



ENVIRONMENTAL COMMISSION AGENDA

PUBLIC MEETING ROOM

MONDAY, FEBRUARY 26, 2024

6:00 PM

1. Call to Order
2. Approval of the Minutes
3. Routine Business
 - A. Announcements and Updates
 - i David Wanberg
 - ii Wyland Mayor's Challenge for Water Conservation - Postponed for 2024
4. Items for Discussion
 - A. Election of 2024 Environmental Commission Officers
 - B. 2024 Environmental Commission Work Plan
 - C. Member Resources
5. Adjournment



ENVIRONMENTAL COMMISSION MINUTES

PUBLIC MEETING ROOM

MONDAY, JANUARY 22, 2024

6:00 PM

Meeting Items

1. Call to Order

The regular meeting of the Environmental Commission was called to order by Chair Wasilowski at 6:00 p.m. In attendance were Commissioners Brown, DeMars, Diessner, Nordmeyer and Chair Wasilowski. Interpreting for Chair Wasilowski was Keystone Interpreting Service. Also in attendance were Mathias Hughey, Community and Economic Development Coordinator and Kari Casper, Administrative Assistant II.

2. Approval of the Minutes

Motion by Martha Brown, seconded by Lee Nordmeyer to Approve the meeting minutes as presented. Motion passed on a 4/0 vote. Commissioner DeMars arrived at 6:05 p.m. following the vote.

3. Items for Discussion

A. Coordinating Environmental Efforts

Hughey said that he gets a lot of emails with suggestions on collaboration efforts with regard to issues that could be or are being discussed with the Environmental Commission. He made a suggestion that the board come up with a list of these potential collaborations and suggested the chair assigns each board member two of these. They would then be able to discuss their findings at end of each agenda in an item that could be called "Monthly updates from other commissions". There were several suggestions, such as the Park & Rec Board, HRA, Rotary, Grows, River Bend Nature Center, Isaiah, and the School Board; some of the commissioners have ties to those organizations. Hughey suggested having the commissioner read over the organizations' notes or attend the meetings, but not in an official capacity and to be aware of potential Open Meeting Laws that may apply if more than three members of the board were in attendance. A motion was made by Diessner, seconded by Nordmeyer to first create a list and second to send a letter out offering support. Chair Wasilowski suggested a memo. The vote came to 4/1 with Brown in opposition to request a second motion which suggested that the City come back with no more than seven departments that the commissioners would collaborate with and requesting that each take on two boards. After some discussion, Brown then changed her vote to Diessner's motion of a yay instead of a nay, making it a 5/0 vote.

B. 2024 Work Plan Development

Hughey started off by stating that previously their efforts were with the Green Step Cities and the Energy Action Plan and would like to continue with those efforts. Last year the board worked on the landscape and tree preservation ordinances. Brown voiced her frustrations about how to get actions into these workplans. Hughey put forth a few suggestions on what he referred to as a short list. DeMars is working with the Citizens for Pollinators and wanted to focus some efforts on promoting pollinator

plantings.

He then asked the commissioners to choose what they would like to focus on. After the polling, they decided to focus efforts on adopting a drain program; energy action plan outreach, energy efficiency tool library support/training for which the City received a \$3,000 grant to include tools which could be used to table events. They would also like to prepare a resolution on the removal of the parking minimums.

C. RSDP Project Opportunity

Hughey mentioned the Southeast Regional Sustainable Development Partnership which is an extension program through the U of M. They've identified four priorities, which are 1. agriculture and food systems; 2. clean energy; 3. natural resources and resilient communities. He requested that each commissioner email him by the next meeting their thoughts and provided a list in the staff memo. The project ideas are due by February 14th. After some discussion, they decided to focus on water quality and the adopt a drain programs.

4. Routine Business

A. Announcements and Updates

DeMars mentioned the Faribault Community Drinking Water Meeting set up by the MN Dept of Health, who are looking for citizen input. They are also interested in neighboring well input. People with these wells can bring in a water sample and have it tested for such things as nitrogen, which can be a harmful contaminant. This is set up for January 30th from 6-8 p.m. at the Community Action Center on Cannon Circle. Chair Wasilowski mentioned the Free Radon Testing for homes and the Food Waste Challenge, both listed on the County's website. He stated that he was the recipient of a compost bin in the past and had donated it to the school as a result of winning/participating in the Food Waste Challenge.

5. Adjournment

Hughey wanted to thank Chair Wasilowski for his service on the commission and greatly appreciated his thoughts and ideas and welcomed him to continue to send him emails with suggestions in the future.

Motion by Teresa DeMars, seconded by Lee Nordmeyer to adjourn at 7:18 p.m. The motion passed unanimously.

By: _____
Kari Casper, Recording Secretary



Environmental Commission Memorandum

TO: Environmental Commission
THROUGH: Harry Davis, City Planner
FROM: Mathias Hughey, Community Development Coordinator
MEETING DATE: February 26, 2024
SUBJECT: Wyland Mayor's Challenge for Water Conservation
- Postponed for 2024

Background:

Last year, Faribault participated in the Wyland Mayor's Challenge for Water Conservation. The Community Development Coordinator was notified that this year, the program has been postponed until 2025 in order to provide program staff with the opportunity to revisit and revise the program. Program staff anticipate returning in 2025 with an improved program.

Recommendation:

Revisit participation in the challenge in 2025.

Attachments:



Environmental Commission Memorandum

TO: Environmental Commission
THROUGH: Harry Davis, City Planner
FROM: Mathias Hughey, Community Development Coordinator
MEETING DATE: February 26, 2024
SUBJECT: Election of 2024 Environmental Commission Officers

Background:

The ordinance establishing the Environmental Commission calls for Commissioners to elect a Chair and Vice-Chair from among its appointed members. The Chair will preside over all meetings, is responsible for maintaining order, and will coordinate with the staff liaison in developing monthly Commission agendas. The Vice-Chair will serve as the Chair in the absence of the Chair.

Sonny Wasilowski served as the Chair in 2023 and Martha Brown served as Vice-Chair. There are no limits on how many terms a Commissioner may serve as Chair of the Environmental Commission.

Recommendation:

The Environmental Commission must nominate and elect members of the Commission to serve as Chair and Vice-Chair.

Attachments:

1. ENVIRONMENTAL COMMISSION 2024 Member Roll

2024 ENVIRONMENTAL COMMISSION

Regular meetings will generally be held at 6:00 pm on the fourth Monday of each month. If City Hall is closed due to a holiday or other conflict, the Environmental Commission may choose another date for the regular meeting. Typically, meetings will be held in the First Floor Public Meeting Room of City Hall.

ENVIRONMENTAL COMMISSION – Ordinance 2020-3. The Commission advises the City Council on environmental issues and opportunities affecting the City while respecting the City's economic and social environments.

		<u>Appointed</u>	<u>Term</u>	<u>Expiration</u>
1.	Lee Nordmeyer	2/2024	3 yrs.	1/31/2027
2.	Debbie Graham	1/2024	3 yrs.	1/31/2027
3.	Martha Brown	1/2022	3 yrs.	1/31/2025
4.	Theresa Demars*	1/2023	3 yrs.	1/31/2025
5.	Richard Huston	4/2020	3 yrs.	1/31/2026
6.	Delia Denis*	1/2024	3 yrs.	1/31/2026
7.	Cynthia Diessner	1/2023	3 yrs.	1/31/2026

*Appointed to partial term to fill a vacancy due to resignation

2024 Schedule

January 22, 2024

February 26, 2024

March 25, 2024

April 22, 2024

May 27, 2024

June 24, 2024

July 22, 2024

August 26, 2024

September 23, 2024

October 28, 2024

November 25, 2024

December 23, 2024

COMMUNITY DEVELOPMENT DEPARTMENT

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Environmental Commission Memorandum

TO: Environmental Commission
THROUGH: Harry Davis, City Planner
FROM: Mathias Hughey, Community Development Coordinator
MEETING DATE: February 26, 2024
SUBJECT: 2024 Environmental Commission Work Plan

Background:

Each year the Environmental Commission puts together a work plan for the coming year. At the January 22nd Environmental Commission Work Session, city staff met with commissioners to develop a list of topics, action items, and projects to work on in 2024. Attached is a report and draft work plan for 2040 based on the topic list.

Recommendation:

Review the identified topics and projects, assign volunteers to work on focus areas, and develop a schedule for meeting key project milestones. Staff will compile the results into a work plan for adoption at the next Environmental Commission meeting.

Attachments:

1. Staff Report ENV Workplan 2024
2. Energy Action Plan 2.0 - Actions



Staff Report to the Planning Commission

TO: Environmental Commission
THROUGH: Harry Davis, City Planner
FROM: Mathias Hughey, Community Development Coordinator
MEETING DATE: February 26, 2024
SUBJECT: 2024 Environmental Commission Workplan

Background:

At the January 22nd Environmental Commission Work Session, city staff met with the commissioners to develop a list of topics of interest, action items, and projects to work on in 2024. Commissioners then ranked each of the topics by voting. City staff reviewed the votes to determine projects or items to address first. The following topics are listed in order, starting from the highest level of interest and priority to the lowest level of interest and priority:

- Energy Action Plan implementation
- Develop Adopt-a-drain program
- Active Transportation
- Develop Recommendations regarding Parking Minimums
- Environmental Restoration and Pollinator promotion
- Energy Efficiency Tool Library

Discussion:

Topic List

City staff reviewed the topics suggested and prioritized by the Environmental Commission and added some additional topics along with descriptions for each item:

- Energy Action Plan Implementation

The Environmental Commission played an important role in developing the City's updated Energy Action Plan. Making more efficient use of resources, including energy, is considered a critical component of increasing sustainability and reducing the impacts of energy generation. Opportunities for Environmental Commission Engagement in the implementation of this plan include awareness-raising and outreach, researching policy and developing recommendations, and collaborating with other boards and commissions to consider incorporating energy efficiency. This work is ongoing, and Commissioners should select areas of focus from Exhibit A – Energy Action Plan Actions

- Develop Adopt-a-drain program

This project would require research of other programs and best practices, focusing on identifying effective promotion and implementation. Setting up a system for individuals to sign up would be fairly straightforward using the City's GIS Online platform.

Questions for the commission to answer include:

1. What information to collect from participants?
2. How often to promote participation and what activities to promote? i.e. spring cleaning? Fall cleaning? Etc.
3. Can any incentives be developed to increase participation?
4. How to identify inactive adoptions?
5. Is a story map an appropriate element of this program? See <https://storymaps.arcgis.com/stories/de363ad80c234e46bce2b04b86aa9044> for an example.

- Active Transportation

The Environmental Commission should determine the appropriate amount of effort to be spent on this topic. Aligning efforts with existing programs and initiatives will be the most effective use of limited time. Potential initiatives ranked in order of effort involved are as follows:

1. Bike & Walk to School Day October 2nd, 2024 - <https://mnsaferoutestoschool.org/news-events/international-walk-to-school-day/>
 - a. Promotion to parents & students
 - b. Coordination with School District
 - c. Potential: plan & lead a "walking/biking bus"
2. Bring Walk! Bike! Fun! Program to schools - <https://www.walkbikefun.org/>
 - a. Assist teachers in implementing curriculum
 - b. Identify other community partners to host Walk! Bike! Fun! Training

- Develop Recommendations Regarding Parking Minimums

This work item would involve research into the movement to reduce or eliminate parking minimums. <https://parkingreform.org/> provides an excellent overview and guide. Faribault does not require parking minimums in its downtown commercial district but has traditional requirements across the rest of the city. Questions for commissioners to address include:

1. Why eliminate or reduce minimum parking requirements?
2. What other cities in Minnesota have eliminated parking requirements?
3. How would the proposed state bill to eliminate parking minimums state-wide impact local efforts?
4. Are there other viable alternatives to achieve the same results?

i.e. de-pave programs or other?

Any recommendation regarding parking minimums should take the form of a resolution and include proposed draft changes to the City's Unified Development Ordinance with a request for the Planning Commission to review and discuss the matter. It might be beneficial to have a joint meeting with the Planning Commission if they are willing to consider the topic.

- Environmental Restoration and Pollinator Promotion

This has been a focus of the Environmental Commission, and individual members have been involved with other organizations to promote pollinator-friendly plantings. In addition to raising awareness among residents, the Commission should consider other policies and programs that can increase the implementation of pollinator-friendly practices throughout the city. At the municipal level, barriers include limited staff time, limited knowledge of native plants and best practices, and limited funding for implementation. However, some ornamental flower beds are maintained by contractors, which may present an opportunity to install more native plants.

Other opportunities include presenting information and promoting funding programs like Laws2Legumes at community events.

- Energy Efficiency Tool Library

This project was identified in the Energy Action Plan and received \$3,000 of funding from at CERTs Seed Grant. Xcel also has funds to help acquire equipment and supplies for the kit. Commissioners interested in this project could take the kit to community events to promote its availability, familiarize themselves with the equipment and procedures, and demonstrate the use of different elements of the kit to groups or individuals.

Topic Schedule

To encourage making progress on the above items, the Environmental Commission should adopt a reasonable schedule for assessing, researching, proposing, and adopting amendments or policies. See staff's recommended schedule below. The schedule does not address all the topics above, as staff anticipates some topics may be very involved and require more time. Staff and commissioners may add or remove items from the schedule during the year. Commissioners may work on a topic independently if desired.

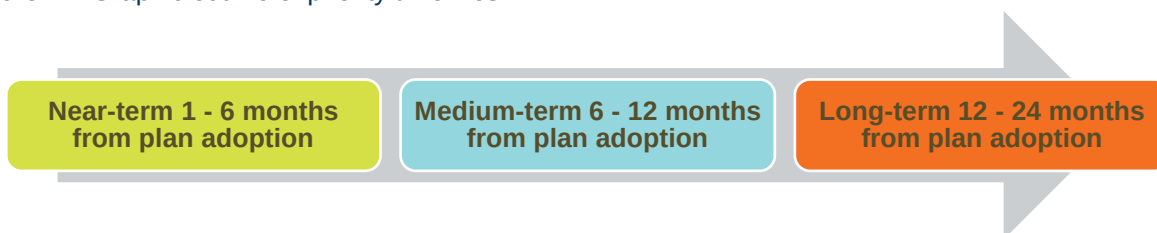
Recommendation:

City staff recommend reviewing the identified projects, volunteering to work on focus areas, and developing a schedule for meeting key milestones for those projects. The results will be developed into the 2024 work plan to be adopted at the March, 2024 Environmental Commission meeting.

Schedule:

ENV Meetin g Dates	Workplan Topics					
	Energy Action Plan	Adopt-a- drain	Active Transport	Parking Mins	Pollina tors	Tool Library
22-Jan						
26-Feb	Annual Meeting					
25-Mar						
22-Apr						
27-May						
13-15 Jun	Heritage Days					
24-Jun						
	International Fest					
22-Jul						
2-3 Aug	Blue Collar Fest					
26-Aug						
23-Sep						
28-Oct			Walk to school day			
25-Nov						
23-Dec						

Figure 14. Graphic outline of priority timelines



Focus Area: Energy Efficiency

Strategy 1: Create a targeted outreach campaign encouraging energy assessments for homes and businesses.

As energy efficiency is the primary way to save energy, and it is difficult for audiences to act without advice or direction, energy assessments are a low to no-cost option for residents or businesses to learn about their energy use and inefficiencies. It will also indicate where they have the most potential for return on investment with energy projects.



Actions:	Partnerships/Resources:
1) Address barriers for residents such as cost, timing, language, and awareness and increase Home Energy Squad or other home energy assessment participation by promoting free visits and partnering with trusted messengers to reach underrepresented or hard to reach community members.	Growing up Healthy, Healthy Communities Initiative, school groups, higher education, senior center, community events
2) Showcase residents and businesses that undergo an energy assessment on the City's energy resource hub.	City communications
3) Conduct outreach to Faribault's business community through assessment program implementers and the Chamber of Commerce. Include case studies and incentive information in communications.	Chamber of Commerce, Faribault Futures, community events
4) Conduct a door-to-door campaign to small businesses to encourage energy assessments.	Energy Action Team, City Council Members, Mayor, Energy Smart, utility assessment programs
Communication:	Events, radio, weekly tips in Faribault Daily News/Weekly Shopper
Timeline: 1–6 Months	

Strategy 2: Consider the development of an efficient building policy that sets standards for building projects that obtain city incentives.

Grid reliability will also rely on Faribault's buildings to be efficient. Setting some standard for projects that apply for city incentives can increase efficient building stock, and therefore help grid reliability.

Actions:	Partnerships/Resources:
1) Connect with other communities who have building standard policies and review costs and benefits.	Community and Economic Development and Engineering departments
2) Write conclusions and recommendations to be reviewed by city staff, council, and public.	Community and Economic Development and Chamber of Commerce.
Communication:	City, Chamber of Commerce and elected official communications
Timeline: 12–24 Months	

Strategy 3: Engage multi-family building property owners and managers to take efficiency measures.

Faribault's multi-family buildings constitute a large part of the housing community and significantly impact energy savings. These efficiency measures can be taken in existing buildings and new construction. Faribault has done outreach to multi-family building owners in the past and can build on those efforts and relationships.

Actions:	Partnerships/Resources:
3) Create a targeted outreach campaign to older, existing multi-family building owners and property managers to increase energy efficiency and engage in efficiency programs.	Community and Economic Development and Engineering departments
4) Conduct multi-family building trainings on energy efficiency options for developers, building owners, operations and management staff.	Xcel Energy's Multi-family Building Efficiency program, local HVAC and weatherization experts
5) Lead by example through a City partnership with the Housing Redevelopment Authority to develop a plan to replace existing appliances with energy-efficient models.	Xcel Energy, Housing and Redevelopment, Partners in Energy, HUD, Community and Econ. Development Dept.
Communication:	City, Chamber of Commerce and elected official communications
Timeline: 6–12 Months	

Strategy 4: Promote energy efficiency in new construction and building retrofits.

As buildings are re-purposed or built, there is an opportunity to implement energy efficiency measures. Getting involved with those projects will require partnerships and communications to help promote these measures early in the design phase of a project.

Actions:	Partnerships/Resources:
1) Educate designers, contractors, etc. with a guide to resources for energy efficient buildings.	Community and Economic Development and Engineering departments, existing guides
2) Review and modify City code where applicable to require or incentivize more efficient buildings.	Other community examples, Community and Economic Development department
3) Encourage new technologies like motion lighting or efficient appliances/electronics through educational pieces.	Lighting consultants and utility programs
4) Promote city rebates, incentives and recognition for efficient buildings.	City webpage, Chamber of Commerce
Communication:	Chamber of Commerce, city permitting, elected official communications, social media
Timeline: 12–24 Months	

Strategy 5: Create education and awareness campaigns to encourage behavior change and promote energy efficiency programs to residents.

To reach audiences who may not be able to do an energy assessment, or to reach populations that want to start with small steps or are renting their homes, behavior change campaigns can provide a first step to home energy efficiency.

Actions:	Partnerships/Resources:
1) Attend community events with business and resident energy resources and tips to encourage energy efficiency actions.	Parks and Recreation department, Nature Center, senior center, schools, Downtown Business Association
2) Create a weekly energy tip/action and promote them throughout the community.	Energy Hub, weekly shopper, Faribault Daily News, social media, utility bill inserts, radio
Communication:	City website and communications, press, community boards
Timeline: 1–6 Months	

Strategy 6: Partner with schools, governmental and community organizations to act as trusted messengers of information and use existing programs to increase energy efficiency.

Creating messaging alongside community partners who may know the unique needs and communication methods of their networks will provide residents with energy information from trusted allies in the community, addressing energy needs more effectively.

Actions:	Partnerships/Resources:
1) Share Xcel Energy student toolkit with teachers and students to encourage behavior change at home.	Xcel Energy, K-12 schools, Partners in Energy
2) Share EmPowered Schools information with school districts.	EmPowered Schools, K-12 schools
3) Review GreenSteps Schools criteria and help in the pursuit of energy initiatives.	GreenSteps, K-12 schools
4) Recruit for a student internship to help perform basic energy assessments or guide residents toward utility programs.	Higher education or high school group
5) Develop energy-related library programming such as educational events on home energy efficiency, renewable energy and utility programs.	Library, community education
6) Create and distribute communications pieces that include education around energy for teachers and students.	K-12 schools and higher education
Communication:	School and library direct communications
Timeline: 1–6 Months	

Strategy 7: Increase access to energy and utility data to renters and buyers.

Knowledge of energy efficiency of a property or knowing the cost of an average utility bill can be a useful tool prior to entering into agreements when renting or buying homes.

Actions:	Partnerships/Resources:
1) Explore and consider a time of sale energy disclosure or energy audit for properties prior to selling a home or prior to renting to new tenants.	Peer communities, City departments, commissions and council, realtor and property owner groups.
Communication:	City communications
Timeline: 6–12 Months	

Strategy 8: Create a tool library resource to support energy efficiency projects at home.

Reach community members who want to do projects and learn more about their home or business energy use. A tool library could help residents and business owners access tools that aren't readily available or are expensive to purchase.

Actions:	Partnerships/Resources:
2) Acquire and create a collection of tools including an infrared camera, kilowatt meter, LED kits, and a guide or set of directions on how to use the tools to find inefficiencies and next steps to take.	Xcel Energy, library, Partners in Energy, local hardware stores
3) Partner with energy library programming to promote and encourage use of this kit.	Library, Partners in Energy
Communication:	City web page, social media, video media, paper, library communications
Timeline: 6–12 Months	

Strategy 9: Encourage energy efficient, affordable “missing middle” housing development by creating and communicating resources for retrofits of existing buildings and development of those properties.

Faribault is not unique in its position having a significant amount of single-family and multi-family housing stock and fewer “missing middle” housing, which includes duplexes, stacked and courtyard complexes, townhouses, and smaller multi-unit buildings in walkable neighborhoods. Encouraging this type of housing through energy efficiency incentives can grow that area of the housing community.

Actions:	Partnerships/Resources:
1) Work with City departments to identify housing stock and contacts to conduct outreach to existing buildings on available incentives.	City staff and Partners in Energy
2) Create a city/stacked incentive program that encourages developers to build missing middle properties.	Use other community examples and work with city council/commissions
3) Review and update city code to reduce barriers to constructing missing middle housing.	Use other community examples and work with city council/commissions
Communication:	On-on-one outreach
Timeline: 12–24 Months	

Strategy 10: Use passive energy strategies to reduce heat island effects that will bolster other energy strategies.

Faribault can make strides in reducing energy use (particularly during warm months) through measures that help reduce the urban heat island effects. This strategy can bolster the impact of the other energy efficiency strategies.

Actions:	Partnerships/Resources:
1) Consider green infrastructure and removal of unnecessary pavement or pavement alternatives when implementing or renovating projects.	Partners in Energy, Planning and Parks and Recreation departments
2) Consider light-colored pavement and roofs when building or renovating roofed structures, streets or paths.	Development, business associations
3) Review and update city code to reduce barriers to impervious surfaces.	City council and commissions
4) Plant trees for shade where possible.	Parks and Recreation department
Communication:	Internal to City departments
Timeline: 1–6 Months	

Focus Area: Renewable Energy

Strategy 1: Remove barriers for residents to access community solar or other renewable energy subscription offerings.

Alternatives to on-site solar exist for community members or businesses who lease or cannot install solar on their properties. Education is needed to show other available options for participation in renewable energy.



Actions:	Partnerships/Resources:
1) Educate residents on community solar subscription opportunities through information sharing on the City website.	City communications, Partners in Energy
2) Create easily accessible videos and infographics for understanding subscription options.	Partners in Energy and city communications
3) Partner with civic and social service organizations to develop and share incentives to renewable energy options for multi-family building residents and low-income residents.	Community Action Center, senior center, library
4) Launch a renewable energy subscription campaign for residents to access clean energy without on-site installations.	Faith organizations, community education, Partners in Energy
Communication:	City communications, press release, social media
Timeline: 6–12 Months	

Strategy 2: Build partnerships with organizations that can support outreach to encourage renewable energy among residents.

Organizations that act as a trusted resource can help shape messaging and communicate with their networks to promote renewable energy options. These partnerships can also lead to further sustainability messaging for future campaigns.

Actions:	Partnerships/Resources:
1) Host or partner with a contractor's event to share renewable energy benefits, resources and incentives.	Library, business associations, solar installers, community solar, Xcel Energy, Partners in Energy
2) Showcase businesses that have adopted renewable energy by creating case studies and articles and recognize them through City communications.	Partners in Energy, business association
Communication:	Social Media, direct email campaign
Timeline: 6–12 Months	

Strategy 3: Create targeted outreach campaigns encouraging large buildings to adopt renewable energy practices.

Using solar suitability mapping and identifying large buildings that could host a large solar array can benefit the business or building itself, as well as make a large advance toward greenhouse gas emissions avoided.

Actions:	Partnerships/Resources:
1) Create an outreach campaign for renters and property owners to engage in renewable energy programs.	Housing department, Xcel Energy, local solar companies
2) Create incentives for multi-family buildings to adopt renewable energy practices while avoiding placing the cost burden on residents.	Planning department, City Council
3) Lead by example on municipal owned buildings and properties (e.g., parking lots and streetlights).	City Council, solar companies, building staff, development, planning
4) Create a targeted outreach campaign for businesses to support renewable energy, including information on funding available for on-site solar projects.	Downtown business association, Faribault Futures, Xcel Energy, Chamber of Commerce
5) Help schools access on-site renewable energy projects and funding.	Higher education and K-12 schools
Communication:	City communications, press release, social media
Timeline: 12–24 Months	

Strategy 4: Help renewable installers to consider additional sustainability efforts when installing large solar arrays.

Additional sustainability efforts might include incorporating pollinator habitat or native grasses for water infiltration and carbon sequestration. This would provide dual purpose for the resources used.

Actions:	Partnerships/Resources:
1) Recognize efforts of solar installers who make additional sustainability actions to installations and include these actions on the Energy Hub.	Solar companies
Communication:	City communications
Timeline: 12–24 Months	

Focus Area: Transportation

Strategy 1: Increase access to EV education and resources.

As new incentives are rolled out and EV ownership is expected to increase significantly by 2030, education on available incentives and charging options will inform community members on the adoption of an electric vehicle.



Actions:	Partnerships/Resources:
1) Promote available information, resources and financing opportunities through the City's Energy Hub (such as IRA funds and other incentives).	City communications
2) Host ride and drive events.	Drive Electric MN, Xcel Energy, Parks and Recreation department, community events
3) Share educational materials at events.	Rice County Fair, Concerts in the Park, International Fest, Heritage Days
Communication:	City communications, Faribault Daily News
Timeline: 6–12 Months	

Strategy 2: Increase convenient charging availability.

Best placement and other installation plans for public EV charging will help the adoption of electric vehicles, make visiting area businesses more attractive, and aid in accessible charging infrastructure.

Actions:	Partnerships/Resources:
1) Explore increasing public charging stations in downtown Faribault as a draw for business.	Xcel Energy, business associations, Chamber of Commerce
2) Develop a site plan and prioritize sites for public chargers to access funding as it becomes available.	Planning department, MnDOT charging infrastructure guides
3) Include charging guidelines/requirements for multi-family buildings and explore charging infrastructure ordinances in new development and retrofits of multi-family buildings.	Community examples of best practices and policies, City Council
Communication:	City communications
Timeline: 6–12 Months	

Strategy 3: Partner with the utility to ensure reliability in the grid as EV adoptions increase.

Being in close contact with the utility as electric vehicle charging increases will ensure grid reliability as charging is added to public and private locations.

Actions:	Partnerships/Resources:
1) Establish a contact person at the utility who can share information at a regular cadence on grid pressures and intake information on City plans or campaigns.	Xcel Energy
Communication:	Internal
Timeline: 1–6 Months	

Strategy 4: Access and promote funding and opportunities for electrification of fleet vehicles.

When replacement is needed for fleets such as public transit, school busses, commercial vehicles, e-bikes, municipal fleets, postal vehicles, etc. the City, residents, and business owners can assess whether an EV makes economic sense. Help those organizations keep apprised of incentives and resources for those updates.

Actions:	Partnerships/Resources:
1) Keep the City website up to date on funding changes or updates to programs while establishing relationships with organizational fleet managers to keep them apprised of resources.	Xcel Energy, business associations, municipal fleet manager
Communication:	Internal
Timeline: 6–12 Months	

Strategy 5: Support low-income communities in electric transportation by removing barriers to access.

Faribault's under-resourced community members should be kept apprised of electric vehicle options. Initial resources should include new incentives and low-maintenance costs of EV ownership.

Actions:	Partnerships/Resources:
1) Create a resource guide (digital and printable) for accessing federal and state dollars for EV adoption, e-bikes, and other electric transportation equipment	Xcel Energy, Partners in Energy
Communication:	City communications
Timeline: 12–24 Months	

Strategy 6: Support the development of a complete network of active transportation infrastructure.

Faribault can aid the energy strategies and add to the greenhouse gas reduction goals of this plan by removing vehicle transportation by adding alternative transportation methods.

Actions:	Partnerships/Resources:
1) Support the creation of more walking and biking infrastructure.	Transportation and Planning departments
2) Support the addition of options to the public transit network (e.g., trains, electric bikes, etc.).	Transportation and Planning departments
Communication:	City communications
Timeline: 1–6 Months	

Focus Area: Beneficial Electrification

Strategy 1: Create an education and outreach campaign to share the possibilities of home appliance electrification and qualified contractors.

As incentives and resources become available to homeowners and landlords, the City can help inform the public of those resources and the benefits of electrifying their properties.



Actions:	Partnerships/Resources:
1) Develop a school campaign to include in science courses.	Higher education, K-12 schools, Xcel Energy, Empowered Schools
2) Host community center and library educational sessions.	Transportation and Planning departments
3) Use and promote existing organizations' educational resources and preferred contractor lists.	ASHP Collaborative, MN Geothermal Heat Pump Association
Communication:	City communications
Timeline: 1–6 Months	

Strategy 2: Incorporate beneficial electrification into new construction recommendations/requirements and promote existing programs and incentives.

As new homes and businesses are built, contractors or builders will be informed about available incentives and best practices to install electric HVAC and appliances.

Actions:	Partnerships/Resources:
1) Create recommendation packets to distribute to local builders, remodelers, and large construction projects.	Chamber of Commerce, Partners in Energy, Xcel Energy
2) Explore requirements for electric appliances and bring recommendations to City Council.	Other community examples of policy or ordinance
Communication:	City communications
Timeline: 12–24 Months	

Strategy 3: Support contractor trainings and education on new electrification technologies.

The workforce will be informed of new technology transitions, options, available incentives and installation best practices.

Actions:	Partnerships/Resources:
1) Partner with the MN Air Source Heat Pump Collaborative and other workforce training programs to conduct workshops for contractors.	ASHP Collaborative, Chamber of Commerce, Partners in Energy, Xcel Energy
Communication:	City communications, Chamber of Commerce network
Timeline: 12–24 Months	

Strategy 4: Electrify parks maintenance equipment.

As equipment is replaced in Faribault's parks maintenance selection, electric options will be considered to reduce costs of fuel and maintenance.

Actions:	Partnerships/Resources:
1) Identify procurement processes and update language for considering or requiring electric equipment when replacement is needed for mowers, trimmers, etc.	Parks and Recreation department
Communication:	Internal communications
Timeline: 6–12 Months	



Environmental Commission Memorandum

TO: Environmental Commission
THROUGH: Harry Davis, City Planner
FROM: Mathias Hughey, Community Development Coordinator
MEETING DATE: February 26, 2024
SUBJECT: Member Resources

Background:

For the Environmental Commission to function effectively, all members need to have a shared understanding of their role and the context of the Environmental Commission. To that end, staff have attached several important documents for commissioners to review to familiarize themselves with the Environmental Commission and the work that has already been done.

Recommendation:

Commissioners should review and become familiar with the attached documents.

Attachments:

1. Environmental Commission Handbook
2. Faribault Climate Adaptation Plan
3. 2023 - Energy Action Plan 2.0

ENVIRONMENTAL COMMISSION HANDBOOK

Draft in Progress: April 27, 2020

Welcome to the Environmental Commission! Thank you for your service to the community. This handbook provides you with an overview of the Environmental Commission and your role and responsibilities as a commissioner serving on the Environmental Commission.

Application of Community Vision and Community Values

The adopted vision of the community provides an overarching guide to all actions of the Environmental Commission and all other boards and commissions in the city. The adopted vision of the community is as follows:

Faribault is one of America's best small communities. A place where all people find opportunities to succeed, grow, and prosper. We celebrate our unique strengths in education, business, industry, medical, nature, recreation, leisure, and the arts – and we are proud of our historic downtown and iconic institutions. As a community we embrace the future and plan for positive change through our commitment to innovation and excellence, making Faribault an outstanding place to live, work, grow, invest, and visit.

The Environmental Commission should also consider its actions in light of the stated values of the community, which are as follows:

Sense of Community

We value a strong sense of community and belonging. We believe in being a friendly, respectful, safe, inclusive, and welcoming community that celebrates strong connections among all people.

Faribault will be a community that residents from a wide range of backgrounds, ages and cultures call home. We will strive to provide a friendly, respectful, and inclusive environment that creates a strong sense of unity and togetherness. People will come to Faribault and stay in Faribault.

Sense of Place

We value and respect our historic character, iconic institutions, rich traditions, and natural amenities that give Faribault its unique sense of place.

Faribault will be a community known for its unique and iconic surroundings. In 25 years, we will have continued to cultivate our rich history through preservation of our distinctive buildings, our downtown, our institutions, and cultural traditions.

We will also enhance our unique natural amenities to attract and retain our distinctiveness.

Opportunity

We value the opportunities that all people have for growth and enrichment in our community, including opportunities for high-quality education, decent jobs, good housing, quality healthcare, and access to nature, leisure, and the arts.

In 25 years, Faribault will have a diversified economy that provides residents with expanded opportunities to work and to meet their personal, educational, recreational, and cultural needs. A mix of industrial, commercial, and retail redevelopment will provide the tax base needed to support high quality services and amenities.

Innovation

We value and encourage creativity, flexibility, and openness to new ideas and positive change in all sectors of our community, including business, industry, education, and government.

Faribault will be known for its creativity, thought, and leadership in business, education, and government. We will foster a culture where new ideas can flourish, and will regularly demonstrate our innovative spirit through advances in our educational sector, unique new businesses, and our cutting-edge government service.

Excellence

We value excellence and strive for it in everything we do. We believe if it is worth doing, it is worth doing to the best of our ability.

Faribault will be a community known for its commitment to excellence. We will demonstrate in all sectors of our community the attention to detail and quality necessary to achieve great outcomes and a highly livable and thriving community.

To review the complete Community 2040 document, visit the following:

<http://www.ci.faribault.mn.us/DocumentCenter/View/1553/Community-Vision-2040?bidId=>

Purpose, Organization, and Duties of the Environmental Commission

On February 25, 2020, the City Council approved Ordinance 2020-3, which established the Environmental Commission as well as the purpose, organization, and duties of the Environmental Commission. Chapter 9 of the Faribault City Code of Ordinances reads as follows:

Environmental Commission

Sec. 9-1. – Established. *There is hereby established an environmental commission of the city.*

Sec. 9-2. – Purpose. *The purpose of the environmental commission is to advise the city council on environmental issues and opportunities affecting the city while respecting the city's economic and social environments.*

Sec. 9-3 – Organization.

- (a) Appointment and residency. The environmental commission shall consist of seven (7) voting members, all of whom the city council shall appoint by resolution. At least five (5) members shall be residents of the City of Faribault. Up to two (2) members may be residents of a bordering township.*
- (b) Terms of office. All members of the environmental commission shall have terms of three (3) years expiring on January 31, except, of those members appointed in 2020, two (2) shall have an initial appointment of one (1) year, two (2) shall have an initial appointment of two (2) years, and three (3) shall have an initial appointment of three (3) years.*
- (c) Oath of office. Every appointed member of the environmental commission shall, before entering upon the discharge of his or her duties, take an oath that he or she will faithfully discharge the duties of the office.*
- (d) Chair and vice chair. The environmental commission shall elect a chair and vice chair among its appointed members for a term of one (1) year.*
- (e) Removal. The city council may remove any member of the environmental commission by a majority vote of the city council.*
- (f) Vacancies. Any vacancy on the environmental commission during a term of office shall be filled by the city council for the unexpired portion of the term.*
- (g) Compensation. The members of the environmental commission shall serve without compensation.*

Sec. 9-4 – Meetings.

- (a) Schedule. The environmental commission shall meet at such intervals as its business may reasonably require.*
- (b) Quorum. Four (4) members of the environmental commission shall constitute a quorum.*

- (c) *Record of proceedings. The environmental commission shall keep an accurate record of its proceedings, which shall be a public record.*

Sec. 9-5 – Advisory duties.

The environmental commission shall create, for city council review, an annual work plan outlining planned projects and tasks for the year. General duties of the environmental commission include the following:

- (a) *Environmental review. Review and provide recommendations on projects that involve an environmental assessment worksheet or an environmental impact statement.*
- (b) *Creation of plans. In consultation with the city council, participate in the development of city plans that have a significant environmental component, such as a natural resource protection plan, an energy plan, or a climate action plan. Make recommendations to the city council on the adoption and updating of said plans.*
- (c) *Other duties as directed by the city council. Advise the city council on other environmental matters as directed by the city council. Such other duties may include making recommendations on environmental ordinances and promoting public awareness and understanding of environmental matters affecting the city.*

In establishing the Environmental Commission, the City Council emphasized the following:

- 1. Advisory.** The Environmental Commission should be strictly and advisory commission with no inherent power to adopt ordinances or establish new programs or policies on its own. The City Council shall be the final authority on environmental issues affecting the City.
- 2. Balance the Relationship between Environmental, Economic, and Social Considerations.** The City Council emphasized that the Environmental Commission should consider the economic and social impacts related to environmental policies and practices.

Specific Responsibilities of Commissioners and Staff

The specific responsibilities of the Commissioners and City Staff are as follows:

All Commissioners

1. Attend most, if not all, scheduled meetings of the Environmental Commission. If you are unable to attend a meeting, please send an email message to the City Staff Liaison (David Wanberg, City Planner, dwanberg@ci.faribault.mn.us).

2. No later than the Friday before a scheduled meeting, Commissioners will receive notification that the Environmental Commission packet is complete along with instructions on how to download the packet. In general, all Board, Commission, and Council meeting packets can be downloaded from the City's agenda center at: <http://www.ci.faribault.mn.us/agendacenter> . Commissioners should download and review the packet in advance of the meeting. Please note that the City does not intend to print and deliver packets to Commissioners. If you have a laptop computer or tablet, you may find it helpful to bring it to the meeting.
3. Participate in meeting discussions in a respectful manner.
4. Please note that it is not the role of Commissioners to direct City Staff or assign tasks to City Staff.

Chair

1. Preside over the meetings. (Call the meeting to order, introduce items for discussion, entertain motions, call votes, etc.).
2. Ensure meeting protocols are followed. Maintain meeting decorum and order.
3. Encourage the participation of all Commissioners.
4. Coordinate with City Staff as needed on issues such as upcoming agendas, attendance of commissioners, and other issues affecting the Commission.

Vice Chair

1. Fulfill the responsibilities of the chair if the chair is unable to do so.

City Staff Liaison

1. Prepare the Environmental Commission packets.
2. Provide technical assistance as necessary.
3. Present information to the Commission.
4. Listen and respond to Commissioner ideas and concerns.
5. Coordinate Environmental Commission activities with City Administration and the City Council.

Administrative Assistant

1. Assemble the Environmental Commission packet and notify Commissioners that the packet is ready for download.
2. Record meeting minutes.

3. Properly file and maintain all pertinent records of the Environmental Commission.

Meeting Structure and Meeting Protocols

Types of Meetings

1. Regular meetings will generally be held at 6:00 pm on the fourth Monday of each month. In the event that City Hall is closed due to a holiday or other conflict, the Environmental Commission may choose another date for the regular meeting. Typically, meetings will be held in the First Floor Public Meeting Room of City Hall.
2. The Environmental Commission may choose to hold a special meeting, which can be held at any time if proper notice is given.
3. The Environmental Commission may choose to conduct a joint meeting with the City Council or another commission, if proper notice is given.

Under certain circumstances (including a health pandemic) the Environmental Commission may hold a meeting through electronic means.

Quorum Required for Commission Action

The Environmental Commission cannot take any action unless a quorum (four of the seven Commissioners) are present at the meeting. Therefore, it is critical that Commissioners let City Staff know if they are unable to attend a meeting. If the Environmental Commission is not going to have a quorum, the City will postpone the meeting.

Typical Meeting Agenda

Although meeting agendas may vary, the typical agenda will include the following:

1. Call meeting order / roll call
2. Approve agenda (you can make minor adjustments to the agenda, but you cannot add an item for Commission action that has not been noticed)
3. Approve minutes of previous meeting
4. Items for discussion / action
5. Routine business (announcements, updates, or other items of interest)
6. Adjourn

Again, agendas may vary. For example, the Commission may choose to have presentations from the public or invited speakers, etc.

Robert's Rules of Order

The City generally conducts its meetings in accordance with Robert's Rules of Order. The key aspects of Robert's Rules of Order are as follows:

1. Only one subject (or motion) should be before the Commission at one time.
2. Only one person is allowed to speak at one time. The Chair is responsible for recognizing who "has the floor".
3. Each item is presented for debate. Every Commissioner has the right to be heard, but the majority vote will prevail.
4. Motions should be clear and concise. A motion is not the time for a Commissioner to give a long speech.

The typical steps for making and acting on a motion are as follows:

1. A Commissioner addresses the Chair and the Chair recognizes the Commissioner.
2. The Commissioner clearly and concisely states a motion. A typical motion will be something like, "I move that the Environmental Commission recommend approval of....." In some cases, City Staff may ask the Environmental Commission to take action on a draft resolution or ordinance. In that case, a Commissioner may state, "I move that the Environmental Commission recommend that the City Council approve Resolution.....".
3. The Chair may repeat the name of the Commissioner making the motion and the motion itself. The Chair may then ask if there is a second.
4. Typically, another Commissioner will second the motion. If there is no second, the first motion "dies".
5. If there is a second to the motion, the Chair will repeat who made the first motion, restate the motion, and state who seconded the motion. The Chair will then ask if there is any further discussion. Please note that there should be no discussion in between the first and second motion. Discussion occurs after the second motion.
6. After discussion is complete, the Chair may once again repeat the motion and ask for a vote. Generally, Commissioners are asked to state "Aye" or "Nay" or something similar.
7. A voice vote is generally taken in person. A roll call vote is required for electronic meetings.

Please note that there are many nuances to the above procedures. For example, a Commissioner could make a subsidiary motion to "table" or "postpone" debate.

Other Items of Importance

Open Meeting Law

1. Meetings must be open and transparent to the public. Meeting agendas are posted for public review. Meetings must be held in a public meeting place. (The Environmental Commission will generally meet in the First Floor Public Meeting Room at City Hall, except when the meeting is notice to be held in another location or to be held electronically.)
2. Discussion between a quorum of Commissioners outside the publicly noticed meeting is prohibited. This means that when a meeting is adjourned that there should not be a quorum of Commissioners discussing Commission business in the hallway, parking lot, or anywhere else.
3. Serial communication can violate the Open Meeting Law. In other words, one Commissioner cannot make separate phone calls to a quorum of Commissioners regarding Commission business.
4. If a Commissioner has information that he or she would like to share with the Commission, the Commissioner should relay that information to the City Staff Liaison for proper distribution to the Commission. Commissioners should avoid group email discussions with each other.

Communication with the Public

1. Public engagement is encouraged, but a Commissioner should not represent his or her personal views as the view of the Commission.
2. The City Staff Liaison will be responsible for coordinating any public announcements, press releases, and the like.

Conflict of Interest

1. Commissioners must disclose any conflict of interest (financial or other) and abstain from voting on any item related to a conflict of interest.
2. If a Commissioner does not have a legal conflict of interest, but others may perceive that the Commissioner could have a conflict of interest, then it is best for that Commissioner to make that perceived conflict known and, ideally, abstain from voting.

Gifts

1. Commissioners must follow state and city policy related to gifts. If you have any questions related to gifts, contact the City Staff Liaison.



City of Faribault Climate Adaptation Plan

December 2020

Prepared by:



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Acknowledgements

Thank you to the following organizations and individuals for their contributions:

City of Faribault Project Lead

Dave Wanberg City Planner, City of Faribault

Office of The Mayor

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City Council

Elizabeth Cap City Council Member

Peter Van Sluis City Council Member

Royal Ross City Council Member

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City of Faribault

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Sara Coulter Rice County, Clinic & Community
Supervisor

Susan Erickson Resident

Travis Block Public Works Director,
City of Faribault

Funding



Partial funding for this project was provided through a 2018 State of Minnesota Pollution Control Agency (MPCA) Environmental Assistance Grant supporting the climate adaptation planning portion of this plan.

Consultant Team



Climate Planning

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Colleen Redmond



Alliance for Sustainability Community Engagement Consultant

Sean Gosiewski





Introduction

Significant weather events have caused substantial physical and economic damages in Faribault. Without global action to address climate issues, Faribault and the world will face threats to their economic livelihood, public health, and supplies of food, clean water, and power. Vulnerable populations, especially those with lower incomes and older residents, often bear the brunt of these extreme weather events.

In April 2017, paleBLUEdot secured a grant from the State of Minnesota Pollution Control Agency (MPCA) for the development of Climate Vulnerability Assessment for the City of Faribault and 22 other communities throughout the State. The goal of project was to serve as an assessment of Faribault's forecasted climate change, impact exposure, sensitivity, and adaptive capacity to changing climate conditions. The Vulnerability Assessment, completed in May 2018, mapped climate vulnerable populations in Faribault and serves as a foundation for prioritizing climate adaptation needs and actions.

In June 2018, paleBLUEdot and the City of Faribault jointly secured a grant from the MPCA to develop a Climate Adaptation Plan based on the 2018 vulnerability assessment. This plan is the result of that effort. This Climate Adaptation Plan outlines strategic goals and detailed actions to guide the City towards a more resilient, climate change ready condition.

The process

The plan was developed in collaboration with a 15 person planning team of community members, economic development representatives, Rice County staff, and City of Faribault staff. The planning team was organized into sub-teams aligned with each of the sectors included in this plan (see Plan Framework). The plan was developed through a number of planning workshops from May through December 2020.

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Faribault's Vulnerability to Climate Risks:

The following highlight the vulnerabilities to climate risks facing Faribault, excerpted from the 2020 Faribault Climate Vulnerability Assessment:

1-2

Introduction

Why Create a Climate Adaptation Plan

The creation, and dedicated implementation of a Climate Action Plan (CAP) is an organized way for a city to contribute to solving the global climate crisis while helping its resident and business communities create improved resilience to the current and future impacts and risks of climate change.

What is Climate Adaptation?

Some impacts of climate change are now inevitable. Climate Change Adaptation seeks to lower the risks posed by these impacts. Both mitigation and adaptation are necessary, because even if emissions are dramatically decreased, adaptation will still be needed to deal with the global changes that have already been set in motion.

What is a CAP Plan?

Climate adaptation plans are comprehensive road maps that outline the specific Strategies and Actions that a City will implement to build resilience to related climatic impacts. Climate Adaptation Plans do not address mitigation actions (greenhouse gas reductions), which can be addressed in a future Climate Mitigation Plan.

The Role of Cities

Cities play a key role in addressing climate change. Climate adaptation measures focus on local infrastructure resilience, social networks addressing needs of vulnerable populations, and other actions which are best executed at the local level. According to a survey by the US Conference of Mayors, more than half (53%) had committed to climate action.

Types of Climate Actions

Leading by Example:

Actions the City can apply to city operations or facilities to illustrate actions others can take:

- Install solar on rooftops of public buildings
- Adopt net-zero energy standards for public facilities
- Convert city fleets to EVs

Advocating:

Encourage change in support of meeting CAP goals - these can include lobbying at State/Federal and educating public on actions they can take:

- Lobby for PACE financing legislation
- Promote utility rebate programs
- Provide Net Zero and Solar Ready Guides to Residents and Businesses

Require:

Actions the City can take to require actions within the private sector:

- Require energy efficiency and renewable energy within PUD ordinance
- Adopt an energy benchmarking ordinance
- Require solar pv feasibility assessment with all new building permits

Incentivize:

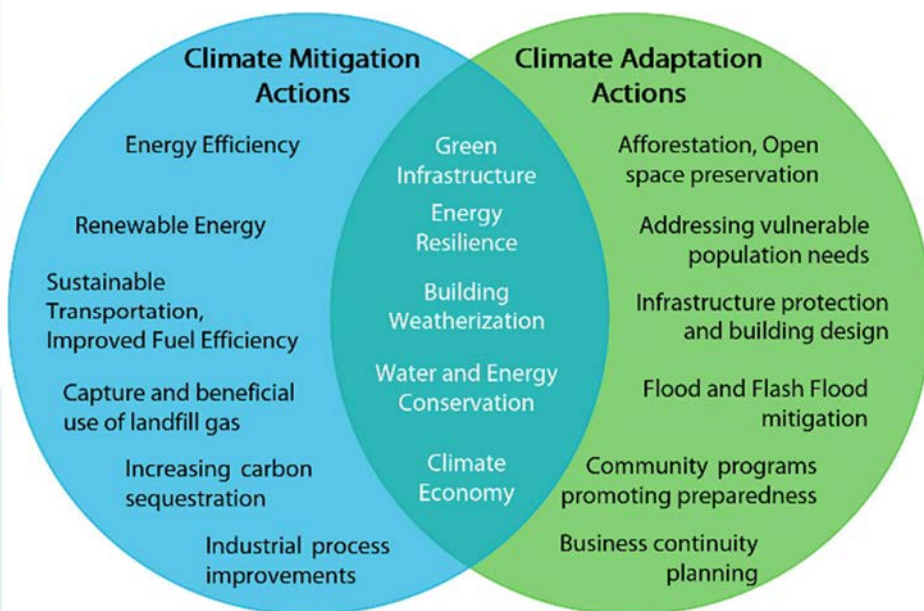
These can include direct economic incentives as well as actions which remove barriers:

- Expedite permitting for clean energy projects
- Offer Net Zero technical assistance
- Establish a Renewable Energy grant program for income qualified residents.

Climate Action As A Journey

This Climate Adaptation Plan represents a robust vision of the future with a comprehensive scope of action befitting the magnitude of our collective climate challenge ahead. This plan should be seen as a living document. Action progress and effectiveness should be reviewed at regular intervals through the plan's implementation and adjustments should be made to expand or modify the scope of individual actions and to augment the plan with new actions as appropriate to respond to ever-changing market and community conditions.

Synergy of Mitigation and Adaptation Actions



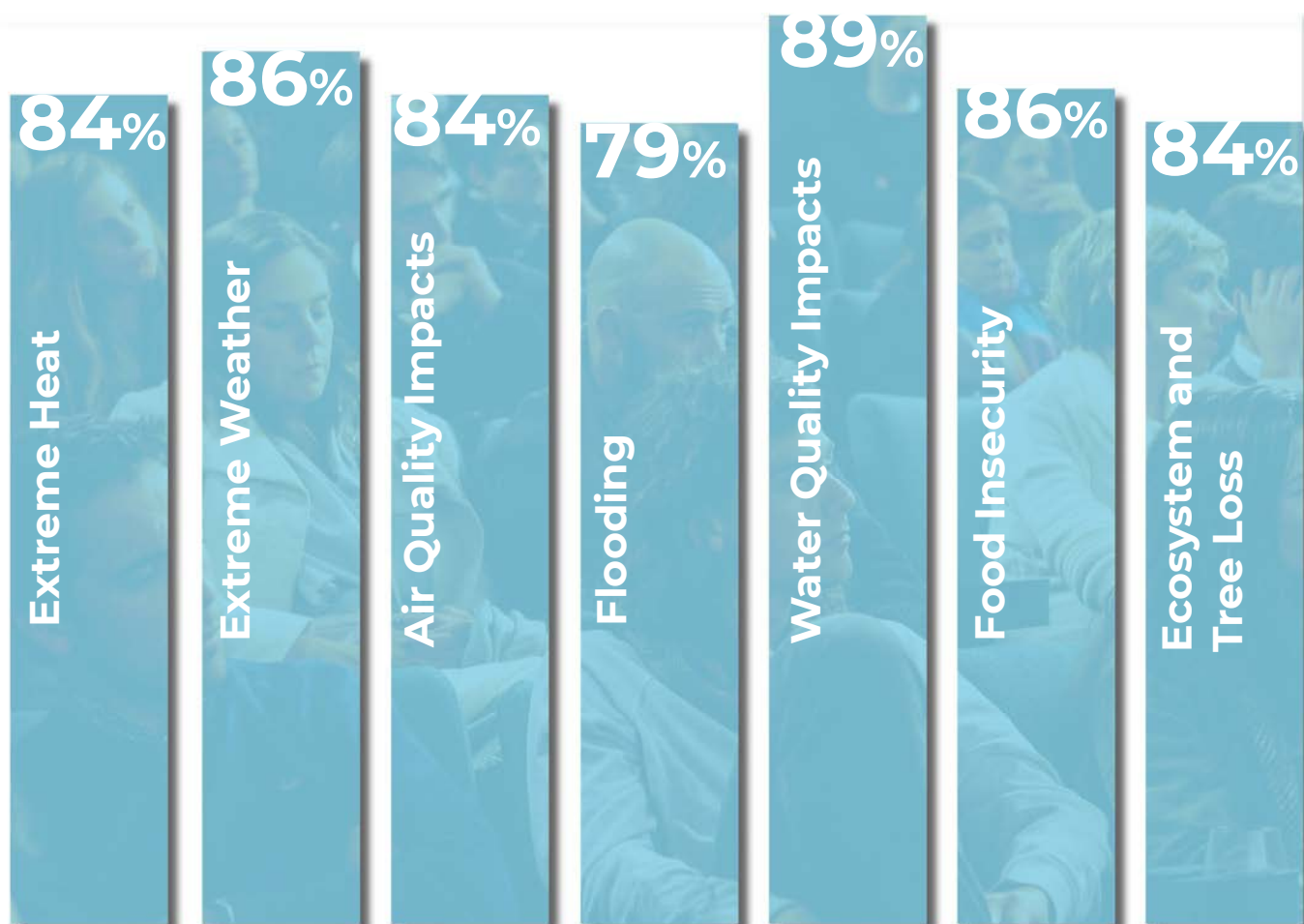
Introduction

Gathering Community Input on Climate Concerns

Understanding the perspectives of community members and broad community input is key to any successful community sustainability or climate planning effort. With that in mind, the City of Faribault issued this community survey to collect input from a broad range of community members. The intent of the survey was to help the city identify sustainability and climate adaptation needs, opportunities, priorities, and issues for the City of Faribault.

This survey was designed as an on-line questionnaire survey with random self-selected engagement. The survey was designed by paleBLUEDot and reviewed for edit by City of Faribault planning staff. The survey was made available on-line on a dedicated webpage (<https://palebluedot.llc/faribault-climate-adaptation-survey>).

The graph below shows the percentage of respondents that identified each topic as a concern. Survey responses, along with other research and community input, helped to inform the strategic goals and actions identified in the Climate Adaptation Plan.



Introduction

Developing The Plan

Development and implementation of the Faribault Climate Adaptation Plan are opportunities for the City of Faribault government (City) and partners in the community to research and articulate some of Faribault's most pressing resilience challenges; identify specific, multi-benefit actions that contribute to solutions to those challenges; and secure additional resources, technical assistance, and partnerships to accelerate next steps.

The goals and actions identified in the Climate Adaptation Plan are grounded in community input, expert analysis, and best practices from other cities throughout the United States. Strategic goals and detailed actions were developed by the Planning Team through a series of workshop meetings. A preliminary draft of actions were reviewed against action screening criteria which enabled the Planning Team to evaluate, refine, finalize, and prioritize the actions to be incorporated in the final Climate Adaptation Plan.

Faribault Action Screening Criteria

Support: How likely is the proposal to be adopted by the City or community-wide? Is it politically feasible? Is there community support? Is it consistent with the City's priorities and readiness to implement?

Effectiveness: How likely is it the action will work to address the goal? Is this addressing a high-priority vulnerability or a major source of emissions? How likely is it that the action will effectively address vulnerable population needs?

Enforceability and Measurability: Can the program be enforced? Are there ways to measure the impact of the strategy?

Funding: What is the availability of funding? Include research and propose financial strategies that could facilitate City and community actions in fulfillment of this plan?



There is no power for
change greater than a
community discovering
what it cares about.

*Margaret J. Wheatley,
Writer,
Management Consultant*

Climate Action Plan Framework

This Climate Adaptation Plan includes an implementation framework designed to achieve community wide goals for climate adaptation and resilience. This CAP is organized around a unifying framework organized by sector as illustrated to the right. Each sector has overarching strategic goals and detailed Actions for implementation.

Strategies: are specific statements of direction that guide decisions about future public policy, community investment, and actions.

Actions: are detailed items that should be completed in order to carry out the vision and strategies identified in the plan.

Climate Adaptation: seeks to lower the risks posed by the impacts of climate change which are now inevitable or likely.



This sector area includes community health impacts and resilience in the face of current climate impacts and projected risks. Strategies in this sector focus on integrating climate change health and safety considerations in City operations and public communication.



This sector area includes extreme heat and weather events. Strategies in this sector focus community resilience to extreme heat and weather event impacts of climate change.



This sector area includes the environmental, climate resilience and benefits of urban tree canopy, ground cover, community greenspace and parks, and ecosystems that rely on these natural elements. Strategies in this sector include resilience/expansion of urban tree canopy coverage, improvement of beneficial use of lawn areas.



This sector area includes commercial and non-commercial food cultivation and distribution, and food and nutrition insecurity. Strategies in this sector area include reduction of food waste, food system and distribution resilience, strengthening of local food production capacity, and equitable access to healthy food.





Air Quality

This sector area includes air quality impacts from increasing air temperatures, changing weather patterns, and other effects of climate change. Strategies in this sector focus on community resilience to air quality impacts of climate change.



Flooding and Water Quality

This sector area includes potable water distributed to Faribault residents and businesses, stormwater collection, flood mitigation, and surface water health. Strategies in this sector focus on flood mitigation, and stormwater infiltration.



Micro Heat Island

This sector includes micro heat island effects of the built environment and the impacts they have on the experience of extreme heat events and increasing temperatures. Strategies in this sector focus on reduction of impervious surfaces.



Climate Economy

This sector includes the economic development, jobs, and business creation potential represented by the actions and goals of all sectors in this Climate Adaptation Plan. Strategies in this sector include workforce development, economic development and new business financing, and resilience of businesses in the community.



Adaptation Capacity

This sector area includes financial mechanisms, and systemic and organizational capacity to implement the actions and goals of all sectors in this Climate Adaptation Plan. Strategies in this sector focus on financing, resilience of social networks, education, engagement, and empowerment of the public.

“

You cannot get through a single day without having an impact on the world around you. What you do makes a difference, and you have to decide what kind of difference you want to make.

*Jane Goodall,
Anthropologist*

Introduction

Benefits of Climate Action

The strategies and actions contained in this plan seek to increase Faribault's resilience to climate impacts, prioritize sustainable uses of land and water, reduce waste, and support improved equity and livability. The CAP addresses next steps for Faribault to adequately respond to climate change. If implemented successfully the CAP will enhance Faribault's economic vitality, resilience, and viability as a healthy, livable city.

Types of Climate Action Benefits

The following outline the benefits climate action can provide a community in addition to addressing climate change:





Health and Safety

There is a strong relationship between human health and environmental health. From the air we breathe to the water we drink and use, life here on Earth depends on the natural resources and the environment around us. This link between the environment and human health is a critical consideration of the impacts of climate change. As outlined in the City's Climate Vulnerability Assessment, changes in climate such as higher average temperatures and increased storm frequency and intensity, can intensify public health stressors. These climate change impacts endanger public health and safety by affecting the air we breathe, the weather we experience, our food and water sources, and our interactions with the built and natural environments. As the climate continues to change, the risks to human health continue to grow. In the Midwest, climate change is expected to negatively affect human health in a variety of ways and exacerbate existing health challenges.

In the same way local governments and the health care industry promotes healthy behaviors such as eating right and exercising; agencies should recognize the relationship between climate action, environmental stewardship and community health since the health of our environment affects public health. The specific impacts of extreme weather and heat, flooding, and air quality are addressed in later sections. The focus of this section is addressing foundational community health and safety in the face of current and anticipated climate impacts.

Equity Considerations:

- Two critical components of climate vulnerability are pre-existing health status and living conditions—factors are frequently shaped by economics and the distribution of social policies and influence, meaning low-income communities and communities of color are disproportionately affected by the health impacts of climate change.
- Vulnerable populations are disproportionately represented within the vulnerable environments of our cities and frequently lack resources to improve the adaptive capacity of their surroundings.

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Likelihood of Climate Hazards for Faribault Populations

A “Climate Hazard” is a physical process or event (hydro-meteorological or oceanographic variables or phenomena) that can harm human health, livelihoods, or natural resources. Climate Hazards are reviewed based on current hazard level, anticipated change over time, and projected future hazard level.

The chart below reviews the current occurrence, potential future change, and timeline of change for each of the primary Climate Hazards for the city. In addition, the columns on the right illustrate the reported number of events, % change, and annualized economic impact of each of these hazards over the last 20 years. This review assists in determining the likelihood of each type of hazard.

Climate Hazard Type	Current hazard risk level	Expected change in intensity	Expected change in frequency	Timeframe	Number of Events 1999-2009 vs 2009-2019 (NOAA)	% Change	County Impacts over 20 year period
Extreme Heat	Low	Increase	Increase	Medium-term	0 events to 4 events	N/A	216 injuries
Extreme Cold	Moderate	Increase	Decrease	Medium-term	0 events to 8 events	N/A	2 deaths, 2 injuries
Extreme Precipitation	Moderate	Increase	Increase	Short-term	7 events to 7 events	0%	See Flood
Floods	Moderate	Increase	Increase	Short-term	9 events to 10 events	110%	\$5M
Droughts	Low	Increase	Increase	Medium-term	0 events to 0 events	N/A	N/A
Storms	Moderate	Increase	Increase	Short-term	74 events to 83 events	112%	\$26M
Forest/Wild Fires	Low	Not known	Not known	Not known	0 events to 0 events	N/A	N/A
Air Quality Impacts	Moderate	Increase	Increase	Long-term	N/A	N/A	N/A

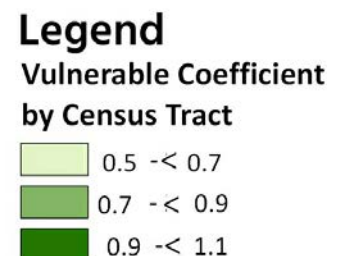
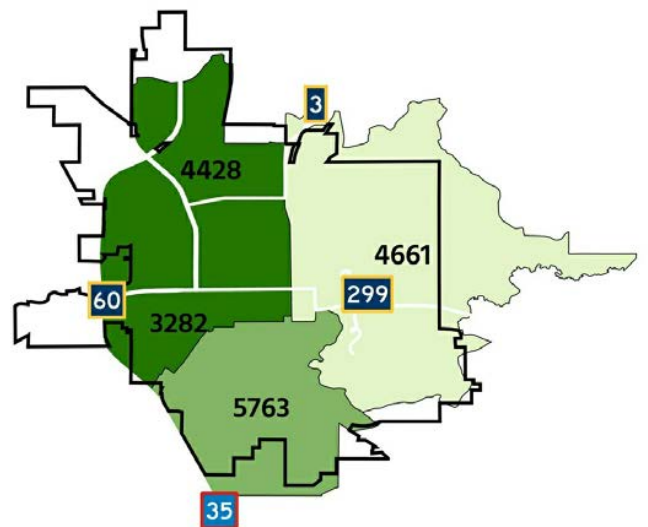
Mapping Vulnerable Populations

The map to the right provides a composite mapping of all vulnerable populations identified in the City’s Climate Vulnerability Assessment. The numbers represent the total estimated instances of vulnerability (a senior who is low income would represent two instances of vulnerability).

The Vulnerability Coefficient for each census tract is identified by color. This number represents the ratio of total instances of population vulnerabilities to the total population within the census tract. The intent of this Vulnerability Coefficient is to identify the proportion of instances of vulnerability within their populations.

Neighborhoods with high proportions of vulnerability are likely to have greater adaptation need than neighborhoods with low proportions of vulnerability. The census tracts can be ordered from fewest to greatest instances of population vulnerability to climate change hazards.

See the Faribault Climate Vulnerability Assessment for more information.



Sensitivity to Climate Hazards

Based on the total population count for each vulnerable population and considering the risks each demographic is most sensitive to, as determined in the City's Climate Vulnerability Assessment, the population vulnerabilities can be considered from highest sensitivity (more vulnerable individuals) to lowest (fewer vulnerable individuals) sensitivity for the City of Faribault.

Highest
Sensitivity



Lowest
Sensitivity

Climate Health Risks for Faribault Populations

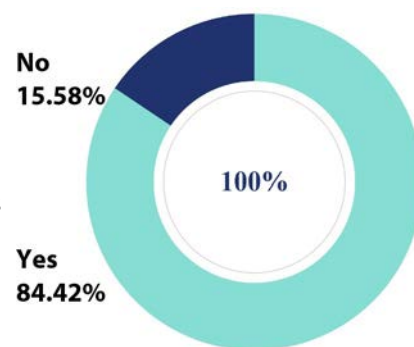
A "Climate Risk" is the potential for negative consequences and outcomes for human health, systems, or communities. The most common way of evaluating the level of risk associated is "likelihood of Occurrence" x "Impact Level" or vulnerability. The chart below reviews the expected impacts, likelihood of occurrence, impact level based on Population vulnerability reviewed in the Bloomington Climate Risk and Vulnerability Assessment, potential timeframe, and resulting overall risk level for Climate Risks to Population (Health Impacts).

Health Impacts	Expected Impact(s)	Likelihood of Occurrence	Impact Level (Population Vulnerability)	Timeframe	Risk (Likelihood x Impact)	Impact-related indicators
Extreme Heat	Increased demand for cooling; heat stress and emergency visits; heat related health impacts	Likely	High	Medium-term	Very High	Cooling Degree Days, days above 95
Flooding	damage to property; flood related health impacts; infrastructure impacts	Likely	Moderate	Medium-term	Moderate	Flood events, flash flood occurrences, wettest 5-day periods, number of heavy rain events, disaster declarations, change in NOAA storm
Drought	Damage to crop/tree/ecosystem, reduced drinking water source, increased flash flood potential due to decreased soil permeability	Possible	Low	Medium-term	Low	Consecutive days without rain, aquifer level, surface water condition, river flow
Air Quality Impacts	Increased particulate matter, increased ozone impacts, increased instances of asthma	Likely	High	Medium-term	High	Air quality index
Vector-Borne Diseases	Increased instances of Lyme disease, encephalitis, heart worm, malaria, Zika virus,	Likely	Moderate	Long-term	Moderate	Disease records
Nutrition Insecurity	Food price volatility/change, fluctuation in availability	Possible	High	Medium-term	High	Food price index, Foodshelf demand, % of school children qualifying for free and reduced lunch
Water Quantity/Quality Impacts	Water shortage, surface water quality impacts due to heat and stormwater runoff	Possible	Moderate	Long-term	Low	Aquifer health; Water quality test results
Water Borne Disease	Bacteria exposure at infected surface water locations, contamination of drinking water due to flood	Likely	High	Medium-term	High	flood events; algae blooms
Other	[please specify]	[Drop-Down]	[Drop-Down]	[Drop-Down]	[Drop-Down]	

Health and Safety

Climate Impacts Already Felt

Over **84%** of the individuals responding to the City of Faribault's 2020 Climate Adaptation Plan Community Input Survey reported being personally impacted by the effects of Climate Change. The most noted personal impacts observed were Increased Air Conditioning Use, Increased Contact with Ticks and Mosquitos, Tree Loss Due to Storm, Flooding, or Drought, Longer Allergy Season, and Flooding/Flood Damage.



Populations More Vulnerable to Impacts in This Sector

The following populations tend to be more vulnerable to the potential climate change impacts in this sector:



Addressing This Sector

This Climate Adaptation Plan is organized around a unifying framework organized by sector. Each sector has over-arching Strategies and detailed Actions. Strategies are specific strategic goal statements providing direction and guidance for decisions about future public policy, community investment, and planning. Detailed Actions are specific tasks to be implemented in order to achieve the strategic goals.

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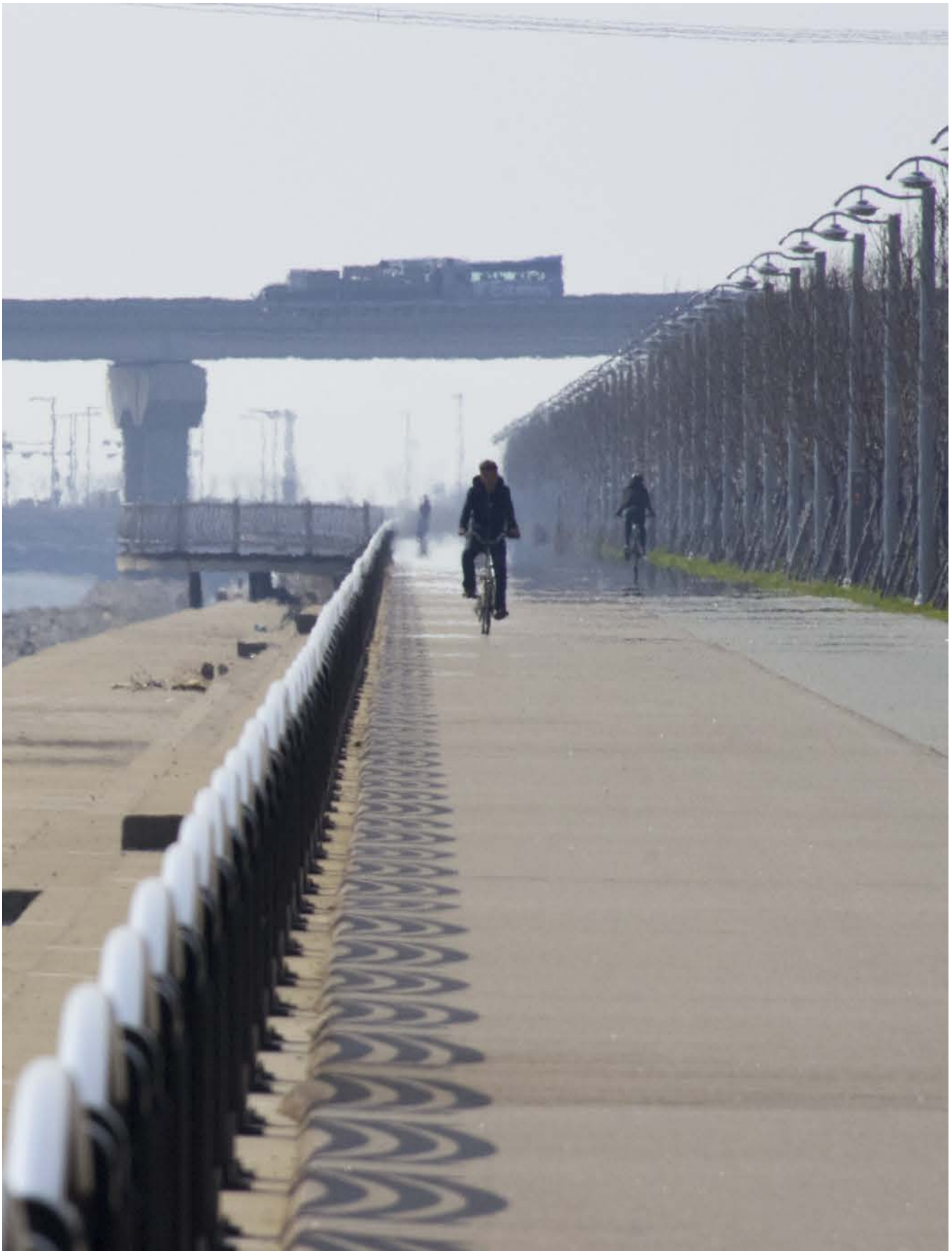
[Click here for sector action list](#) 



Initial Adaptation Actions

Below are the Strategies and the initial (Priority 1) detailed Actions addressing the needs of the **Health and Safety** section.

Strategy # Action #	Sector Strategy / Action	Priority
	Strategy HS-1: Include climate vulnerability in planning and communications to prepare community for anticipated climate change impacts.	
HS-1-1	Coordinate with community health improvement teams to incorporate climate change and Adaptation goals into the Community Health Improvement Plan and Health Impact Assessment	1
	Strategy HS-2: Plan for a potential increase in demand for mental health care.	
HS-2-1	Ensure the community has robust resources to address increases in violence and crime, particularly domestic violence, during periods of stress including emergencies and heat waves	1
	Strategy HS-3: Educate, engage, and empower the public on health and safety risks of climate change impacts.	
HS-3-1	Identify and promote resources to assist property owners to manage, prevent, and mitigate mold and fungus impacts.	1
HS-3-2	Increase household education about water quality and food storage risks resulting from power outages associated with increased extreme weather events	1





Extreme Heat and Weather

According to the EPA, major heat waves have been occurring more frequently across the Midwest for many decades. Extreme weather was happening before global warming began, however, there's general scientific agreement that global warming has contributed to a trend toward more intense extremes of heat and extreme weather events over the last decade and will continue to influence both in the future. Heat waves are longer and hotter than they used to be and some regions are suffering from catastrophic drought and wildfire impacts—even in areas which have not historically been effected by wildfire like Missouri. Heat stress is likely to increase in the future as a result of continued rises in temperatures and humidity in this region, resulting in more heat-related deaths and illnesses

Certain groups of people are more at risk of stress, health impacts, or death related to Extreme Weather events including heat stress, tornadoes, wind storms, lightning, wildfires, winter storms, hail storms, and cold waves. The risks related to extreme weather events include traumatic personal injury (tornadoes, storms), carbon monoxide poisoning (related to power outages), asthma exacerbations (wildfires, heat stress), hypothermia/ frostbite (cold waves, winter storms), and mental health impacts.

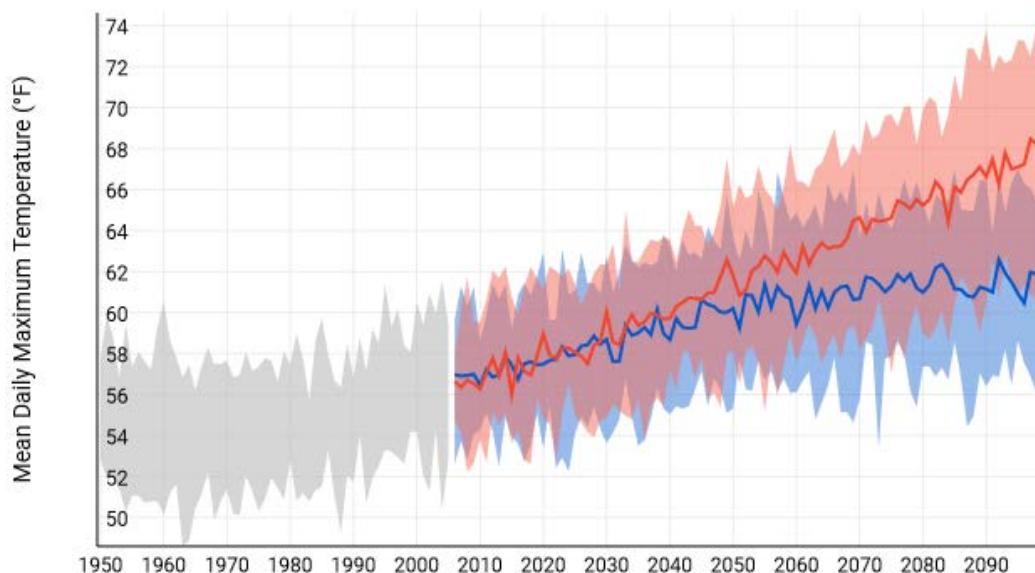
Equity Considerations:

- According to the US DOE, low income families in Faribault have an energy burden (percentage of income required to pay for energy needs) 3 to 5 times higher than average. Families with high housing or energy burden are required to spend higher portions of their income on their rent or energy needs, frequently leaving too little to cover other family expenses such as nutrition and appropriate medical care.
- Low income homeowners typically cannot afford needed investments to make their home resistant to extreme heat and weather while renters have little leverage to see to it that landlords make the needed weatherization improvements.

 [Click here to return to TOC](#)

Extreme Heat and Weather

Increasing Temperatures



The chart above shows observed average daily maximum temperatures for Rice County from 1950-2010, the range of projections for the historical period, and the range of projections for two possible futures through 2100. Maximum temperature serves as one measure of comfort and safety for people and for the health of plants and animals. When maximum temperature exceeds particular thresholds, people can become ill and transportation and energy infrastructure may be stressed.

Increasing Extreme Weather

Below are the number of extreme weather events reported by NOAA for Rice County between 1997 and 2017. Extreme weather events increased 33% over that 20 year period.

Storm Weather Events

Number of Events Reported In Rice County:

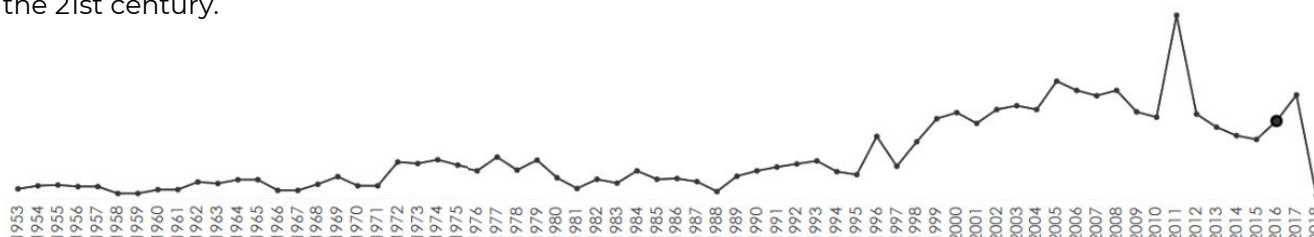
From June 1997 to June 2007: **86 events**

From June 2007 to June 2017: **114 events - an increase of 33%**

Average Annual Storm Weather Economic Damage 1997-2017: **\$34,101,000**
(source: NOAA National Centers for Environmental Information)

Disaster Declarations

Rice County has had 11 Federal disaster declarations since 1953. The graph above illustrates the history of all Federal disaster declarations in the state of Minnesota, with a clearly increasing trend into the 21st century.



Extreme Heat and Weather

Housing Burden and Extreme Heat and Weather Resilience

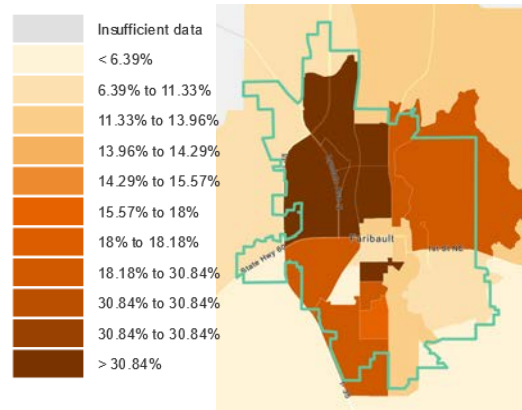
Households with cost housing burden (paying 30% or more of income for rent) can have a reduced capacity to respond to emergencies increasing that household's climate vulnerability. According to the US Census Bureau, Faribault has 3,165 renter occupied housing units total. Over 47.8% are households living with a housing cost burden of over 30% and of those nearly 58% (27.7% of all renter occupied households) are living with a housing costs totaling 50% or more of their income.

Faribault has a total of 7,150 owner occupied housing units. Of those households, 16.2% are living with housing cost burden of over 30% with over 1/3rd of those living with a housing costs totaling 50% or more of their income (5.6% of all homeowners). See maps to the right for the distribution of these households throughout the community.

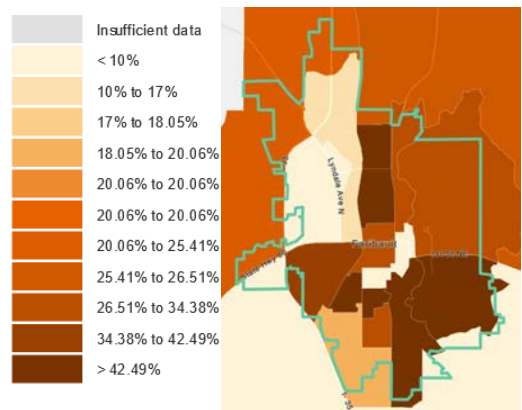
Energy Burden and Extreme Heat and Weather Resilience

"Energy Burden" is the percentage of household income that goes toward energy costs (electricity, home heating, and transportation). Individuals with lower incomes have a much higher likelihood of living under an energy burden—not only because the energy costs experienced by a lower income household must be paid for out of a smaller income, but also because lower income individuals frequently live in homes with higher energy costs due to older building age or lower levels of insulation and energy equipment efficiency. Those living under high energy burden and who are without ability to make the needed weatherization improvements (or leverage for landlords to do so) have an increased vulnerability to the effects of extreme heat and weather. See the chart below for the breakdown of energy burden levels by income level and rent vs owner occupied status.

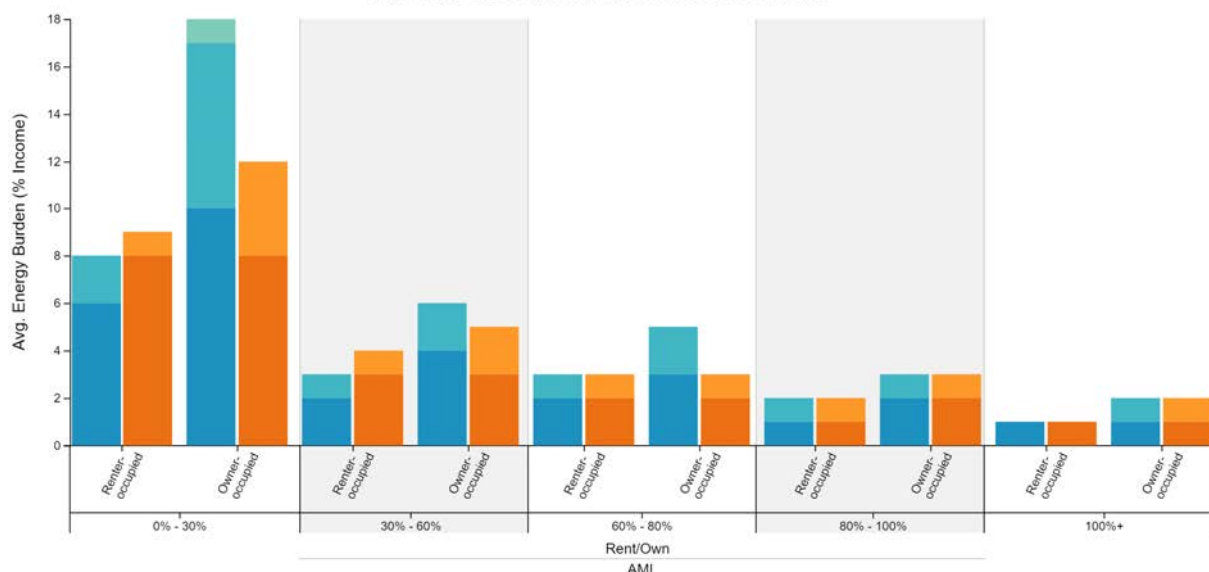
Faribault Renters: Paying 30%-49% of Income for Housing



Faribault Renters: Paying >50% of Income for Housing



Avg. Energy Burden (% Income) for Minnesota vs Faribault

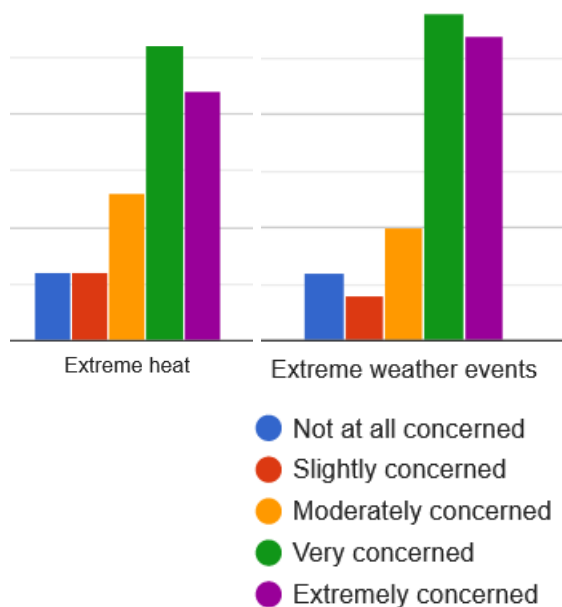


Extreme Heat and Weather

Community Concern

Over **84%** of the individuals responding to the City of Faribault's 2020 Climate Adaptation Plan Community Input Survey reported being moderately (18%), very (36%), or extremely concerned (30%) about potential extreme heat impacts of climate change.

Over **86%** of the individuals responding to the City of Faribault's 2020 Climate Adaptation Plan Community Input Survey reported being moderately (13%), very (38%), or extremely concerned (35%) about potential extreme weather event impacts of climate change.



Populations More Vulnerable to Impacts in This Sector

The following populations tend to be more vulnerable to the potential climate change impacts in this sector:



Addressing This Sector

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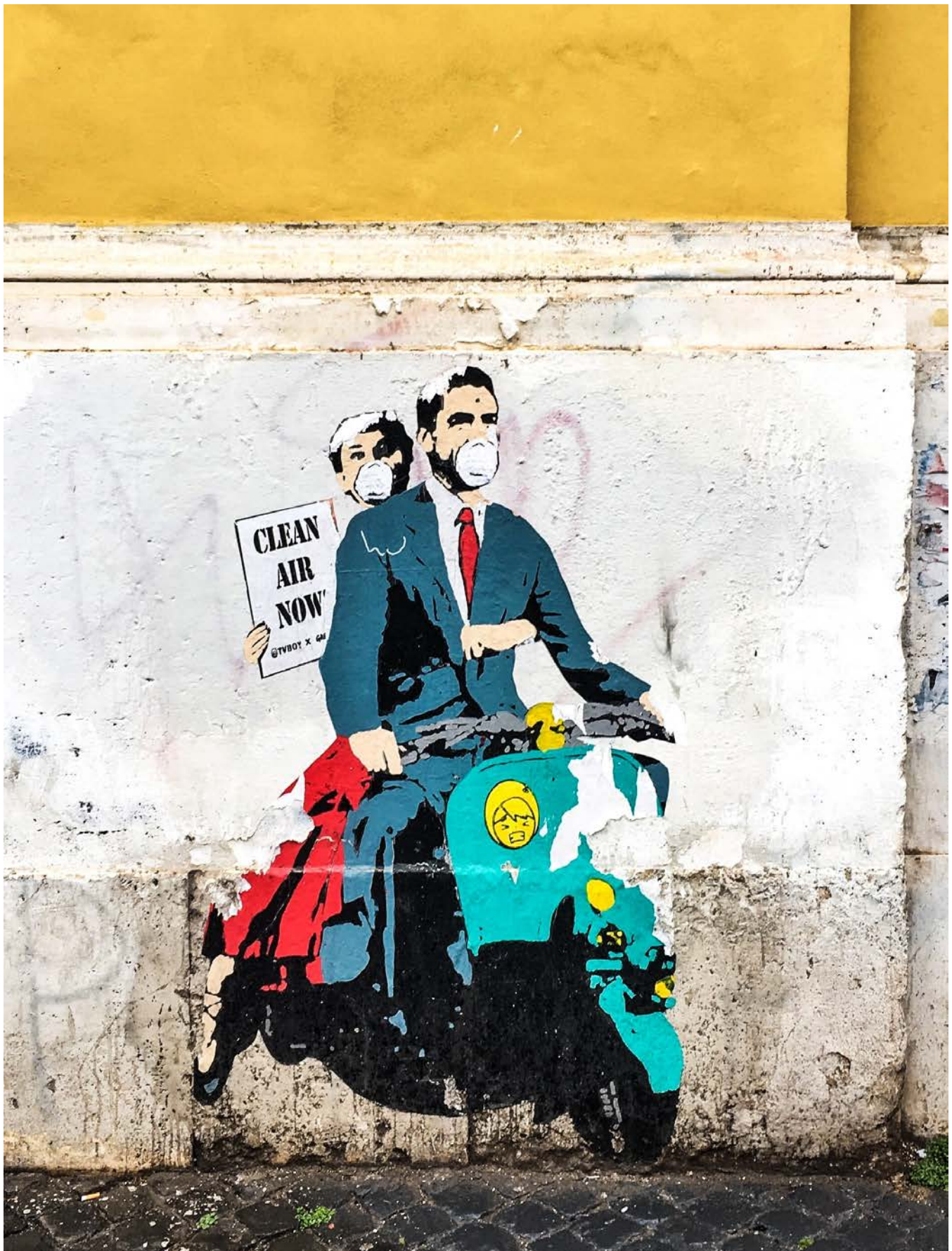


Extreme Heat and Weather

Initial Adaptation Actions

Below are the Strategies and the initial (Priority 1) detailed Actions addressing the needs of the **Extreme Heat and Weather** section.

Strategy # Action #	Sector Strategy / Action	Priority
	Strategy EHW-1: Proactively incorporate climate change impacts of extreme heat and weather in City Operations.	
EHW-1-1	Develop, test, train, and update emergency response plans that address hazards likely to become more frequent or intense as the climate changes, including flood and extreme heat. Plan for projected increases in weather-related emergencies, especially high-heat days, and the resulting potential for increased violence, mental illness, chemical dependency and addiction	1
EHW-1-2	Promote equity in hazard mitigation, and emergency response and recovery activities, and consider populations most vulnerable to weather-related emergencies in all plans and exercises, including evacuation routes, transportation for vulnerable population groups, shelter in place locations, back-up power operations, extended access to fuel/power sources and drinking water, etc	1
EHW-1-3	Update map of key infrastructure vulnerabilities, flood, and flash flood impact potential reflecting not just current but future projected climate impacts and precipitation levels.	1
EHW-1-4	Continue to ensure / review preparedness of public buildings to be used in different ways, both in lower-impact ways, such as seniors using the library to cool down during hot June days, and as safe-havens during acute emergencies.	1
	Strategy EHW-2: Address health impacts of extreme heat.	
EHW-2-1	Collect/Create and make available an Emergency Response Toolkit offering tips and suggestions for residents and businesses to increase their emergency preparedness	1
	Strategy EHW-3: Enhance resilience of community to extreme heat and weather.	
EHW-3-1	Identify local initiatives that may lower energy consumption, save money, reduce the generation of greenhouse gas emissions, preserve water supply, reduce municipal waste, or increase participation in recycling programs (Climate Mitigation Planning)	1
	Strategy EHW-4: Increase the resilience of natural systems.	
EHW-4-1	Keep natural resource areas, especially urban streams, cooler by increasing the width of vegetated areas along streams and wetlands and maintaining upland tree canopy (reference State's Wetland Buffer requirements)	1



Section 04

Air Quality

Changes in the climate affect the air we breathe both indoors and outdoors. The impacts to air quality are effected by pollution as well as allergens. Climate change effects temperatures, cloudiness, humidity, the frequency and intensity of precipitation, and wind patterns. Each of these, in turn, can impact air quality. Fine particle pollution can be elevated in weather conditions with high humidity, high pressure, strong overnight temperature inversions, or low wind speeds—all of which are impacted by climate change. In addition, climate change impacts can also lead to changes in naturally occurring emissions that effect air quality (for example, wildfires, wind-blown dust, and emissions from vegetation).

The atmospheric warming associated with climate change can also increase the formation of ground-level ozone—a pollutant that can trigger a variety of health problems, particularly for children, the elderly, and people of all ages who have lung diseases such as asthma. Ground level ozone forms when heat and sunlight trigger the reaction of nitrogen oxides and volatile organic compounds. These chemicals come from industrial plants, electric utilities, vehicle exhaust, and wildfire. Increasing temperatures, and increasing extreme heat days, accelerate the process of ground-level ozone formation.

Equity Considerations:

- The burden of air pollution is not evenly shared. Poorer people and some racial and ethnic groups are among those who often face higher exposure to pollutants and who may experience greater responses to such pollution.
- According to the Asthma and Allergy Foundation of America, studies indicate that poverty can play a major role in developing asthma and the ability to manage it, making low-income populations particularly susceptible to air quality impacts.

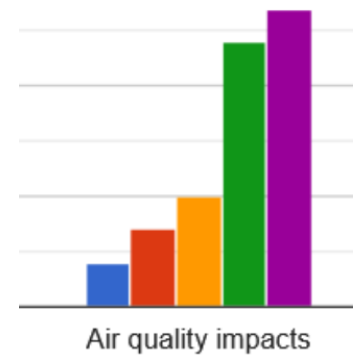
 [Click here to return to TOC](#)

Air Quality

Community Concern

Over **50%** of the individuals responding to the City of Faribault's 2020 Climate Adaptation Plan Community Input Survey reported having been effected by increases in asthma attacks, longer allergy seasons, or other health impacts due to air quality changes.

Over **84%** of the individuals responding reported being moderately (13%), very (33%), or extremely concerned (38%) about potential air quality impacts of climate change.

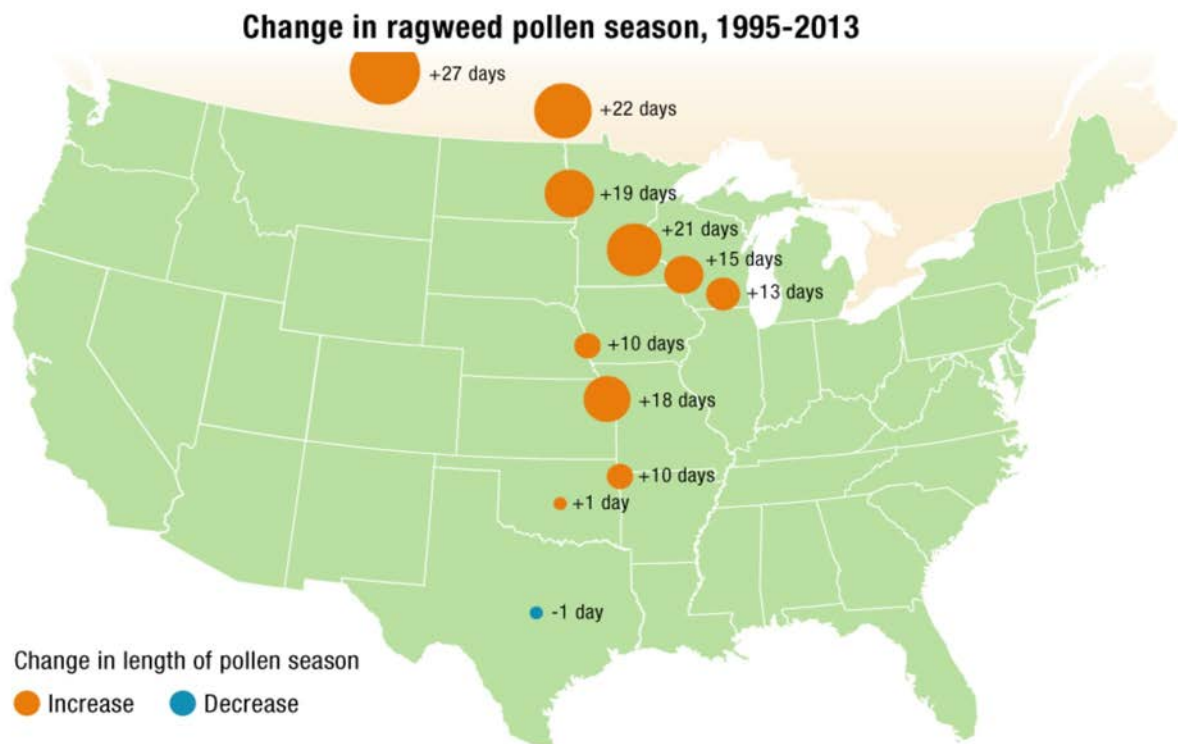


- Not at all concerned
- Slightly concerned
- Moderately concerned
- Very concerned
- Extremely concerned

Allergies

Climate change in Minnesota is causing shifts in seasonal weather patterns, increasing annual temperatures, decreasing snow cover, and an increasing growing season. These changes are affecting an increase in pollen quantity and duration of allergy impacts for individuals that is projected to continue and increase. Beyond inflammation and irritation associated with allergic reactions, some studies indicate pollen can affect the cardiovascular and pulmonary system.

(Graphic: Jaime Chrismar MPRnews.org)



Air Quality

Air Quality Alerts in Minnesota

There have been more than two dozen air quality alerts issued by the Minnesota Pollution Control Agency since 2015. More than half of the alerts were due to smoke caused by wildfires in the Western United States and Canada. This represents an increase of nearly 200% over the previous seven year period. In a 2015 report, the Minnesota Department of Health indicated that fine particulate air pollution like that from wildfires contributed to more than 2,000 deaths and 600 emergency room visits in 2008 alone.



Air pollution in Minneapolis caused from western wildfires, 2018 (Graphic: Evan Frost MPRnews.org)

Populations More Vulnerable to Impacts in This Sector

The following populations tend to be more vulnerable to the potential climate change impacts in this sector:



Addressing This Sector

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[Click here for sector action list](#) 

Initial Adaptation Actions

Below are the Strategies and the initial (Priority 1) detailed Actions addressing the needs of the **Air Quality** section.

Strategy # Action #	Sector Strategy / Action	Priority
	Strategy AQ-1: Increase and maintain air quality for residents and businesses.	
AQ-1-1	Enhance street scape plantings and tree canopies, especially in areas of high traffic volumes	1
	Strategy AQ-2: Reduce auto-generated particulate matter, tailpipe pollutants, waste heat, and ozone formation.	
AQ-2-1	Conduct a Public Transit and bike infrastructure study and establish appropriate community wide bike infrastructure (low).	1
AQ-2-2	Explore use of the EPA Midwest Clean Diesel Program resources to create enhanced City policies and ordinances. The Clean Diesel Program provides support for projects that protect human health and improve air quality by reducing harmful emissions from diesel engines. This program includes grants and rebates funded under the Diesel Emissions Reduction Act (DERA). https://www.epa.gov/cleandiesel/midwest-clean-diesel-initiative	1
AQ-2-3	Plan, design and maintain infrastructure to accommodate emerging autonomous vehicle technology and shared-ride economy strategies.	1
	Strategy AQ-3: Educate, engage, and empower the public on Air Quality and linkage with health.	
AQ-3-1	Communicate and promote MPCA Air quality alerts and tools such as Download MN Air mobile app and MPCA Twitter Air Quality forecasts and alerts.	1



Flooding and Water Quality

As the IPCC (Intergovernmental Panel on Climate Change) noted in its special report on extremes, it is increasingly clear that climate change “has detectably influenced” several of the water-related variables that contribute to floods, such as rainfall and snowmelt. In the Midwest, climate change exacerbates many of the factors that create significant flood conditions. For Minnesota, climate change has, and is projected to continue to bring heavier precipitation events as well as longer periods of time between rainfall events, creating dryer surfaces for those heavier rains to fall upon.

These climate change impacts significantly increase the threat of flooding in our communities. Flood danger includes over-bank flooding of rivers, ponds, and lakes that are over burdened with heavy precipitation or snowmelt runoff. In addition, the potential for heavier rainfalls on dryer surfaces also increases the risk of flash flooding which is caused by heavy rain events over a short period of time.

Flooding in Minnesota can be expected to increase in both regularity and severity. In 2015, researchers at the University of Iowa studied flooding since 1962 and determined that the number of floods has been trending upward significantly. According scientific study issued in 2019 by the University of Notre Dame, the severity of extreme hydrologic events, so-called 100-year floods, hitting watersheds in Minnesota and the Midwest will increase by as much as 30 percent by the end of the century.

Equity Considerations:

- According to the Iowa Flood Center report “Addressing Community Vulnerability and Building Flood Resilience”, members of communities most impacted by recurring flooding are more likely to live below the poverty level, experience unemployment, have a lower level of education, have a disability, speak English as a second language, lack vehicle access, have children, be elderly, identify as African American or Latino, or be the female head of a household.

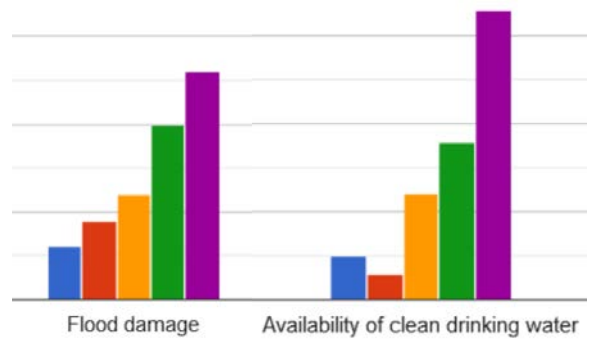
 [Click here to return to TOC](#)

Flooding and Water Quality

Community Concern

Over **40%** of the individuals responding to the City of Faribault's 2020 Climate Adaptation Plan Community Input Survey reported having been personally effected by recent flooding impacts.

Over **79%** of the individuals responding reported being moderately (17%), very (27%), or extremely concerned (35%) about potential flood damage exacerbated by climate change while almost **89%** are concerned about potential impacts on clean drinking water.



Annual Rainfall in Minnesota

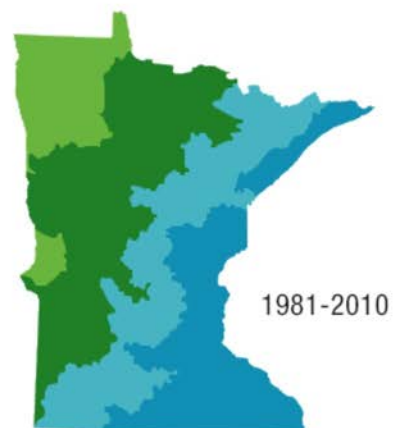
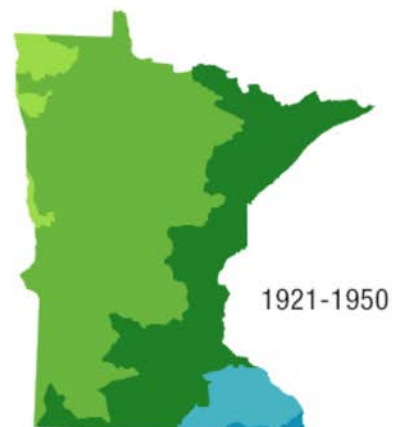
According to the State of Minnesota Climatology office, DNR and the National Climate Assessment, the majority of the State receives 5-15% more annual rainfall than a century ago, with annual totals increasing at an average rate of just over a quarter inch per decade statewide since 1895.

- Not at all concerned
- Slightly concerned
- Moderately concerned
- Very concerned
- Extremely concerned

Precipitation change in Minnesota

Average Annual Rainfall

- Less than 20 inches
- 21-25 inches
- 26-28 inches
- 29-30 inches
- Greater than 30 inches



Source: Adopted from Gupta, S.C., A.C. Kessler, and M.K. Brown. 2014. Data from Minnesota Department of Natural Resources, state climatology office.

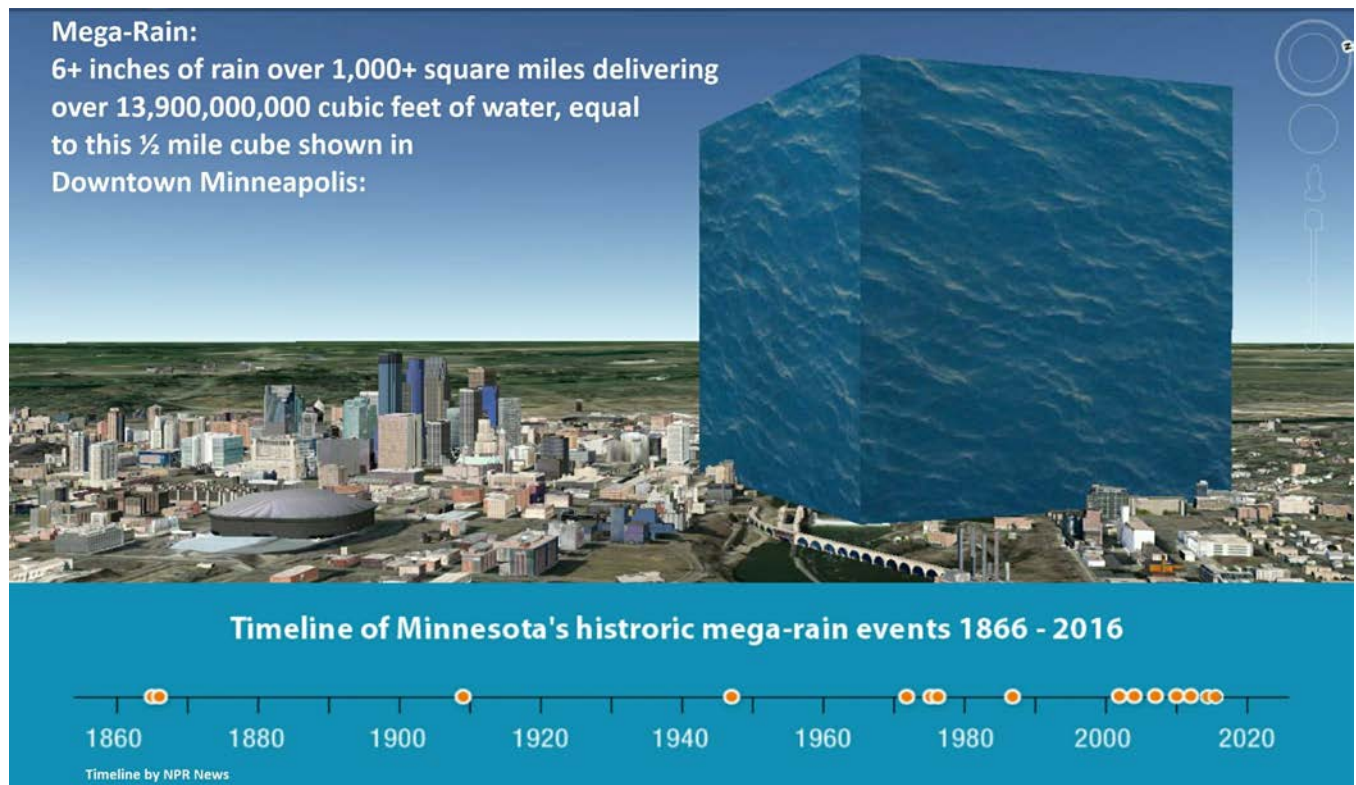
(Graphic: Jaime Chrismar MPRnews.org)



Flooding and Water Quality

Mega-Rain Events in Minnesota

Since 1860 Minnesota has had 15 “Mega-rain” events which deliver a minimum of 13.9 billion cubic feet of rainwater over a very short time. Seven of those storms have occurred since 2000.



Populations More Vulnerable to Impacts in This Sector

The following populations tend to be more vulnerable to the potential climate change impacts in this sector:



Children



Older



Individuals
With
Disabilities



Those in
Economic



People of



Individuals
W/out
Vehicle

Addressing This Sector

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[Click here for sector action list](#) 



Flooding and Water Quality

Initial Adaptation Actions

Below are the Strategies and the initial (Priority 1) detailed Actions addressing the needs of the **Flooding and Water Quality** section.

Strategy # Action #	Sector Strategy / Action	Priority
	Strategy FW-1: Strengthen emergency management capacity to respond to flood-related emergencies.	
FW-1-1	Build flood barriers to protect infrastructure, especially water and waste water infrastructure	1
FW-1-2	Identify key risk areas and the infrastructure that is at risk from flooding. Train and educate emergency responders about this risk	1
FW-1-3	Develop, test, train, and update emergency response plans that address hazards likely to become more frequent or intense as the climate changes, including flash flooding and unseasonal riverine flooding	1
	Strategy FW-2: Increase the resilience of the natural and built environment to more intense rain events and associated flooding.	
FW-2-1	Identify and address vulnerabilities in local infrastructure as a result of increased frequency and severity of storms and rainfall.	1
FW-2-2	Promote the development of rain gardens and bioswales among residents and businesses. Explore the potential of establishing incentives, cost share strategies, and expansion of voluntary programs promoting increased on-site storm water management such as rain gardens and impervious surfaces.	1
	Strategy FW-3: Improve stormwater management in response to projected climate impacts.	
FW-3-1	Improve stormwater management by creating a stormwater utility and encourage inter-agency cooperation to increase capacity to handle climate-related events	1





Micro Heat Island

Residents of cities and town centers are more at risk for heat-related illnesses than rural dwellers. The radiant heat trapped by impervious surfaces and buildings as well as heat generated by building mechanical systems, motorized equipment, and vehicles is known as the “Heat Island Effect”. In larger cities, heat island effects create a micro-climate throughout the metro area while occupants of smaller cities and towns can still experience higher temperatures and decreased air movement due to the effects of surrounding buildings and impervious surfaces in what is sometimes referred to as “Micro Heat Islands” which refers to urban hot spots such as poorly vegetated parking lots, non-reflective roofs and asphalt roads.

Both the heat island effect of larger cities and the micro heat islands of smaller cities (or portions of communities) serve to increase the impact of climate change effects in developed areas of all size populations, especially those with low or intermittent tree canopy coverage. A developed area's impervious surface characteristics, and tree canopy conditions combine to exacerbate or mitigate the community's heat island or micro heat island impacts.

Equity Considerations:

- According to the US EPA “A growing body of research points to “intra-urban” heat islands, or areas within a city that are hotter than others due to the uneven distribution of heat-absorbing buildings and pavements, and cooler spaces with trees and greenery. These differences can result from disparities in the way communities are planned, developed, and maintained”.

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Micro Heat Island

Faribault Impervious Surface and Heat Island

The level of the urban heat island effect of a region is largely driven by the amount of impervious surface. Based on a 2006 study done by Minnesota State University and the University of Minnesota, titled "Comparison of impervious surface area and normalized difference vegetation index as indicators of surface urban heat island effects in Landsat imagery", the relationship between impervious surface percentage of a City and the corresponding degree of heat island temperature increase can be understood as a ratio. The ratios vary slightly for each season. On average, a neighborhood or community's heat island effect will be 0.17 degrees F for every 1% of impervious surface area (roof tops, roadways, pavements, etc).

According to Minnesota DNR hydrology data, impervious surface in the City of Faribault likely averages 7.5-10%. Portions of the City, such as the downtown area, are certain to be much higher.

Below is a graphic showing the impervious surface calculations by hydrology catchment within Southeastern MN. Impervious coverage for the City of Faribault is estimated to average 7.5% to 10% which neighborhoods, like downtown, much higher. The chart to the right identifies the likely heat island effect for neighborhoods based on ranges of impervious surface land cover.

Impervious Surface Area

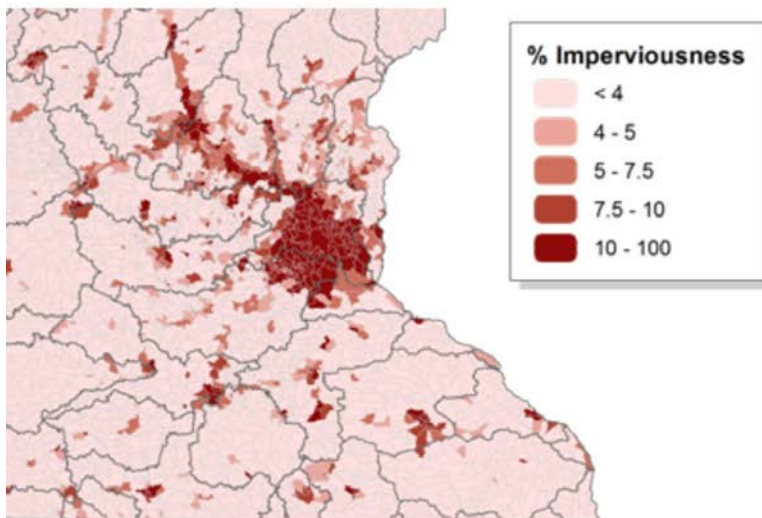
(University of Minnesota, 2002)

Total impervious area

State Wide: **1.88%**

Metro area: **13.7%**

Faribault: **7.5-10+%**



Heat Island Increase (degrees F)

Based on Impervious Land

Cover Percentage

4% impervious area: **0.7°F**

5% impervious area: **0.9°F**

7.5% impervious area: **1.3°F**

10% impervious area: **1.7°F**

15% impervious area: **2.6°F**

20% impervious area: **3.4°F**



Micro Heat Island

Populations More Vulnerable to Impacts in This Sector

The following populations tend to be more vulnerable to the potential climate change impacts in this sector:



Children



Older



Individuals
With
Disabilities



Those in
Economic



People of



At Risk



Individuals
W/out
Vehicle

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The Implementation Plan section of this report includes the full list of all detailed Actions (including Priority 1 initial actions and Priority 2 later stage actions) as well as an indication of the lead party responsible for the action and potential partners or advocates for each action.

[Click here for
sector action list](#) 

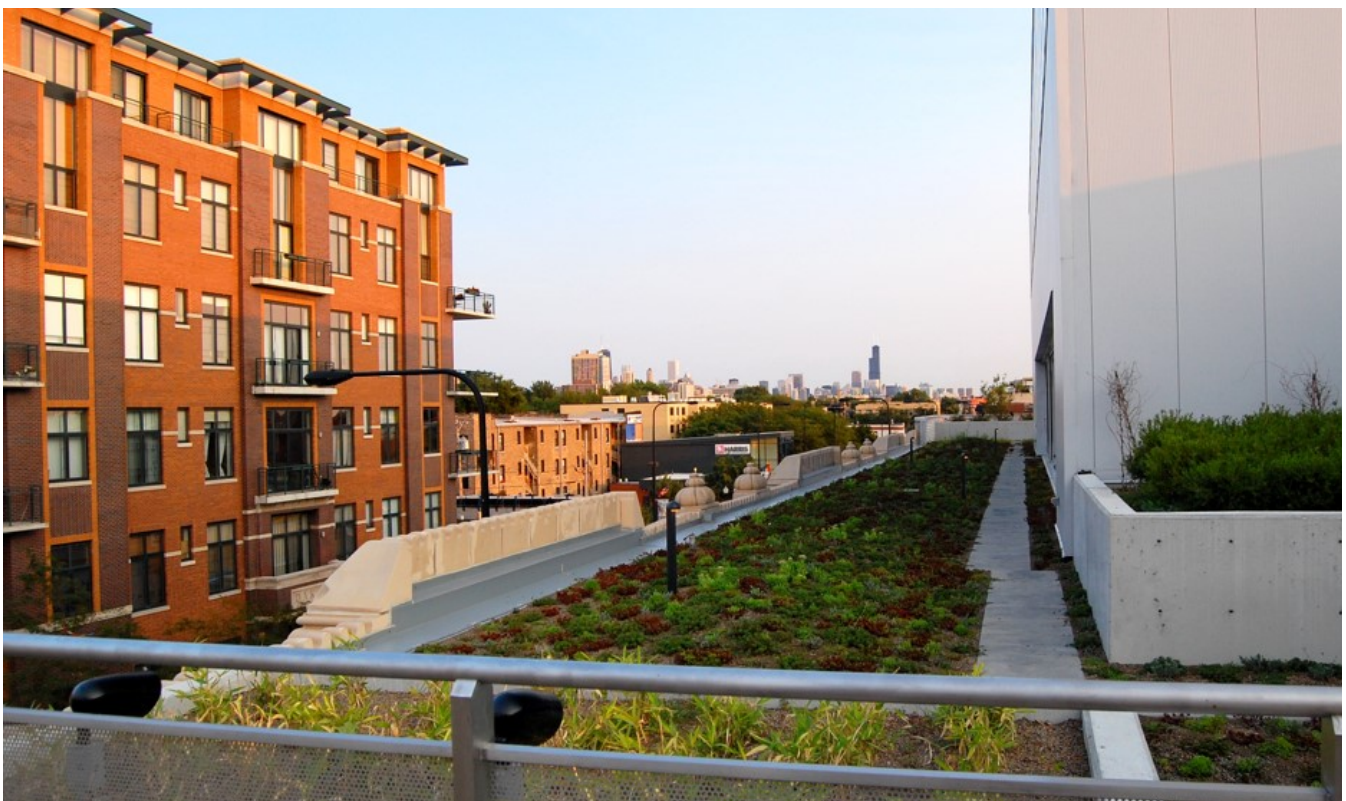


Photo of a Green Roof system—an example of an effective strategy to reduce impacts of impervious surfaces.



Micro Heat Island

Initial Adaptation Actions

Below are the Strategies and the initial (Priority 1) detailed Actions addressing the needs of the **Micro Heat Island** section.

Strategy # Action #	Sector Strategy / Action	Priority
	Strategy HI-1: Decrease Micro Heat Island impacts of pavement in City.	
HI-1-1	Explore reduction of parking requirement ratios in zoning ordinances and encourage use of "proof of parking" strategies to minimize initial parking construction.	1
HI-1-2	Develop a performance based ordinance requiring tree planting within parking lots. Ordinance should establish a specific goal of percentage of pavement to be shaded by trees	1
	Strategy HI-2: Manage ecosystems and landscapes to minimize climate-related health impacts.	
HI-2-1	Evaluate opportunities to plant additional trees near city facilities to reduce heat island.	1
	Strategy HI-3: Decrease impacts of micro heat island effect, especially in areas with populations most vulnerable to heat,	
HI-3-1	Consider building and development standards/policies/ordinances (applicable to public buildings, to PUDs, and to private-sector buildings which receive public funding/resources) to increase vegetative cover and increase the solar reflective quality of surfaces (mid-cost)	1
HI-3-2	Explore the development of a "Cool Roof", "Cool Building" and "Cool Pavement" pilot project to test and exhibit heat island mitigation strategies.	1





Greenspace and Ecosystem Health

Natural ecosystems in the Midwest are being altered by the effects of climate change. Ecosystems are typically most at risk when climate stressors, such as temperature increases, are combined with habitat loss, pollution, changes in nutrient inputs, and impacts of nonnative invasive species. Forests are threatened by more frequent droughts, wildfires, and insect outbreaks. Many tree species are expected to gradually shift their ranges northward. Invasive species are having increasing impacts as growing season length and average temperatures increase.

Studies have found that climate change impacts could result in a change to the composition of Minnesota's forest and urban tree canopy cover. Climate change impacts may also result in an overall decrease tree cover as native species struggle to adapt to new climate conditions. In particular, species that are found in Minnesota near the southern edge of their native range are likely to struggle under warming conditions.

Equity Considerations:

- As noted by the nonprofit American Forests "a map of tree cover in America's cities is too often a map of income and race." Low income and communities of color frequently live within neighborhoods with the lowest tree canopy coverage, resulting in the economic, heat island mitigation, and environmental benefits of our tree canopy being inequitably distributed.
- Low income communities and communities of color are frequently underserved by access to public greenspaces and parks when compared to more affluent neighborhoods.

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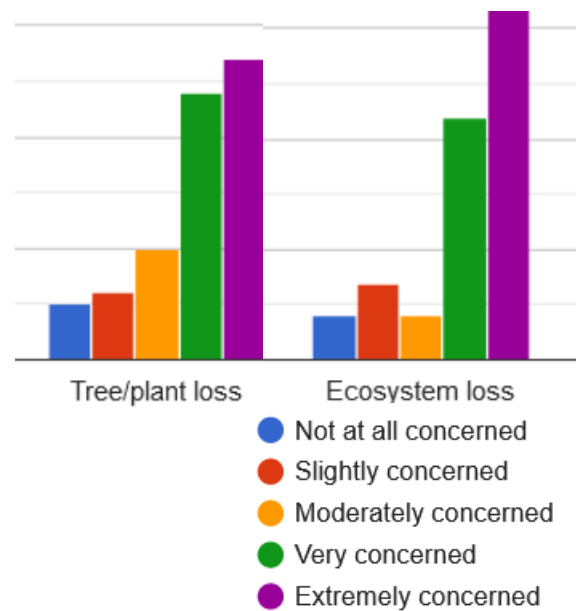


Greenspace and Ecosystem Health

Community Concern

Over **50%** of the individuals responding to the City of Faribault's 2020 Climate Adaptation Plan Community Input Survey reported being personally impacted by tree loss due to flooding, drought, or an extreme weather event.

Over **84%** of the individuals responding to the City of Faribault's 2020 Climate Adaptation Plan Community Input Survey reported being moderately (5%), very (31%), or extremely concerned (48%) about potential ecosystem and tree loss impacts of climate change.



Faribault Tree Canopy Coverage

Preliminary tree canopy coverage estimates for Faribault were created by Earth Define with a Digital Surface Model (DSM) from first returns of the LIDAR point cloud data and bare earth elevations were removed from the DSM to derive an above ground surface model. The existing tree canopy proportion reported is the aggregated tree canopy area divided by the total area of the city. The potential tree canopy is the proportion of vegetated land (excluding agriculture) that could be converted to tree canopy.

Tree Canopy	
	Existing Tree Canopy
Faribault:	29.9%
Twin City Metro:	26.9%





Greenspace and Ecosystem Health

Faribault Park Land and Accessibility

Studies show that high-quality parks provide a wide range of benefits to cities and their residents. Park space, and ready access to them, provide physical and mental health benefits by providing opportunities to be physically active and to interact with nature. Parks provide economic benefits by boosting business and helping to revitalize neighborhoods as well as community-building benefits by providing opportunities for neighbors to interact with each other and work together to improve their surroundings. The environmental benefits of park space includes removal of air pollution, cooling the air and combating heat island effects, improved water quality, and flood resilience.

The Trust for Public Land has established visionary goals for communities to benchmark themselves against, including percentage of City land dedicated to parks/open space, and achieving 100% of community residents within a 10 minute walk to a park (ParkScore 100%). Below is Faribault's ParkScore:

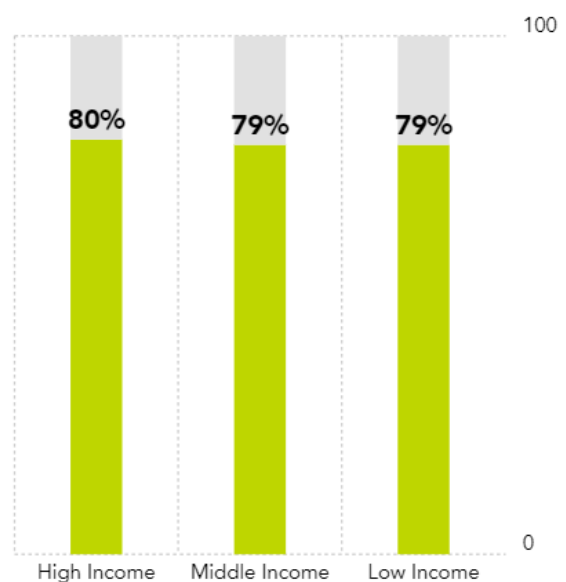
80% of residents live within a 10 minute walk of a park.



PERCENT OF RESIDENTS WITHIN A 10-MINUTE WALK OF A PARK BY AGE



PERCENT OF RESIDENTS WITHIN A 10-MINUTE WALK OF A PARK BY INCOME ①





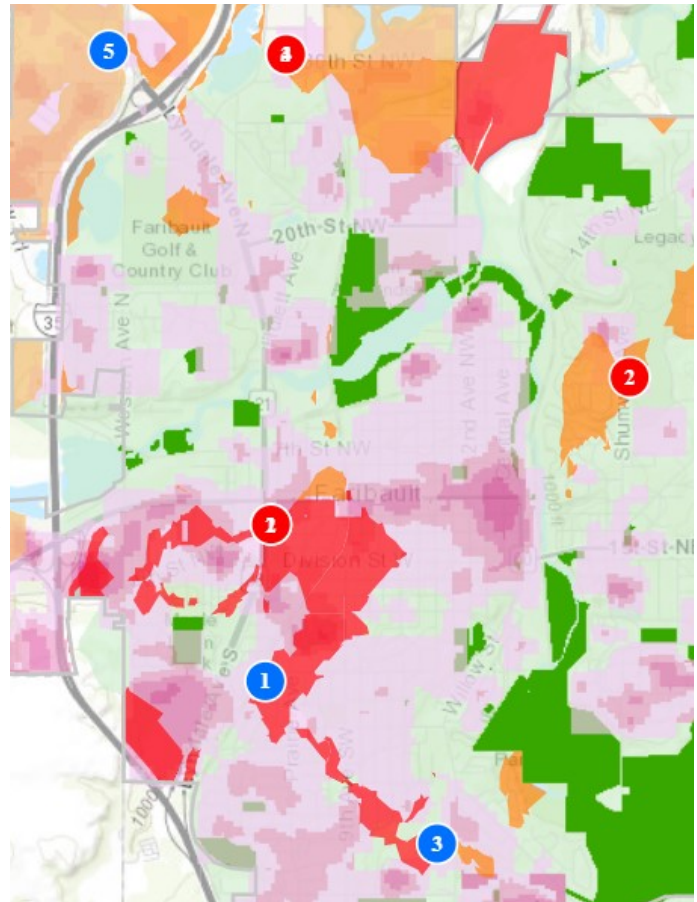
Greenspace and Ecosystem Health

Recommended Focus Areas for Additional Faribault Park Space, Weighted for Heat Island Impacts

Studies show that high-quality parks provide a wide range of benefits to cities and their residents. Park space, and ready access to them, provide physical and mental health benefits by providing opportunities to be physically active and to interact with nature. The environmental benefits of park space includes removal of air pollution, cooling the air and combating heat island effects, improved water quality, and flood resilience. The map to the right is generated by The Trust for Public Land and identifies recommended focus areas for improved Faribault park accessibility.

The numbered circles represent recommended locations for additional parkspace to serve individuals not currently within a 10 minute walk of park space.

The numbered red circles represent recommended park locations that should be prioritized for mitigation of heat island impacts.



Populations More Vulnerable to Impacts in This Sector

The following populations tend to be more vulnerable to the potential climate change impacts in this sector:



Children



Older



Individuals
With
Disabilities



Those in
Economic



People of



Individuals
W/out
Vehicle





Greenspace and Ecosystem Health

Addressing This Sector

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[Click here for sector action list](#) >

Initial Adaptation Actions

Below are the Strategies and the initial (Priority 1) detailed Actions addressing the needs of the **Greenspace and Ecosystem Health** section.

Strategy # Action #	Sector Strategy / Action	Priority
	Strategy G-1: Address Greenspace and Ecosystem Health sector goals in City planning, policies and ordinances.	
G-1-1	Create a tree preservation ordinance with reasonable exceptions that support the CAP tree canopy coverage and heat island mitigation goals. Ordinance should reflect projected climate changes and impacts on tree species.	1
G-1-2	Conduct an Urban Tree Canopy and Ground Cover study to determine the ground cover characteristics, benefit, and potential throughout the City on a census block group level. Study should include heat island impact study to identify areas of high heat island contribution and impact. Findings of tree coverage, benefits, heat island impacts, and opportunities should be overlapped with vulnerable population mapping from the City's Climate Vulnerability Assessment. Study to establish specific goals of tree canopy coverage, by census tract, for reduction of dark impervious surfaces, and target "Heat Island Coefficient". Study to identify specific citywide percentage coverage goals for forested and native planting ground cover. Study to priority areas for heat island mitigation based on need, potential, and impact on equity and vulnerable populations. Study should also evaluate opportunities to plant additional trees near city facilities to reduce heat island. Consider including an Urban Forestry Economic Potential review to explore the development of urban forestry programs and incentives capable of generating revenue to support climate adaptation plan actions http://palebluedot.llc/tree-canopy-assessments	1
G-1-3	Establish a City policy to replant tree loss, and Ash tree replacement for EAB management, at 110% or more of replacement with improved diversity	1
G-1-4	Review city ordinances on lawns, explore opportunities to encourage lawn alternatives, consider set-backs and signage areas for native installations.	1



Greenspace and Ecosystem Health

Initial Adaptation Actions (continued)

Strategy # Action #	Sector Strategy / Action	Priority
	Strategy G-2: Increase tree cover and diversity citywide.	
G-2-1	Continue to leverage budget by obtaining grants from sources like SWCD and MN DNR.	1
G-2-2	Create and promote an annual free street tree giveaway program in celebration of Earth Day. Explore local partners for sponsorship and promotional support. Explore the potential of including volunteer planting assistance, particularly for vulnerable populations and seniors.	1
	Strategy G-3: Reduce, repurpose, and reimagine lawn space citywide.	
G-3-1	Encourage appreciation of functional, productive use of yard space such as food production and wildlife habitat. i. Establish ordinances and policies allowing pollinator friendly and food friendly front yards and boulevards ii. Encourage a 'garden club' aimed at education for productive yard space iii. Leverage colleges to survey and certify residential wildlife habitats through a city recognition program	1
G-3-2	Transition maintenance of all city owned properties to Carbon Gardening practices including elimination of synthetic fertilizer and pesticide use, high mow deck settings, use of biochar amendments, and polyculture lawn mixture	1
	Strategy G-4: Utilize parks and marginal city property for greater community impact.	
G-4-1	Review access to city parks and playgrounds and diversity of amenities offered across the city. i. Consider use of vacant lots for small playgrounds and/or community gardens in coordination with Food sector CAP Goals ii. Connect hiking and biking trails throughout the city. Expand into marginal wooded areas throughout the city. iii. Bike racks at all parks, safe bike routes to all parks. iv. Expansion and diversification of community gardens.	1





Local Food and Agriculture

Climate change is expected to have many impacts on agriculture, forests, and other ecosystems in the Midwest. Midwestern agricultural lands make up two-thirds of the region's land area and produce 65% of the nation's corn and soybeans. Some climate-related impacts may provide short-term benefits for agriculture, but negative effects are also expected in this time frame. In the long-term, climate impacts are likely to have increasingly detrimental effects that increase variability in crop and agricultural production

Warmer temperatures, especially extreme heat, stress livestock animals and cause declines in meat, milk, and egg production. Diseases may increase as temperature and moisture conditions become more favorable for disease spread and range expansion. Additional expenses may also be incurred as the need to cool animal buildings increases.

Climate change can disrupt food availability, reduce access to food, and affect food quality. Projected increases in temperatures, changes in precipitation patterns, changes in extreme weather events, and reductions in water availability may all result in reduced agricultural productivity. Food prices are directly related to agricultural productivity, meaning that the ultimate impact of climate change on food systems will likely be to increase food prices, or introduce a higher variability in food costs.

Equity Considerations:

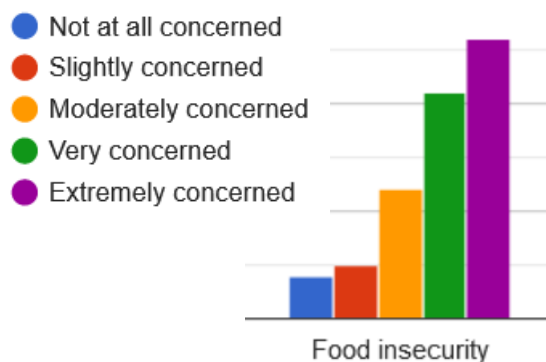
- According to a study by Policy Link, food insecurity disproportionately impacts communities of color. Nationally, only 8% of African Americans have a grocery store in their census tract.
- Food insecurity and a lack of access to healthy food and balanced nutrition affects the health and wellbeing of vulnerable low-income communities.

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Local Food and Agriculture

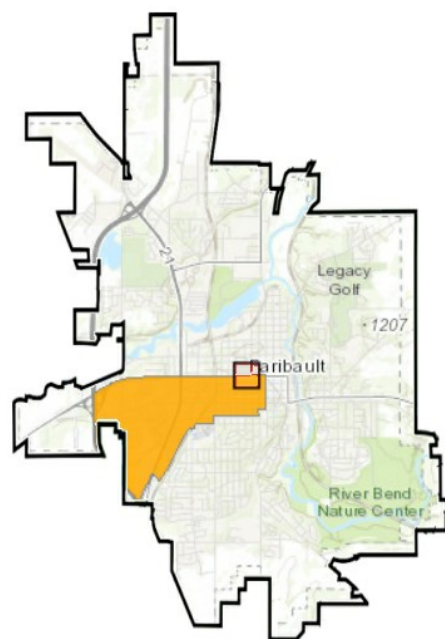
Community Concern

Over **86%** of the individuals responding to the City of Faribault's 2020 Climate Adaptation Plan Community Input Survey reported being moderately (18%), very (30%), or extremely concerned (38%) about potential food insecurity impacts of climate change.



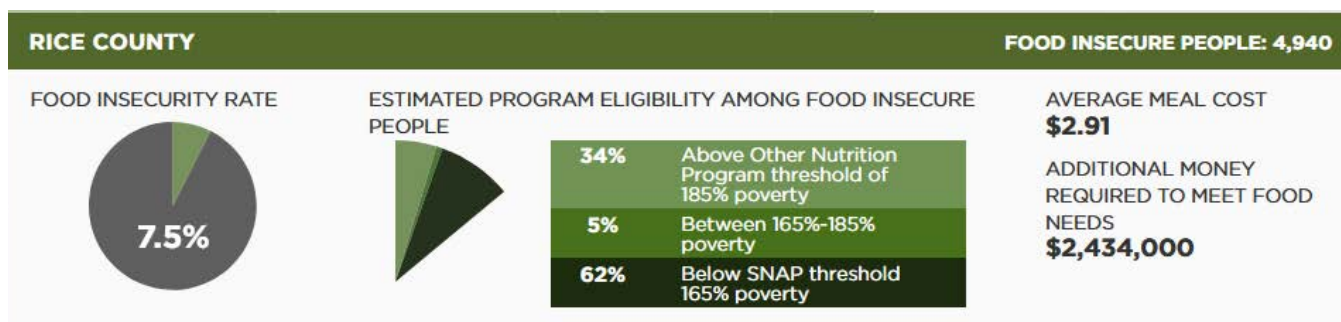
Food Access in Faribault

On the map to the right, highlighted sections represent low-income census tracts (tracts where 20% or more of the population is at or below poverty, or where family median incomes are 80% or less of State median) where a significant number (at least 500 people) or share (at least 33 percent) of residents are distant from the nearest supermarket. In sections which are green, residents are more than 1 mile (urban) or 10 miles (rural), while in orange sections residents are more than ½ mile (urban) or 10 miles (rural) from nearest supermarket.



Food Insecurity in Rice County

According to Feeding America's *Map the Meal Gap* project, Rice County has more than 4,900 food insecure individuals, over 1,800 are children. This represents a food insecurity rate of 7.5%



Local Food and Agriculture

Populations More Vulnerable to Impacts in This Sector

The following populations tend to be more vulnerable to the potential climate change impacts in this sector:



Children



Older



Those in
Economic



People of



Food
Insecure



Individuals
W/out
Vehicle

Addressing This Sector

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[Click here for
sector action list](#) 



Local Food and Agriculture

Initial Adaptation Actions

Below are the Strategies and the initial (Priority 1) detailed Actions addressing the needs of the **Local Food and Agriculture** section.

Strategy # Action #	Sector Strategy / Action	Priority
	Strategy F-1: Educate, engage, and empower the public on food linkage with climate and health.	
F-1-1	Develop and deliver educational materials for community members to establish a consumer base for local foods by developing the message and distributing it to the general public	1
	Strategy F-2: Integration of Local Food Considerations in City Plans.	
F-2-1	Allow community gardens on vacant land in all zoning districts except industrial to increase the availability of locally produced food for all residents	1
	Strategy F-3: Increase production of and demand for local food.	
F-3-1	Pass city policy to procure locally grown foods for events and other organized food catering at city-managed facilities. Coordinate with School District, County, and local hospitals to establish similar locally sourced foods procurement policies. Explore development of group purchasing and logistics agreements to increase efficiency of local farm-to-agency process. https://goodfoodpurchasing.org/	1
F-3-2	Add student farmed vegetable gardens located on the school grounds to the curriculum in the Public School district	1
	Strategy F-4: Increase food security for residents, especially those most vulnerable to food environment.	
F-4-1	Continue to provide enrollment assistance for participation in the Supplemental Nutrition Assistance Program (SNAP), the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) Program and other food assistance programs	1
F-4-2	Equitably promote educational opportunities for residents to gain skills in organic gardening, fruit production, food preservation and cooking and affordable, healthy eating	1





All told, the Midwest is one of the most economically productive regions of America. But climate change puts that productivity at risk. While this is an area accustomed to dramatic weather events, the extremes that are likely to come with climate change are on an entirely different scale for the region's businesses, communities, and overall economic health.

Climate change is anticipated to impact the Midwest through higher heat-related mortality, increased electricity demand and energy costs, and declines in labor productivity. Meanwhile, without significant adaptation on the part of Midwest farmers, the region's thriving agricultural sector is likely to suffer yield losses and economic damages as temperatures rise. In addition, potential changes in the intensity, form, and timing of precipitation in the region—including snowfall, rain, and evaporation off the Great Lakes and Mississippi River—will pose challenges for regional infrastructure managers, farmers, and businesses.

Addressing the climate mitigation and adaptation needs brought about by climate change represents a significant economic development potential. According to the United Nations International Labour Organization, most studies show that a transition to a low-carbon economy will lead to a net increase in employment. Jobs will be created in new emerging green sectors, such as renewable energies where the demand for goods and services is expanding. In addition, addressing energy efficiency and climate adaptation needs will increase demand on construction and renovation jobs – such as those required for residential and commercial building weatherization programs.

Equity Considerations:

- Low income workers and workers of color are frequently disproportionately effected by economic downturns that can be triggered by environmental or public health disasters.
- New job potentials of the “green economy” represent a great potential to improve overall employment and income equity.

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Climate Economy

Total Projected Economic Impacts Through 2100

According to research completed for “Estimating economic damage from climate change in the United States”, a 2017 study completed by Solomon Hsiang and others from the University of California at Berkeley the total annual economic impact for Rice County Minnesota by 2100 will be:

\$2,052,724 annually (2018 dollars)

Estimating the total annual economic impact for the City of Faribault on a Pro Rata share results in:
(See the Faribault Climate Vulnerability Study for more information)

\$718,453 annually (2018 dollars)

Climate Adaptation and Economic Development

Rather than weakening the economy, climate adaptation can support economic development. Transitioning away from fossil fuel use, weatherization and weather preparedness of our built environment, and growth of local food industries are all, in part, a transition to local energy and labor sources. These transitions represent opportunities for communities to reduce the community wealth that is being exported and increase the percentage of community wealth that remains in the community in the form of local jobs. In general, economic opportunities include:



Energy Efficiency Jobs

Increases in City-wide energy efficiency requires energy retrofits and renovations within existing building stock. This construction effort provides new opportunities for construction laborers, efficiency experts, and testing agents. The specialty niche also provides opportunities for new businesses to be created to address the demand. A study by the American Council for an Energy-Efficient Economy illustrated that a \$15 million investment in energy efficient City facilities, when compared against “business-as-usual”, would increase local employment by 45 jobs in year one and have on-going impacts creating up to 20 additional jobs annually for 20 years.

For the City of Faribault, a program increasing residential energy efficiency targeting households constructed before 1980 (similar to potential outlined in the Buildings and Energy section of this report) and achieving upgrades for 160 households annually could result in up to 8 jobs. Similarly, a program increasing commercial building energy efficiency combined with a program focusing on commercial building retrocommissioning and achieving a coverage of 1-2% of the commercial building stock annually could result in up to 12 jobs.



Renewable Energy Jobs

Renewable energy jobs have increased dramatically since 1980. Solar alone has increased employment by over 160% in the last ten years. Investments in renewable energy have significant local return - not only is the energy generated less expensive, for every dollar spent on renewable energy twice the number of people are employed over fossil fuels. What is more, expenditures on renewable energy promote the local economy - 40% of every dollar spent on solar can be kept in the local community rather than nearly 100% being spent out of state to import fossil fuel energy.



Economic Savings

Investments in energy efficiency, public transportation, renewable energy, and many other climate action strategies ultimately result in cost savings for community businesses and residents. These savings contribute to an increase in the quality of life for residents and will largely be spent within the community on goods and services, providing indirect and induced economic development potential for the City.



Populations More Vulnerable to Impacts and Opportunities in This Sector

The following populations tend to be more vulnerable to the potential climate change impacts, as well as most capable of benefiting from the opportunities in this sector:



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Initial Adaptation Actions

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Strategy # Action #	Sector Strategy / Action	Priority
	Strategy CE-1: Leverage the economic development opportunities of the Green Economy.	
CE-1-1	Promote Climate Economy / Green Economy workforce development in partnership with South Central College and other agencies, non-profit entities, and businesses.	1
	Strategy CE-2: Enhance community resilience through economic resilience.	
CE-2-1	Explore opportunities to broaden the City's economic base with diversification initiatives, such as targeting the development of emerging clusters or industries that (a) build on the region's unique assets and competitive strengths; and (b) provide stability during downturns that disproportionately impact any single cluster or industry	1
CE-2-2	Work with community businesses to explore the creation of an incentivized "buy local" campaign to enhance resilience of small local businesses.	1

Initial Adaptation Actions (continued)

Strategy # Action #	Sector Strategy / Action	Priority
	Strategy CE-3: Include Economic Resilience in Emergency Response Planning.	
CE-3-1	Make sure key business infrastructure is recognized in the City and County's general hazard mitigation plan and emergency response plan. Analyze how risks and hazards identified in the plan may impact the economic community. Conduct outreach to industry groups and public-private partnerships to promote private sector investment addressing them	1
CE-3-2	Explore use of geographic information systems (GIS) to link with municipal business licenses, tax information, and other business establishment data bases to track local and regional "churn" and available development sites as well as integrated hazard information to make rapid post-incident impact assessments.	1
	Strategy CE-4: Support workforce development supporting the transformation to a low-carbon economy.	
CE-4-1	Work with local partners to develop a community green jobs electronic bulletin board promoting local green job opportunities	1
CE-4-2	Engage with local green jobs training providers to coordinate strategic planning and encourage programs to develop local workforce capacity and assess, train, and place local residents to perform energy retrofits, solar pv installations, and other green improvements.	1
	Strategy CE-5: Establish sustainable funding sources supporting and advancing climate action strategies.	
CE-5-1	Establish a policy to capture savings from City Facility energy efficiency and renewable energy projects from all city departments. Performance-based rebate checks and operational savings are to be directed to a special Carbon Fund, with the funds being used to implement carbon-reducing projects that align with the Climate Adaptation Plan including Climate Economy actions.	1
CE-5-2	Dedicate all, or a portion, of the City's Utility Franchise Fee to a climate action and adaptation fund to fund projects which align with the City's Climate Action Plan. Alternatively, City could increase the Utility Franchise Fee and dedicate the increased value to the Climate Fund	1



Adaptation Capacity

Implementing a Climate Adaptation Plan requires capacity both internal to City government as well as external within the public. External capacity includes the social and technical skills of individuals, organizations and groups within the community to respond to and engage the environmental and socioeconomic changes at the core of a Climate Action Plan. External capacity is often established through education and engagement as well as support in establishing social networks supporting resilience. Internal capacity includes the staff support necessary for tracking and reporting progress, creating and executing an annual work plan, and establishing and growing collaborative relationships to support this important work.

Implementation of a Climate Action Plan should be supported by a variety of funding mechanisms and sources to be successful. Funds should be directed internally to support the city operations goals as well as toward the community in the form of communications, educational outreach, partnership development, and incentivization to spur action and change. Outside funds may also be identified to complement efforts of the city.

Equity Considerations:

- Climate action capacity is determined by a number of determinants including an individual or organization's assets, flexibility, and agency – or ability to impact change. Climate vulnerable populations are frequently vulnerable specifically due to one or more of these key determinants being missing.
- Individuals, organizations, and communities with a higher degree of adaptive capacity will suffer less harm from exposure to climate impacts and will recover more quickly than those with a lower degree of adaptive capacity.

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Adaptation Capacity

Addressing This Sector

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Initial Adaptation Actions

Below are the Strategies and the initial (Priority 1) detailed Actions addressing the needs of the **Adaptation Capacity** section.

Strategy # Action #	Sector Strategy / Action	Priority
	Strategy AC-1: Proactively incorporate climate change in	
AC-1-1	Incorporate climate projections (e.g. precipitation, temperature, flooding) in transportation, hazard mitigation, and development planning	1
	Strategy AC-2: Proactively support and encourage Climate Adaptation Action and preparedness among resi-	
AC-2-1	Identify a sustainable funding source for increased utility assistance for low-income residents, including support for energy efficiency projects, such as weatherization	1
AC-2-2	Develop a set of indicators to provide quantitative measures of the preparedness of the community, set goals in terms of these indicators, and report on them annually	1
	Strategy AC-3: Reduce barriers to participation in Climate Adaptation Action and preparedness.	
AC-3-1	Provide easy-to-understand materials to educate community members on the impacts and risks of climate change and the actions they can take to protect themselves, families, and businesses	1





Adaptation Actions and Implementation

The first few years after plan adoption are critical to its success. Establishing roles, both internal and external, and identifying funding will help establish the implementation phase of the plan and ensure the community is on track to achieve its goals. This plan includes robust goals for community sustainability and addressing climate resilience. This vision will require commitment and integration of the Climate Adaptation Plan into City operations, functions, and services.

Implementation is for Everyone

This Climate Adaptation Plan includes actions that require leadership and engagement from City Council, City departments and staff as well as the business community, households and individuals. While some actions will require City Council to amend policy there will be opportunities for businesses, organizations, households, and individuals to support the City Council policy changes and provide input on and feedback for those policies. Ultimately, achieving the visionary climate resilience goals outlined in this plan will require engagement and a sense of responsibility not only by the City of Faribault leadership and government, but by the community itself as well. It is critical for all to remain engaged and active, advancing and advocating for actions you feel are important.

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Adaptation Actions and Implementation

General Implementation Recommendations

The following are foundational recommendations to support the long-range implementation of the Climate Adaptation Plan:

Building Internal Capacity

Continuing to build internal capacity will be important to help establish the Climate Adaptation Plan as a priority integral to internal operations as well as fostering connections to community partners, businesses, and individuals through outreach, education, special projects, and service delivery.

We recommend careful consideration of appropriate staffing to support the implementation of this plan.

1. Establish clear guidance and direction for the participation in and support of the Sustainability Plan implementation actions by all City of Faribault departments.
2. Fund and support Sustainability and Climate Adaptation staffing required to:
 - Facilitate discussion among large users to reduce emissions through business and industrial strategies.
 - Participate in technical resource programs as they are available through County, State, Federal, and non-profit provider partners.
 - Support City of Faribault department managers and staff as they implement Climate Adaptation Plan actions within their service area or area of expertise.
 - Maintain the internal City Sustainability Team and empower the team to meet regularly and provide updates on progress and success of the Climate Adaptation Plan, identify additional support or resources needed to advance actions of the plan, and collaboratively discuss strategies for implementation challenges as they arise.
 - Ensure the maintenance of City of Faribault Environment/Sustainability webpage supporting Climate Adaptation Plan resources for the community.
 - Coordinate and organizing volunteer groups and events.
 - Engage city boards and commissions (e.g., Environmental Commission, etc.) to ensure the Climate Adaptation Plan is integrated into their work plans.
3. Consider executing a community wide GHG inventory on a regular basis (1-2 year cycle) to support monitoring of GHG emissions reduction progress.
4. Consider implementing a Greenhouse Gas Mitigation Planning effort to map climate mitigation strategies as a companion to this Climate Adaptation Plan.
5. Review Climate Adaptation Plan implementation progress and impacts on a regular basis (1-2 year cycle); adjust, add, and remove detailed Climate Adaptation Plan actions as appropriate based on implementation progress review.



Adaptation Actions and Implementation

Building and Maintaining External Support

City staff and elected officials will not be able to implement this plan without robust support from community members and coordination with jurisdictional, institutional, and organizational partners.

1. Establish the Environmental Commission as the main citizen-body to support the implementation of the Climate Adaptation Plan:
 - Form subcommittees that focus on particular areas of the Climate Adaptation Plan
 - Coordinate with City staff in all relevant departments to receive updates on City projects and progress.
2. Establish jurisdictional partnerships that advance Climate Adaptation Plan strategies to advance and accelerate action. This can include government entities like Rice County, the State of Minnesota, the Cannon River Watershed Management Organization, and Rice County Soil & Water Conservation District; utilities like Xcel Energy; institutions like South Central College; community groups; and neighboring communities.

Funding

Funding the implementation of the Climate Adaptation Plan may require reallocation/reconsideration of existing City funds, raising new City funds, or identifying outside resources and funding opportunities. Some funds will need to be dedicated toward long-term support like staffing, while other funding will be on a project-by-project basis.

1. Maintain a budget and identify funding sources for staff dedicated to the implementation of the Climate Adaptation Plan.
2. Identify a budget necessary to support projects on an annual basis as per the detailed actions outlined in the Climate Economy and Adaptation Capacity sections of the plan and climate actions.
3. Utilize no-cost technical assistance offerings as available.

Example Policies and Ordinances

The paleBLUEdot team has assembled example policies and ordinances supporting some of the strategies and actions included in the Faribault Climate Adaptation Plan. The examples can be found on the following webpage:



<https://palebluedot.illc/faribault-cap-policies>

Adaptation Actions and Implementation

Implementation Plan

The following is the full detailed list of detailed Climate Adaptation Actions and implementation details supporting the goals and strategies of each Climate Adaptation section.



Section 02 **Health and Safety**



Section 03 **Extreme Heat and Weather**



Section 04 **Air Quality**



Section 05 **Flooding and Water Quality**



Section 06 **Micro Heat Island**



Section 07 **Greenspace and Ecosystem Health**



Section 08 **Local Food and Agriculture**



Section 09 **Climate Economy**



Section 10 **Adaptation Capacity**



City of Faribault CAP Matrix			Implementation					
Search Strategies and Actions								
Strategy Action	Sector Strategy / Action	Priority	Primary Responsibility	Supporting Responsibility / Potential Partner or Advocate	Staff Responsible	Estimated Budget Need	Metric	Progress At Review
	Health and Safety							
	Strategy HS-1: Include climate vulnerability in planning and communications to prepare community for anticipated climate change impacts.							
HS-1- 1	Coordinate with community health improvement teams to incorporate climate change and Adaptation goals into the Community Health Improvement Plan and Health Impact Assessment	1	rice County Public health Department SHIP, =	MDH climate adaption team, health provider, health finders				
HS-1- 2	Update the City's emergency response plan and ensure that preparation and updates recognize and address likely climate change impacts	2	City and County emergency reponse plans already have covered this					
HS-1- 3	Build City staff capacity to support community-led, neighborhood-focused resilience actions (e.g., identifying best practices, establishing resilience hubs and implementing neighbor-based emergency response)	2	Rice County CERT Team, Fairibault Fire, Training individuals, community preparedness training,	Growing up healthy, trailer park community, Rice County Health PEHP Coordinator, Police Dept NNO, scattered site housing				
HS-1- 4	Strengthen emergency management capacity to prepare for and respond to the health and safety impacts of climate change. The City should prioritize capacity improvements such as training and equipment to address risks exacerbated by climate change. Emergency management should be equipped to address the possibility of multiple emergencies at the same time, such as the combination of extreme weather events with extreme heat, tree downage and power outage	2	City and County emergency management plans and communication, flash flooding mostly addressed					
HS-1- 5	Review and effectively communicate emergency and evacuation plans on a regular basis to update for climate change forecasted data, paying particular attention to flooding, extended heat waves and tornadoes	2	City and County emergency management plans and communication, flash flooding mostly addressed					
HS-1- 6	Develop a plan to respond to current and short-term growth and long-term potential growth in foreign and domestic refugees. Plan should be initiated with an assessment of community considerations which should be addressed/solved within the plan (economic, social, physical infrastructure, climate impacts, housing needs, etc). Plan creation should focus on appropriate community involvement and empowerment.	2	Lutheran Social Services, and 3 other groups,					

Strategy HS-2: Plan for a potential increase in demand for mental health care.							
HS-2- 1	Ensure the community has robust resources to address increases in violence and crime, particularly domestic violence, during periods of stress including emergencies and heat waves	1	HOPE Center, Rice County Chemical and Mental health coalition, Friendship House, Ruths House see above mental health resources	City and County Law Enforcement, South Central Mobile Crisis Unit			
HS-2- 2	Form a team to develop action plans to address climate-related mental health resilience at the individual, neighborhood and community level	2					
Strategy HS-3: Educate, engage, and empower the public on health and safety risks of climate change impacts.							
HS-3- 1	Identify and promote resources to assist property owners to manage, prevent, and mitigate mold and fungus impacts.	1	building department, rental housing inspector	Brad, communications coordinator			
HS-3- 2	Increase household education about water quality and food storage risks resulting from power outages associated with increased extreme weather events	1	City and County emergency response	Rice County CERT			
HS-3- 3	Work to develop tools and communication strategies to develop a culture of flexible and diverse outdoor recreation accessible to all City residents. Enable opportunities to increase the visibility of the program	2					

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	Extreme Heat and Weather							
	Strategy EHW-1: Proactively incorporate climate change impacts of extreme heat and weather in City Operations.							
EHW-1- 1	Develop, test, train, and update emergency response plans that address hazards likely to become more frequent or intense as the climate changes, including flood and extreme heat. Plan for projected increases in weather-related emergencies, especially high-heat days, and the resulting potential for increased violence, mental illness, chemical dependency and addiction	1	City of Faribault Emergency Management	Rice County Sheriff's Department				
EHW-1- 2	Promote equity in hazard mitigation, and emergency response and recovery activities, and consider populations most vulnerable to weather-related emergencies in all plans and exercises, including evacuation routes, transportation for vulnerable population groups, shelter in place locations, back-up power operations, extended access to fuel/power sources and drinking water, etc	1	City of Faribault Emergency Management	Rice County Sheriff's Department; Rice County Public Health				
EHW-1- 3	Update map of key infrastructure vulnerabilities, flood, and flash flood impact potential reflecting not just current but future projected climate impacts and precipitation levels.	1	City of Faribault GIS	Rice County GIS; Faribault Planning; Faribault Engineering				
EHW-1- 4	Continue to ensure / review preparedness of public buildings to be used in different ways, both in lower-impact ways, such as seniors using the library to cool down during hot June days, and as safe-havens during acute emergencies.	1	City of Faribault Fire Marshal; Rice County Public Health	City of Faribault Parks and Rec				
	Strategy EHW-2: Address health impacts of extreme heat.							
EHW-2- 1	Collect/Create and make available an Emergency Response Toolkit offering tips and suggestions for residents and businesses to increase their emergency preparedness	1	City of Faribault Emergency Management	Rice County Sheriff's Department; Rice County Public Health; Community Emergency Response Team (CERT);				
EHW-2- 2	Plant shade trees to limit the need for indoor cooling and reduce temperatures at parks, playgrounds, and other outdoor spaces	2	City of Faribault Parks and Rec	City of Faribault Environmental Commission; City of Faribault Planning and Zoning				

EHW-2- 3	Increase availability of cooling mechanisms in low-income housing and rental units (e.g., air conditioning units, fans, window screens). Explore partnerships and collaborations with other agencies, non-profit entities, and local businesses.	2	City Housing Agency, federal programs, each tenant needs to provide air conditioners	Growing up healthy, trailer park, CERTS Team, Community Action Center, energy star rebate, bulk purchasing				
Strategy EHW-3: Enhance resilience of community to extreme heat and weather.								
EHW-3- 1	Identify local initiatives that may lower energy consumption, save money, reduce the generation of greenhouse gas emissions, preserve water supply, reduce municipal waste, or increase participation in recycling programs (Climate Mitigation Planning)	1	City of Faribault Environmental Commission	Rice County Environmental Services; City of Faribault Public Works; Three Rivers Community Action Group	Dave Wanberg			
EHW-3- 2	Improve the energy efficiency of homes, apartments and commercial buildings to keep interiors cool, improving the comfort and safety of occupants and reducing the need for summer air conditioning.	2	Utilities (Xcel Energy); City of Faribault Building Inspection	Rice County Public Health; County DHS; Rice County Housing Department; Three Rivers Community Action Group				
EHW-3- 3	Emphasize steps individuals can take to improve emergency preparedness. Increase awareness of City and other alert systems	2	City of Faribault Fire Department, Police Department, Rice County Sheriffs Office	Rice County Public Health				
EHW-3- 4	Explore requiring the planting of shade trees (focus on solar friendly tree species like dwarf and locaitons to maintain solar access) on the south and west facings sides of new residential and commercial development	2	City of Faribault Environmental Commission; City of Faribault Planning and Zoning	Rice County Soil and Water; 4H				
EHW-3- 5	Ensure that facilities that serve vulnerable populations are resilient to climate hazards. Develop model procedures for ensuring both City and non-City facilities employ best practices in the event of an emergency such as flooding, power outages, extreme heat, etc	2	City of Faribault Emergency Management	Rice County Sheriff's Department; City and County Housing Authorities				
Strategy EHW-4: Increase the resilience of natural systems.								
EHW-4- 1	Keep natural resource areas, especially urban streams, cooler by increasing the width of vegetated areas along streams and wetlands and maintaining upland tree canopy (reference State's Wetland Buffer requirements)	1	City of Faribault Environmental Commission	Cannon River Watershed Partnership (CRWP); Rice County Soil and Water; City of Faribault Public Works/Engineering				
EHW-4- 2	Provide education around vegetation management of trees and how proper management can reduce storm-related power outages	2	Steele Waseca Electric Cooperative; Xcel Energy	City of Faribault Parks and Rec; Faribault GROWS; Rice County Soil and Water; 4H				

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	Air Quality							
	Strategy AQ-1: Increase and maintain air quality for residents and businesses.							
AQ-1- 1	Enhance street scape plantings and tree canopies, especially in areas of high traffic volumes	1	Parks Director	Public Works Director, City Engineer, City Planner	Parks Director	Moderate		
AQ-1- 2	Establish a Green Cost Share program to incentivize innovative green solutions that reduce pollution in the city and as a result create a healthier place to live. Program to offer funds for green business practices that focus on air quality improvement by reducing VOC emissions, particulate matter emissions, or other harmful Hazardous Air Pollutants.	2	Community and Economic Development	EDA,	CED Director	Moderate		
	Strategy AQ-2: Reduce auto-generated particulate matter, tailpipe pollutants, waste heat, and ozone formation.							
AQ-2- 1	Conduct a Public Transit and bike infrastructure study and establish appropriate community wide bike infrastructure (low).	1	City Engineer	Public Works Director, Rice County Highway Department, Rice County SHIP	City Engineer	Minimal to Moderate		
AQ-2- 2	Explore use of the EPA Midwest Clean Diesel Program resources to create enhanced City policies and ordinances. The Clean Diesel Program provides support for projects that protect human health and improve air quality by reducing harmful emissions from diesel engines. This program includes grants and rebates funded under the Diesel Emissions Reduction Act (DERA). https://www.epa.gov/cleandiesel/midwest-clean-diesel-initiative	1	Public Works Director	City Engineer	Public Works Director	Moderate		
AQ-2- 3	Plan, design and maintain infrastructure to accommodate emerging autonomous vehicle technology and shared-ride economy strategies.	1	City Engineer	Public Works Director, City Planner	City Engineer	Moderate to Extensive		
AQ-2- 4	Install roadside vegetation that creates effective barriers to prevent drifting of air pollutants to adjacent schools and residences. (medium) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6060415/	2	Public Works Director	MnDOT, Rice County Highway Department, City Engineer, Parks Director, School Administrators	Public Works Director	Moderate		

AQ-2- 5	Develop and implement an Electric Vehicle "EV Ready" strategy plan City-Wide as well as for City operations that includes solar powered EV charging and EVs for city fleets (low)	2	Faribault Community and Economic Development	Public Works Director, City Engineer	City Planner	Minimal to Moderate		
AQ-2- 6	Add bike racks around neighborhood businesses and community gathering places to reduce vehicle exhaust from driving and idling. (medium)	2	City Engineer	City Planner, Public Works Director, Parks Director, Rice County SHIP	City Engineer	Minimal to Moderate		
AQ-2- 7	Reduce generation of waste heat from mobile sources by promoting and incentivizing public transit, biking and walking. (low-mid cost)	2	Faribault Community and Economic Development	Rice County SHIP, Parks Director, City Engineer, Public Works Director, Three Rivers	City Planner	Minimal to Moderate		
Strategy AQ-3: Educate, engage, and empower the public on Air Quality and linkage with health.								
AQ-3- 1	Communicate and promote MPCA Air quality alerts and tools such as Download MN Air mobile app and MPCA Twitter Air Quality forecasts and alerts.	1	City Fire Chief	Rice County Health Department	City Fire Chief	Minimal		
AQ-3- 2	Educate public and public health professionals about health risks posed by climate change, including potential changes in air quality and impacts on mental health	2	Rice County Health Department	Rice County Social Service, City Fire Department	Director of Rice County Health	Minimal		
AQ-3- 3	Develop educational materials on the relationship between nitrogen fertilizers, nitrogen monoxide emissions, and ground level ozone formation. Include strategies for minimizing and eliminating ground level ozone creation such as modified fertilizer management strategies and use of slow release fertilizers. Share and promote materials with regional farmers and agriculture associations. https://www.nature.com/articles/news050718-15 https://www.ucdavis.edu/news/smog-forming-soils/	2	Rice County Soil and Water Conservation District	City Engineer, Public Works Director, Fire Chief, CRWP, Rice County Environmental Services, Ag Extension	Rice County Soil and Water	Moderate		

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Search Strategies and Actions								
Strategy / Action	Sector Strategy / Action	Priority	Primary Responsibility	Supporting Responsibility / Potential Partner or Advocate	Staff Responsible	Estimated Budget Need	Metric	Progress At Review
	Flooding and Water Quality							
	Strategy FW-1: Strengthen emergency management capacity to respond to flood-related emergencies.							
FW-1- 1	Build flood barriers to protect infrastructure, especially water and waste water infrastructure	1	City of Faribault Public Works	City of Faribault Engineering				
FW-1- 2	Identify key risk areas and the infrastructure that is at risk from flooding. Train and educate emergency responders about this risk	1	City of Fariabault Emergency Management	City and County Emergency Responders; City of Faribault Public Works; City of Faribault Engineering				
FW-1- 3	Develop, test, train, and update emergency response plans that address hazards likely to become more frequent or intense as the climate changes, including flash flooding and unseasonal riverine flooding	1	City of Faribault Emergency Manager; Rice County Emergency Management					
FW-1- 4	Incorporate trees and vegetation into complete street design	2	City of Faribault Planning and Zoning	City of Faribault Engineering; City of Faribault Public Works				
FW-1- 5	Work with FEMA to update flood zone maps. Update watershed management plans with current understanding of climate change related weather patterns to identify properties vulnerable to flooding and help prepare property owners to implement adaptation actions	2	Rice County Environmental Services; Rice County Soil and Water	City of Faribault Engineering; Cannon River Watershed Partnership				
	Strategy FW-2: Increase the resilience of the natural and built environment to more intense rain events and associated flooding.							
FW-2- 1	Identify and address vulnerabilities in local infrastructure as a result of increased frequency and severity of storms and rainfall.	1	City of Faribault Engineering	City of Faribault Public Works				
FW-2- 2	Promote the development of rain gardens and bioswales among residents and businesses. Explore the potential of establishing incentives, cost share strategies, and expansion of voluntary programs promoting increased on-site storm water management such as rain gardens and impervious surfaces.	1	City of Faribault Environmental Commission	Cannon River Watershed Partnership; Rice County Soil and Water				

FW-2- 3	Prioritize the development of “green infrastructure” such as parks, wetlands, riparian and wildlife corridors, natural drainage-ways, and low-impact development. Research green infrastructure implementation and long-term viability in local environment	2	City of Faribault Community Development	Rice County Soil and Water; Rice County Environmental Services			
FW-2- 4	Review city codes, drainage rules, and surface waterways to evaluate their ability to protect and improve stream flows, seeps, springs, wetland function, water quality including temperature, vegetation and habitat, and stormwater management during periods of extreme heavy rain. Use the Natural Resource Inventory and other data to track gains and losses, and propose revisions as necessary	2	City of Faribault Engineering	City of Faribault Planning and Zoning; City of Faribault Environmental Commission			
Strategy FW-3: Improve stormwater management in response to projected climate impacts.							
FW-3- 1	Improve stormwater management by creating a stormwater utility and encourage inter-agency cooperation to increase capacity to handle climate-related events	1	City of Faribault Engineering	Cannon River Watershed Partnership; Rice County Soil and Water			
FW-3- 2	Improve stormwater management based on projected climate impacts to reduce flooding and promote better water quality.	2	City of Faribault Engineering;	Cannon River Watershed Partnership; Rice County Environmental Services; Rice County Soil and Water			
FW-3- 3	Monitor chemical snow and ice management treatments and update regulations as needed to respond to changing ice, freeze/thaw, and rain events in a way that supports a healthy watershed	2	City of Faribault Public Works Department	Rice County Public Works Department; State of Minnesota DOT			
FW-3- 4	Explore on-site stormwater runoff reduction requirements for all new development and redevelopment projects that disturb 5,000 square feet of land or more	2	City of Faribault Engineering;	City of Faribault Planning and Zoning; City of Faribault Environmental Commission			

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	Micro Heat Island							
	Strategy HI-1: Decrease Micro Heat Island impacts of pavement in City.							
HI-1- 1	Explore reduction of parking requirement ratios in zoning ordinances and encourage use of “proof of parking” strategies to minimize initial parking construction.	1	City Planner	Development Review Committee, Planning Commission, Council	City Planner	Minimal		
HI-1- 2	Develop a performance based ordinance requiring tree planting within parking lots. Ordinance should establish a specific goal of percentage of pavement to be shaded by trees	1	Community and Economic Development	Development Review Committee, Planning Commission, Council	City Planner	Minimal		
HI-1- 3	Explore promotion of use of modular suspended pavement system concepts for parking and street scape tree locations for promotion of stronger and larger tree growth. http://www.deeproot.com/products/silva-cell.html	2	Engineering/Public Works		City Engineer	Expensive		
	Strategy HI-2: Manage ecosystems and landscapes to minimize climate-related health impacts.							
HI-2- 1	Evaluate opportunities to plant additional trees near city facilities to reduce heat island.	1	Parks Director	Public Works Director, Environmental Commission	Parks Director	Minimal		
HI-2- 2	Promote the expansion of tree canopy in urban heat islands or areas that need air conditioning such as schools	2	Community and Economic Development	Buildings and Grounds Superintendents,	City Planner	Minimal		
	Strategy HI-3: Decrease impacts of micro heat island effect, especially in areas with populations most vulnerable to heat,							

HI-3- 1	Consider building and development standards/policies/ordinances (applicable to public buildings, to PUDs, and to private-sector buildings which receive public funding/resources) to increase vegetative cover and increase the solar reflective quality of surfaces (mid-cost)	1	Community and Economic Development	Development Review Committee, Planning Commission, Council	City Planner	Minimal		
HI-3- 2	Explore the development of a "Cool Roof", "Cool Building" and "Cool Pavement" pilot project to test and exhibit heat island mitigation strategies.	1	Community and Economic Development	Development Review Committee, Planning Commission, Council	City Planner	Minimal		
HI-3- 3	Identify vulnerable urban tree canopy and street tree sections and develop policies to incentivize, encourage, or require strategic tree planting for heat island mitigation (mid-cost).	2	Parks Department	Public Works Director, Environmental Commission	Parks Director	Minimal		
HI-3- 4	Reduce generation of waste heat from buildings by promoting and incentivizing building energy efficiency measures (low-cost)	2	Community and Economic Development	Parks/Community Facilities	City Planner	Minimal to Moderate		
HI-3- 5	Add or modify park and boulevard plantings in under-served areas, and increase maintenance to sustain mature tree canopy, decrease tree hazards and delay tree replacement needs	2	Parks Department	Public Works Director, Environmental Commission	Parks Director	Moderate		
HI-3- 6	Explore creation of a Heat Island Reduction Incentive / Award program. Incentives and awards from governments, utilities, and other organizations can be an effective way to spur individual heat island reduction actions. Incentives might include below-market loans, tax breaks, product rebates, grants, and giveaways. (Determine the optimum balance for achieving climate adaptation goals of incentives vs. potential loss of tax base needed to accomplish those goals.) Awards can reward exemplary work, highlight innovation, and promote solutions across the public and private sectors.	2	Community and Economic Development	EDA, HRA, Energy Providers	Economic Development Coordinator	Minimal to Moderate		
HI-3- 7	Develop educational and informational resources explaining the drivers and impacts of heat island and solutions which may offer multiple benefits for property owners and users to share with residents and businesses.	2	Community and Economic Development	Information Services, supporting organizations (like the energy providers)	City Planner	Minimal to Moderate		

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	Greenspace and Ecosystem Health							
	Strategy G-1: Address Greenspae and Ecosystem Health sector goals in City planning, policies and ordinances.							
G-1- 1	Create a tree preservation ordinance with reasonable exceptions that support the CAP tree canopy coverage and heat island mitigation goals. Ordinance should reflect projected climate changes and impacts on tree species.	1	Community Development	Environmental Commission, Park and Rec				
G-1- 2	Conduct an Urban Tree Canopy and Ground Cover study to determine the ground cover characteristics, benefit, and potential throughout the City on a census block group leve. Study should include heat island impact study to identify areas of high heat island contribution and impact. Findings of tree coverage, benefits, heat island impacts, and opportunities should be overlapped with vulnerable population mapping from the City's Climate Vulnerability Assessment. Study to establish specific goals of tree canopy coverage, by census tract, for reduction of dark impervious surfaces, and target "Heat Island Coefficient". Study to identify specific citywide percentage coverage goals for forsted and native planting ground cover. Study to priority areas for heat island mitigation based on need, potential, and impact on equity and vulnerable populations. Study should also evaluate opportunities to plant additional trees near city facilities to reduce heat island. Consider including an Urban Forestry Economic Potential review to explore the development of urban forestry programs and incentives capable of generating revenue to support climate adaptation plan actions http://palebluedot.llc/tree-canopy-assessments	1	Parks Department contracting with consultant	Community Development, Environmental Commission				
G-1- 3	Establish a City policy to replant tree loss, and Ash tree replacement for EAB management, at 110% or more of replacement with improved diversity	1	Parks and Recreation	Environmental Commission				
G-1- 4	Review city ordinances on lawns, explore opportunities to encourage lawn alternatives, consider set-backs and signage areas for native installations.	1	Community Development	Environmental Commission				
G-1- 5	Establish a biochar soil amendment policy and ordinance for all building and earth working construction sites – improves soil sequestration and builds carbon content of topsoil, and improves water retention and permeability characteristics. https://stormwater.pca.state.mn.us/index.php?title=Biochar_and_aplications_of_biochar_in_stormwater_management	2	Community Development, Engineering/Facilities	Environmental Commission, Cannon River Watershed, MPCA				

G-1- 6	Establish a policy and ordinance requiring soil profile rebuilding at all building project sites or compacted soil conditions to reduce erosion and runoff contaminated with fertilizers, increase soil carbon stores, support long-term soil building, and improve new tree survival and growth rates. (https://www.urbanforestry.frec.vt.edu/SRES/)	2	Development Review Committee, Engineering	Public works, Parks and Rec, Community development			
G-1- 7	Establish an implementation master plan with schedule, budget, and prioritized actions following the completion and recommendations of the City's Urban Tree Canopy and Ground Cover Study.	2	Park and Rec	Environmtal Commission, Consultant			
Strategy G-2: Increase tree cover and diversity citywide.							
G-2- 1	Continue to leverage budget by obtaining grants from sources like SWCD and MN DNR.	1	Parks and Rec	Community Development, Engineering, County staff, Cannon river watershed, local legislators, MNSTAC			
G-2- 2	Create and promote an annual free street tree giveaway program in celebration of Earth Day. Explore local partners for sponsorship and promotional support. Explore the potential of including volunteer planting assistance, particularly for vulnerable populations and seniors.	1	Parks and Rec is doing the current free or discounted tree program	Enironmental Commission, GROWS Garden Club - service clubs, scouts,			
G-2- 3	Create, fund, and promote a community grant to assist in planting trees. Grant should prioritize low income community members and areas targeted through the City's Urban Tree Canopy and Ground Cover Study. Explore partners for sponsorship and assistance in promoting program	2	Parks and Rec	Environmental commission, involve the HRA, rental property owners, Cannon River			
G-2- 4	Perform outreach into the community to increase the knowledge of the mitigating effects of trees on climate change and promote the additional planting of trees on private property. Explore the potential of partners for sponsorship and support in outreach.	2	Park and Rec	Manufactured homes Environment Commission, Arbor Day Foundation, GROWS Garden Club - service clubs, scouts,			
Strategy G-3: Reduce, repurpose, and reimagine lawn space citywide.							
G-3- 1	Encourage appreciation of functional, productive use of yard space such as food production and wildlife habitat. i.Establish ordinances and policies allowing pollinator friendly and food friendly front yards and boulevards ii.Encourage a 'garden club' aimed at education for productive yard space iii.Leverage colleges to survey and certify residential wildlife habitats through a city recognition program	1	Environmental Commission	Faribault's GROWS Garden Club, Master Gardeners, U of MN Extention, local wild ones chapter			
G-3- 2	Transition maintenance of all city owned properties to Carbon Gardening practices including elimination of synthetic fertilizer and pesticide use, high mow deck settings, use of biochar amendmets, and polyculture lawn mixture	1	Park and Rec	Environmental Commission, Public Works and Rice County			

G-3- 3	Establish a policy and incentive to assist homeowners by covering some of the cost of converting traditional lawns by planting pollinator friendly food gardens, permaculture, wildflowers, clover or native grasses in an effort to slow the collapse of the state's bee population. Explore potential partners to sponsor and promote the program (http://m.startribune.com/program-pays-minnesota-homeowners-to-let-their-lawn-go-to-the-bees/510593382/)	2	Community Development (policy): Environment Commission (incentives and outreach)	GROWS Garden Club, Wild Ones, Master Gardeners			
Strategy G-4: Utilize parks and marginal city property for greater community impact.							
G-4- 1	Review access to city parks and playgrounds and diversity of amenities offered across the city. i.Consider use of vacant lots for small playgrounds and/or community gardens in coordination with Food sector CAP Goals ii.Connect hiking and biking trails throughout the city. Expand into marginal wooded areas throughout the city. iii.Bike racks at all parks, safe bike routes to all parks. iv.Expansion and diversification of community gardens.	1	Park and Rec	Environmental Commission, Rice County Environmental Services, Engineering			
G-4- 2	Map city owned properties and amenities offered or possible at each, including hiking, foraging, etc	2	Park and Rec	Environmental Commission, Park Boad			
G-4- 3	Establish a "Climate Adaptive Planting List" of trees which will thrive in current and future local climate conditions to guide tree and planting selecitons for City owned or maintained property. Share planting list with public.	2	Park and Rec	Environment Commission			

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	Local Food and Agriculture							
	Strategy F-1: Educate, engage, and empower the public on food linkage with climate and health.							
F-1- 1	Develop and deliver educational materials for community members to establish a consumer base for local foods by developing the message and distributing it to the general public	1	Faribault Farmers Market, U of MN Extention, SNAP Educator, Coop Farms	Rice County SHIP, MN Dept of Ag Buy MN food directory				
F-1- 2	Support organizations and schools promoting local food production and community gardens, through partnerships, funding, and educational programs on the benefits of a plant-based diet.	2	Faribault Farmers Market, U of MN Extention, SNAP Educator, Coop Farms					
	Strategy F-2: Integration of Local Food Considerations in City Plans.							
F-2- 1	Allow community gardens on vacant land in all zoning districts except industrial to increase the availability of locally produced food for all residents	1	Faribault Community Deveopment , City Council, Sustainability Commission					
F-2- 2	Integrate sustainable food system issues that affect climate into landuse planning processes and, where practical, incorporate quantitative goals and metrics.	2	Community Development					
F-2- 3	Review ordinances and development regulations to promote urban farming	2	Community Development					
	Strategy F-3: Increase production of and demand for local food.							
F-3- 1	Pass city policy to procure locally grown foods for events and other organized food catering at city-managed facilities. Coordinate with School District, County, and local hospitals to establish similar locally sourced foods procurement policies. Explore development of group purchasing and logistics agreements to increase efficiency of local farm-to-agency process. https://goodfoodpurchasing.org/	1	Faribault Schools can ramp up with Farm to School, with Grants, need to work with CISCO, local midwest, can get more local	Rice County SHIP, MN Dept of Ag HAFA FARM				
F-3- 2	Add student farmed vegetable gardens located on the school grounds to the curriculum in the Public School district	1	Food District and Growing Up Healthy					

F-3- 3	Update code to provide incentives or require developers to preserve topsoil and provide space for backyard or community gardens	2	Faribault Community Deveopment				
F-3- 4	Support existing school and community gardens and provide opportunities to expand community growing spaces with a focus on youth, immigrant, and low-income residents	2	Growing up healthy, Rice County Food Council, School district, somali community resettlement				
Strategy F-4: Increase food security for residents, especially those most vulnerable to food environment.							
F-4- 1	Continue to provide enrollment assistance for participation in the Supplemental Nutrition Assistance Program (SNAP), the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) Program and other food assistance programs	1	Rice County Social Services, SNAP, Health Dept, Food Access Josh Ramaker	St. Vincent De Paul, food shelf, Growing up healthy, Senior Center (NAPS) Faribault Mobile Food Shelf, Faribault City Council, Community education, U of MN Extension, grassroots group	Josh Ramaker	included in Rice County budget, Faribault Foundation	
F-4- 2	Equitably promote educational opportunities for residents to gain skills in organic gardening, fruit production, food preservation and cooking and affordable, healthy eating	1	Community education, U of MN Extension, grassroots group				
F-4- 3	Create collaborative partnerships with community-based organizations and affinity groups, including low-income populations and communities of color, to: a) Promote healthier, low-carbon diets. b) Encourage local food production. c) Support affordability and access to healthier foods through neighborhood food buying clubs and co-ops. d) Reduce food waste.	2	Growing up healthy, Rice County Food Council				
F-4- 4	Improve access to healthy foods in low-income communities, increase food security, and promote sustainable local food systems to reduce food mile	2	Rice County Food council				
F-4- 5	Work regionally to support and facilitate food donation programs. Food donation programs reduce the amount of healthy, safe food that goes to waste and redirects it to those in need.	2	Rice County?				

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	Climate Economy							
	Strategy CE-1: Leverage the economic development opportunities of the Green Economy.							
CE-1- 1	Promote Climate Economy / Green Economy workforce development in partnership with South Central College and other agencies, non-profit entities, and businesses.	1	South Central College; City of Faribault Economic Development; Rice County Economic Development	Faribault School District; City of Faribault Planning and Zoning; City of Faribault Environmental Commission	City Planner			
CE-1- 2	Conduct a Climate Economy Economic Development Assessment to identify economic development potential of climate adaptation, climate mitigation, and energy actions. Identify economic resilience strategies and strengthen public-private economic communications, especially with targeted group businesses (minority-owned, veteran owned, economically disadvantaged, etc). Possible example process: https://www.eda.gov/ceds/	2	Community and Economic Development	Chamber of Commerce, Bussiness Association, consultant				
CE-1- 3	Develop job training programs focused on building resilience- solar construction, weatherization, etc. Partner with other agencies such as South Central College, non-profit entities, State of Minnesota, and businesses to develop and implement.	2	Community and Economic Development	South Central College, Faribault School system, State of Minnesota				
	Strategy CE-2: Enhance community resilience through economic resilience.							
CE-2- 1	Explore opportunities to broaden the City's economic base with diversification initiatives, such as targeting the development of emerging clusters or industries that (a) build on the region's unique assets and competitive strengths; and (b) provide stability during downturns that disproportionately impact any single cluster or industry	1	City of Faribault Economic Development; Rice County Economic Development	Faribault Chamber of Commerce; South Central College				
CE-2- 2	Work with community businesses to explore the creation of an incentivized "buy local" campaign to enhance resilience of small local businesses.	1	Faribault Chamber of Commerce	City of Faribault Economic Development				

CE-2- 3	Explore development of one or more Green Zones, a place-based policy initiative aimed at improving health and supporting economic development using environmentally conscious efforts in communities that face the cumulative effects of environmental pollution, as well as social, political and economic vulnerability. Within Green Zones program develop targeted programs to train residents of low and middle income communities for jobs in the green economy http://www.ci.minneapolis.mn.us/sustainability/policies/green-zones	2	City of Faribault Environmental Commission; Growing Up Healthy	Xcel Energy; State of Minnesota MPCA; City of Faribault Finance Department				
Strategy CE-3: Include Economic Resilience in Emergency Response Planning.								
CE-3- 1	Make sure key business infrastructure is recognized in the City and County's general hazard mitigation plan and emergency response plan. Analyze how risks and hazards identified in the plan may impact the economic community. Conduct outreach to industry groups and public-private partnerships to promote private sector investment addressing them	1	City of Faribault Emergency Management; Rice County Emergency Management	Rice County Emergency Preparedness Coordinator; Faribault Chamber of Commerce				
CE-3- 2	Explore use of geographic information systems (GIS) to link with municipal business licenses, tax information, and other business establishment data bases to track local and regional "churn" and available development sites as well as integrated hazard information to make rapid post-incident impact assessments.	1	City of Faribault GIS	Rice County GIS				
CE-3- 3	Facilitate in-person discussions with community businesses to build relationships and prepare City's business community for risks and hazards identified in this report and the City / County's emergency response plan, and identify the businesses and infrastructure that are most vulnerable to disaster	2	Faribault Chamber of Commerce	City of Faribault Emergency Management; Rice County Emergency Management				
CE-3- 4	Ensure redundancy in telecommunications and broadband networks to protect commerce and public safety in the event of natural or manmade disasters	2	Telecommunications Utility	City of Faribault Public Works Department; City of Faribault Emergency Management; Rice County Emergency Management				
Strategy CE-4: Support workforce development supporting the transformation to a low-carbon economy.								
CE-4- 1	Work with local partners to develop a community green jobs electronic bulletin board promoting local green job opportunities	1	South Central College; City of Faribault Economic Development; Rice County Economic Development	Faribault School District; City of Faribault Planning and Zoning; City of Faribault Environmental Commission	City Planner			
CE-4- 2	Engage with local green jobs training providers to coordinate strategic planning and encourage programs to develop local workforce capacity and assess, train, and place local residents to perform energy retrofits, solar pv installations, and other green improvements.	1	City of Faribault Economic Development; City of Faribault Environmental Commission	Xcel Energy; Department of Education; Department of Energy; South Central College				

CE-4- 3	Create an Affordable Housing Master Plan to identify current and potential future need for affordable housing including scenarios anticipating workforce development, climate immigration and migration potentials. Master plan should identify priority affordable housing locations which meet the Buildings and Energy, Transportation and Land Use, Climate Adaptation, Health and Safety, and other goals of this CAP plan.	2	City of Faribault Housing Department	Rice County Housing Department; City of Faribault Planning and Zoning			
CE-4- 4	Encourage "green" businesses that are non-polluting, offer or support environmentally sustainable goods or services, and/or actively promote telecommuting, alternative work schedules, and alternative transportation modes.	2	Community and Economic Development	Chamber of Commerce, Bussiness Association, consultant			
Strategy CE-5: Establish sustainable funding sources supporting and advancing climate action strategies.							
CE-5- 1	Establish a policy to capture savings from City Facility energy efficiency and renewable energy projects from all city departments. Performance-based rebate checks and operational savings are to be directed to a special Carbon Fund, with the funds being used to implement carbon-reducing projects that align with the Climate Adaptation Plan including Climate Economy actions.	1	City of Faribault Finance Department; City of Faribault Environmental Commission	City of Faribault Parks and Rec; City of Faribault Public Works			
CE-5- 2	Dedicate all, or a portion, of the City's Utility Franchise Fee to a climate action and adaptation fund to fund projects which align with the City's Climate Action Plan. Alternatively, City could increase the Utility Franchise Fee and dedicate the increased value to the Climate Fund	1	City Council	Environmental Commission, Planning, Community and Economic Development			
CE-5- 3	Add a Carbon Impact Fee to all new development as a percentage of the building permit fee. Additional funds raised to be used for Climate Mitigation and Adaptation implementation efforts including Climate Economy actions. Projects may apply for a refund if they install on-site renewable energy system and provide documentation that demonstrates the system will offset either 40% or 80% of the project's average annual electricity demand. https://www.cityofwatsonville.org/DocumentCenter/View/198/Frequently-Asked-Questions-About-the-Carbon-Fund-Ordinance-PDF https://www.cityofwatsonville.org/DocumentCenter/View/3944/Carbon-Fund-Voluntary-Compliance-Worksheet?bidId=	2	City Council	Environmental Commission, Community Development Department			

City of Faribault CAP Matrix		Implementation						
Search Strategies and Actions								
Strategy Action	Sector Strategy / Action	Priority	Primary Responsibility	Supporting Responsibility / Potential Partner or Advocate	Staff Responsible	Estimated Budget Need	Metric	Progress At Review
	Adaptation Capacity							
	Strategy AC-1: Proactively incorporate climate change in City Operations.							
AC-1- 1	Incorporate climate projections (e.g. precipitation, temperature, flooding) in transportation, hazard mitigation, and development planning	1	Faribault Community and Economic Development	City Engineer, City Fire Chief, City Public Works, County Highway, Environmental Services, Emergency Management, CRWP, Rice County Soil Water Conservation District, MnDNR	City Planner/City Fire Chief	Minimal		
AC-1- 2	Provide training and other capacity building opportunities to staff to facilitate creative, climate positive innovations in operations, project design and implementation.	2	Faribault Community and Economic Development	CRWP, MnDNR, MPCA, GreenStep Cities,	City Planner/City Fire Chief	Moderate		
AC-1- 3	Prioritize adaptation and resilience in discretionary Capital Improvement Program (CIP) projects. This action would include ensuring that the infrastructure being developed will be designed with forecasted changes in climate (precipitation, temperature) in mind	2	City Engineer/Public Works	Public Works Director, City Administrator, Finance Director	City Engineer/Public Works Director	Moderate		
	Strategy AC-2: Proactively support and encourage Climate Adaptation Action and preparedness among residents and businesses.							
AC-2- 1	Identify a sustainable funding source for increased utility assistance for low-income residents, including support for energy efficiency projects, such as weatherization	1	Three Rivers CAC,	Sustainability Commission, Public Housing Program, Housing Authority, CERTS, Partner in Energy, CEE, mobile Home park, Growing Up Health		Energy assistance, CIP, on bill repayment		

AC-2- 2	Develop a set of indicators to provide quantitative measures of the preparedness of the community, set goals in terms of these indicators, and report on them annually	1	Faribault Community and Economic Development	City Engineer, City Fire Chief, City Public Works, County Highway, Environmental Services, Emergency Management, CRWP, Rice County Soil Water Conservation District, MnDNR Emergency Management	City Planner/City Fire Chief	Minimal		
AC-2- 3	Help assure that community wide preparation is occurring for anticipated threats: fire, flooding, landslides, high temperatures, air pollution, and drought	2	City Fire Chief		City Fire Chief	Minimal		
AC-2- 4	Explore incentives to encourage business innovation on climate action	2	Faribault Community and Economic Development	Xcel Energy, Steele-Waseca, EDA, HRA, GreenStep Cities	CED Director	Moderate		
AC-2- 5	Work with partners to articulate and showcase economic benefits of restoration, climate adaptation, energy savings/carbon reduction efforts, and triple bottom line: people, planet, profit	2	City Department of Community and Economic Development	City Engineer, Public Works Director, EDA, and others	CED Director	Minimal to Moderate		
AC-2- 6	Explore mechanisms to provide property owners financial and technical support for increasing climate preparedness	2	City Department of Community and Economic Development		CED Director			
Strategy AC-3: Reduce barriers to participation in Climate Adaptation Action and preparedness.								
AC-3- 1	Provide easy-to-understand materials to educate community members on the impacts and risks of climate change and the actions they can take to protect themselves, families, and businesses	1	City Fire Chief	City Information Services, Rice County Emergency Services,	Fire Chief	Minimal to Moderate		
AC-3- 2	Ensure the availability of translators and interpreter services for all outreach events and materials.	2	Faribault Community and Economic Development	All other supporting organizations	CED Director	Moderate		
AC-3- 3	Host events at locations accessible by walking or bus.	2	City Fire Chief	Various partners	Various partners	Minimal		
AC-3- 4	Compile and create accessible materials for web and in-person distribution with information about trainings, workshops, and job opportunities	2	City Information Manager	Various partners	City Information Manager	Minimal to Moderate		



Photo: Gregg Roemhildt

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An Energy Action Plan for Faribault

2023



PARTNERS IN ENERGY
An Xcel Energy Community Collaboration

ACKNOWLEDGEMENTS

Thank you to the following individuals who contributed many hours of service to developing this Energy Action Plan.

The content of this plan is derived from a series of planning workshops hosted by Xcel Energy's Partners in Energy. Xcel Energy is the main electric and gas utility serving Faribault. Partners in Energy is a two-year collaboration to develop and implement a community's energy goals. For more information about the planning workshops, see Appendix C: Xcel Energy's Partners in Energy Planning Process.

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GLOSSARY OF TERMS

15 x 15: Xcel Energy's privacy rule, which requires all data summary statistics to contain at least 15 premises, with no single premise responsible for more than 15% of the total. Following these rules, if a premise(s) is responsible for more than 15% of the total for that data set, it is/they are removed from the summary.

Beneficial Electrification: The transition from fossil fuels to electricity where benefits are achieved through reduced emissions and energy costs.

British Thermal Unit (BTU): The amount of heat needed to raise one pound of water at maximum density through one degree Fahrenheit.

Carbon-free: Carbon-free refers to sources of energy that will not emit additional carbon dioxide into the air. Wind, solar and nuclear energy are all carbon-free sources but only wind and solar are renewable.

Carbon-neutral: Carbon-neutral, also described as "net zero," could include carbon-free sources but is broader and refers to energy that removes or avoids as much carbon dioxide as is released over a set period of time. Carbon-neutral is sometimes used to describe a site that produces an excess amount of electricity from a renewable energy source, such as solar, compared to what it consumes. That excess energy is put back into the grid in an amount that offsets the carbon dioxide produced from the electricity it draws from the grid when it is not producing renewable energy.

Community Data Mapping: A baseline analysis of energy data in a geospatial (map) format across the community.

Conservation Improvement Programs (CIP): Portfolio of approved utility energy efficiency and demand management programs. Minnesota electric utilities have a goal of saving 1.5% of their total energy sales each year via customer conservation efforts. Minnesota natural gas utilities have a goal of saving 0.5% of their total energy sales each year via customer conservation efforts.

Demand Side Management (DSM): Modification of consumer demand for energy through various methods, including education and financial incentives. DSM aims to encourage consumers to decrease energy consumption, especially during peak hours, or to shift time-of-energy use to off-peak periods such as nighttime and weekend.

Direct Installation: Free energy-saving equipment installed by Xcel Energy or other organizations, for program participants, that produces immediate energy savings.

Energy Burden: Percentage of gross household income spent on energy costs.

Energy Reduction: The result of behavior changes that cause less energy to be used. For example, setting the thermostat to a lower temperature *reduces* the energy used in

your home during the winter. Since energy reductions can be easily reversed, they are not accounted for when calculating changes in energy usage.

Energy Savings: Comes from a permanent change that results in using less energy to achieve the same results. A new furnace uses X% less energy to keep your home at the same temperature (all things being equal), resulting in energy *savings* of X%. For accounting purposes, energy savings are only counted in the year the new equipment is installed.

Greenhouse Gases (GHG): Gases in the atmosphere that absorb and emit radiation and significantly contribute to climate change. The primary greenhouse gases in the earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone.

Grid Decarbonization: The current planned reduction in the carbon intensity of electricity provided by electric utilities through the addition of low- or no-carbon energy sources to the electricity grid.

Kilowatt-hour (kWh): A unit of electricity consumption.

Million British Thermal Units (MMBtu): A unit of energy consumption that allows electricity and natural gas consumption to be combined.

Metric Tons of Carbon Dioxide Equivalent (MTCO_{2e}): A unit of measure for greenhouse gas emissions. The unit "CO_{2e}" represents an amount of a greenhouse gas whose atmospheric impact has been standardized to that of one unit mass of carbon dioxide (CO₂), based on the global warming potential (GWP) of the gas.

Megawatt (MW): A unit of electric power equal to 1 million watts.

Premise: A unique combination of service address and meter. For residential customers, this is the equivalent of an individual house or dwelling unit in a multi-tenant building. For business customers, it is an individual business, or for a larger business, a separately metered portion of the business's load at that address.

Renewable Energy Certificate (REC): For every megawatt-hour of renewable electricity generation, a renewable energy certificate (REC) is created. A REC embodies all the environmental attributes of the generation and can be tracked and traded separately from the underlying electricity. Also known as a Renewable Energy Credit.

Resilience: The ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions. Resilience includes the ability to withstand and recover from deliberate attacks, accidents, or naturally occurring threats or incidents.

Recommissioning: An energy efficiency service focused on identifying ways that existing building systems can be tuned up to run as efficiently as possible.

Solar Garden: Shared solar array with grid-connected subscribers who receive bill credits for their subscriptions.

Solar Photovoltaic (PV): Solar cells/panels that convert sunlight into electricity (convert light, or photons, into electricity, or voltage).

Subscription: An agreement to purchase a certain amount of something in regular intervals.

Therm (thm): A unit representing a quantity of heat. Can be used to measure natural gas based on the quantity of energy it contains.

Trade Partner: Trade Partners, also known as Trade Allies or Business Trade Partners, are vendors and contractors who work with business and residential customers servicing, installing, and providing consulting services regarding the equipment associated with utility rebate programs. Their support for utility programs can range from providing equipment and assisting with rebate paperwork, to receiving rebates for equipment sold.

FARIBAULT Energy Action Plan

Faribault is a vibrant, diverse community with equitable access to clean, affordable energy for all residents, businesses and institutions. We are reducing greenhouse gas emissions through energy efficiency and renewable energy and creating a sustainable future where all can thrive.



Focus Areas

These focus areas were created to inspire a broad scope of strategic input from the Faribault community



Energy Efficiency



Renewable Energy

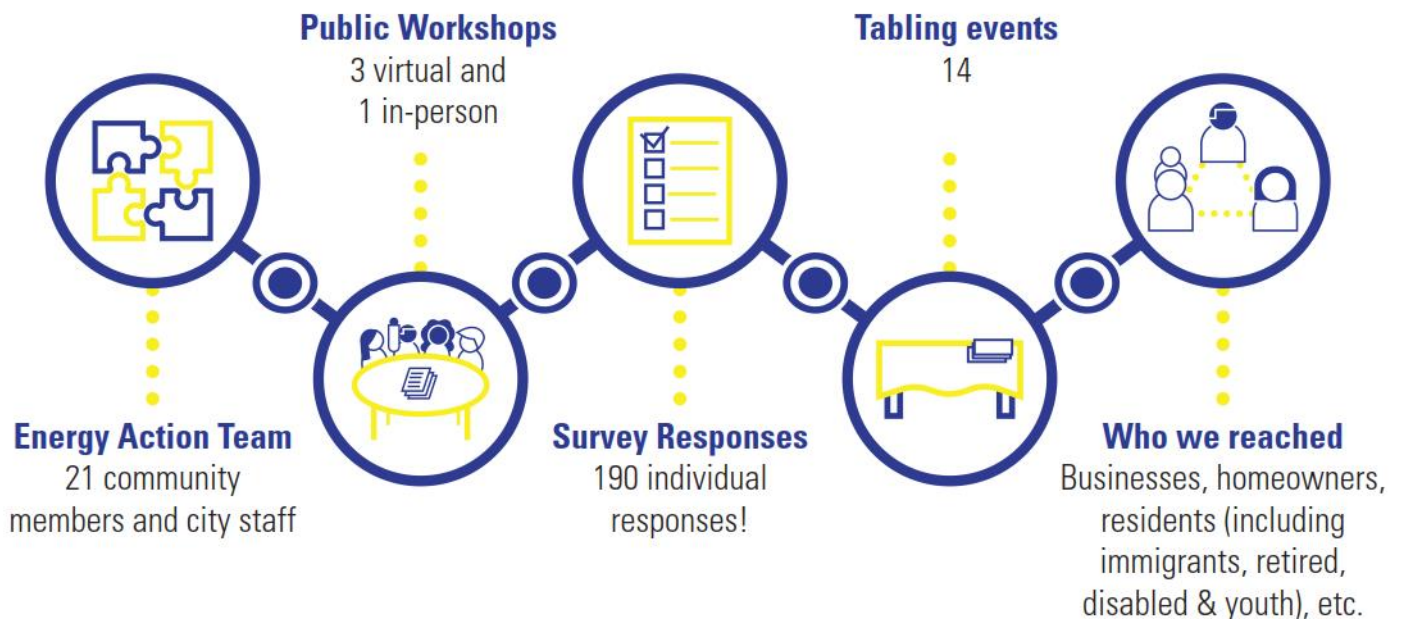


Transportation



Electrification

Community Engagement



Energy Action Plan Goal

Faribault will avoid an additional **50% of energy-related greenhouse gas emissions** by 2030 compared to business as usual, while saving the community energy and money.

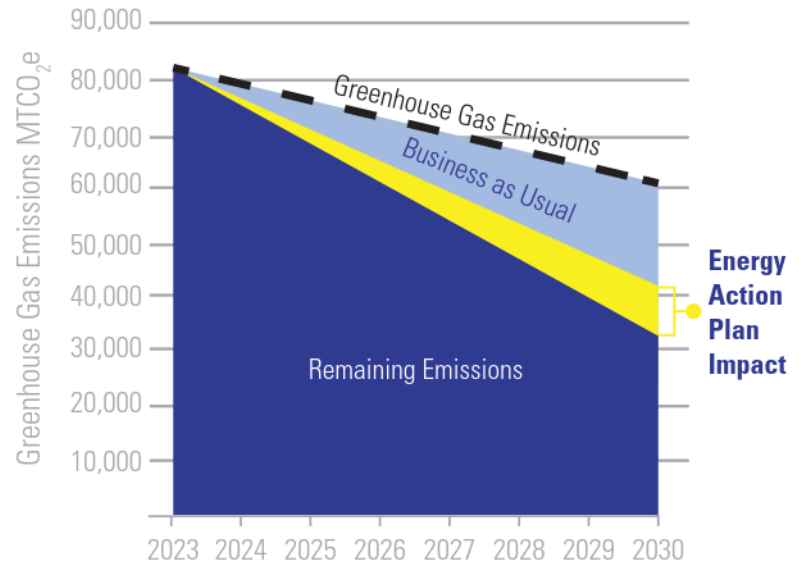


By reaching this goal, we estimate Faribault will avoid spending an additional **\$5.6 million** on energy bills through increased energy efficiency.



Achieving our goal will be equivalent to saving **34 million kWh** of electricity and **4.4 million therms** of natural gas by 2030.

Forecasted Emissions Avoidance



What are your hopes for Faribault's energy future?

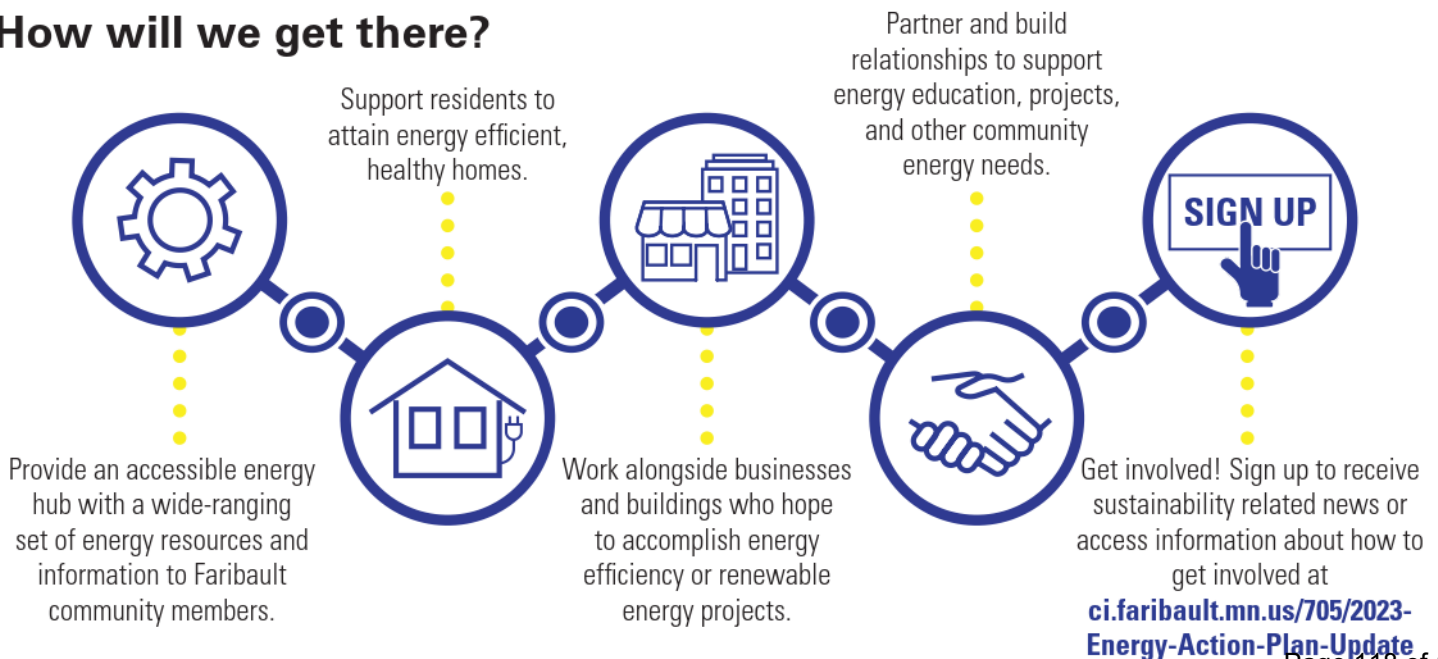
A **clean** and **healthy** environment that is affordable to sustain."

—Faribault Community Member

To help **save money** and be **energy efficient** while keeping costs affordable for low-income families."

—Faribault Community Member

How will we get there?





INTRODUCTION

The City of Faribault is dedicated to sustainability and has led several efforts to engage the community in environmental initiatives. In 2017, Faribault created an Energy Action Plan, then a Climate Adaptation Plan in 2020. Since that time, Faribault has implemented an environmental commission, planted pollinator gardens, completed stormwater projects, and completed many more sustainability projects in addition to energy projects and outreach.

2017 Energy Action Plan

Faribault's 2017 Energy Action Plan has a goal to reduce community-wide energy expenditure by 1% annually from business as usual (using a 2015 baseline). By 2040, this plan was estimated to save Faribault residents and businesses over \$8 million a year, with accumulated savings of over \$100 million. As of 2022, the City is on track to meet and exceed the expenditure and savings goal.

2017 Energy Action Plan Goal Progress¹

Figure 1. Progress toward community cost savings goal, 2017-2021

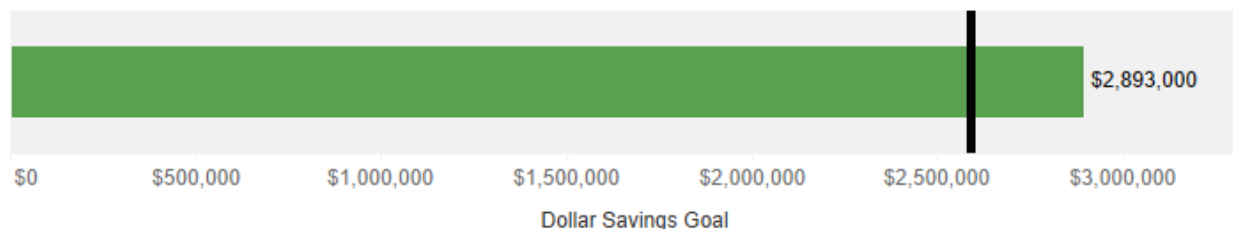
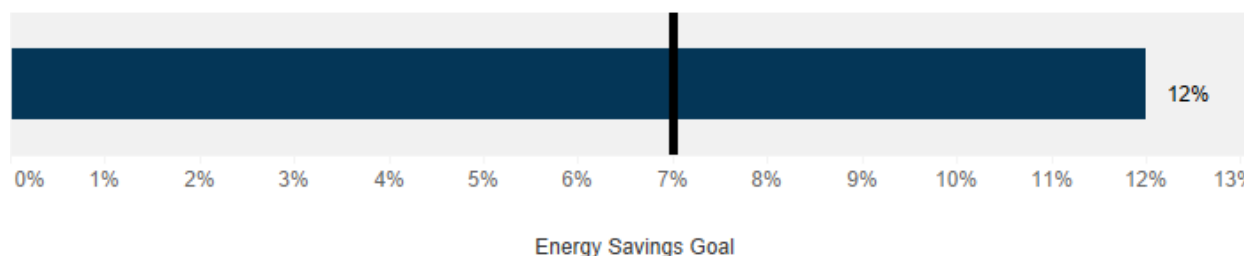


Figure 2. Progress toward community energy savings goal, 2017-2021



Faribault has saved residents dollars, connected with the community, and proved to be a useful educational conduit for energy information and resources.

2017 Energy Action Plan Implementation Highlights

- Facilitating manufactured home park residents' access to energy assessment services and energy resources such as weatherization and utility bill help.
- Conducting multi-family building outreach for building owners to take energy efficiency measures.
- Hosting forums for contractors and developers on energy efficiency.
- The residential energy outreach earned Faribault the 2022 Home Energy Squad® Intercity Challenge award for the highest percentage of low-income households to receive home energy assessments.

¹ The 2017 Energy Action Plan goal was to reduce community-wide energy expenditure by 1% annually and to save 1% of energy as a percentage of consumption from business as usual (2015 baseline year). Progress toward the 2017 plan goals were calculated by applying 1% of the baseline consumption and energy expenditure applied to each year and measuring the actual expenditure and energy savings between 2017 and 2021.

Energy Action Plan Update

There are now new state regulations on carbon emissions, new and emerging technologies, updated energy data from the utility, and additional funding for large and small energy projects. This presents a great opportunity to build on existing efforts and add new strategies, audiences and areas of focus into a new Energy Action Plan.

Faribault residents answer: Why an Energy Action Plan?

- "To help save money and be energy efficient while keeping costs affordable for low-income families/residents."
- "There are so many inefficient home and buildings updating with incentives would be so beneficial to the community. "
- "I hope we can strive towards being a carbon neutral city."
- "Stable, affordable, clean energy."

The opportunity for this plan to be more thoughtful in engaging residents was also an important reason to create new energy strategies. The City wanted to understand community members' priorities, needs, and hopes for Faribault's energy future, and to make sure all voices were represented in that process.

This plan sets new goals and targets for Faribault's energy future, that will build on the previous plan's goals and incorporate new areas of focus to adjust to the changing energy opportunities and landscape.

Faribault hopes to continue to work with residents and businesses to help them save energy and money and be a part of a clean energy transition that will increase the health and resilience of the community.

Our Engagement & Outreach Process

The creation of this updated Energy Action Plan was a six-month process to help Faribault review updated community energy use data, create new energy-related goals and develop engaging strategies to shape Faribault's energy future. The planning process began in February 2023 with a series of community planning workshops with a team composed of community members, City of Faribault staff and Xcel Energy.

Engagement by the numbers:

- More than **35 people** attended planning workshops
- **4** community planning **workshops** took place virtually and in-person
- **190** community energy **surveys** were completed in English and Spanish
- Faribault had a table at **14 events** that engaged more than **100 people**

See Appendix C: Xcel Energy's Partners in Energy Planning Process for more information about the planning process and Xcel Energy's Partners in Energy program.



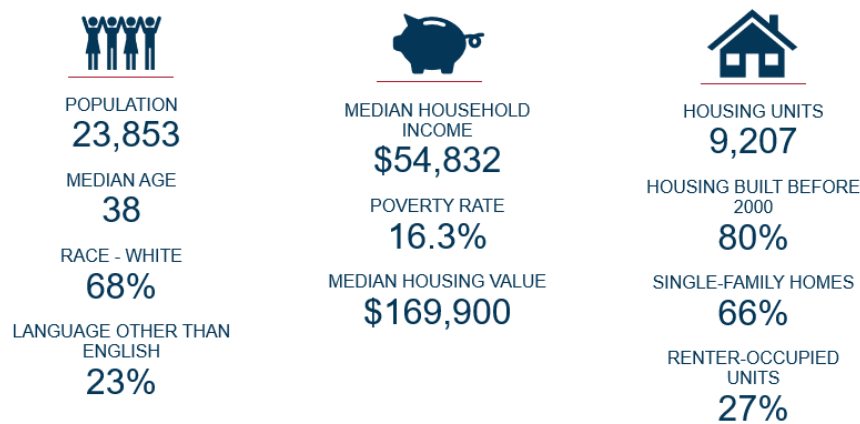
WHERE WE ARE NOW

An integral part of the Partners in Energy planning process is reviewing historic energy data that informs our community’s energy baseline. Xcel Energy serves Faribault for both electricity and natural gas, and provided updated data on energy use, participation counts, and utility energy conservation program savings, as detailed in the following sections. See Appendix A: Baseline Energy Analysis for a comprehensive picture of Faribault’s baseline energy data, ranging from 2017 to 2021.

Community Demographics

Demographic data from the American Community Survey provides a summary of Faribault, providing context to the city’s energy use (**Error! Reference source not found.**). The population of almost 24,000 has a median age of 38. Faribault’s median household income of almost \$55,000 is lower compared to Minnesota’s statewide household income of \$77,000. Faribault has a higher poverty rate of 16%, compared to the statewide average of 9%. Of the 9,200 housing units, 80% were built before the year 2000 and were subject to outdated energy codes, which presents an opportunity to improve energy efficiency.

Figure 3. An overview of Faribault's community demographics



SOURCE: American Community Survey, 2020 5-year estimates

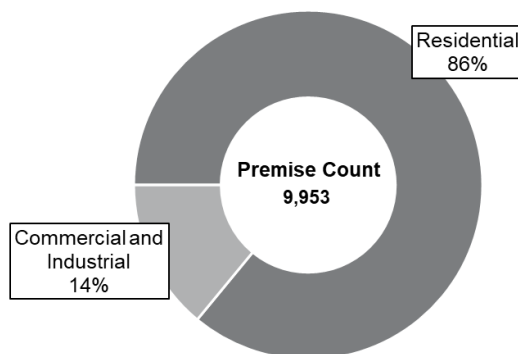
Energy Use and Savings

Premises

In 2021, Faribault consisted of 9,953 distinct premises (Figure 4), which are a unique combination of service address and meter.

For residential customers, this is the equivalent of an individual house or dwelling unit in a multi-tenant building. For business customers, it is an individual business, or for a larger business, a separately metered portion of the business's load at that address.² Most premises are residential, while the remaining 14% fall in the commercial and industrial sector.

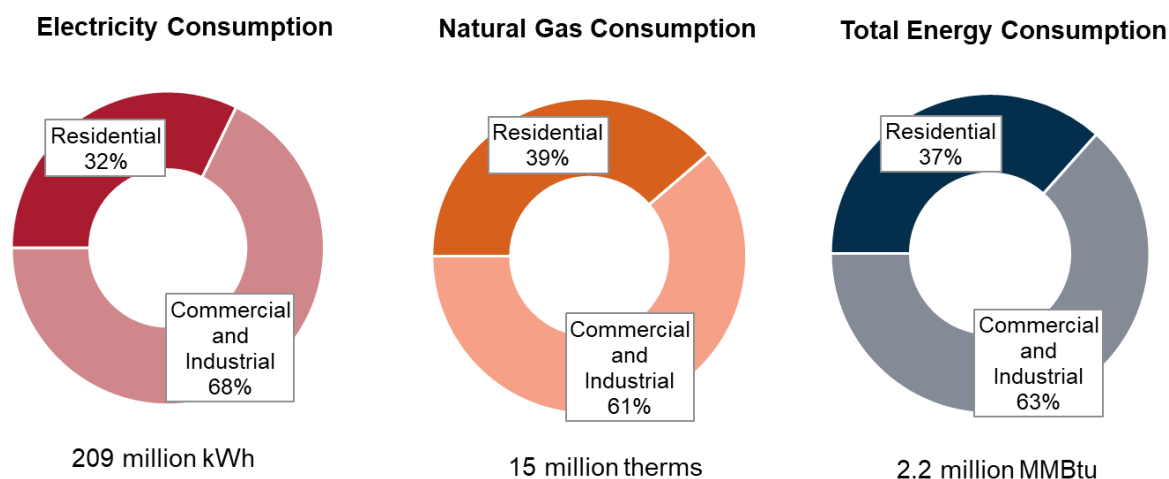
Figure 4. Xcel Energy Premise count by sector, 2021



Energy Consumption

In 2021, the Faribault community consumed 209 million kWh of electricity and 15 million therms of natural gas across all sectors per year. Although the commercial and industrial sector only comprises 14% of premises, it accounts for 63% of total energy consumption (Figure 5). Commercial and industrial premises use significantly more energy on average per premise than residential ones, a pattern typical of cities like Faribault.

Figure 5. Energy consumption by sector, 2021



² Please refer to *Glossary of Terms* for more detail on energy terms used in this plan.

Total energy consumption was calculated using both electricity and natural gas consumption from Xcel Energy premises converted into British thermal units, a unit of measure that allows electricity and natural gas to be compared based on a common measure of energy potential.

Since 2017, Faribault's total electricity consumption decreased almost 5% (Figure 6). This can be attributed to decreased consumption in the commercial and industrial sector. At the same time, residential electricity consumption increased by 6% from 2017 to 2021. This increase in residential electricity consumption could be due to weather fluctuations, with a higher number of cooling days (as indicated by CDD in Figure 6) each year driving the use of air conditioning.

Faribault's natural gas consumption increased by 7% between 2017 and 2021 due to increased use of natural gas in the commercial and industrial sector (Figure 7). As Figure 5 shows, natural gas use increases during colder years with more heating degree days (HDD on the chart) requiring an increase in space heating.

Figure 6. Electricity consumption by sector, 2017–2021

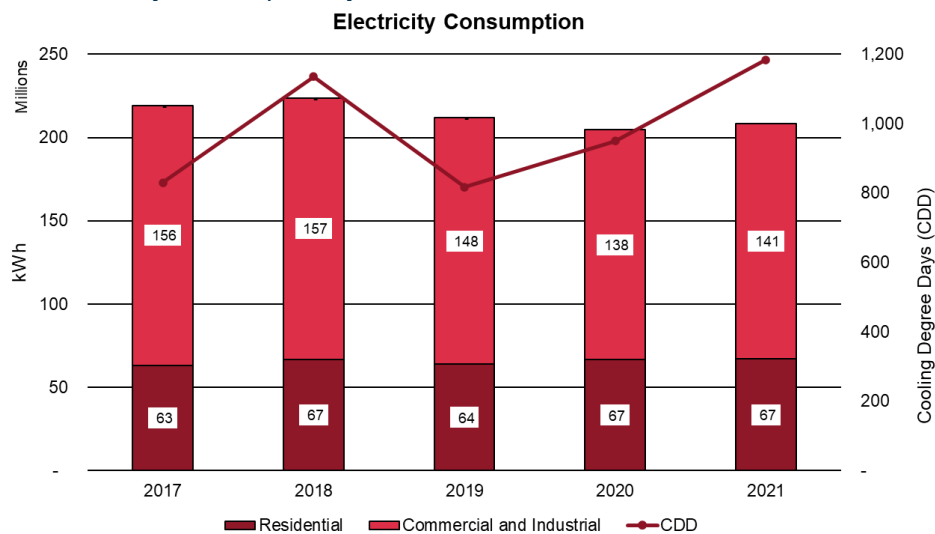
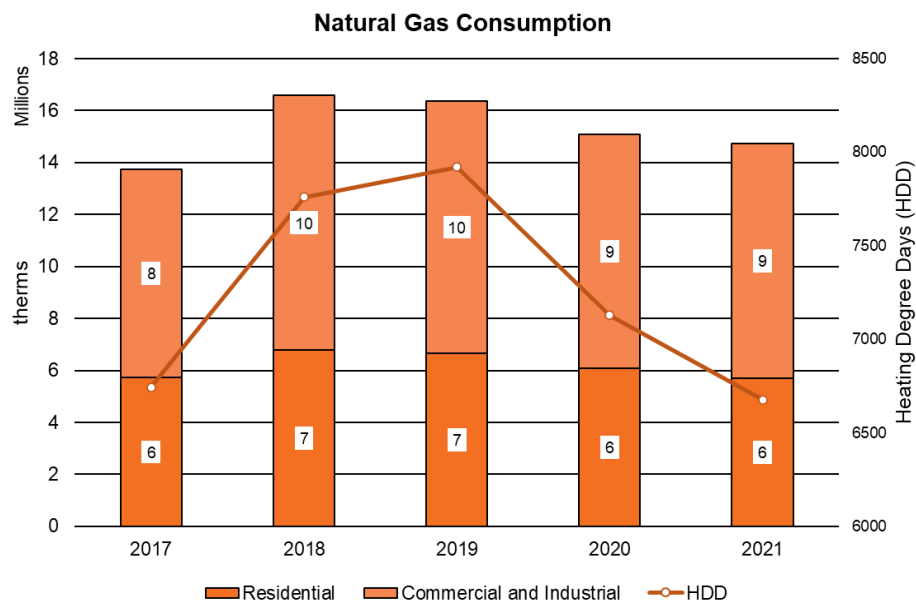
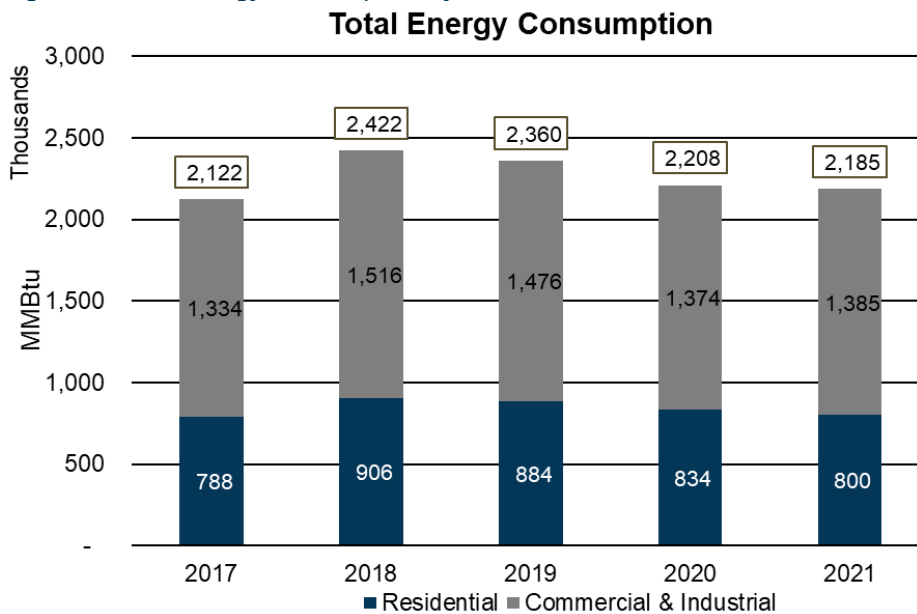


Figure 7. Natural gas consumption by sector, 2017-2021



Between 2017 and 2021, Faribault's total energy consumption was highest in 2018 and 2019 and increased almost 3% from the 2017 baseline to 2021, with both residential and commercial and industrial sectors experiencing higher energy consumption overall (Figure 8).

Figure 8. Total energy consumption by sector, 2017–2021



Energy Costs and Energy Burden

During an average year, all premises in Faribault spend an estimated \$32 million on energy for both electricity and natural gas (Figure 9). Most of these costs are paid by the commercial and industrial sector, with total annual average energy costs at \$19.3 million. While costs fluctuate greatly for commercial and industrial premises based on size and industry, on average these premises spend \$14,000 annually. The residential sector spends \$12.2 million annually on energy. An average residential premise spends \$1,400 annually on electricity and natural gas (Table 1).

Figure 9. Average total energy costs by sector, 2017–2021

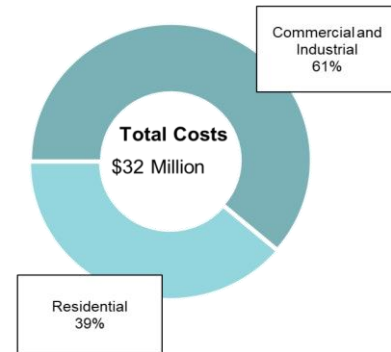
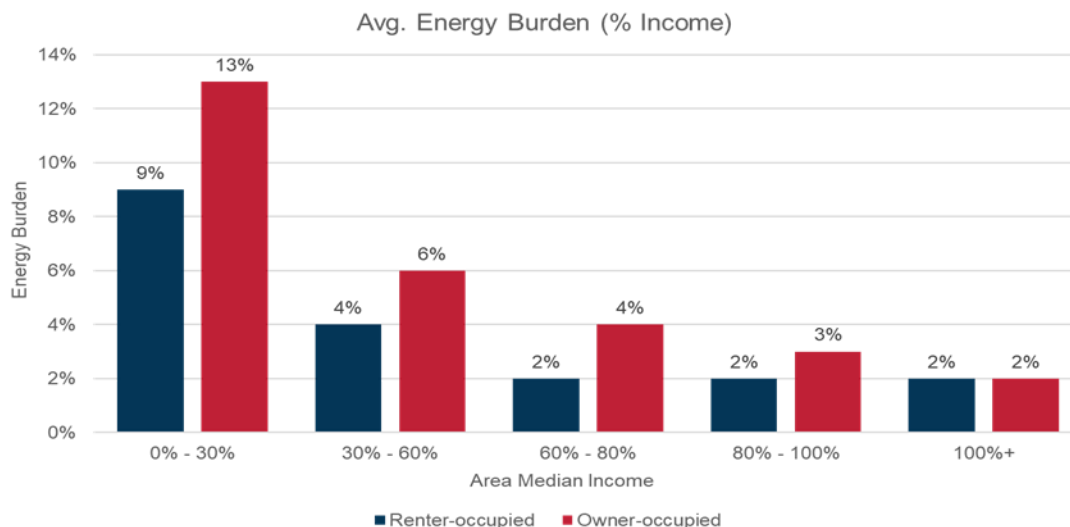


Table 1. Average annual energy costs by sector, 2017–2021

Sector	Average Annual Electricity Costs	Average Annual Natural Gas Costs	Average Annual Cost per Premise
Residential	\$8.4 million	\$3.8 million	\$1,400
Commercial & Industrial	\$14.8 million	\$4.5 million	\$14,000

Energy burden is the percentage of income that residents spend on energy. The energy burden for Faribault residents making 30% or less of the median income is up to 13% of their income.³ Energy burden is higher across every income group for homeowners compared to renters.

Figure 10. Energy burden by unit occupancy and median income

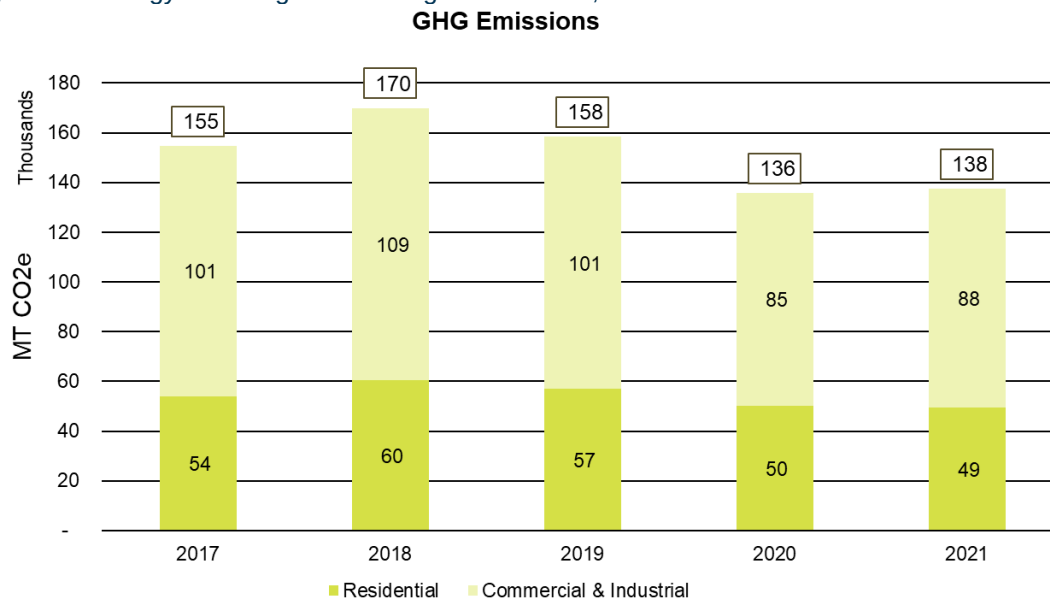


³ Department of Energy Low-income Energy Affordability Tool

Greenhouse Gas Emissions

Greenhouse gas emissions are calculated for both electricity and natural gas consumption for all sectors in Faribault.⁴ Faribault's energy-related greenhouse gas emissions in 2021 amount to 138,000 metric tons of carbon dioxide equivalent (MTCO₂e). Like total energy consumption, Faribault's commercial and industrial sector accounts for most energy-related greenhouse gas emissions. Emissions increased from 2017 to 2018 in all sectors, then declined over time, resulting in an 11% decrease from 2017 to 2021 (Figure 11).

Figure 11. Energy-related greenhouse gas emissions, 2017–2021



Renewable Energy

Faribault residents and businesses use subscription programs and on-site options to support renewable energy. In Faribault, most renewable energy program participation is in the residential sector, where 671 residents support renewable energy through subscription programs including Windsource[®], Renewable* Connect[®], and community solar gardens, and 35 residents have on-site solar installations. The commercial/industrial sector supports renewable energy at a lower rate than the residential sector with 77 subscribers and 16 on-site installations, but those subscribers support a much higher amount of renewable electricity, with almost 38 million kWh of electricity subscribed to renewable energy programs.

⁴ Electricity emissions are calculated using Xcel Energy's preliminary and certified emissions factors for their Upper Midwest Fuel Mix. Emissions factors used during the planning process to calculate electricity consumption greenhouse gas emissions may change as Xcel Energy completes third-party verification for its emissions intensities. See **Error! Reference source not found.** for the emissions factors used to calculate Faribault's energy-related emissions.

Table 2. Renewable energy subscriptions and program participation, 2021

	Residential	Commercial / Industrial
Subscription Programs - Windsource & Renewable*Connect		
Subscriber Count	382	5
Total Annual Electricity Subscribed (kWh)	829,000	3,020,000
Percent of Sector Xcel Energy Electricity Use	1.2%	2.1%
Community Solar Gardens - Solar*Rewards® Community		
Subscriber Count	289	72
Total Annual Electricity Subscribed (kWh)	2,705,000	34,813,000
Percent of Sector Xcel Energy Electricity Use	4.0%	24.6%
On-site Solar - Solar*Rewards® and Net-Metering		
Participant Count	35	16
Total Electricity Capacity (kW)	452	1,589
Total Xcel Energy Renewable Energy Support⁵		
Subscriber Count	671	77
Total Annual Electricity Subscribed (kWh)	3,534,000	37,876,000

Energy Efficiency Program Participation & Savings

Both residents and commercial/industrial premises participate in efficiency programs from Xcel Energy where they can receive rebates for upgrading equipment, participate in a building audit to understand their energy opportunities, or participate in a rate savings program. Participation in all programs saved an annual average of almost 3.2 million kWh of electricity and 559,000 therms of natural gas (Table 3).

Table 3. Average annual program participation and energy savings by sector, 2017–2021

Sector	Average Annual Participation	Average Annual Energy Savings (kWh)	Average Annual Energy Savings (therms)
Residential	718	160,000	25,600
Commercial/Industrial	86	3,026,000	333,000
Total	804	3,186,000	359,000

Faribault residents and businesses rely on a few key programs from Xcel Energy to help them improve efficiency (Table 4). The Residential Saver's Switch program had the most participants while Residential HVAC resulted in the most savings. The commercial and industrial sector has multiple efficiency programs, with Lighting Efficiency having both the most participants and the most overall energy savings (Table 5).

⁵ Excludes on-site solar due to behind the meter generation.

Table 4. Average annual participation and energy savings in top five residential programs, 2017–2021

Residential Program	Average Annual Participation	Average Annual Energy Savings (kWh)	Average Annual Energy Savings (therms)
Home Energy Squad	14	21,000	1,070
Low-income Home Energy Squad	23	15,600	1,400
Refrigerator Recycling	40	34,200	--
Residential HVAC ⁶	187	74,500	20,200
Residential Saver's Switch	370	710	--

Table 5. Average annual participation and energy savings in top five commercial and industrial programs, 2017–2021

Commercial/Industrial Program	Average Annual Participation	Average Annual Energy Savings (kWh)	Average Annual Energy Savings (therms)
Lighting Efficiency	23	1,237,000	-
Energy Design Assistance	1	479,100	8,700
Custom Efficiency	3	415,500	258,000
Small Business Lighting	17	306,700	-
Commercial HVAC ⁷	19	269,800	41,500

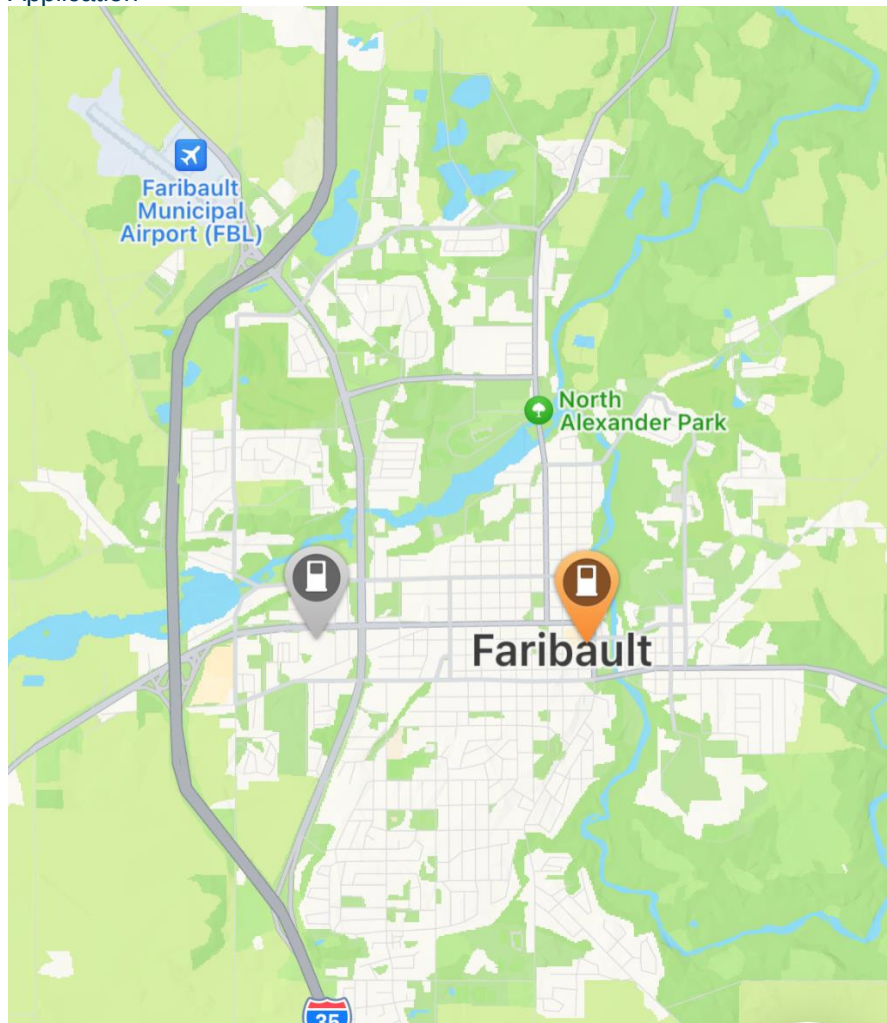
⁶ The Residential HVAC program consisted of Residential Cooling and Residential Heating until 2021, at which point the two programs were combined and renamed.

⁷ The Commercial HVAC group consisted of consisted of Commercial Refrigeration Efficiency, Cooling, Heating Efficiency, and Motor Efficiency until 2021, at which point the programs were merged and renamed as HVAC+R Efficiency.

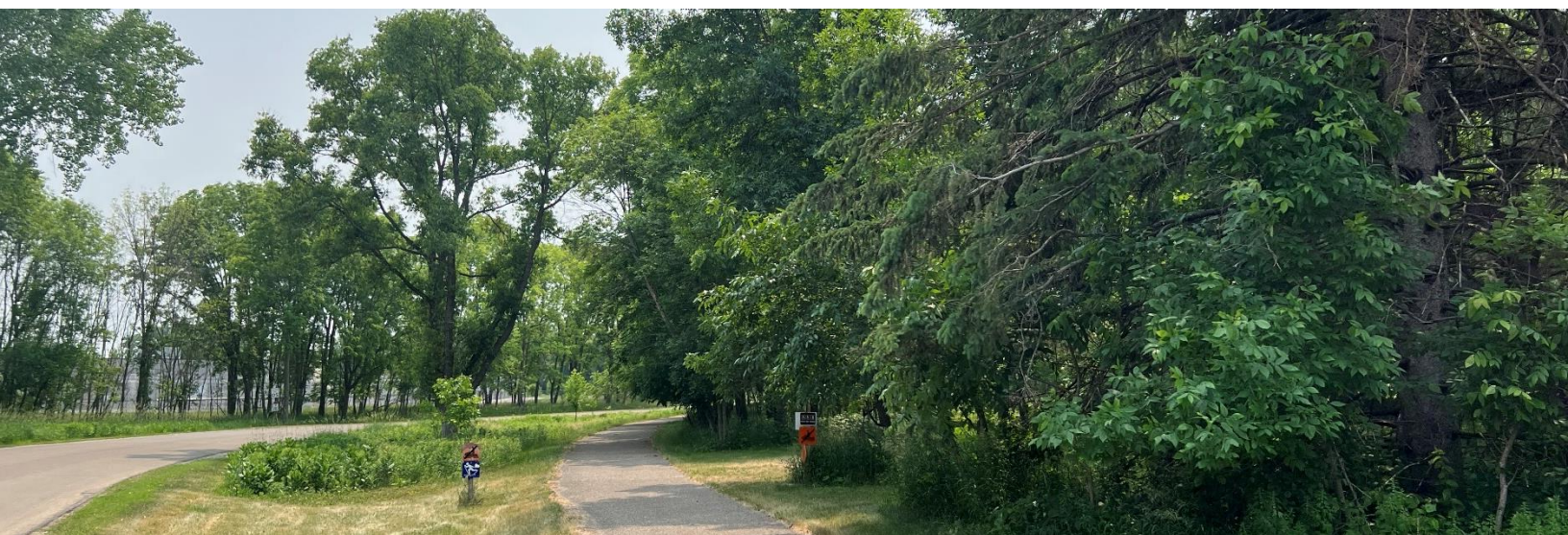
Electric Vehicles and Charging Infrastructure

Electric vehicles (EVs) are also of interest to the Faribault community and this Energy Action Plan. According to the Minnesota Department of Transportation, as of December 2021, there are 49 registered EVs in Faribault, which is about 17% of all EVs registered in Rice County, and 36% of rice county residents live in the City of Faribault.⁸ The Faribault community also has four public EV charging stations according to PlugShare, including two Level 2 chargers and two Level 3 Fast Chargers.

Figure 12. Map of Faribault charging stations from the PlugShare Application



⁸ Minnesota Department of Transportation Electric Vehicle Dashboard, <https://www.dot.mn.gov/sustainability/electric-vehicle-dashboard.html>



WHERE WE ARE GOING

Energy Vision Statement

During the planning process, the Energy Action Team created an energy vision statement using responses from the community energy survey to the question, “What are your hopes for Faribault’s energy future?”

This statement guided the planning process and reflects the intention of the community when it comes to implementing this plan.

Faribault is a vibrant, diverse community with equitable access to clean, affordable energy for all residents, businesses, and institutions. We are reducing greenhouse gas emissions through energy efficiency and renewable energy and creating a sustainable future where all can thrive.

Focus Areas

To achieve a community-wide commitment to energy stewardship, the Energy Action Team identified the following focus areas to prioritize strategies and resources.

- **Energy Efficiency:** Saving energy was the highest priority for both this plan and the previous plan. It was also identified as the first step to the clean energy transition.
- **Renewable Energy:** Faribault is already supporting a large amount of renewable energy through on-site solar, community solar and other utility subscription programs. This focus area was identified as a high priority for the community due to its contribution to the City’s health and resiliency.
- **Beneficial Electrification:** It was important to the team to reduce greenhouse gas emissions. The City chose to focus on electrifying homes and buildings that

can be powered by clean energy, while contributing to the health of the people in those buildings. This can be achieved by replacing equipment fueled by natural gas with technology powered by electricity, where a growing percent is produced from carbon-free sources.

- **Transportation:** Transportation is recognized as a large contributor to the community's greenhouse gas emissions. Electrifying the transportation sector and adding transportation alternatives would help make strides toward emissions reductions.

These focus areas were chosen to provide a holistic approach to energy stewardship and to gain a broad range of input from the community during outreach.

Goals

The Energy Action Team set near-term and long-term goals to measure success. These goals will guide the actions of this plan.

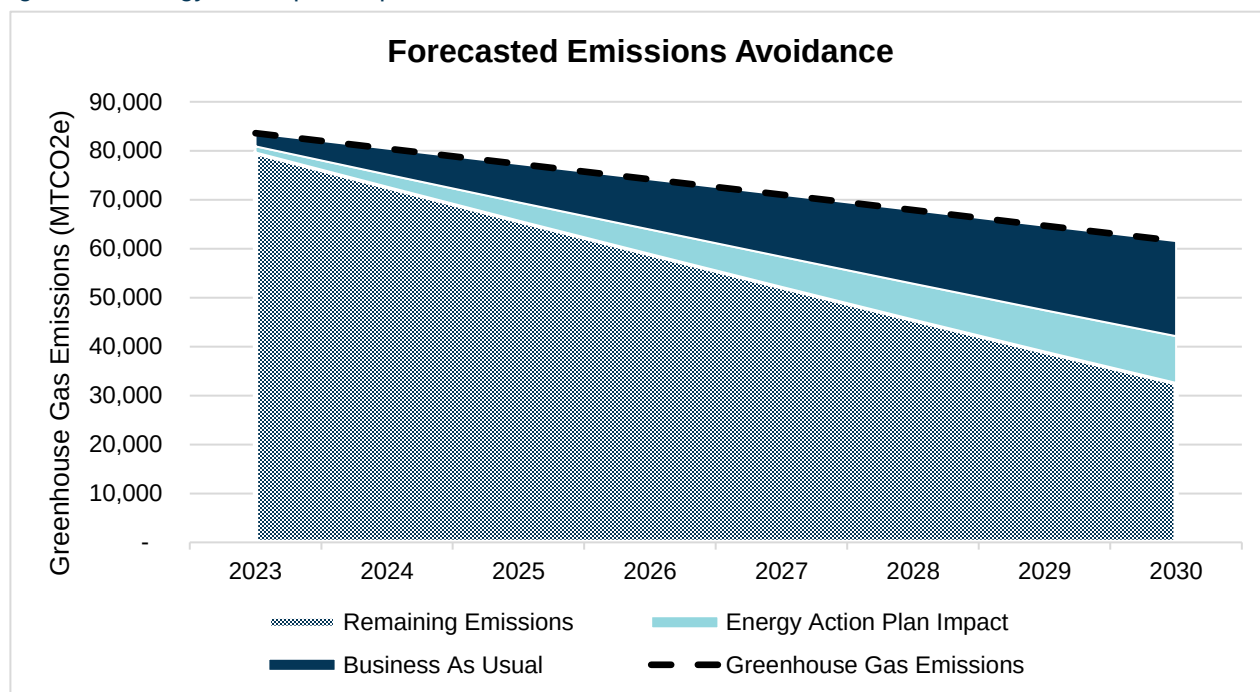
Community-wide Goal

Faribault will avoid an additional 50% of energy-related greenhouse gas emissions by 2030 compared to business as usual, while saving the community energy and money.

In other measures, this goal equates to the following:

- By reaching this goal, the City estimates Faribault will avoid spending an additional \$5.6 million on energy bills through increased energy efficiency.
- Achieving this goal will be equivalent to saving 33.9 million kWh of electricity and 4.4 million therms of natural gas by 2030.
- 50% equates to 28,992 MTCO₂e cumulatively avoided by 2030.

Figure 13. Energy action plan impact toward emissions avoidance



The Energy Action Team set short-term targets to reach the 2030 goal. Since increased program participation resulted in higher energy savings, annual targets for some popular utility programs are listed in Table 7, with annual savings targets listed in Table 6.

Faribault can reach these annual savings targets through a variety of programs and targets, so the program targets are provided as a sample only.

Table 6. Annual energy savings and participation targets

	Business as Usual		Energy Action Plan Target	
	Residential	Commercial/Industrial	Residential	Commercial/Industrial
Electricity Savings (kWh)	159,710	3,025,950	212,416	4,024,510
Natural Gas Savings (therms)	25,640	333,390	51,279	500,090
Participation	718	86	1,352	125

Table 7. Example annual program participation targets by sector

	Residential	Commercial/Industrial
Total Participation	1,352	125
Sample Program Targets	• 36 Home Energy Squad visits • 8 Insulation rebates • 351 Heating & Cooling rebates • 21 Water Heater rebates	• 28 HVAC+R rebates • 36 Lighting rebates • 3 Multi-family Building Efficiency participants • 4 Business Energy Assessment visits



HOW WE ARE GOING TO GET THERE

Considerations for all Focus Area activities

As the community and Energy Action Team planned the actions of this plan, the following considerations stood out from individual focus areas and should be applied to all work within this plan.

Equity: Be equitable in the implementation and intended outcomes of these strategies by translating materials where possible. Be deliberate with the means of communication to reach audiences equitably and build relationships within the community by attending community events and conversations.

Access: Build an approachable, updated, living resource hub of energy information relevant to the Faribault community that is easily accessed.

Our Business Community: Continue to be a business-friendly community when asking businesses to take energy actions.

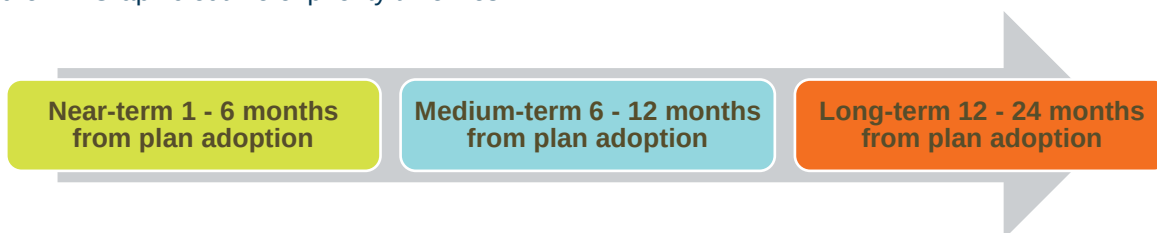
Informed: Keep apprised of and continue to update information available for all energy resources, including emerging technologies as they become relevant, available and financially accessible. These can include geothermal energy, ground source and air source heat pumps, HVAC rooftop unit heat-pumps, and electric vehicle changing incentives and programs.

Leadership and Recognition: Lead by example as a municipality and recognize the efforts of residents and businesses as they help reach this plan's goals through the following strategies.

Environmental impact: When promoting land and resource use, avoid doing more harm to that resource. For example, consider the full life cycle of products versus end-use.

Timelines: Each strategy has been given a color-coded timeline. That timeline includes near-, medium- and long-term timeframes. Partners in Energy offers support through an 18-month implementation period that supports the community's funding and capacity limitations. The work of these strategies will continue beyond these timelines to achieve the 2030 goal.

Figure 14. Graphic outline of priority timelines



Focus Area: Energy Efficiency

Strategy 1: Create a targeted outreach campaign encouraging energy assessments for homes and businesses.

As energy efficiency is the primary way to save energy, and it is difficult for audiences to act without advice or direction, energy assessments are a low to no-cost option for residents or businesses to learn about their energy use and inefficiencies. It will also indicate where they have the most potential for return on investment with energy projects.



Actions:	Partnerships/Resources:
1) Address barriers for residents such as cost, timing, language, and awareness and increase Home Energy Squad or other home energy assessment participation by promoting free visits and partnering with trusted messengers to reach underrepresented or hard to reach community members.	Growing up Healthy, Healthy Communities Initiative, school groups, higher education, senior center, community events
2) Showcase residents and businesses that undergo an energy assessment on the City's energy resource hub.	City communications
3) Conduct outreach to Faribault's business community through assessment program implementers and the Chamber of Commerce. Include case studies and incentive information in communications.	Chamber of Commerce, Faribault Futures, community events
4) Conduct a door-to-door campaign to small businesses to encourage energy assessments.	Energy Action Team, City Council Members, Mayor, Energy Smart, utility assessment programs
Communication:	Events, radio, weekly tips in Faribault Daily News/Weekly Shopper
Timeline: 1–6 Months	

Strategy 2: Consider the development of an efficient building policy that sets standards for building projects that obtain city incentives.

Grid reliability will also rely on Faribault's buildings to be efficient. Setting some standard for projects that apply for city incentives can increase efficient building stock, and therefore help grid reliability.

Actions:	Partnerships/Resources:
1) Connect with other communities who have building standard policies and review costs and benefits.	Community and Economic Development and Engineering departments
2) Write conclusions and recommendations to be reviewed by city staff, council, and public.	Community and Economic Development and Chamber of Commerce.
Communication:	City, Chamber of Commerce and elected official communications
Timeline: 12–24 Months	

Strategy 3: Engage multi-family building property owners and managers to take efficiency measures.

Faribault's multi-family buildings constitute a large part of the housing community and significantly impact energy savings. These efficiency measures can be taken in existing buildings and new construction. Faribault has done outreach to multi-family building owners in the past and can build on those efforts and relationships.

Actions:	Partnerships/Resources:
3) Create a targeted outreach campaign to older, existing multi-family building owners and property managers to increase energy efficiency and engage in efficiency programs.	Community and Economic Development and Engineering departments
4) Conduct multi-family building trainings on energy efficiency options for developers, building owners, operations and management staff.	Xcel Energy's Multi-family Building Efficiency program, local HVAC and weatherization experts
5) Lead by example through a City partnership with the Housing Redevelopment Authority to develop a plan to replace existing appliances with energy-efficient models.	Xcel Energy, Housing and Redevelopment, Partners in Energy, HUD, Community and Econ. Development Dept.
Communication:	City, Chamber of Commerce and elected official communications
Timeline: 6–12 Months	

Strategy 4: Promote energy efficiency in new construction and building retrofits.

As buildings are re-purposed or built, there is an opportunity to implement energy efficiency measures. Getting involved with those projects will require partnerships and communications to help promote these measures early in the design phase of a project.

Actions:	Partnerships/Resources:
1) Educate designers, contractors, etc. with a guide to resources for energy efficient buildings.	Community and Economic Development and Engineering departments, existing guides
2) Review and modify City code where applicable to require or incentivize more efficient buildings.	Other community examples, Community and Economic Development department
3) Encourage new technologies like motion lighting or efficient appliances/electronics through educational pieces.	Lighting consultants and utility programs
4) Promote city rebates, incentives and recognition for efficient buildings.	City webpage, Chamber of Commerce
Communication:	Chamber of Commerce, city permitting, elected official communications, social media
Timeline: 12–24 Months	

Strategy 5: Create education and awareness campaigns to encourage behavior change and promote energy efficiency programs to residents.

To reach audiences who may not be able to do an energy assessment, or to reach populations that want to start with small steps or are renting their homes, behavior change campaigns can provide a first step to home energy efficiency.

Actions:	Partnerships/Resources:
1) Attend community events with business and resident energy resources and tips to encourage energy efficiency actions.	Parks and Recreation department, Nature Center, senior center, schools, Downtown Business Association
2) Create a weekly energy tip/action and promote them throughout the community.	Energy Hub, weekly shopper, Faribault Daily News, social media, utility bill inserts, radio
Communication:	City website and communications, press, community boards
Timeline: 1–6 Months	

Strategy 6: Partner with schools, governmental and community organizations to act as trusted messengers of information and use existing programs to increase energy efficiency.

Creating messaging alongside community partners who may know the unique needs and communication methods of their networks will provide residents with energy information from trusted allies in the community, addressing energy needs more effectively.

Actions:	Partnerships/Resources:
1) Share Xcel Energy student toolkit with teachers and students to encourage behavior change at home.	Xcel Energy, K-12 schools, Partners in Energy
2) Share EmPowered Schools information with school districts.	EmPowered Schools, K-12 schools
3) Review GreenSteps Schools criteria and help in the pursuit of energy initiatives.	GreenSteps, K-12 schools
4) Recruit for a student internship to help perform basic energy assessments or guide residents toward utility programs.	Higher education or high school group
5) Develop energy-related library programming such as educational events on home energy efficiency, renewable energy and utility programs.	Library, community education
6) Create and distribute communications pieces that include education around energy for teachers and students.	K-12 schools and higher education
Communication:	School and library direct communications
Timeline: 1–6 Months	

Strategy 7: Increase access to energy and utility data to renters and buyers.

Knowledge of energy efficiency of a property or knowing the cost of an average utility bill can be a useful tool prior to entering into agreements when renting or buying homes.

Actions:	Partnerships/Resources:
1) Explore and consider a time of sale energy disclosure or energy audit for properties prior to selling a home or prior to renting to new tenants.	Peer communities, City departments, commissions and council, realtor and property owner groups.
Communication:	City communications
Timeline: 6–12 Months	

Strategy 8: Create a tool library resource to support energy efficiency projects at home.

Reach community members who want to do projects and learn more about their home or business energy use. A tool library could help residents and business owners access tools that aren't readily available or are expensive to purchase.

Actions:	Partnerships/Resources:
2) Acquire and create a collection of tools including an infrared camera, kilowatt meter, LED kits, and a guide or set of directions on how to use the tools to find inefficiencies and next steps to take.	Xcel Energy, library, Partners in Energy, local hardware stores
3) Partner with energy library programming to promote and encourage use of this kit.	Library, Partners in Energy
Communication:	City web page, social media, video media, paper, library communications
Timeline: 6–12 Months	

Strategy 9: Encourage energy efficient, affordable “missing middle” housing development by creating and communicating resources for retrofits of existing buildings and development of those properties.

Faribault is not unique in its position having a significant amount of single-family and multi-family housing stock and fewer “missing middle” housing, which includes duplexes, stacked and courtyard complexes, townhouses, and smaller multi-unit buildings in walkable neighborhoods. Encouraging this type of housing through energy efficiency incentives can grow that area of the housing community.

Actions:	Partnerships/Resources:
1) Work with City departments to identify housing stock and contacts to conduct outreach to existing buildings on available incentives.	City staff and Partners in Energy
2) Create a city/stacked incentive program that encourages developers to build missing middle properties.	Use other community examples and work with city council/commissions
3) Review and update city code to reduce barriers to constructing missing middle housing.	Use other community examples and work with city council/commissions
Communication:	On-on-one outreach
Timeline: 12–24 Months	

Strategy 10: Use passive energy strategies to reduce heat island effects that will bolster other energy strategies.

Faribault can make strides in reducing energy use (particularly during warm months) through measures that help reduce the urban heat island effects. This strategy can bolster the impact of the other energy efficiency strategies.

Actions:	Partnerships/Resources:
1) Consider green infrastructure and removal of unnecessary pavement or pavement alternatives when implementing or renovating projects.	Partners in Energy, Planning and Parks and Recreation departments
2) Consider light-colored pavement and roofs when building or renovating roofed structures, streets or paths.	Development, business associations
3) Review and update city code to reduce barriers to impervious surfaces.	City council and commissions
4) Plant trees for shade where possible.	Parks and Recreation department
Communication:	Internal to City departments
Timeline: 1–6 Months	

Focus Area: Renewable Energy

Strategy 1: Remove barriers for residents to access community solar or other renewable energy subscription offerings.



Alternatives to on-site solar exist for community members or businesses who lease or cannot install solar on their properties. Education is needed to show other available options for participation in renewable energy.

Actions:	Partnerships/Resources:
1) Educate residents on community solar subscription opportunities through information sharing on the City website.	City communications, Partners in Energy
2) Create easily accessible videos and infographics for understanding subscription options.	Partners in Energy and city communications
3) Partner with civic and social service organizations to develop and share incentives to renewable energy options for multi-family building residents and low-income residents.	Community Action Center, senior center, library
4) Launch a renewable energy subscription campaign for residents to access clean energy without on-site installations.	Faith organizations, community education, Partners in Energy
Communication:	City communications, press release, social media
Timeline: 6–12 Months	

Strategy 2: Build partnerships with organizations that can support outreach to encourage renewable energy among residents.

Organizations that act as a trusted resource can help shape messaging and communicate with their networks to promote renewable energy options. These partnerships can also lead to further sustainability messaging for future campaigns.

Actions:	Partnerships/Resources:
1) Host or partner with a contractor's event to share renewable energy benefits, resources and incentives.	Library, business associations, solar installers, community solar, Xcel Energy, Partners in Energy
2) Showcase businesses that have adopted renewable energy by creating case studies and articles and recognize them through City communications.	Partners in Energy, business association
Communication:	Social Media, direct email campaign
Timeline: 6–12 Months	

Strategy 3: Create targeted outreach campaigns encouraging large buildings to adopt renewable energy practices.

Using solar suitability mapping and identifying large buildings that could host a large solar array can benefit the business or building itself, as well as make a large advance toward greenhouse gas emissions avoided.

Actions:	Partnerships/Resources:
1) Create an outreach campaign for renters and property owners to engage in renewable energy programs.	Housing department, Xcel Energy, local solar companies
2) Create incentives for multi-family buildings to adopt renewable energy practices while avoiding placing the cost burden on residents.	Planning department, City Council
3) Lead by example on municipal owned buildings and properties (e.g., parking lots and streetlights).	City Council, solar companies, building staff, development, planning
4) Create a targeted outreach campaign for businesses to support renewable energy, including information on funding available for on-site solar projects.	Downtown business association, Faribault Futures, Xcel Energy, Chamber of Commerce
5) Help schools access on-site renewable energy projects and funding.	Higher education and K-12 schools
Communication:	City communications, press release, social media
Timeline: 12–24 Months	

Strategy 4: Help renewable installers to consider additional sustainability efforts when installing large solar arrays.

Additional sustainability efforts might include incorporating pollinator habitat or native grasses for water infiltration and carbon sequestration. This would provide dual purpose for the resources used.

Actions:	Partnerships/Resources:
1) Recognize efforts of solar installers who make additional sustainability actions to installations and include these actions on the Energy Hub.	Solar companies
Communication:	City communications
Timeline: 12–24 Months	

Focus Area: Transportation

Strategy 1: Increase access to EV education and resources.

As new incentives are rolled out and EV ownership is expected to increase significantly by 2030, education on available incentives and charging options will inform community members on the adoption of an electric vehicle.



Actions:	Partnerships/Resources:
1) Promote available information, resources and financing opportunities through the City's Energy Hub (such as IRA funds and other incentives).	City communications
2) Host ride and drive events.	Drive Electric MN, Xcel Energy, Parks and Recreation department, community events
3) Share educational materials at events.	Rice County Fair, Concerts in the Park, International Fest, Heritage Days
Communication:	City communications, Faribault Daily News
Timeline: 6–12 Months	

Strategy 2: Increase convenient charging availability.

Best placement and other installation plans for public EV charging will help the adoption of electric vehicles, make visiting area businesses more attractive, and aid in accessible charging infrastructure.

Actions:	Partnerships/Resources:
1) Explore increasing public charging stations in downtown Faribault as a draw for business.	Xcel Energy, business associations, Chamber of Commerce
2) Develop a site plan and prioritize sites for public chargers to access funding as it becomes available.	Planning department, MnDOT charging infrastructure guides
3) Include charging guidelines/requirements for multi-family buildings and explore charging infrastructure ordinances in new development and retrofits of multi-family buildings.	Community examples of best practices and policies, City Council
Communication:	City communications
Timeline: 6–12 Months	

Strategy 3: Partner with the utility to ensure reliability in the grid as EV adoptions increase.

Being in close contact with the utility as electric vehicle charging increases will ensure grid reliability as charging is added to public and private locations.

Actions:	Partnerships/Resources:
1) Establish a contact person at the utility who can share information at a regular cadence on grid pressures and intake information on City plans or campaigns.	Xcel Energy
Communication:	Internal
Timeline: 1–6 Months	

Strategy 4: Access and promote funding and opportunities for electrification of fleet vehicles.

When replacement is needed for fleets such as public transit, school busses, commercial vehicles, e-bikes, municipal fleets, postal vehicles, etc. the City, residents, and business owners can assess whether an EV makes economic sense. Help those organizations keep apprised of incentives and resources for those updates.

Actions:	Partnerships/Resources:
1) Keep the City website up to date on funding changes or updates to programs while establishing relationships with organizational fleet managers to keep them apprised of resources.	Xcel Energy, business associations, municipal fleet manager
Communication:	Internal
Timeline: 6–12 Months	

Strategy 5: Support low-income communities in electric transportation by removing barriers to access.

Faribault's under-resourced community members should be kept apprised of electric vehicle options. Initial resources should include new incentives and low-maintenance costs of EV ownership.

Actions:	Partnerships/Resources:
1) Create a resource guide (digital and printable) for accessing federal and state dollars for EV adoption, e-bikes, and other electric transportation equipment	Xcel Energy, Partners in Energy
Communication:	City communications
Timeline: 12–24 Months	

Strategy 6: Support the development of a complete network of active transportation infrastructure.

Faribault can aid the energy strategies and add to the greenhouse gas reduction goals of this plan by removing vehicle transportation by adding alternative transportation methods.

Actions:	Partnerships/Resources:
1) Support the creation of more walking and biking infrastructure.	Transportation and Planning departments
2) Support the addition of options to the public transit network (e.g., trains, electric bikes, etc.).	Transportation and Planning departments
Communication:	City communications
Timeline: 1–6 Months	

Focus Area: Beneficial Electrification

Strategy 1: Create an education and outreach campaign to share the possibilities of home appliance electrification and qualified contractors.

As incentives and resources become available to homeowners and landlords, the City can help inform the public of those resources and the benefits of electrifying their properties.



Actions:	Partnerships/Resources:
1) Develop a school campaign to include in science courses.	Higher education, K-12 schools, Xcel Energy, Empowered Schools
2) Host community center and library educational sessions.	Transportation and Planning departments
3) Use and promote existing organizations' educational resources and preferred contractor lists.	ASHP Collaborative, MN Geothermal Heat Pump Association
Communication:	City communications
Timeline: 1–6 Months	

Strategy 2: Incorporate beneficial electrification into new construction recommendations/requirements and promote existing programs and incentives.

As new homes and businesses are built, contractors or builders will be informed about available incentives and best practices to install electric HVAC and appliances.

Actions:	Partnerships/Resources:
1) Create recommendation packets to distribute to local builders, remodelers, and large construction projects.	Chamber of Commerce, Partners in Energy, Xcel Energy
2) Explore requirements for electric appliances and bring recommendations to City Council.	Other community examples of policy or ordinance
Communication:	City communications
Timeline: 12–24 Months	

Strategy 3: Support contractor trainings and education on new electrification technologies.

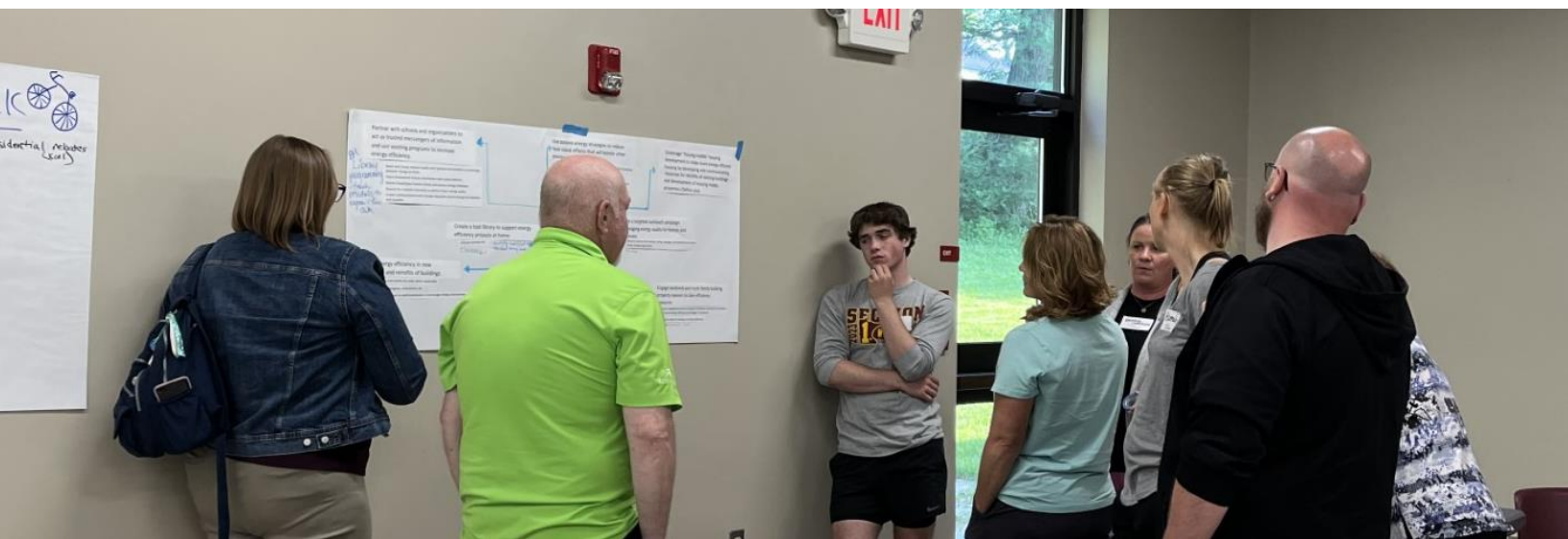
The workforce will be informed of new technology transitions, options, available incentives and installation best practices.

Actions:	Partnerships/Resources:
1) Partner with the MN Air Source Heat Pump Collaborative and other workforce training programs to conduct workshops for contractors.	ASHP Collaborative, Chamber of Commerce, Partners in Energy, Xcel Energy
Communication:	City communications, Chamber of Commerce network
Timeline: 12–24 Months	

Strategy 4: Electrify parks maintenance equipment.

As equipment is replaced in Faribault's parks maintenance selection, electric options will be considered to reduce costs of fuel and maintenance.

Actions:	Partnerships/Resources:
1) Identify procurement processes and update language for considering or requiring electric equipment when replacement is needed for mowers, trimmers, etc.	Parks and Recreation department
Communication:	Internal communications
Timeline: 6–12 Months	



HOW WE STAY ON COURSE

This Energy Action Plan is a living document. Goals and strategies will be assessed and refined as needed based on data and community staff capacity.

Xcel Energy Support

Data and Reporting

Partners in Energy will provide biannual progress reports with metrics of success and overall progress toward goals for Xcel Energy rebates and programs. These reports will be available publicly and shared with both the community and Energy Action Team.

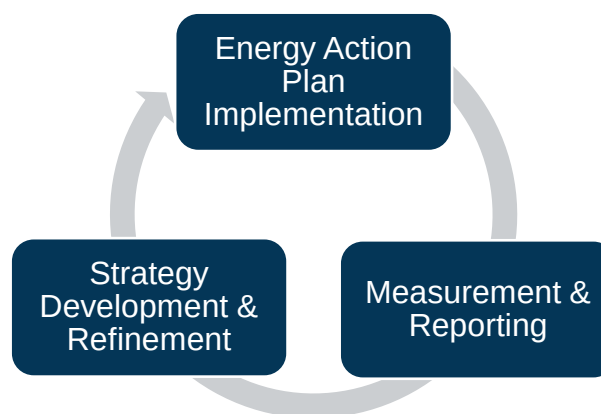


Figure 15. Actions and tracking

If available, ad-hoc participation reports for specific Xcel Energy programs (e.g., Home Energy Squad) can be provided to measure success of campaigns and to determine if we need to change course.

Project Management and Tracking

Partners in Energy will host regular project management check-in calls with staff to ensure we stay on course to achieve our strategies. If necessary, an implementation check-in meeting with the Energy Action Team can be convened to assess progress toward goals and discuss strategy refinement.

Energy Action Team and Community Commitment

The Energy Action Team formed to create this plan will support implementation by ensuring this document reflects the voices of the community and by helping implement the strategies that each team member was passionate about.

The community members who filled out surveys or responded to community listening boards have requested updates on the progress of the plan and the actions taken along the way. They have started a communication list for Faribault community members who are interested in the community's energy future.

The City of Faribault is committed to the municipal strategies in this plan and to working alongside the broader community to implement other strategies. The City is also committed to continue to build partnerships to continue to save the community money and energy.



APPENDIX A: BASELINE ENERGY ANALYSIS

Data was provided by Xcel Energy for all Faribault premises for 2017–2021. Xcel Energy provides electric and natural gas service to the community. The data helped the Energy Action Team understand Faribault’s energy use and identify opportunities for energy conservation and renewable energy. Data included in this section establishes a baseline against which progress toward goals will be compared in the future.

Electricity and Natural Gas Premises

Most Faribault premises are residential. Of the 9,953 distinct premises in Faribault in 2021, 86% (8,558) are residential, while commercial and industrial buildings represent 14% (1,395).

Table 8. Premise count by sector, 2021

Sector	Premise Count	Percent of Premises
Residential	8,558	86%
Commercial and Industrial	1,395	14%
Total	9,953	100%

Electricity and Natural Gas Consumption and Trends by Sector

On average from 2017-2021, the Faribault community consumed 214 million kWh of electricity and 15.3 million therms of natural gas across all sectors per year (Table 9). Total energy consumption increased by over the baseline period by 3%, which can be attributed to an increase in natural gas consumption in the commercial and industrial sector, as well as an increase in electricity consumption in the residential sector (Table 10). During the same period, electricity consumption in the commercial and industrial sector decreased by 9%.

Table 9. Average annual energy consumption by sector by fuel type, 2017–2021

Sector	Electricity Consumption (kWh)	Natural Gas Consumption (Therms)	Total Energy Consumption (MMBtu)	Percent of Total Energy Consumption
Residential	65,597,249	6,187,004	842,518	37%
Commercial and Industrial	148,012,439	9,119,306	1,416,949	63%
Total	213,609,688	15,306,310	2,259,467	100%

Table 10. Annual energy consumption by sector by fuel type, 2017–2021

Fuel Type		Residential	Commercial and Industrial	Total
2017	Electric (kWh)	63,367,144	155,915,550	219,282,694
	Natural Gas (therm)	5,722,761	8,019,140	13,741,901
	Total (MMBtu)	788,485	1,333,898	2,122,383
2018	Electric (kWh)	66,844,111	156,897,927	223,742,038
	Natural Gas (therm)	6,775,128	9,805,872	16,581,000
	Total (MMBtu)	905,585	1,515,923	2,421,508
2019	Electric (kWh)	63,965,767	147,850,556	211,816,323
	Natural Gas (therm)	6,658,740	9,710,553	16,369,293
	Total (MMBtu)	884,125	1,475,521	2,359,647
2020	Electric (kWh)	66,628,789	138,058,609	204,687,398
	Natural Gas (therm)	6,068,915	9,030,378	15,099,293
	Total (MMBtu)	834,229	1,374,094	2,208,323
2021	Electric (kWh)	67,180,435	141,339,551	208,519,986
	Natural Gas (therm)	5,709,478	9,030,585	14,740,063
	Total (MMBtu)	800,167	1,385,309	2,185,476

Total energy consumption during the baseline period showed variation in each sector consistent with variation in weather. Hotter summers (those with more cooling degree days) and colder winters (those with more heating degree days) had higher energy consumption.

Table 11. Cooling degree and heating degree days, 2017–2021

	2017	2018	2019	2020	2021
Cooling Degree Days	830	1,135	817	950	1,184
Heating Degree Days	6,743	7,760	7,921	7,128	6,678

Greenhouse Gas Emissions and Trends

Faribault's overall greenhouse gas (GHG) emissions increased from 2017 to 2018, and declined from 2018–2020, then grew slightly by 1.7% from 2020–2021. Overall, GHG emissions are 11% lower in 2021 compared to 2017 levels.

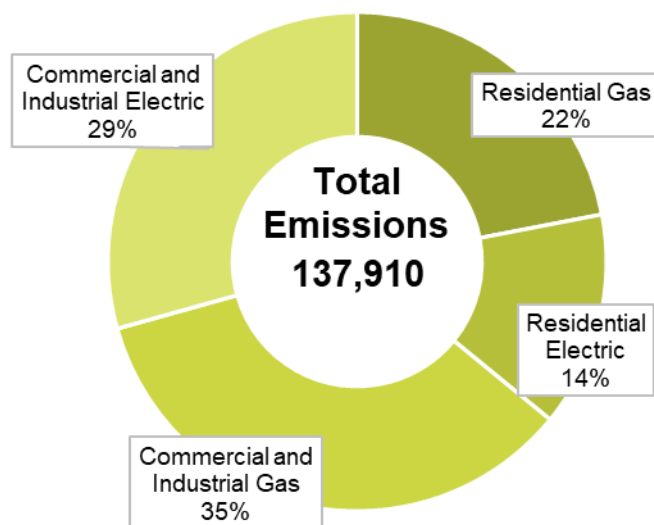
Table 12. Energy-related greenhouse gas emissions in MTCO₂e, 2017–2021

Customer Type	2017	2018	2019	2020	2021
Residential	53,998	60,425	56,955	50,281	49,529
Commercial and Industrial	100,693	109,474	101,498	85,374	88,380
Total Emissions	154,691	169,899	158,453	135,655	137,910

In 2021, the residential sector generated 36% of Faribault’s energy-related greenhouse emissions and the commercial sector generated 64% of the emissions. Natural gas consumption made up the largest proportion of emissions for both the residential and commercial sectors (Figure 16).

Figure 16. Energy-related greenhouse gas emissions by sector and fuel type, 2021

**2021 GHG Emissions (MTCO₂E)
by Sector and Fuel Type**



To calculate Faribault’s energy-related emissions, preliminary and certified emissions factors from Xcel Energy’s Upper Midwest Fuel Mix and a standard emissions factor for natural gas emissions were used (Table 13). As Xcel Energy completes third-party verification, the emissions factors used during the planning process to estimate greenhouse gas emissions may change.

Table 13. Emissions factors used to calculate energy-related greenhouse gas emissions, 2017–2021

Fuel Type	2017	2018	2019	2020	2021
Electricity Emissions Factor (lbs/MWh)	822	807	745	598	631
Natural Gas Emissions Factor (MTCO ₂ e/Dth)	0.053071	0.053071	0.053071	0.053071	0.053071

Energy Costs

In total, Faribault premises spent an annual average of \$31.5 million on energy during the baseline period. Faribault residential premises made up 39% of that spending, while commercial premises made up the remaining 61%. Commercial and industrial premises spent more overall, and their average annual cost per premise was greater (\$14,027) than the average cost for residential premises (\$1,432). Table 15 shows the energy costs by year for 2017–2021 by sector and fuel type.

Table 14. Average annual energy costs by sector and fuel type, 2017–2021

Customer Type	Average Annual Electricity Costs	Average Annual Natural Gas Costs	Average Annual Total Costs	Average Annual Cost per Premise
Residential	\$8,408,174	\$3,814,248	\$12,222,422	\$1,432
Commercial and Industrial	\$14,785,939	\$4,514,551	\$19,300,491	\$14,027
Total	\$23,194,113	\$8,328,799	\$31,522,913	

Table 15. Annual energy costs by sector and fuel type, 2017–2021

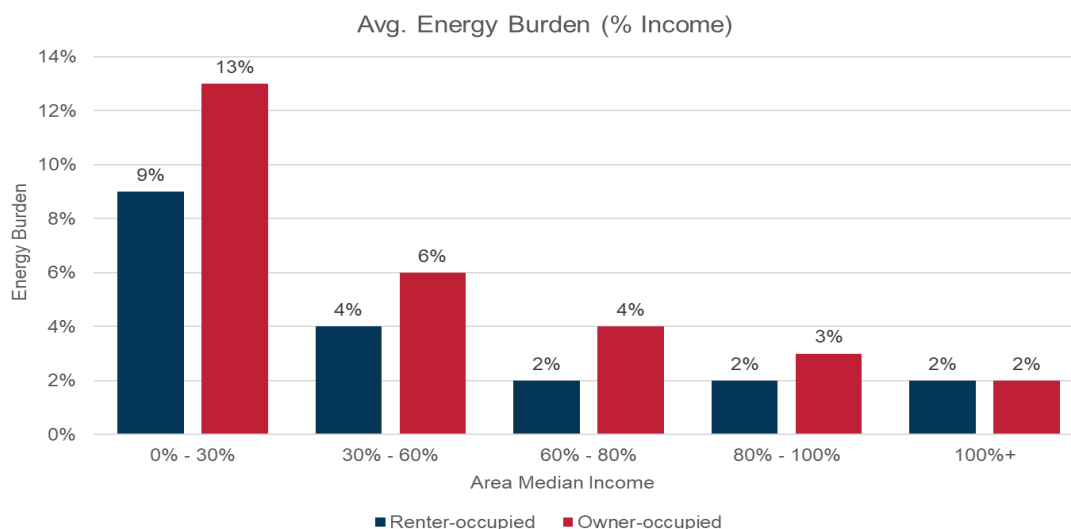
Sector	Year	Annual Electricity Costs	Annual Natural Gas Costs	Annual Total Costs	Annual Cost per Premise
Residential	2017	\$7,861,040	\$3,581,415	\$11,442,455	\$1,343
	2018	\$8,775,704	\$4,176,942	\$12,952,646	\$1,515
	2019	\$8,113,356	\$4,101,794	\$12,215,150	\$1,427
	2020	\$8,577,229	\$3,422,387	\$11,999,616	\$1,403
	2021	\$8,713,541	\$3,788,702	\$12,502,243	\$1,461
Commercial and Industrial	2017	\$15,125,860	\$4,005,169	\$19,131,029	\$13,843
	2018	\$15,571,055	\$4,871,435	\$20,442,490	\$14,602
	2019	\$14,514,878	\$4,731,585	\$19,246,463	\$13,906
	2020	\$13,588,281	\$3,889,638	\$17,477,919	\$12,767
	2021	\$15,129,622	\$5,074,930	\$20,204,552	\$14,484

Energy Burden

Energy burden is the percentage of income that residents spend on energy, and in Faribault it is greatest for owner-occupied homes with owners making 30% or less of the median income. This group of residents spends up to 13% of their income on energy costs.⁹ Notably, energy burden is higher across every income group for homeowners rather than renters.

⁹ Department of Energy LEAD Tool comparison

Figure 17. Energy burden by unit occupancy and median income, DOE LEAD Tool



Program Participation and Savings

Faribault already has a significant number of participants in energy efficiency programs from Xcel Energy, resulting in energy savings for residents and commercial premises. While fewer commercial premises participate, their participation results in larger savings per premise. Participation in these commercial programs saved an annual average of 3,185,660 kWh of electricity and 359,030 therms of natural gas.

Annual program participation counts, and electricity and natural gas savings are shown in Table 16 and Table 17. Savings values noted with an em dash (–) are not applicable, meaning there are no electricity or natural savings associated with that program.

Table 16. Annual residential sector efficiency program participation and savings, 2017–2021

Program		2017	2018	2019	2020	2021
Efficient New Home Construction	Count	4	7	2	0	0
	Savings (kWh)	2,751	5,380	2,561	0	0
	Savings (therms)	1,003	1,225	158	0	0
Home Energy Audit	Count	32	76	43	4	4
	Savings (kWh)	–	–	–	–	–
	Savings (therms)	–	–	–	–	–
Home Energy Savings Program	Count	1	13	9	0	1
	Savings (kWh)	0	1,828	2,262	0	158
	Savings (therms)	29	0	2,195	0	0
Home Energy Squad	Count	24	24	13	6	5
	Savings (kWh)	30,228	35,996	18,550	12,634	7,639
	Savings (therms)	2,009	1,791	956	421	173
Insulation Rebate	Count	0	4	4	5	4
	Savings (kWh)	0	511	1,028	1,311	4,633
	Savings (therms)	0	980	1,833	2,343	776
Low-Income Home Energy Squad	Count	11	74	3	24	2
	Savings (kWh)	10,546	48,375	2,575	13,663	2,938
	Savings (therms)	746	4,560	177	1,354	136
Multi-Family Energy Savings Program	Count	0	73	0	0	0
	Savings (kWh)	0	42,211	0	0	0
	Savings (therms)	–	–	–	–	–
Refrigerator Recycling	Count	26	53	50	30	43
	Savings (kWh)	28,695	44,815	46,903	21,577	28,888
	Savings (therms)	–	–	–	–	–
Residential Heating and Cooling	Count	148	190	167	186	243
	Savings (kWh)	61,793	78,930	73,116	94,961	63,600
	Savings (therms)	15,018	19,767	14,395	18,794	33,044
Residential Saver's Switch	Count	474	279	295	589	214
	Savings (kWh)	970	564	594	1,193	228
	Savings (therms)	–	–	–	–	–
Smart Thermostat	Count	10	15	6	4	53
	Savings (kWh)	64	552	274	532	2,531
	Savings (therms)	57	564	140	280	1,420
Water Heater Rebate	Count	20	9	11	4	0
	Savings (kWh)	–	–	–	–	–
	Savings (therms)	916	297	475	165	0
Total	Count	750	817	603	852	569
	Savings (kWh)	135,047	259,162	147,863	145,871	110,615
	Savings (therms)	19,778	29,184	20,329	23,357	35,549

Table 17. Annual commercial/industrial sector efficiency program participation and savings, 2017–2021¹⁰

Program		2017	2018	2019	2020	2021
Custom Efficiency	Count	3	2	5	1	3
	Savings (kWh)	138,406	129,722	1,808,906	0	445
	Savings (therms)	0	2,477	651	1,289,051	0
Efficiency Controls	Count	2	0	0	0	0
	Savings (kWh)	284,439	0	0	0	0
	Savings (therms)	30,874	0	0	0	0
Electric Rate Savings	Count	6	10	6	1	11
	Savings (kWh)	9,151	12,603	4,637	-1,239	-21,399
	Savings (therms)	–	–	–	–	–
Energy Design Assistance	Count	0	3	0	4	0
	Savings (kWh)	0	320,162	0	2,075,377	0
	Savings (therms)	0	24,066	0	19,340	0
Energy Efficient Buildings	Count	2	0	0	0	0
	Savings (kWh)	122,327	0	0	0	0
	Savings (therms)	1,012	0	0	0	0
Fluid System Optimization	Count	4	2	0	2	0
	Savings (kWh)	507,208	116,506	0	204,373	0
	Savings (therms)	0	0	0	0	0
Foodservice Equipment	Count	0	2	1	1	2
	Savings (kWh)	0	3,171	0	0	22,454
	Savings (therms)	0	20,109	4,049	274	3,174
HVAC +R Efficiency	Count	15	23	23	21	14
	Savings (kWh)	257,918	164,625	552,540	91,666	282,286
	Savings (therms)	9,054	1,454	10,645	181,826	4,689
Lighting Efficiency	Count	20	22	25	25	24
	Savings (kWh)	545,017	1,269,918	1,490,293	1,081,187	1,799,263
	Savings (therms)	–	–	–	–	–
Multi-Family Building Efficiency	Count	1	0	3	1	2
	Savings (kWh)	4,610	0	21,487	0	2,029
	Savings (therms)	899	0	1,982	0	0
Peak Partner Rewards	Count	0	0	0	0	1
	Savings (kWh)	0	0	0	0	167
	Savings (therms)	–	–	–	–	–
Recommissioning	Count	0	4	4	0	0
	Savings (kWh)	0	0	293,750	0	0
	Savings (therms)	0	0	60,941	0	0
Saver's Switch for Business	Count	2	0	3	1	10
	Savings (kWh)	58	0	53	27	43
	Savings (therms)	–	–	–	–	–
Small Business Lighting	Count	22	22	17	10	12
	Savings (kWh)	650,179	315,562	215,546	158,849	193,346
	Savings (therms)	–	–	–	–	–
Smart Thermostats for Business	Count	0	0	0	10	9
	Savings (kWh)	0	0	0	138	1,934
	Savings (therms)	0	0	0	0	385

¹⁰ In 2021, Commercial Refrigeration Efficiency, Cooling, Heating Efficiency and Motor Efficiency were merged in 2021 and renamed as HVAC+R Efficiency.

Program		2017	2018	2019	2020	2021
Turn Key Services	Count	0	2	4	0	4
	Savings (kWh)	–	–	–	–	–
	Savings (therms)	–	–	–	–	–
Total						
	Count	77	92	91	77	92
	Savings (kWh)	2,519,313	2,332,269	4,387,212	3,610,378	2,280,568
	Savings (therms)	41,839	48,106	78,268	1,490,491	8,248

Renewable Energy Support

There is support for renewable energy in Faribault with almost 700 residential premises subscribing to Xcel Energy renewable programs. These premises subscribe a total of 3,534,000 kWh of their electricity to renewable sources, the equivalent of taking 340 gas-powered cars off the road for a year.¹¹ Commercial and industrial premises also subscribe to Xcel Energy's renewable programs, with 77 subscribers subscribing a total of 37,876,000 kWh of electricity to renewable programs.

Table 18. Renewable energy subscriptions and program participation, 2021

	Residential	Commercial/ Industrial
Subscription Programs - Windsource & Renewable*Connect		
Subscriber Count	382	5
Total Annual Electricity Subscribed (kWh)	829,000	3,020,000
Percent of Sector Xcel Energy Electricity Use	1.23%	2.1%
Community Solar Gardens - Solar*Rewards Community		
Subscriber Count	289	72
Total Annual Electricity Subscribed (kWh)	2,705,000	34,813,000
Percent of Sector Xcel Energy Electricity Use	4.0%	24.6%
On-site Solar - Solar*Rewards and Net-Metering		
Subscriber Count	35	16
Total Electricity Capacity (kW)	452	1,589
Total Xcel Energy Renewable Energy Support ¹²		
Subscriber Count	671	77
Total Annual Electricity Subscribed (kWh)	3,534,000	37,876,000

¹¹ <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

¹² Excludes on-site solar due to behind the meter generation.

Community Maps

Using American Community Survey data, maps by census tracts were created to give context for the geographical distribution of key population and housing characteristics. Data include estimated counts of households eligible for low-income programs, renter-occupied units, and multi-family unit buildings.

Figure 18. Faribault households eligible for low-income programs by census tract, 2017–2021

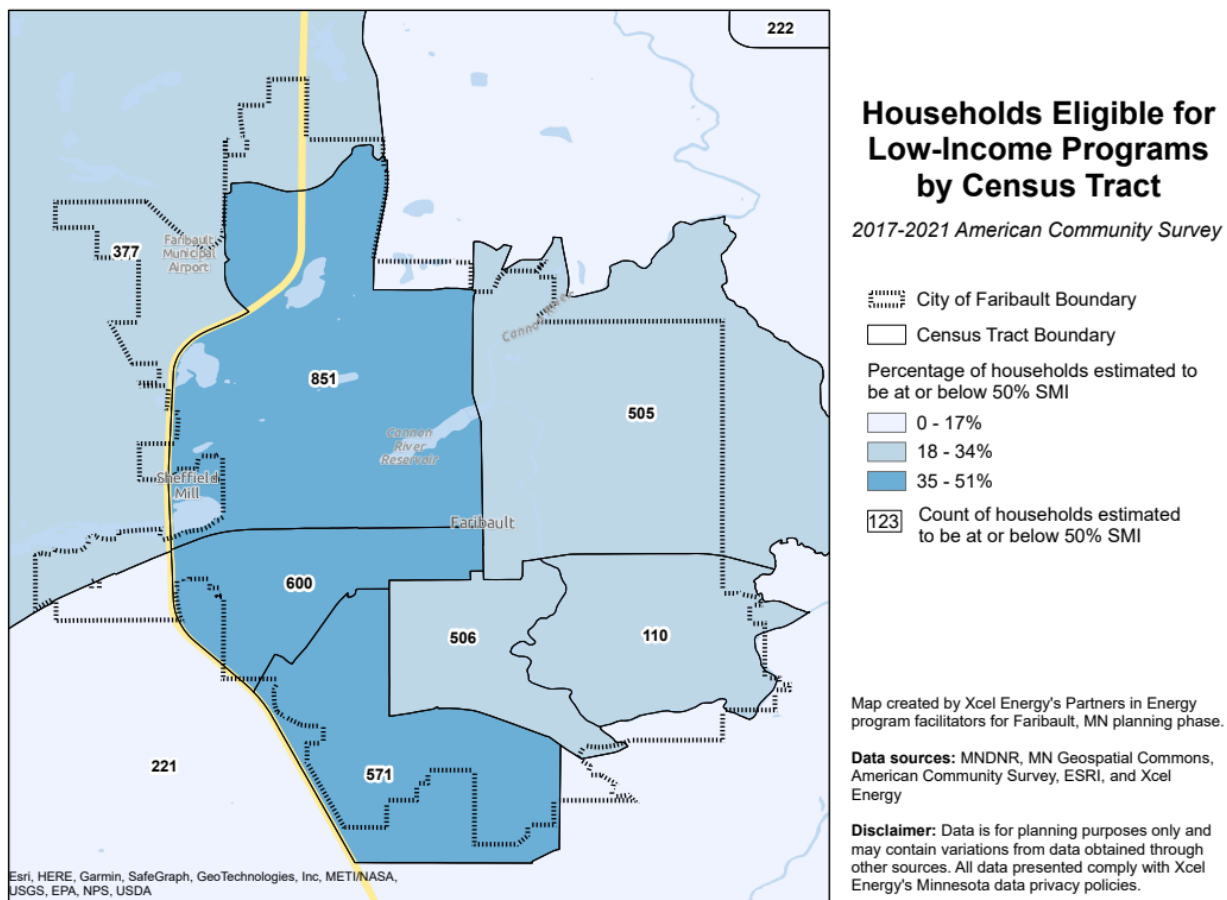


Figure 19. Faribault renter-occupied units by census tract, 2017–2021

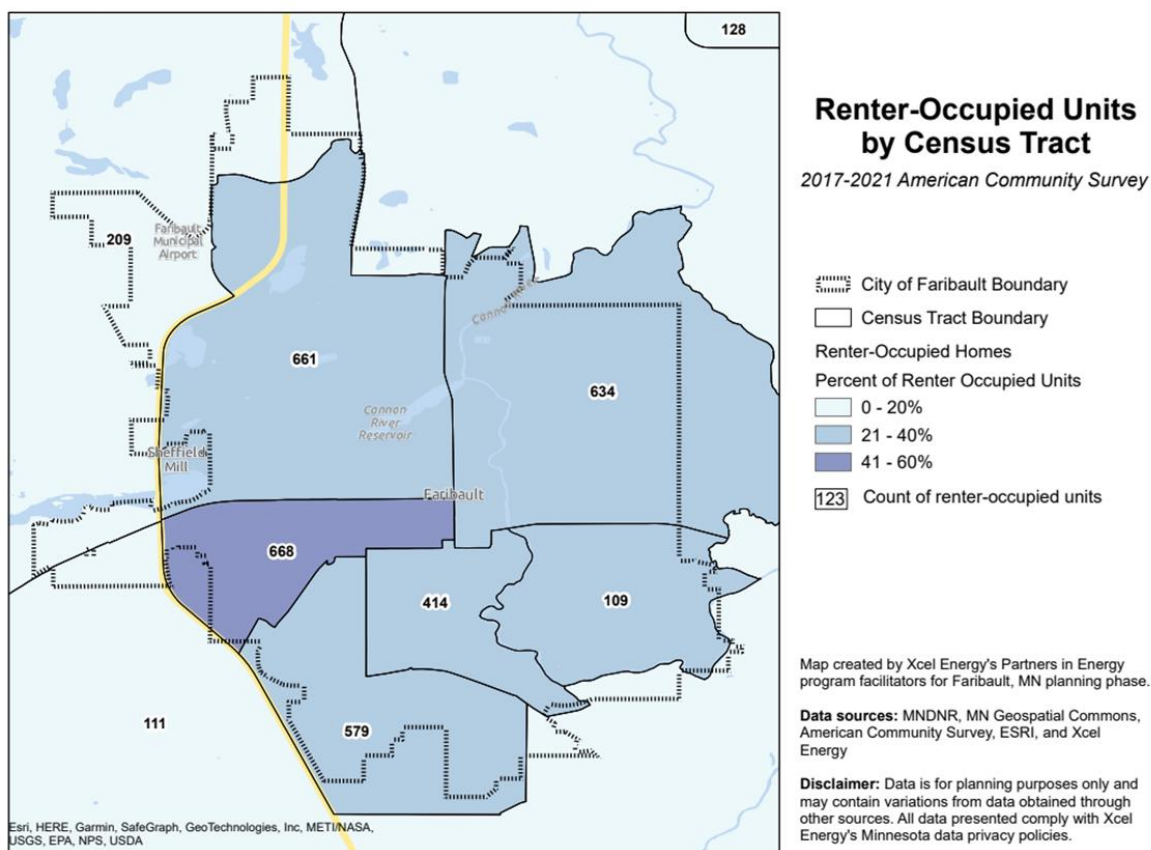
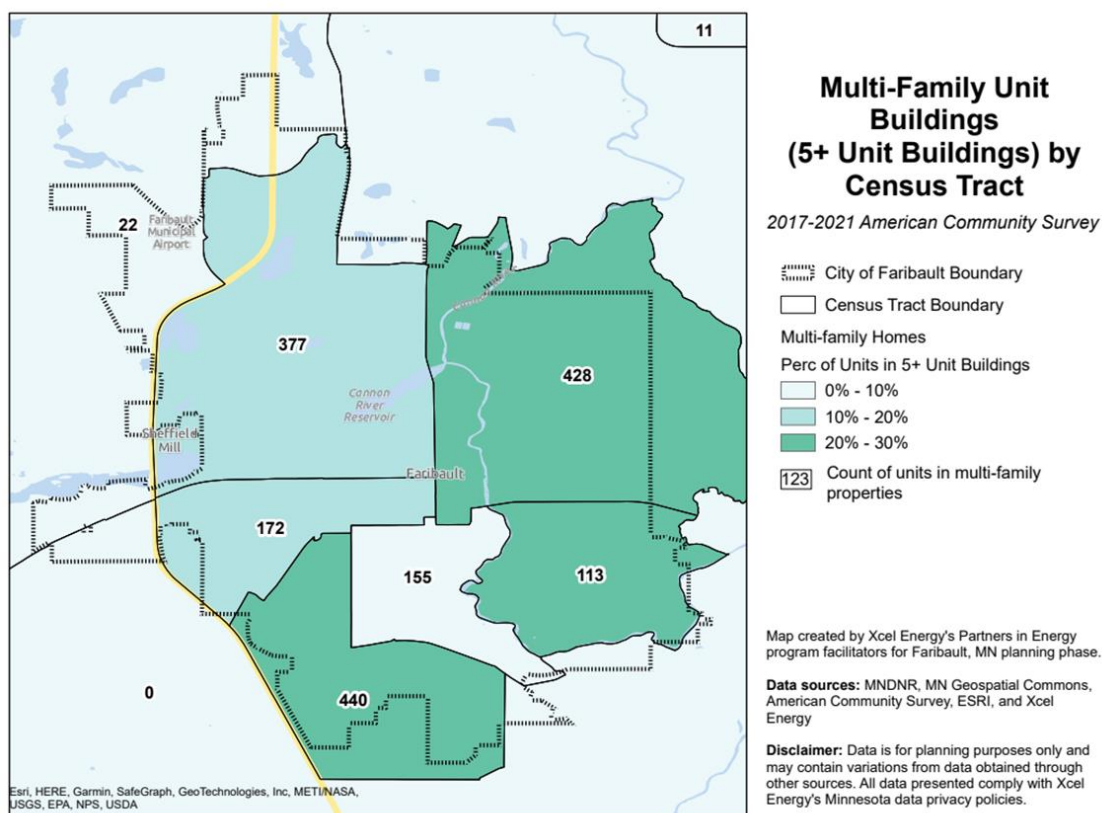


Figure 20. Faribault multi-family unit buildings by census tract, 2017–2022





APPENDIX B: METHODOLOGY FOR MEASURING SUCCESS

As part of implementation support, Partners in Energy will provide biannual progress reports for Xcel Energy participation and savings data for Faribault. All goals will be measured against Faribault's business as usual scenario, which averages data from a three-year baseline of 2019–2021 unless otherwise noted.

The following section defines the values against which progress is measured, including Xcel Energy programs included in the assumptions.

Community-wide Goal

- Faribault will avoid an additional 50% of energy-related greenhouse gas emissions by 2030 compared to business as usual, while saving the community energy and money.

This goal is measured against a business as usual (BAU) savings scenario based on the three-year baseline. The community-wide goal will be measured comparing cumulative energy savings, greenhouse gas emissions and estimated dollars saved for electricity and natural gas savings for all sectors between 2023 and 2030 against the estimated BAU value for the same period.

First-year savings data provided by Xcel Energy for current and future energy efficiency programs will be used to calculate electricity and natural gas savings. Partners in Energy facilitators will use energy savings by sector and fuel type to calculate estimated dollars saved in the community using sector specific rate assumptions. To calculate greenhouse gas emissions, Partners in Energy facilitators will use preliminary and certified emissions factors from Xcel Energy's Upper Midwest Fuel Mix.

Table 19. Cumulative savings scenarios

	Cumulative 2030 BAU Scenario	Cumulative 2030 Goal Scenario
Electricity Savings (kWh)	25,485,277	33,895,418
Natural Gas Savings (therms)	2,872,238	4,410,915
Total Energy Savings (MMBtu)	374,180	556,743
Greenhouse Gas Emission Savings (MTCO ₂ e)	19,441	28,992
Dollar Savings	\$3,969,058	\$5,644,853

Annual Energy Savings and Participation Targets

To meet Faribault's 2030 goal, the community will need to increase Xcel Energy program participation, saving more electricity and natural gas annually than the BAU scenario. Table 20 identifies the annual participation and energy savings targets needed to stay on track to meet the 2030 goal compared to the BAU scenario, assuming a linear increase to reach their 2030 goal. Participation includes Xcel Energy's current and future energy efficiency programs for residential and commercial/industrial customers and excludes renewable energy programs.

Table 20. Annual energy savings and participation targets

	Annual BAU Scenario	Annual Goal Scenario
Residential Participation	718	1,352
Commercial/Industrial Participation	86	125
Electricity Savings (kWh)	3,185,660	4,236,927
Natural Gas Savings (therms)	359,030	551,364
Total Energy Savings (MMBtu)	46,772	69,593



APPENDIX C: XCEL ENERGY'S PARTNERS IN ENERGY PLANNING PROCESS

About Xcel Energy's Partners in Energy

Xcel Energy is an electric and natural gas utility that provides the energy that powers millions of homes and businesses across eight Western and Midwestern states. Each community Xcel Energy serves has its own unique priorities and vision for its energy future. The energy landscape is dynamically changing with communities leading the way in setting energy and sustainability goals. To continue to innovatively support their communities, Xcel Energy launched Partners in Energy in the summer of 2014 as a collaborative resource with tailored services to complement each community's vision. The program offerings include support to develop an energy action plan or electric vehicle plan, tools to help implement the plan and deliver results, and resources designed to help each community stay informed and achieve their outlined goals.

Plan Development Process

The content of this plan is derived from a series of planning workshops, surveys, community input boards and event tabling held in the community with a planning team committed to representing local energy priorities and implementing plan strategies and interested community members.

Community Engagement

Community input was a priority of the City of Faribault in the energy planning process.

Partners in Energy helped create a series of tools to use to gather community input

Figure 21. Partners in Energy Resources for Success



including listening boards, community surveys in English, Somali and Spanish languages, tabling tools, and interview questions.

Workshops

There were four workshops during the planning process that also combined input from the broader community. Two of these workshops were intended to include more community members that may only be able to come to one workshop. These workshops were promoted through the local paper, city website, and community email lists. One of these workshops was held virtually to hear from people who may not be able to travel, and one of them was held at the Faribault Community Center where dinner was provided in a family friendly atmosphere.

Community Energy Survey

The community energy survey reached over 170 people during the planning process and asked questions that helped inform the strategies of this plan and ensure we were reaching audiences that were diverse and representative of the Faribault community.

Examples Survey Questions and Responses

The following section includes examples of questions asked in the community energy survey.

Figure 22: Chart of responses to the question, “When thinking about energy, what is important to you and your family?”

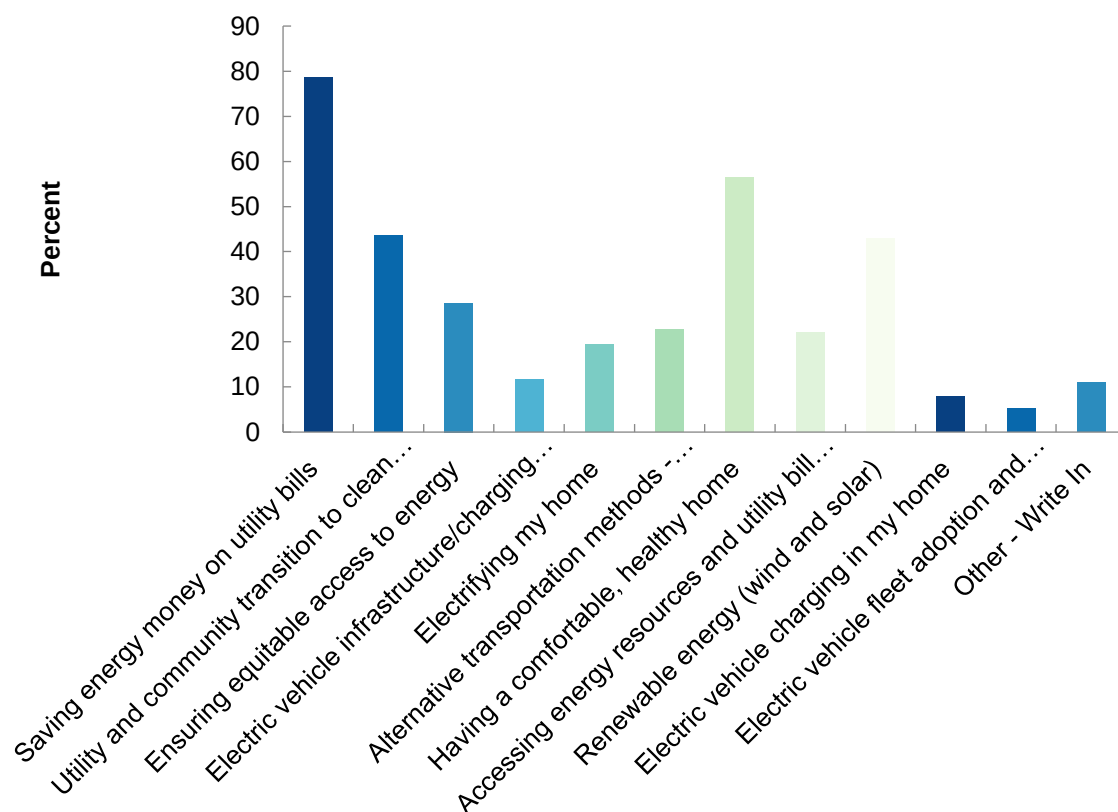


Figure 23: Word cloud image of responses to the question, “How would you describe yourself as a part of the Faribault community?”



APPENDIX D: IMPLEMENTATION MEMORANDUM OF UNDERSTANDING