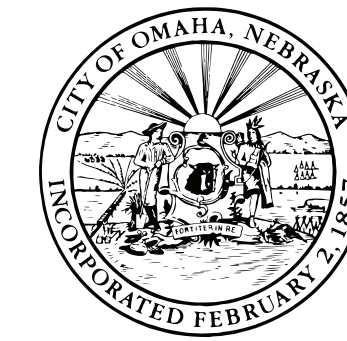


WELCOME



MAHA
climate
ACTION AND RESILIENCE PLAN

Please sign-in at the entrance.

The purpose of this open house is to:

- Share information about climate change impacts
- Provide an opportunity to learn about the Omaha Climate Action and Resilience Plan process
- Visit with and ask questions of the plan development team
- Collect input on the preliminary goals and draft strategies and actions in the Omaha Climate Action and Resilience Plan

Climate Change & Impacts



Climate Change

Long-term changes in global temperatures, average weather patterns, and other characteristics of the atmosphere, including frequency and severity of extreme weather.

Human activities, such as burning fossil fuels and cutting down forests, are causing the amount of greenhouse gases in the atmosphere to increase, which traps heat and causes global temperatures to rise.



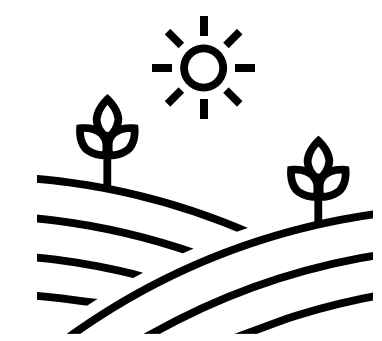
Climate Change Impacts



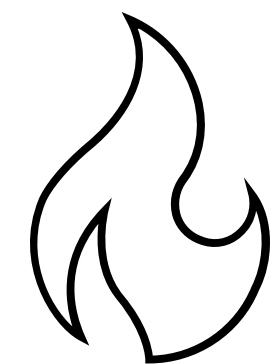
Climate change and rising temperatures are likely to have a variety of impacts on Omaha:



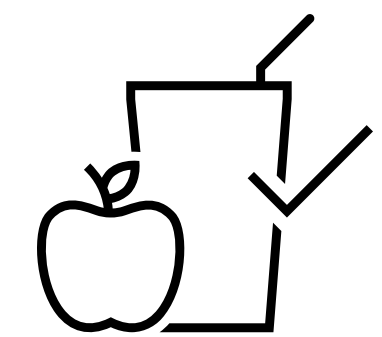
Health impacts (allergies, extreme heat and cold, air quality)



Agriculture (crop yields, irrigation and water supply, pests)



Wildfires



Food supply



Water resources (precipitation, water quality, and water supply)

What We Can Do



Greenhouse gas emissions are slowing down but we need to reduce them faster to avoid the worst impacts. As individuals, we can take steps to help make this happen.

Cities, like Omaha, with their concentrations of people, economic activity, and infrastructure, have an opportunity to drive efforts to decarbonize and build climate resilience.

The federal government is providing funding to help cities implement climate action and resilience strategies.

Infrastructure Investment and Jobs Act (IIJA)

- \$550 billion available for investments in:
 - Transportation
 - Water
 - Broadband
 - Environmental remediation
 - Power and energy
 - Western water storage
 - Resiliency

Inflation Reduction Act (IRA)

- \$391 billion available for climate action in sectors such as:
 - Health care
 - Climate
 - Air pollution
 - Clean energy
 - Conservation
 - Transportation
 - Clean fuels
 - Manufacturing

Benefits of Climate Action and Resilience Planning include:

- Job creation and economic development
 - Improved energy resilience
 - Improved air quality and public health
 - Improved water quality and ecosystems
 - Cost savings for residents and businesses
 - Improved community resilience
-

Purpose



The City of Omaha is working to develop a Climate Action and Resilience Plan to empower our community to build climate resilience and strive for a more sustainable future.

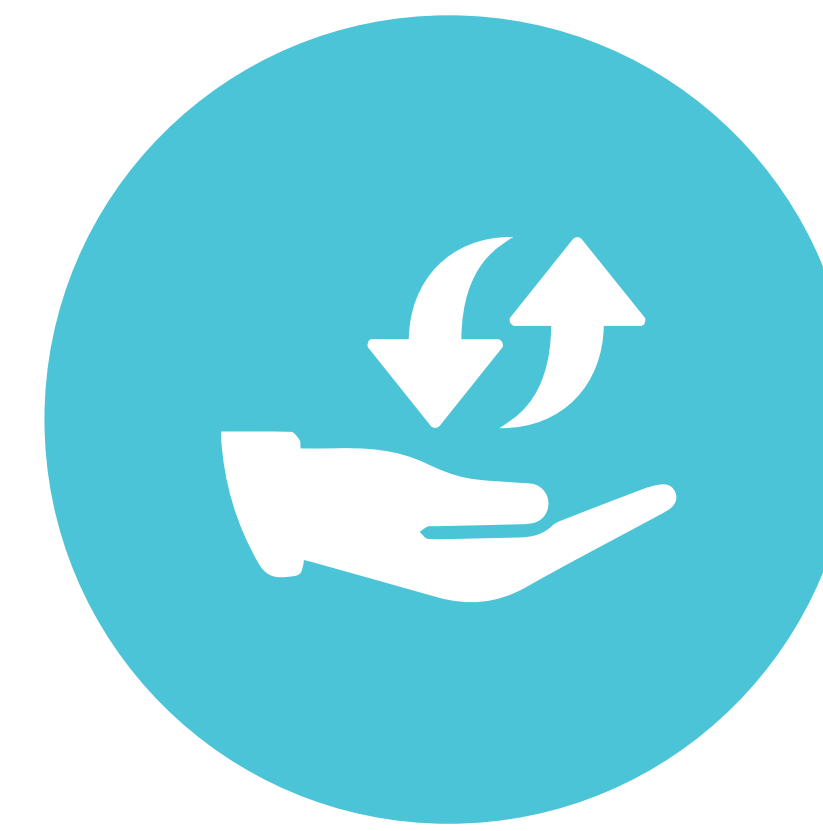
The Plan will provide guidance on innovative solutions that will:



**Improve quality
of life**



**Build
prosperity**



**Enhance community
resilience**



**Further climate
justice**

Developed strategies will focus on:

- Reducing greenhouse gas emissions
- Preparing for and adapting to climate change impacts
- Removing carbon dioxide from the atmosphere

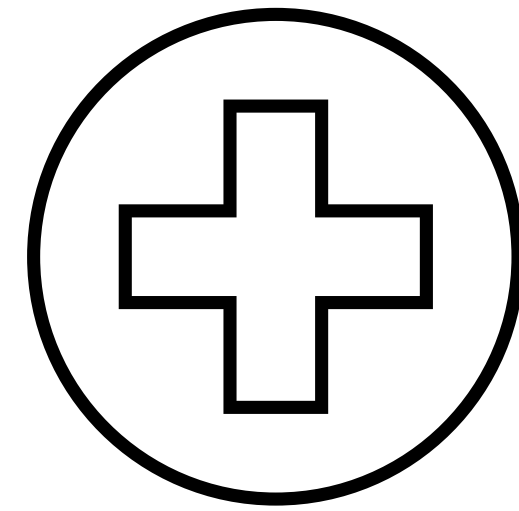
Climate Action Sectors



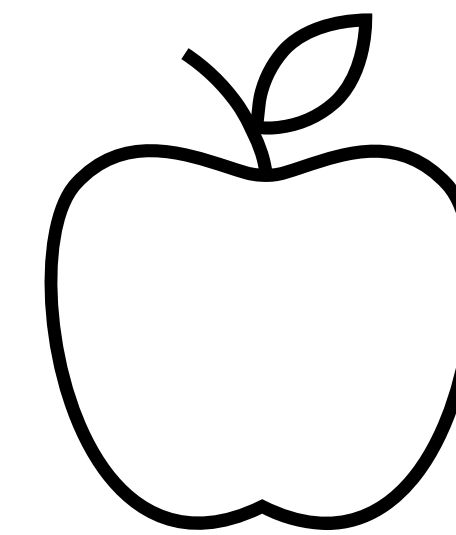
Community-wide plans address broad climate action sectors, including:



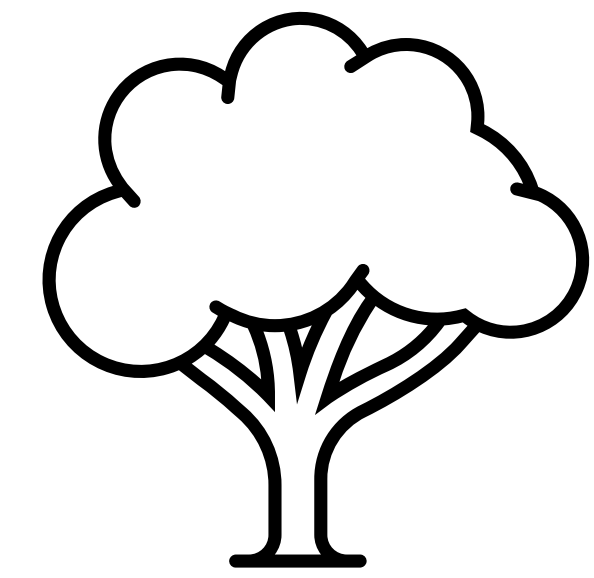
Water, Wastewater,
and Flooding



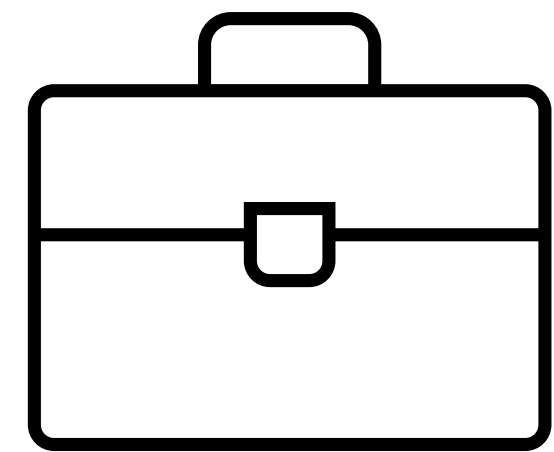
Climate Health
and Safety



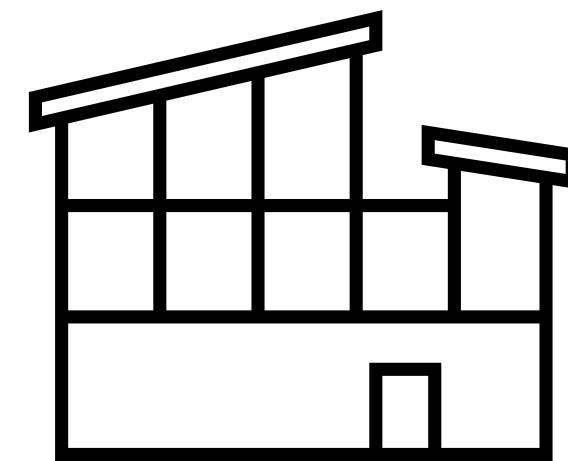
Food



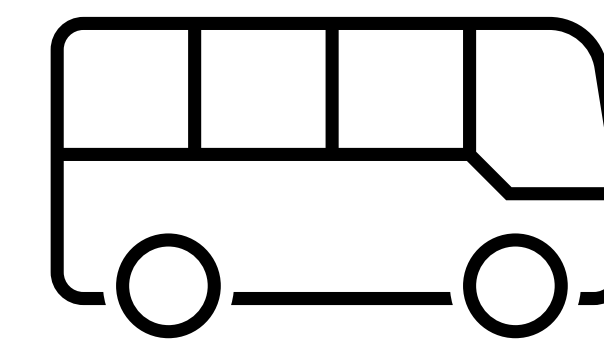
Greenspace and
Tree Canopy



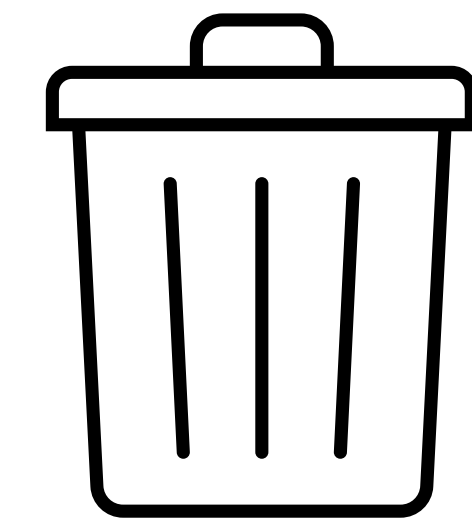
Climate
Economy



Buildings
and Energy



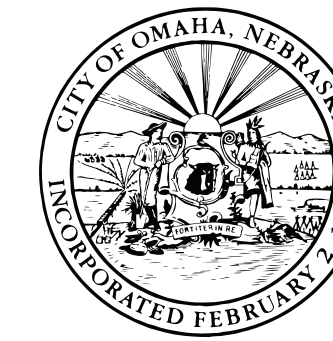
Transportation
and Land Use



Solid Waste
and Recycling



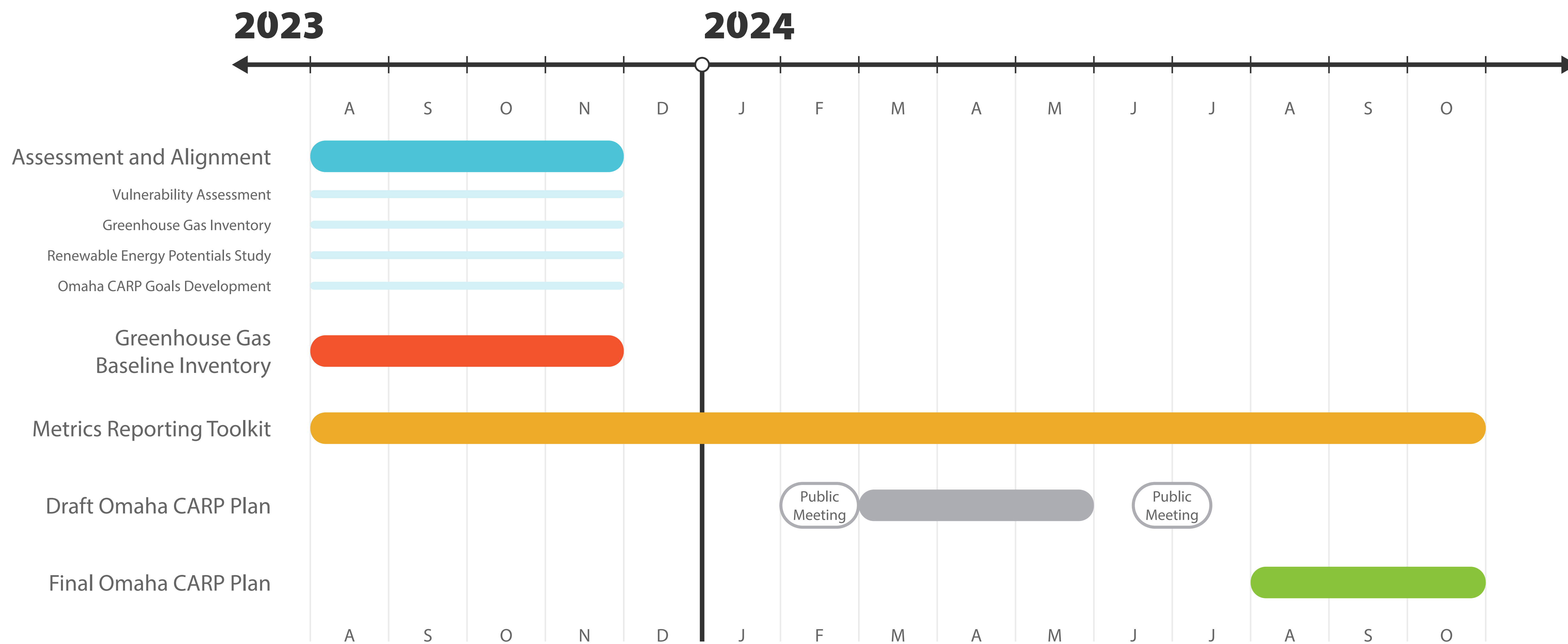
Development Process



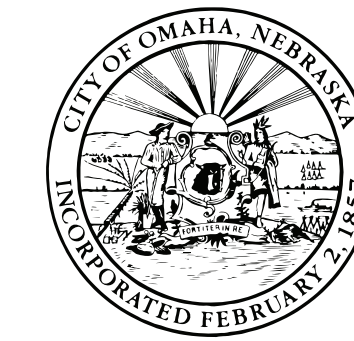
The plan development process follows these critical steps:

WE ARE HERE

1. Gathering data
2. Collaborating with stakeholders
3. Understanding and analyzing community needs
4. Developing goals, strategies, and actions
5. Implementation



Omaha Climate Data – Vulnerability Assessment

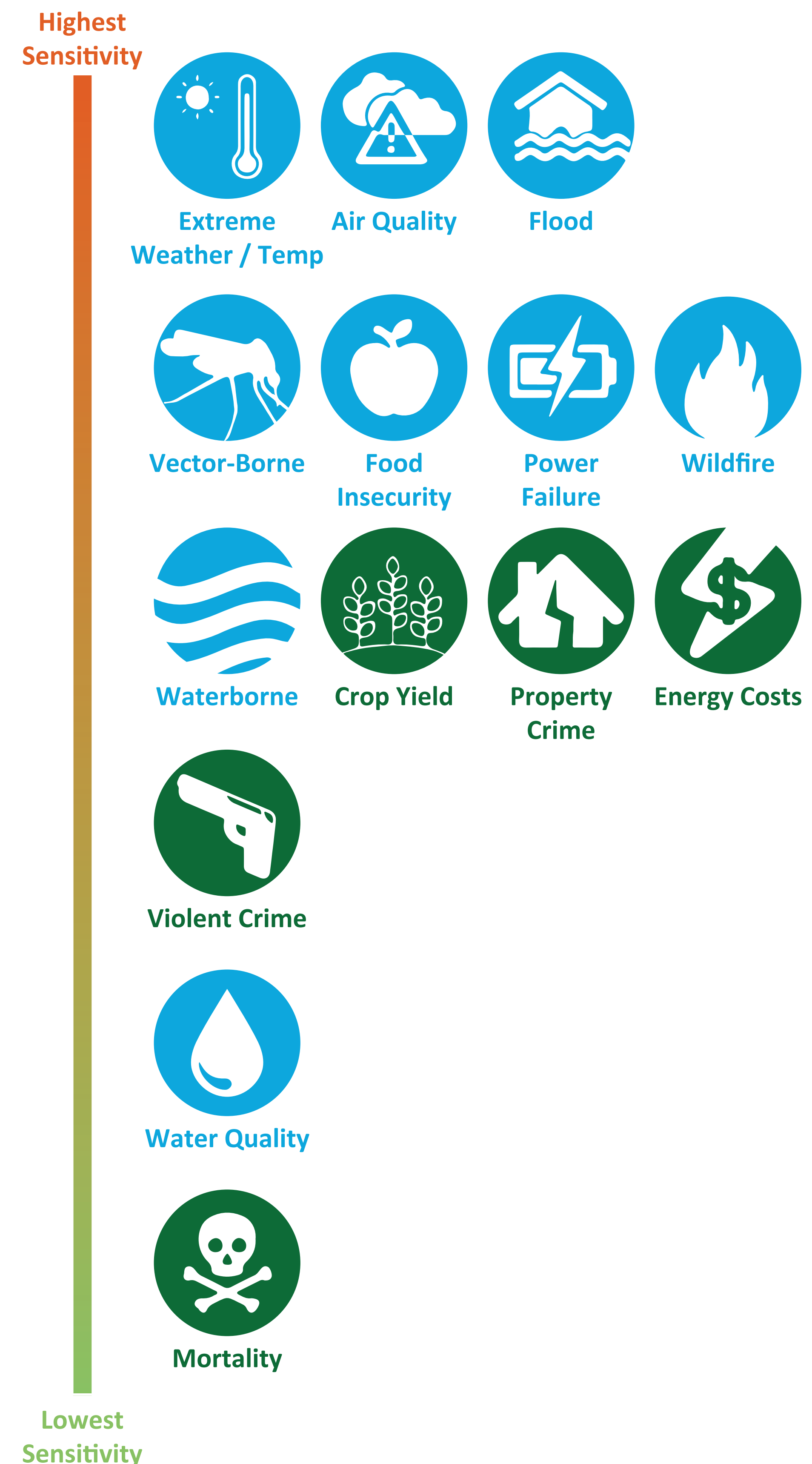


The vulnerability assessment examined the extent to which a system can be affected by, or is incapable of managing, the negative impacts of climate change, including climate variability and extremes.

By 2050, Nebraska is expected to:

- Experience a 5-time increase in heat wave days
- Experience a 40% increase in flood risk, with higher frequency and severity
- Experience a 65% increase in risk of extensive summer drought

City of Omaha Climate Risk Sensitivity Ranking Summary



Omaha Climate Data – Greenhouse Gas Inventory

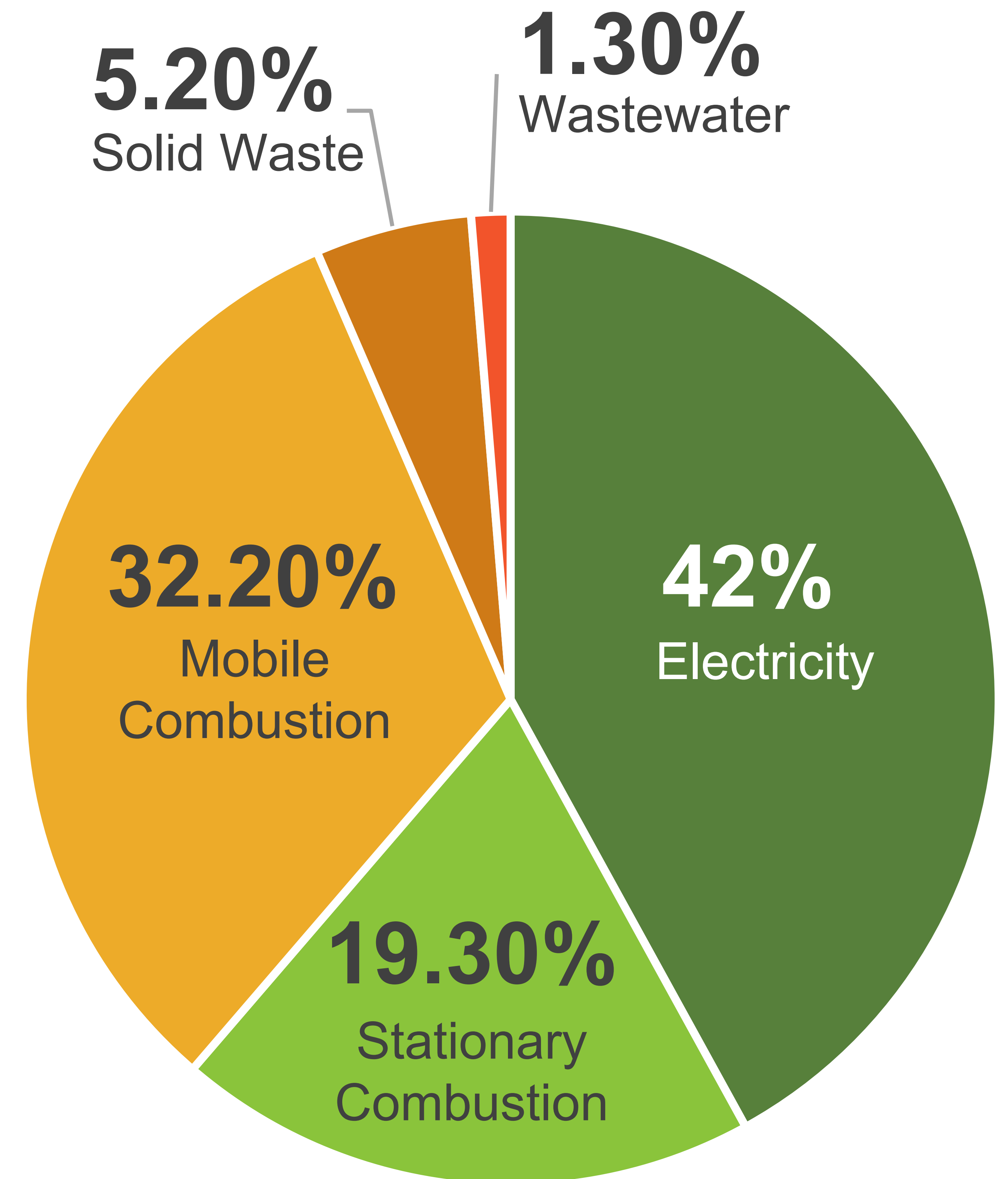


A Greenhouse Gas Inventory was conducted to calculate total emissions and identify the largest sources of emissions in Omaha.

Omaha's largest source of greenhouse gas emissions (GHG) was electricity. Electricity is commonly the largest source of greenhouse gas emissions in communities. The next two largest sources of GHG were mobile combustion (transportation) and stationary combustion (burning of natural gas). Other sources of GHG in Omaha are solid waste and wastewater.

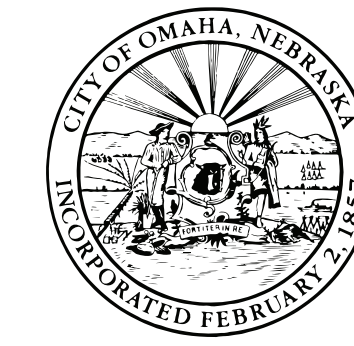
Greenhouse gas emissions in the City of Omaha dropped 20% from 2015 to 2022. Throughout this time, the population, **gross domestic product (GDP) and employment increased** in Omaha.

This represents that economic growth can continue to happen in the City of Omaha while greenhouse gas emissions decrease.



Citywide Greenhouse Gas
Emissions by Sector

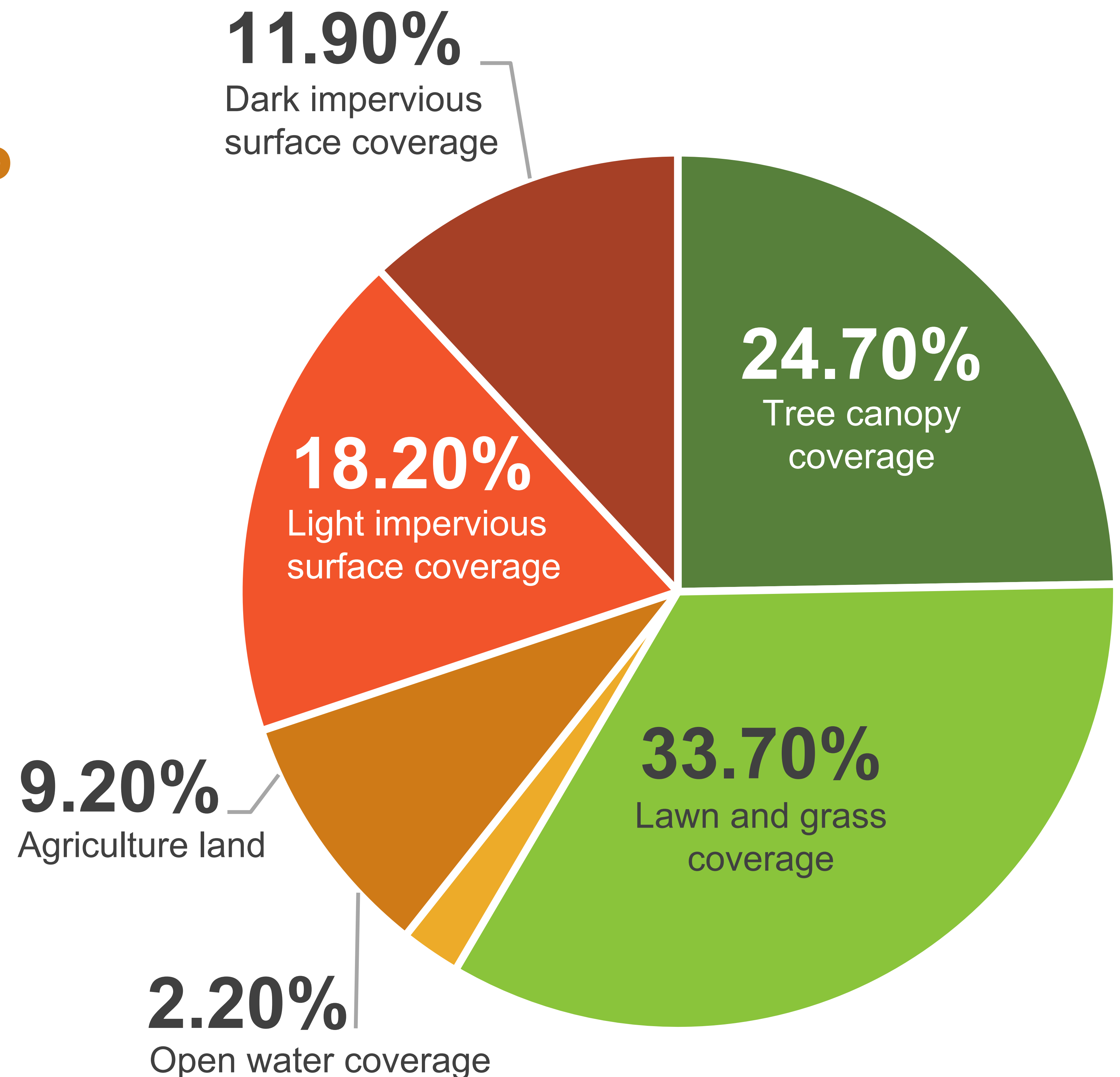
Omaha Climate Data – Ground Cover Study



A Ground Cover Study was conducted to analyze tree canopy, grass and shrubs, and surface coverage in Omaha.

Trees can provide benefits by:

- Acting as a filter for air pollution
- Removing carbon dioxide from the atmosphere
- Creating shade that protects the community from the heat



City Average Ground Cover by Source

Omaha Climate Data – Renewable Potentials Study



The Renewable Potentials Study analyzed Omaha's capacity for generation of clean energy from sustainable sources.

The study found that the City of Omaha:

- Currently has 778 solar power installations with a generating capacity of 6.4 megawatts (MW)
- Has the capacity to generate 9.3 gigawatt hours (GWH) annually, which is enough to power 900 homes
- Could also utilize wind energy and no emission biomass power, which is energy found in plants and plant-derived materials
- Could source renewable energy for 6.51% of demand by 2030

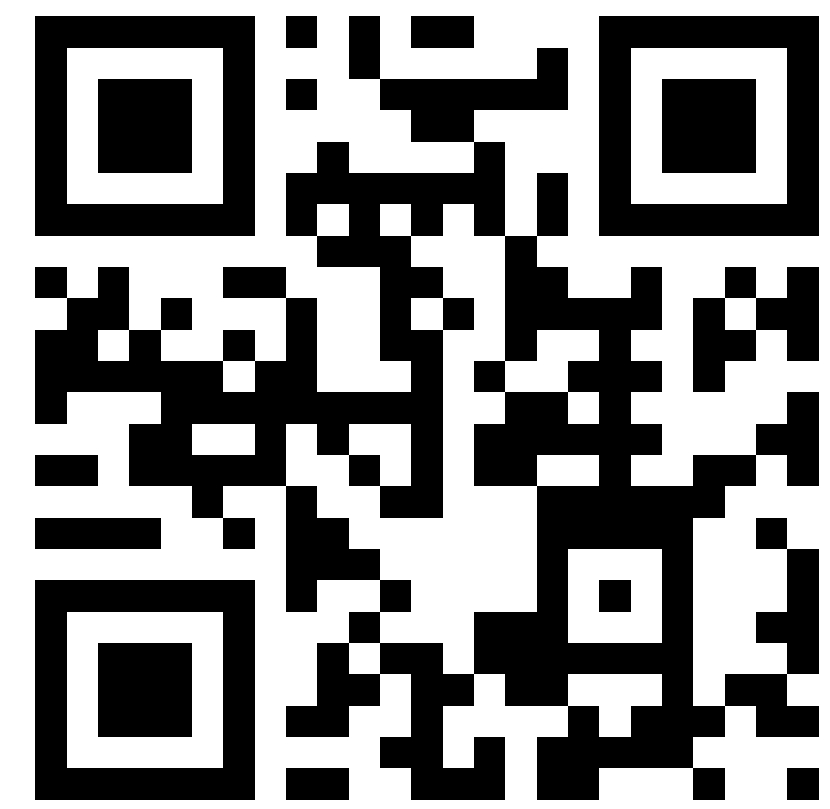


Planning Efforts



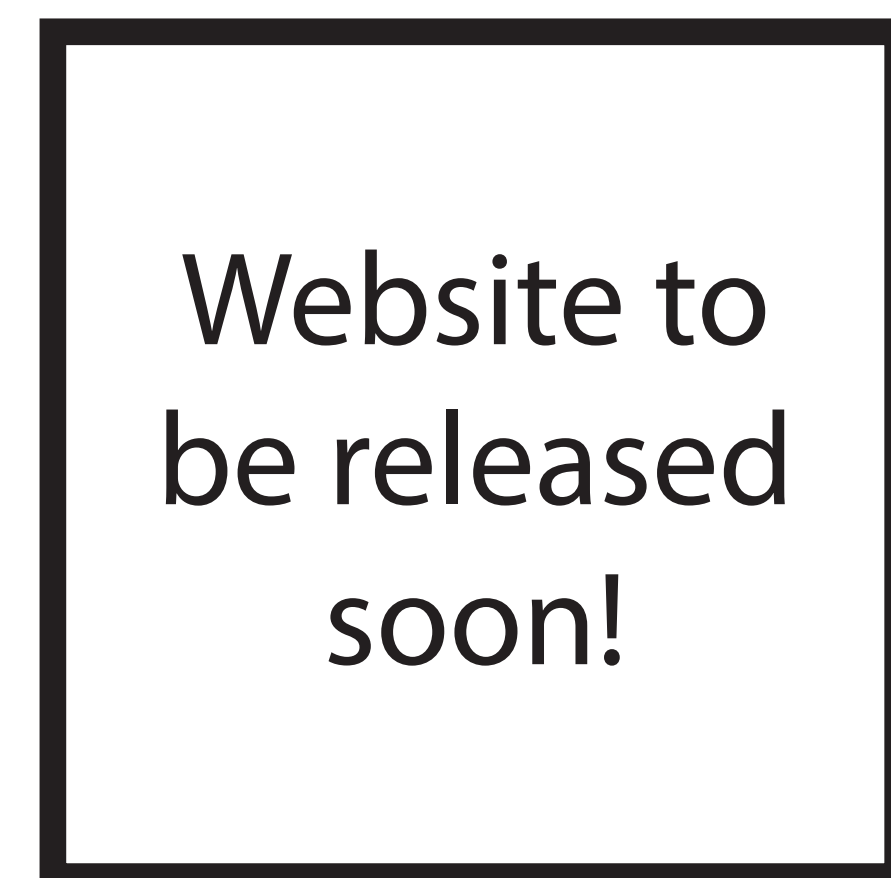
There are concurrent planning efforts in the region that are funded under the United States Environmental Protection Agency's Climate Pollution Reduction Grant (CPRG):

This Plan:

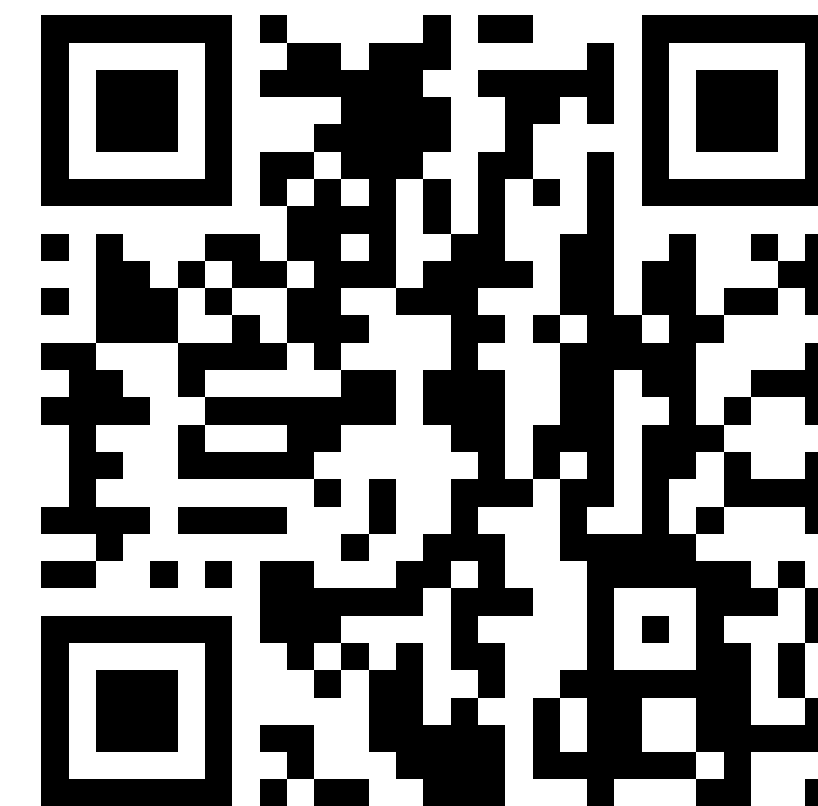


Omaha Climate Action and Resilience Plan
Focused on the City of Omaha and municipal operations

Other plans:



**Omaha-Council Bluffs
Metro Plan**



**Nebraska Department of
Environment and Energy (NDEE)'s
Nebraska Climate Pollution
Reduction Program**

Provide Your Input!

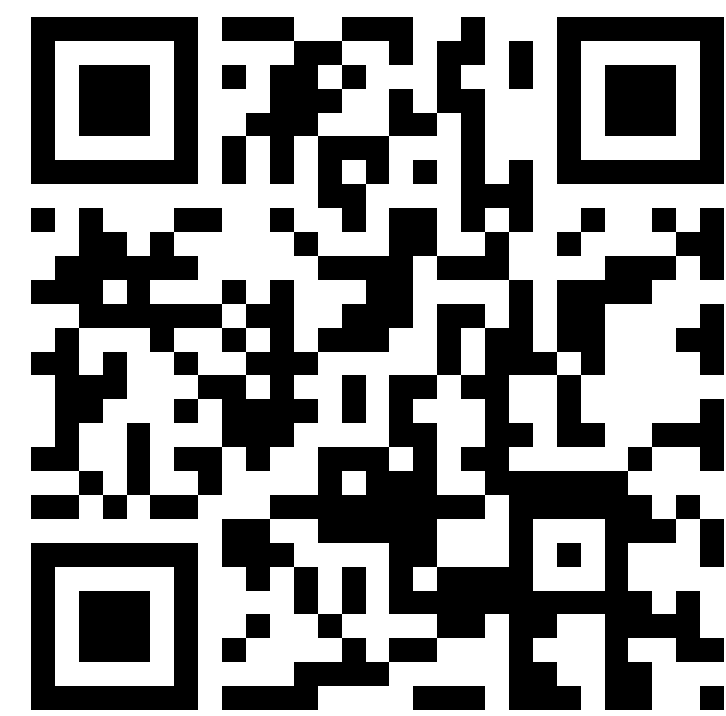


Grab a set of stickers and use them to indicate which preliminary strategic goal recommendations you think should be prioritized in the plan.

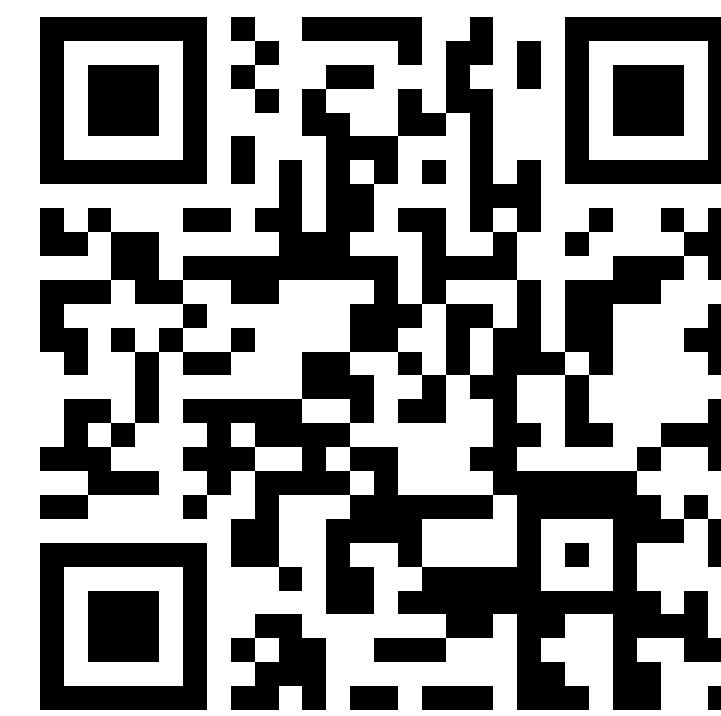
Have more detailed input? Use these QR codes to provide input on each sector.



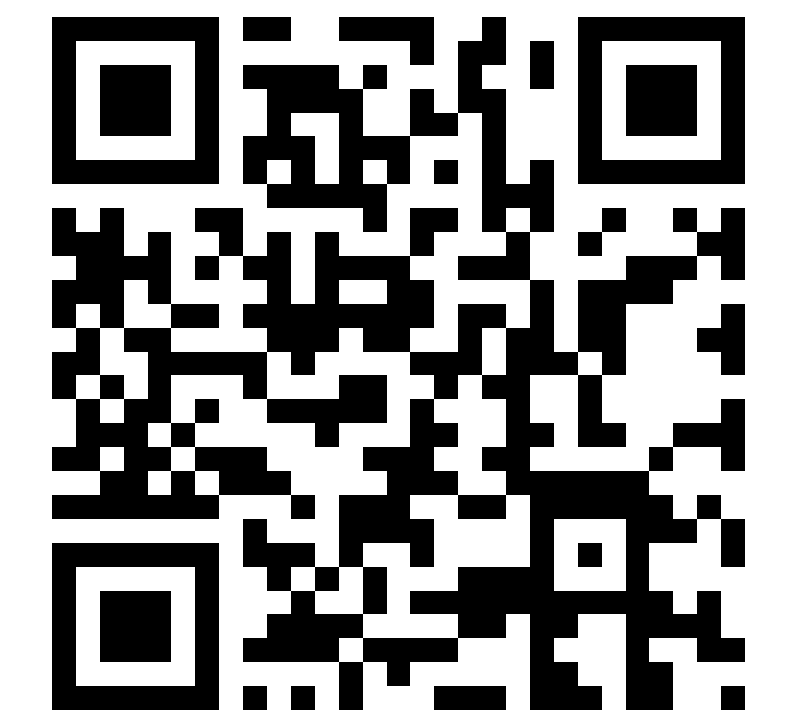
**Buildings and
Energy**



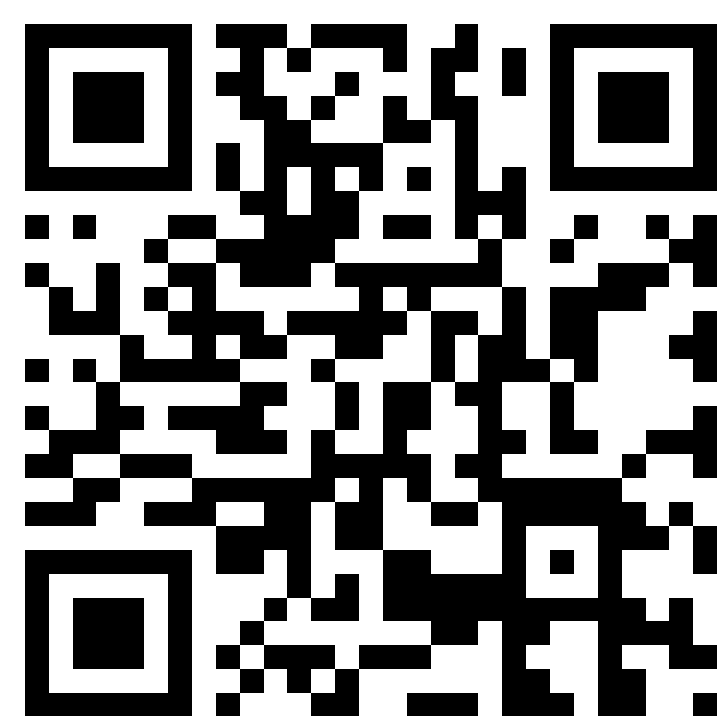
**Greenspace and
Ecosystems**



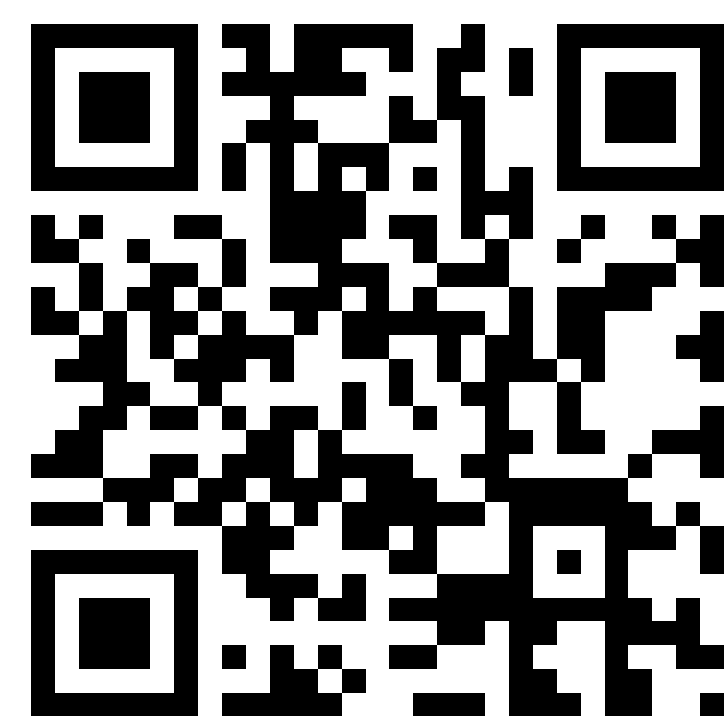
**Health and
Safety**



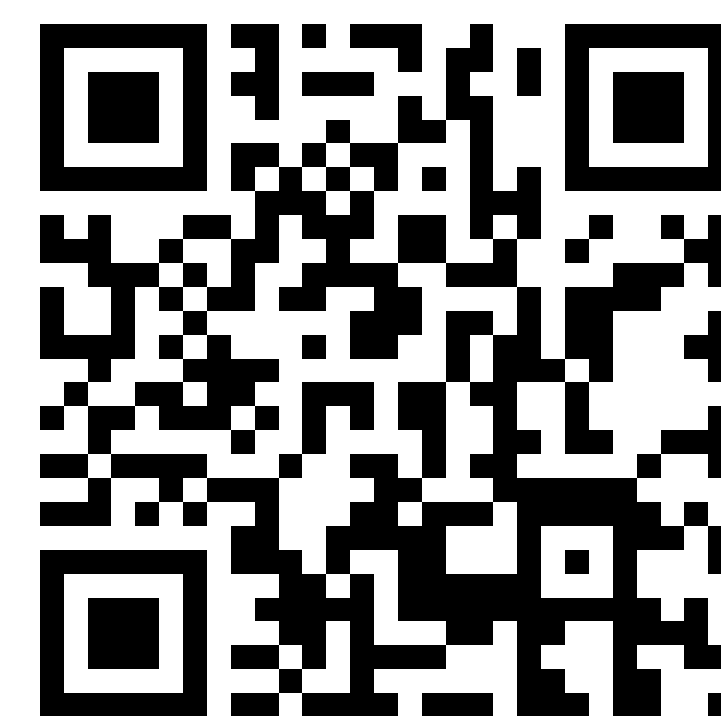
**Local Food and
Agriculture**



**Resilient
Economy**



**Transportation
and Land Use**



**Waste
Management**



**Water, Wastewater
and Flooding**



Preliminary Strategic Goal Recommendations



Considering baseline assessments, the City of Omaha is exploring the following preliminary goals and priority measures:

Transportation and Land Use

Decrease community wide Vehicle Miles Traveled (VMT) by 2.5% by 2030.

Establish viable renewable fuels in the economy and support infrastructure expansion and fuel adoption. Achieve 10% diesel consumption replacement by 2030 (Renewable fuels include hydrogen and diesel from renewable electricity source).

Increase average population per developed acre by 5% by 2030 (from 7 to 7.35 people/acre).

Achieve 15% conversion of municipal operations gasoline vehicles and equipment within City and municipal fleets to EV's by 2030. Achieve 100% conversion by 2040.

Increase public transit commuter ridership from 1.3% to 5% by 2030.

Achieve 15% conversion of municipal operations diesel fuel utilization to renewable fuels by 2030.

Increase battery electric vehicle (BEV) use to 10% of vehicles on the road (from approximately 1,263 vehicles to 34,500 vehicles citywide) and expand EV charging infrastructure to meet demand.

Increase fuel efficiency of remaining combustion engine fleet by 5% by 2030.

Preliminary Strategic Goal Recommendations



Considering baseline assessments, the City of Omaha is exploring the following preliminary goals and priority measures:

Buildings and Energy

Improve total citywide building energy efficiency (all sectors) by 5% for electricity and natural gas by 2030.

Increase adoption of high performance building construction technology, achieving 0.5% Net Zero households and commercial properties citywide by 2030. Net Zero buildings are energy efficient buildings that produce as much energy on-site as they consume in a year.

Achieve 5% residential and commercial and industrial building “fuel switching” from on-site fossil fuel combustion to electrification or renewable fuels by 2030.

Increase customer owned or purchased renewable electricity to 20% of citywide residential, commercial, institutional, and industrial building electric use by 2030 (5% on-site and 10% green source purchase).

Increase the renewable energy share of the electric utility portfolio serving the community from 35% to 50% by 2030.

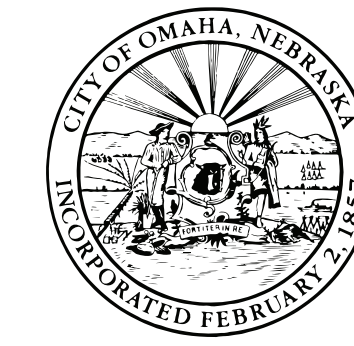
Reduce share of population living in high energy poverty from 40% to 30% by 2030.

Improve total government building energy efficiency by 10% by 2030 (electricity and natural gas, including water and wastewater infrastructure).

Achieve 10% government building thermal “fuel switching” from on-site fossil fuel combustion to electrification by 2030.

Increase renewable energy to 100% (on-site and green source purchase) of government building electric use by 2030.

Preliminary Strategic Goal Recommendations



Considering baseline assessments, the City of Omaha is exploring the following preliminary goals and priority measures:

Waste Management

Decrease total annual municipal solid waste handled per household by 5% by 2030.

Increase organics and compostable diversion from 12% to 22.7% of total municipal solid waste handled by 2030.

Increase recycling diversion from 25% to 50% of total municipal solid waste handled by 2030.

Increase capture and use of solid waste energy potential including beneficial use of landfill gas and no emission biomass-to-power diversion strategies, achieve a 15% increase in beneficial use.

Water, Wastewater and Flooding

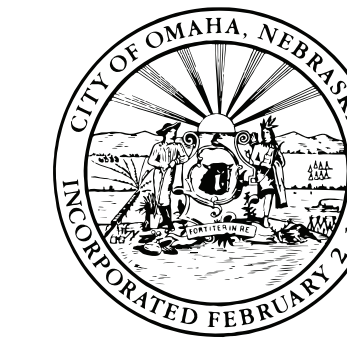
Promote reduced water consumption and wastewater generation citywide with a targeted reduction of 5% each by 2030.

Increase capture and use of wastewater energy resources through strategies including heat recovery and no emission biomass-to-power diversion strategies, achieve a 40% increase in beneficial use.

Update design standards and implement plans to meet projected climate change storm water and flood mitigation requirements.

Increase groundwater, stream, river and wetland water quality protection and restoration.

Preliminary Strategic Goal Recommendations



Considering baseline assessments, the City of Omaha is exploring the following preliminary goals and priority measures:

Local Food and Agriculture

Increase production of and access to local food, particularly serving low income and food insecure individuals.

Reduce food waste and hunger, achieve a 50% reduction in food insecurity citywide by 2030.

Increase adoption of carbon positive soil, crop, fertilizing, irrigation, and drainage management practices, achieving 50% adoption by 2030.

Protect and preserve agricultural land while increasing its resilience to climate shocks.

Greenspace and Ecosystems

Increase tree cover, particularly in the priority neighborhoods, from 24.9% to 27.9% by 2040, with growth coming from non-invasive species and an emphasis on climate adaptive species, an increase of 11.9% over existing tree canopy area. The proposed framework does not include land in use as agriculture in calculations of potential tree canopy increases.

Increase pollinator supportiveness and achieve a 10% turf replacement with native grasses and wildflowers citywide by 2040 (approximately 210 acres annually).

Reduce heat island effect through citywide “dark” impervious surface coverage reduction of 10% by 2040, particularly in neighborhoods identified with higher heat island impacts (approximately 100 acres annually).

Reduce invasive species and increase climate resilience and biodiversity of City’s tree canopy, parks and greenspaces.

Increase connectivity, accessibility and equity of City’s parks and greenspaces.

Preliminary Strategic Goal Recommendations



Considering baseline assessments, the City of Omaha is exploring the following preliminary goals and priority measures:

Health and Safety

Assist the City's climate vulnerable population in preparing for and mitigating climate change impacts (prioritized based on elevated risk sensitivities as outlined in the City's Climate Vulnerability Assessment).

Increase resilience of citywide buildings and infrastructure to potential impacts of climate change.

Ensure that mission critical, emergency services and health care facilities within the City are prepared for impacts of climate change.

Strengthen community response capacity and social support networks.

Resilient Economy

Capture economic value of Climate Action.

Develop the equitable workforce and entrepreneur opportunities of Climate Action in the economy.

Support local businesses operations in building marketplace climate resilience.

Establish sustainable financing for the City's climate action implementation.