

Executive Summary

The Village has a tradition of being a leader in addressing environmental issues and has become increasingly concerned about the global climate crisis. Over the course of the past decade, the Village has been refining its local policies to address environmental issues. In 2013, the Village and Northbrook Park District partnered to create the Strategic Sustainability Plan, which outlines improvements and initiatives in energy, material management, natural resources, community development and transportation for a more sustainable future. Five years later, the Village adopted a Master Bicycle and Pedestrian Plan which has been used to promote alternate means of transportation throughout the community

In September 2018, the Village signed on to the Metropolitan Mayors Caucus' Greenest Region Compact. The goals of the Compact address ten areas, including climate, economic development, energy, land, leadership, mobility, municipal operations, sustainable communities, water, and waste & recycling. These goals help guide coordinated efforts across the region to enhance quality of life for residents, protection and stewardship of the environment, and sustainable economic vitality.

As a continuation of the Village's sustainability efforts over the last decade, Northbrook has a vision to minimize the generation of GHG emissions from all sources and prepare for climate change. This Climate Action Plan establishes a comprehensive plan of specific strategies and detailed actions that Northbrook looks to implement to reduce greenhouse gas emissions and build resilience to related climatic impacts.

Our Challenge

The complex systems that make up modern civilization result in stressors on the delicate balance of our ecosystems. The combustion of fossil fuels is warming earth's atmosphere and changing our climate. Climate change is already affecting Northbrook and its impacts are projected to become much more severe in the coming decades. These impacts also contribute to additional strain on vulnerable populations, social systems, and overall community resilience.

Our Opportunity

The impacts of cities represent a major sustainable development opportunity. Transformation of our energy system is essential in order to stop burning fossil fuels. This transition presents an opportunity for Northbrook. Directing our energy investments into renewable sources will make them more resilient and provide for local job creation. Innovation, technology, and collective social change inherent in climate action can also support greater community abundance and shared equity.

Our Climate Action Vision

To be the first Climate Resilient community in Illinois, leading in the social and economic transitions necessary to reduce Villagewide greenhouse gas emissions in-line with the Paris Climate Agreement while protecting Northbrook's natural ecosystems, most vulnerable populations, and economic vitality against the increasing impacts of climate change.

The Process

The work that went into developing the Northbrook Climate Action Plan

12 month

planning timeframe

514

community members providing input

31

planning team members

5

foundational research study documents



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GHG Emission Reduction Goal in Global Context

Reviewing the Village’s Climate Action Plan emissions reduction goal within a global context and greenhouse gas emissions (GHG) reduction recommendations formulated by the International Panel on Climate Change (IPCC) can help validate the appropriateness of the goal. The IPCC is the United Nation Environment Programme (UNEP) body for assessing the science related to climate change and providing support in climate action policy making. IPCC science has guided a number of international agreements to address climate change, most recently the Paris Agreement.

The Paris Agreement is a landmark international accord that was adopted by nearly every nation in 2015 to address climate change and its negative impacts. The agreement affirms IPCC recommendations by aiming to limit global warming to 1.5°C to 2°C above pre-industrial levels, considered to be the threshold for dangerous climate impacts. The agreement includes commitments from all major emitting countries to cut their climate pollution and to strengthen those commitments over time.

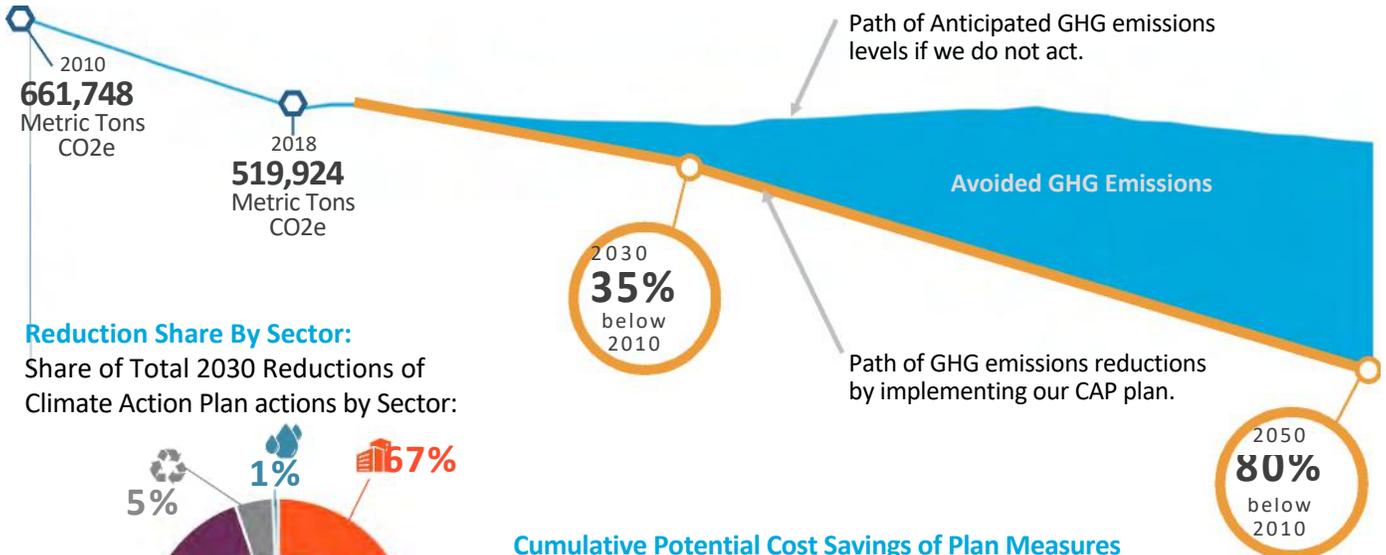
In alliance with the Paris Agreement, the United States committed to cut emissions by 26% to 28% by 2025 against a 2005 baseline. In 2019, the State of Illinois entered the Paris Agreement and also pledged to reduce emissions by 26% to 28% by 2025.

Our Carbon Reduction Goal

This plan seeks to re-affirm the Village’s commitment to the Metropolitan Mayors Caucus’ Greenest Region Compact and support the State of Illinois’ emissions reductions goals. To do so, the plan must align itself within the IPCC suggested carbon emission reduction goals associated with the Paris Agreement of 26%-28% reduction by 2025 and 80% or greater reductions by 2050. These global recommendations and State and National commitments were accounted for in the formulation of appropriate carbon reduction goals for Northbrook:

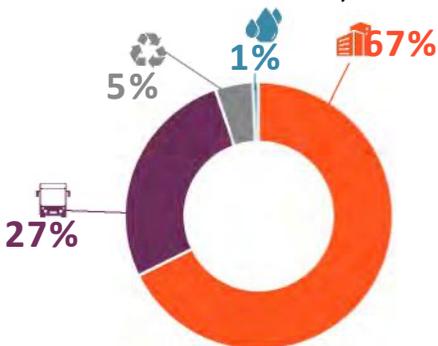
The Village of Northbrook’s GHG emission reduction goals are to be compatible with the 2015 Paris Agreement and shall target a reduction in Village operations and community-wide emissions of 35% below 2010 levels by 2030 and 80% below 2010 levels by 2050.

Northbrook’s Carbon Reduction Pathway:



Reduction Share By Sector:

Share of Total 2030 Reductions of Climate Action Plan actions by Sector:



Cumulative Potential Cost Savings of Plan Measures

Through 2030: **\$180,000,000**

Implementing many of the measures in this plan, such as reduction of energy consumption can save money for the community. (see Appendix for more)

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Climate Action Plan as Living Plan

This Climate Action Plan is intended as a “living plan” rather than a static document. This means that the implementation phase of this plan should be characterized by intermittent measurement of progress and plan adjustments. Plan adjustments should look towards increasing implementation goals for actions which illustrate success, modify goals for actions which may fall short of desired outcomes, and identifying additional action opportunities.

As a “living plan,” the 2030 emission reduction goal should be seen as a guiding constant and recognition should be given that initial implementation actions may not yet fully achieve plan goals. Intermittent plan progress measurements and adjustments should identify additional actions, or increases in action implementation targets as needed to meet the ultimate 2030 GHG reduction goal.

Section 02 Transportation and Land Use



Strategy TL 1: Decrease vehicle miles traveled (VMT) by 2.5% by 2030.

Strategy TL 2: Increase public transit ridership from 11.8% to 14% by 2030

Strategy TL 3: Increase walk/bike transportation by 50% and expand discretionary walk/bike infrastructure by 2030

Strategy TL 4: Transition Village fleet to alternative fuels, achieving 50% electrification of the Village's Vehicle and Equipment fleet by 2030.

Strategy TL 5: Support and encourage alternative fuel vehicles, achieve 20% of vehicles sold and 15% reduction of VMT by 2030.

Strategy TL 6: Advance low-carbon land use policy.

Strategy TL 7: Reduce Village wide off-road and lawn equipment annual emissions.

Section 03 Buildings and Energy



Strategy BE 1: Increase on-site distributed renewable energy to 10% of Residential and Commercial electric use by 2030.

Strategy BE 2: Improve Renewable Energy Policy and Incentives.

Strategy BE 3: Educate public on solar and renewable energy.

Strategy BE 4: Increase Residential and Commercial green electricity purchasing Village Wide to 5% by 2030.

Strategy BE 5: Improve total Village owned building and operations energy efficiency by 12% Electricity and 10% Natural Gas by 2030.

Strategy BE 6: Improve total Community wide residential, commercial, and industrial building energy efficiency by 12% Electricity and 10% Natural Gas by 2030.

Strategy BE 7: Achieve 2% natural gas "fuel switching" in community wide residential, commercial, and industrial buildings to reduce on-site fossil fuel use by 2030.

Strategy BE 8: Improve Energy Efficiency Policy and Incentives.

Strategy BE 9: Educate public on energy efficiency.

The Plan

The Northbrook Climate Action Plan:

addresses **8 sectors**
of GHG emissions and
climate vulnerabilities

through **42 strategies**
of GHG emissions and
climate vulnerabilities

supported by **190 actions**
detailing steps to be
taken

during a **10 year**
implementation
timeframe



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Our Climate Action Strategies

Section 04 Waste Management



Strategy WM 1: Decrease total per capita municipal solid waste handled by 5% by 2030.

Strategy WM 2: Increase landfill waste diversion to 50% by 2030.

Strategy WM 3: Increase organics diversion from landfill.

Strategy WM 4: Increase recycling rate.

Strategy WM 5: Educate, engage, and empower the public to meet waste management goals.

Section 05 Water and Wastewater



Strategy WW 1: Promote increased water conservation Village Wide with a targeted reduction of 7.5% by 2030.

Strategy WW 2: Mitigate the projected increased flood hazards and impacts due to climate change.

Strategy WW 3: Update design standards and plans to meet projected climate change flood mitigation requirements.

Strategy WW 4: Increase stream, river and wetland protection and restoration.

Section 06 Local Food and Agriculture



Strategy LF 1: Increase production of local food, particularly serving low income and food insecure individuals.

Strategy LF 2: Increase access and interconnect all community gardening.

Strategy LF 3: Reduce food waste and hunger.

Strategy LF 4: Improve local food resilience and availability.

Section 07 Health and Safety

Strategy HS 1: Establish and expand public health communication campaigns to include climate change impacts.

Strategy HS 2: Assist the village's heat, flooding, storm, and poor air quality vulnerable population in preparing for and mitigating climate change impacts.

Strategy HS 3: Include climate impacts and health risks in new and updates to existing plans and policies.

Strategy HS 4: Strengthen community response capacity and support networks.

Strategy HS 5: Address the air quality risks associated with climate change.

Section 08 Greenspace and Ecosystem



Strategy GS 1: Increase Tree Cover and Diversity.

Strategy GS 2: Increase the resilience and use of Native Species and Pollinator Restorations Areas with a targeted increase of 1.5% communitywide land pollinator restoration coverage.

Strategy GS 3: Reduce, repurpose, and reimagine lawn space.

Strategy GS 4: Reduce Heat Island Effect through Village Wide impervious surface reduction of 2% by 2030 and 5% by 2040.

Section 09 Climate Economy



Strategy CE 1: Capture local economic potential of climate action.

Strategy CE 2: Increase workforce development for the climate economy.

Strategy CE 3: Build marketplace climate resilience.

Strategy CE 4: Financing The Village's climate action implementation.

Next Steps and Implementation

This Northbrook Climate Action Plan is only the beginning of an on-going process of evaluating and advancing the Village's climate resilience, GHG emissions, and overall sustainability. The plan includes a Climate Action Implementation section providing a framework for launching, guiding, monitoring, and evaluating the execution of this plan. The implementation section outlines specific next steps, and important implementation considerations and recommendations. As details and outcomes are uncovered during the implementation phase, adjustments to quantitative goals, milestones, and detailed actions will be made responsively.

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