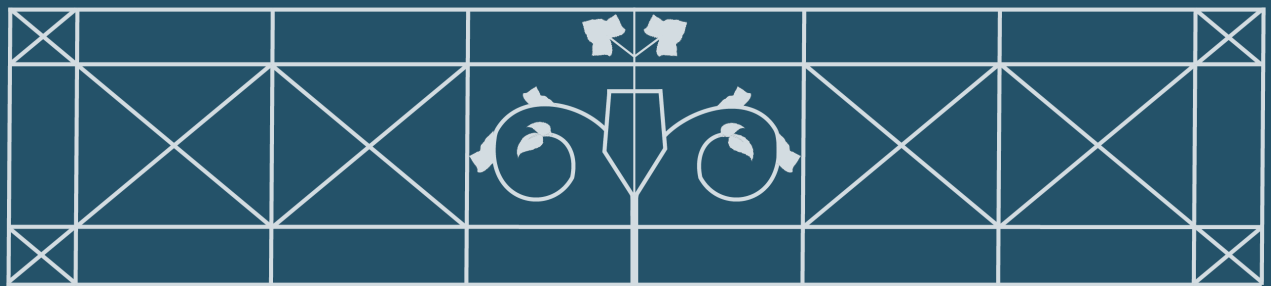
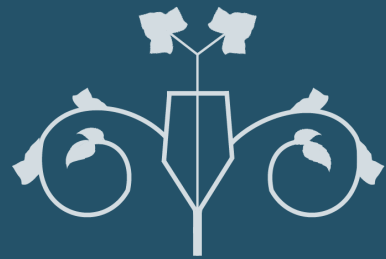




CONCORD FREE PUBLIC LIBRARY
Corporation

SUSTAINABILITY PLAN 2021–2025





LETTERS OF SUPPORT



LETTER FROM CFPL CORPORATION TRUSTEES

In a tradition of innovation and excellence, this Sustainability Plan is a testament to the collaborative spirit across Concord for collective climate action. The Town of Concord has a long history of environmental stewardship and lifelong learning. As the center of the community, the Library has an essential and unique role: connecting to historical resources, education and new ideas, and information.

This plan positions the Library as a resource on sustainability for the community, demonstrating stewardship of knowledge and resources, and linking it with other community partners. It is the result of a collaborative process with community members across the community supporting the Library and investing in the long-term future of the Town of Concord. Through community members' knowledge and the Concord Free Public Library Corporation's and Town's commitment to sustainability, this plan will empower the Library to inspire lifelong learning, actively promote personal enrichment to the community it serves, and model the Town of Concord's sustainability and climate action commitments.

We are grateful for the work that has enabled this plan to come together: the Sustainable Concord Climate Action and Resilience Plan, the expansion project of the Main Library, the Library's long-range planning efforts, and the commitment to sustainability and climate action among members of the community. This plan builds on sustainability efforts already underway at the Library, aligns the Library with the Town's sustainability and climate goals, and positions the Concord Free Public Library as a leader for other libraries and community cultural institutions as collaborators for sustainability. This plan is a testament to the Town of Concord's collaborative approach and commitment to a sustainable future for Concord and beyond.



In community and collaboration,

- Jeffrey Adams*
- Cristina Coletta Blau*
- Richard Briggs, Jr.*
- John Boynton*
- Diana Clymer*
- Pamela Gannon*
- Theodore Hanselman*
- Sherry F. Litwack*
- Erika Prahl*

PARTNERING STATEMENT ON COMMITMENT FROM CFPL CORPORATION AND TOWN

Partnerships will be key to the successful implementation of this plan. From start to finish, this plan will rely on community support and engagement to collectively reach the Town's greenhouse gas reduction goals. The Concord Free Public Library Corporation, Library Director and staff, and Town of Concord's Sustainability Division endorse the ambitious goals of the Sustainability Plan and will all play active roles in its implementation.

Simply put, the Concord Free Public Library Corporation is committed to leading in sustainability and climate action in the Town of Concord. As stewards of the historic library building and a knowledge hub in the community, the CFPL Corporation has provided fiscal and capital projects and upgrades to the Library buildings and special collections as it charts a path to carbon neutrality aligned with the Town of Concord's long history of environmental stewardship and lifelong learning. This sustainability plan will provide resources and support to all members of the community.

We are energized by the engagement of community members throughout this planning process and look forward to the continued collaboration between the Town of Concord and the Library Corporation to a healthier, more liveable future for all.



Sincerely,

- Stephen Crane, Town Manager*
- Sherry Litwack, President, CFPL Corporation*
- Kate Hanley, Sustainability Director, Town of Concord*
- Elise Woodward, Chair, CFPL Sustainability Committee*

NOTE OF SUPPORT FROM LIBRARY STAFF

The core mission of the Concord Free Public Library is to provide the community with resources to support lifelong learning and personal enrichment. This commitment to knowledge sharing, innovation, and excellence resonates throughout the Concord Free Public Library Corporation Sustainability Plan. The Outreach and Education goals of the plan build off the educational and engagement work already happening at the Library, while the Built Environment and Operations goals highlight the places where we work, learn, and share.

The planning process and plan implementation embody the Library's spirit of collaboration. Library staff members have been actively involved throughout the planning process and plan implementation. We look forward to the opportunities for continued learning that this plan provides.

Sincerely,

<i>Daniel Barbour</i>	<i>Andi Graceson</i>	<i>Caroline Nie</i>
<i>Kamel Bounar</i>	<i>Barbara Gugliuzza</i>	<i>Sang Park</i>
<i>Judy Campbell</i>	<i>Cathy Kiepert</i>	<i>Arthur Payne Jr.</i>
<i>Stacey Charbonneau</i>	<i>Dorrie Karlin</i>	<i>Fiona Stevenson</i>
<i>Reni Cunningham</i>	<i>Lauren McClure</i>	<i>Cary Stough</i>
<i>Rachel D'Amore-Bonish</i>	<i>Royce McGrath</i>	<i>Anke Voss</i>
<i>Danielle Gillette</i>	<i>Laura Mills</i>	<i>Valerie Weiss</i>

NOTE OF SUPPORT FROM FRIENDS AND THE TOWN LIBRARY COMMITTEE

We are excited for the launch and implementation of the Concord Free Public Library's first Sustainability Plan. As key groups supporting the current offerings and long-term directions of the Library, the Friends of the Library and Library Committee consider sustainability a vital part of the Library's ability to serve the community. Together with the Library Corporation, Town of Concord, and Library staff, we look forward to playing a role in supporting the vision of this plan.

In partnership,

Friends of the Library
Library Committee

Most photos in this plan were taken prior to the COVID-19 pandemic as CFPL began remote operations in March 2020.

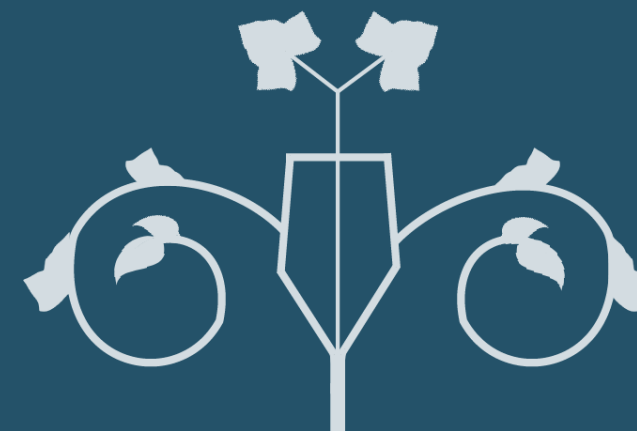
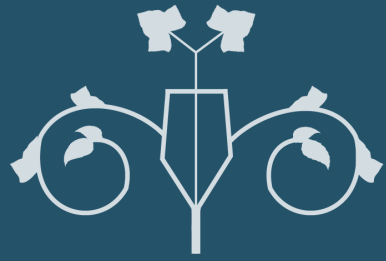


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EXECUTIVE SUMMARY



PLAN VISION

The plan's vision was developed by the Sustainability Committee based on community ideas and feedback. The ten-year vision describes an aspirational state for the Library, aligning with the Town of Concord's emissions reduction goals for 2030 and the global targets outlined in the U.N. Sustainable Development Goals (SDGs).

The Concord Free Public Library Corporation envisions the Library as a model of sustainability and climate action. This plan outlines the necessary steps for assessing, planning, and implementing a series of collaborative actions across operations and programming between 2021 and 2026 and establishes the aspirational goal of carbon neutrality by 2030. The plan builds on the commitment of the Library to meet the needs of today and future generations through stewardship and information sharing.

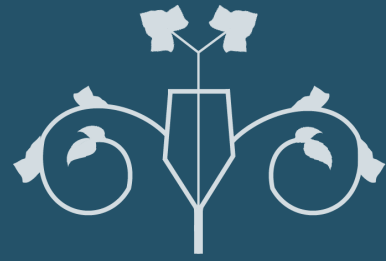
The ten-year vision is aspirational for the Library, aligning with the Town of Concord's emissions reduction goals for 2050. This plan supports a ten-year roadmap to climate neutrality and sustainability for the CFPL Corporation and its partners and outlines five-year actionable strategies to reach this vision.

This document, the Concord Free Public Library Corporation Sustainability Plan, outlines the implementation between 2021-2025 and is the first five-year phase of action which will prepare the Library to achieve its sustainability vision. The second five-year phase will be developed to focus on further implementation based on the outcomes of this plan. The five-year scope of the plan will allow the Library to explore opportunities to use new technology and innovative solutions as they become available, and to periodically reassess renewable energy solutions. The plan's eight goals, each with three strategies, address the built environment, operations, outreach, and education components of the Main Library and Fowler Branch.

For a Library in a historic district, this plan enhances the stewardship responsibility of the CFPL Corporation to preserve the historical buildings and sites of the Main Library and Fowler Branch within Concord's rich historic and cultural heritage. The Library's path to carbon neutrality will consider strategies that align with the CFPL Corporation's stewardship of these resources that are appropriate to its context.

As a destination for the Concord community, the Concord Free Public Library has a vision to both model actions and provide resources for Concord's continuing journey towards an ever more resilient and sustainable town.





SUMMARY OF GOALS AND STRATEGIES

The Town of Concord's climate action and resilience plan includes 22 priority actions and three leadership priorities. The CFPL Corporation Sustainability Plan has been designed to align with the targets outlined in the Sustainable Concord: Climate Action and Resilience Plan and to advance priority actions.

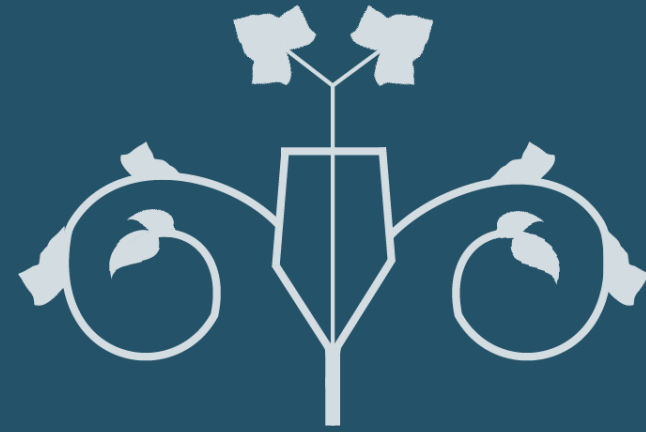
BUILT ENVIRONMENT AND OPERATIONS

Goals	Strategies	Sustainable Concord Plan
1 GHG REDUCTION The Library has an implementation plan for its buildings to be carbon neutral in 2030.	1.1 Planning for net zero Develop a net-zero plan for existing buildings 1.2 Sustainable building principles Develop sustainable building principles for upgrades of all buildings 1.3 Sustainable operations guide Collaborate with the Town to create a sustainable operations and maintenance guide	BUILT ENVIRONMENT 
2 NATURAL RESOURCES The Library's landscape and grounds demonstrate resilience for the community.	2.1 Inventory practices Inventory current resilient landscaping practices of the Library 2.2 Sustainable landscape design Implement sustainable landscape design infrastructure and practices that support water conservation 2.3 Biodiversity Increase native biodiversity on Library grounds	NATURAL RESOURCES 
3 MATERIALS MANAGEMENT The Library's materials and resource system uses zero-waste principles.	3.1 Opportunities for zero waste Develop a zero-waste plan for operations 3.2 Evaluate waste stream Assess the current waste stream to better understand opportunities for waste reduction 3.3 Partnership with CPW Partner with Concord Public Works to demonstrate sustainable materials management	BUILT ENVIRONMENT 
4 MOBILITY The Library supports sustainable transportation options.	4.1 Commuting Understand transportation options for staff and commuting GHG emissions to and from the Library 4.2 Inter-building transportation Explore low-emissions transportation for inter-building Library collaboration 4.3 Low-emissions travel partnerships Create and promote partnerships with other Town institutions for low-emissions travel, including safe biking and pedestrian options	MOBILITY 

OUTREACH AND EDUCATION

Goals	Strategies	Sustainable Concord Plan
1 LIVING LABORATORY The Library provides hands-on sustainability and climate action learning opportunities for patrons.	1.1 Building as a resource Share information about sustainable building aspects and practices in the community, using the living laboratory principles as a framework 1.2 Sustainability dashboard Create an interactive dashboard with available sustainability performance data and updates from the Town of Concord 1.3 Children learning Offer investigative opportunities for children in the Library and its gardens and grounds to learn about sustainability and scientific discovery	SOCIAL RESILIENCE  Social Resilience Prepare businesses, residents, and agriculture for the impacts of climate change through education and climate preparedness planning.
2 EDUCATIONAL RESOURCES The Library is a community hub for sustainability information and climate action resources.	2.1 Share sustainability and climate change information Curate and share diverse and accessible information about climate change and sustainability action 2.2 Share sustainability data about Concord, including CFPL Share sustainability data about CFPL with the community and collaborate with the Town to share available Town data on sustainability efforts, initiatives, and progress 2.3 Library of Things and Seed Lending Library Promote the Library of Things and Seed Lending Library as sustainable resources for community members	SOCIAL RESILIENCE  Social Resilience Prepare businesses, residents, and agriculture for the impacts of climate change through education and climate preparedness planning.
3 PROGRAMMING The Library offers all patrons climate change and sustainability programming with diverse platforms for engagement.	3.1 Events Host events for youth and adults on climate change, sustainability, and resilience 3.2 Local partnerships Partner with sustainability groups on climate change awareness programming and be an event space for Town partners 3.3 Dedicated space Develop a dedicated space and resources for community members to contribute information and tools on sustainable living, local climate action, and climate justice	EDUCATION  Education Work with educators, parents, students, the School Department, and the State to bring climate education curricula into schools and student activities.
4 LEADERSHIP The Library demonstrates sustainability and climate action leadership with consistent improvement.	4.1 Annual assessment Create an annual assessment to share the Library's sustainable progress with the community 4.2 Share with Town partners Share best practices and learned lessons with town partners, supporting the Town's GHG reduction goals in the Sustainable Concord Plan 4.3 Support sustainable libraries Contribute to the American Library Association sustainability practices by modeling "environmentally sound, economically feasible and socially equitable" operations and programming	GOVERNANCE  Governance Integrate sustainability goals, metrics, and evaluation criteria into Town planning, including staff and department evaluations and budgeting.

KEY TERMS



DEFINITIONS

beneficial electrification	using electricity rather than fossil fuels to power end uses, such as heating and appliances; especially useful for meeting carbon reduction targets when combined with carbon-free electricity sourcing ¹
climate neutral	emitting as little as possible and compensating for any remaining emissions; in the case of the Library buildings, this may include production of or purchase of renewable or carbon-free energy; having no net greenhouse gas emissions from Scopes 1 and 2 sources ^{1,2}
embodied carbon	emissions from extracting, transporting and manufacturing materials ¹
living lab	facilities and spaces that provide an array of dynamic learning opportunities for users across educational and technical programs focused on sustainability; definition modified from the Association for the Advancement of Higher Education's (AASHE) Sustainability Education and Economic Development Center, ³ with principles including openness, influence, realism, value, and sustainability
net zero	an evolving term that may refer to net zero greenhouse gas emissions, or net-zero energy consumption, usually from a building or an institution as a whole
net zero carbon building	defined by The World Green Building Council as focusing on carbon emissions, requiring a building to be energy efficient, to produce renewable energy on site, and then to purchase renewable energy offsite; what the CFPL Corporation is adopting for the CFPL ⁴
resilient	a resilient Concord is one that is prepared to minimize the impacts of climate change ²
Scope 1 emissions	direct emissions from sources that are owned or controlled by an entity, which includes on-site fossil fuel combustion and fleet fuel consumption ⁵
Scope 2 emissions	indirect emissions from sources that are owned or controlled by an entity, which includes emissions that result from the generation of electricity, heat, or steam purchased by the entity from a utility provider ⁶

Scope 3 emissions	emissions from sources not owned or directly controlled by an entity but related to the entity's activities, which includes employee travel and commuting. Also includes emissions associated with contracted solid waste disposal and wastewater treatment, or may also result from transportation and distribution (T&D) losses associated with purchased electricity. ⁷ Scope 3 emissions can be viewed as someone else's Scopes 1 and 2 emissions, and include emissions from the up and downstream emissions from services and products that the entity purchases, such as emissions from the production and disposal of the food, paper products, etc., that the entity purchases. ⁸
sustainable	a sustainable Concord is a community that reduces its contribution to climate change by eliminating greenhouse gas emissions and preserves a high quality of life for future generations ⁹
waste streams	the complete flow of waste from its domestic or industrial source through to recovery, recycling, or final disposal ^{10,11}
zero waste	the conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health ¹²

ABBREVIATIONS

CFPL	Concord Free Public Library
EUI	energy use intensity, a measurement in kBtu per square foot per year of energy used in a building
GHG	greenhouse gas emissions, heat-trapping gases that lead to global warming and climate change
HVAC	heating, ventilation, and air conditioning ¹



- ¹ World Resources Institute. [COP21 Glossary of Terms Guiding the Long-term Emissions-Reduction Goal](#), accessed April 1, 2021.
- ² University of California Davis CLEAR Center. [How Carbon is Different than Climate Neutral](#), accessed on April 1, 2021.
- ³ The SEED (Sustainability Education and Economic Development) Center. [The Campus as a Living Laboratory: Using the Built Environment environment to Revitalize College Education. A Guide for Community Colleges](#), accessed April 1, 2021
- ⁴ World Green Building Council. [Net Zero Carbon Buildings Commitment Detailed Guidance](#), accessed March 25, 2021.
- ⁵ U.S. Environmental Protection Agency. [Greenhouse Gases at EPA](#), accessed April 1, 2021.
- ⁶ *ibid.*
- ⁷ *ibid.*
- ⁸ Quantis. [Greenhouse Gas Protocol: Scope 3 Evaluator](#), accessed April 1, 2021
- ⁹ Sustainable Concord. [Climate Action and Resilience Plan](#) (page 8), accessed April 1, 2021.
- ¹⁰ European Parliamentary Research Service. [Understanding Waste Streams: Treatment of Specific Waste](#), accessed April 16, 2021
- ¹¹ U.S. Environmental Protection Agency. ["Managing and Transforming Waste Streams: A Tool for Communities—Terms and Definitions Used in the Tool,"](#) accessed April 16, 2021.
- ¹² U.S. Environmental Protection Agency. ["How Communities Have Defined Zero Waste,"](#) accessed April 1, 2021.



INTRODUCTION



Within the overall vision, this plan is intended as a five-year roadmap for the Library to position itself as a resource and community hub for the Town of Concord to support a sustainable future. It builds on the extensive sustainability work accomplished by the Town of Concord, the Library staff, and the Concord Free Public Library Corporation to date, including the Town's Sustainability Plan, sustainability programs at the Library, and the construction of the Library's new expansion.



The plans align with the Library's mission to serve the Concord community. It intends to model climate action and be a community hub providing the information, resources, and space to support the Town of Concord to meet its sustainability goals. This plan will showcase how CFPL, as a community institution, models sustainability practices to create a sustainable future for all.

According to the Town's Sustainable Concord: Climate Action and Resilience Plan, Concord has and will experience the impacts of climate change: "Concord is already experiencing climate change in the form of increased flooding, droughts, heat, and intense storms, and change in biodiversity and can expect more."¹³ Not only will these

CFPL Mission

Our mission is to inspire lifelong learning and to actively promote personal enrichment by connecting community members to information, ideas, culture, unique historical resources, and each other in a tradition of innovation and excellence.

changes influence infrastructure and the town's built environment; they will also impact public health and agricultural productivity.

This sustainability plan is closely aligned with the Town's Sustainable Concord Plan. The goal is to ensure that the Library as a Town institution meets the Town's goals of reducing community-wide greenhouse gas (GHG) emissions by 80% in 2050 from a 2008 baseline in alignment with the U.N. Paris Agreement on Climate Action¹⁴ and the Massachusetts Global Warming Solutions Act.¹⁵

Concord Free Public Library, as a public-private partnership between the Town of Concord and the CFPL Corporation, now has a roadmap for leading the way for bold sustainability ambitions for the future in a town with a strong track record for action in the Commonwealth of Massachusetts.

¹³ Town of Concord. [Sustainable Concord Plan](#), pages 16-17, accessed March 25, 2021

¹⁴ UNFCCC. [U.N. Paris Agreement](#), accessed on April 1, 2021

¹⁵ Commonwealth of Massachusetts. [Global Warming Solutions Act](#), accessed April 1, 2021



THE TOWN OF
CONCORD
MASSACHUSETTS



CONCORD FREE PUBLIC LIBRARY
Corporation



THE LIBRARY
COMMITTEE



CFPL has been a productive public-private partnership since 1873. The Town of Concord allocates municipal funding for the operations of the Library, including staff, utilities, and books and materials. The nonprofit Concord Free Public Library Corporation owns and oversees the buildings, grounds, and Special Collections. The CFPL Corporation depends on private philanthropic support from the community through its annual fund to raise and manage the endowment that provides the essential upgrades to the Library buildings, grounds, and Special Collections.



CURRENT STATE OF CFPL SUSTAINABILITY

The Concord Free Public Library Corporation is committed to leading in sustainability and climate action in the Town of Concord. As the stewards of a central community hub, the CFPL Corporation has provided fiscal and capital projects and upgrades to the Library buildings and special collections.

Outreach and Education

As an educational hub for the community, the Library provides access to sustainability-focused reference and reading materials and items for the Concord community. The Library consistently hosts events for community members to learn about the natural environment, climate and sustainability. Library staff members offer a variety of weekly programming for youth, teens, and adults including book discussions, club meetings, story times, and workshops.

Currently, CFPL offers books and publications, personalized reading and watch recommendations from Library staff, items that support sustainable action for loans, and specific sustainability events. Some highlights of sustainability outreach and education opportunities at the Library include:

1. The Concord Seed Lending Library enables patrons to borrow and contribute seeds.
2. In 2019, the Library partnered with the Concord Municipal Light Plant to display an electric car at the Library Book Sale and also tested sustainable grasses in its Reading Garden.
3. In 2020, the Library partnered with the Town's Sustainability Division to host the second annual Climate Preparedness Week.

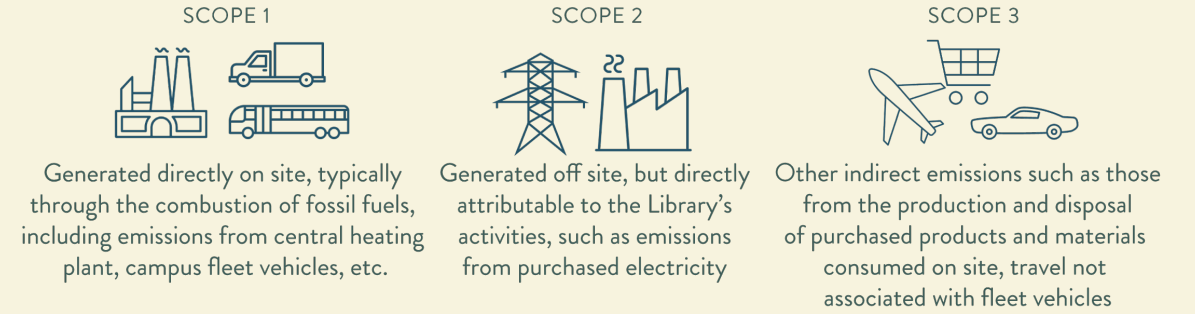
Concord Seed Lending Library

The Concord Seed Lending Library provides open pollinated vegetable and ornamental seeds and education about saving seeds and organic gardening. The purpose of this service is to collect and share bio-diverse, locally adapted plant seeds, cultivated by and for area residents.



The Friends of the Library play a key role in sponsoring Library programming. The Friends offer opportunities ranging from the annual Book Sales; Poetry, Film and Music series; Family Concerts on the Lawn; and the Concord Festival of Authors.

COMMON SOURCES OF GREENHOUSE GAS EMISSIONS



Greenhouse Gas Emissions

Only Scopes 1 and 2 emissions are currently tracked by the CFPL Corporation through Town data (building emissions from electricity, heating, and cooling, and vehicular emissions from the Library's car). The Library can become greenhouse gas neutral in its Scopes 1 and 2 emissions by eliminating natural gas for heating through electrification and using renewable energy for electricity.

The Library does not currently track its Scope 3 emissions, such as staff commuting, visitor travels, emissions from production, or disposal of the materials that the Library purchases and uses, such as emissions from bookmaking and other supplies.

Building Energy Use

CFPL purchases electricity and natural gas to provide electricity, heating, and cooling in its buildings. CFPL's energy use intensity (EUI) is lower than peer averages, but the CFPL Corporation can improve its energy efficiency.¹⁶ The Library has already implemented a number of steps to reduce energy use, including the replacement of lighting with more energy-efficient options through the Massachusetts Green Communities grant funding in collaboration with the Concord Municipal Light Plant. The renovation and expansion project of the Main Library will have a lower energy use intensity than the original Main Library and Fowler Branch.

The Main Library expansion and renovation project is in line with emissions reduction targets established by the American Institute of Architects 2030 Commitment. The expansion and renovation project hit the target in 2020 of 80% reduction of fossil fuel use compared to its 2008 baseline, which also directly mirrors the Town of Concord's sustainability plan goals.¹⁷

There are opportunities for CFPL to continue to improve the energy use in its buildings via heating and cooling, building controls, lighting/lighting controls, and building envelope improvements that are consistent with the buildings' historical character, the Library's program needs, and the community's input into the operations and character of the buildings. Connecting the buildings to Concord's fiber network and assessing hard wiring for direct ethernet connections may provide an additional opportunity, including energy savings potential for evaluating wireless versus wired systems. As technology evolves and innovative solutions are introduced, the Library will have the opportunity to assess and take advantage of new energy reduction strategies.

From July 1, 2019 to June 30, 2020, the Library emitted 194 metric tons of carbon dioxide equivalent (MTCO₂e) from Library operations. CFPL emitted 1.5% of the Town's municipal emissions in 2016. Concord's municipal operations emitted 12,000 MTCO₂e in 2016.



¹⁶ Concord Free Public Library. 2020. [Sustainability Baseline: Building and Energy Use](#), accessed April 16, 2021

¹⁷ The American Institute of Architects. [2030 Commitment](#), accessed April 22, 2021

The Concord Free Public Library's buildings have cultural and historical value in the region that influence the type of building upgrades made to the library buildings. The Main Library building holds a prominent place in Concord's civic architecture and is located in a historic district. The CFPL Corporation's Trustees have a responsibility to preserve and protect the historical character of the site, and consider exterior changes to the property carefully with community input.

Renewable Energy Production on Site

Solar and geothermal feasibility studies have been conducted to assess opportunities to produce renewable energy on site. In 2017, Solar Design Associates conducted a solar feasibility assessment of the Main Library. The assessment projected that 8% of the Library's current electricity needs could be covered by on-site solar,¹⁸ but this did not take into account Concord Historic Districts Commission restrictions of no visible solar panels from street view.¹⁹ An alternative option was considered, which would place solar panels on the flat roof of the library, where they would not be visible from the street. This scenario would yield only 4% of the library's annual electricity consumption and was not recommended.

In 2020, the Main Library was included as part of a town-wide assessment for solar and energy storage.²⁰ In this study, a 17-kW system was recommended that would supply 8% of the annual electricity use of the library. This study did not recommend installing solar on the lower flat roofs due to potential tree shading.

Also in 2020, the CFPL Corporation engaged GreenerU to conduct an additional solar study. The two previous solar studies were reviewed and a solar feasibility of the Fowler Branch and the Main Library expansion was completed. GreenerU's 2020 solar study found that solar would not be feasible at Fowler due to shading from trees and the size of the roof.²¹ The Main Library and its expansion could host solar panels, but tree shading and historical restrictions would limit the solar installation to cover approximately 2-4% of the library's current electricity needs.

It was concluded that the Library's energy needs are best provided with renewable energy from the Town's electrical grid. Consequently, there are no immediate plans to install solar at either Library location; however, solar panels to provide partial generation of energy on site may become an

effective strategy in the future, and the CFPL Corporation will continue to collaborate with partners to identify the best ways to reduce greenhouse gas emissions and increase renewable energy sources for the Library.

In July 2020, the CFPL Corporation retained GreenerU to perform a high-level feasibility study of a geothermal exchange HVAC system for the Concord Free Public Library's planned expansion project. The assessment determined that while a ground-source system would be feasible from a technical standpoint, there would be minimal financial or sustainability-related benefit when compared to full electrification of the Library's heating and cooling systems. This is in large part due to the fact that the current design for the new building's HVAC system is highly efficient and all electric, diminishing the incremental benefits of the significant capital investment required for a ground-source system. As implementation of the sustainability plan proceeds, the CFPL Corporation will continue to assess the viability of different on-site renewable energy generation and ways to support the Town's sustainability and climate action plan.



¹⁸ Solar Design Associates. [Concord Free Public Library Solar Feasibility Assessment](#), 2017, accessed April 16, 2021

¹⁹ Concord Historic Districts Commission. [Historic Districts Design Guidelines](#), 2015, accessed May 13, 2021

²⁰ Cadmus. [Concord Solar and Storage Feasibility Memo](#), 2020

²¹ Sustainability Baseline *ibid.*

Grounds

The Library has worked closely with Kim Ahern Landscape Architects to create a reading garden on the Sudbury Road side and a restored front garden at the Main Library. When Fowler was expanded in 1996, the landscape architects designed the landscape around the windowed staircase in front and a circular reading garden at the corner of Main and Church Streets.

With the Main Library Expansion project, to be completed in early 2022, the building is designed in harmony with the surrounding landscape. The Commons and Children's Library spaces will open to the garden. All new plants in the garden will be native, considered naturalized, and/or have proven records of thriving with minimal care and watering after establishment. The gardens will use drip irrigation systems to efficiently provide a slow drip of water directly into the soil. Many of the plants will provide a rich habitat for birds and butterflies, promoting biodiversity.

Transportation

The CFPL staff uses one of the town's vans to transport books and materials between the two sites, Fowler and Main. The van runs on gasoline and consumes approximately 100-120 gallons a year.



The primary form of transportation for both staff and patrons is single-use vehicles, and the Library has limited parking available at both locations. Both Library locations are within walking distances from public transit and electric vehicle charging stations. There are bike racks at both sites, and biking to both the Fowler Branch and Main Library is possible on Town roads.

Materials Management

The Library contracts with the Town's disposal services for discarded materials, trash and recycling for cardboard, paper, bottles, cans, and some types of plastic. The Town picks up discarded materials once a week, and all recycled materials are collected together. The materials are then transported by the Town of Concord to be processed within Massachusetts: the solid waste is transported to a landfill in Fitchburg, paper to a processing plant in Springfield, and the co-mingled recycling is sorted in Avon. The Library also participates in the Town's semiannual "zero-waste" day, which is part of the biannual drop-off event.²²



²² Town of Concord. [DropOff SwapOff Days](#), accessed March 25, 2021

CFPL HISTORY OF EXPANSION AND RENOVATION



1873
Citizens of Concord dedicate the Concord Free Public Library

1889
Main Library is renovated to annex a Sudbury Road school building

1917
Additional renovations are made to remove a tower from the building to build stacks

1930
Fowler branch of the Library is dedicated

1934
Main Library is renovated and expanded, radically changing the style of the exterior

1968
Main Library is renovated to create new Children's Room

1990
Main Library is renovated, including Special Collections vault and energy-conservation initiatives

1996
Fowler Branch is renovated and expanded, including the addition of a skylight

2005
Main Library is renovated to upgrade all systems, create a new accessible entrance at Sudbury Road, expand Special Collections, and create new Periodical and Young Adult areas

2011
Fowler Branch is renovated to add the lower level

2021
Main Library undergoes major renovation and expansion, incorporating Heywood-Benjamin House with energy-efficient features

Sustainability Plan is initiated for all Library properties

PLAN TIMELINE

SEPTEMBER 2020

KICKOFF

Launched the sustainability planning baseline website to public with educational and informational resources. Issued survey, receiving 20+ survey responses.

PUBLIC LISTENING SESSIONS

Gathered ideas for the sustainability plan from more than 14 local partners, including CSEC, CAAB, Mothers Out Front, CCHS, and ConcordCan.

FIRST COMMUNITY REVIEW

Held first community review, with more than 50 community members participating in this virtual event.

SECOND COMMUNITY REVIEW

Held second community review to share final draft of the Sustainability Plan, receiving feedback from the Sustainability Committee, Corporation Trustees, Town Manager, and group of community members.

LAUNCH

Final Sustainability Plan is launched to the community, shared on the Library website with physical copies available at the Main Library and Fowler Branch.

CLIMATE PREPAREDNESS WEEK

Hosted events, gathering ideas from community members on the planning process.

GOAL SETTING

Sustainability Committee and Library staff developed a set of goals and strategies for the plan, working to incorporate community input into formation of goals and strategies. Drafted action steps to implement the vision.

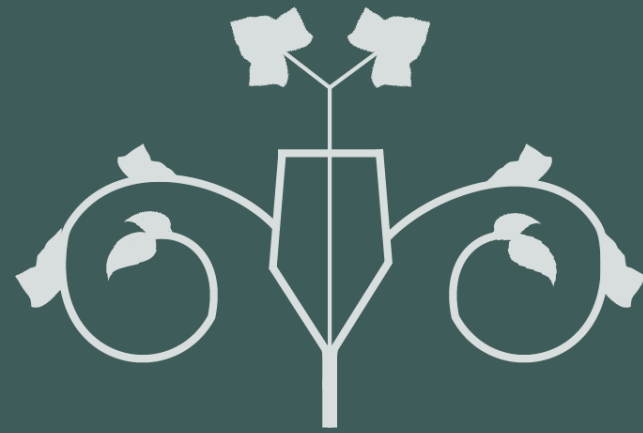
DRAFT WRITTEN PLAN

Draft incorporated feedback from the community review. Action plans were developed and shared with the Library Corporation to describe plan implementation and associated costs.

ENDORSEMENT

Plan was presented to Town Select Board for review and presented for endorsement by the Corporation Trustees.

JUNE 2021



ABOUT THE PLAN

The Concord Free Public Library Corporation supports the Town of Concord's climate action commitment by creating the Library's first sustainability plan. As stewards of the Concord Free Public Library, the CFPL Corporation led a community-centered process with input from across the community. Starting in August 2020, the CFPL Corporation set out to create an actionable, five-year plan that includes activities in both the Main Library and the Fowler Branch. This final plan is an aspirational and actionable plan that will inform and engage the Library community in its response to climate change and engagement in understanding and preserving the natural world. The plan will be implemented over the next five years by working groups created by the CFPL Corporation.

The Sustainability Committee was created by the CFPL Corporation and charged with the development of a community-driven planning process. Representing various groups in the Town of Concord, Sustainability Committee members met for a series of plan development meetings between October 2020 and February 2021.

The primary role of the Committee was to facilitate a community engagement process to gather community input, comments, and questions. The Sustainability Committee hosted community meetings to confirm the vision and establish the goals and strategies of the plan.

The development of this plan would not have been possible without the support of the CFPL Corporation's Board of Trustees, the Town of Concord, and Library staff. This plan has the following components: a vision, goals that align with the Town of Concord's Climate Action and Resilience Plan, strategies, and implementation-focused



action plans. All components of the plan were informed by community member input and confirmed by the Sustainability Committee. This ambitious ten-year vision establishes the Library as a leader for sustainability in Concord. This vision aligns the plan with the Town's goals.

The goals of the plan fall into two primary focus areas: 1) Outreach and Education and 2) Built Environment and Operations. The goals of the sustainability plan align with the Town's climate commitments and with the sustainability and resilience goals of the Town of Concord's "Sustainable Concord" plan.

Sustainability Committee

With support from the Waltham-based firm GreenerU, the Sustainability Committee led the plan development process. Members of the Committee include:

- Jeff Adams, Library Trustee and liaison to the CFPL Corporation's Building Committee
- Michael Bellefeuille, architect at Johnson Roberts for Library expansion project
- Maggie Bowers, student at Concord-Carlisle High School
- Reni Cunningham, staff at CFPL
- Marcy Bouley Eckel, CFPL Corporation's Director of Development
- Kate Hanley, Town of Concord's Director of Sustainability
- Lindsay Howard, liaison to Library Committee
- Rick Johnson, Concord resident
- Alice Kaufman, Concord resident and member of Concord Municipal Light Board
- Elise Woodward, CFPL Chair, Concord resident



Community Engagement

The planning process was entirely remote due to the COVID-19 pandemic, and community engagement opportunities over Zoom and through remote platforms were essential to the Sustainability Plan's development. The Sustainability Committee hosted a number of opportunities to encourage community participation and garnered wide support.

Facilitation Trainings

GreenerU hosted a series of facilitation training sessions that introduced essential tools and concepts for effective and inclusive meetings both in person and remotely. The Sustainability Committee, Library Committee, and Library staff attended.

Sustainability Planning Website & Community Input Survey

The Sustainability Planning Website was created to document a comprehensive baseline of sustainability at the Main Library and Fowler Branch. The website was periodically updated throughout the planning process to offer background information and updates to Library stakeholders to participate more fully in the plan development process. Through the website, a Community Input Survey offered community members another opportunity to comment on the focus areas of the plan and to help shape the vision for sustainability of the Library.



Climate Preparedness Week Events

The Town of Concord has committed to an 80% reduction in greenhouse gas emissions by 2050. To support this commitment, the Concord Free Public Library and the Town's Sustainability Division collaborated to host Climate Preparedness Week, a nationwide initiative organized by Communities Responding to Extreme Weather (CREW). Concord recognized September 23-30, 2020, as the town's second annual Climate Preparedness week. During the week, the Sustainability Committee hosted two online idea sessions for the community to learn about the sustainability baseline and share ideas on the vision and focus areas of the plan.

Listening Sessions

Some of the most informative, exciting conversations and ideas arose from listening sessions. Key stakeholder groups were invited to learn about the planning process, contribute ideas and questions, and learn about future opportunities for engagement. More than 15 listening sessions were hosted throughout the planning process.

Climate Preparedness Week

The year 2020 marked the second annual collaboration between the Concord Free Public Library and the Sustainability Division to participate in Climate Preparedness Week, a nation-wide initiative organized by Communities Responding to Extreme Weather (CREW). The week of events engages Concord residents to take action in support of the Town's greenhouse gas emissions reduction goal of 80% by 2050.

SEPT 25 @12PM
SEPT 30 @7PM
ZOOM

COMMUNITY IDEA SESSION FOR LIBRARY SUSTAINABILITY

Join for one of 2 community sessions about the Library Corporation's sustainability planning to share your ideas for a sustainable library.



Feedback and Listening Sessions

The Sustainability Committee hosted feedback and listening sessions with the following groups:

- Library staff
- Library Committee
- Friends of the Library
- CFPL Corporation Board of Trustees
- CFPL Corporation Building Committee
- Town Manager
- Mothers Out Front
- Concord CAN (Climate Action Network)
- League of Women Voters
- Light Board, Concord Municipal Light Plant
- Climate Action Advisory Board (CAAB)
- Comprehensive Sustainability and Energy Committee (CSEC)
- Concord Safe Technology
- Concord Public Schools

Community Events

A community review was hosted in February 2021 over Zoom for interested community members to learn about the planning process and the work to date and to provide feedback and suggestions to the goals and strategies of the Sustainability Plan. More than 50 community members attended the meeting. A second Community Event was hosted in May 2021, just before the finalization of the Sustainability Plan. Community members were invited to review and provide feedback on the draft Plan.



TEN-YEAR SUSTAINABILITY VISION

By 2030, the Library will serve as both a living example of sustainable operations and net zero buildings and as a community hub to educate, inspire, and support the Concord community in creating a more sustainable future.

Vision

The Sustainability Committee developed the plan's vision, informed by community ideas and feedback. The ten-year vision describes an aspiration for the Library aligning with the Town of Concord's emissions reduction goals for 2030 and supporting Massachusetts state goals.

Focus Areas of the Plan

Based on feedback from the Sustainability Committee and the community ideation sessions in September 2020 the following areas were identified as the primary sections of the plan:

Built Environment and Operations — includes Library building improvements, renovations, and daily operations

Education and Outreach — includes Library programming, educational resources, events, and communication about climate action and sustainability by the Library and the Concord community

Goals and Strategies

Within the overall vision, the five-year goals of the plan describe how the Concord Free Public Library Corporation will work towards its vision for sustainability and climate action. Each goal has three strategies to be implemented by the CFPL Corporation and its key partners.

Criteria

Prior to creating the goals and strategies of the plan, the Sustainability Committee established a set of criteria to serve as standards for the goals of the plan.

INCLUSIVE

ensures equitable access for all people with opportunities to participate in year-round activities

MISSION

aligned with the mission of the Library, and supporting the mission of the Library

TOWN PLANNING

aligned with the Sustainable Concord Plan and supporting the Town's Long-Range Plan to preserve historical and town character

EDUCATION

increase the community's knowledge on the natural environment, climate and sustainability

FEASIBLE

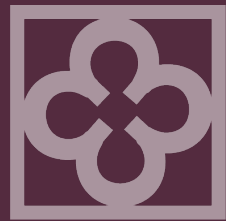
affordable and implementable in the next five years

IMPACT

reduce greenhouse gas (GHG) emissions at the Library and improve the community's resilience to climate change

CLEAR ROLES

clear leadership roles that provide opportunities for the Concord community to take climate and sustainability action

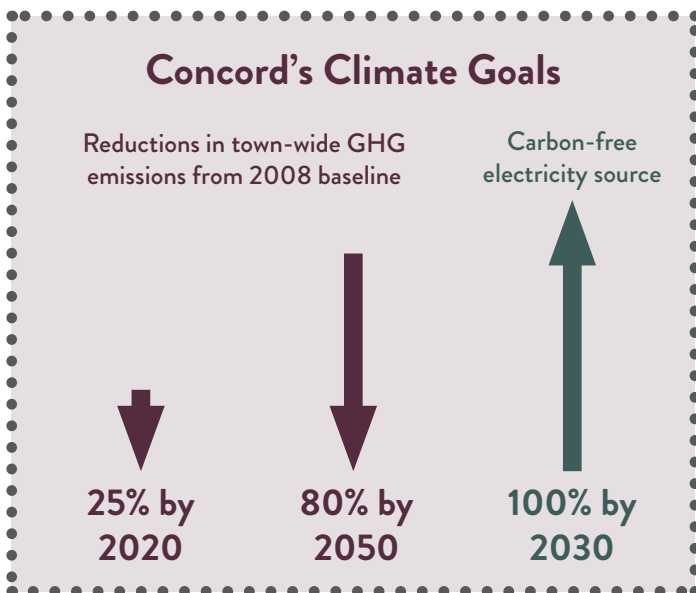


FOCUS AREA BUILT ENVIRONMENT AND OPERATIONS

Developing a plan to complete deep energy retrofits including electrification and renewable energy to existing municipal and school buildings is a priority action in Concord's climate action and resilience plan that will reduce community-wide emissions and ensure the Town is leading by example.

The Library can lead by reducing emissions from its buildings. A net-zero emissions Library is an energy-efficient building that uses no fossil fuels on site, takes advantage of Concord's future carbon-free electricity supply, and optimizes its building systems to ensure efficiency and streamlined operations. The CFPL Corporation will develop a plan for the Library buildings to achieve net zero emissions by 2030 which will periodically measure success with metrics such as greenhouse gas emissions reductions, progress toward zero waste, increased recycling, and reduced water use. Opportunities for reducing energy required for technology and wifi may be explored.

The Library's grounds provide a place for patrons to relax, rejuvenate, and enjoy one of Concord's most central settings. Continued sustainable management of the landscape will promote pollinator and plant biodiversity and a home for native plants. The Library's grounds are maintained without the use of pesticides and limited use of organic fertilizers. Through the creation and maintenance



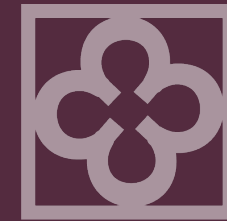
Implementation

Following are key partners in implementing the Built Environment and Operations goals and strategies of this plan:




- CFPL Corporation
- Library Staff
- Town of Concord Sustainability Department
- Concord Public Works
- Department of Planning and Land Management
- Concord Municipal Light Plant
- Transportation Advisory Committee
- Local groups and students

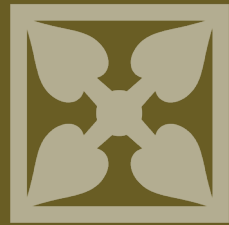
of sustainable grounds, the Library contributes to the living laboratory opportunities outlined in the Outreach and Education goals of this plan.

The materials management and mobility goals highlight key areas for the Library to assess and explore additional opportunities to address Scope 3 greenhouse gas emissions categories related to solid waste, transportation, and commuting.

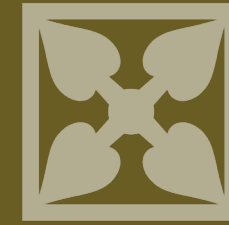


BUILT ENVIRONMENT AND OPERATIONS GOALS AND STRATEGIES

Goals	Strategies
<p>1 GHG REDUCTION The Library has an implementation plan for its buildings to be carbon neutral in 2030.</p> 	<p>1.1 Planning for net zero Develop a net-zero plan for existing buildings</p> <p>1.2 Sustainable building principles Develop sustainable building principles for upgrades of all buildings</p> <p>1.3 Sustainable operations guide Collaborate with the Town to create a sustainable operations and maintenance guide</p>
<p>2 NATURAL RESOURCES The Library's landscape and grounds demonstrate resilience for the community</p> 	<p>2.1 Inventory practices Inventory current resilient landscaping practices of the Library</p> <p>2.2 Sustainable landscape design Implement sustainable landscape design infrastructure and practices that support water conservation</p> <p>2.3 Biodiversity Increase native biodiversity on Library grounds</p>
<p>3 MATERIALS MANAGEMENT The Library's materials and resource system uses zero-waste principles.</p> 	<p>3.1 Opportunities for zero waste Develop a zero-waste plan for operations</p> <p>3.2 Evaluate waste stream Assess the current waste stream to better understand opportunities for waste reduction</p> <p>3.3 Partnership with CPW Partner with Concord Public Works to demonstrate sustainable materials management</p>
<p>4 MOBILITY The Library supports sustainable transportation options.</p> 	<p>4.1 Commuting Understand transportation options for staff and commuting GHG emissions to and from the Library</p> <p>4.2 Inter-building transportation Explore low-emissions transportation for inter-building Library collaboration</p> <p>4.3 Low-emissions travel partnerships Create and promote partnerships with other Town institutions for low-emissions travel, including safe biking and pedestrian options</p>



FOCUS AREA OUTREACH AND EDUCATION



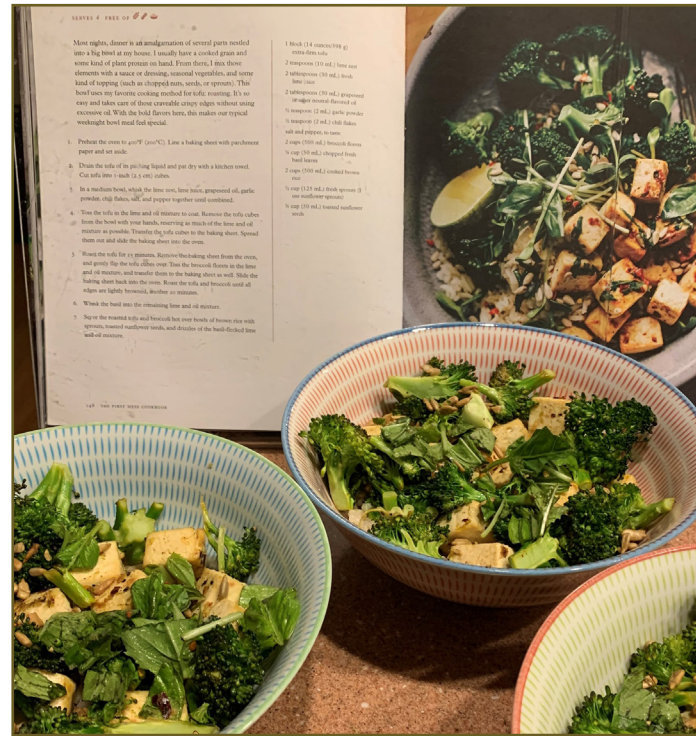
OUTREACH AND EDUCATION GOALS AND STRATEGIES

The Library is a cornerstone of community education. By providing books, digital resources, items from the Library of Things, programming, and other initiatives, CFPL is a vital resource to develop a community of lifelong learners. The goals of this focus area build on many ongoing programs at the Library to develop robust sustainability-focused resources and opportunities.

Implementation

Following are key partners in implementing the Education and Outreach goals and strategies of this plan:

- CFPL Corporation
- Library Staff
- Library Committee
- Friends of the Library
- Town of Concord Sustainability Division
- Local groups and students







**SEPT 23-30
OUTSIDE CONCORD
FREE PUBLIC
LIBRARY**

**CLIMATE RIBBON
PROJECT**

Write and share what you most love and don't want to lose to climate change on a 2-foot ribbon to be displayed at the library.

**SEPTEMBER 23-30, 2020
CLIMATE PREPAREDNESS WEEK**
concordma.gov/climateprep



Goals	Strategies
<p>1 LIVING LABORATORY The Library provides hands-on sustainability and climate action learning opportunities for patrons.</p> 	<p>1.1 Building as a resource Share information about sustainable building aspects and practices in the community, using the living laboratory principles as a framework</p> <p>1.2 Sustainability dashboard Create an interactive dashboard with available sustainability performance data and updates from the Town of Concord</p> <p>1.3 Children learning Offer investigative opportunities for children in the Library and its gardens and grounds to learn about sustainability and scientific discovery</p>
<p>2 EDUCATIONAL RESOURCES The Library is a community hub for sustainability information and climate action resources.</p> 	<p>2.1 Share sustainability and climate change information Curate and share diverse and accessible information about climate change and sustainability action</p> <p>2.2 Share sustainability data about Concord, including CFPL Share sustainability data about CFPL with the community and collaborate with the Town to share available Town data on sustainability efforts, initiatives, and progress</p> <p>2.3 Library of Things and Seed Lending Library Promote the Library of Things and Seed Lending Library as sustainable resources for community members</p>
<p>3 PROGRAMMING The Library offers all patrons climate change and sustainability programming with diverse platforms for engagement.</p> 	<p>3.1 Events Host events for youth and adults on climate change, sustainability, and resilience</p> <p>3.2 Local partnerships Partner with sustainability groups on climate change awareness programming and be an event space for Town partners</p> <p>3.3 Dedicated space Develop a dedicated space and resources for community members to contribute information and tools on sustainable living, local climate action, and climate justice</p>
<p>4 LEADERSHIP The Library demonstrates sustainability and climate action leadership with consistent improvement.</p> 	<p>4.1 Annual assessment Create an annual assessment to share the Library's sustainable progress with the community</p> <p>4.2 Share with Town partners Share best practices and learned lessons with town partners, supporting the Town's GHG reduction goals in the Sustainable Concord Plan</p> <p>4.3 Support sustainable libraries Contribute to the American Library Association sustainability practices by modeling "environmentally sound, economically feasible and socially equitable" operations and programming</p>



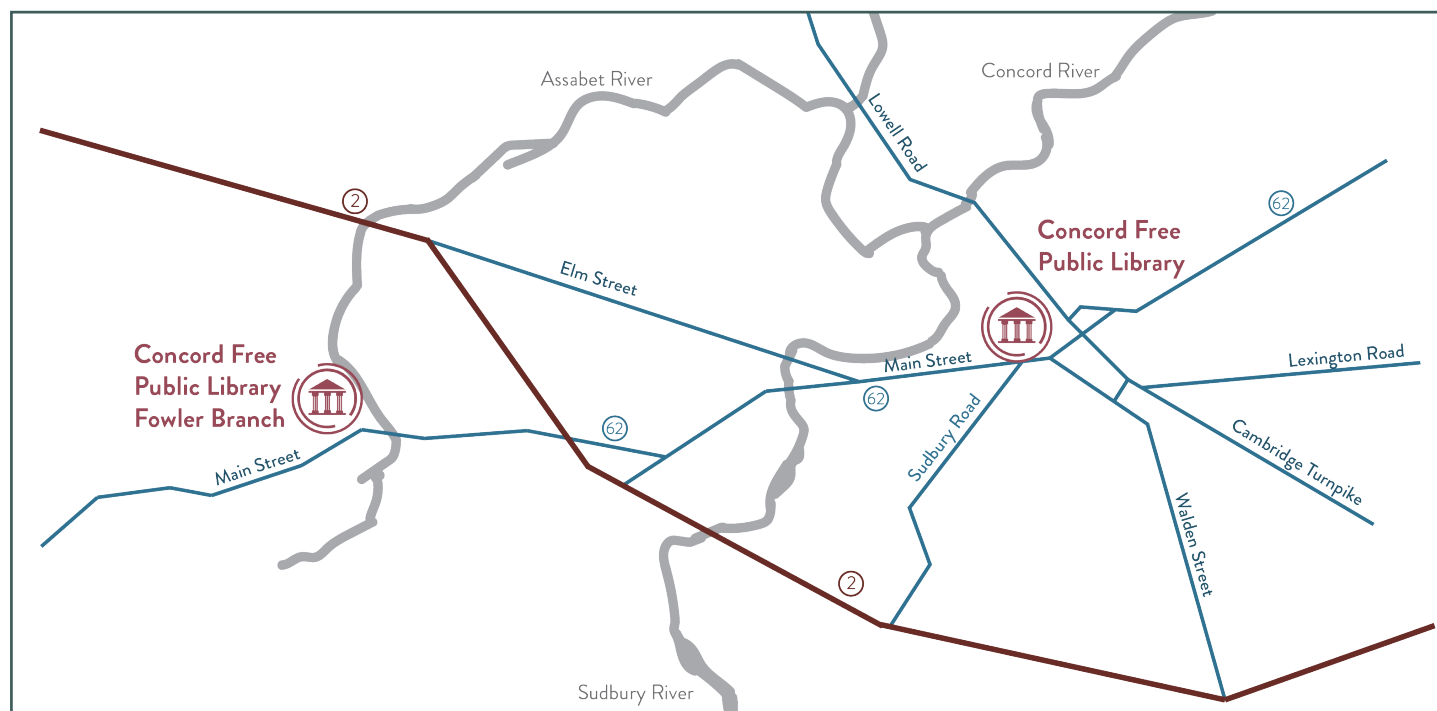
IMPLEMENTATION AND TRACKING PROGRESS

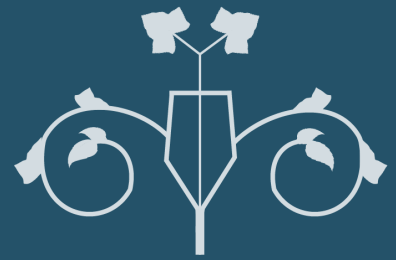
The CFPL Corporation Sustainability Plan was developed to provide a comprehensive roadmap to sustainability with the community and Library users in mind. Many of the goals and strategies outline opportunities for the Library to explore and assess how best to address its environmental impact.

Partnerships will be key to the successful implementation of this plan. Through the planning process, many local groups and partners offered ideas and support. From start to finish, this plan will rely on community support and engagement to collectively reach the Town's climate neutrality goals. The Concord Free Public Library Corporation, Library staff, and Town's Sustainability

Division endorse the ambitious goals of the Sustainability Plan and will all play active roles in its implementation.

To oversee the implementation of the Sustainability Plan over the next five years, the Corporation will establish working groups with the intention of developing actionable steps by the end of 2022. The working group members will help to build and maintain long lasting partnerships, ensuring shared ownership and responsibility for these efforts. In close collaboration with the Town, annual assessments will be shared to document the Sustainability Plan's implementation progress. These working groups will also consider new technology and innovation opportunities through regular reviews of new and impactful solutions.





SUSTAINABLE CONCORD CLIMATE ACTION AND RESILIENCE PLAN

SUMMARY OF GOALS AND COMMITMENTS



Concord's Commitment

The CFPL Corporation Sustainability Plan aligns with the Town's Sustainable Concord Plan. The Sustainable Concord Plan continues work that is already underway and outlines 22 priority actions that can be taken over the next five years to ensure Concord is on a path to a sustainable future. Reaching Concord's goals will be an iterative and collaborative process which will require action across all sectors of the community. This Plan is an important step in the journey of turning climate commitments into climate action.

The Town recognizes that truly effective climate leadership will require the integration of sustainability into daily operations, decisionmaking, and planning of our municipality. The Town government is committed to taking the lead on implementation of this Plan and integration of sustainability throughout and will focus on three specific areas to achieve this:



Education

Work with educators, parents, students, the School Department, and the State to bring climate education curricula into schools and student activities.



Governance

Integrate sustainability goals, metrics, and evaluation criteria into Town planning, including staff and department evaluations and budgeting.



Social Resilience

Prepare businesses, residents, and agriculture for the impacts of climate change through education and climate preparedness planning.

Sustainable Concord plan elements, goals, and priority actions

Plan element	Goal	Priority actions
 <p>BUILT ENVIRONMENT</p>	Concord's buildings and solid waste system minimize GHG emissions and are resilient to a changing climate.	<ul style="list-style-type: none"> Increase electrification and improve energy efficiency of residential buildings. Improve energy performance of commercial buildings. Set progressive sustainability standards for new municipal buildings and schools and develop a phased plan for deep energy retrofits to existing town buildings. Establish policies and incentives for new development to achieve high standards for sustainability and resilient design. Create opportunities town wide to increase the waste diversion rate by 30%.
 <p>ENERGY</p>	Concord's electricity is 100% carbon-free, reliable, and affordable.	<ul style="list-style-type: none"> Redesign electricity rates to support energy conservation, peak load management, electrification, and renewable energy generation. Provide incentives for businesses and homeowners to invest in renewable energy. Shift CMLP's electricity supply to 100% carbon-free sources by 2030. Deploy utility-scale energy storage.
 <p>MOBILITY</p>	Everyone has access to zero-carbon transportation options to commute and get around Concord.	<ul style="list-style-type: none"> Increase use of public transportation and other low-carbon and no-carbon transportation options. Accelerate adoption of electric vehicles. Implement a long-term plan to electrify school and municipal vehicle fleets. Improve availability, accessibility, and connections between bicycling and walking paths and sidewalks.
 <p>NATURAL RESOURCES</p>	Concord's natural resources are enhanced and supported to provide resilience benefits to the community and to maximize biodiversity and carbon sequestration.	<ul style="list-style-type: none"> Develop forest management plan to enhance health of Concord's forests. Increase indoor and outdoor water conservation. Work with homeowners to promote sustainable landscaping practices. Assess the vulnerability of natural resources most at risk to projected climate changes. Assess and improve Concord's tree canopy.
 <p>PREPAREDNESS</p>	Concord's critical infrastructure is designed to reduce emissions and be prepared for projected climate impacts.	<ul style="list-style-type: none"> Develop an integrated water resource management plan. Conduct a threat assessment for Concord's critical infrastructure. Update stormwater regulations and create a stormwater utility. Increase the use of green infrastructure and low impact development.



