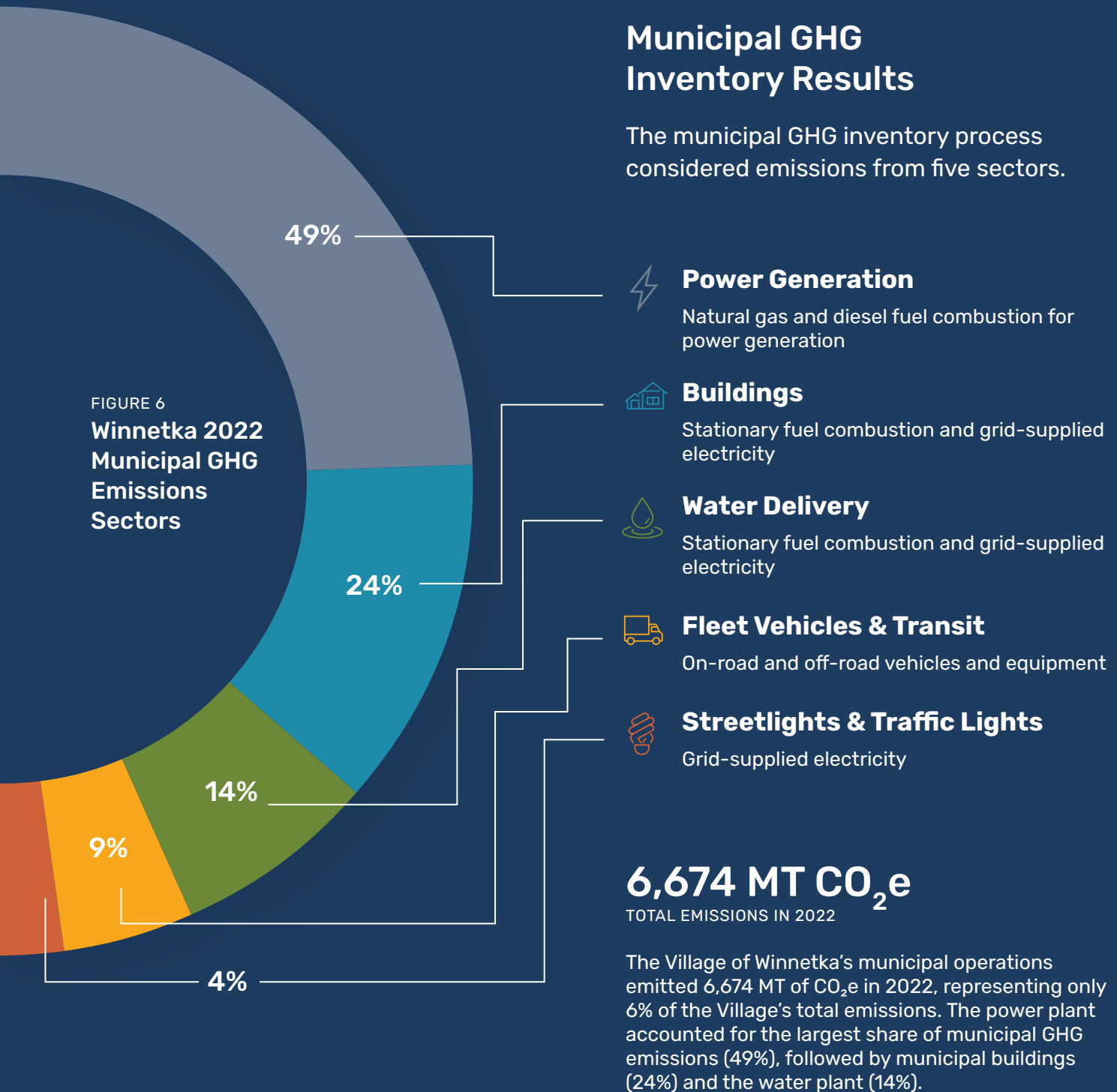
Overall, the Village of Winnetka maintained 1,272 acres of trees, which removed 5,603 MT of CO₂e from the atmosphere. For over 30 years, Winnetka has been awarded the Tree City USA designation.

Urban tree canopies accounted for 96% of forestry emissions sequestration in the Village, with trees in forest preserves accounting for the remaining 4%.

96%

4%





Phase 2

Engaging The Community

The CAP incorporated community engagement to gather input from residents, local organizations, municipal departments, and Village leadership.

This input informed the CAP and provided context on Winnetka's unique culture and local priorities. Successful implementation of the CAP will need continued collaboration and broad community support, making ongoing engagement a cornerstone of long-term success. Community input was gathered through three complementary engagement approaches that enabled both technical insight and wide public participation.

SME Outreach

The Project Team identified subject matter experts (SMEs) to interview to gather input on feasible reduction measures tailored to the Winnetka community. This began with a feasibility assessment of more than 50 scientifically validated solutions, which was narrowed to a focused list of 19 high-impact solutions across four key focus areas for further analysis. To ensure the CAP aligns with community priorities and builds on existing efforts, the team conducted 11 interviews with local experts, municipal staff, and Village leadership, drawing on institutional knowledge across departments and partner organizations.

Community Open House

The Community Open House was structured as an open, drop-in engagement activity for the public, allowing participants to engage at their own pace through a series of interactive poster boards. Ideas for climate action and sustainability were collected and considered for the final CAP.

To ensure broader participation, an online Community Survey was made available for residents who were unable to attend the Community Open House.

Caucus Survey and Comprehensive Plan

A review of recent resident engagement and public outreach efforts also provided context and validation. The 2025 Winnetka Caucus Annual Survey results provided specific preferences of residents. The Winnetka Futures 2040 Comprehensive Plan devoted an entire Pillar to Sustainability and Climate Action.



30%

About 30% of respondents identified enhanced access to green spaces and community beautification as a top priority, making it the most frequently selected co-benefit.



25%

Approximately 25% prioritized improved water quality and reduced pollution, reflecting strong concern for environmental and public health.



20%

Roughly 20% selected enhanced quality of life and community liveability as one of their top three co-benefits.



15%

About 15% prioritized community resilience and access to climate benefits, indicating interest in preparedness and inclusion.



<10%

Fewer than 10% prioritized economic, energy cost, or transportation-related co-benefits, suggesting these benefits were secondary to health, environmental, and liveability outcomes.

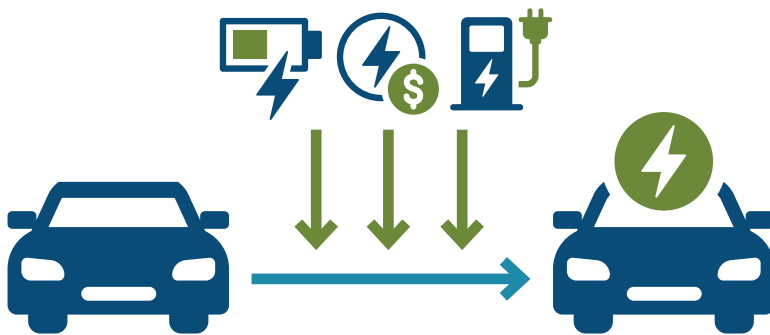
Phase 3

Reduction Planning

Reduction Measure (RM) – A specific approach to reduce GHG emissions by replacing higher-emission activities with lower-emission alternatives while maintaining the same service or outcome, such as shifting from driving alone to public transit.

FIGURE 7

RM to Action Relationship



↓ Reduction Measure:

A shift from a carbon-intensive activity (e.g., driving gasoline vehicle) to a low-carbon or carbon-neutral activity (e.g., electric vehicle).

→ Action:

The specific programs, policies, technologies, incentives, or educational campaigns that facilitate the implementation of each RM.

The tables below present the reduction measures Winnetka is advancing, along with the estimated cumulative GHG reductions each is expected to achieve through 2040. These reduction targets were developed using ClearPath 2.0, in combination with KERAMIDA's proprietary modeling tools, to ensure a structured, data-driven, and defensible approach to planning. Each measure was combined to model various scenarios that account for operational

changes and projected growth, with evaluations conducted for the near term (2030) and the long term (2040). This analysis helped identify targets that are both achievable and meaningful. The CAP emphasizes feasible, realistic measures while also acknowledging that future opportunities may further close the gap toward net-zero as technology and implementation progress.



TABLE 2

Buildings & Energy Reduction Measures



Buildings & Energy

RM Code	RM Name	2040 Reduction Target	Target Reduction Explained	Cumulative CO ₂ e Reduced
1	Efficient Lighting	100%	Of the total street, commercial, and municipal lighting sources in 2022, 100% will have improved energy efficiency by 2040.	13,150 MT CO ₂ e
2	Energy-Efficient Appliances	31%	Of the total electricity used by appliances in 2022, we will reduce electricity use by 31% by 2040.	4,630 MT CO ₂ e
3	Renewable Energy Systems	6,700 MWh	6,700 MWh of electricity, or 6% of total electricity usage in 2022, will be generated using solar power by 2040.	14,182 MT CO ₂ e
4	Municipal Building Retrofits	80%	Of the total municipal building floor space in 2022, 80% will be retrofitted for more efficient heating and cooling by 2040.	1,130 MT CO ₂ e
	Residential Building Retrofits	15%	Of the total residential building floor space in 2022, 15% will be retrofitted for more efficient heating and cooling by 2040.	22,750 MT CO ₂ e
	Commercial Building Retrofits	50%	Of the total commercial building floor space in 2022, 50% will be retrofitted for more efficient heating and cooling by 2040.	17,690 MT CO ₂ e
5	Low-Carbon Construction & Demolition	50%	Of the total floor space of potential new developments in Winnetka identified by the Village, 50% will be constructed using less carbon-intensive practices by 2040.	26,153 MT CO ₂ e
6	Municipal Heat Pumps	80%	Of the total floor space of municipal buildings heated with electric heating or natural gas in 2022, 80% will be heated with heat pumps by 2040.	2,480 MT CO ₂ e
	Residential Heat Pumps	20%	Of the total floor space of residential buildings heated with electric heating or natural gas in 2022, 20% will be heated with heat pumps by 2040.	98,970 MT CO ₂ e
	Commercial Heat Pumps	30%	Of the total floor space of commercial buildings heated with electric heating or natural gas in 2022, 30% will be heated with heat pumps by 2040.	23,960 MT CO ₂ e

TABLE 3

Transportation Reduction Measures

Transportation

RM Code	RM Name	2040 Reduction Target	Target Reduction Explained	Cumulative CO ₂ e Reduced
7	Walking and Cycling	5%	5% of total 2022 private vehicle travel will be shifted to walking or cycling by 2040.	3,120 MT CO ₂ e
8	Hybrid and Electric Municipal Cars	100%	100% of Winnetka's 2022 light duty car fleet will be either hybridized (75%) or electrified (25%) by 2040.	1,649 MT CO ₂ e
	Electric Private Cars	45%	45% of privately owned traditional-fuel vehicles will be electrified by 2040.	111,750 MT CO ₂ e
	Electric Heavy Duty Vehicles	15%	15% of Winnetka's 2022 traditional-fuel heavy-duty vehicles, including school buses, public buses, and delivery trucks, will be electrified by 2040.	6,132 MT CO ₂ e
9	Public Transportation – PACE Bus	30%	A 30% increase in PACE bus ridership from Winnetka's 2024 levels will be achieved by 2040.	252 MT CO ₂ e
	Public Transportation – Metra	35%	A 35% increase in Metra train ridership from Winnetka's 2025 levels will be achieved by 2040.	338 MT CO ₂ e



TABLE 4

Waste Reduction Measures



Waste

RM Code	RM Name	2040 Reduction Target	Target Reduction Explained	Cumulative CO ₂ e Reduced
10	Recycling	15%	By 2040, 15% of the total quantity of recyclable waste landfilled in 2022 will be diverted to recycling.	881 MT CO ₂ e
11	Composting	20%	By 2040, 20% of the total quantity of organic waste landfilled in 2022 will be diverted to composting.	262 MT CO ₂ e
12	Adaptive Reuse	15%	15% of the total quantity of landfilled waste in 2022 will be avoided through adaptive reuse by 2040.	216 MT CO ₂ e

TABLE 5

Forestry & Land Reduction Measures



Forestry & Land

RM Code	RM Name	2040 Reduction Target	Target Reduction Explained	Cumulative CO ₂ e Reduced
13	Tree Canopy	180 trees	180 trees will be planted every year through 2040, for a total of 2,520 trees (a portion of which will replace dead or dying trees on private or public property).	145 MT CO ₂ e
14	Nature-Based Practices	25%	25% of single-family houses in Winnetka will practice sustainable lawn maintenance by 2040.	37 MT CO ₂ e

Emmision Scenarios

The reduction measures were combined to calculate the total emissions reductions. The three scenarios are projected below in the Village’s pathway.

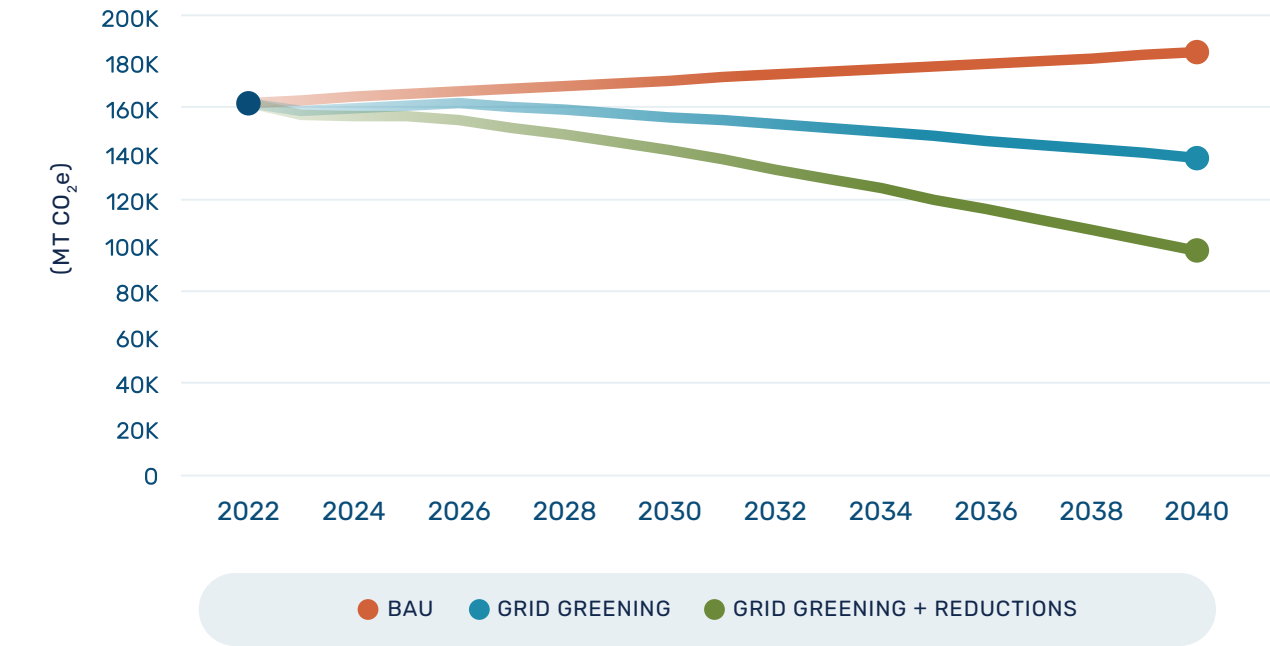


Emissions projected with the current year-over-year (YoY) population and gross domestic product (GDP) growth; no additional reduction measures implemented.

This accounts for utilities transitioning to lower-carbon energy generation due to economic and environmental considerations. The generation mix for our regional grid is expected to become less carbon-intensive over time.

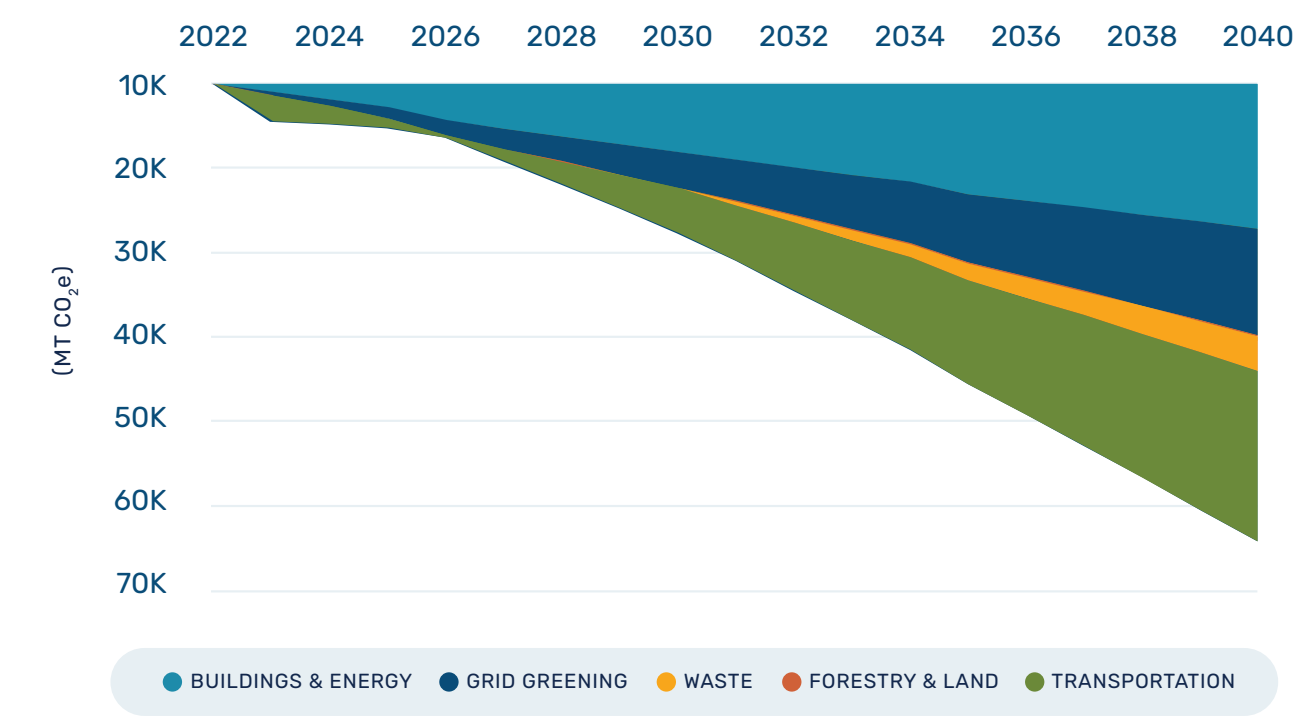
Emissions forecast assuming the successful implementation of Winnetka’s reduction measures.

FIGURE 8
Village of Winnetka Emissions Projections



The following reduction pathway graph provides insight into the allocation of emissions reductions from reduction measures in each sector and from grid greening, contributing to the Village of Winnetka’s goal of reducing GHG emissions by 13% by 2030 and 40% by 2040 compared to the 2022 baseline.

FIGURE 9
Winnetka Emissions Reduction Pathway



Action Plan Summary

Addressing climate change is a shared effort that goes beyond Village departments. Businesses, residents, community organizations, and regional partners all have a role in bringing the CAP's solutions to life. The following RM pages highlight how the Winnetka community can work together to advance these goals and take meaningful steps toward a more sustainable future.

Establishing targets, identifying multi-faceted actions, setting timelines, quantifying GHG reductions, and considering co-benefits help guide the implementation process. The elements described below summarize the analyses conducted for each RM and provide context for understanding their potential effects. Each RM page follows a consistent format, making it easy to find and compare information. Use this key to interpret the RM pages, their expected impacts, and the resources required for implementation.

Co-Benefits:

Additional positive outcomes that result from implementation, including:

Economic Prosperity

Supports jobs, cost savings, or economic stability.

Public Health

Reduces health risks or improves physical/mental well-being.

Quality of Life

Improves comfort, safety, or daily experience.

Resilience

Improves the ability to withstand and recover from climate impacts.

Stewardship

Protects or promotes natural resources and environmental quality.

Implementation Timeframe:

S ➤	Short-term Actions	0-3 years	Immediate, achievable steps that lay the groundwork for climate action.
M ➤➤	Medium-term Actions	4-7 years	Building on the foundation by scaling and institutionalizing successful efforts.
L ➤➤➤	Long-term Actions	8-15 years	Driving the transformative changes needed to achieve the Village's long-range climate goals.

Relative Cost:

\$-\$\$\$

Estimated cost to the entity implementing the emissions-reducing action, which may be an entity other than the Village itself. This rating reflects the cost of the transition itself and not expenses the Village may incur to promote, facilitate, or encourage the action.

Low cost actions can be implemented within existing budgets. High cost actions require advanced planning, capital spending, and/or additional financing sources.

Cadence:



Singular - An action that occurs once within a defined period and incurs a one-time, non-recurring cost.



Ongoing - An action that continues or repeats over time and incurs recurring or sustained costs.

Together, these elements form the backbone of the CAP, translating Winnetka's climate vision into a clear, actionable roadmap.

1

Buildings & Energy

Contributing three-quarters of Winnetka’s total annual emissions, buildings are a key focus for reducing energy use and environmental impacts. GHG emissions from this sector are linked to energy used in buildings for heating, cooling, lighting, and power. Fossil fuels—primarily coal and natural gas—are consumed on-site for heating and cooling, cooking, water heating, etc., or burned off-site to generate electricity at a power plant. With the largest share of emissions, the built environment offers the greatest potential for reduction measures.

What’s included

- | | |
|---|--------------------------------------|
| 1 | Efficient Lighting |
| 2 | Energy-Efficient Appliances |
| 3 | Sustainable Energy Systems |
| 4 | Building Retrofits |
| 5 | Low-Carbon Construction & Demolition |
| 6 | Heat Pumps |



Reducing this sector's emissions requires improving energy efficiency and transitioning to lower-emission energy sources across all building types. These efforts also provide essential benefits, including lower utility costs, increased comfort, and healthier indoor environments.

This sector includes:

- **Residential Buildings:** single-family homes and multifamily housing
- **Commercial Buildings:** stores, office buildings, schools, mixed-use buildings, park district buildings and library building
- **Municipal Buildings:** municipal facilities and streetlights
- **Industrial Buildings:** electric power plant and water plant

BY THE NUMBERS



19,177 kWh

YEARLY USE

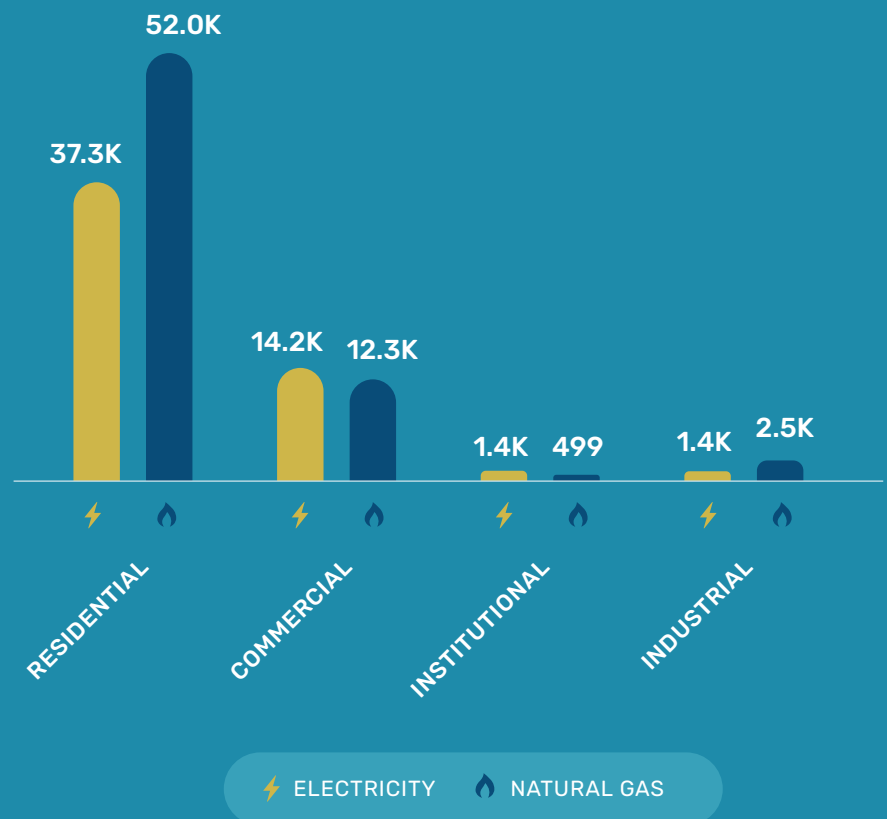
Winnetka households have a material opportunity to lead on residential energy efficiency. Homes tend to be large; they use on average 19,177 kilowatt-hours (kWh) per year or about 17% more electricity per square foot than a typical Midwestern residence, meaning efficiency improvements can deliver amplified emissions reductions³.



FIGURE 10

Building Emissions by Energy Source

(MT CO₂e)



RM1

Efficient Lighting

RM 1 Efficient Lighting focuses on reducing energy use from lighting in homes, businesses, and municipal buildings. By replacing outdated fixtures with LED lighting and innovative controls that automatically adjust to occupancy and daylight, this measure supports a shift from energy-intensive lighting to modern, efficient systems. This helps lower utility costs, improve lighting quality, and reduce GHG emissions.

CUMULATIVE GHG REDUCTION

 **13,150**
MT CO₂e

CO-BENEFITS

Economic Prosperity
Public Health

RM Code	Action	Timeframe	Relative Cost	Cadence
1.1	Educate on Smart Lighting Technologies – Increase community understanding and adoption of smart lighting by developing clear guides and hands-on workshops shared through utility bills, the Village website, and community events.	S ➤	\$	➔
1.2	Review Municipal Lighting Performance – Monitor municipal lighting energy use and maintenance costs annually to identify inefficiencies, guide future upgrades, and continuously improve lighting system performance.	S ➤	\$	➔
1.3	Promote Business Lighting Incentives – Support local businesses in upgrading to energy-efficient lighting by actively promoting Illinois Municipal Electric Agency (IMEA) rebate programs and providing step-by-step application assistance to reduce operating costs and GHG emissions.	S ➤	\$\$	➔
1.4	Upgrade Remaining Municipal Lighting to LED – Transition all municipal buildings to high-efficiency LED lighting through phased retrofits in high-use spaces such as offices, hallways, and public meeting rooms to maximize energy savings.	S ➤	\$\$	➔
1.5	Consider Adopting Lighting Efficiency Standards – Encourage energy-efficient construction and renovations by considering the adoption of municipal policies that promote LED fixtures and smart lighting controls through building permitting and inspection processes.	M ➤➤	\$	✓
1.6	Install Smart Lighting Controls – Encourage building owners to improve lighting efficiency by installing motion sensors, daylight dimmers, and programmable timers customized to building occupancy patterns and daily operational needs.	M ➤➤	\$\$	➔

RM2

Energy-Efficient Appliances

RM2 Energy-Efficient Appliances focuses on upgrading everyday household and commercial equipment to models that use less electricity and water. By promoting ENERGY STAR-certified appliances that deliver the same performance while using less energy, this measure supports a shift from standard to high-efficiency alternatives. This helps reduce utility bills, cut GHG emissions, and improve long-term affordability.

CUMULATIVE GHG REDUCTION

 **4,630**
MT CO₂e

CO-BENEFITS

Economic Prosperity
Public Health
Stewardship

RM Code	Action	Timeframe	Relative Cost	Cadence
2.1	Promote Appliance Rebates – Encourage residents and businesses to purchase ENERGY STAR-certified appliances by promoting Village rebate programs through outreach campaigns and by providing application support to increase participation.	S ▶▶	\$	➔
2.2	Inventory Municipal Appliances – Improve long-term energy planning by creating a complete inventory of municipal appliances, including age, condition, and efficiency ratings, to prioritize strategic replacements.	S ▶▶	\$	✓
2.3	Encourage Efficient Appliances in New Buildings – Promote energy efficiency in new construction by encouraging the use of ENERGY STAR-certified appliances across residential and commercial projects.	M ▶▶▶	\$	➔
2.4	Track Appliance Energy Savings – Monitor appliance replacements and estimated annual energy savings across municipal facilities to support budgeting, performance evaluation, and climate reporting.	L ▶▶▶▶	\$	➔

RM3

Renewable Energy Systems

RM 3 Renewable Energy Systems focuses on transitioning the electricity supply away from fossil fuels toward renewable and low-emission sources. This includes on-site and off-site solar energy, renewable energy certificates (RECs), power purchase agreements (PPAs), and other clean energy solutions that support the generation and procurement of zero-carbon electricity. Together, these approaches help stabilize energy costs, improve energy resilience, and reduce GHG emissions.

CUMULATIVE GHG REDUCTION

 **14,182**
MT CO₂e

CO-BENEFITS

Economic Prosperity

Public Health

Quality of Life

Resilience

Stewardship

RM Code	Action	Timeframe	Relative Cost	Cadence
3.1	Evaluate REC Strategy – Conduct a comprehensive evaluation of renewable energy credit types, costs, credibility standards, and accounting rules to guide financing strategies and procurement policies.	S ➡	\$	✓
3.2	Promote Solar Incentives – Encourage solar installations by educating residents and property owners about rebates, streamlined permitting, net metering options, and clear step-by-step installation guidance.	S ➡	\$\$	➡
3.3	Complete Public Works Solar Project – Increase renewable electricity generation by installing a solar array at Public Works facilities to supply the majority of the building energy needs.	S ➡	\$\$\$	✓
3.4	Maintain SolSmart Certification – Review and revise solar permitting and zoning processes by implementing national best practices to achieve and maintain SolSmart Gold certification (a national solar technical assistance partnership program) for the community.	M ➡	\$	➡
3.5	Track Solar Generation – Monitor installed solar systems and annual energy production to report emissions reductions and measure progress toward clean energy goals.	M ➡	\$	➡
3.6	Explore Opportunities to Procure Zero Carbon Energy – Support the clean energy transition by pursuing zero carbon electricity through power purchase agreements and local or regional renewable energy projects with the IMEA Member Directed Resources.	M ➡	\$\$	➡

3.7	Pursue Landfill Solar Project – Expand long-term renewable energy assets by conducting engineering studies and installing solar panels on the capped landfill site when feasible.	L ▶▶▶	\$\$\$	✓
3.8	Consider and Evaluate Options for Power Plant Transition – Explore engineering options for the retirement of the local gas peaker plant and replacement generation. Evaluate the carbon emission impacts of replacement alternatives.	L ▶▶▶	\$\$\$	✓

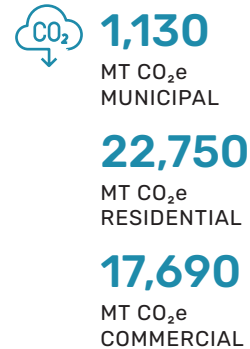


RM4

Building Retrofits

RM 4 Building Retrofits focuses on improving the performance of municipal, residential, and commercial buildings through targeted energy efficiency upgrades and weatherization. By modernizing lighting and insulation, upgrading heating and HVAC systems, sealing air leaks, and improving building controls, this reduction measure supports a shift from inefficient facilities, drafty homes, and high-energy commercial operations to high-performing, comfortable, and energy-efficient buildings. This helps lower operating costs and energy bills, improve indoor comfort, and reduce GHG emissions across all building types.

CUMULATIVE GHG REDUCTION



CO-BENEFITS

Economic Prosperity
Public Health
Quality of Life
Resilience
Stewardship

RM Code	Action	Timeframe	Relative Cost	Cadence
4.1	Conduct Municipal Energy Audits – Identify retrofit priorities by partnering with IMEA to provide subsidized energy audits for Village-owned facilities and buildings.	S ▶▶	\$\$	✓
4.2	Offer Community Energy Audits – Support residents and businesses with low-cost energy audits that include customized retrofit recommendations and estimated energy savings opportunities.	S ▶▶	\$\$	➔
4.3	Complete School Facilities Audit – Support New Trier High School, District 36 or private schools as they independently conduct comprehensive facility and energy audits and incorporates findings into its long-term capital and maintenance planning.	S ▶▶	\$\$	✓
4.4	Deploy Advanced Metering – Implement the Village's Advanced Metering Infrastructure (AMI) project to enable real-time electricity and water monitoring in municipal buildings and improve efficiency tracking and system management.	S ▶▶	\$\$\$	➔

4.5	Consider Stretch Energy Codes – Improve building energy performance across residential, commercial, and municipal construction by considering the adoption of the Illinois Stretch Energy Code under 20 Illinois Compiled Statutes (ILCS) 3125/55 and updating permitting guidance and inspector training.	M ▶▶	\$	✓
4.6	Support Green Fund Development – Educate businesses and other entities on ways to reinvest cost savings into ongoing efficiency and clean energy projects.	M ▶▶	\$	➔
4.7	Promote Efficiency Resources – Increase participation in retrofit programs by creating a central hub for rebate and incentive information, supported by ongoing community outreach.	M ▶▶	\$	➔
4.8	Install Smart Thermostats – Encourage installation of programmable smart thermostats in residential, commercial, and municipal buildings to optimize heating and cooling schedules and reduce unnecessary energy use.	M ▶▶	\$	➔
4.9	Encourage Voluntary Benchmarking – Help residents and businesses understand energy use by encouraging voluntary benchmarking with personalized energy performance comparison reports through ENERGY STAR Performance Manager.	M ▶▶	\$	➔
4.10	Develop Demand Response Programs and Time-of-Use Rates – Reduce peak electricity demand by encouraging residents and businesses to shift energy use to off-peak hours through demand response participation and time-of-use rates.	M ▶▶	\$	➔
4.11	Promote Retrofit Rebates – Encourage energy-saving upgrades by promoting Village rebates for air conditioning replacements, insulation improvements, and air sealing projects. Monitor rebate participation levels and associated energy savings to improve program effectiveness and publicly report progress each year.	M ▶▶	\$\$	➔
4.12	Pursue ENERGY STAR Certification – Improve transparency and building performance by benchmarking municipal buildings and pursuing ENERGY STAR certification where eligible.	M ▶▶	\$\$	➔
4.13	Integrate Retrofit into Capital Plan – Assess and prioritize energy efficiency retrofit projects in municipal buildings based on energy audit findings and integrate new recommendations into the Village's multi-year capital improvement plan where feasible and appropriate.	M ▶▶	\$\$\$	✓
4.14	Share Energy-Saving Tips – Support conservation behaviors by including seasonal, low-cost energy-saving tips and practical actions in monthly utility bills.	L ▶▶▶	\$	➔

RM5

Low-Carbon Construction & Demolition

RM5 Low-Carbon Construction & Demolition focuses on reducing emissions from building materials and waste. By encouraging deconstruction and the use of low-carbon materials, this reduction measure supports a shift from traditional construction to climate-friendly building practices. This helps reduce embodied carbon (the emissions “built into” materials before a building is even used) and landfill waste.

CUMULATIVE GHG REDUCTION

 **26,153**
MT CO₂e

CO-BENEFITS

Resilience
Stewardship

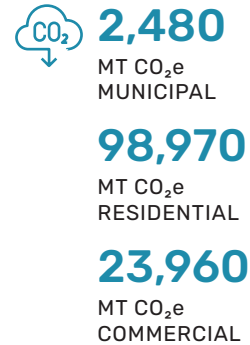
RM Code	Action	Timeframe	Relative Cost	Cadence
5.1	Provide Deconstruction Training – Educate contractors on material salvage and recovery techniques and share reuse resources to reduce landfill waste and embodied carbon emissions.	S ▶▶	\$	→
5.2	Share Material Reuse Programs – Support reuse efforts by connecting contractors with material exchanges and partnering with local reuse centers to promote education on recovering valuable building materials.	M ▶▶▶	\$	→
5.3	Demolition Fee Reform – Review fee structure and consider fee structure update to incentivize deconstruction.	M ▶▶▶	\$	✓
5.4	Promote Environmental Impact Assessments (EIAs) – Encourage lifecycle impact evaluations for major developments to understand environmental impacts better and reduce embodied carbon.	L ▶▶▶▶	\$\$	→

RM6

Heat Pumps

RM 6 Heat Pumps focuses on electrifying heating and cooling systems by installing heat pumps in municipal, residential, and commercial buildings. By replacing fuel-burning systems with heat pumps that transfer heat efficiently year-round, this measure supports a shift from fossil-fuel and gas-powered systems to clean electric heating and cooling. Installing high-capacity heat pumps designed for larger buildings, as well as residential-scale systems for homes, helps improve energy efficiency, reduce GHG emissions, improve indoor air quality, stabilize long-term energy costs, and enhance overall climate performance.

CUMULATIVE GHG REDUCTION



CO-BENEFITS

Economic Prosperity
Public Health
Quality of Life
Stewardship

RM Code	Action	Timeframe	Relative Cost	Cadence
6.1	Develop Heat Pump Installer Registry – Support high-quality installations by maintaining a public registry of trained and vetted heat pump contractors for community use.	S ▶▶	\$	→
6.2	Host Electrification Workshops – Educate residents about heat pumps and electric appliances by holding quarterly workshops with contractor Q&A sessions and practical installation guidance.	S ▶▶	\$	→
6.3	Offer Heat Pump Incentives – Promote adoption by providing Village-funded rebates, layered with state and federal incentives, and by promoting rebate and group-purchasing discount opportunities.	S ▶▶	\$\$	→
6.4	Launch Heat Pump Pilot Projects – Demonstrate early adoption by installing heat pumps in select residential, commercial, and municipal buildings and sharing performance data publicly.	S ▶▶	\$\$\$	✓

6.5	Make Case Studies Available – Increase confidence in electrification by publishing real heat pump installation examples that highlight costs, energy savings, performance outcomes, and lessons learned, updated annually.	M ▶▶	\$	➔
6.6	Update Capital Replacement Policies – Encourage electrification by integrating heat pump replacements into municipal procurement policies and long-term capital planning processes.	M ▶▶	\$\$	✓
6.7	Investigate and consider Village Hall Geothermal System – Showcase large-scale electrification by moving forward with the design and planning of a geothermal heating and cooling system at Village Hall.	L ▶▶▶	\$\$\$	✓



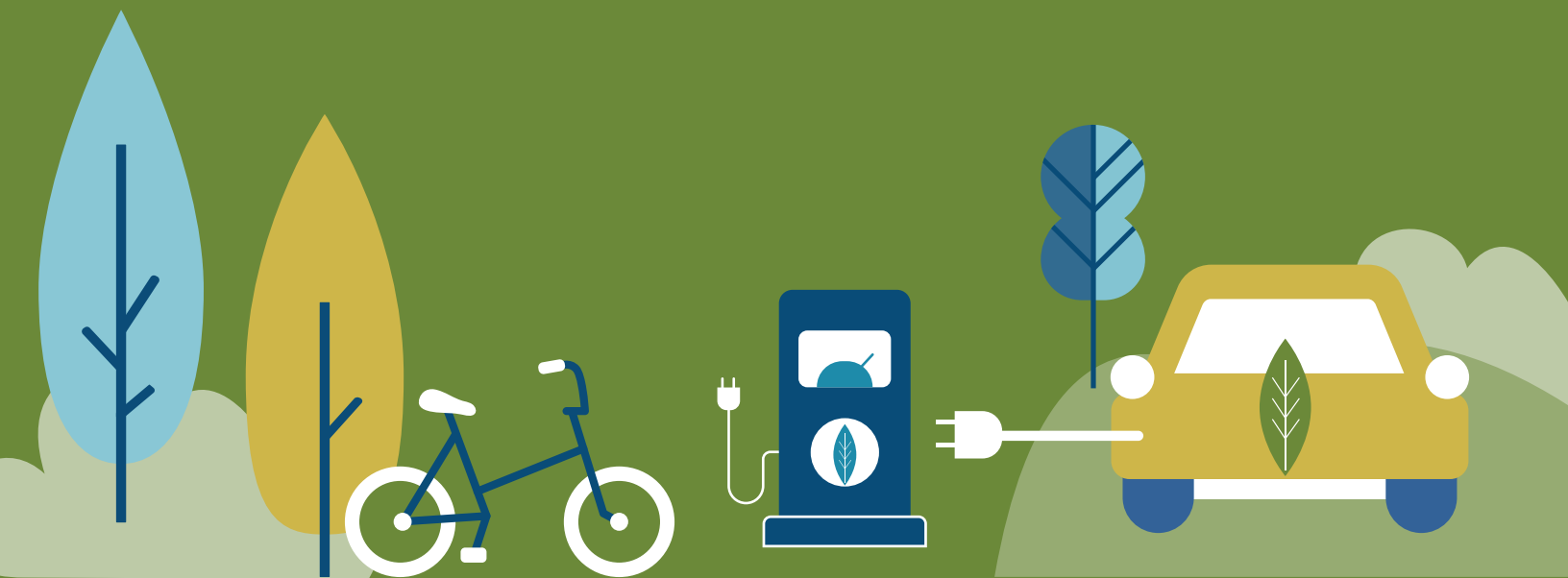
2

Transportation

The Transportation sector analysis includes the systems and infrastructure that move people and goods, connecting residents to jobs, schools, healthcare, shopping, and services while supporting the regional economy. Emissions from this sector primarily result from burning gasoline and diesel in personal and commercial vehicles and are influenced by travel behavior, vehicle type, and system efficiency. As electric cars become more common, electricity use is also becoming a growing contributor.

What's included

7	Walking & Cycling
8	Electric & Hybrid Vehicles
9	Public Transportation



Reducing Transportation emissions means making walking, biking, and transit safe and convenient, while expanding the adoption of cleaner vehicle technologies. These infrastructure investments reduce congestion, improve air quality and public health, expand access to essential destinations, and help prepare the Village for a more sustainable and resilient transportation future.

BY THE NUMBERS



1,019

ELECTRIC VEHICLES

12% OF CARS



1,336

HYBRID VEHICLES

16% OF CARS

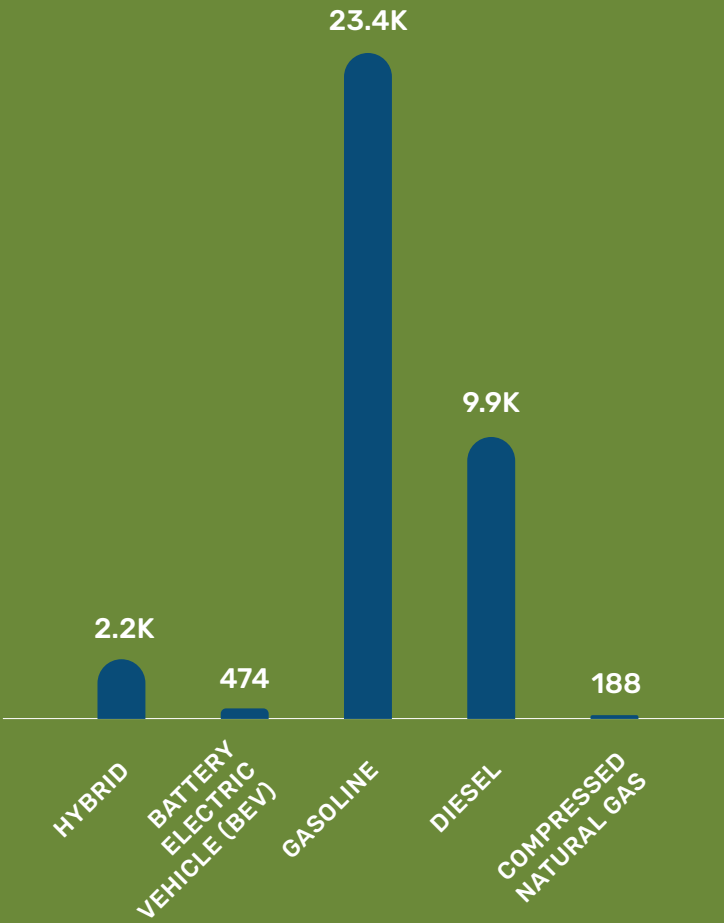
As of December 2025, 1,019 electric vehicles and 1,336 hybrid vehicles were registered in Winnetka, or about 12% and 16% of the estimated number of cars registered in Winnetka, respectively.⁵



FIGURE 11

On-Road Emissions by Vehicle Type

(MT CO₂e)



RM7

Walking & Cycling

Walking & Cycling focuses on making active transportation safer and more accessible. By improving sidewalks, bike lanes, crossings, and traffic calming measures, this reduction measure supports a shift from car-dependent travel to walking, biking, and micromobility. This helps reduce congestion, improve health, and lower GHG emissions.

CUMULATIVE GHG REDUCTION

 **3,120**
MT CO₂e

CO-BENEFITS

Economic Prosperity

Public Health

Quality of Life

RM Code	Action	Timeframe	Relative Cost	Cadence
7.1	Expand Public Bike Parking – Increase bicycle parking in business districts by installing new racks and developing a long-term bike parking plan to guide future investments.	S ▶▶	\$	➔
7.2	Launch School Bike Bus Program – Encourage active transportation for students by organizing supervised group bicycle rides to and from schools, with support from trained volunteers.	S ▶▶	\$	✓
7.3	Improve Green Bay Trail Access – Expand bicycle access and amenities along the Green Bay Trail by adding repair stations, water fountains, wayfinding, and improved connections.	M ▶▶▶	\$\$	➔
7.4	Improve Safe Routes to School – Enhance walking and biking safety near schools by upgrading sidewalks, crossings, signage, and traffic-calming measures, in partnership with local schools.	M ▶▶	\$\$	✓



RM8

Electric & Hybrid Vehicles

RM 8 Electric & Hybrid Vehicles focuses on the transition to electric vehicles and their impact on how people travel. By expanding charging infrastructure and supporting EV adoption, this measure helps shift from gasoline-powered cars to electric and hybrid vehicles, reducing air pollution, lowering fuel costs, and cutting GHG emissions.

BY THE NUMBERS

MUNICIPAL FLEET:



13

VEHICLES ELECTRIFIED



39

VEHICLES HYBRIDIZED

CUMULATIVE GHG REDUCTION



119,532

MT CO₂e

CO-BENEFITS

Economic Prosperity

Public Health

Quality of Life

Stewardship

RM Code	Action	Timeframe	Relative Cost	Cadence
8.1	Encourage EV-Ready New Development – Promote future charging capacity by encouraging new residential and commercial buildings to install EV-ready wiring and infrastructure.	S ▶▶	\$	→
8.2	Provide EV Charger Installation Guidance – Simplify installation by publishing clear residential and commercial permitting guides and offering pre-application meetings.	S ▶▶	\$	✓
8.3	Promote Village EV Incentives – Encourage charger installation by actively promoting Winnetka's applicable rebate programs through outreach and education. Maintain an updated webpage of available EV rebates and promote incentives through newsletters and social media channels.	S ▶▶	\$\$	→
8.4	Provide Commercial Fleet Education – Support businesses in transitioning vehicle fleets to electric options by providing guidance on technology, funding opportunities, operational planning, and best practices for fleet electrification.	M ▶▶▶	\$	→
8.5	Develop and Implement an EV Infrastructure Plan – identify priority locations for public and private electric vehicle chargers by conducting a community-wide assessment of current and future charging needs.	M ▶▶▶	\$\$	✓
8.6	Consider EV Utility Rate Reform – Encourage off-peak charging by considering discounted nighttime electricity rates and educating customers on enrollment and cost savings.	M ▶▶▶	\$\$	✓

8.7	Prepare for Vehicle-to-Grid Technology – Support grid resilience by evaluating and upgrading electrical systems and piloting bidirectional charging at a municipal facility.	M ▶▶	\$\$\$	➔
8.8	Expand School EV Charging – Support the increase in access to charging by installing additional Level 2 chargers at New Trier High School and tracking usage to guide future expansion.	M ▶▶	\$\$\$	➔
8.9	Expand Public Fast Chargers – Improve charging access by installing direct current (DC) fast chargers at high-traffic locations through IMEA incentive programs.	M ▶▶	\$\$\$	➔
8.10	Upgrade Municipal Charging Infrastructure – Assess fleet charging needs, install new charging stations, and upgrade electrical capacity to support continued fleet electrification and provide charging access for Village staff commuter use.	M ▶▶	\$\$\$	✓
8.11	Assess Municipal Heavy-Duty Vehicle Electrification – Evaluate opportunities to electrify municipal heavy-duty trucks and equipment, and identify grant funding to support vehicle purchases.	M ▶▶	\$\$\$	➔
8.12	Transition Municipal Fleet to Hybrids – Lower fuel use by replacing gas vehicles with hybrid models when full electrification is not immediately feasible.	L ▶▶▶	\$\$	➔
8.13	Electrify Municipal Fleet Vehicles – Reduce emissions by replacing gas-powered vehicles with electric vehicles as they reach the end of their service life.	L ▶▶▶	\$\$\$	➔



RM9

Public Transportation

RM 9 Public Transportation focuses on making shared transit more convenient and affordable. By improving stations, providing fare assistance, and raising awareness, this measure supports a shift from single-occupancy car trips to buses and trains. This helps reduce traffic and transportation costs.

CUMULATIVE GHG REDUCTION

 **589**
MT CO₂e

CO-BENEFITS

Economic Prosperity

Public Health

Quality of Life

Stewardship

RM Code	Action	Timeframe	Relative Cost	Cadence
9.1	Launch a Transit Education Campaign – Promote transit ridership by educating residents about safety, cleanliness, and service improvements through a marketing campaign that highlights cost savings, health benefits, and resident testimonials about using transit.	S ▶▶	\$	➔
9.2	Adopt Municipal Anti-Idling Policy – Reduce unnecessary fuel use by implementing a municipal policy for Village vehicles supported by public education and enforcement efforts.	S ▶▶	\$	✓
9.3	Encourage Employer Transit Incentives – Increase transit ridership by encouraging local employers to subsidize employee bus and train passes while promoting the financial and health benefits of commuting by public transit.	M ▶▶▶	\$	➔
9.4	Operate Event Shuttle Services – Encourage transit alternatives by providing seasonal shuttles for beach access and major Village events, and track ridership.	M ▶▶▶	\$\$	➔
9.5	Educate on Transit Access and Last Mile Options – Improve transit convenience by educating residents on walking, biking, shuttles, and shared mobility connections to transit stations.	L ▶▶▶▶	\$	➔

3

Waste

The Waste sector encompasses systems that manage discarded materials, from collection and processing through treatment and disposal. This includes residential, commercial, and municipal waste, when well as organic materials such as food scraps, yard trimmings, and paper. GHG emissions from this sector primarily come from methane (a gas far more potent than carbon dioxide), which is released as organic waste decomposes in landfills.

What's included

10	Recycling
11	Composting
12	Adaptive Reuse



Although Waste accounts for a smaller share of overall emissions, it offers clear and accessible opportunities for action. Reducing emissions means preventing waste when possible and keeping materials out of landfills through composting, recycling, and circular use. These efforts reduce GHG emissions, conserve resources, and support a more sustainable community.

BY THE NUMBERS


3

POUNDS WASTE
GENERATED PER
PERSON PER DAY


8

POUNDS WASTE
GENERATED PER
HOUSEHOLD PER DAY

In 2022, the average Winnetka resident generated about 3 pounds of waste per day, or about 8 pounds per household. This rate is in line with Cook County's estimates for waste generation per household, but Winnetka's recycling rate is more than 10% higher than the county average (17%)⁶.

FIGURE 12

Waste Emissions by Source

(MT CO₂e)



RM10

Recycling

RM 10 Recycling focuses on keeping valuable materials out of landfills. By improving collection systems and reducing contamination, this reduction measure supports a shift from disposal to material recovery. This helps conserve resources and minimize manufacturing emissions.

CUMULATIVE GHG REDUCTION

 **881**
MT CO₂e

CO-BENEFITS

Economic Prosperity
Stewardship

RM Code	Action	Timeframe	Relative Cost	Cadence
10.1	Conduct Waste Baseline Study – Assess residential and commercial waste streams to identify opportunities to expand recycling and composting programs across the community.	S ▶▶	\$\$	✓
10.2	Expand Specialty Recycling Events – Increase material diversion by expanding electronics and hazardous waste quarterly events to include additional recyclable materials and categories.	S ▶▶	\$	→
10.3	Implement School Recycling Programs – Build long-term waste habits through hands-on recycling education programs and regular student-led waste audits.	M ▶▶▶	\$	→
10.4	Improve Bin Contamination Education – Reduce recycling contamination by renegotiating contractor requirements to allow educational stickers on bins with sorting issues and providing clear guidance to residents.	M ▶▶▶	\$	→
10.5	Expand Commercial Recycling – Develop and implement a plan to ensure consistent access to recycling for all businesses in the community.	M ▶▶▶	\$	✓
10.6	Assess Recycling Ordinance Options – Evaluate the feasibility and potential impacts of policies that expand recycling services across residential and commercial properties.	M ▶▶▶	\$	✓

RM11

Composting

RM 11 Composting focuses on diverting organic waste from landfills and turning it into compost. By turning food scraps and yard waste into nutrient-rich soil, this reduction measure supports a shift from methane-producing disposal to composting. This preserves resources, improves soil health, and reduces emissions.

CUMULATIVE GHG REDUCTION

 **262**
MT CO₂e

CO-BENEFITS

Resilience
Stewardship

RM Code	Action	Timeframe	Relative Cost	Cadence
11.1	Restart School Composting – Relaunch school composting programs with student leadership teams, educational support, and regular waste audits to track progress.	S ▶▶	\$	✓
11.2	Support Commercial Composting – Help businesses separate organic waste through training programs, operational guidance, and recognition of participating organizations.	M ▶▶▶	\$	→
11.3	Expand Food Recovery Network – Connect food donors with pantries while supporting logistics coordination to reduce food waste and address community needs.	L ▶▶▶▶	\$	→
11.4	Increase Yard and Kitchen Waste Diversion – Expand opportunities for residents and businesses to keep yard and kitchen waste out of the landfill. Strategies may include enhancing compost drop-off sites with improved signage, outreach, and education, and exploring additional options, such as curbside collection programs.	L ▶▶▶▶	\$	→

RM12

Adaptive Reuse

RM 12 Adaptive Reuse focuses on extending the life of products and materials. By encouraging repair, sharing, and reuse, this reduction measure supports a shift from a throwaway culture to a circular economy. This helps reduce waste and save money.

CUMULATIVE GHG REDUCTION

 **262**
MT CO₂e

CO-BENEFITS

Economic Prosperity
Quality of Life
Resilience
Stewardship

RM Code	Action	Timeframe	Relative Cost	Cadence
12.1	Host Community Swap Events – Promote reuse by organizing seasonal swap events for clothing, household goods, textiles, and other reusable items.	S ▶▶	\$	→
12.2	Host Repair Cafés – Encourage product longevity by organizing repair events that connect skilled volunteers with community members in need of repairs.	S ▶▶	\$	→
12.3	Create a Reuse Resource Hub – Support circular economy efforts by developing an online platform that lists local reuse, donation, and repair resources.	M ▶▶▶	\$	✓
12.4	Provide Circularity Education – Integrate reuse education into school and library programs through structured lesson plans and hands-on activities.	M ▶▶▶	\$	→
12.5	Explore Tool Library Program – Assess the feasibility of a community tool lending program through partnerships, legal review, and operational planning.	M ▶▶▶	\$\$	→
12.6	Promote Zero Waste Municipal Events – Encourage sustainable practices at Village events by promoting reusable and compostable materials supported by vendor guidance.	L ▶▶▶▶	\$	→

4

Forestry & Land

Sustainable forestry and land use solutions play an essential role in addressing climate and environmental challenges. Practices such as planting trees, improving soil health through more efficient fertilizer use, and restoring natural areas help store carbon while providing shade, cleaner water, and wildlife habitat.

What's included

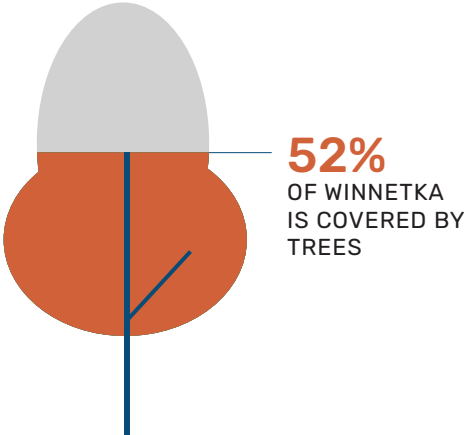
13	Tree Canopy
14	Nature-Based Practices



GHG emissions in this sector arise from land use changes, fertilizer application, and vegetation management, while healthy soils and trees absorb and store carbon. Although this sector accounts for a smaller share of overall emissions, sustainable land management can reduce emissions, strengthen climate resilience, and improve quality of life by reducing flood risk and cooling neighborhoods during extreme heat.

BY THE NUMBERS

Winnetka has been a designated Tree City USA community since 1991 and received the 2024 Growth Award from the Arbor Day Foundation Program for its high level of tree care and community engagement.



RM13

Tree Canopy

RM 13 Tree Canopy focuses on expanding and protecting urban trees. By planting and preserving trees that provide shade and absorb carbon, this reduction measure supports a shift from low tree coverage to a healthy urban forest. This helps cool neighborhoods and improve air quality.

CUMULATIVE GHG REDUCTION

 **145**
MT CO₂e

CO-BENEFITS

Economic Prosperity

Public Health

Quality of Life

Resilience

Stewardship

RM Code	Action	Timeframe	Relative Cost	Cadence
13.1	Conduct a Tree Canopy Assessment – Map existing tree cover to identify gaps and prioritize planting areas based on data and community demographics.	S ▶▶	\$\$	✓
13.2	Evaluate Expanded Tree Protection Policies – Explore updates to tree protection ordinances, including diameter-based permitting and inspection standards.	M ▶▶▶	\$	✓
13.3	Expand Municipal Tree Planting – Increase canopy coverage by planting trees in parks and along streets, with a focus on heat-vulnerable areas.	M ▶▶▶	\$	→
13.4	Continue Free Tree Giveaways – Encourage residential tree planting by distributing free native trees with planting and care instructions.	M ▶▶▶	\$	→
13.5	Maintain Tree City USA Certification – Strengthen urban forestry efforts by maintaining Tree City USA designation while pursuing higher certification status through expanded reporting, investments, and community engagement.	M ▶▶▶	\$	→
13.6	Update Native Species Guidelines – Promote climate-resilient landscaping by prioritizing native species in planting practices and staff training.	L ▶▶▶▶	\$	✓
13.7	Educate on the Benefits of Mature Trees – Increase awareness of the environmental and economic value of mature trees through workshops and educational materials.	L ▶▶▶▶	\$	→

RM14

Nature-Based Practices

RM 14 Urban Nature-Based Practices focuses on increasing nature-based solutions within Winnetka. By promoting native plants, reducing chemical use, and expanding green infrastructure, this reduction measure supports a shift from high-input infrastructure to multi-functional natural solutions. This helps increase community resilience, protect biodiversity, and mitigate the impacts of climate change.

CUMULATIVE GHG REDUCTION

 **37**
MT CO₂e

CO-BENEFITS

Economic Prosperity
Resilience
Stewardship

RM Code	Action	Timeframe	Relative Cost	Cadence
14.1	Install Native Plantings at Facilities – Pilot native plant landscaping at Village facilities and use lessons learned to expand adoption across the community.	S ▶▶	\$	→
14.5	Green Alley Program – Partner with the Metropolitan Water Reclamation District (MWRD) to implement a green alley program that uses permeable surfaces and green infrastructure to manage stormwater and reduce flooding.	S ▶▶	\$	→
14.6	Study Native Landscaping Incentives – Evaluate opportunities and funding options to expand incentives for native landscaping projects across the community.	S ▶▶	\$	✓
14.7	Add More Permeable Pavement – Reduce runoff and improve drainage by installing more permeable paving during parking lot upgrades and maintenance projects.	S ▶▶	\$\$	→
14.8	Climate Risk Assessment – Investigate and forecast neighborhood-level climate-related impacts, such as extreme heat, flooding, and storm risk, using data and mapping to guide investments in resilience, infrastructure, and community protection.	S ▶▶	\$\$	✓
14.9	Provide Sustainable Lawn Education – Educate residents on low-input yard care through workshops, seasonal guides, and demonstrations focused on native plants, soil health, and reduced chemical use.	M ▶▶▶	\$	→
14.10	Review Municipal Fertilizer Use – Assess chemical use on Village properties and develop strategies to reduce environmental impacts.	M ▶▶▶	\$	→
14.11	Launch Sustainable Yard Certification – Create a program where residents learn sustainable yard practices and earn certification by implementing actions such as planting native plants, reducing fertilizer use, and conserving water.	L ▶▶▶▶	\$	→

Interdisciplinary Efforts

Interdisciplinary Actions include initiatives that span multiple Reduction Measure categories and support the broader implementation of the CAP. Rather than targeting a single sector, these efforts strengthen the policies, partnerships, and systems needed to advance climate solutions across the community. By building institutional capacity and encouraging collaboration with residents, businesses, and community organizations, interdisciplinary actions help amplify the impact of sector-specific strategies and support effective CAP implementation.

RM Code	Action	Timeframe	Relative Cost	Cadence
15.1	Improve GHG Data Streams – Strengthen community emissions tracking by addressing data gaps identified in the baseline inventory and improving activity data collection across buildings, energy, transportation, waste, forestry, and land-use systems.	S ▶▶	\$	→
15.2	CAP Library Series – Educate residents about the CAP by partnering with the Winnetka Public Library to host seasonal workshops, speaker events, and hands-on activities aligned with each CAP Reduction Measure.	S ▶▶	\$	→
15.3	Winnetka Quarterly Challenges – Engage residents through quarterly community challenges focused on saving energy, walking and biking more, reducing waste, and conserving water by tracking participation by neighborhood and celebrating high-performing groups.	S ▶▶	\$	→
15.4	Green Home Certification Program – Develop a certification program that shows residents how to take climate-friendly actions at home. Reward households that complete actions such as energy upgrades, composting, or native landscaping.	M ▶▶▶	\$	→
15.5	Green Business Certification Program – Create a certification program that guides businesses on how to participate in CAP efforts. Recognize and reward businesses that take meaningful steps to reduce their environmental impact.	M ▶▶▶	\$	→
15.5	Publish Progress Updates – Track community and municipal emissions reduction progress by updating the ClearPath 2.0 public dashboard regularly, completing emissions inventories every five years, monitoring interim results, and publishing transparent CAP status reports.	M ▶▶▶	\$\$	→

Looking Forward

This CAP outlines achievable, high-impact reduction measures and establishes a clear framework for coordinated action among residents, businesses, Village departments, and community organizations.

Defining targets, responsibilities, and co-benefits enables progress tracking, celebrates successes, and supports implementation over time. From everyday household choices to major municipal initiatives, each action helps reduce emissions while strengthening Winnetka's resilience, health, and overall quality of life.

As Winnetka moves from planning to action, implementation becomes our most important next step. Success will depend on continued collaboration among residents, businesses, community organizations, and Village leadership. Together, we will turn this CAP's strategies into meaningful action and measurable progress toward a healthier, more sustainable, and more resilient future for Winnetka.

Achieving the goals outlined in this CAP requires shared commitment and participation from across the community.

We invite everyone to get involved by:



Staying informed and engaged – Visit our Clean Energy and Climate webpage for updates, resources, and progress reports.



Participating in public events and educational opportunities – Join workshops, meetings, and community programs to learn more and participate in the CAP actions.



Connecting with the CAP Network – Collaborate with neighbors, local organizations, and community leaders working toward climate solutions.



Advocating for continued investment – Support policies, programs, and funding that advance climate action in Winnetka.



References

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