

CAP UPDATE

City of Northfield EDA Presentation

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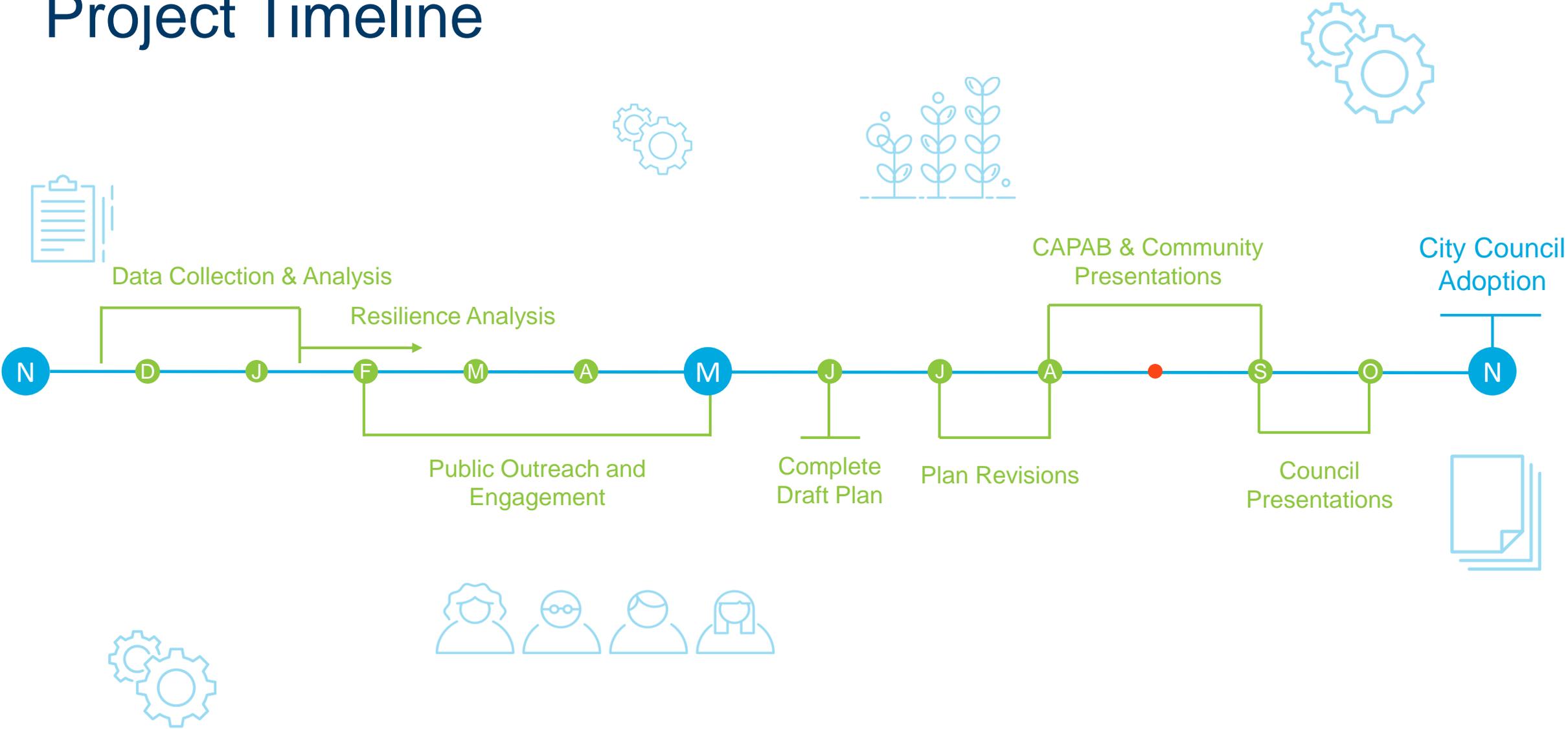


**GREAT PLAINS
INSTITUTE**

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Project Timeline

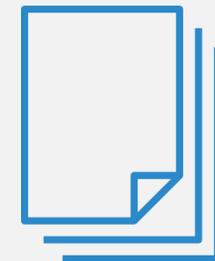


Plan Structure

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GHG Inventory – Community-wide

- Buildings: 85.31% of total emissions
- Travel: 12.17% of total emissions
- Waste (downstream only): 1.65%
- Wastewater treatment: 0.87%

Northfield 2017 Community-wide Emissions (GHG)

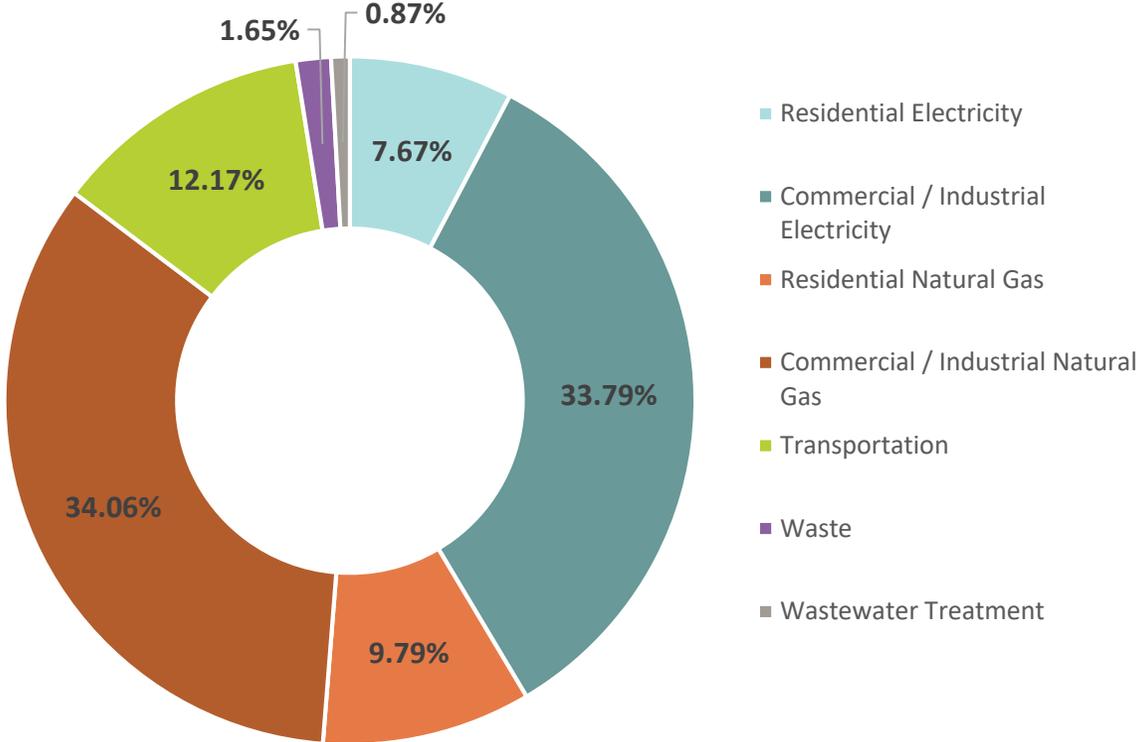


Figure 8. Community-wide greenhouse gas emissions for Northfield, Minnesota by sector. Each wedge represents a different sector and energy use category. Source: Xcel Energy, Minnesota Department of Transportation. Generated by Regional Indicators Initiative.

Strategies, Priorities, and Actions for Climate Mitigation

Strategies: Umbrella

1. Education and Engagement
2. Policy and Planning
3. Innovation and Demonstration
4. Supporting the Plan

Priority Examples:

- Large Consumer Energy Engagement
- Sustainable Tourism and Marketing

Action Examples:

- Proactively provide information about financing options such as commercial PACE (Property Assessed Clean Energy), and other programs.
- Create a “sustainability tour” to attract both tourists and potential new residents



Priorities, Strategies, and Action for Climate Mitigation

Innovation and Demonstration

The City of Northfield shall pursue these and other innovative projects that can also serve as demonstrations for Northfield residents and businesses as well as other communities locally, state-wide, and nationally wherever applicable. These projects will require a new approach that will test unfamiliar concepts and prepare to scale up those that demonstrate viability.

IN-1 – Advanced Building Energy

Description: While many of these technologies are currently available, they are not necessarily widely used for a variety of reasons.

Recommended Actions

- Identify a future development project that can demonstrate a net zero energy building design
- Identify firms qualified to design, develop, or construct net zero energy buildings and encourage them to lead by example through local projects
- Work with the Minnesota Department of Commerce to match heat waste with heat loads to see if there are opportunities for combined heat and power and district heating technologies to be utilized
- Partner with local businesses, institutions, and Xcel Energy to develop a pilot micro-grid with renewable power and battery storage.
- Partner with Dakota and Rice Counties to understand opportunities and barriers for an anaerobic digester for food and agricultural waste

Climate Resilience and Adaptation

Climate Hazards

Resilience Assessment

- Population
- Built Infrastructure
- Natural Infrastructure

Resilience Strategies



Local Climate Hazards

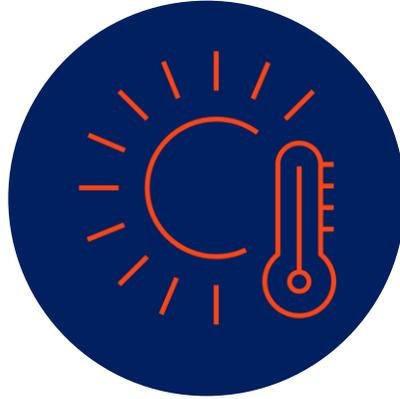
Air



Pollution, Pollen

- Respiratory illness
- Cardiovascular disease
- Allergies

Weather



Extreme weather, heat

- Heat stress, illness
- Infrastructure stress
- Power outages

Water



Flooding, drought, availability

- Waterborne disease
- Water quality
- Scarcity
- Infrastructure damage
- Drowning, injury

Ecosystem



Ecological changes

- Vector-borne disease
- Tree canopy impact
- Food scarcity

Implementation

In the first year, the following will need to be implemented to get the plan started:

1. Staff person/s designated to lead implementation
2. Funding mechanism to pay for staff time, city operation improvements, and community projects
3. Tracking mechanism to track projects and emissions, annually (ClearPath, Regional Indicators, internal document)
4. Establish and/or enable a citizen body to support plan implementation
5. Develop an annual work plan, prioritize projects





QUESTIONS?

