City of Richfield

CLIMATE ACTION PLAN

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Lifelong learning at Wood Lake Nature Center is an essential part of sustainability and environmental education and action!

Introduction

In Richfield's 2040 Comprehensive Plan, one of the overarching goals was "emphasizing sustainability as a measure to ensure the future economic, environmental and social health of the community". Sustainability efforts are also inherently connected to the rest of the City's goals. This includes increasing equity, committing to a balanced multi-modal transportation system, providing the best core services, engaging residents with community outreach, and more.

Our climate is changing rapidly, with more precipitation (both rain and snow) and warmer temperatures, especially during the winter and overnight (Minnesota Environment and Energy Report Card, 2019). In 2016, transportation surpassed electricity as the largest source of CO_2 emissions in MN (Minnesota Environment and Energy Report Card, 2019). All of these statistics and more highlight a need for society to change its business-as-usual behaviors and look towards more environmentally friendly ways of life.

The predominant lenses through which the climate actions in this plan have been proposed and evaluated are mitigation, education, and equity. It is well-known that climate change has and will continue to affect everyone, disproportionately affecting marginalized populations. This includes our elderly, people of color, disabled, non-English speaking, low-income, and immunocompromised friends, family, and neighbors.

It's important to learn how climate change affects people differently based on socio-economic factors. As such a diverse community, Richfield knows the importance of ensuring equity in all services and projects. The Climate Action Plan is no exception, with staff and elected officials ensuring that equity is highlighted in every goal. There are some general aspects in the plan that work to increase equity, like widespread translation of existing and new resources and documents, and working to provide in-person translation as well. Specific actions look at equity on a deeper scale, working to increase tree canopy, healthy food access, complete transportation systems, and decrease financial barriers. Expanding access to services helps create a more connected community.

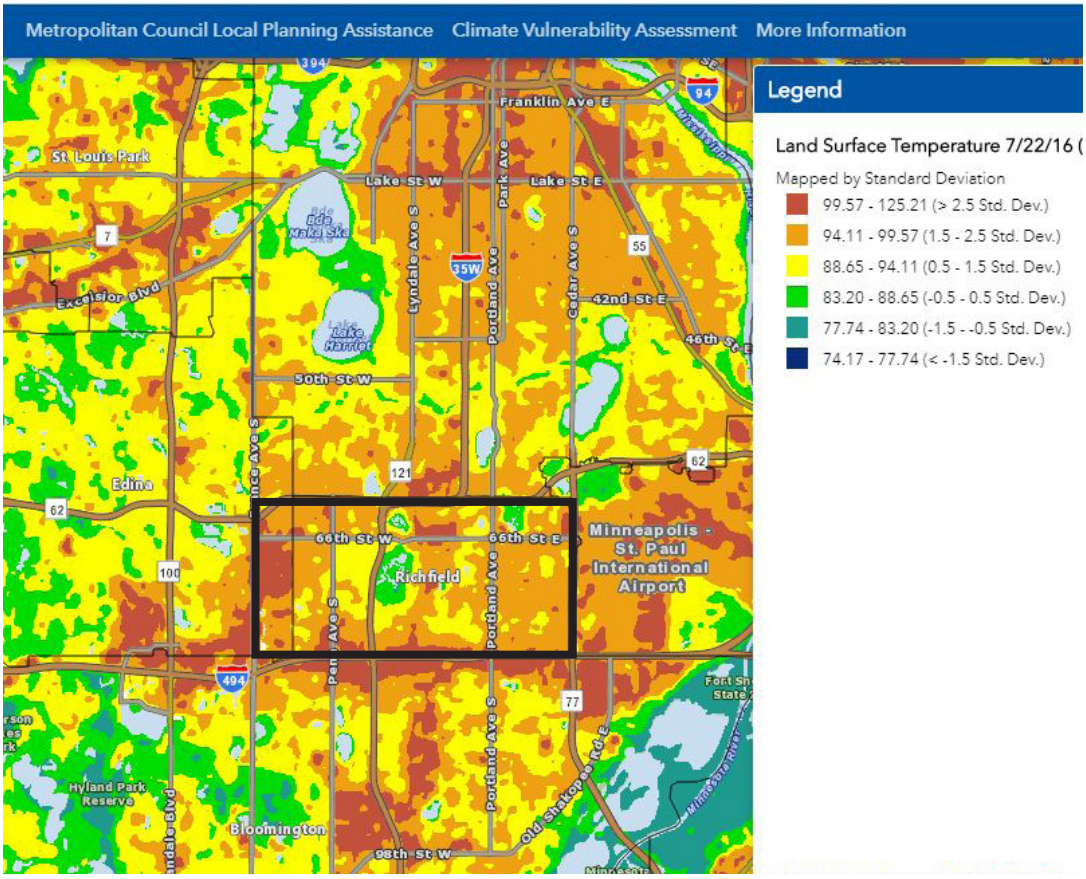

Figure 1: Land Surface temperature. Richfield is indicated by the black outline. *(Source: Metropolitan Council Local Planning Assistance)*

Climate change will continue to bring many environmental, social, and resource-based stresses to cities like Richfield. These problems could include heat and disease killing the urban tree canopy. Fewer mature trees and more development increases the urban heat island effect, which has already shown that the average temperature in the cities and first-ring suburbs is several degrees warmer than surrounding rural areas (Smoliak et al, 2015). Figure 1 shows the prevalence of warmer temperatures in Richfield, especially compared to surrounding areas.

These warming temperatures lead to a decline in air and water quality as well as a significant increase in health emergencies related to conditions like asthma, COPD, and cardiac arrest. Stresses on bodies of water increase flooding and decrease water quality. Stresses on public health like food supply chain disruptions threaten the well-being of urban populations. Stresses on low income residents and/or those who live in high-risk areas or aging infrastructure affect already marginalized populations, and increase the severity of health-related consequences.

Richfield has shown its commitment to more sustainable actions, especially over the past few years. The City joined GreenStep Cities, a continuous improvement program with hundreds of action steps housed under 29 best practice categories, and is currently working to achieve Level 4 status within the program. More information on Richfield's GreenStep Cities progress can be found by visiting: https://greenstep.pca.state.mn.us/city-detail/12392.

Efforts like these adds to the many common municipal practices that have long been the best environmental option. However, Richfield needs a plan going forward that prioritizes a larger scale climate action effort. It is necessary to prepare our community to handle both existing and new conditions that may hinder future daily living, so we can best adapt to these unknown situations.

This climate action work plan details actions to help achieve both short- and long-term goals for the City of Richfield's sustainability efforts. These actions have been influenced by policies outlined in the most recent Comprehensive Plan as well as staff and resident suggestions. There are many actions to undertake and Richfield will only realize the success of its full potential when everyone works together. Together we can prepare Richfield for the future and see the benefits of our efforts now.

In 2019, Richfield bought two Plug-in Hybrid Electric Vehicles (PHEVs) to be used in the Engineering and Recreation Departments. Engineering staff only filled up the gas tank 3 times in the first year of driving!

This plan will be re-evaluated every year by city staff and the Sustainability Commission to ensure that the goals and actions included are meeting the city's needs. This annual review will also look at the progress being made and next steps including additional resources that might be needed to further achieve these actions.

Overarching Climate Action Goals

The City of Richfield has identified the following goals as overarching objectives that encompass numerous possible actions. Some of these efforts will strengthen resources found in Richfield, like greenspace and local food systems, while others focus on resources generated outside of Richfield, including electricity and renewable energy. In addition to responsible consumption and awareness, these climate actions will help reduce the environmental effects and greenhouse gas emissions resulting from current behaviors.

1. **Develop and Promote Energy Efficiency Efforts** – Understand Richfield's energy usage and how to reduce it, saving money and helping the environment.
    a. Energy Initiatives
    b. Transportation Initiatives

2. **Promote Renewable Energy Installation and Purchasing** – Reduce reliance on fossil fuel derived energy and educate residents and businesses on installation incentives.

3. **Encourage Sustainable Design and Building Practices** – Ensure design and construction plans integrate environmental best practices and amenities, making the building's life-cycle more environmentally efficient.

4. **Strengthen and Expand Natural Resource Management** – Inventory various natural resources and include the public in restoration and maintenance of trees, parks, and bodies of water.
    a. Landscaping and Urban Canopy
    b. Water Quality and Conservation

5. **Reduce Waste Generated & Promote Responsible Disposal** – Understand how to responsibly dispose of many different goods and materials while promoting a circular, low waste economy.

6. **Improve Access to Local and Healthy Food** – Increase convenient purchasing opportunities and create more gardening and food production opportunities.

Goal 1: Develop and Promote Energy Efficiency Efforts

Energy Initiatives

Emissions from energy generation and usage account for the second highest sector of emissions globally, only behind transportation. When compared to other inner ring suburbs, Richfield falls below the average of tons of CO_2 emitted from energy consumption (Figure 2). This also correlates with lower energy consumption compared to other inner ring suburbs.

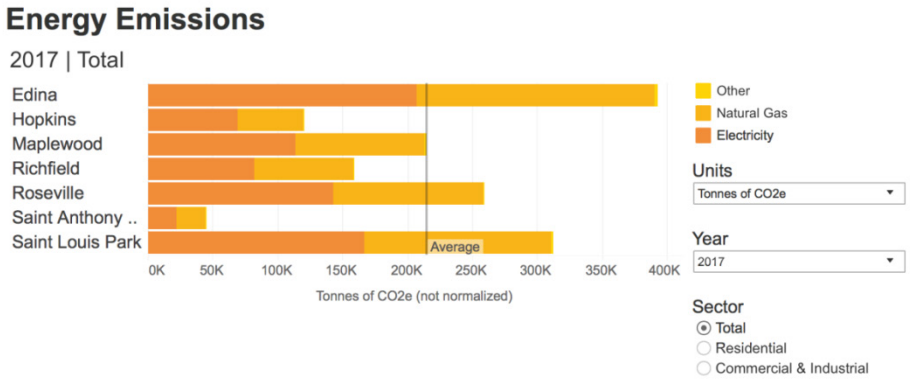

Figure 2: The 2017 Energy Emissions of the Inner Ring Suburbs. *(Source: Regional Indicators Initiative)*

However, because of Richfield's specific land use, the lower than average energy usage is drastically driven by residential energy consumption, not by commercial consumption. This is reflected in the residential energy costs shown in Figure 3, which shows that Richfield residents pay a fairly average amount per household has paid per day for energy, despite using less energy than average.

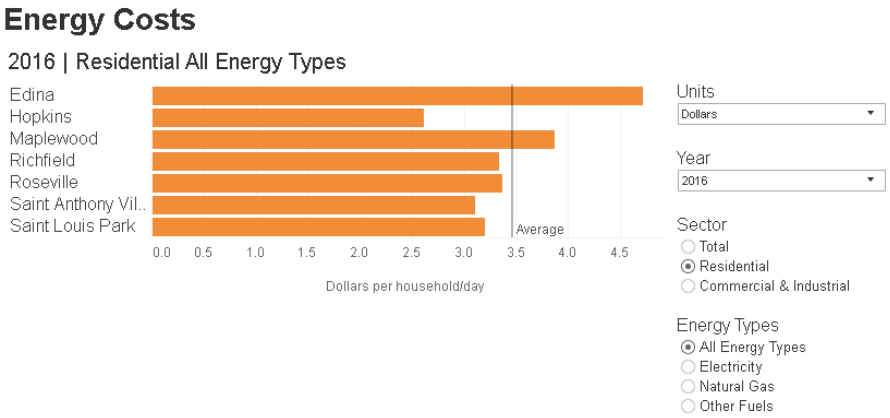

Figure 3: 2016 Energy Costs (dollars per household per day) of the Inner Ring Suburbs. *(Source: Regional Indicators Initiative)*

These costs add up and based on the condition of one's home, it can add up quickly. "'Energy Burden' is the percentage of household income spent on home energy bills. The nation's average energy burden is roughly 3.5%, but some Minnesotans spend 20-30% of their income on energy" (CERTs, 2020). This is determined in part by the age or maintenance of HVAC systems and other appliances, the amount of heat loss or retention, and general resource usage. These factors tend to disproportionately affect low-income and marginalized groups without funds for large equipment upgrades or the agency as renters to make these changes.

It is clear that energy efficiency and reduction efforts would benefit both sectors, saving money and conserving resources. Richfield has already undertaken several energy efficiency efforts, especially when it comes to the energy usage of municipal buildings. Both the Public Works building and the Water Plant are outfitted entirely with LED lighting fixtures. The Water Plant has also taken part in an Xcel Energy rebate program to upgrade equipment like high service water pumps and other motor upgrades. Other citywide energy actions include converting all stoplights in the city to LED fixtures as well as participating in Xcel and Center for Energy and Environment's Home Energy Squad program since 2013.

Objective 1: Share opportunities to decrease energy costs and lower energy usage with residents and business owners

1.1 Community stakeholders will write and execute an Energy Action Plan through participating in Partners in Energy. Among other goals, include a focus on residential energy use and efficiency efforts with marginalized populations in the city.
1.2 Develop a City webpage that provides information to help residents incorporate energy efficiency practices and technology into their lives. Communicate these strategies through social media, newsletters, and e-notifications.
1.3 Encourage commercial and large residential building owners to reduce energy use and increase energy efficiency by retrofitting existing buildings and introducing behavior changes.
1.4 Discuss including energy efficiency tips and improvements as part of point of sale inspections or new homeowner materials. Promote utility rebates for energy efficient product upgrades.

Objective 2: Increase the energy efficiency of all municipal buildings and operations

2.1 Track municipal energy, natural gas, and water consumption on B3, an energy benchmarking program.
2.2 Conduct municipal building audits to find efficiency opportunities (behavior change and technology implementation). Create building-specific improvement plans, optimizing city operations to best conserve energy and save money.
2.3 Replace existing Xcel metered high-pressure sodium (HPS) streetlights with LED streetlights.
2.4 Develop a program to replace existing Xcel flat rate HPS streetlights with LED streetlights.
2.5 Create and maintain a written inventory of LED and HPS light fixtures in municipal facility and park parking lots. Use this information as a guideline for replacing HPS fixtures with LEDs.

Transportation Initiatives

In Minnesota, transportation generates the most greenhouse gas emissions. Although freight transportation contributes to this, individual travel makes up a far greater percentage of Richfield's transportation emissions (Met Council Greenhouse Gas Inventory, 2018). While there has been progress in promoting and planning for alternative modes of transportation (public transit, biking, walking, rolling, riding scooters or skateboards, etc), the car continues to be the primary mode of transport for many. Additionally, most of those trips have a single occupant, especially commutes.

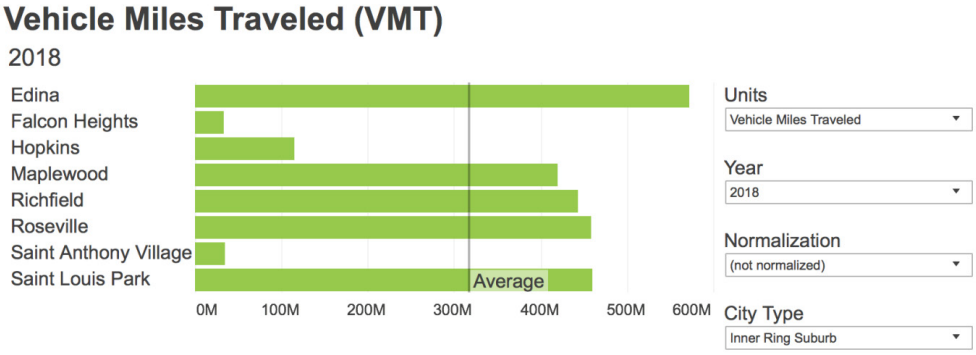

Figure 4: 2018 Vehicle Miles Traveled for the Inner Ring Suburbs. *(Source: Regional Indicators Initiative)*

Richfield is above average for inner ring suburbs when it comes to vehicle miles traveled (VMT). As shown in Figure 4, the city's statistics do fall in line with many other suburbs. However, when the data is changed to show VMT per household per day, Richfield rises to the top, driving nearly 80 miles every day. According to the 2017 National Household Travel Survey, 35.2% of all vehicle trips were 2 miles and less and 5% of all trips were under ½ of a mile! This is an area where carpooling and increased transit use would be greatly beneficial.

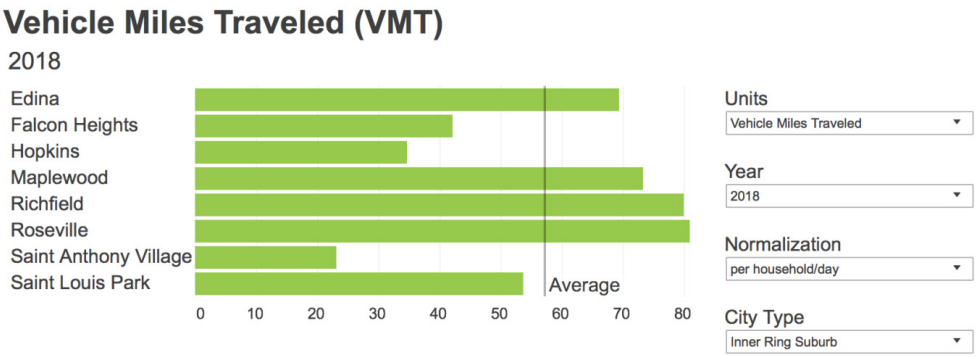

Figure 5: 2018 Vehicle Miles Traveled per household per day for the Inner Ring Suburbs. *(Source: Regional Indicators Initiative)*

Richfield's Complete Streets Plan has overseen many transportation infrastructure improvement projects aiming to increase the safety of all people traveling in Richfield. Several pedestrian bridges and underpasses have been constructed to enhance the city's transportation infrastructure. Re-striping and roundabouts have also helped increase overall safety. One exemplary project was the reconstruction of 76th Street. Reduced from four lanes of concrete to two lanes of asphalt, the right of way was used to add bike lanes, sidewalks, multi-purpose trail, and green boulevards with trees on both sides of the roadway. These projects and more all help reduce transportation emissions and other effects on the environment while also promoting positive public health habits.

Objective 3: Reduce city-wide transportation-related emissions and Vehicle Miles Traveled (VMT)

- **3.1** Share education with residents regarding electric and plug-in hybrid electric vehicle (EV/PHEV) incentives, financing, charging infrastructure (public and private), benefits, etc.
- **3.2** Continue evaluating the full municipal fleet for vehicle replacement opportunities
- **3.3** Install charging stations at municipal facilities after integrating more EVs/PHEVs into the fleet.
- **3.4** Encourage fewer individual in-city staff trips and more carpools. Prioritize using EVs/PHEVs for these shorter trips.
- **3.5** Review and amend city policies to encourage employees to adopt a telework/in-office split schedule.
- **3.6** Continue to encourage inclusion of roundabouts into planning and educate the public on the benefits of reducing idling and lowered emissions.

Objective 4: Encourage alternate forms of transportation, promoting a healthier mobility network

- **4.1** Work with partners like Move Minnesota and Commuter Services to promote and incentivize alternative transportation for staff and residents.
- **4.2** Share information about the MPCA's electric bus initiative with local schools.
- **4.3** Develop more opportunities to educate the public on equity in transportation planning.

Goal 2: Promote Renewable Energy Installation and Purchasing

As detailed in the previous goal, energy efficiency and related emissions are a large component of the greenhouse gas emissions reduction challenge. Increasing the amount and production capacity of renewable energy infrastructure helps lower reliance on fossil fuels and reduce emissions from energy production.

Richfield is serviced by Xcel Energy, which has set several goals to increase the percentage of carbon-free energy provided to customers. In 2019, Xcel Energy reached 54% carbon-free energy production in the Upper Midwest. In 2019, wind power alone supplied 15% of the energy Xcel provided (Figure 6).

Implementing different models, like buildings producing their own electricity through solar or geothermal infrastructure, helps build a stronger energy system. Renewable energy generation at individual sites continues to become more financially accessible, strengthening energy production at varying scales.

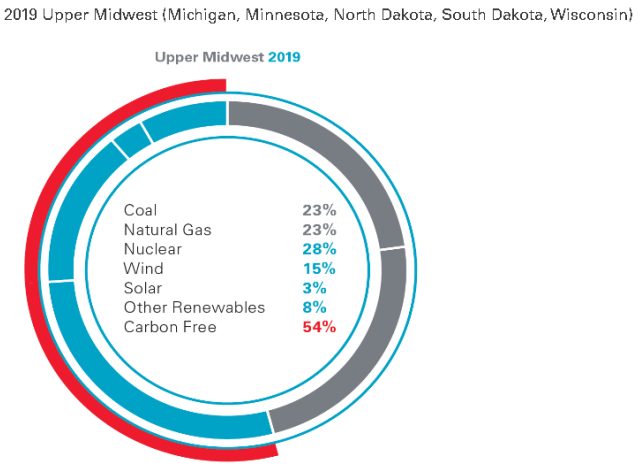

Figure 6: 2019 Breakdown of Energy Production in Xcel's Upper Midwest Service Area. *(Source: Xcel Energy Power Generation).*

Many households in Richfield have installed solar panels on their homes or garages. Local businesses like Jaguar Land Rover Richfield generate electricity from rooftop solar arrays as well. Additionally, the City has solar panels on five buildings (the Pool, Ice Arena, Public Works, and two liquor stores). A less expensive way to participate in the generation and consumption of renewable energy is to purchase it through Xcel's Renewable Energy programs, like Windsource and community solar gardens. Over 1,000 households in Richfield currently participate in energy programs like these!

Objective 1: Increase city-wide renewable energy purchase and generation

1.1 Promote options for purchasing renewable energy to residents and businesses. Identify affordable opportunities to increase equity throughout Richfield, working with low income communities and with people of color.
1.2 Conduct solar feasibility study; identify buildings in the city with the most potential and do targeted outreach. Share grant programs to increase affordability, especially for non-residential sites.
1.3 Develop and distribute an educational brochure outlining current financing incentives and the benefits of installing solar.

Objective 2: Increase municipal renewable energy purchasing and infrastructure installation

2.1 Continue to research renewable energy infrastructure options for municipal facilities.
- Identify any other municipal buildings with good solar payback potential.
- Investigate feasibility of solar thermal hot water systems.
- Investigate adding renewable infrastructure in all new construction.

2.2 Investigate viability of making all park trail lighting solar powered.
2.3 After reduction efforts, offset energy use with renewable energy purchasing through Xcel Energy's renewable portfolio options.

Goal 3: Encourage Sustainable Design and Building Practices

Construction and demolition (C&D) waste includes materials from the renovation, demolition, or construction of buildings and transportation infrastructure. In 2019, Minnesota generated an estimated 10.2 million tons of C&D waste, with around 1.4 million tons of that recorded as landfilled (MPCA). This waste stream presents a great opportunity to divert materials for reuse and extend their lifecycle.

With limited space for new construction in Richfield, sustainable design, which looks at the lifespan of a building and plans for emerging technologies is essential. It also takes into account existing natural resources like natural lighting and passive heating to lower a building's energy footprint after construction. All of these practices result in financial and environmental savings over time.

Richfield's partnership with Habitat for Humanity constructs affordable housing units in the city. All of their houses are built to meet Energy Star 3.1 standards.

Richfield residents are implementing sustainable design features into their own home improvement or construction projects. Many residents have installed solar panels, natural landscaping, passive solar design, additional dwelling units, and more. Richfield's Community Development department has several environmentally-oriented grant programs, including the Richfield Rediscovered Lot Sale Program, which includes five sustainable construction categories that builders should include in their design plans.

Objective 1: Develop and streamline municipal permit process

1.1 Evaluate projects for sustainable opportunities during Administrative Review Committee (ARC) meetings. For projects with city financial support or regulatory approval, develop an amenity point evaluation system.
1.2 Create a guide of financial and planning resources for constructing efficient and sustainable buildings. Share this with builders/developers at ARC meetings.
1.3 Encourage builders/developers to seek Energy Star, MN GreenStar, Xcel's Energy Efficient Buildings programs, SB 2030 Energy Standard, or other certifications.
1.4 Review the effectiveness of the City's affordable housing permit fee reduction program. Investigate how to improve the program and revise as needed.

Objective 2: Adopt and promote green design strategies

2.1 Encourage deconstruction instead of demolition of properties by sharing information about Hennepin County's deconstruction grant program.
2.2 Review design and construction standards to help ensure projects reduce stormwater runoff rates, volumes, and nutrient loads, and enhance water quality.
2.3 Set lawn design standards to require restoration of soil permeability after construction and include native plants and compost.
2.4 Review and reduce parking maximums to better promote alternative modes of transportation. Require bike parking for all multi-unit housing and commercial developments.
2.5 Request that a developer submit plans during the design review process on how their development could achieve "solar-ready" and "EV-ready" status.
2.6 Require that new municipal buildings be built using the SB 2030 energy standard and/or a green building framework that includes an equity lens.

Goal 4: Strengthen and Expand Natural Resource Management

Landscaping and Urban Canopy Initiatives

Natural resource and greenspace management is very important to maintaining a healthy ecosystem. This is especially true in urban areas where there are many other factors, like a denser population, that could directly or indirectly harm the environment. For example, having a healthy, mature tree canopy fosters good air quality, mitigates the urban heat island effect, reduces energy use through shading, and helps improve water quality.

Richfield's Public Works Department employs several environmentally beneficial maintenance practices. Select areas in almost all of the city's parks feature native grasses and wildflowers and are not regularly mowed. This contributes to improving soil health, erosion control, and reducing emissions from mowing. Chemical use in parks has gradually been reduced over the past 10 years, with staff focused on establishing better turf which requires fewer chemicals. Richfield's parks and streetscape projects have boasted recent efforts to plant and care for increased vegetation, including more trees, bee-friendly medians, designated pollinator garden areas, and newly planted flower beds around several park signs.

Objective 1: Establish land management standards and practices that lower inputs and maximize resilience

1.1 Identify areas in parks and commercial spaces that could be restored to natural habitat or non-turf vegetation. Develop a conversion plan.
1.2 Increase amount of native species planted to provide pollinators and other wildlife a habitat.
1.3 Use compost in landscaping to boost soil health, resilience, and increase water retention.
1.4 Increase invasive species removal in public and private areas.
1.5 Require more greenspace in streetscape design and construction projects.
1.6 Create and implement natural resource management plans for large greenspaces throughout the parks system.

Objective 2: Strengthen Richfield's urban forest

2.1 Update the citywide boulevard tree inventory, identifying vulnerable urban tree canopy.
2.2 Continue to protect mature legacy trees through regular maintenance, disease prevention, and tree-friendly urban planning and construction. Review tree/landscaping policies for single-family and multi-unit developments; amend as needed to maximize replacement opportunities.
2.3 Increase tree canopy percentage; concentrate efforts in low-income and high urban heat areas.
2.4 Continue to increase tree species diversity and communicate efforts to the public, especially as pertaining to residential tree selection and climate adaptive forestry.
2.5 Maintain Tree City USA status and annual tree planting events including Earth Day celebrations.

Objective 3: Provide education and outreach on protecting natural resources

3.1 Educate residents and businesses on planting trees adaptable to climate change.
3.2 Revise city code to remove barriers to using native vegetation in landscaping.
3.3 Encourage and educate residents and businesses to convert landscapes to diverse, indigenous, and drought tolerant flora, including pollinator gardens. Explain why rain gardens aren't advised in Richfield.
3.4 Increase community education on invasive species identification and removal.

Water Quality and Conservation Initiatives

Less than 1% of the planet's water is accessible to be used for household use, agriculture, and other human-related uses (USGS). In fact, most of the fresh surface water people use comes from rivers, but they only make up about 1/10,000th of 1% of Earth's total water supply (USGS)! It's clear that understanding and improving water quality and conservation is essential in using the limited supply that we have.

Richfield's Public Works Department manages water quality and conservation measures. This includes seasonal street sweeping to limit pollutant loading in the City's surface waters. Additionally, the Taft/Legion Lakes treatment system provides regional pollutant load removal and stormwater capacity. All new developments in the City must follow stormwater standards to ensure that extra volume and pollutant loading are both addressed in the planning stage and will not adversely affect the water resources in the area's watershed.

Public Works Workers Kurt Siebert and Nick Kleve finish some natural landscaping and pollinator garden installation in Monroe Park.

City code restricts when residents are allowed to irrigate their lawns and gardens (not allowed May 1 to September 30 from 11 am to 4 pm) to prevent excess water from being used at times when it is more likely to evaporate than infiltrate into the ground. Public Works has also tracked annual winter salt use to reduce excess chlorides from reaching surface waters. Aside from damage to infrastructure (curbs, streets, pipes, and vehicles), excessive road salt application can be very harmful to aquatic life and have long term impacts to bodies of water.

Objective 4: Promote water conservation

- **4.1** Create ranked list education campaign of easy behavior changes that would reduce water use.
- **4.2** Develop in person, print, and online water conservation education for residents and businesses. Make education as accessible as possible with translations.
- **4.3** Provide information to residents on natural landscaping techniques, including low water plants.
- **4.4** Encourage high efficiency systems (with soil moisture sensors or programmable watering areas) in new installations or system replacements.

Objective 5: Improve stormwater management, preserving and enhancing wetlands, streams, lakes, and floodplain areas

- **5.1** Ensure the City's shoreline management ordinance is consistent with state requirements.
- **5.2** Educate residents who want to help restore and revegetate shoreline.
- **5.3** Explore conducting an inventory of pond status and creating improvement plans.
- **5.4** Develop a salt reduction education program for residents, businesses, and other organizations.
- **5.5** Promote citywide Adopt-A-Drain efforts with the goal of having all catch basins adopted.
- **5.6** Audit and re-design stormwater drainage systems to improve litter capture in all parks. Budget for professionally cleaning ponds and removing litter.

Natural landscaping can help prevent shoreline erosion. *(Source: MPCA)*

Goal 5: Reduce Waste Generated

We use numerous different products in our daily lives, almost all of which come in some sort of non-reuseable packaging. Once it's in the trash or recycling, it's usually not thought of again. However, we incinerate or landfill our trash and it quickly adds up. Richfield households produce more waste per day than the inner ring suburb average (Figure 6); in 2018, Richfield generated an estimated 41,692 tons of waste total (Regional Indicators Initiative).

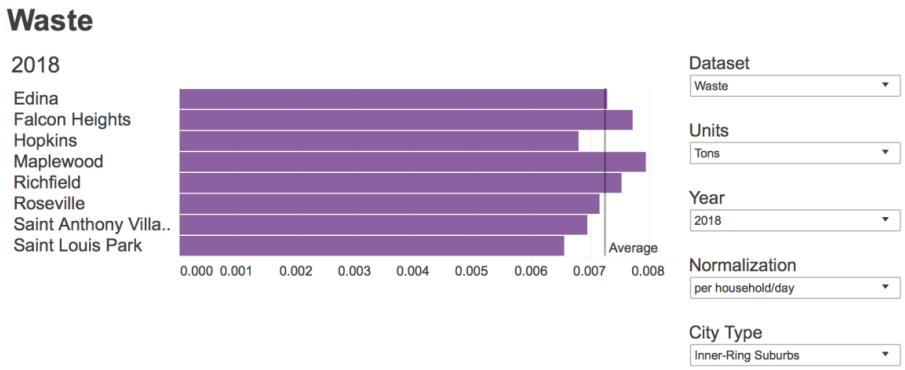

Figure 6: Tons of waste generated per household per day in the Inner Ring Suburbs in 2018. *(Source: Regional Indicators Initiative)Initiative)*

Besides the large amount of resources used to create these products and production-related emissions, there are significant emissions associated with disposing of waste. This includes household pick-up and the subsequent transportation as well as the greenhouse gases released from landfilling or incineration. Since Richfield generates more waste than average, it follows that the city has a higher than average emission tonnage as well (Figure 7).

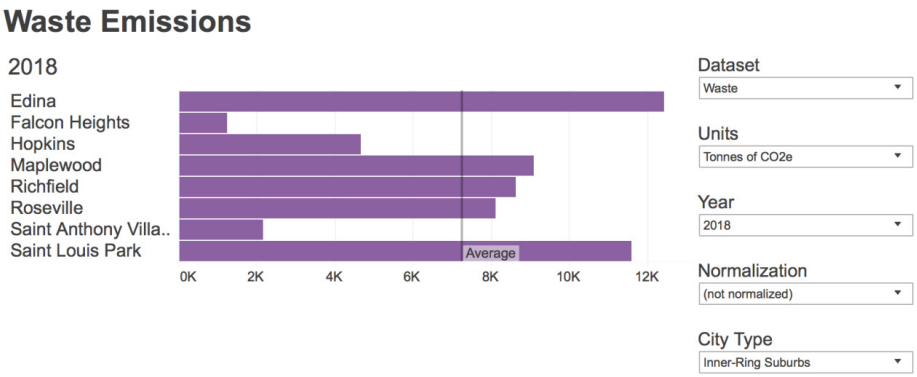

Figure 7: Waste emissions (tons of CO2) associated with waste generated in the Inner Ring Suburbs in 2018. *(Source: Regional Indicators Initiative)*

There are many ways to reduce the amount of waste one produces. A lot of this has to do with more conscious consumption, but proper disposal is also a factor. Figure 8 shows how different waste management methods in Hennepin County have fluctuated over the years, almost all of them far from their related 2030 goal.

Richfield has implemented several initiatives to reduce the amount of waste thrown away in the City. Over 800 households have signed up for the residential organics drop-off program, which has diverted several dozen tons of compostable material from incinerators and landfills.

Figure 8: Historic breakdown of waste disposal methods compared to county goals. *(Source: 2019 Hennepin County Recycling Progress Report)*

The city's waste reduction efforts currently focus on municipal building systems and staff education, low waste community events like the Farmers Market, and household behaviors. Several city buildings have started organics collection, with more to be rolled out, including areas at the Ice Arena and Pool. Additional citywide recycling education and events are always being planned and implemented!

Objective 1: Create and share education on how to reduce waste

1.1 Share education and incentives to motivate residents and businesses to reduce waste, recycle, and compost. Promote Hennepin County Master Recycler and Composter program and Zero Waste Challenge.

1.2 Communicate with residents about events and businesses that promote waste reduction and reuse, such as Fix-it Clinics.

1.3 Develop educational materials that illustrate the impacts of waste generation and reduction behaviors and share smarter purchasing tips.

1.4 Host a citywide drop-off event to collect materials that cannot be recycled curbside (electronics, household hazardous waste, etc).

1.5 Continue to build a robust education and resource page on the city's website.

Objective 2: Emphasize and expand recycling and organics collection efforts

2.1 Enforce the state recycling statute and undertake an educational campaign to strengthen recycling in multi-unit housing and businesses.

2.2 Organize curbside solid waste, recycling, and organics collection by 2022 to increase accessibility and equity and achieve environmental benefits.

2.3 Require that all events held at city facilities (including park shelters) are low or zero waste, following published city guidelines.

Objective 3: Reduce waste generated by municipal staff and operations

3.1 Update the Sustainable Purchasing Policy and annually educate relevant staff on best practices

3.2 Develop a list of environmentally preferred local vendors and environmentally preferable state cooperative purchasing contracts for city purchases.

3.3 Create city operations goals for sustainable material use in projects, solid waste reduction, recycling, and organics recycling. Work with the municipal Green Team to create a friendly department or building competition.

3.4 Develop and implement low waste guidelines for all internal staff events to follow.

3.5 Improve all waste disposal systems in municipal buildings and with the municipal Green Team, coordinate related education for all staff.

Goal 6: Improve Access to Local and Healthy Food

When it comes to food transportation, the physical distance between farm and table can be pretty long. Additionally, local produce and other food products are usually more expensive than what can be purchased at the bigger retail stores, making local, healthy food not as cost-efficient or accessible for many people. With climate challenges affecting food production around the world, it will be essential to produce more of our own food closer to home. This also promotes responsible land management behaviors which will benefit the environment.

When people are more involved with growing their own food and are more aware of how much labor and resources go into food production, they are less likely to waste it or throw it away (Nova, 2020). This reduces greenhouse gas emissions and also helps build other environmentally conscious habits by developing relationships and connection to the land. For example, if you know how much your plants rely on clean water for growth, you might start thinking about the health of your local water sources and how to reduce contaminants in them. This systems thinking approach is very important when it comes to climate action!

Historically, there have been a variety of organizations working to increase access to local and healthy food in Richfield. The Richfield Farmers Market has operated from May-October for 30 years, with the Winter Market spotlighting more local food vendors. There are several affordable grocery stores in town, and organizations and initiatives like VEAP and Fare For All further increase food access for residents across the city. Residents are allowed to keep bees and chickens per City Code, and there have been a number of community gardens in the City over the years as well.

Objective 1: Increase the amount of healthy food grown by Richfield residents, shortening supply chain length and strengthening the community's resilience

1.1 Support the creation and maintenance of pocket community gardens in parks and other areas identified across the city.
- Educate participants on soil testing for contaminants to ensure health and safety.
- Establish gardens at schools and connect into curricula.
- Collaborate on equipment-lending libraries and seed/seedling programs.

1.2 Encourage edible landscapes and gardening on various types of properties (homes, businesses, schools, etc). Review and amend code as needed.

1.3 Revise ordinances related to the keeping of bees, chickens, and other animals to better support animal health and husbandry best practices.

1.4 Encourage the creation of community gardens to fulfill the green space requirement for new developments.

Objective 2: Ensure all residents have nearby access to purchasing and consuming healthy food

2.1 Continue to support innovative practices such as mobile food markets and pantries to bring food closer to under-resourced consumers. Develop a multi-lingual comprehensive list of local resources for staff to share with residents.

2.2 Explore partnership opportunities to provide education and skill development for families around healthy food selection and preparation.

2.3 Promote Community Supported Agriculture programs through existing programs and partnerships

2.4 Measure proximity of grocery stores to residential areas, specifically pedestrian access within a half-mile radius of grocery stores. Use this information in program development to focus on increasing equity.

Appendix 1: Implementation Tables

Goal 1: Develop and Promote Energy Efficiency Efforts

Energy Initiatives

Action Item	Sector(s) Involved	Project Timeframe	Potential Start Year	GreenStep City Related Action(s)
1.1	Municipal, Residential, Commercial	Short-term (2 years)	2020	2.1
1.2	Municipal	Ongoing	2021	2.1
1.3	Commercial	Short-term	2021	2.4
1.4	Municipal, Residential	Short-term	2022	-
2.1	Municipal	Short-term; ongoing	2020	1.1, 1.6, 20.1
2.2	Municipal	Short-term	2022	1.2, 1.3
2.3	Municipal	Short-term	2022	4.2, 4.3, 4.5
2.4	Municipal	Short-term	2022	4.2, 4.3, 4.5
2.5	Municipal	Short-term	2022	4.2, 4.3, 4.5

Transportation Initiatives

Action Item	Sector(s) Involved	Project Timeframe	Potential Start Year	GreenStep City Related Action(s)
3.1	Municipal, Residential	Ongoing	2022	-
3.2	Municipal	Ongoing	2021	13.2, 13.3, 13.6
3.3	Municipal	Long-term; ongoing	2023	23.5
3.4	Municipal	Short-term launch; ongoing	2022	13.1
3.5	Municipal	Short-term launch; ongoing	2021	12.5
3.6	Municipal, Residential	Ongoing	2020	11.6
4.1	Municipal, Residential	Ongoing	2021	12.1, 12.2, 12.3, 12.4, 12.6
4.2	Municipal, Education	Short-term	2020	-
4.3	Municipal	Short-term; ongoing	2021	-

Goal 2: Promote Renewable Energy Installation and Purchasing

Action Item	Sector(s) Involved	Project Timeframe	Potential Start Year	GreenStep City Related Action(s)
1.1	Municipal, Residential, Commercial	Short-term launch; ongoing	2021	26.2a
1.2	Municipal	Short-term	2023	26.2b
1.3	Municipal	Short-term	2023	26.2
2.1	Municipal	Long-term	2023	1.7
2.2	Municipal	Ongoing	2022	4.5
2.3	Municipal	Long-term	2025	15.2

Goal 3: Encourage Sustainable Design and Building Practices

Action Item	Sector(s) Involved	Project Timeframe	Potential Start Year	GreenStep City Related Action(s)
1.1	Municipal, Commercial	Short-term	2021	3.3
1.2	Municipal, Commercial	Short-term launch; ongoing	2022	2.2
1.3	Municipal, Commercial	Ongoing	2021	-
1.4	Municipal	Ongoing	2022	2.6
2.1	Municipal, Commercial	Short-term; ongoing	2020	22.8
2.2	Municipal, Commercial	Ongoing	2021	17.5
2.3	Municipal, Commercial	Ongoing	2022	16.2
2.4	Municipal, Commercial	Short-term	2021	12.1, 14.1
2.5	Municipal, Commercial	Short-term; ongoing	2021	2.2
2.6	Municipal	Short-term	2021	3.1

Goal 4: Strengthen and Expand Natural Resource Management

Landscaping and Urban Canopy Initiatives

Action Item	Sector(s) Involved	Project Timeframe	Potential Start Year	GreenStep City Related Action(s)
1.1	Municipal	Ongoing	2022	18.5a
1.2	Municipal	Ongoing	2022	18.5a
1.3	Municipal, Residential, Commercial	Short-term; ongoing	2022	15.5, 16.2, 18.5b
1.4	Municipal, Residential	Ongoing	2022	18.8
1.5	Municipal	Ongoing	2021	-
1.6	Municipal	Long-term; ongoing	2024	10.1
2.1	Municipal	Ongoing	2021	-
2.2	Municipal, Commercial	Ongoing	2021	16.2, 16.5
2.3	Municipal	Long-term; ongoing	2022	16.3
2.4	Municipal, Residential	Ongoing	2021	16.6
2.5	Municipal, Residential	Ongoing	2021	16.1
3.1	Municipal, Residential, Commercial	Ongoing	2021	-
3.2	Municipal, Residential, Commercial	Short-term; ongoing	2021	16.5, 17.5
3.3	Municipal, Residential	Ongoing	2022	-
3.4	Municipal, Residential	Ongoing	2022	18.8

Water Quality and Conservation Initiatives:

Action Item	Sector(s) Involved	Project Timeframe	Potential Start Year	GreenStep City Related Action(s)
4.1	Municipal, Residential	Short-term	2021	2.5
4.2	Municipal, Residential	Short-term; ongoing	2021	2.5, 20.6
4.3	Municipal, Residential	Ongoing	2021	-
4.4	Municipal	Ongoing	2021	2.5
5.1	Municipal	Short-term	2022	19.4
5.2	Municipal, Residential	Ongoing	2022	19.5
5.3	Municipal	Long-term	2024	19.5
5.4	Municipal, Residential, Commercial, Others	Ongoing	2021	17.6
5.5	Municipal, Residential, Commercial, Others	Ongoing	2021	17.3
5.6	Municipal	Ongoing	2023	-

Goal 5: Reduce Waste Generated

Action Item	Sector(s) Involved	Project Timeframe	Potential Start Year	GreenStep City Related Action(s)
1.1	Municipal, Residential, Commercial	Ongoing	2021	22.2
1.2	Municipal, Residential	Ongoing	2021	22.2, 22.4
1.3	Municipal, Residential	Short-term	2021	22.2
1.4	Municipal	Short-term	2023	-
1.5	Municipal	Ongoing	2020	22.2
2.1	Municipal, Commercial, Multi-Unit Housing	Long-term	2022	22.6
2.2	Municipal, Residential	Short-term	2020	22.3, 22.5, 22.7
2.3	Municipal	Ongoing	2021	15.7
3.1	Municipal	Short-term launch; ongoing	2021	15.1, 15.4, 15.8
3.2	Municipal	Short-term	2021	15.3
3.3	Municipal	Long-term	2022	15.5, 22.1
3.4	Municipal	Short-term	2021	15.7
3.5	Municipal	Short-term launch; ongoing	2021	22.1

Goal 6: Improve Access to Local and Healthy Food

Action Item	Sector(s) Involved	Project Timeframe	Potential Start Year	GreenStep City Related Action(s)
1.1	Municipal, Residential, Schools	Long-term; ongoing	2022	27.2, 27.3c
1.2	Municipal, Residential, Commercial	Ongoing	2021	-
1.3	Municipal, Residential	Short-term	2021	27.2
1.4	Municipal, Multi-Unit Housing	Ongoing	2023	27.2
2.1	Municipal	Ongoing	2021	27.3
2.2	Municipal, Residential, Community Education	Ongoing	2021	-
2.3	Municipal, Residential	Ongoing	2021	27.3b
2.4	Municipal	Short-term	2021	27.4

Appendix 2: Related 2040 Comprehensive Plan Policies

Adopted in 2018, Richfield's 2040 Comprehensive Plan helps the city set goals and policies that improve land use, transportation, pedestrian and bicycle facilities, parks, utilities, and public facilities. Many of these policies tie into the objectives that this climate action work plan highlights as well. The two documents are inherently connected as they both work to improve the municipal services Richfield currently offers while ensuring the overall sustainability of the future of the City.

General Policies

- "Encourage the use of alternative energy sources and sustainable building practices."
- "Encourage protection of the environment in the day-to-day conduct of City business."
- "Explore opportunities for policy change related to pollinator habitat protection, local food production and entrepreneurship, the promotion of healthy food retail, and waste reduction."

Goal 1 (Develop and Promote Energy Efficiency Efforts) Policies

- "Reduce pollutants through public transit, car-pooling, traffic control, use of berms and trees, and stronger enforcement of pollution policies"
- "Incorporate landscaping and aesthetics in all transportation improvements."
- "Make fuel efficiency and alternative fuels a high priority when purchasing vehicles for use by the city."

Goal 2 (Promote Renewable Energy Installation and Purchasing) Policy

- "Install solar panels or similar energy sources on public buildings and encourage owners of businesses and private property owners to do the same"

Goal 3 (Encourage Sustainable Design and Building Practices) Policy

- "Encourage sustainable building practices"

Appendix 3: Resources Used

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