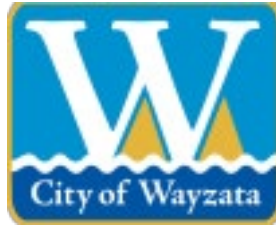


ENERGY AND ENVIRONMENT COMMITTEE

Tuesday, November 26, 2024 5:30 PM – 7:00 PM

**Wayzata City Hall
600 Rice Street East
Wayzata, MN 55391**

1. Roll Call
2. Approve Agenda
3. Approve October 29, 2024 Meeting Minutes
4. MPCA Grant Update
5. Community Organics Discussion
6. Next Meeting – Tuesday, December 18
7. Adjournment



ENERGY AND ENVIRONMENT COMMITTEE

Meeting Minutes

Tuesday, October 29, 2024 5:00 PM – 6:00 PM

1. Roll Call

Committee Attendees: Chair Lauren Lindelof, Dr. Edmund Chute, David Ferri, Meaghan Yorro, and Ava McNanley.

Wayzata City Staff Member: Nick Kieser, Parks and Environment Planner.

2. Approve Agenda

Motion to approve agenda, first by Yorro, seconded by Lindelof. Motion passed unanimously.

3. Approve September 24, 2024 Meeting Minutes

Motion to approve minutes as amended, first by Ferri, seconded by Chute. Motion passed unanimously.

4. Review MPCA Grant Proposals

The Committee reviewed proposals from three consulting firms (SRF, LHB, and WSB) to assist with the city's Climate Action Plan. The Committee discussed the local experience and expertise of the firms, with LHB having worked on similar plans in nearby cities. Key considerations included the firms' approaches to greenhouse gas reduction, energy efficiency, and developing an actionable implementation plan.

Ultimately the Committee recommends LHB as the consulting firm for the City Operations Climate Adaptation and Resiliency Plan contingent on the further information that staff will follow up on. If any questions come out of the staff's investigation, staff will come back to the Committee for further discussion.

Motion to approve the recommendation, first by Chute, seconded by Yorro. Motion passed unanimously.

5. Public Works Equipment Review

The Committee reviewed new electric-powered equipment for the public works department which also aligns with the city's efforts to transition away from gas-powered equipment to reduce emissions and noise.

Motion to approve the proposed electrical equipment purchase, first by Chute, seconded by Yorro. Motion passed unanimously.

6. Dark Sky Update

Staff provided an update on researching a dark sky ordinance, drawing insights from other cities like Plymouth that have implemented similar policies. The goal is to develop an ordinance that addresses light pollution and glare, while also considering public safety concerns. For next steps, the staff plans

to draft a proposed ordinance based on best practices from other municipalities and develop one tailored to Wayzata's needs.

7. Solar Tour Review

The Committee discussed the recent solar tour event, which had a good turnout and generated interest from community members. Feedback included that some residents, like those at the Folkestone development, were unaware of the solar installations in the city. The Committee explored ideas to further promote solar energy adoption, such as offering solar lighting kits to multi-family buildings.

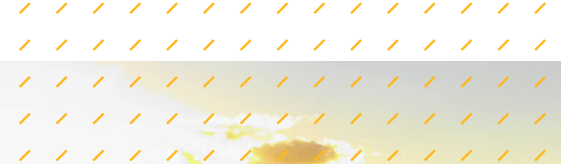
8. Next Meeting – Tuesday, November 26 at 5:30 PM

9. Adjournment

Motion to adjourn the meeting, first by Lindelof, seconded by Yorro. Motion passed unanimously.



PERFORMANCE DRIVEN DESIGN



WAYZATA CITY OPERATIONS RESILIENCE PLAN

CITY OF WAYZATA

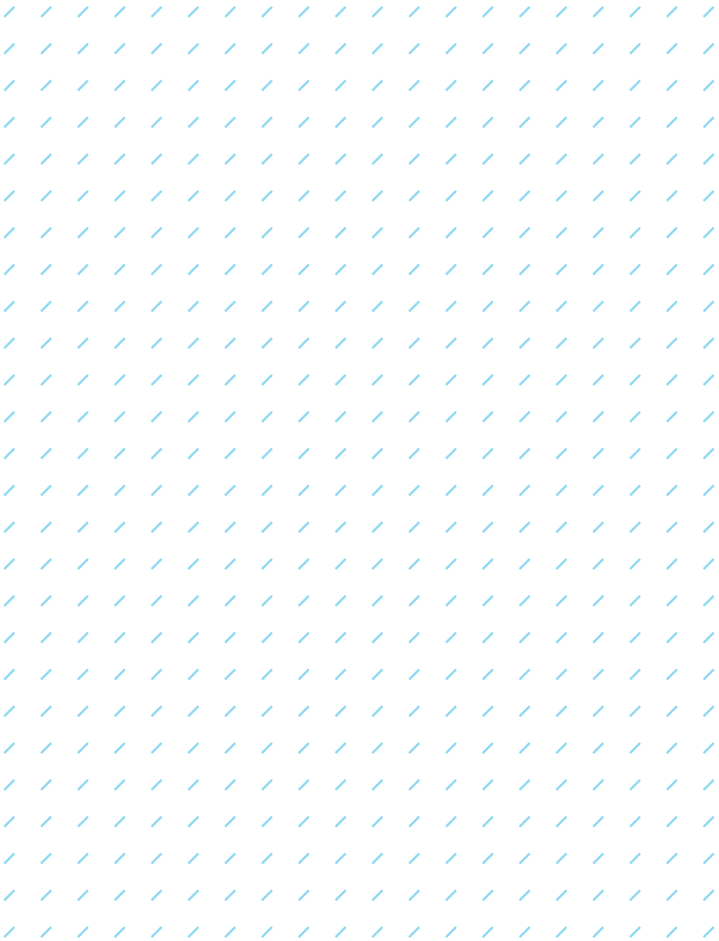
October 16, 2024 | Revised November 7, 2024



MAUREEN COLBURN, AIA,
LEED AP BD+C

701 Washington Avenue North
Suite 200
Minneapolis, MN 55401

Maureen.Colburn@LHBcorp.com
d 612.752.6954



PROJECT UNDERSTANDING & APPROACH4

RELEVANT EXPERIENCE5

PROJECT TEAM.....17

SCHEDULE20

PROPOSED FEE.....21



Wayzata City Operations Resilience Plan

October 16, 2024
Revised November 7, 2024

Nick Kieser
Parks and Environment Planner
City of Wayzata
600 Rice Street East
Wayzata, MN 55391
Submitted via email -
nkieser@wayzata.org

Dear Nick and Selection Committee Members:

A year ago, our colleague Lydia Major reached out to recommend that the City of Wayzata pursue a Local Climate Action grant through the MPCA that could fund a City Operations Resilience Plan. Focusing on policies and programs within the city's purview, this plan will include strategies to increase the city's resilience to our changing climate. Our team at LHB is excited about the opportunity to assist the city in addressing its climate-related challenges and achieving its long-term resiliency goals.

Our expertise spans several key areas critical to the success of this project:

- 1. Climate Vulnerability Assessment:** Our team has extensive experience in conducting thorough climate vulnerability assessments for cities and municipalities. This process will allow us to identify the key risks that Wayzata faces, ranging from extreme weather events to long-term shifts in climate patterns. By understanding these vulnerabilities, we can better equip the city to manage risks effectively.
- 2. Greenhouse Gas Inventory for City Operations:** We will conduct a detailed greenhouse gas (GHG) inventory, focusing specifically on emissions from city operations. Our expertise in GHG accounting will ensure that the inventory accurately reflects the city's operational emissions and provides a foundation for targeted mitigation efforts.
- 3. Strategies for Resilience, Adaptation, and Greenhouse Gas Reduction:** Based on the findings from the vulnerability assessment and GHG inventory, our team will develop actionable strategies to enhance the city's resilience to climate impacts. We will identify adaptive measures that Wayzata can implement to protect its infrastructure and services in the face of a changing climate.
- 4. City Operations Resilience Plan with Implementation Strategy:** Our goal is to deliver a comprehensive City Operations Resilience Plan that not only outlines strategies for climate adaptation and mitigation but also includes a practical and achievable implementation plan. This will provide the city with a clear path forward, outlining key steps, timelines, responsibilities, and metrics for tracking progress.

We are committed to working closely with the City of Wayzata to ensure that the resilience plan is tailored to its unique needs and priorities. We believe our approach, combined with our experience, positions us to support Wayzata in strengthening its sustainability efforts and preparing for future climate challenges.

Thank you for considering our proposal. We look forward to the opportunity to collaborate on this critical project.

Sincerely,

LHB, Inc.

Maureen A.N. Colburn, AIA, LEED AP BD+C
Project Manager

701 Washington Avenue North, Suite 200,
Minneapolis, MN 55401

Maureen.Colburn@LHBcorp.com
d 612.752.6954

Michael A. Fischer, AIA, LEED AP
Project Principal

701 Washington Avenue North, Suite 200,
Minneapolis, MN 55401

Mike.Fischer@LHBcorp.com
d 612.752.6920



PROJECT UNDERSTANDING AND APPROACH

The City of Wayzata pursued a Local Climate Action (LCA) grant funded by the MPCA. LHB assisted the city with the grant proposal for a City Operations Resilience Plan that will include strategies for action to reduce greenhouse gas (GHG) emissions as well as increase resilience to the changing climate. The plan will be informed by analyzing existing conditions including reviewing the city's existing operational data, conducting a climate vulnerability assessment, and developing a greenhouse gas inventory for city operations. LHB's project manager will coordinate with the city's project manager to ensure MPCA LCA grant commitments are met.

LHB will lead these tasks:

- Review existing data and reports
- Conduct a climate vulnerability assessment
- Conduct a GHG inventory for city operations
- Analyze GHG data
- Identify strategies for resilience, adaptation, and GHG reduction
- Develop city operations implementation plan
- Develop city operations resilience plan

The climate vulnerability assessment will utilize Minnesota ClimAT downscaled climate project data to help identify local climate risks.

The City Operations GHG inventory will be consistent with the reporting requirements defined in the Local Government Operations Protocol for the Quantification and Reporting of Greenhouse Gas Emissions Inventories developed by ICLEI – Local Governments for Sustainability USA. Three years of data will be collected to enable calculation of associated emissions as follows:

- City will provide energy-use data for city-owned buildings, streetlights, potable water production, wastewater, and sanitary sewers.
- City will provide transportation fuel usage data by fuel type for city-owned vehicles.

- City will provide full-time equivalent data for employees. Solid waste data will be obtained from the Regional Indicators Initiative.
- City will provide potable water production data for city-owned water treatment and other facilities.
- City will provide vehicle miles traveled for official travel and employee commutes.

Through the LCA grant, the City of Wayzata will receive three years of community-wide GHG data available as a city summary on the Regional Indicators Initiative website. Although this planning effort will focus on actions that can be implemented by the city, community-wide data will help give context to the city's work on climate action/adaptation and to demonstrate the urgent need for community-wide action.

Project Coordination

LHB's project manager will coordinate with the city's project manager to ensure grant commitments are met. LHB will lead these tasks:

- Review existing data and reports
- Conduct a climate vulnerability assessment
- Analyze GHG data
- Identify strategies for resilience, adaptation, and GHG reduction
- Develop city operations implementation plan
- Develop city operations resilience plan

Contact Information for LHB's Project Manager

Maureen Colburn, AIA, LEED AP BD+C
701 Washington Ave. N., Suite 200
Minneapolis, MN 55401
Maureen.Colburn@LHBcorp.com
612.752.6954

RELEVANT EXPERIENCE

Our team has a strong history of developing ambitious plans that lead to high-impact actions and strategies. The City of St. Louis Park, for example, is one of the earliest plans completed by members of our team in 2018. Since adoption of the plan, the city has become a state leader in climate action implementation. Key efforts include:

- Adoption and execution of a building energy benchmarking program
- Update of its sustainable building policy
- Construction of a new net-zero nature center
- Implementation of residential and commercial clean energy cost-share programs
- Passing an EV charging ordinance resulting in more than 100 chargers in its first year
- Installation of public EV charging stations
- Updated bike and pedestrian plan to consider climate action plan

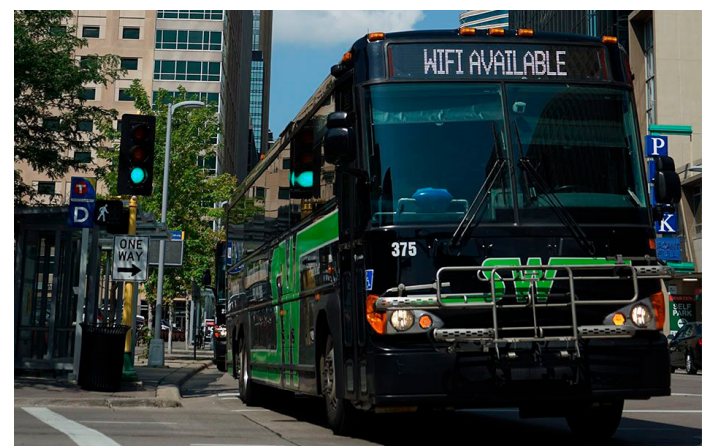
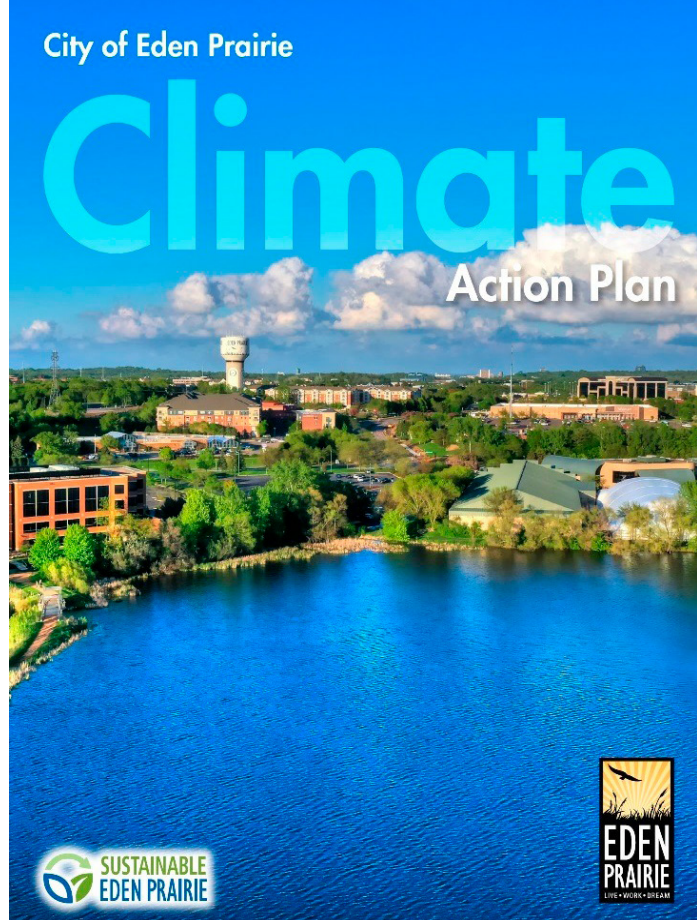
In addition to considering economic and equity co-benefits, these strategies and actions were selected based on their high potential impact on community-wide emissions. Our team has provided 14 years of greenhouse gas (GHG) emissions data for St. Louis Park through the Regional Indicators Initiative and is tracking their progress in comparison to the reductions outlined in their climate action plan (linked below).

We understand that every entity has different priorities and approaches to climate and sustainability planning.

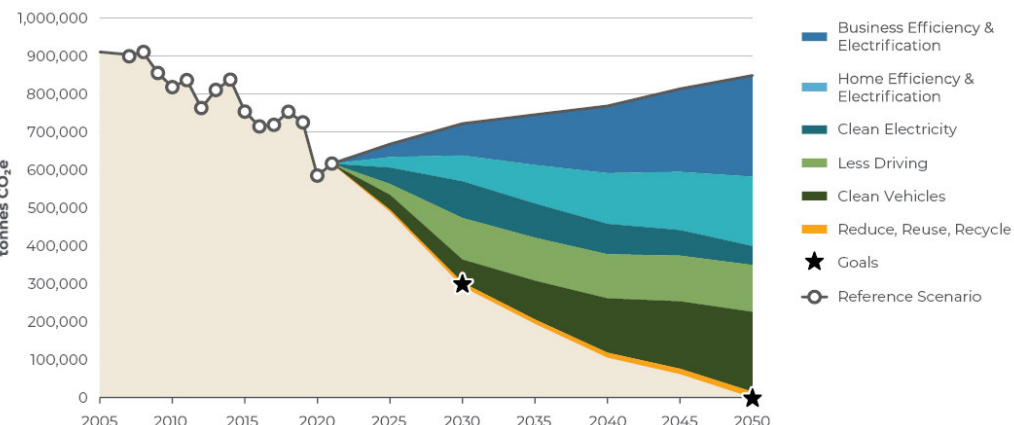
Examples of Climate Action, Sustainability, and Resilience Plans completed by LHB include:

- [St. Louis Park Climate Action Plan](#)
- [Northfield Climate Action Plan](#)
- [City of Red Wing Climate Action Work Plan](#)
- [City of Eden Prairie Climate Action Plan](#)
- [Southwest Transit Sustainability Plan](#)
- [Minnetonka Climate Action and Adaptation Plan](#)
- [Cedar Falls Resilience Plan & Framework](#)

The following pages detail some of our more recent climate action and resilience plans for your consideration.



Images: City of Eden Prairie's Climate Action Plan (top); SouthWest Transit's Sustainability Plan (bottom)



PROJECT TYPE
Climate Action and Adaptation Plan

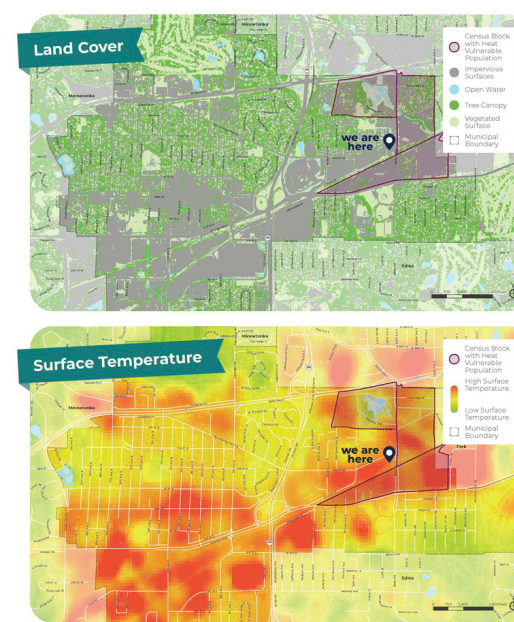
LOCATION
Minnetonka, MN

COMPLETION DATE
April 2024

REFERENCE
City of Minnetonka
Loren Gordon
City Planner
952.939.8296
lgordon@minnetonkamn.gov

CITY OF MINNETONKA CLIMATE ACTION AND ADAPTATION PLAN

In the fall of 2022, the City of Minnetonka's Sustainability Commission recommended the creation of a climate action and adaptation plan to serve as a comprehensive guide for how the community can reduce greenhouse gas emissions (GHGs) and adapt to a changing climate. LHB, Local Climate Solutions, and Ash Narayanan teamed up to conduct the process, which included an existing conditions analysis, an extensive community engagement process, development of goals, and documentation in a plan. The plan outlines specific strategies and actions for residents and businesses and identifies the potential for city-led policies and programs to help meet the community's goals. The project is still underway, with adoption by the City Council anticipated on Earth Day 2024.



Why is the Excelsior/Blake Road corridor so hot?

The land surface temperature is determined by a **ratio of heat generating and heat abating land covers**.

Currently, the project area is **primarily composed of heat-generating surface types** (i.e. buildings, roads/paved surfaces, etc.), which greatly contributes to the area's high land surface temperature.

A large swath of land is currently under construction for the **Green Line LRT Extension**, which will impact the surface conditions within the project area.

PROJECT TYPE

Resilience and Vulnerability Assessment

LOCATION

Hopkins, MN

COMPLETION DATE

2023

CITY OF HOPKINS

MPCA RESILIENCE GRANT HEAT VULNERABILITY STUDY

LHB and Local Climate Solutions worked closely with City of Hopkins staff to write a Minnesota Pollution Control Agency (MPCA) Planning Grant for Stormwater, Wastewater, and Community Resilience. The successful grant application proposed to conduct a Resilience and Vulnerability Assessment for the City of Hopkins, specifically focusing on the impacts of the heat island along the Excelsior and Blake Road corridors in the city.

These two corridors are home to a large majority of Hopkins' rental housing stock and many immigrant, BIPOC and low-income renters. Additionally, the construction of the Southwest light rail transit line has begun to spur dense development in these areas where most parcels already consist of largely impervious surfaces. The high degree of impervious surfaces exposes the community to many health, economic and infrastructure vulnerabilities due to extreme heat events.

The project process began by establishing existing conditions, including reviewing related documents within Hopkins and conducting a literature review of measures and practices used in other communities. The team also performed a vulnerability and resiliency assessment using GIS

data to understand existing impervious surfaces and tree canopies to inform the physical distribution of heat sensitive areas, coupled with census data and state demographic information to identify vulnerable populations.

Next the team conducted an engagement process, working closely with City staff to reach residents in these corridors, to understand how heat affects them and what would be helpful to them, as well as private landowners and public entity stakeholders, to understand their plans. The team hosted an in-person event in the neighborhood, which was well attended by residents. They also came to existing events, including the Neighborhood Night Out and a Farmer's Market. These were coupled with online surveys to reach as many people as possible.

The team is now evaluating the information gathered during this process to develop recommendations and plan next steps for funding and implementation. The project will result in a final report with strategy recommendations and an ArcGIS StoryMap that informs community members about the dangers of extreme heat, indexes vulnerabilities, and shares the recommendations to mitigate the impact of extreme heat.

HENNEPIN COUNTY GREENHOUSE GAS EMISSIONS

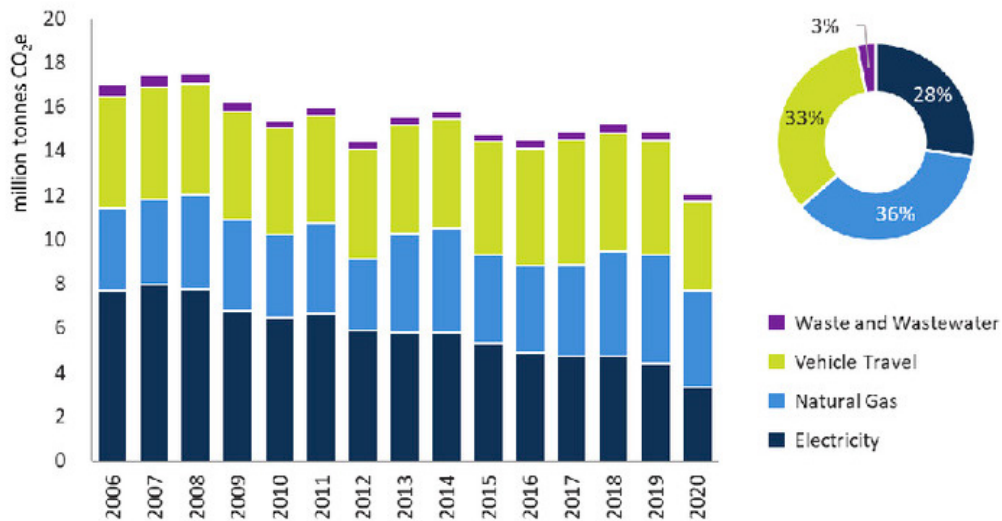
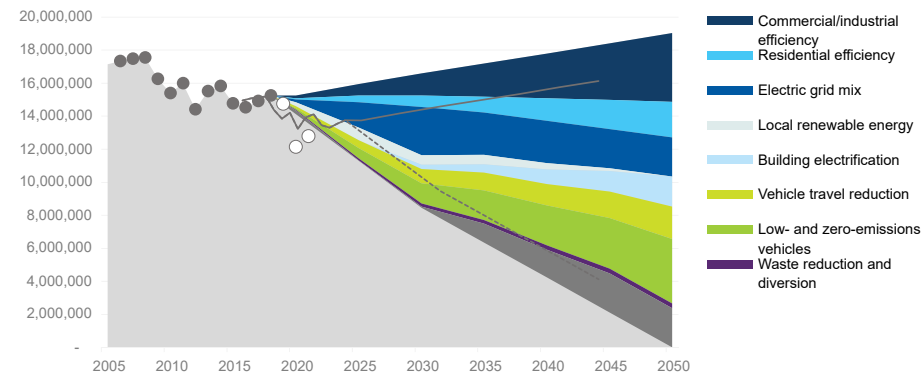


Figure 2. Hennepin County greenhouse gas emissions by activity from 2006-2020 (left) and 2020 breakdown by activity (right).

The path to achieving our greenhouse gas emission reduction goals



PROJECT TYPE

GHG Inventory and Analysis

LOCATION

Hennepin County, MN

COMPLETION DATE

Ongoing

REFERENCE

Hennepin County
Diana Chaman Salas
Director of Climate and Resilience
612.348.3000
diana.chamansalas@hennepin.us

HENNEPIN COUNTY

CLIMATE ACTION PLANNING

In 2021, Hennepin County adopted a climate action plan with an updated goal of net-zero emissions by 2050. LHB informed this work by analyzing the county's recent emissions trends, working with County staff to develop a pathway to net zero, and recommending near-term climate mitigation actions.

LHB calculated and analyzed over ten years of greenhouse gas emissions data for the county, using ICLEI's Local GHG Contribution Analysis Tool to quantify how factors such as weather, population growth, energy source changes, and local programs contributed to changes in emissions. This analysis revealed both success stories - such as the large impact of cleaner electricity - and areas to target for future action - such as natural gas usage, which increased over the study period even after accounting for growth and weather.

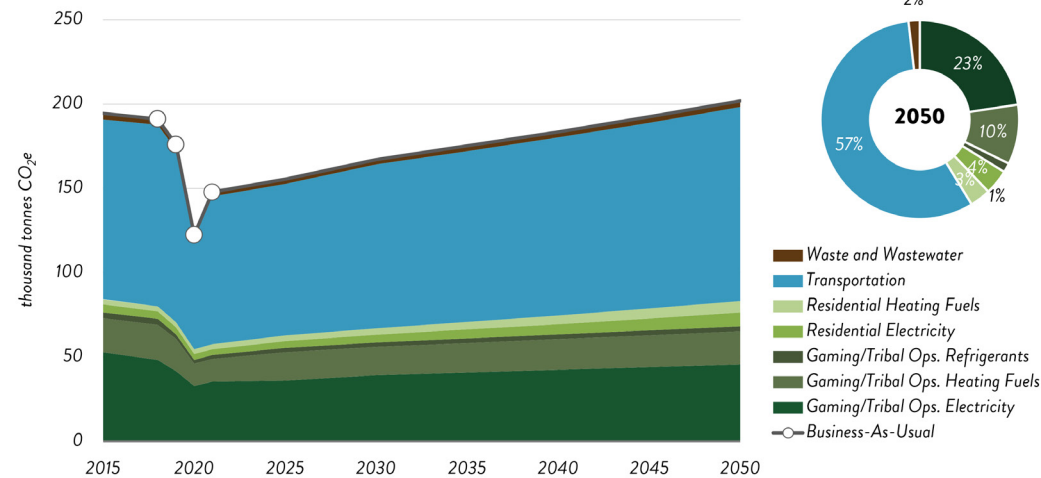
To map a feasible pathway to net-zero emissions by 2050, LHB estimated the impacts of strategies such as energy efficiency, local renewables, vehicle travel reduction, electrification of buildings and

vehicles, and carbon sequestration through land management. Engaging with county staff, LHB combined these strategies into a scenario for the future that also considers potential impacts on equity, health, resilience, and quality of life.

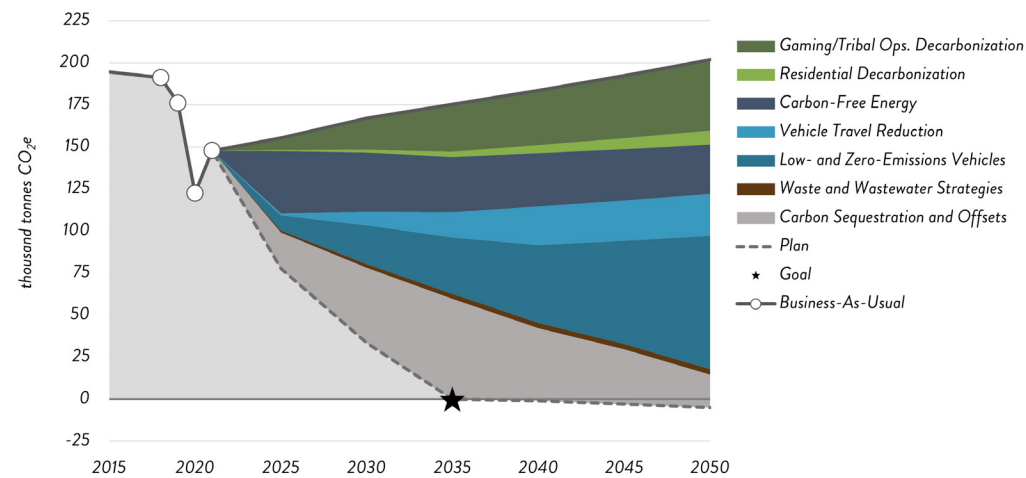
The final element of this project was to connect overarching strategies to near-term action by defining how the County is uniquely positioned to lead climate mitigation efforts through their impacts and influence as a large organization; role and responsibilities as a public entity; and long-term partnerships with the State, other metropolitan counties, cities, park districts, and community organizations.

LHB is providing ongoing services to support implementation of Hennepin County's Climate Action Plan including annual updates to the GHG inventory, recommendations for ongoing emissions tracking and communications, and quantification of key performance indicators into GHG emissions.

SMSC GREENHOUSE GAS EMISSIONS FORECAST



SMSC GREENHOUSE GAS EMISSIONS REDUCTION SCENARIO



PROJECT TYPE

Sustainability Plan & Priority Climate Action Plan

LOCATION

Shakopee Mdewakanton Sioux Community

COMPLETION DATE

Sustainability Plan 2022

Priority Climate Action Plan 2024

Comprehensive Climate Action Plan Anticipated March 2025

REFERENCE

Shakopee Mdewakanton Sioux Community
Scott Walz
Natural Resources Manager
612.387.8841
scott.walz@shakopeedakota.org

SHAKOPEE MDEWAKANTON SIOUX COMMUNITY

SUSTAINABILITY PLAN AND PRIORITY CLIMATE ACTION PLAN

Sustainability Plan

Local Climate Solutions, LHB, and Climate + Transportation Strategies LLC worked with the Shakopee Mdewakanton Sioux Community (SMSC) to complete a Sustainability Plan that included strategies to achieve carbon neutrality in the near-term and to be sustainable for the next seven generations. The plan was developed in close collaboration with community members.

Priority Climate Action Plan

LHB and Local Climate Solutions assisted in the development of SMSC's Sustainability Plan and will leverage this work to complete a Priority Climate Action Plan that will support SMSC's commitment to achieving carbon neutrality by 2035. LHB's services included:

- Leading team coordination, meeting facilitation, document sharing set-up and maintenance
- Leading GHG inventory and GHG emissions projections updates
- Leading quantification of GHG reduction measures and benefits analysis
- Supporting identification of funding opportunities
- Supporting stakeholder engagement efforts
- Leading development of approach and tools for tracking climate work plan and outcomes
- Participating in Climate Innovation Team meetings
- Drafting quarterly and final reports for the grant



PROJECT TYPE
Climate Action Plan

LOCATION
Cedar Rapids, IA

COMPLETION DATE
Fall 2021

CITY OF CEDAR RAPIDS

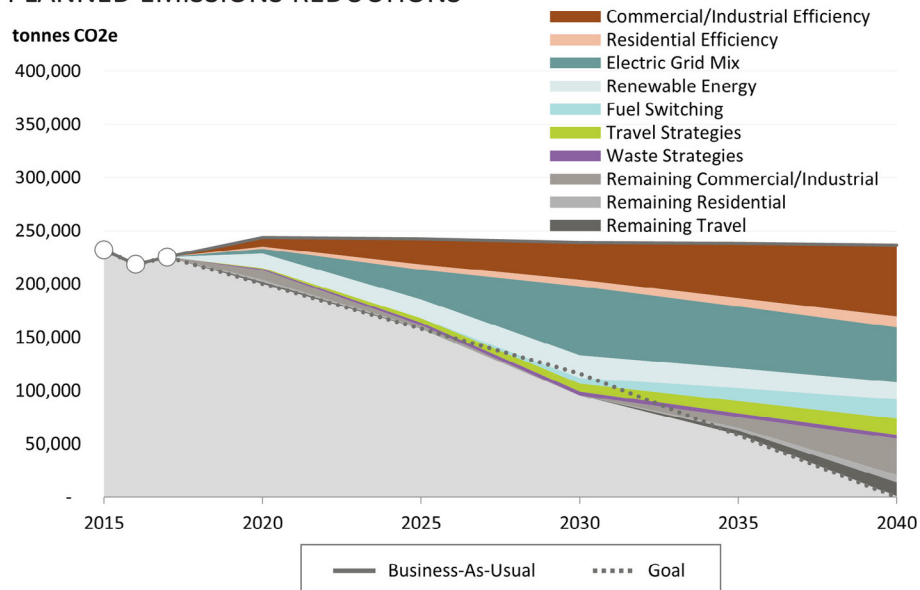
COMMUNITY CLIMATE ACTION PLAN

The Cedar Rapids Community Climate Action Plan (CCAP) was completed in the Fall of 2021 after a 9-month engagement and plan development process. This project was led by Abby Finis of Local Climate Solutions (while at the Great Plains Institute) along with LHB. The plan was developed to achieve the goals of the city's climate resolution to reduce greenhouse gas emissions across sectors, build resilience to climate hazards, and to support access to basic needs for all residents.

The CCAP includes 24 actions with two key goal areas and visions. The first goal is to be carbon-free. Under this goal actions are aimed at reducing emissions and harms to health through building energy efficiency and clean energy, clean mobility options, and addressing industrial emissions. The second goal addresses resilience and accessibility and supports a Cedar Rapids where all residents have access to high-quality spaces, healthy food, clean air and water, and good, green jobs.

This plan was developed with a robust engagement process. This included regular convenings of the Climate Advisory Board which both served to guide the plan, and to help extend outreach to underrepresented communities. The project team also hosted focus group conversations with large industrial users, neighborhood groups, institutions, and small businesses. This plan was developed with community buy-in and commitment.

PLANNED EMISSIONS REDUCTIONS



PROJECT TYPE
Climate Action Plan

LOCATION
Northfield, MN

COMPLETION DATE
November 2019

CITY OF NORTHFIELD

NORTHFIELD CLIMATE ACTION PLAN

In partnership with LHB, the Great Plains Institute led the development of the City of Northfield's Climate Action Plan: Carbon Free 2040. The plan was adopted November 2019 by the City Council. The final plan commits to achieving 100% carbon-free electricity by 2030 and being a 100% carbon-free community by 2040. Developed in deep collaboration with the community members of Northfield, the plan underwent multiple rounds of community engagement during development. The final plan demonstrates Northfield's commitment to both emission reductions and climate change mitigation, as well as adaptation and resilience. Great Plains Institute directly supported city staff during outreach and engagement with diverse community members, including local students from both local high schools, as well as the two universities in the city.

The plan includes strategies to enhance the resilience of the community by cultivating and supporting social cohesion, forward-looking stormwater management and infrastructure planning, 21st century electric grid updates, and supporting local food efforts. The actions outlined address six core areas: materials and waste, energy, land, food, water and wastewater, and transportation. Strategies and actions were aimed at emissions reduction potential as well as implications for equity and community priorities. The plan also set forward an explicit implementation agenda with responsibilities for both the city and community members to collaborate on climate action.

The full report can be read [here](#).

Figure 7 - Planned Emissions

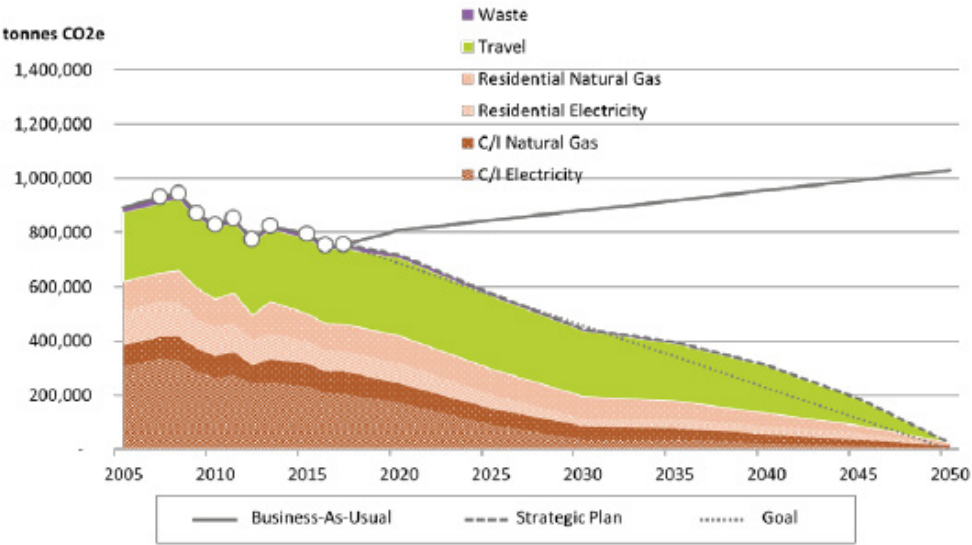
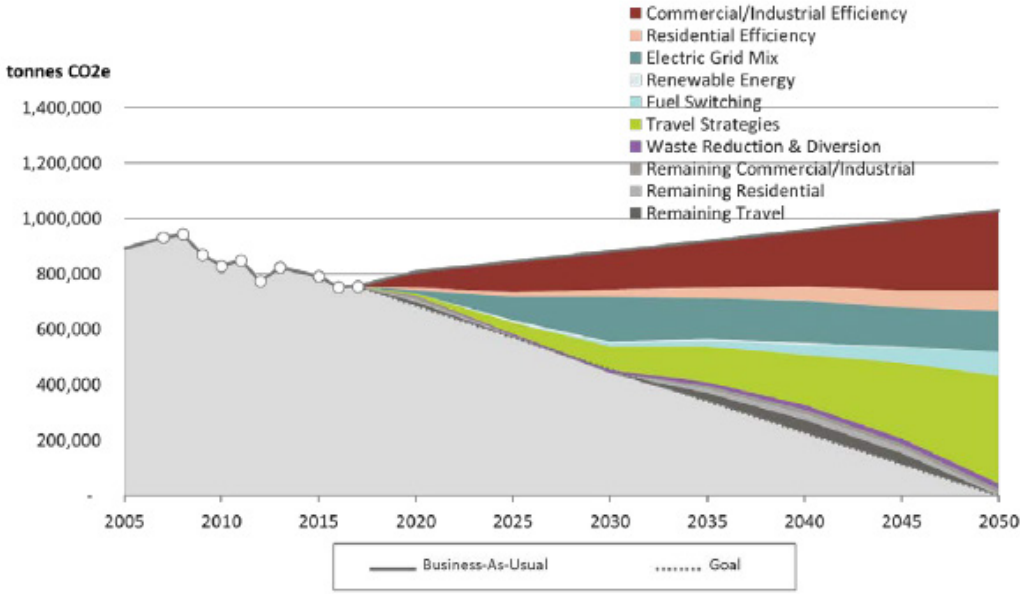


Figure 2 - Planned Emissions Reduction



PROJECT TYPE

Climate Action Plan

LOCATION

Eden Prairie, MN

COMPLETION DATE

Ongoing

REFERENCE

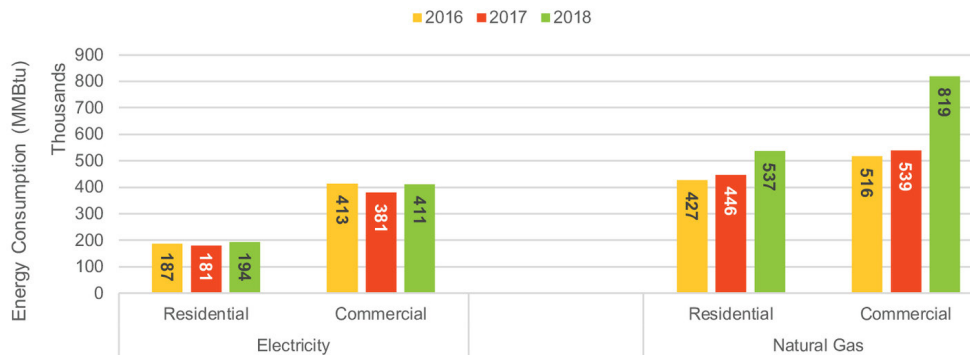
City of Eden Prairie
Jennifer Fierce
Sustainability Coordinator
952.949.8313
jfierce@edenprairie.org

CITY OF EDEN PRAIRIE

CLIMATE ACTION PLAN

LHB helped chart a pathway toward the city's goal of community-wide carbon-neutrality by 2050 by estimating the impact of various efficiency and decarbonization strategies. Key strategies at the building scale – such as designing all new buildings to meet net-zero energy standards – are joined by strategies such as green power purchase and increased adoption of electric vehicles. The successful implementation of Eden Prairie's Climate Action Plan strategies and actions will lead to the achievement of community-wide emissions dropping to zero by 2050.

Energy Consumption in Red Wing by Fuel and Sector



PROJECT TYPE

Climate Action Work Plan

LOCATION

Red Wing, MN

COMPLETION DATE

August 2020

CITY OF RED WING

RED WING CLIMATE ACTION WORK PLAN

The Great Plains Institute and LHB worked with the City of Red Wing to develop its Climate Action Work Plan (CAWP), which was adopted in August 2020. Red Wing became the first city to test the CAWP model, an innovative approach to climate planning. The CAWP is a shorter, more focused version of a climate action plan that enables the city to prioritize near-term initiatives to make incremental progress while working toward its longer-term climate goals.

The Red Wing CAWP includes five strategies with 13 initiatives that are to be implemented over a five-year time horizon. Like a traditional climate action plan, the CAWP contains three main sections: an existing conditions report, a greenhouse gas inventory, and a five-year work plan. The structure of the work plan includes strategies, initiatives, and actions. The strategies look to the mechanisms that are used to reduce emissions (e.g., efficiency, clean electricity, etc.). The initiatives are specific programs or policies the city will implement to deploy the strategies, such as adopting a building benchmarking policy. The actions lay out a step-by-step pathway to get started.

Supplementary materials and on-going assistance will be provided to the city to help ensure it advances its initiatives. These include community engagement resources to ensure the city is inclusive of all residents as it moves to create a more equitable and climate-friendly city. This plan is expected to reduce emissions 9% over the next five years. When combined with the impact of a cleaner electric grid and on-going building code enforcement for new construction, the emissions reductions total 21%.

The full report can be read [here](#).



PROJECT TYPE

Green Building Policy and Climate Action Plan

LOCATION

St. Louis Park, MN

COMPLETION DATE

Ongoing

REFERENCE

City of St. Louis Park
Emily Ziring
Sustainability Manager
St. Louis Park, MN
952.924.2191
eziring@stlouispark.org

CITY OF ST. LOUIS PARK

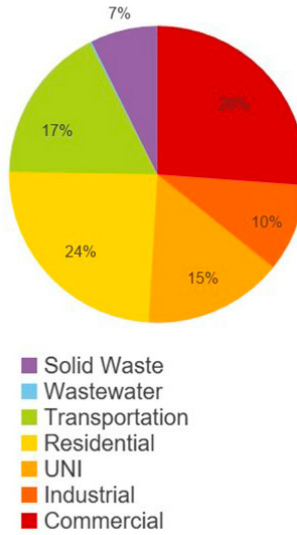
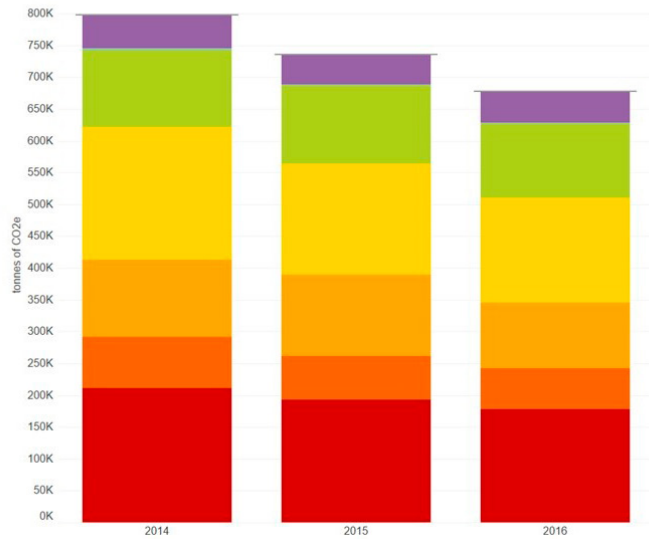
GREEN BUILDING POLICY AND CLIMATE ACTION PLAN

The City of St. Louis Park initially hired LHB to assist in implementation of their Green Building Policy, adopted in February 2010. For over 12 years, LHB has supported the City's sustainable development goals by creating tools for tracking policy compliance, leading meetings with project development/design teams to review policy requirements, and providing technical expertise on green building topics.

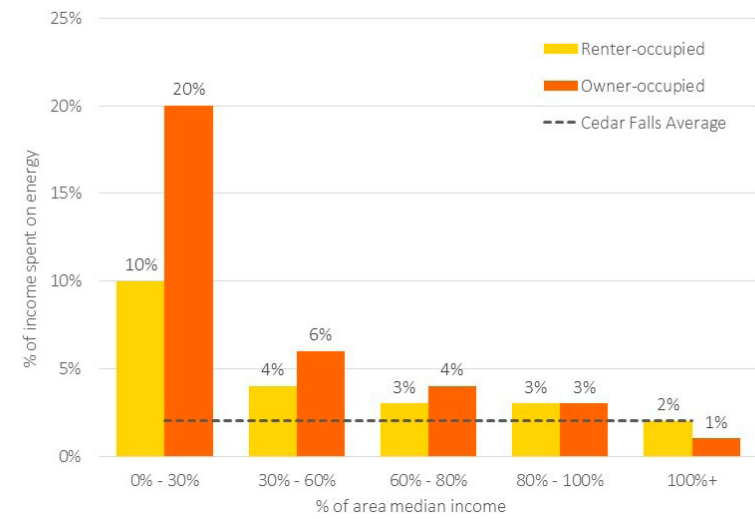
In May 2016, the City of St. Louis Park approved its climate inheritance resolution, formally marking the City's commitment to tackling climate change. St. Louis Park established a bold but achievable goal of becoming carbon neutral by 2040. Reaching this goal will require aggressive action on the part of the City, its residents, and its businesses. Knowing this, the City commissioned the Great Plains Institute, along with Orange Environmental and LHB, to assist in creating a climate action plan.

With several years of plan implementation now under their belt, the City hired LHB in 2021 to analyze progress toward their greenhouse gas emissions goals since the baseline year of 2015. We found that while the community's natural gas use remains very weather-dependent, emissions reductions have been achieved through electricity efficiency in local buildings, cleaner electricity from Xcel Energy, and lifestyle changes made during the pandemic. This analysis is now informing near-term community action, with similar "check-ins" planned in future years to ensure the city stays on track to meet its goals.

Emissions Trends



Cedar Falls Energy Burden



Right image: The average Cedar Falls household spends 2% of income on energy.
Low-income homeowners spend 20%.

PROJECT TYPE

Resilience Plan and Framework

LOCATION

Cedar Falls, IA

COMPLETION DATE

December 2020

CITY OF CEDAR FALLS & PERKINS+WILL

RESILIENCE PLAN AND FRAMEWORK

LHB was part of a team that helped the City of Cedar Falls, IA develop a Resilience Plan and Framework, which guided action to improve prosperity and stability in their community.

LHB led the carbon planning process for the project. To understand existing conditions, we analyzed the community-wide greenhouse gas inventory and identified the greatest opportunities for improvement. We used the IPCC's latest evidence related to the social, environmental, and economic impacts of climate change to inform the development of overall carbon reduction targets. We used these reduction targets to guide our scenario planning. After understanding carbon strategies at a high level, we worked with the community and developed actionable first steps to incorporate into the plan, ensuring the collective actions positively impact all populations and move the city toward greater resilience and social equity.



PROJECT TYPE

Research and Development

LOCATION

Statewide, MN

RECOGNITION

2015 ACEC MN Grand Award

COMPLETION DATE

Ongoing

REFERENCE

Minnesota Department
of Commerce
Division of Energy Resources
Dennis Duffy
Energy Data Analyst
651.292.4650
dennis.duffy@state.mn.us

REGIONAL INDICATORS INITIATIVE

LHB created and leads the Regional Indicators Initiative (RII), which provides Minnesota local governments with planning tools and actual results to measure progress toward their energy and carbon reduction goals. Initially created to collect and share community-wide data for several key metrics (energy, water, travel, waste, and greenhouse gas emissions), RII has now expanded to include additional tools that local governments can use to inform climate planning and action. The tools currently available include: data visualizations, case studies of exemplar cities, a wedge diagram tool, and energy planning templates.

The LHB-developed Wedge Tool allows users to explore a city's potential energy futures through a web-based interactive diagram that shows forecasted city-wide greenhouse gas emissions from 2005-2040. The diagram includes baseline data and a business-as-usual forecast for over 50 Minnesota communities, options to set reduction targets, and multiple reduction "wedges" that are based on actions such as implementing neighborhood outreach programs, developing new citywide regulations, and supporting statewide policies.

By inputting levels of commitment to each building-energy reduction strategy, users are able to visualize the predicted impacts in real-time and prioritize high-impact strategies. The wedge diagram is intended to be a living tool that can be adapted each year as communities learn more about the impacts of their actions. The RII tools have been shared with local governments through a series of technical webinars and in-person presentations.

Please visit the [website](#) to explore the data and learn more about the tools available for community climate action.

PROJECT TEAM

Our team brings energetic and forward-thinking experience to this project. LHB professionals offer expertise in climate, energy, and resilience planning and are committed to delivering a Resilience Plan that will include strategies for action to reduce greenhouse gas emissions as well as increase resilience to the changing climate.

"Architects and engineers play a critical role in improving the built environment's impact on natural resources and greenhouse gas emissions, and LHB is leading the way for sustainable design by making positive changes in the way buildings and sites are designed and operated."

Mahesh Ramanujam, Former President & CEO
US Green Building Council



**Maureen Colburn, AIA, LEED AP
BD+C**
Project Manager

Maureen leads LHB's Climate Solutions team and has 20 years of experience managing projects. She also has deep experience in energy and climate research and analysis, stakeholder facilitation, state and local regulatory authorities, and program implementation. Maureen works on state, regional, and local planning initiatives to drive greenhouse gas emissions reductions, while improving local economic conditions, and achieving a quality of life for all. For this project, Maureen will coordinate the team and lead the creation of the Resilience Plan. She will also support the existing conditions assessment, strategy development, and development of the implementation and final plans.

Maureen has completed the following resilience and climate action plans and similar projects that include:

- Shakopee Mdewakanton Sioux Community Priority Climate Action Plan
- City of St. Louis Park Climate Action Plan and Green Building Policy
- SouthWest Transit Agency Sustainability Plan
- City of Northfield Climate Action Plan
- City of Eden Prairie Climate Action Plan
- City of Edina Sustainable Building Policy Implementation
- Hennepin County Climate Action Planning
- Saint Paul Port Authority The Heights Carbon Free Community Planning
- Regional Indicators Initiative
- Ramsey County Rice Creek Commons



Lydia Major, PLA, LEED AP
Landscape Architecture and
Planning Focus Leader

Lydia works with clients and communities to plan and create vibrant public, commercial, and residential places.

She uses a collaborative design process to develop solutions that benefit the client, the community, and the environment. Her projects include community, education, park, trail, and infrastructure system planning projects. Lydia will conduct Wayzata's climate vulnerability assessment and recommend strategies related to increasing the tree canopy, native landscaping, and emergency preparedness.

Lydia has worked on the following resilience and climate action plans and similar projects:

- City of Minnetonka Climate Action and Adaptation Plan
- City of Hopkins PCA Resilience
- MnDOT Plan Mitigating Effects of Climate Change on Pedestrians
- Saint Paul Port Authority The Heights Carbon Free Community Planning



Rebecca Alexander, AIA, WELL AP
Senior Researcher and Carbon Planner

As the primary researcher for the Regional Indicators Initiative for over ten years, Becky has led the development

of RII GHG inventories and scenario planning tools and played a significant role in the development of several climate action/mitigation plans. She is also involved in several other significant state-wide initiatives to reduce greenhouse gas emissions and improve sustainability in the built environment, such as Minnesota's B3 program, which are informed by her background as an architect. Becky's role on this project will be to calculate and analyze Wayzata's GHG emissions from city operations and recommend strategies for reducing energy, water, and waste in city-owned buildings.

Becky has worked on the following resilience and climate action plans and similar projects:

- Shakopee Mdewakanton Sioux Community Sustainability Plan and Priority Climate Action Plan
- City of Minnetonka Climate Action and Adaptation Plan
- SouthWest Transit Agency Sustainability Plan
- City of Cedar Rapids, IA Climate Action Plan
- City of Northfield Climate Action Plan
- City of Eden Prairie Climate Action Plan
- Hennepin County Climate Action Planning
- Saint Paul Port Authority The Heights Carbon Free Community Planning
- Regional Indicators Initiative
- City of Red Wing Climate Action Work Plan
- City of St. Louis Park Climate Action Plan
- City of Cedar Falls, IA Resilience Plan
- Ramsey County Rice Creek Commons
- St. Paul Municipal Buildings Decarbonization Plan



Jess Vetrano, PLA
Landscape Architect and GIS Specialist

Passionate about public space design, green stormwater infrastructure, bicycle and pedestrian infrastructure, master

planning, community engagement, and traveling, Jess has worked on a variety of projects with local governments. She will support Wayzata's City Operations Resilience Plan through review of GIS data, forestry and parks plans, conducting the climate vulnerability assessment, and development of the draft and final plans.

Jess has worked on the following resilience and climate action plans:

- City of Minnetonka Climate Action and Adaptation Plan
- City of Hopkins PCA Resilience
- MnDOT Plan Mitigating Effects of Climate Change on Pedestrians
- Saint Paul Port Authority The Heights Carbon Free Community Planning
- City of Hopkins Resiliency Hub



Brad Reifsteck, PE
Senior Civil Engineer

Brad brings over 30 years of civil engineering experience designing and coordinating complex municipal projects.

He collaborates with teams to plan, design, and provide construction administration services for infrastructure projects including trails, streets, utilities, and storm water management. For this project, Brad will review the condition of existing utility infrastructure and recommend strategies for improving its resilience to the impacts of climate change.

Brad has worked with several cities and counties on engineering projects to improve their infrastructure and communities such as:

- City of Edina Initiating the West Promenade
- City of Duluth Junction Street Reconstruction
- City of Grant City Engineer and Master Services Agreement
- City of Grant Knollwood Drive Improvements
- Olmsted County Housing and Redevelopment Mayowood II
- Pine City Public Schools Adult Learning Center
- Dakota County North Creek Greenway
- Dakota County Household Hazardous Waste and Recycling Facility
- School District of Amery Athletic Complex
- City of North St. Paul 2023 McKnight Watermain Improvements*
- City of North St. Paul 2022-2023 Street Improvements Project*
- City of North St. Paul 7th Avenue Corridor*
- City of Long Lake City Engineer*
- City of Excelsior 2019-2021 Street Reconstruction Projects*
- City of Excelsior Water Street Overlay Improvements*
- City of North St. Paul 2020 Street Reconstruction Project*
- City of Mendota Heights 2018 Street Improvements*

**While employed with WSB*



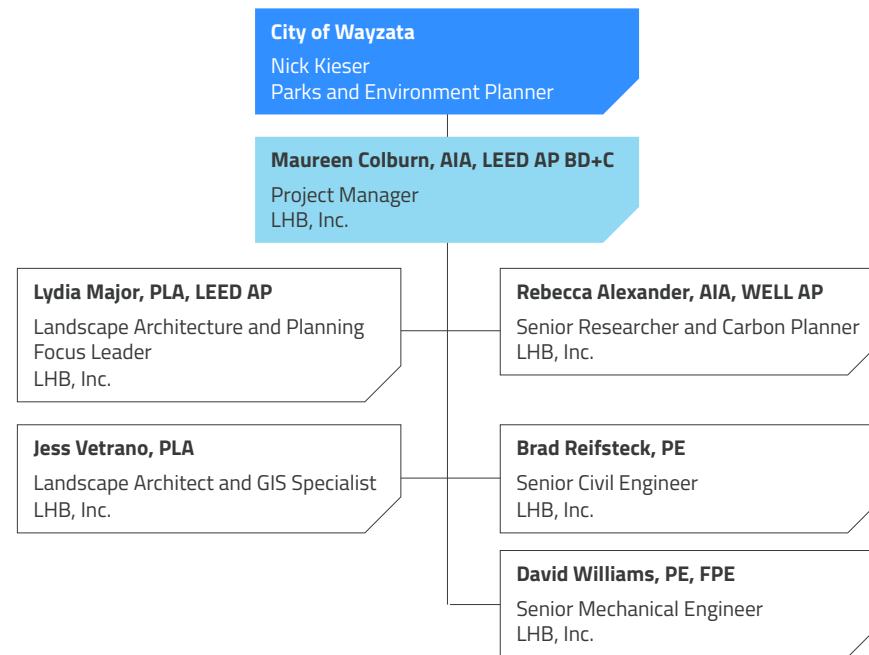
David Williams, PE, FPE
Senior Mechanical Engineer

With over 41 years of mechanical design experience, David oversees building performance services such as LEED consultation, energy modeling, life-cycle cost analysis, commissioning, building maintenance, solar energy systems, unique/special system design, and sustainability strategies. David will recommend electric vehicle infrastructure solutions, ensuring seamless integration and sustainable transportation options for the future.

David has worked on the following resilience and climate action plans and similar projects:

- SouthWest Transit Agency Sustainability Plan
- Saint Paul Port Authority The Heights Carbon Free Community Planning
- Ramsey County Rice Creek Commons
- University of Minnesota, Sustainable Buildings 2030
- Regional Indicators Initiative
- St. Paul Municipal Buildings Decarbonization Plan

Organizational Chart



LHB Climate Solutions Team: Driving Regional Greenhouse Gas Reductions Through Innovative Strategies

LHB's Climate Solutions team focuses their work on achieving regional greenhouse gas emission reduction targets through a range of projects from the building to state scales. They address key categories including climate, wellness, water, resources, ecology, prosperity, and community to help clients identify and meet their sustainability goals.

For over ten years, LHB has led the region in promoting data-driven community greenhouse gas emissions reductions. Their expertise in collecting, tracking, and communicating data in communities throughout Minnesota through the creation and leadership of the Regional Indicators Initiative (RII) will enable our team to provide insights into the City of Wayzata's GHG data and clearly communicate the findings to the city.

Utilizing the RII Wedge Tool, LHB works with local governments across the region to quantify the impact of building, transportation, and waste strategies on greenhouse gas emission reductions to inform community planning. Lessons learned from climate planning work for the cities of Hopkins, Eden Prairie, St. Louis Park, Red Wing, and Northfield, MN and Cedar Rapids and Cedar Falls, IA will be applied to Wayzata's City Operations Resilience Plan.

SCHEDULE

DESCRIPTION	DEC 2024	JAN 2025	FEB 2025	MAR 2025	APR 2025	MAY 2025	JUN 2025
Biweekly meetings between consultant and city project manager	Project kick-off						
Review existing data and reports	Gather information and begin review	Summarize findings for existing conditions report	Gather feedback from city depts, incorporate feedback				
Climate vulnerability assessment	Start assessment	Summarize findings for existing conditions report					
Analyze city operations GHG emissions	Start data collection	Continue data collection and analysis	Incorporate feedback from city staff, summarize findings				
Strategy development			Develop strategies and actions based on city staff input	Meet with city staff to get input on strategies and actions; Categorize actions into near- or long-term.	Finalize strategies and actions.		
Develop draft and final Resilience Plan				Draft plan including existing conditions, draft strategies	Update plan based on city feedback, add strategies	Complete plan draft	Incorporate feedback from city staff into final plan and submit.
Develop Implementation Plan					Start development of implementation details for near-term actions.	Complete development of implementation details for near-term actions.	Incorporate feedback from city staff into final plan and submit.

PROPOSED FEE

TASKS	MAUREEN COLBURN	LYDIA MAJOR	BECKY ALEXANDER	JESS VETRANO	BRAD REIFSTECK	DAVID WILLIAMS	LHB SUPPORT	TOTAL
Task 1 Project Launch and Management								\$4,180
1.1 Project launch and coordination	12							
1.2 Regular updates with city's project manager (up to 16 half-hour virtual meetings)	8							
Hours	20	0	0	0	0	0	0	20
Task 2 Existing Conditions Assessment								\$25,950
2.1 Review existing data and reports	6	6	8	36	8	10	16	
2.2 Conduct a climate vulnerability assessment	4	8	0	20	0	0	20	
2.3 Analyze GHG data	0	0	16	0	0	0	61	
Hours	10	14	24	56	8	10	97	219
Task 3 City Operations Strategy Development								\$13,778
3.1 Identify strategies for resilience, adaptation, and greenhouse gas emissions reduction	7	10	12	25	12	10	12	
Hours	7	10	12	25	12	10	12	88
Task 4 Resilience and Implementation Plans								\$8,054
4.1 Develop city operations implementation plan	4	2	2	0	0	0	20	
4.2 Develop city operations resilience plan	6	4	2	24	0	0	0	
Hours	10	6	4	24	0	0	20	64
Personnel Total Hours	47	30	40	105	20	20	129	391
Personnel Hourly Rates	\$209	\$212	\$151	\$107	\$223	\$212	\$76	
TOTAL FEE NOT TO EXCEED	\$9,823	\$6,360	\$6,040	\$11,235	\$4,460	\$4,240	\$9,804	\$51,962

Optional Additional Services

- Travel time if meetings noted as virtual are requested to be in person - Hourly per rates in table
- Participation in additional meetings / public engagement not noted above - Hourly per rates in table

Notes

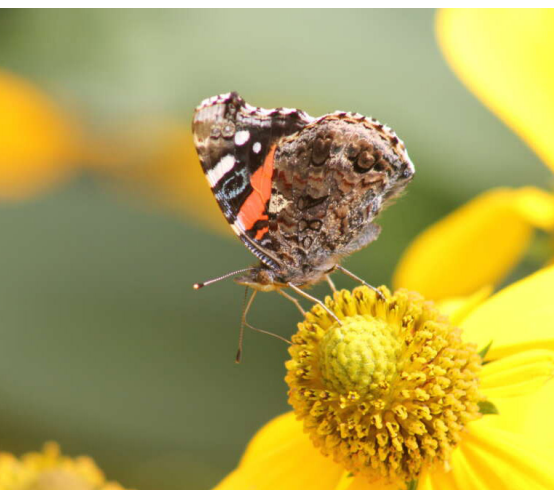
- Flood risk scope is not included
- Request for community-wide data (costs to be covered by MPCA)



MAUREEN COLBURN,
AIA, LEED AP BD+C

701 Washington Avenue North
Suite 200
Minneapolis, MN 55401

Maureen.Colburn@LHBcorp.com
d 612.752.6954



TOMORROW'S DESIGN TODAY

We approach challenges with curiosity and passion. Our team is committed to putting forth the best of ourselves and bringing out the best in each other to create a better tomorrow.

LHBCORP.COM