

**MITIGATION TOOLS & STRATEGIES: INSIDER TIPS AND
TRICKS TO MEASURE & REDUCE GREENHOUSE GAS
EMISSIONS**

CHICAGO WILDERNESS

Cafe

• DIVERSE VOICES •
GREEN VISION • UNITED REGION

Goals

- Learn about how mitigation fits into Chicago Wilderness's Green Vision
- Understand the importance of knowing your own Greenhouse Gas (GHG) Footprint
- See Processes and Outcomes at Different Scales
- Be introduced to the idea of GHG calculator methods, tools & Lessons Learned

Agenda

- 12:00 Introduction & Poll
- 12:03 CW: Climate Mitigation Goal Recap
- 12:10 FPCC Sustainability Plan
- 12:25 The Morton Arboretum's Sustainability Initiative
- 12:40 Discussion, Q&A and preview of next Cafe

Chicago Wilderness

Chicago Wilderness “Green Vision”

Diverse members working together in the region for ***vibrant nature that improves environmental and human health, promotes better quality of life, and benefits our collective home – today and for generations to come.***

Chicago Wilderness Green Vision

Green Vision:

10 million people on
8 million acres of vibrant
nature improving our
collective home



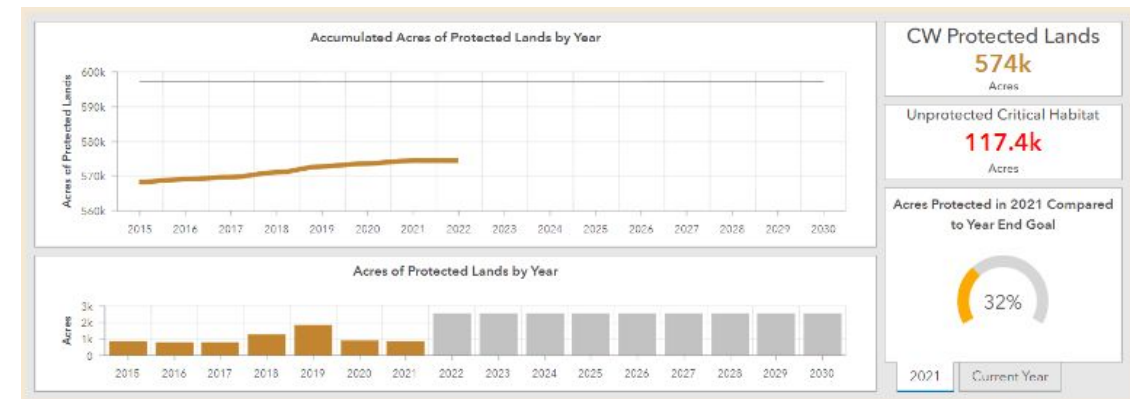
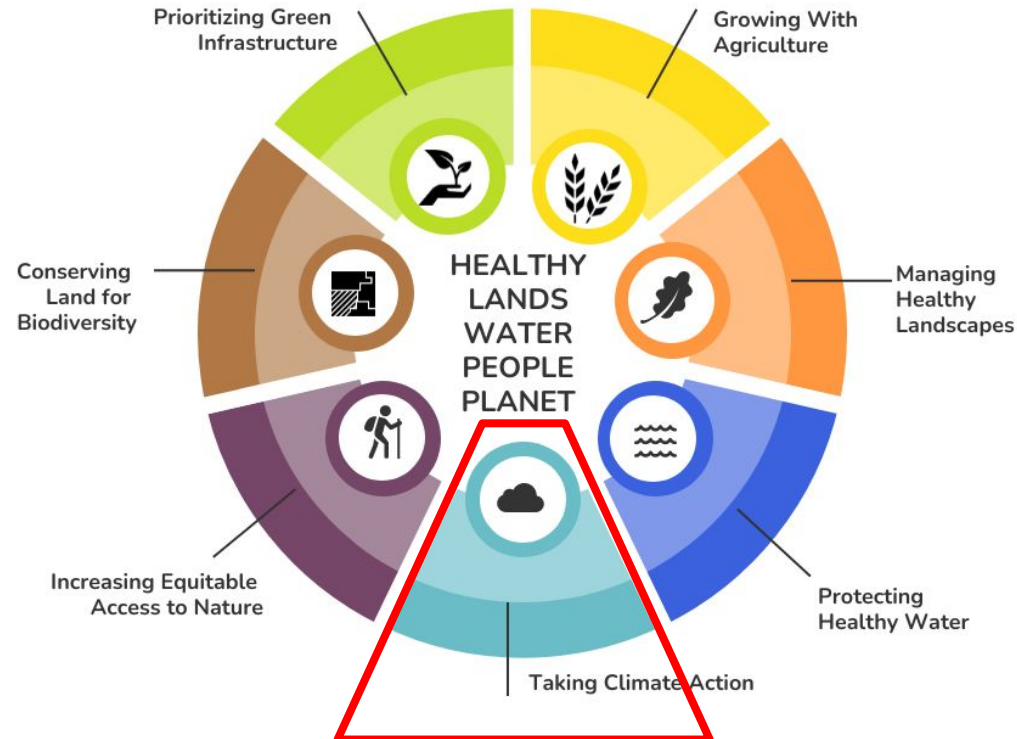
Chicago
Wilderness

Chicago
Wilderness



Chicago Wilderness Green Vision & Hub

GREEN VISION - 2025 *chicago wilderness* **HUB**



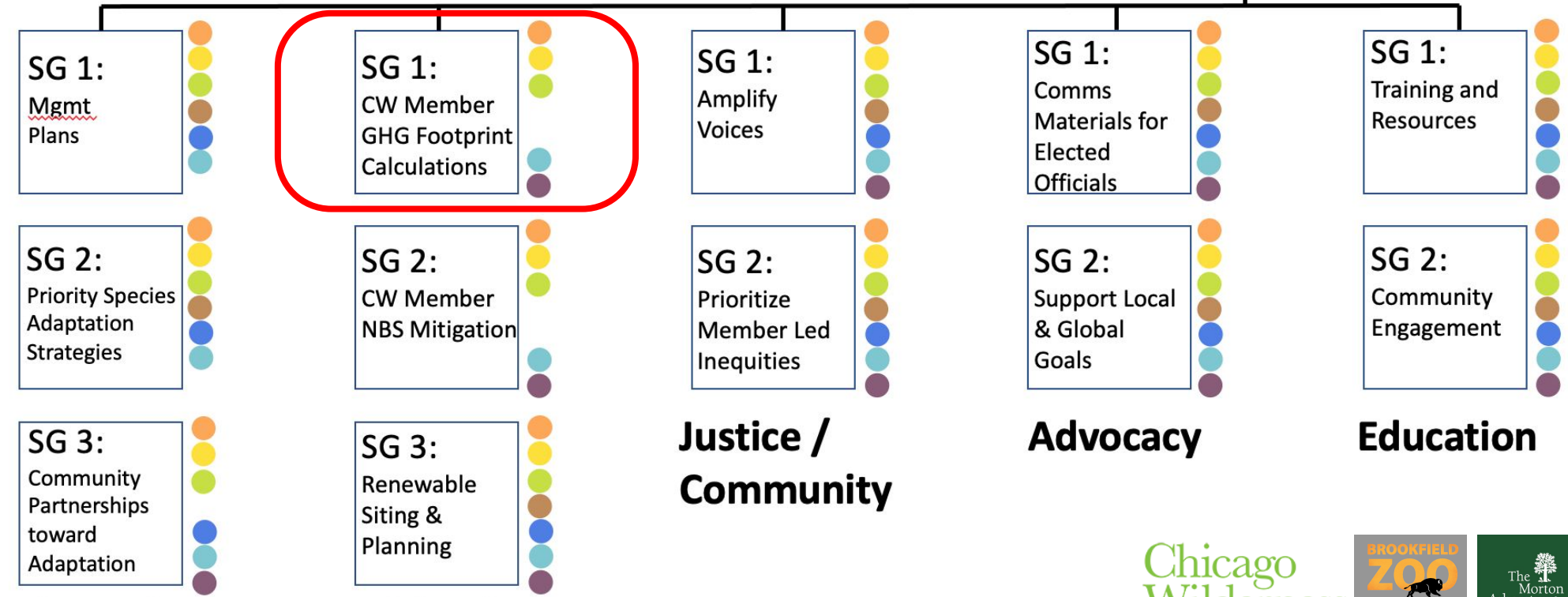
25
years

250+
partners

578k
acres protected

7
goals

Chicago Wilderness Green Vision: Behind the Scenes



Adaptation

Mitigation



Chicago Wilderness Climate Mitigation:

Sub-Goal 1 - Mitigation

Taking into consideration current GHG emissions and the potential for cuts, CW members will undertake their own measurement and emissions reduction activities.

- a. By 2022, 90% of CW members will know their organization's climate footprint.
- b. By 2025, these CW members will have emissions reductions plans in place with corresponding metrics, and will have begun to reduce their organization's footprint.

Plans should take into account:

- Sustainability planning for long-term needs and solutions.
 - Operations and maintenance, including equipment use and purchase, supply chains, etc.
 - Workplace management, including paying living wages, allowing for remote work to reduce commuting, etc.
 - Renewable energy options, purchasing and infrastructure with the least environmental impacts.
- c. By 2030, CW members will reach the 45% regional threshold by reducing GHG emissions highlighted in plan elements, with the ultimate goal of net zero by 2050.

Chicago Wilderness Climate Mitigation: Informal Research and Current Conclusions

Our Partners

About Us » Our Partners



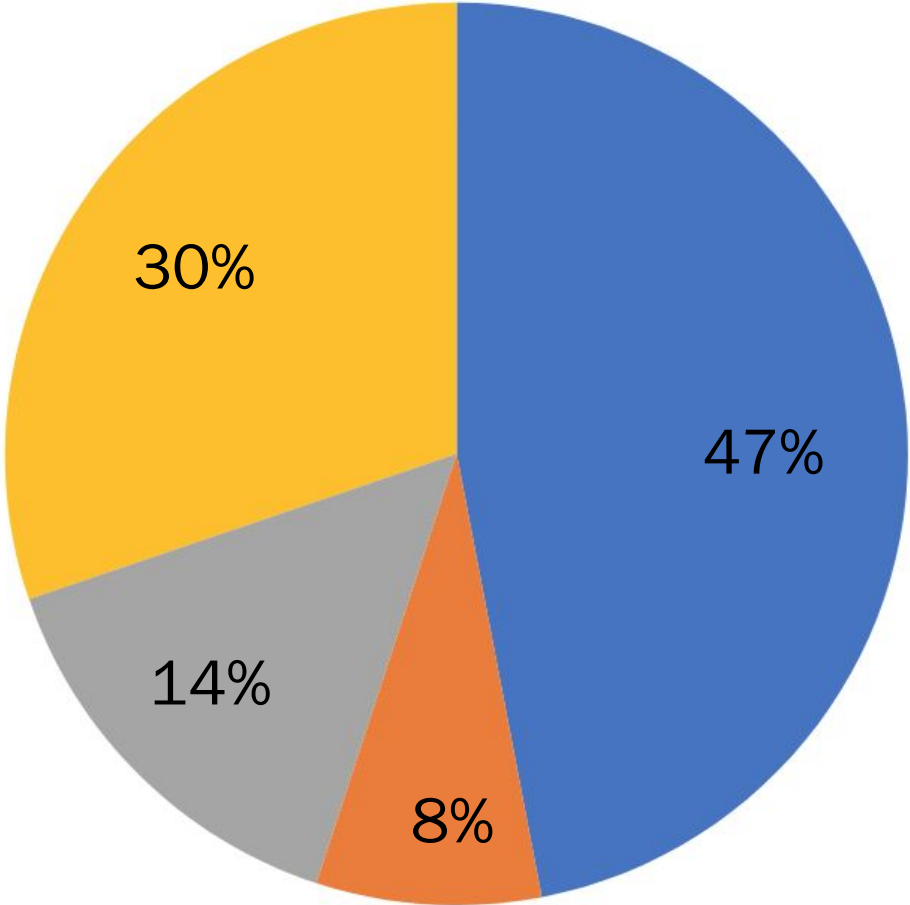
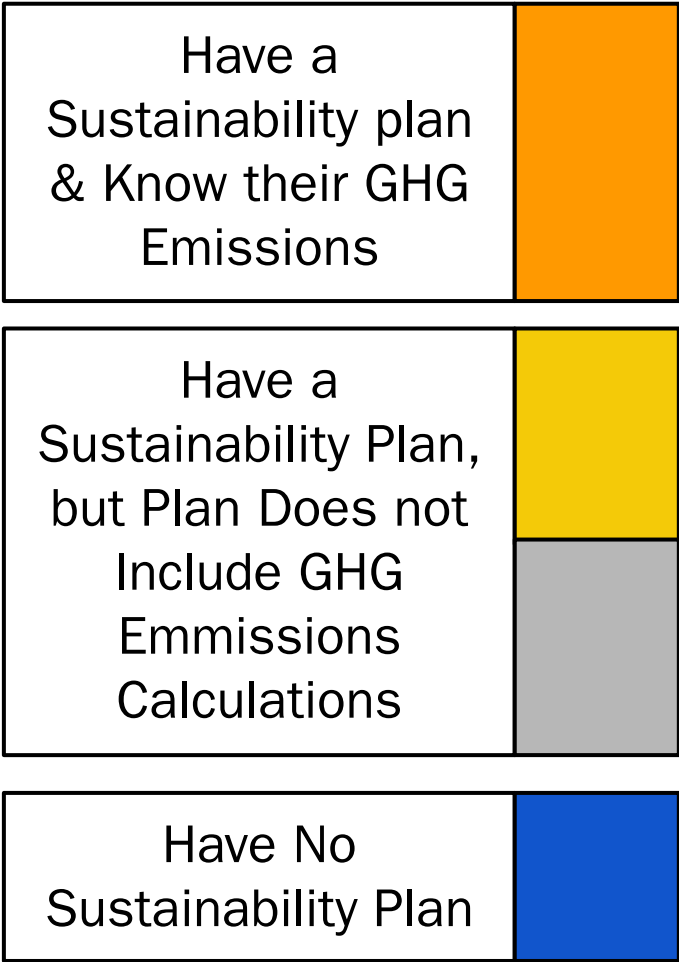
Chicago Wilderness partners are committed to:

- Science-based actions
- Broad partnerships
- Celebration of nature's wonders
- A diversity of voices
- Nature-based solutions for climate change
- Grassroots participation

We depend on partner contributions to sustain our work. Please become a Chicago Wilderness Alliance partner organization or Corporate Council member today! Individuals, including students, can also join Chicago Wilderness as members.

Partner Organizations

- A3 Environmental Consultants
aka Associates
All Seasons Tree Service of Elgin
Ancient Oaks Foundation
Animalia Project
ARCADIS
Association for the Wolf Lake Initiative
Atrium
Audubon Great Lakes
Backyard Nature Center
Benedictine University
Bird Conservation Network
Blacks in Green
Bronzeville Historical Society
Brown Faces Green Spaces
Brushwood Center at Ryerson Woods
BUILD
Calumet Collaborative
Calumet Environmental Resource Center at Chicago State University
Campton Township
Cantigny
Cardno, Inc
Caretakers of the Environment International/USA
Center for Humans and Nature
Channahon Park District
The Chicago Academy of Sciences and its Peggy Notebaert Nature Museum
Chicago Adventure Therapy
Chicago Audubon Society
Chicago Botanic Garden
Chicago Children's Museum
Chicago Herpetological Society
Chicago Metropolitan Agency for Planning
Chicago Park District





Sustainability & Climate Resiliency Planning

Christopher Buccola
Sustainability Fellow



Mission

“To acquire, restore and manage lands for the purpose of protecting and preserving public open space with its natural wonders, significant prairies, forests, wetlands, rivers, streams, and other landscapes with all of its associated wildlife, in a natural state...now and in the future.”



Advancing Carbon Sequestration

Reducing Impacts Caused By A Changing Climate

1. Natural Assets +
2. Land Conservation & Preservation +
3. Ecological Restoration Programs +
4. Land Acquisition +

= Positions the FPCC to play a significant role in mitigating climate change in the region.

**Sequestered 1,544,887 Metric Tons of Carbon from the atmosphere annually*

What Climate Change Will Mean To The Forest Preserves

Scientific Consensus:

- Temperatures will be more like Northwest Texas
- Up to 2 months over 100° F
- Flooding will be more concentrated – already up 37%
- Increased polar vortexes and shorter winters
- Loss of ecological habitats, threatened and endangered species, toxic algae blooms, etc.
- New diseases, heat effects, poor air quality/asthma
- **Budget impacts from all above**



FOCUS:

1. Reduce the impacts that cause climate change. (Sustainability)
2. Prepare & Adapt for increased negative climate change conditions. (Resiliency)



Illinois Sustainable Technology Center

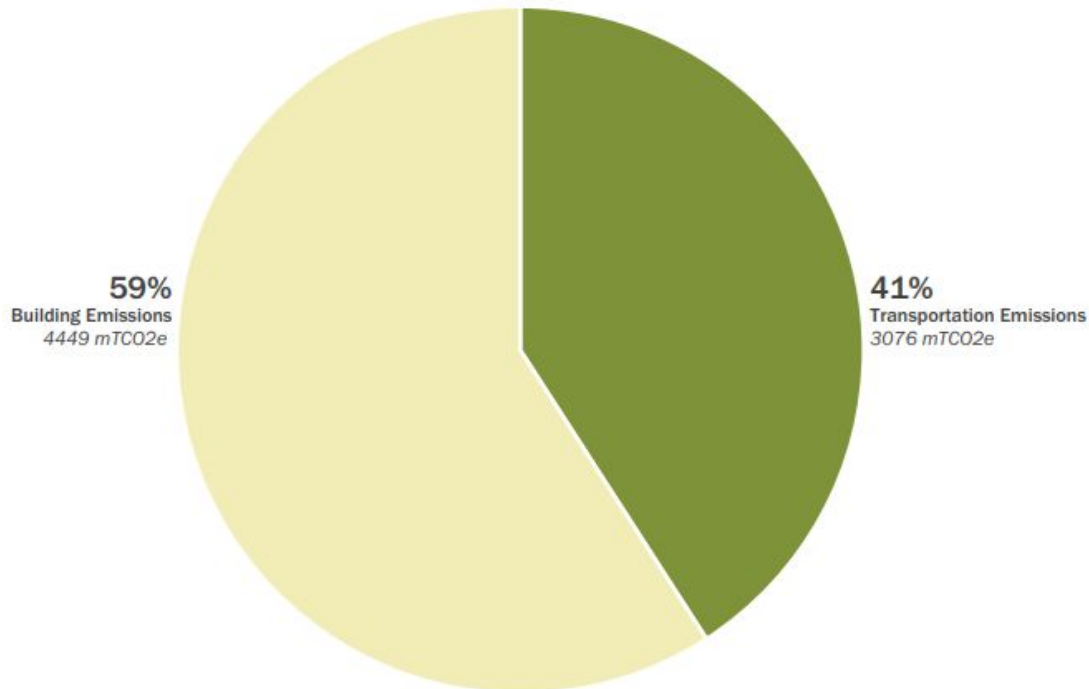
PRAIRIE RESEARCH INSTITUTE



PORTFOLIO & GHG EMISSIONS

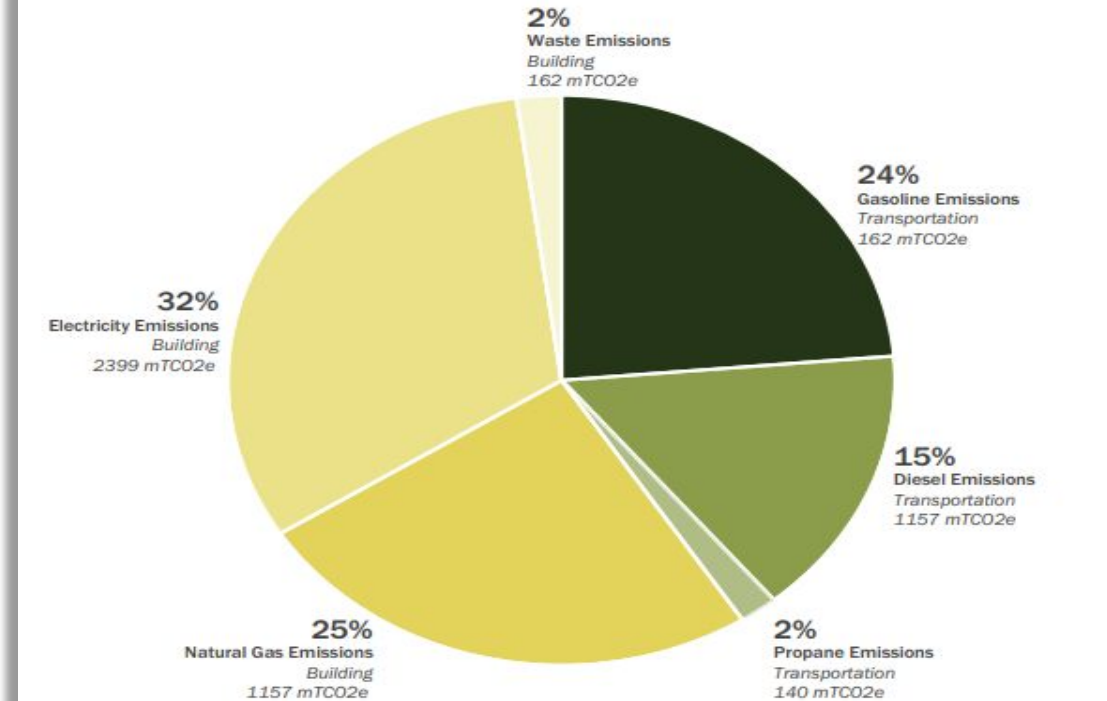
BUILDING PORTFOLIO

- 120+ Concession & Administrative Buildings
- 75 Maintenance Buildings
- 57 Comfort Stations
- 13 Nature Centers, Pavilions & Aquatic Centers



FLEET PORTFOLIO

- 350 Dirty Energy Using Vehicles
- 30 Green Energy Using Vehicles



OVERVIEW

VISION: To be a **leader** in sustainable practices and ensure that the Forest Preserves will be resilient in a changing climate

GOALS:

1. **Reduce GHG Emissions by 45% (2030)**
2. **100% Clean Energy (2030)**
3. **Climate Resilient Lands (2045)**
4. **Carbon Neutral (2050)**



Forest Preserves of Cook County

Clean Energy Framework
May 2021

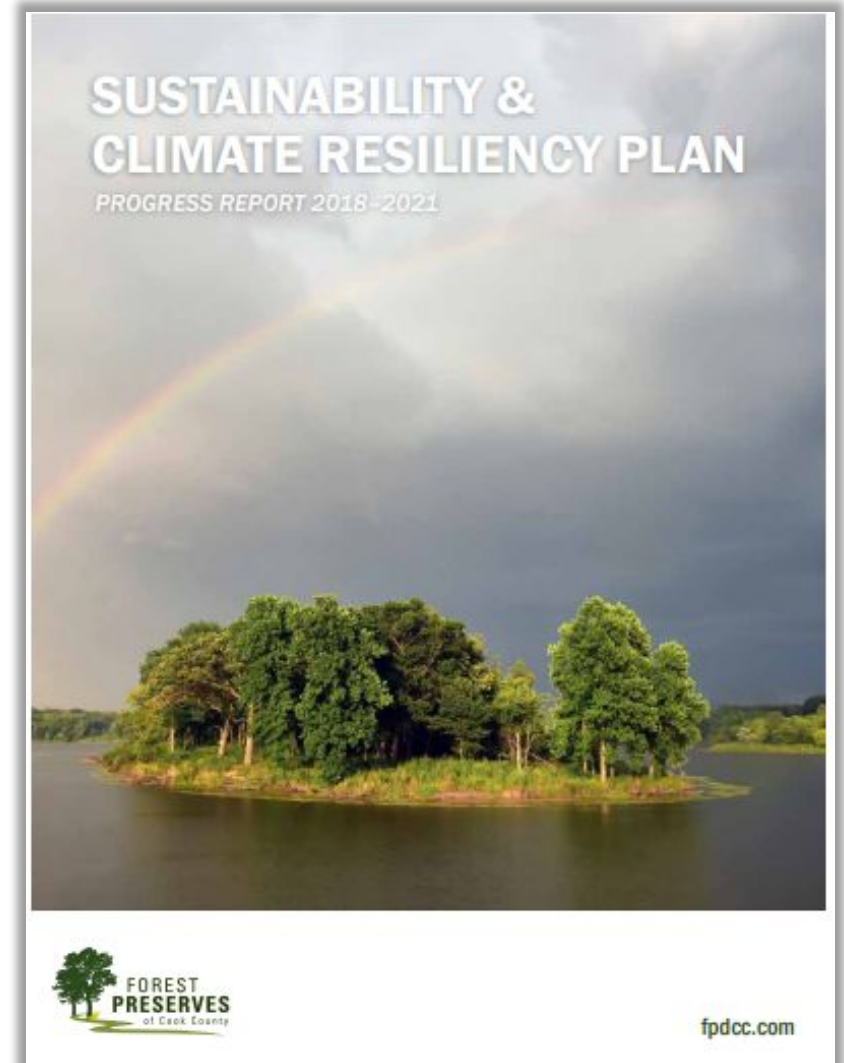


fpdcc.com



Progress Report 2018-2021

1. **Noted Accomplishments** (Page 3)
2. **Advancing Carbon Sequestration** (Page 5)
3. **Total GHG Emission Reductions** (Page 6)
4. **Progress to Goals Update** (Pages 8-13)
5. **Key Issues & Lessons Learned** (Page 14)



Noted Accomplishments



Restored 4,362 Acres of Land to the highest quality of ecological health

Offset 100% of Electricity & Natural Gas

Use with the purchase of Renewable Energy Credits (RECs)

Reduced Transportation Related Carbon into the Atmosphere by 4.82 % from 2016 to 2020 through:

Reduced Gasoline Usage by 13%

Reduced Diesel Fuel Usage by 32%



Sequestered 1,544,887 Metric Tons of Carbon from the atmosphere annually



Installed Rooftop Solar Panels at Sagawau Nature Center



Hosted Over 600 Sustainability & Conservation Focused Public Events



Acquired 56 Acres of Public Space that will be preserved for future generations

Photo by Chad Reno.

Expanded Green Infrastructure Program:
Removed Asphalt;
Installed Porous Pavers;
Removed Buildings to Convert Land to Open Space

Expanded Recycling Program that distributed more than 200 new recycling cans around the Forest Preserves



Supported More Than 139,993 Volunteers Hours that make the Preserves more resilient and adaptable



Designated the Palos Preserves as the Largest Urban Night Sky Place in the World by International Dark Sky Association



Raised More Than \$13 Million in Grants to advance sustainability and resiliency related projects in the Forest Preserves

Lessons Learned

1. **Organizational Commitment**
2. **Research & Collaboration**
3. **Collect Data & Establish Baseline Year**
4. **Establish Goals & Timeframes**
5. **Track & Report Progress**



THANK YOU

The Morton Arboretum

100 Years



1,700 Acres



Research
Conservation
Outreach



Chicago
Wilderness



Strategic Plan 2020: Strategic Pursuits Summary



TREES

Enact science-based tree planting and conservation in a changing world



CLIMATE

Ensure resilient trees for the future at the Arboretum and in the Chicago region



SUSTAINABILITY

Enable a sustainable future for trees, people, and the Arboretum



INCLUSION

Engage and reflect diverse audiences to serve the broader public good

GHG Inventory: The EPA Simplified GHG Emissions Calculator



- Center for Corporate Climate Leadership provides tools and guidance for both measuring and reducing GHG emissions
- Tool is Excel-based and free, with emissions factors approved by EPA
- Aligned with The Climate Toolkit, a project of Botanical Gardens Conservation International and the Phipps Conservatory

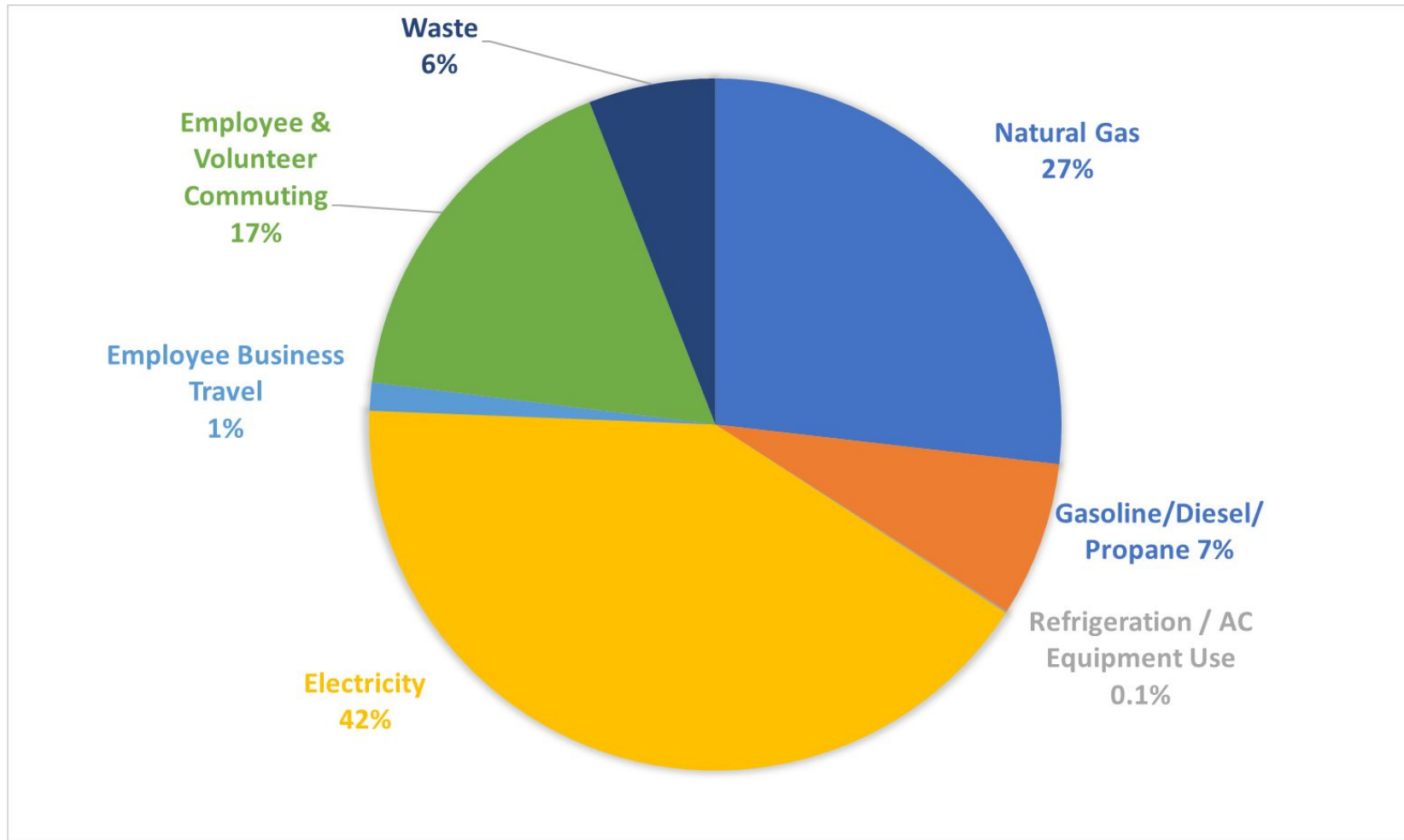


Components of the EPA Emissions Calculator

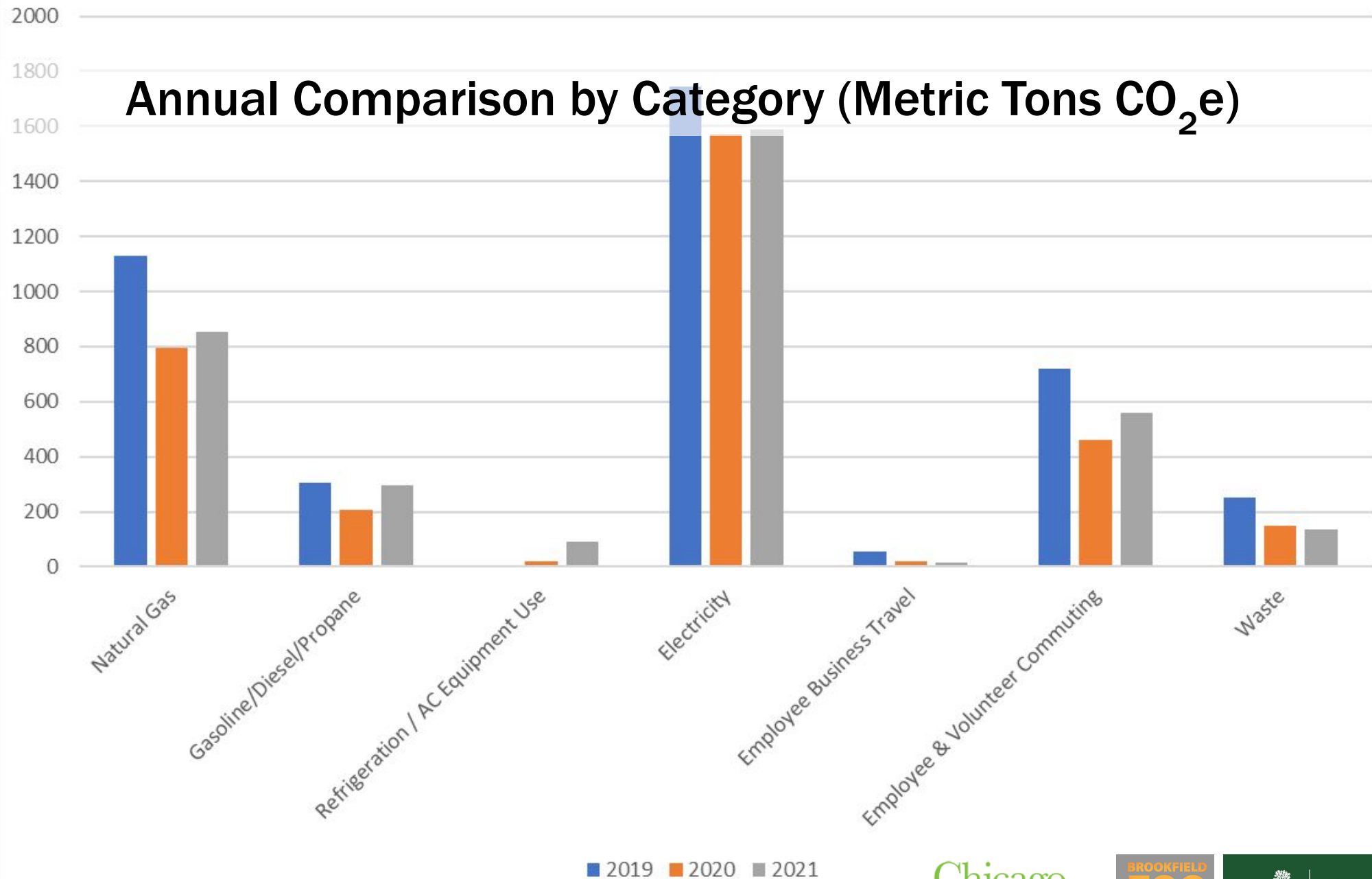
- Stationary Combustion (e.g. gas furnace)
- Mobile Sources (gasoline / diesel / propane)
- Refrigeration & AC (purchased refrigerants)
- Fire Suppression (purchased gases)
- Electricity
- Business Travel
- Commuting
- Trash/Recycling/Compost

Additional tabs for steam, purchased gases, and waste gases if relevant

2019 Baseline GHG Inventory



Annual Comparison by Category (Metric Tons CO₂e)



Strategies for Reducing Emissions

Tele-Commuting

Energy Conservation Measures

Geothermal

Green Building

Cool Menus

Refrigerant Management

Solar Energy

Electric Vehicles

Panel: Questions & Comments?

info@chicagowilderness.org

Chicago
Wilderness



Next CW Climate Meeting:

CW Taking Climate Action Team Meeting

 Register  Tell a Friend



9/15/2022

REGISTER / RSVP

When: Thursday, September 15, 2022
1:00 PM

Online registration is available until: 9/15/2022

Where: Register for Zoom Link
United States

Contact: Ted Haffner
tedhaffner@gmail.com

[« Go to Upcoming Event List](#)

The Climate Committee is busy with finding strategies, methods, projects and connections to advance [Chicago Wilderness goals](#) and climate resilience in the region. We have many excellent ideas and projects, but could always use more. In the spirit of cooperation, CW is well poised to help advance your work within the climate action community. Are you interested in participating in a meaningful partnership, please come join our open committee meetings on the following dates and times: June 9, September 15, and November 17, 2022 from 1-3 pm. Please note, we are also looking for leadership support for the advocacy and justice sub-goals.

Specific areas of focus for all interested participants include intra-goal coordination, **story maps**, CW Cafe's on specific topics of interest which currently include mitigation tools and strategies, advocacy issues, and climate coordination, planning, and plan execution between local, state and federal efforts. Please join us or contact [Ted Haffner](#), Climate Committee Chair for further information.

