2023

CLIMATE MOBILIZATION ACTION PLAN

FOREWORD

This plan is the result of nine months of work and collaboration to create a practical, living document for the Town of Sudbury. Its creation would not have been possible without the aid and enthusiasm of Sandra Duran, the Combined Facilities Director. Her staff, Lillian Vert and now Dani Marini-King, have been likewise instrumental.

Climate change demands that we approach old problems with a new perspective and be unafraid to try new things. Given these conditions, this document must be only the first iteration of many in climate mobilization planning. Adapting is essential as new methods, knowledge, and conditions present themselves.

As a town resident, I am heartened to see the enthusiasm for climate action and excitement for the work that will take place. This plan is a step forward in an ongoing journey toward a more sustainable future for Sudbury.

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Executive Summary

Climate change is one of the most crucial challenges that Sudbury faces today. Each year, environmental concerns are beginning to hit closer to home in the form of brush fires and record-breaking heat. Recent years have brought record-breaking heat, unpredictable storms, and longer droughts. Sudbury is vulnerable without a comprehensive approach to tackling climate issues at a town-specific level.

In 2022, the residents of Sudbury passed Article 58, declaring a climate emergency and mandating that the town hire a full-time staff member dedicated to sustainability and create a Climate Mobilization Action Plan. The Town's Climate Mobilization Action Plan (CMAP) serves as a risk-management tool to prepare for the potential changes in the environment, both natural and economic, that may occur. As referenced in this plan, sustainability is the ability to meet present needs without compromising the ability of future generations to do the same. Sustainability initiatives must be planned and executed to ensure the long-term success of the town. By incorporating sustainability into town planning and risk management, the CMAP acts as a guiding document to ensure that the town can continue providing essential goods and services to its residents. This plan will give a holistic view of how Sudbury can achieve a sustainable future.

Key Focus Areas Include:

- Creating a menu of strategies, tactics, and policies for Sudbury's residents, businesses, and municipal government to reduce their share of greenhouse gas emissions and sequester greenhouse gasses.
- Planning for community outreach, engagement, and education to facilitate implementation.
- Planning to ensure that the costs of the required mobilization do not unfairly burden those economically or socially disadvantaged and that the realized benefits of a more just and sustainable future accrue to all.
- Understanding methods for estimating benefits and costs of potential changes and actions while setting the stage for upcoming greenhouse gas inventories.
- Creating a roadmap for the execution of initiatives outlined in the plan.

The creation of this plan has been a month-long process and would not have been possible without the assistance of many of the stakeholders listed later in this report. This plan is meant to be a living document to assist the Sustainability Coordinator in furthering climate action. Sudbury already has an extraordinarily vibrant community of residents committed to climate action. This plan is one more step towards a more sustainable future for Sudbury.

What Led Us Here?

Sudbury has been actively working to advance climate action for more than thirty years. In 1990, town residents founded Sudbury's Earth Decade Committee under the leadership of the late Jane Coddington. Since then, the town has made significant strides with the help of town officials, the Energy and Sustainability Committee, and grassroots initiatives by town residents.

This plan builds off the Town's existing foundation of climate action. These efforts are primarily thanks to dedicated stakeholders who will continue to be central in supporting the implementation of the measures outlined in this plan.

1990

Sudbury's Earth Decade Committee is formed.

2001

The Sustainable Sudbury Master Plan is published, charting a future for Sudbury as a more environmentally friendly community.

2009

Sudbury's Energy and Sustainability Committee is formed to help develop and implement policies, programs and projects to promote energy savings, renewable energy and sustainability planning.

2015

A solar parking canopy is Installed at LS. The 3,600-panel solar canopy, the first of its kind at a Massachusetts high school, was completed and interconnected in May, 2015. This project offsets an estimated 1,000 tons of carbon dioxide equivalent (CO_2e) annually

2022

Article 58 is passed by townwide vote, declaring a Climate Emergency. Article 58 mandates the hiring of a Sustainability staff member and the preparation of a Climate Mobilization Action Plan within one year. The passage of 58 set a new standard for climate action in Sudbury.

Other Plans that Complement the Climate Mitigation Action Plan

Plan	Climate Action Plan Alignment
Select Board Town of Sudbury Master Plan (2021)	• Protect and restore ecosystems • Minimize fossil fuels • Engage diverse populations
Sudbury Water District Sudbury Water District Master Plan (2020)	• Reduce water demand • Monitor emerging challenges • Remove PFAS and other dangerous chemicals
Planning and Community Development Department Stormwater Management Program Plan (2018)	• Engage in pollution prevention • Public education and outreach • Post-construction stormwater management
Town of Sudbury Inter-Departmental Hazard Mitigation Plan (2020)	• Proactive capacity upgrades • Reduce property damages caused by hazard impacts • Build resilient infrastructure
Sudbury Senior Center Livable Sudbury: A Community Needs Assessment (2019)	• Become an “all-age” friendly community • Balance physical infrastructure and social environments
Planning and Community Development Department Housing Production Plan (2016)	• Increase housing availability • Recognize the disparate impact of housing challenges • Promote diverse housing types
Planning and Community Development Department Open Space and Recreation Plan (2009)	• Protect natural lands and manage them for resilience • Pedestrian-friendly initiatives • Collaborative approach

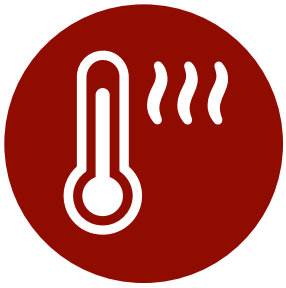
Climate Change in Sudbury

The Current Context

Climate change poses an existential threat to human society and the ecosystems upon which we depend, a danger that is well-documented in the scientific community and acutely understood and felt by numerous community members across a broad cross-section of the Sudbury community. Furthermore, the harms of climate change are expected to be disproportionately burdened upon vulnerable and disadvantaged members of the community.

Human-induced climate change already impacts many organisms, ecosystems, and human systems. The International Panel on Climate Change (IPCC)1 projects that global warming of 1.5°C above preindustrial temperatures poses significant risks to the health of many systems which humans depend on – with the magnitude of the risk increasing significantly with an additional half degree of warming. These risks include increased frequency and intensity of heat waves and droughts, sea level rise, and local species extinction.

Climate Change Impacts



Extreme Heat

Flooding

Intense Storms

Drought

Climate Change in Sudbury

The Long-term Impact

Climate change has already impacted and will continue to impact the Town of Sudbury, its residents, businesses, and visitors. Many climate hazards may become more frequent and intense as the climate changes. Furthermore, the harms of climate change are expected to be disproportionately burdened upon vulnerable and disadvantaged members of the community.

2030	2050	2070	2090
NEAR TERM The summer mean temperature could increase by 3.6°F from the historical period (1950-2013), worsening stress on electric transmission and utility distribution infrastructure.	**MID-CENTURY** The 1 percent annual chance river flood could be two times more likely to occur, increasing Sudbury River and other river flood risk.	**MID-LATE CENTURY** There could be 58 fewer days below freezing, increasing the chance of ticks overwintering and reducing winter recreation opportunities.	**END OF CENTURY** Warmer temperatures and more frequent heat waves could bring fifty more days per year where temperatures exceed 90°F, compared to current climate.

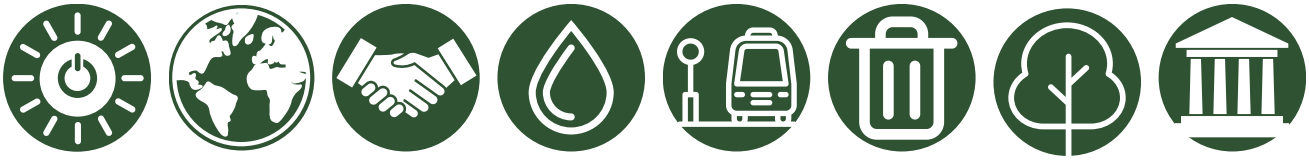
Spotlight: "The Desert"

The Desert Area Memorial Forest is a unique ecological zone located in Sudbury and Marlborough. The sandy soils, deposited initially on the bottom of ancient Lake Sudbury as the glacier retreated north, now support a Pitch pine and Scrub oak forest unusual in this region. The area is particularly vulnerable to brush fires and requires periodic controlled burnings. Now managed by the Sudbury Valley Trustees, The Desert hosts numerous walking trails.

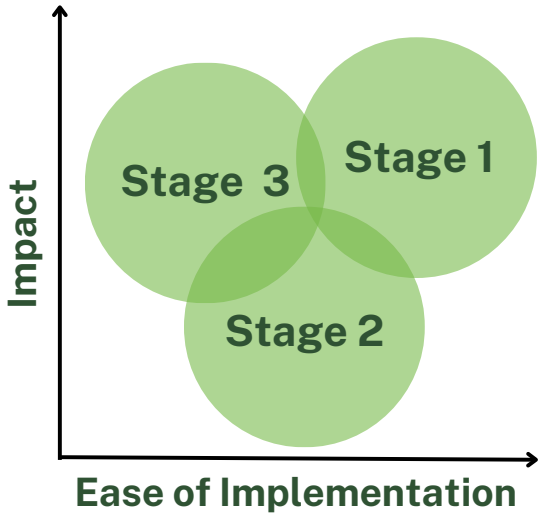
How to Use This Plan

This plan first shares a background of climate action in Sudbury and the impending impacts of climate change on the town. Following the background are twelve main sections that are focus areas for Sudbury as it seeks to prioritize climate action. Each section is detailed below:

The Key Stakeholders, Estimating Benefits and Costs, and Advancing Equity sections set the stage for understanding what climate action means for Sudbury. Change agents in town must recognize the contextual elements of climate action.



The strategic focus areas of this plan are Energy, Resilience, Governance, Water, Mobility, Waste, Natural Resources, and Facilities and Buildings. These focus sections include strategies for action, community engagement, and performance metrics. Strategies are prioritized based on their relative impact and ease of implementation. The impact of an initiative is gauged by its effectiveness in furthering Sudbury's climate goals. Ease of implementation refers to the presence of barriers (financial, social, technological, etc.) impeding successful execution. Strategies are compared qualitatively, with room for future quantitative structuring. The timelines for implementation are to be seen as guideposts for community action and are subject to change based on available data and funding.



Stage 1: Strategies with high impact and very low barriers to implementation. These strategies will serve as early wins for climate action in Sudbury.
Stage 2: Strategies with high or medium impact and medium barriers to implementation. Implementation is feasible in the near term.
Stage 3: Strategies with low to medium impact or high barriers to implementation. Implementation is feasible but more challenging.

Ongoing: Some initiatives will require ongoing action or iteration and are marked as such.

Strategies that are long-term goals for the town are included in the future initiatives section. These strategies are essential for climate mobilization but have longer timelines for execution.

Key Stakeholders

Primary Stakeholders

Making Climate Action work in Sudbury will require coordination between internal and external stakeholder groups to the town government. The stakeholder list below is not exhaustive, and the town should endeavor to bring in as many relevant voices into the decision-making process as possible.

Facilities Department

The Facilities Department is the center for sustainability-related action in Sudbury. The Combined Facilities Director oversees the Sustainability Coordinator while working to create inter-departmental change.

Energy and Sustainability Committee

The Energy and Sustainability Committee comprises town residents working on climate initiatives. The committee is working to bring renewable energy projects to fruition across numerous town departments and has advanced sustainability policy at every opportunity.

Public Works Department

The Public Works Department will likely be tasked with executing many of the policies in this plan, particularly those related to climate resilience. Providing the department with adequate funding and close support will be crucial to achieving sustainability goals.

Planning & Community Development Department

The Planning & Community Development Department is the center of town planning and has prior experience in working to execute approved plans. Additionally, they will be an essential ally in adopting policies in line with social equity and equal access.

Town Manager's Office

The Town Manager's Office was crucial in hiring the Sustainability Coordinator. Many of the policies outlined in this plan will be new frontiers for town policy, and the Town Manager will have a decisive say in their implementation.

Select Board

The Select Board has made its commitment to sustainability clear by supporting the Climate Emergency Declaration. They collectively serve as the executive of town affairs. All policies should be ideated with an eye toward Select Board approval.

Sustainable Sudbury

Sustainable Sudbury group was the driving force behind Climate Emergy Declaration. Sustainable Sudbury is a passionate group of town residents committed to sustainability.

Conservation Department

The conservation department has put forth ideas for advancing sustainability within its mandate. The department will be instrumental partners going forward.

Key Stakeholders

Additional Stakeholder Groups

Relevant Town Committees

Town of Sudbury, Commission on Disability
Town of Sudbury, Conservation Commission
Town of Sudbury, Finance Committee
Town of Sudbury, Transportation Committee
Planning Board

Relevant Town Departments

Sudbury Senior Center
Town of Sudbury, Department of Health
Town of Sudbury, Conservation Department
Town of Sudbury, Fire Department
Town of Sudbury, Finance Department
Town of Sudbury, Building Department

Intra-governmental Town Stakeholders

Lincoln-Sudbury Regional High School - School Committee
Lincoln-Sudbury Regional High School - Student Sustainability Organization
Sudbury Water District

Outside Stakeholders

OARS - Regional Watershed Organization
Metropolitan Area Planning Council
Republic Services - Waste Services Provider
Eversource - Electricity Utility Provider
National Grid - Natural Gas Utility Provider

Estimating Benefits and Costs

It will be critical for the Town of Sudbury to have methods for measuring its success in achieving sustainability-related initiatives. The first and most crucial step for accurately estimating the costs and benefits of the initiatives outlined in this plan will be completing a town-wide greenhouse gas inventory. The greenhouse gas inventory, a requirement outlined in the Climate Emergency Declaration of 2022, will serve as a baseline for measuring emission reductions.

Local, state, and national governments widely use production-based carbon emission inventories. Such greenhouse gas inventories allocate carbon emissions among the Commercial, Residential, and Transportation sectors according to how much energy is used and the carbon intensity of energy in each sector. Emissions for solid waste are measured based on the tonnage of Solid Waste hauled to the landfill. Wastewater & Water are emissions from the energy used to treat water and wastewater.

The inventory will serve as a baseline for identifying areas where additional actions may have the most significant potential for reducing GHGs and as a benchmark for tracking reductions over time. Town officials are actively working to execute a greenhouse gas inventory to catalyze further climate action.

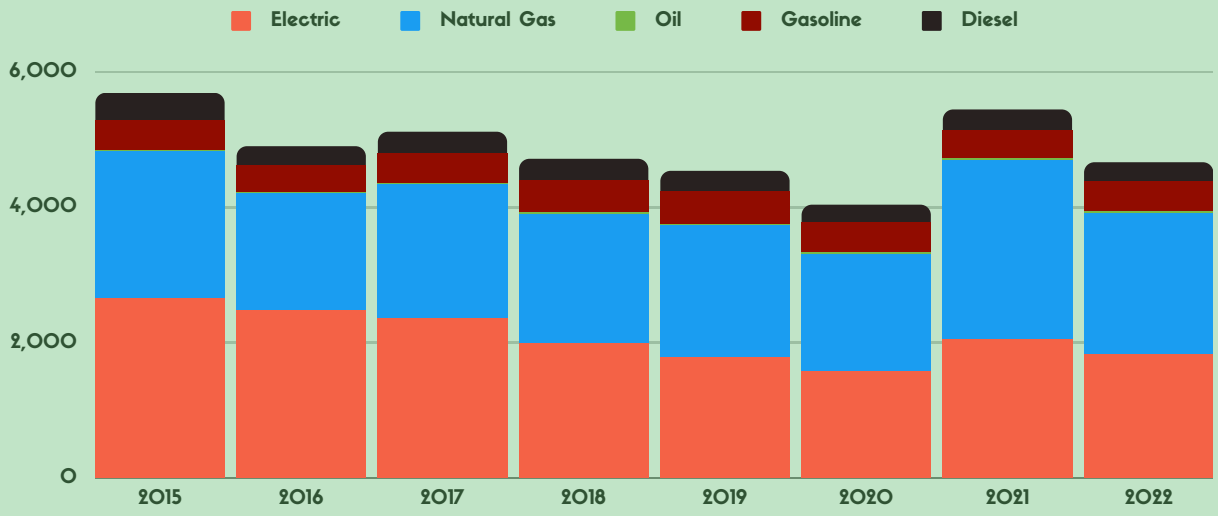
Estimating Benefits and Costs

In addition to the forthcoming greenhouse gas inventory, the Town of Sudbury has other levers for estimating the costs and benefits of climate action initiatives and making those calculations more broadly available to the public. These include:

- Publish the MassEnergy Insights Data for residents to see municipal energy usage.
- Improve water use tracking with smart water meters, and make data available and actionable.
- Require businesses and institutions to annually submit a waste reduction plan to the municipality and link the plan to a certificate of occupancy.
- Initiate voluntary quarterly energy/emissions reporting as a precursor to a Building Energy Reporting and Disclosure Ordinance.
- Require commercial, multi-family, and large institutions (schools, churches) to benchmark and report their energy performance once a year.
- Implement a data-driven plan to protect and expand tree canopy, monitoring its effect on carbon sequestration, water quantity, and quality; maintain an inventory of public street trees to monitor their health and survival, taking climate change into account; identify new planting areas to increase the number of public trees.

Municipal Building Emissions

Emissions in Metric Tons of CO2 from Public Buildings from 2015 to 2022



18.04% Emissions from Public Buildings were 18.04% lower in 2022 than in 2015

Advancing Equity

Equity means meeting communities where they are and allocating resources and opportunities as needed to create equal outcomes for all community members. We recognize that injustice is wrong, and solving climate change is impossible without equity. In Sudbury, our plan will only succeed if we center racial, gender, and disability equity in the plan's goals and strategies. We realize that the Town of Sudbury's infrastructure, policies, and investment have historically and systemically neglected and even harmed low-income communities and communities of color. The Town acknowledges these injustices and the need to right these wrongs by creating a culture of equity within its institutions.

Advancing Equity will require action across a broad range of focus areas. This section highlights seven primary areas that the Town of Sudbury should consider as it plans to ensure that the costs of the required mobilization do not unfairly burden those who are economically or socially disadvantaged and that the realized benefits of a more just and sustainable future accrue to all.

1. Health
2. Affordability
3. Accessibility
4. A Just Transition
5. Community Capacity
6. Cultural Preservation
7. Accountability

Advancing Equity

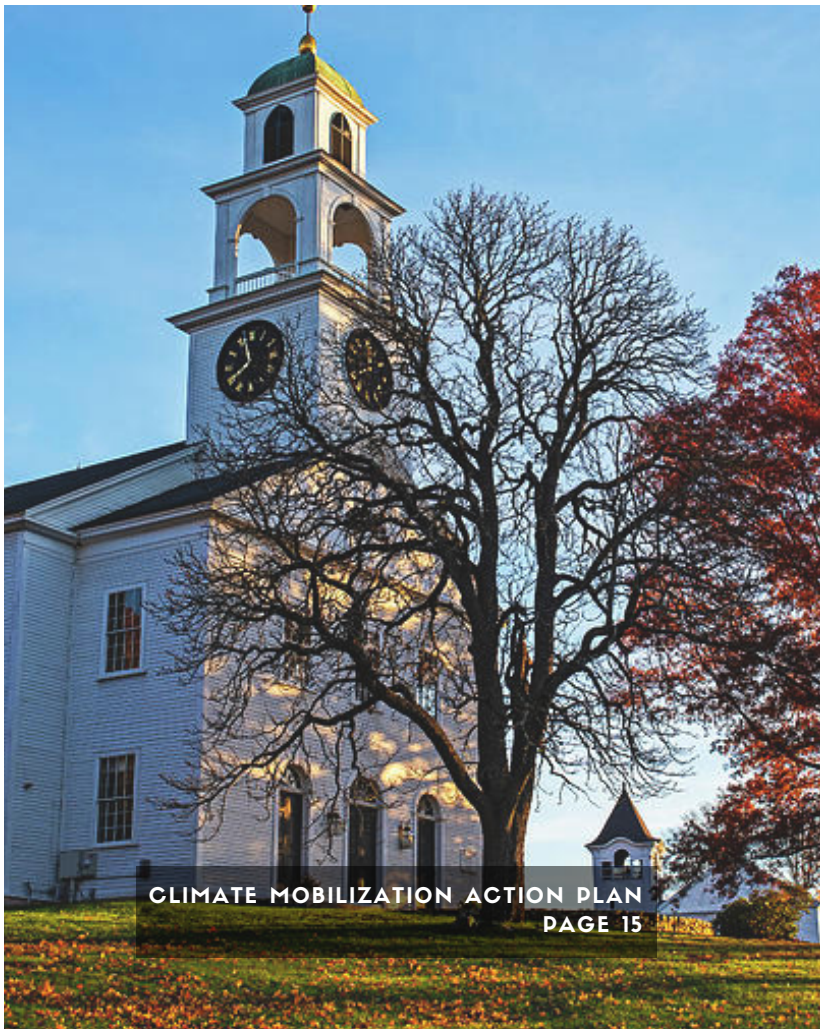
Advancing Equity will require action across a broad range of focus areas. This section highlights seven primary areas that the Town of Sudbury should consider as it plans to ensure that the costs of the required mobilization do not unfairly burden those who are economically or socially disadvantaged and that the realized benefits of a more just and sustainable future accrue to all.

1) Health - Strategy improves mental and physical health outcomes for low-income communities, communities of color, and those with disabilities. It upholds the fundamental human right to clean, healthy, and adequate air quality, water, land, food, education, transportation, safety, and housing.

- Center health and wellness in climate planning, conduct holistic planning
- Protect natural resources (water, land, air) from pollution
- Invest in and promote clean energy, water conservation, and sustainable materials
- Focus on local, affordable, and healthy food
- Acknowledge the disproportionate impacts of extreme weather on low-income communities and communities of color.
- Protect, develop, and maintain clean, pollution-free green spaces
- Conserve resources, reuse, and recycle

2) Affordability - Strategy lowers and stabilizes costs related to basic living needs (housing, food, utilities, healthcare, transportation, etc.) for low-income communities, communities of color, and those with disabilities.

- Compensate and fund organizations and businesses focused on climate justice led by people of color.
- Prioritize and target incentives for low-income communities and communities of color.
- Make green solutions or programs less expensive so everyone can participate.
- Consider how gentrification and displacement affect the affordability of services.
- Seek solutions that address household affordability in Sudbury, including displacement and homelessness.



Advancing Equity

3) Accessibility - The strategy increases access to jobs, housing, transportation, funding, education, healthy foods, and a clean environment for low-income communities and communities of color, and those with disabilities. It removes barriers through infrastructure, policy, and investments.

- Lack of awareness and educational materials prevents us from meeting sustainability goals.
- Consider financial barriers to participation.
- Consider the inequities of how people are excluded from economic opportunity because of disabilities, income, education, and healthcare.
- Consider inequitable access to transportation options for communities that do not have access to personal vehicles.

4) Just Transition - Strategy ensures economic justice so that low-income communities, communities of color, and those with disabilities are prioritized in the strategy's benefits and protected from potential negative consequences.

- Help BIPOC-owned businesses include participation efforts targeted toward these groups.
- Fund local renewable energy businesses.
- Ensure low-income communities and communities of color have the same access to economic opportunity, education, and healthcare.
- Ensure that those with disabilities are empowered.

Advancing Equity

Spotlight: Sudbury Senior Center

The Sudbury Senior Center is the visible point of access, information, and outreach for older people in our community. The Senior Center provides a tangible reminder that the public system cares and that services are available when the elder needs them. The Center is where seniors can go to remedy isolation problems, renew old acquaintances, or make new ones and become involved in the community. The Center has been working to pilot innovative solutions, such as the GOSudbury ride initiative.

5) Community Capacity - Strategy elevates the voices of low-income communities and communities of color by developing and strengthening the skills, abilities, and resources a community needs to survive, adapt and thrive. Sustainability connects with a sense of place where people work, play, go to church, and spend money in one community.

- Improve education materials for community members so people understand why climate change issues are essential, especially for parents who want to teach children to understand these issues.
- Emphasize the intersectionality of climate issues.
- Actively address safety concerns and community priorities and communicate with the community through meaningful connections to these concerns.
- Build community resilience to long-term climate change impacts by focusing on social and economic stressors for people living in Sudbury.
- Prepare for long-term climate change impacts and concerns that the infrastructure won't be able to keep up with growth.

6) Cultural Preservation - Strategy deliberately and respectfully honors cultural relevance and history to preserve past and present cultural heritage to benefit all generations.

- Acknowledge that Sudbury is not a diverse town that respects, honors, and acknowledges the history of BIPOC.
- Preserve, uplift, and support the vibrant culture and history of BIPOC
- Invest in maintaining cleanliness and upgrades in areas while mitigating or preventing displacement

7) Accountability - Strategy ensures that low-income communities, communities of color, and those with disabilities can hold institutions accountable for equitable implementation.

- Include representative leaders from BIPOC communities that are impacted by decision-making.
- Ensure equitable distribution of responsibilities in climate action
- Equitably design programs for low-income communities
- Address community-based concerns around systemic racism

Energy

Goal: Transition to Affordable, Reliable, Renewable Energy

Sudbury has made significant strides towards improved energy policy. The strategies in this section are meant to supplement current efforts and provide new avenues for improvement. The transition to carbon-free electricity is critical, as many actions to reduce GHG emissions, such as increasing the electrification of our buildings and vehicles, will increase the total amount of electricity consumed.

Strategies: Stage One

- Develop a town policy around the disposal of the items at the Transfer station to ensure that no items end up in the landfill.
- Launch a program to coordinate community education and engage the public in initiatives to support Climate Action Plan implementation.
- Identify and evaluate opportunities to advocate for state laws and policies to further Climate Action Plan goals and other sustainability priorities.
- Promote sustainable consumption tactics to reduce consumption-related emissions. e.g., plan before purchasing; give the gift of experiences; reuse, borrow, share, rent, swap, and fix items; and refuse single-use disposable items.
- Identify and promote reuse and repair programs, businesses, and opportunities that can reduce the disposal of goods and extend the useful life of the materials.

Spotlight: LSRHS Solar Canopy

The 3,600-panel solar canopy, the first of its kind at a Massachusetts high School, was completed and interconnected in May 2015. This canopy saves the Lincoln Sudbury Regional High School an estimated $90,000 per year in energy costs. Also, this solar generation offsets over 1,000 tons of carbon dioxide equivalent (CO_2e) annually, thus continuing to lower Sudbury's carbon footprint. The LSRHS Solar serves as the most visible demonstration of Sudbury's commitment to climate action.

Energy

Strategies: Stage Two

- Complete a solar feasibility study for all municipal buildings.
  - Identify opportunities for and install solar and, where appropriate, energy storage on municipal buildings.
  - Design and deliver outreach programs to encourage the installation of solar and energy storage on residential, commercial, and institutional properties
- Work with key partners to advocate for State incentives for local renewable installations, energy storage, and other emissions reduction programs in municipal utility communities.
- Explore opportunities for ground-mounted solar and for local installations of geothermal and wind projects.
- Adopt policies and programs to ensure new buildings in the community achieve near-zero/net energy/fossil fuel-free performance.
  - Developing local ecosystem credit markets for carbon and stormwater capture will further provide opportunities to diminish carbon emissions. These are currently voluntary systems where residents and businesses can offset their GHG emissions by contributing to CO2 sequestration and land conservation projects. In addition to reducing municipal emissions through energy-saving measures and renewable energy purchases, the Town will evaluate offsetting remaining emissions, such as fuel used by Town vehicles, with offset credits generated from CO2 sequestration projects.

Energy

Strategies: Stage Three

- Implement an income-tiered EV car-sharing program with community organizations and affordable housing developments.
    - The Town will conduct research with nearby cities and towns across the U.S. that have successfully implemented EV car-sharing programs to identify the steps to procure a similar service in Sudbury. There has been success in similar programs in Boston, Sacramento, and Portland, OR. Drivers typically use a smartphone app to book an EV for a time slot, pick up the car, run their errands, and plug it back into the charging station. Studies show that one shared vehicle can take as many as 7-10 individual cars off the road.
- Launch a program to incentivize the installation of rooftop solar panels by partnering with local banks to buy down the interest rates of solar loans.
- Require large commercial and multifamily buildings to benchmark and report their energy performance.
- Require an energy audit and disclosure during the sale or lease for older residential, commercial, and multifamily buildings.
- Design 'Time of Use' rates that incentivize decarbonization actions, shift and reduce system peak load, and promote more efficient electricity use.

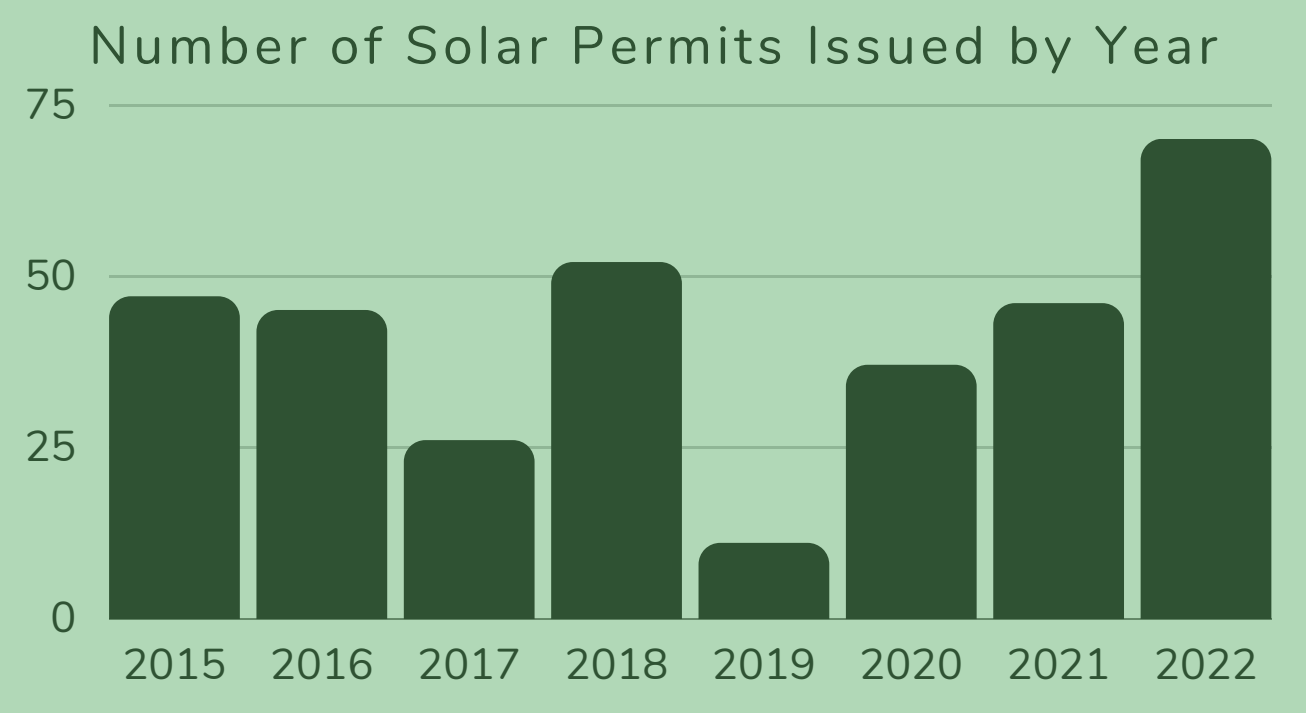
Energy

Community Engagement and Outreach

- Provide green infrastructure training to key municipal personnel, including Public Works, Planning, and Parks and Recreation, to ensure proper installation and maintenance of green infrastructure on public property.
- Create a solar energy dashboard to build public awareness of current solar proliferation in Sudbury.
  - Include daily power generation by solar within Sudbury.
  - Show the CO2 Emission Saved Equivalent Trees Planted from solar installations.
- Collaborate with Sustainable Sudbury on public awareness initiatives related to solar adoption.

Performance Metrics

Number of buildings with rooftop solar
Total capacity (MW) of residential, commercial, and municipal solar
Total capacity (MW) of battery energy storage on Town property
Number of Solar Permits Issued by year
Number of EV charger permits by year
Percentage of Residents opting into the renewable energy power program



Resilience

Goal: Increase Sudbury's capacity to reduce, absorb, and recover from the impacts of climate change.

Sudbury must significantly increase its level of preparedness to meet the escalating impacts of climate change. Community Resilience, the capacity of a community to reduce, absorb, and recover from the impacts of climate change, is now necessary to address climate change impacts due to existing greenhouse gases (GHGs) in the atmosphere.

Strategies: Stage One

- Improve the Town's emergency planning to incorporate climate change.
- Adopt best practices for stormwater management to mitigate flooding from the 2-year storm (defined as 3.3" of stormwater in 24 hours) and below.
- Develop a system for better understanding and predicting when and where storms will trigger flooding.
- Identify green infrastructure projects on municipal properties.
- Institutionalize climate preparation planning and best practices in municipal operations and decision-making and monitor the effectiveness
- Pilot a solar and battery backup system to ensure resilient Town government operations in the event of a big storm and develop a plan to expand the pilot to more buildings
- Coordinate with Eversource to develop tree trimming standards to minimize power outages and ensure tree health.
- Prioritize increasing equitable access to green space.
- Prioritize the protection of green spaces near water table recharging areas.
    - Evaluate and set a goal for every resident's proximity to parks and open space in Sudbury. Similarly, prioritize the protection or increase of green spaces that recharge into areas tapped by Sudbury’s public water supply wells that further safeguard the quality and quantity of Sudbury's drinking water supply. Pursue changes to local policies and programs to advance this goal.

Resilience

Strategies: Stage Two

- Complete a Hazards Vulnerability & Risk Assessment to identify populations and assets (e.g., economic, cultural, historical, critical facilities, and ecosystem services) vulnerable to various physical threats such as sea level rise, extreme precipitation, extreme heat, etc.
- Install job boxes equipped with supplies and/or permitting gates at locations prone to flooding to improve response time and increase safety.
- Explore opportunities to promote and pilot projects with natural carbon sinks and sequestration solutions.
    - Natural carbon sinks are the natural resources that extract and absorb carbon dioxide from the atmosphere. Natural carbon sinks include oceans, forests, mangroves, etc. While they may not have large, significant sources of carbon sinks, the Town's existing green and open spaces still contribute to the collective regional carbon sequestration capacity. The Town will continue to explore nature-based solutions and protection measures for its existing natural resources and open spaces. It will also participate in regional conversations and solutions for carbon sequestration.
- Improve/upgrade drainage infrastructure and capacity per the 2020 Hazard Mitigation Plan and Culvert Capital Improvement Plan. The Town should consider Low Impact Development (LID) and Green Infrastructure (GI) techniques when implementing this plan.
- Reconfigure generators at Lincoln-Sudbury High School to include heating. Fit all school buildings with stationary, multi-fuel generators to allow for emergency use as evacuation shelters.

Resilience

Strategies: Stage Two (Continued)

- Develop a Tree Maintenance and Forest Management Plan. (HMP)
  - Given the projected increase in severe weather events due to climate change and the existing amount of natural tree coverage, a plan for regular tree trimming, dead tree removal, and reforestation plan (due to projected species migration) is needed.
  - The plan should address the following:
    - Maintaining trees at roadways and utility rights-of-way
    - Preserving existing tree canopy and planning for future species changes
      - Identifying/Removing dead and falling trees.
      - Develop a plan for re-planting (native species, size, shape, and placement)
    - Public Education around trimming and planting
    - Additional Department of Public Works funding for staff increases
- Allow sidewalks in the Historic District to be constructed of porous materials.
- Devote more resources to monitoring privately-owned drainage facilities.
- Incorporate new runoff (roof), and hardscape (sidewalk) recharge regulations into the Zoning Bylaw/Water Resource Protection District regulations.
- For residential development, rooftop downspouts shall be designed to discharge to systems allowing for natural infiltration. These systems may include surface or subsurface infiltration. Drywells may be regulated as Underground Injection Systems and subject to additional regulations described by the Massachusetts Department of Environmental Protection under the Underground Injection Control program.

Strategies: Stage Three

- Purchase a town-owed bucket truck for the Department of Public Works to increase tree-trimming capabilities.
- Incorporate design standards for earth removal into the Zoning Bylaw (strengthen Earth Removal Bylaw) and Subdivision Rules and Regulations (Site Plan Review) to minimize vegetation, slope, and land disturbance. (
  - Incorporate design standards into the Zoning Bylaw and Subdivision Rules and Regulations that limit the area of alteration, prohibit alteration of steep slopes, and limit the removal of existing vegetation or trees on a site.

Resilience

Strategies: Stage Three (Continued)

- Stormwater Bylaw: Investigate options for increasing the design volumes to which stormwater practices and conveyances are designed to anticipate increases due to climate change.
- Outdoor Water Use Bylaw: Utilize the MassDEP Model Outdoor Water Use Bylaw to limit non-essential outdoor water use through the declaration of a local "State of Water Supply Conservation, "State of Drought," or "State of Water Supply Emergency" during periods of extended drought. This Model also includes additional language that towns can choose to incorporate into their outdoor water use by-law if they want the ability to regulate outdoor water use from private wells or if they want to regulate the installation of in-ground irrigation systems.
- Incorporate standards for tree preservation into the Zoning Bylaw (Tree Preservation Bylaw) and Subdivision Rules and Regulations (Site Plan Review) to maximize tree preservation/limit site disturbance and character throughout the community.
    - Establish a Tree Preservation Bylaw - an effective mechanism to regulate tree preservation on public and private property. This bylaw would apply to all existing properties and trees across the town. Development approvals such as site plan review or subdivision approval generally include their standards and conditions for tree preservation. These approvals can be exempted from the general bylaw. However, the general bylaw can define the tree preservation standard, establish a tree commission or tree warden with enforcement powers and master planning responsibilities, and create mitigation requirements, including a tree fund or tree bank. The tree preservation standards and mitigation requirements can be incorporated into the development approval regulations, either by reference or by directly integrating the language of the standards or incorporated within the conditions of approval as appropriate.
- Incorporate the latest science and climate change projections into existing regulations to reduce flooding and water quality impacts, in addition to protecting water supply during periods of drought.
    - The Commonwealth of Massachusetts has established a Massachusetts-specific climate data clearing house, resilientma.org, to enable municipalities and stakeholders to access regional data for climate preparedness planning. Overall, an emphasis on future projections for temperature and precipitation served as the two primary focus areas under this program.

Resilience

Community Engagement and Outreach

- Initiate an education program/campaign that is inclusive, multi-lingual, and makes information accessible.
- Help people know how to find out when and how to shelter during storm events.
- Increase and improve communication with the most vulnerable populations during emergencies.
- Empower renters and property owners with a checklist to improve building resilience and be prepared for hazardous climate change impacts.

Performance Metrics

Percentage of municipal electricity from renewable sources
Percentage of community electricity from renewable-only community aggregation
Percentage of community electricity organized through community aggregation
The portion of critical facilities with backup power redundancy
Number of power outages per year
Number of Significant Environmental Impact (SEI) gas leaks

Percentage of Community Electricity Organized Through Community Aggregation

96%

Percentage of Community Electricity from Renewable-only Community Aggregation

<1%

Governance

Goal: Make climate change a top priority of the municipal government.

Town government can be a highly effective agent for addressing climate change. As Sudbury implements its Climate Mobilization Action Plan, our Town government can work to ensure that departments and community members have appropriate support and information to achieve stated goals.

Strategies: Stage One

- Town Policy around the disposal of the items at the Transfer station to ensure that no items end up in the landfill
- Launch a program to coordinate community education and engage the public in initiatives to support Climate Action Plan implementation.
- Identify and evaluate opportunities to advocate for state laws and policies to further Climate Action Plan goals and other sustainability priorities.
- Reduce consumption-related emissions by promoting sustainable consumption tactics, e.g., plan before purchasing; give the gift of experiences; reuse, borrow, share, rent, swap, and fix items; and refuse single-use disposable items.
- Identify and promote reuse and repair programs, businesses, and opportunities that can reduce the disposal of goods and extend the useful life of the materials.

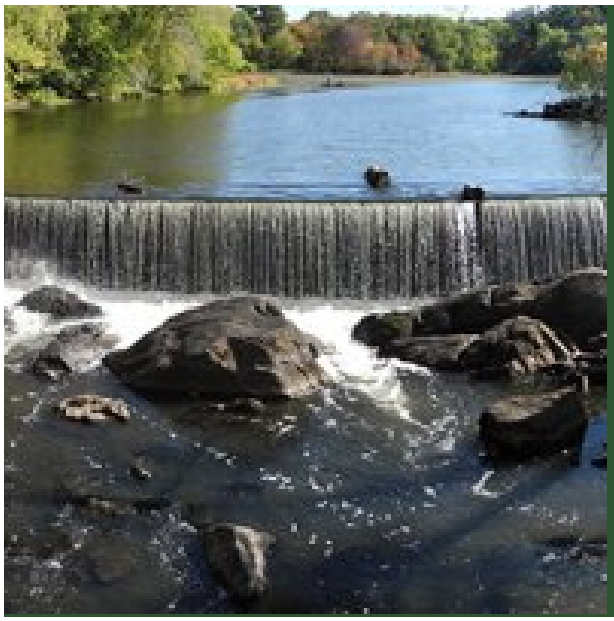
Strategies: Stage Two

- Develop a multi-layer map of Sudbury's stormwater system, including storm drains, outfalls, flooding zones, etc.
- Ensure increased funding for climate change mitigation efforts in the Public Works Department.
- Develop a plan to coordinate solar installations with the replacement of roofs on all applicable town structures.
- Partner with regional organizations such as OARS to take on a leadership role in climate action
- Collaborate with other communities to build local and regional decarbonization efforts.

Governance

Strategies: Stage Three

- Incorporate GHG reductions and other sustainability considerations into the budget process, including capital planning and prioritization.
- LEED Certification: Consider seeking LEED certification as a sustainable community.
    - LEED (Leadership in Energy and Environmental Design) is a nonprofit U.S. Green Building Council program known for certifying green buildings. The sustainable community evaluation system is free, but certification and professional credentials are offered for a fee. Massachusetts communities certified under LEED 4.1 include Devens, Cambridge, New Bedford, and Northampton. LEED certification would help Sudbury establish its public profile as a sustainable and resilient town.
- Mayors' Covenant: Join the Global Covenant of Mayors for Climate and Energy.
    - Globally there are 10,000 city members, 188 of which are in the US. Massachusetts members include Boston, Cambridge, Lexington, Medford, New Bedford, Northampton, Salem, Somerville, and Wellfleet. Each municipality has an online dashboard with summary progress information. (www.globalcovenantofmayors.org) Greenhouse gas emissions reporting is done through the CDP (Carbon Disclosure Project) (www.cdp.net).
- The Carbon Neutral Cities Alliance (CNCA) is a collaboration of leading global cities and towns working on cutting greenhouse gas emissions by 80-100% by 2050 or sooner. Among other initiatives, it funds early-stage innovation projects led by cities to cut GHG emissions.



Spotlight: OARS

OARS is a local watershed protection organization whose mission is to restore and protect the health of the Sudbury, Assabet, and Concord Rivers, their tributaries, and watersheds for public recreation, water supply, and wildlife habitat. OARS works with municipalities to increase awareness and action on watershed management.

Governance

Community Engagement and Outreach

- Create a distinct website to propel the sustainability narrative in town and give residents and interested parties a central place to see what is available to them.
- Work with IT to establish a web-based dashboard to track the Climate Action Plan progress to provide information, accountability, and transparency using https://www.massenergize.org/
- Engage first responders, municipal inspectors, and other public-facing personnel in identifying vulnerable community members, e.g., the oxygen-dependent, wheelchair users, low-income and undocumented.
- Promotion to Private Stakeholders: Publicize and promote the Sudbury Plan to important town stakeholders and civic groups such as the large and small business community, realtors and developers, neighborhood associations, educational and medical institutions, faith communities, immigrant associations, and social services groups.
    - Invite stakeholder groups to endorse the plan and commit to advancing one or more goals.
- Annual Progress Report: Prepare an annual public progress report on implementing the Plan.
    - The report would be presented to the town Council and relevant boards and commissions in a joint public hearing.
    - Update the Sudbury plan at least once every ten years based on the annual reports, unforeseen barriers and opportunities (such as new technologies), and a public participation process.
- Partner with Sustainable Sudbury to create community-centered awareness
- Continue to enhance climate change and sustainability education through Sudbury Public Schools' and LSRHS curriculum, activities, and operations.
- Coordinate messaging concerning CMAP implementation and related sustainability measures with relevant town departments.

Performance Metrics

- Number of educational and public engagement events to advance Climate Action Plan goals
- Size of the audience for digital outreach (e.g., website hits, social media followers, newsletter subscribers)
- Number of grants submitted for climate mitigation and resilience projects
- Total Dollar Value of grants received for climate mitigation and resilience projects
- Number of individuals signed up for emergency notifications

Water

Goal: Manage drinking water, wastewater, and stormwater holistically.

Water is a prerequisite for all life and is part of one cycle. Sustainable water systems provide clean drinking water, keep pollutants out of surface waters, and manage wastewater and stormwater as resources in an integrated system. Sustainable water policy for conservation and combating pollution combines “gray infrastructure” with nature-based designs connected to the Town's open space, landscape maintenance, forestry, and land use policies.

Strategies: Stage One

- Advance the intelligent and efficient water use by all community members.
  - Identify and implement the most effective programs for residential, commercial, and institutional sector water conservation.
  - Regulate outdoor water usage with water usage bans.
- Town Green Infrastructure: Identify and implement opportunities for green infrastructure in town facilities and landscapes.
  - Provide educational signage to inform the public about green infrastructure sites and their benefits.
  - Establish development standards in large municipal development projects to use green infrastructure and sustainable landscape practices where feasible.
  - Install rain gardens on selected municipal properties.

Water

Strategies: Stage Two

- Low Impact Development Standards: Establish regulations and guidelines to require standards on Low Impact Development, stormwater runoff reduction, green infrastructure in new development, and significant additions and renovations.
- Landscape Practices: Use Integrated Pest Management and organic landscape practices in managing town-owned property to reduce stormwater impacts of fertilizer, herbicides, and pesticides on surface waters.

Strategies: Stage Three

- Private Green Infrastructure: Promote green infrastructure practices to manage stormwater in private development.
    - Establish development standards and regulations requiring large development projects to use green infrastructure and sustainable landscape practices where feasible.
    - Ensure enforcement of compliance with site plan approvals.
    - Establish tree and landscape standards in the Zoning Ordinance to reduce impervious surfaces and incentivize green infrastructure.
    - Incentivize and publicize the use of gravel or brick driveways, patios, and similar best practices, to reduce impervious surfaces by residential property owners.
- Landscape Practices: Promote sustainable landscape practices for private property that eliminate or minimize excess fertilizer, herbicide, and pesticide use to private property owners and landscaping contractors.
    - Many handouts and web resources are available to promote better landscape practices used by Conservation Commissions, environmental organizations, and other groups to inform residents.
    - Inform private landscaping companies about the Town's promotion of sustainable landscape practices and encourage them to incorporate and offer these practices.
    - Create a program for volunteer private properties for pilot/ demonstration sites. Use Community-Based Social Marketing tools to spread best practices.
- Introduce a Stormwater Utility
    - Significant costs are associated with operating, maintaining, and upgrading stormwater infrastructure. The municipal system for capturing and conveying stormwater from rooftops, driveways, and roadways can include the hundreds of catchbasins along street edges and miles of underground pipes.
    - Establishing a stormwater utility is a critical strategy for creating a reliable funding source for this work.

Water

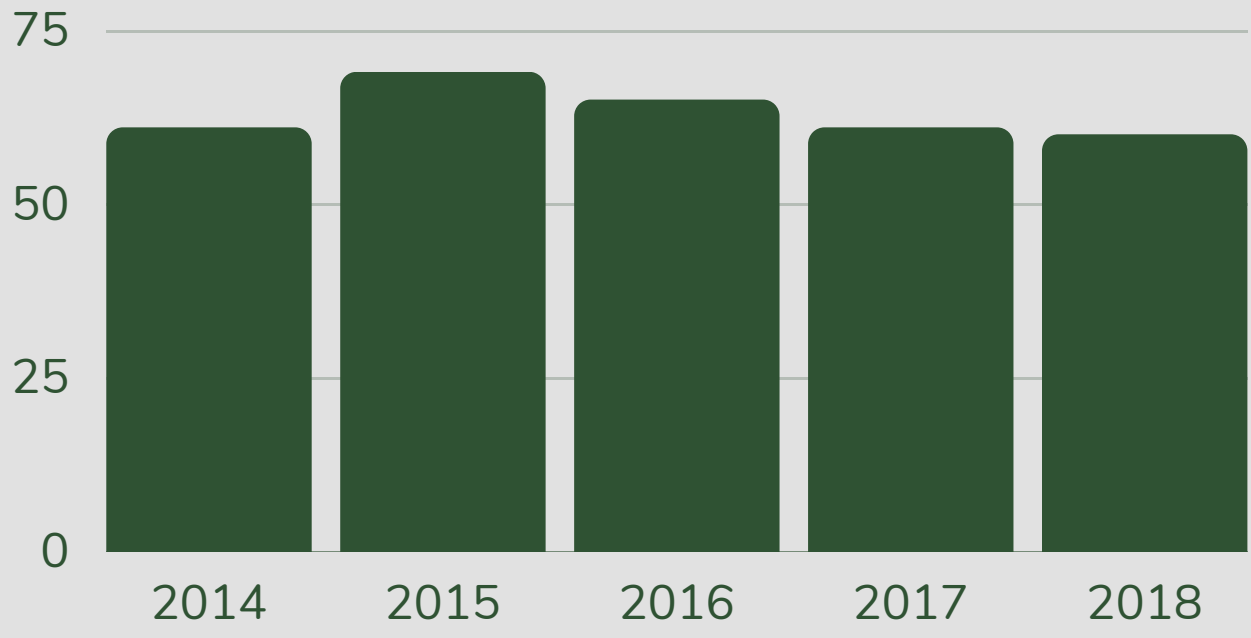
Community Engagement and Outreach

- Implement an educational and incentive program to prevent excessive water consumption at Town sites, residences, and local institutions (schools, churches, etc.)
- Expand access to the Great American Rain Barrel program.
- Partner with Sudbury Water District to encourage water usage reductions.
- Widely publish water usage statistics.
- Create ways to illustrate the impacts of high water usage during drought periods.

Performance Metrics

Potable water used per capita (gallons/capita)
Completed Water Resource Management Plan
Number of farms in Sudbury engaged in sustainable agriculture
Total Townwide Water Consumption
Residential Per-Capita Water Use (RGPCD)
Annual Commercial Water Usage (MGY)
Total Annual Water Demand (MGY)

Residential Per-Capita Water Use (RGPCD)



Mobility

Goal: Create a safe, connected, and accessible transportation system

Adjusting how we get around will allow us to significantly reduce our emissions and create a happy, healthier community. A mix of low-carbon, multi-modal transportation options makes us more resilient to economic, health, and climate impacts that may limit specific transportation options. The Town should prioritize walkability, bike-ability, accessibility, and connectivity while fostering affordability and inclusivity.

Strategies: Stage One

- Increase funding for the expansion GOSudbury Subsidized Transit Program through increased grant funding and aid.
- Restart the Route 20 Corridor Shuttle Service Pilot Program.
- Promote trails as an alternative transportation option whenever feasible.
- Identify areas to install new, or expand/repair existing trails.
- Accelerate the shift to electric vehicles.
    - Explore and implement incentives for EV adoption.
    - Educate residents and municipal employees about the benefits of buying and driving EVs, including federal and State grant opportunities and operating cost savings.
    - Electrify municipal vehicles, wherever possible, and consider hybrid vehicles where electric vehicles do not meet performance needs. To accelerate this transition, seek departmental input in creating a municipal fuel-efficient vehicle policy.
    - Develop a study to identify feasible EV charging infrastructure locations.
- Promote low-impact transportation options.
    - Evaluate a potential pilot program for docked, shared electric bikes and electric scooters at affordable housing units, grocery stores, and public centers.
    - Install sheltered, secure parking at key locations to facilitate bike, electric bike, and scooter usage.
    - Reduce community-wide vehicle idling through Education and ticketing.
    - Research state and federal funding for electric school transportation and vehicle-to-grid battery storage technology and share with Sudbury Public Schools and school transportation vendors to facilitate migration to electric vehicles.
    - Incorporate provisions for appropriate electric vehicle charging infrastructure in Municipal Sustainable Building Guidelines and in planning processes for new development.

Mobility

Strategies: Stage Two

- Fill EV charger gaps near central thruways and critical locations with frequent visitors, including trailheads, garages, parking lots, and other facilities.
    - Increase the number of chargers in Town annually as EV adoption increases, considering the three levels of EV chargers as options: Level 1, 2, and 3. Evaluate strategies to reduce the cost of adopting EV infrastructure, including procuring chargers in large volumes, expediting the permitting process, identifying sites carefully, considering utility interconnection and the potential to group various chargers, and reducing fixed costs. Evaluate pricing structures and benefits to local businesses.
- Establish bicycle parking at public and private destinations along bicycle networks, including parking requirements for new development and redevelopment.
- Energy-efficient Truck Routes: Study and revise, as needed, the truck routes for town-owned or town-contracted trucks to enhance energy efficiency and reduce GHG emissions.

Advocate for measures that reduce the cost and improve the quality of public transit in Boston.

- Support changes to gas taxes, vehicle subsidies, and commuter tax incentives to deter driving and support transit.
- Create a plan for increasing walking trail availability and access.

Spotlight: GOSudbury

GOSudbury transit program was founded through collaboration between the Sudbury Senior Center, Transportation Committee, and regional organizations to provide cost-effective transit options for residents through Uber and Taxi services. The Uber Rides Program is a grant and town-funded, temporary transportation program provided via Uber and partially subsidized by the Town of Sudbury for rides to non-urgent healthcare and vaccination appointments, work, shopping, and accessing community resources. The Taxi Rides program provides subsidized services to qualifying residents. Since its inception in 2019, the GOSudbury program has given thousands of rides to town residents.

Mobility

Strategies: Stage Three

- Use incentives such as density bonuses and parking credits to promote affordable and accessible housing development that is transit-oriented and location-efficient
- Ensure ridership by instituting an intensive and continuous transit information and education campaign that includes public wayfinding signs; Wi-Fi enabled, and real-time information about transportation options.
- Promote alternatives to car ownership such as car sharing and bike sharing (e.g., Zip Car, Greenspot, Zagster) and implement curbside management locations for the staging and loading of passengers to support the shift to ridesharing (e.g., Uber, Lyft)
- Partner with car-sharing companies to increase access to zero-emission vehicles
- Partnership with Wayland and Framingham to increase access to electric vehicles.
- Encourage electric vehicle adoption by residents and businesses by prioritizing EV infrastructure in all future public projects and at Town buildings.
- Identify parcels that would supplement existing trail infrastructure and access.
- Make popular transportation corridors and recreation spaces age-friendly and accessible.
- Adopt an electric-first vehicle policy for the Town's municipal fleet. Electric vehicles, including school buses and micro-transit services like the MWRTA, shall be prioritized when the Town purchases or leases motor vehicles for its municipal operations.
    - Begin purchasing or leasing battery electric vehicles for all light-duty passenger fleet replacement; piloting, evaluating, and, where feasible, acquiring electric vehicles for medium- and heavy-duty vehicle and equipment categories; Minimizing vehicle miles traveled and minimizing idling.
- Continue implementing, supporting, and evaluating the Complete Streets Policy.
    - A Complete Street provides safe and accessible options for all travel modes – walking, biking, transit, and vehicles – for people of all ages and abilities. The Town of Sudbury will continue to make Complete Streets practices a routine part of everyday operations and approach every transportation project and program as an opportunity to improve streets and the transportation network for all users, working in coordination with other departments, agencies, and jurisdictions to achieve Complete Streets.

Mobility

Strategies: Stage Three (Continued)

- Advocate for regulatory changes in utility electric rate structures that support time-of-use rates for electric vehicle charging stations and demand response incentives for the car-to-grid integration.
    - As EV adoption increases, it will be essential to consider the electricity grid capacity. The Town will work with utility partner(s) and advocate for adjustments to electricity rates that would encourage EV adoption. Changes to the electricity rate structure will help incentivize EV charging during the most efficient times of the day (i.e., off-peak periods) by offering lower prices for energy rates during that period and therefore provide support to ensure grid resiliency to reduce cost impact associated with EV charging.
- Work with local businesses to support public transportation needs and co-fund innovative transportation initiatives (bike-share programs, EV charger installations, electric car-share programs, etc.).
- Implement an income-tiered EV car-sharing program with community organizations and affordable housing developments.
    - The Town will conduct research with nearby cities and towns across the U.S. that have successfully implemented EV car-sharing programs to identify the steps to procure a similar service in Sudbury. There has been success in similar programs in Boston, Sacramento, and Portland, OR. Drivers typically use a smartphone app to book an EV for a time slot, pick up the car, run their errands, and plug it back into the charging station. Studies show that one shared vehicle can take as many as 7-10 individual cars off the road.

Spotlight: MWRTA

The MetroWest Regional Transit Authority (MWRTA) is a regional public transit provider that provides public transit to 16 towns, including Sudbury. This transit system primarily connects residents who commute to Boston on a Massachusetts Bay Transit Authority (MBTA) commuter rail line that runs through downtown Framingham. MWRTA has piloted ways to more easily connect Sudbury residents to the rest of its network. Previously, pilots included a Route 20 shuttle from Marlborough, through Sudbury, to the Riverside MBTA station and the CatchConnect on-demand shuttle currently available in Wellesley, Natick, and Hudson.

Mobility

Community Engagement and Outreach

- Work with local businesses to support public transportation needs and co-fund innovative transportation initiatives (bike-share programs, EV charger installations, electric car-share programs, etc.).
- Partner with community organizations to create bike-centric events in town.
- Widely promote alternative transportation options such as GOSudbury and MWRTA pilots.
- Celebrate new bike paths with opening day events.

Performance Metrics

Municipal vehicle emissions (MTCO2 e)
Net zero Full and plug-in EVs in the municipal fleet
Number of registered electric vehicles (BEV & PHEV)
Number of publicly available EV chargers in Sudbury
Percent of commutes made by public transit, biking, walking, or carpooling
Miles of paved bike paths

Spotlight: Bruce Freeman Rail Trail

The Bruce Freeman Rail Trail (BFRT) will be a 25-mile rail trail between Lowell and Framingham along the former Old Colony Railroad. In Sudbury, the rail corridor extends through the center of the Town, about 4.4 miles from South Sudbury near Route 20, north to the Sudbury/Concord Town line. Concurrently, the Sudbury section of the Massachusetts Central Rail Trail is being constructed. Sudbury will soon be home to two intersecting paved rail trails with connections to nearby communities.

Waste

Goal: Minimize greenhouse gas emissions associated with waste.

Waste generated in Sudbury is a product of our resourcefulness as much as our consumption habits. Redirecting material towards regenerative, or circular, flows, rather than sending it to landfill, lessens the demand for ever-more resource extraction. Prioritizing circular solutions such as composting is essential.

Strategies: Stage One

- Lead waste minimization, recycling, and food waste diversion by example.
  - Adopt and implement zero waste goals and guidelines for municipal buildings and activities.
- Restart and expand food waste diversion and food rescue programs
  - Explore using private haulers for residential compost pick-up.
  - Establish a commercial food waste diversion program for high-volume producers.
  - Explore alternative food waste endpoints and innovative regional food waste diversion technologies.
- Develop a culture that minimizes single-use products and packaging.
  - Explore and implement programs and regulations to minimize the use of disposable, single-use products throughout the Town.
  - Advocate for legislation or regulations that extend producer responsibility for product packaging.
  - Advocate for a Bottle Bill.
- Advocate and promote at the State and regional levels for regionally focused solid waste legislation and resources focusing on waste minimization.
  - Promote the regionalization of waste management solutions so that proximate towns can achieve operational efficiencies.
  - Support financial incentives to reduce municipal solid waste generated annually—advocate for alternative disposal strategies in Massachusetts' Solid Waste Management Master Plan.
- Expand neighborhood and backyard composting of organic materials.
  - Offer discounted composting bins.
  - Increase education and visibility via signs, campaigns, etc.

Waste

Strategies: Stage Two

- Waste Management Master Plan: Develop and Implement a Zero Waste Master Plan
  - Review plan examples from other municipalities. For example, the Cambridge Zero Waste Master Plan contains a discussion of options and their potential effects on the reduction of GHG emissions and the reduction of trash. https://www.cambridgema.gov/Departments/publicworks/Initiatives/zerowastemasterplan
- Purchasing Policies: Establish environmentally conscious purchasing policies to reduce waste and toxic materials and promote recyclable materials.
- Adopt an Extended Producer Responsibility (ERP) purchasing ordinance to favor vendors with responsible recycling and diversion programs.
  - Provide a checklist for town departments to use in their purchasing programs. Resources include the SPS environmental management program and the State's environmentally preferable purchasing programs. (www.mass.gov/environmentally-preferable-products pp-procurement-programs)
- Implement initiatives demonstrating the value of well-being, livability, and community connectivity over material goods.
- Support businesses and institutions in minimizing the carbon intensity of their supply chains and operations by increasing the number of businesses participating in accreditation and recognition programs such as Green Restaurant Awards and ReThink Disposable.
- Develop and implement a cost-effective plan to reduce the use of non-recyclable and non-reusable items and ensure items are not replaced with ones with a larger life-cycle emission footprint.
- Support efforts to require responsible manufacturing, product, and packaging design and reuse recovered materials to expedite the transition to a circular economy
- Identify and promote reuse and repair programs, businesses, and opportunities that can reduce the disposal of goods and extend the useful life of the materials.
- Assess options for town-wide programs to achieve waste reduction goals.
  - Identify strategies to increase recycling and compost rates while working with current haulers.
  - Complete a life cycle cost assessment of the current solid waste management system.

Waste

Strategies: Stage Three

- Develop a Creative Placemaking Plan that enhances Sudbury's positive, distinct qualities, makes the most of existing resources, and ensures equitable participation.
- Convene a committee to discuss the current municipal public finance system's impact on emissions.
- Facilitate the transition to a new form of work and consumption that reduces carbon intensity and promotes equity, e.g., compressed and flexible work schedules for municipal employees and town residents.
- Implement a comprehensive waste reduction and education compliance strategy that increases the quantity and quality of recyclable materials collected from residents, businesses, and institutions.
- Develop and implement a financially viable enforcement strategy for the municipal recycling ordinance.
- Require public events to be Zero-Waste to Landfill and submit a waste reduction plan as part of the permitting process.
- Advocate at the county and state levels for improved waste reduction policies and infrastructure.
- Implement regulations for private haulers to reduce household trash
- Implement new programs at the Transfer Station to reduce household trash (e.g., permanent composting, Pay As You Throw, expanded reuse and swap services)
- Conduct a waste audit in Sudbury to explore curbside solid waste and recycling collection to reduce waste, increase composting, improve efficiency, and reduce emissions.
    - The Town of Sudbury will work with the Massachusetts Department of Environmental Protection (MassDEP) to develop a feasibility study for implementing a town-wide curbside solid waste and recycling collection system, including options for Pay-As-You-Throw (PAYT). Sudbury will include multi-unit dwellings in the study. The Town will also investigate setting a standard for haulers to electrify their vehicles.
- Ensure recycling options are offered for residents in multi-unit buildings as mandated by the State and at no cost to low-income residents.
    - The Town will work with property owners and landlords to ensure recycling options are provided and accessible to all tenants.

Waste

Community Engagement and Outreach

- Educate the community about opportunities and benefits regarding a zero-waste goal.
  - Provide educational programs, resources, and incentives that encourage waste minimization, diversion of food waste, recycling, and upcycling throughout the community.
  - Explore opportunities to promote commercial composting of compostable containers and utensils.
  - Create a waste-reduction toolkit for residences and businesses
- Develop educational materials that illustrate the emissions impacts of the use of goods and services, e.g., shopping, travel, housing, and food, and encourage residents, businesses, and institutions to take action to reduce their carbon footprint
- Foster networks that connect residents, businesses, and institutions to exchange reused and reusable goods
- Prevent food waste by encouraging strategies for residents, businesses, and institutions to reduce the volume of food waste generated, such as proper food storage, meal planning, and donation of excess food to organizations that serve the food insecure
- Promote programs for farms and restaurants to donate extra food to food pantries.

Performance Metrics

Annual tonnage of landfill-bound trash generated per RDF-using household (tons/yr)
Number of municipal buildings involved in recycling and food waste diversion
Waste generation per household (tons/household)
Diversion Rate for Town of Sudbury Buildings

Diversion Rate for Town of Sudbury Buildings (2022)

7%

Facilities and Buildings

Goal: Encourage a shift to resilient and efficient buildings that minimize greenhouse gas emissions.

Sudbury's buildings—our homes, offices, historic structures, and institutions—present a tremendous opportunity for climate action. The Town can demonstrate leadership through widespread electrification of its operations, facilitating increased reliance on renewable energy sources as the grid gets cleaner.

Strategies: Stage One

- Follow the progress of Home Rule petitions in other towns to determine the potential viability of fossil fuel-free building requirements in Sudbury.
- Incorporate greenhouse gas emissions goals into Sudbury planning processes and zoning bylaws for new development and Design Review.
- Develop an upgrade/retrofit plan for each municipal building to achieve New Buildings Institute net zero-ready energy use intensity (EUI) recommendations by 2040.
- Develop and implement occupant behavior programs to optimize the energy efficiency of municipal buildings.
- Develop incentive programs to encourage energy conservation and conversion of commercial and institutional buildings to all-electric systems.
- Improve energy efficiency in existing buildings.
- Require disclosure of energy audits at the time of sale for residential properties.
- Promote Mass Save Energy Efficiency programs and GHG Scoring tools.

Strategies: Stage Two

- Adopt Massachusetts opt-in net zero energy Stretch Code as soon as available.
  - Create an outreach strategy to facilitate public awareness.
- Sustainability Incentives for Private Buildings: Provide at least two incentives for private sector buildings that meet the standards of LEED or an equivalent green building rating system.
  - Possible incentives include permitting time incentives; density incentives; tax credits; permitting fee incentives.
- Code compliance: Enforce consistent compliance with current energy codes.
  - Provide the appropriate number of building inspectors with up-to-date energy code training to enforce consistent compliance.

Facilities and Buildings

Strategies: Stage Two (Continued)

- Ensure existing buildings are energy efficient and utilize renewable energy while preserving historic features.
  - Install solar on or around municipal buildings and schools.
  - Refine and adopt more stringent green building and energy standards for Town buildings.
  - Develop a local strategy and enact programs to drive the replacement of fossil fuel-fired space and water heating systems with high-efficiency electric heat pumps and similar technologies in new and existing buildings.
  - Create and promote voluntary home energy assessment, Education, and upgrade program(s) to achieve deep energy savings in homes.
  - Create and promote a voluntary solar education and installation program for homeowners and businesses.
  - Require energy upgrades at trigger events for all buildings (e.g., time of sale, change of occupancy)
  - Advocate at the state level for significant renewable energy and building energy.
- r zoning with sustainability, allowing for broader and more multifamily housing choices and flexible approaches to achieve affordability and accessibility.
  - This includes allowing smaller-scale units, various Accessory Dwelling Units (ADUs) sizes, and mixed-use developments such as apartments over commercial businesses. Ensure zoning aligns with land conservation goals by working closely with the Conservation Department and stakeholders in developing these changes. Explore ways to use zoning to encourage housing development to be as sustainable as possible. This action also includes protecting existing multifamily housing choices.
- Pilot using Hydrogen powered public works equipment and vehicles per the 2018 Massachusetts Hydrogen and Fuel Cell Development Plan.
  - Consider using a regional or inter-town hydrogen station to facilitate greater adoption.
- Update building code to require water conservation measures (e.g., greywater infrastructure, drought-resistant landscaping) in new construction and renovations.

Facilities and Buildings

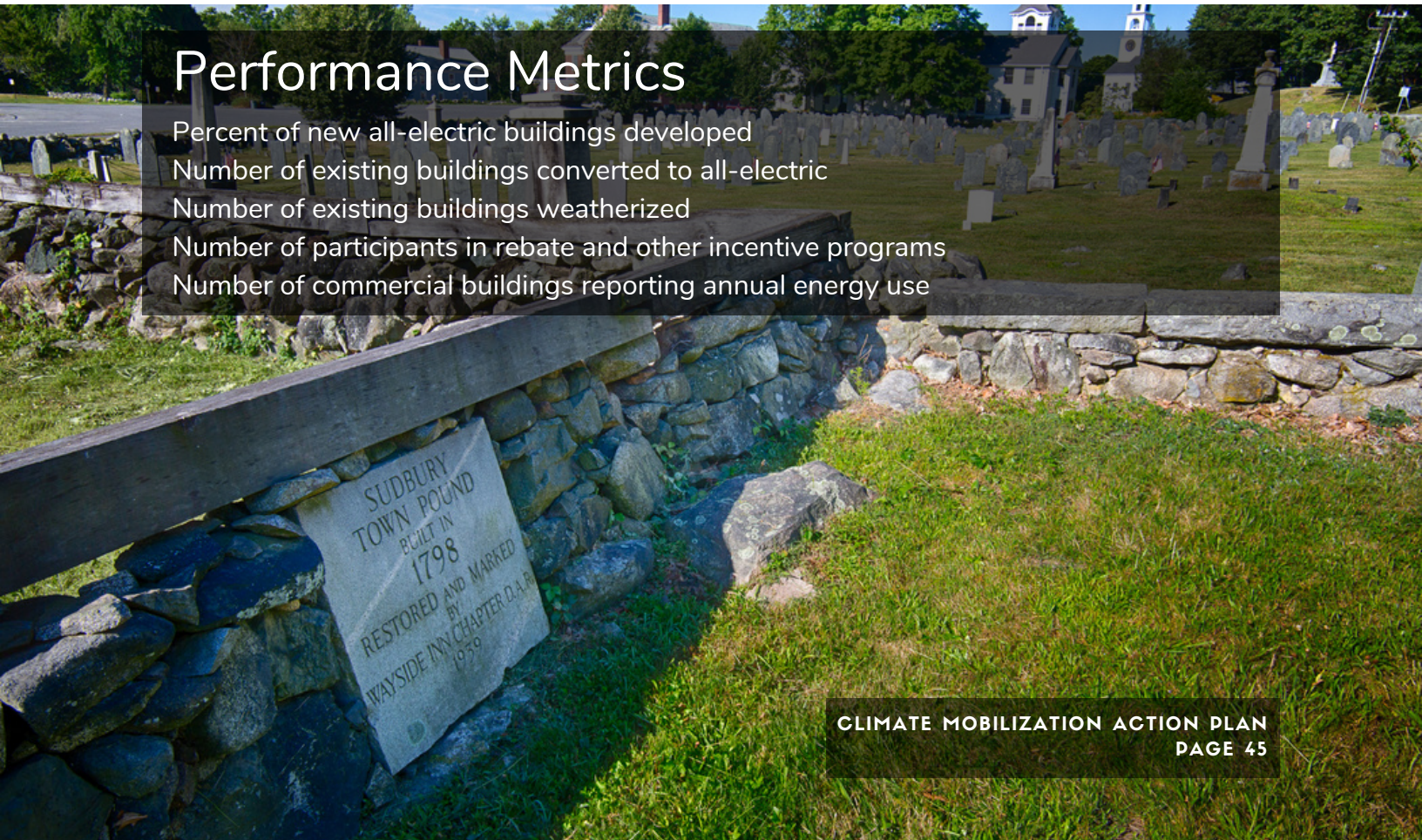
Strategies: Stage Three

- Require disclosure of energy audits at the time of sale for residential properties.
- Enact point-based energy efficiency performance standards for new developments.
- Establish a Building Energy Roundtable to educate and share energy and emissions reduction efforts among commercial and institutional properties. Opt into the state commercial Property Assessed Clean Energy (PACE) Massachusetts financing program offered by MassDevelopment.
- Adopt a net zero carbon standard for new municipal buildings, significant retrofits, and town-funded affordable housing.
    - The Town will research and set a policy and timeframe for all municipal buildings and town-funded affordable housing to be net zero emissions. This will include establishing trigger points, such as retrofits at a certain threshold and new construction, that require these buildings to transition to net zero emissions. The Electrification Roadmap developed by the Town and the Sudbury-Boxborough Regional School District provides a starting framework for this policy. Explore strategies and innovations to achieve zero standards for a new building or major retrofits.
- Advocate for more incentives for electric heating and cooling from Mass Save.
    - As the State's ratepayer-funded program that provides incentives for energy efficiency, Mass Save is the primary mechanism for funding building energy efficiency improvements in the Commonwealth. Sudbury will participate in the monthly Energy Efficiency Advisory Council (EEAC) meetings that advise Mass Save Program Administrators and advocate during the Three-Year Planning processes for more significant incentives for building electrification and decarbonization and greater income-based incentives.
- Advocate for a net zero building code.
    - Sudbury will become an active participant in the State’s building code process by monitoring and advocating as part of the MA Department of Energy Resources (DOER). Board of Building Regulations and Standards (BBRS) processes for developing the State’s new net zero stretch energy code approved in the Next Generation Climate Roadmap Bill. Once finalized, Sudbury will vote to opt into the new stretch code and, if needed, continue to advocate for a stronger net zero stretch code.

Facilities and Buildings

Community Engagement and Outreach

- Expand outreach about the Property Assessed Clean Energy (PACE) program to increase participation.
    - The PACE program allows a property owner to take a transferrable lien on their property and undertake energy efficiency and renewable energy upgrades, which saves money on energy bills, with a more extended payback period of up to 20 years. Eligible buildings include commercial, industrial, and multifamily properties with five or more units and facilities owned by nonprofits. This effort will include researching mechanisms to ensure that these programs do not negatively impact the cost of living for renters.
- Provide information, training, and incentives for local developers and contractors to build to net zero standards in Massachusetts.
- Work with Mass Save to aggressively promote energy efficiency retrofit programs for existing residential and non-residential buildings. Increase the number of commercial and residential buildings that complete an energy audit and implement recommended energy efficiency measures. Ensure increased outreach to environmental justice communities which utility reports have been significantly less likely to benefit from the Mass Save program.



Performance Metrics

Percent of new all-electric buildings developed
Number of existing buildings converted to all-electric
Number of existing buildings weatherized
Number of participants in rebate and other incentive programs
Number of commercial buildings reporting annual energy use

Natural Resources

Goal: Protect and enhance Sudbury's natural resources to Maximize their climate and resilience benefits.

Many of Sudbury's natural systems and surrounding natural areas will be impacted by climate change, threatening essential benefits such as water filtration and flood abatement. Proper ecosystem management can optimize this carbon sequestration process and minimize the potential risks posed by climate change.

Strategies: Stage One

- Develop a program to maintain and improve the tree canopy.
- Strengthen the Tree Preservation Bylaw and community education about the Bylaw.
- Lead by example with municipal adoption of sustainable landscaping best practices and electric landscaping equipment.
- Protect and expand connective corridors between habitats and open spaces and expand no-mow/low-maintenance areas.
- Create an Invasive and Nuisance Species Management Plan to limit ecosystem stressors.
- Create adaptive restoration planting and a list of seeds and plants likely to succeed in the region and endure climate change.
- Ensure a minimum 1:1 tree re-planting ratio for public trees and require plantings to be native, pest-resistant species.
- Successfully manage Sudbury's public and private trees through a Tree Management Plan and a tree bylaw based on public outreach and Education.
- Create a priority list of critical environmental, recreational, historic, or scenic parcels.

Natural Resources

Strategies: Stage Two

- Establish a Dark Sky Ordinance (to limit light pollution, protect the health of humans and wildlife, and save energy)
- Explore the opportunity to establish a municipal nursery.
    - The Town will explore options to establish a nursery to provide low-maintenance trees at below-wholesale prices. These trees will be used on municipal streets, parks, schools, etc.
    - Explore potential partnerships with Cavicchio or local landscaping companies.

Natural Resources

Strategies: Stage Three

- Ensure development is paired with nature-based solutions.
  - Key Town departments will work with committees and stakeholders to review and assess best development practices from local, regional, state, and federal examples to evaluate existing land use regulations compared to these best practices. An example includes adopting a green code that sets minimum requirements for new and existing houses to implement different types of green infrastructure, water-wise landscaping, and native plants within each lot on a points-based system.
  - Explore opportunities to encourage agro photovoltaics (APV).
  - Agrivoltaics are a new opportunity for farms to maximize land use efficiency while generating power for farms and as an additional revenue stream. Unlike a typical solar field, APV entails spacing and orienting the arrays to allow crop sunlight and more space to maneuver equipment and people freely.
- Partner with organizations supporting sustainable agriculture.
  - Work with local farms in Sudbury and key regional agricultural partners to promote practices that protect and conserve soil, water, and wildlife habitat and energy resources that keep these farms in operation. This includes identifying opportunities to promote and enable small and/or mid-size farms to participate in sustainable and organic production practices. This will also help create a more resilient local food system and increase Sudbury residents' access to sustainably produced foods.
- Advocate for the restoration and protection of wetlands by incorporating future climate change projections and impacts into the Massachusetts Wetlands Protection Act, regulations, and Sudbury's local wetland bylaws.
  - The Wetlands Protection Act (WPA) is a statewide mechanism to regulate wetlands. Many municipalities, including Sudbury, have adopted local regulations to enact even stricter standards than the WPA. The Town will advocate for incorporating climate change considerations in the WPA guideline. To increase resilience, Sudbury will review and revise language directly addressing identified climate risks and protecting existing wetland resources in the Town.
  - Example strategies include establishing climate resilience zones as new resource areas (to protect areas that have a high probability of flooding shortly); expanding buffer zone jurisdictions; requiring design consideration for flooding impacts, and vegetation and restoration of resources areas to compensate and/or improve resilience; limiting or restricting lawn sizes and irrigation to protect and preserve the hydrology of wetlands and water; strengthening stormwater requirements; and limiting tree removal and/or requiring tree replacement in resources areas.

Natural Resources

Community Engagement and Outreach

- Mobilize volunteers to support community agriculture.
- Establish a campaign to educate residents, landscapers, municipal staff, garden clubs, and other practitioners about low-maintenance landscaping, protecting native species, and preventing the spread of invasive species.
- Explore the interest in and feasibility of expanding Sudbury's community garden.
- Create a free tree distribution program to prioritize locations/communities vulnerable to extreme heat impacts and tree species adapted to heat and drought.
- Provide educational programming for residents, businesses, and institutions to promote biodiversity protection and electrification of landscaping equipment.
- Develop a professional landscaper database and encourage landscapers to participate in sustainable landscaping education programs.
- Provide resources, including financial assistance, to support Community Supported Agriculture (CSA) memberships for low-income residents.
    - A CSA is a partnership between farmers and consumers who want to purchase fresh whole foods that can also support the local economy and sustainable growing practices. Consumers typically pay up-front, so farmers have enough capital to prepare for the season. These up-front payments can be cost-prohibitive to low-income residents. Other barriers to CSA participation can include the time and knowledge required to prepare whole foods, transportation, work schedule, and childcare challenges that get in the way of picking up deliveries. To reduce some of these barriers, experts recommend offering flexible distribution practices, including self-selection of fruits and vegetables, outreach about fresh produce seasonality and CSA programs, education and tools to assist with fruit and vegetable preparation, sliding scale pricing or subsidies for low-income families, and Electronic Benefits Transfer (EBT) acceptance for CSA payments.

Performance Metrics

Percent of town-wide tree canopy coverage
Acres of land converted to no-mow or low maintenance
Acres of protected conservation land
Acres of Town-owned conservation and recreation land
Miles of trails/fire roads for public use

Future Initiatives

The Town of Sudbury has made significant progress toward a more sustainable future over the past few years. The prior sections' recommended initiatives lay a path forward for the immediate and near future. However, not all worthwhile climate action can be carried out in a short timeline. This section addresses some of the longer-term energy and sustainability policy possibilities. Some of these future initiatives may be years from completion, while others may be accomplished more quickly than expected. In either case, it is essential to understand what can lie ahead as the town takes proactive steps.

- Implement Nature-Based Solutions that Increase Carbon Storage
  - Incorporating native trees and plants, bioswales, rain gardens, green roofs, urban gardens, and other types of green stormwater infrastructure (GSI) into residential, commercial, and municipal landscaping is a natural way to remove CO2 from the atmosphere. These conservation, restoration, and improved land management measures are critical in mitigating our emissions and improving our quality of life. Another way to help reduce CO2 emissions, reduce the urban heat island effect, and minimize the downstream impacts of development is by revising and strengthening the town's existing Tree, Shrub, and Screening Fences ordinances. This could increase the much-needed vegetative cover and encourage native plantings. Local partners for this program will be determined to make our communities more livable by enhancing, conserving, and expanding nature through land preservation.
- Expand the program to track gas leaks and advocate the utility for fixes for the most significant or dangerous gas leaks.
  - The Town will keep an up-to-date catalog tracking gas leaks in Sudbury that are Grade 1, 2, or Grade 3 with Significant Environmental Impact (SEI) and larger than 2,000 ft2. Key municipal staff will continue coordinating planning for municipal paving, water, and sewer infrastructure to align with needed gas leak repairs. The Town will continue to attend the Multi-Town Gas Leaks Initiative meetings with National Grid to review and advocate for needed repairs to dangerous leaks or those of SEI while avoiding replacing gas infrastructure that is not needed. The Town will also prioritize pursuing strategies in this Blueprint's Buildings section to accelerate the transition from natural gas heating and cooling systems.

Future Initiatives

- Green Sudbury Fund: Create a Green Sudbury Fund for the town's sustainability and resilience programs.
  - Identify and designate a funding source from town funds.
  - Explore designating a portion of savings resulting from energy efficiency and renewable energy programs for the Green Sudbury Fund.
  - Explore a small surcharge on property sales to help fund Green Sudbury's goals and priorities and affordable housing. Boston has passed a transfer fee of up to 2 percent on actual property sales over $2 million (1% paid by the seller and 1% paid by the buyer), with the funds to be used for affordable housing, and is awaiting state approval. In addition, the Governor 2019 proposed a real estate transfer tax to pay for climate change resilience infrastructure. Sudbury could create a combined green and affordable housing transfer tax tailored to Sudbury conditions, whose proceeds could be divided between Green Sudbury and affordable housing programs.
  - Explore potential funding through Qualified Energy Conservation Bonds.
  - Seek grant funding for Green Sudbury projects.
- Require installation of EV chargers in redevelopment or development projects over 20,000 square feet, including surface or structured parking. For example, Boston requires that 5% of parking spaces in new projects have EV chargers and another 15% be EV-ready in certain areas of the town. New garage projects must have 25% EV chargers and be wired for 100% of space. The Los Angeles Department of Public Works offers rebates and incentives for commercial businesses that install EV chargers.
- Cool Roof Incentives: Establish an incentive program for "cool roofs" and "green roofs" to reduce air conditioning costs, the urban heat island effect, and, in the case of green roofs, help in stormwater management.
  - Cool roofs have white or other reflective colors or materials to reduce the concentration of heat. Currently, they are more common in commercial and industrial buildings. Summer temperatures can rise to 150 degrees or more on standard roofs. Cool roofs can reduce the heat by 50 degrees or more.
  - Green roofs are building roofs with vegetation planted over a waterproof system. Green roofs provide natural insulation, reducing energy costs and stormwater absorption, and help reduce the urban heat island effect.
  - Work with materials providers and roofing contractors to encourage them to offer cool and green roofs.
  - Incentives can include accelerated or discounted permitting, for example.

Future Initiatives

- Pilot and implement geothermal micro-districts that can make it more affordable to transition to scale electric heating and cooling systems. A geothermal micro-district connects adjacent buildings using a shared ground source heat pump system to provide fossil fuel-free heating and cooling.
- Implement microgrids at Sudbury's critical facilities, e.g., police and fire stations.
- Participate in regional discussions on transportation and increase coordination with neighboring towns; support the linkage of north and south commuter rail lines.
    - The North-South Rail Link (NSRL) project would connect the Massachusetts Bay Transportation Authority's (MBTA) northside and southside commuter rail networks into one regional system by constructing and operating a rail tunnel through Downtown Boston. According to the Massachusetts Department of Transportation (MassDOT) assessment, this tunnel would enable the through-running of MBTA Commuter Rail and Amtrak trains, increasing system coverage, capacity, and ridership. The Town will advocate for this rail link connection to support greater public transit connectivity between Sudbury and regional services, jobs, and recreation opportunities.

Future Initiatives

- Pursue an aggregated triple electrification model in Sudbury to decarbonize buildings while improving energy efficiency and adding onsite renewable energy.
    - An aggregated electrification model uses a combination of private and public funding sources to raise capital and offer low-interest loan and lease programs to help groups of residents improve the energy performance of their homes. In this model, Sudbury will explore hiring a third-party vendor, or retrofit aggregation contractor or partner, to provide a financing strategy and retrofit services for groups of buildings and landlords that include options such as energy efficiency improvements, electrification of home heating and cooling systems, onsite renewables and storage, and smart technologies. The program will include mechanisms for robust outreach to homeowners, landlords, and renters and offer a zero-cost or very low-cost financial product for low- and moderate-income residents and, if needed, longer-term financing to supplement Mass Save HEAT loans. To ensure rapid implementation and economies of scale, the Town should consider setting ambitious target goals of homes to retrofit in the first phase of the program (e.g., 500 homes and 100 rental units in year 1, 1,000 homes and 250 rental units in year 2, etc.). This action should align with Strategy 4, Action 2, Solarize, and the Energy Advocate program to ensure cash-flow favorable and income-inclusive financing options to support these conversions. The Retrofit Aggregation Contractor is anticipated to offer financing options utilizing existing programs, like the HEAT Loan and Mass Save incentives, and longer-term and affordable financing for residents beyond these offers to make large-scale retrofits feasible.

Spotlight: Mass Save

Mass Save is a collaboration between Massachusetts' electric and natural gas utilities and energy efficiency service providers, including Eversource and National Grid. They empower residents, businesses, and communities to make energy-efficient upgrades by offering various services, rebates, incentives, training, and information. Mass Save is a prime example of a potential ally for sustainability action. While some residents may have taken advantage of the Mass Save programs already, there is great potential for outreach.

Roadmap for Success

The following foundational steps will ensure the Town of Sudbury's success in implementing the Climate Mobilization Action Plan in the coming years and reaching its sustainability goals in the long term. The roadmap includes opportunities for feedback and new information to be incorporated into the CMAP.

2022 to 2024

- Article 58 is passed by Sudbury residents, mandating action.
- Sudbury hires it's first full-time Sustainability Coordinator, Danielle Marini-King.
- The first edition of the Climate Mobilization Action Plan is completed and reviewed by town staff.
- Completion of a town wide greenhouse gas emissions inventory.
- Prepare budgets for Stage One initiatives, including budget and staff requirements.
- Implementation of Stage One initiatives and policies.
- Summary report of Stage One implementation to Energy and Sustainability Committee.

Roadmap for Success

2024

Conduct townwide community and stakeholder feedback and outreach.

Analyze outreach finding and Stage One results to incorporate into further action.

Prepare and seek approval for Stage Two budget and resource needs.

Implementation of Stage Two Initiatives.

Monitor and evaluate the performance of Stage Two initiatives.

Complete an update to the first edition of the CMAP that includes findings from Stages One and Two.

Prepare and seek approval for Stage Three budget and resource requirements

Implementation of Stage Three initiatives.

Monitor and evaluate the performance of Stage Three initiatives.

Summary report of plan implementation to Energy and Sustainability Committee and Select Board.

2027 & Beyond

References

2009 2013 Open Space and RECREATION Plan - Sudbury, Massachusetts. Town of Sudbury. (2009). Retrieved March 27, 2023, from https://sudbury.ma.us/pcd/wp-content/uploads/sites/326/2014/08/OSRPCFINALJune2009nomaps.pdf

2016 housing production plan - cdn.sudbury.ma.us. Town of Sudbury. (2016). Retrieved March 27, 2023, from https://cdn.sudbury.ma.us/wp-content/uploads/sites/304/2018/11/Sudbury-Housing-Production-Plan.pdf?version=993bcefe3f97d37c434d9aa19cb9841f

Carbon Free Boston: Social equity report. Boston Green Ribbon Commission. (2023, January 11). Retrieved March 27, 2023, from https://greenribboncommission.org/document/carbon-free-boston-social-equity-report/

Carrier Corporation. (2015). Study I: View the reports. The COGfx Study. Retrieved March 27, 2023, from https://thecogfxstudy.com/study-1/view-the-reports/

Commonwealth of Massachusetts. (2022). Massachusetts Climate Change Assessment. Mass.gov. Retrieved March 30, 2023, from https://www.mass.gov/info-details/massachusetts-climate-change-assessment

Complete Streets. Massachusetts Complete Streets Funding Program Portal. (2023). Retrieved March 20, 2023, from https://gis.massdot.state.ma.us/completestreets

Green Community Designations Reach. MA Green Communities. (2022, December). Retrieved March 20, 2023, from https://www.mass.gov/doc/map-of-290-gcs-and-grant-summaries/download

Hazard Mitigation Plan. Town of Sudbury. (2020). Retrieved March 20, 2023, from https://sudbury.ma.us/fire/wp-content/uploads/sites/294/2020/11/Sudbury-Hazard-Mitigation-Plan-Update-2020.pdf version=184e62c43bd330625af659ea8bb46ad3

IPCC. (2023). Ar6 synthesis report: Climate change 2023. IPCC. Retrieved March 30, 2023, from https://www.ipcc.ch/report/sixth-assessment-report-cycle/

ISO 37101:2016(en) - Sustainable development in communities. International Organization for Standardization. (2016). Retrieved 2023, from https://www.iso.org/obp/ui/#iso:std:iso:37101:ed-1:v1:en

Livable Sudbury: A Community Needs Assessment. Sudbury Senior Center. (2019). Retrieved 2023, from https://sudburyseniorcenter.org/wp-content/uploads/sites/381/2019/02/Livable-Sudbury-Report.pdf

References

Making the connections. Town of Sudbury. (2022). Retrieved March 20, 2023, from https://sudbury.ma.us/transportation/wp-content/uploads/sites/391/2023/01/Making-the-Connections-Final-Report-221222-Reduced.pdf?version=6592012fb99da7580eec1039dc451820

Massachusetts Clean Energy and Climate Plan for 2025 and 2030. Mass.gov. (2022). Retrieved March 20, 2023, from https://www.mass.gov/info-details/massachusetts-clean-energy-and-climate-plan-for-2025-and-2030

Massachusetts Clean Energy and Climate Plan for 2050. Mass.gov. (2022). Retrieved March 20, 2023, from https://www.mass.gov/info-details/massachusetts-clean-energy-and-climate-plan-for-2050

Massachusetts Climate Change Adaptation Report. Commonwealth of Massachusetts. (2016). Retrieved March 27, 2023, from https://www.mass.gov/files/documents/2016/08/og/eea-climate-adaptation-firstpart.pdf

Massachusetts: Hydrogen and fuel cell development plan - NEESC. NEESC.org. (2018). Retrieved March 27, 2023, from http://neesc.org/wp-content/uploads/2015/01/2018_MA_H2_Fuel_Cell_Dev_Plan_final4.pdf

MWRTA. (2020). MWRTA Comprehensive Regional Transit Plan Update 2020. MWRTA. Retrieved March 27, 2023, from https://www.mwrta.com/application/files/4216/2084/6870/MWRTA_CRPTU.pdf

Sudbury Master Plan. (2021). Retrieved March 20, 2023, from https://sudbury.ma.us/masterplan/wpcontent/uploads/sites/392/2021/06/210428_SudburyMasterPlan_ADOPTED_LowRes.pdf?version=204e008acca5790d662b0cf93219533b

Sudbury Stormwater Management Program. Planning Community Development. (n.d.). Retrieved March 20, 2023, from https://sudbury.ma.us/pcd/2022/04/11/sudbury-updates-stormwater-management-program/

Sudbury Water District Master Plan. Sudbury Water District. (2020). Retrieved March 2, 2023.

Town of Sudbury Employee handbook. Town of Sudbury. (2014). Retrieved March 20, 2023, from https://sudbury.ma.us/internal/wp-content/uploads/sites/308/2014/08/EmployeeHandbook.pdf

Appendix I: Sustainability Coordinator

What Will the Sustainability Coordinator Do?

Sudbury's Sustainability Coordinator will increase the Town's resiliency to the impacts of climate change on health, safety, and property. The Sustainability Coordinator will work with town departments, committees, residents, businesses, and state and regional agencies to develop and direct actions that mitigate risk due to more frequent heat waves, extreme storms, flooding, insect-borne diseases, and other effects of climate change. A decisive response to systematically address climate risks will significantly impact the quality of life in Sudbury.

Nearby Towns with Dedicated Sustainability Staff:

- Winchester
- Concord
- Newton
- Brookline
- Wayland
- Cambridge

Appendix I: Sustainability Coordinator

Essential Tasks

- Improve Sudbury's climate preparedness for impacts on health, safety, and property.
- Identify, apply for, and implement grants to reduce energy use and address climate vulnerabilities.
- Collaborate with staff across departments; nearby municipalities; regional and state agencies; and other organizations.
- Address relevant sustainability, resiliency, and environmental Action Items as specified in the Master Plan.
- Engage the public, municipal Committees and Boards, and the commercial sector in sustainability initiatives.
- Develop a comprehensive climate communications strategy, including developing and managing a robust town Sustainability Website, educational materials, workshops, and other events.
- Works closely with various departments and coordinates with Facility Department to facilitate future energy conservation projects throughout the Town buildings and K-8 Schools.
- Plans and makes policy recommendations to address the impacts of climate change and how Town sites may become more resilient to them through adaptation interventions, preparedness, and recovery programs.
- Supports and participates in climate-related intra- and interagency committees, working groups, task forces, etc., including working with the Energy and Sustainability Committee.
- Design and implement education, communication, and training programs for Town residents and employees related to the Town's sustainability goals and projects.

Benefiting Sudbury

- Protect residents, businesses, workers, and visitors from the broadening impacts of climate change.
- Increase grant funding for local projects benefiting the quality of life
- Achieve Sudbury's commitment to reducing GHG emissions
- Align Sudbury with regional, state, and global initiatives
- Protect the local economy by protecting infrastructure and natural features that attract visitors
- Avoid overburdening staff with additional work
- Maintain leadership role as a Green Community
- Meet Sudbury's responsibility to address climate change

Appendix II: Client Requirements

The Town of Sudbury has set its sights on achieving the goals of the Climate Emergency Declaration. As can be seen from the petitioner's report above, intensive planning is required for climate action to be truly effective. This plan addresses many of the critical areas outlined in the Climate Emergency Declaration:

A menu of strategies, tactics, and policies for Sudbury's residents, businesses, and municipal government to reduce their share of greenhouse gas emissions and sequester greenhouse gasses.

Plans to ensure that the costs of the required mobilization do not unfairly burden those economically or socially disadvantaged and that the realized benefits of a more just and sustainable future accrue to all.

A method for estimating benefits and costs of potential changes and actions relative to the “business as usual” case.

Plans for community outreach, engagement, and education to facilitate implementation.

This plan will enable present and future town staff to address climate issues more thoughtfully and formally. This document is not the final phase of planning for a more resilient future for Sudbury. Instead, this is the beginning of an ongoing process of improvement that will enable Sudbury to become a leader in sustainability. One key feature not included in this plan is a greenhouse gas inventory for the town. Much of the data needed for a greenhouse gas inventory was uncovered in the research process, but that component is outside this project's scope.