

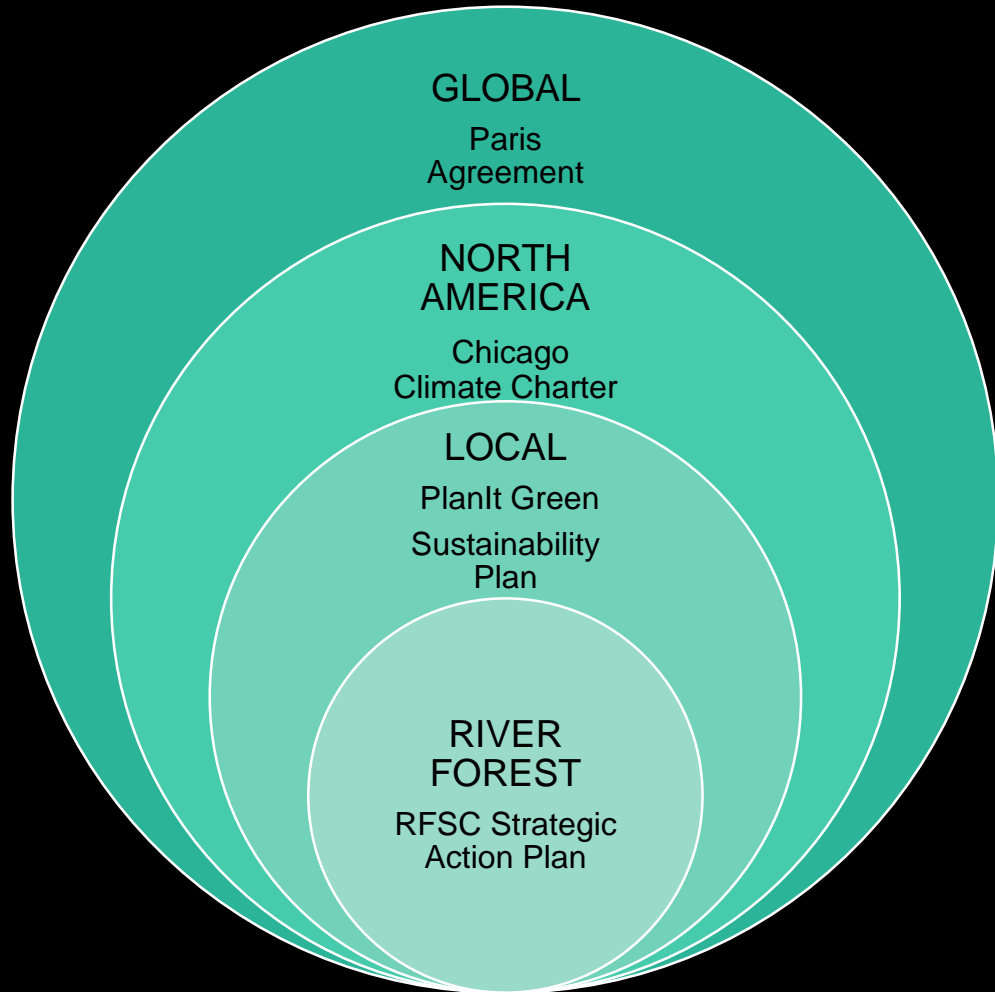
# River Forest Greenhouse Gas (GHG) Inventory and Reduction

Sustainability Commission

December 13, 2021

# River Forest Sustainability Plan for Climate Action

## Components of the VRF Sustainability Plan today



Focus	Strategy	Project Type	Project
Energy	Replace fossil fuel sources with renewable energy	Renewables	Rooftop Solar
			Community Choice Aggregation
			Community Solar SolSmart Certification
Transportation	Expand green transportation & mobility options	Public Transportation	Public Transportation Plan
		Walkability	VRF Walkability Plan
		Biking	The Bicycle Plan for the VRF VRF Biking Certification
		Parking	Parking Plan
Water	Protect water sources as well as reduce water consumption	Permeable Surfaces	Green Alleys Green Parking Lots & Walkways Residential Requirements
		Rainwater Reclamation	Rain Barrel Sales through MWRD
Waste	Reduce waste & increase waste diversion	Composting	Residential Curbside Institutional Curbside Pumpkin Smash
		Reducing	Single Use Plastics
		Recycling / Re-Using	Residential Curbside & Special Pick-up
			Onsite Commercial
			Holiday Lights Collection
			Recycling Extravaganza Beyond the Bin C&D Construction Materials
Green Ecosystems	Sequester carbon & enhance support for eco-systems	Gardens	Parkways for Pollinators (P4P)
			Inspirational Edible Gardens
			Native Gardens Community Gardens
		Integrated Pest Management	Healthy Lawn / Healthy Family
			Midwest Grows Green
		Trees	Tree <Location> Map
			Annual Tree Tour
ArbNet Arboretum Accreditation River Forest Tree Trails			
Education	Share information to motivate resident involvement	Waste Sorting	SIO Stations Zero Waste Stations Green Block Parties
			Recycling / Re-Use
		All Programs	RFSC Participation @ Community Events
Impact	Measure our success	Assess, Track & Report	Program KPIs
			RFSC Mission KPIs

# Climate commitments made by the Village

## Paris agreement



At a high level, the agreement's objective is to prevent the global average temperature from warming beyond a point of catastrophe, defined as "well below" a 2 degrees Celsius (3.6 degrees Fahrenheit) increase compared to pre-industrial levels. To slow the warming, **countries agreed to finance programs and share resources with the goal of becoming carbon neutral by 2050.**



Reduce greenhouse gas emissions

Maintain clean and healthful air

Develop resiliency to climate change impacts

Engage the community in climate change mitigation and adaptation



Achieve % reduction in GHG equal to or greater than our nations' Nationally Determined Contributions to the Paris Agreement in my city

Quantify, track and publicly reporting my city's emissions, consistent with standards and best practices of measurement and transparency

[Additional provisions]



9 focus areas: energy, transportation, education, waste, water, food, community development, economic development, open space & ecosystem

Energy goals

Increase renewable energy procurement by 25% by 2020

Decrease overall energy use by 2% annually

Reduce GHG emissions to 30% below 2007 levels by 2020 and 35% below 2007 levels by 2025.

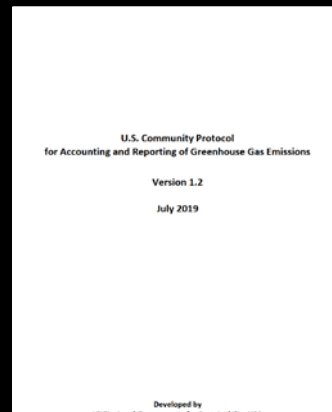
Increase community solar energy projects for OP and RF institutions and residents.

# Using GHG frameworks to support our approaches to climate action

ICLEI Local Governments for Sustainability *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions (Community Protocol) Version 1.2 - July 2019*



CDP Cities 2020 Reporting Guidance  
Climate Action Plan



# GHG sources

GHG source	ICLEI source category name	Data source
Electricity	Built environment – use of electricity by community	ComEd
Natural gas	Built environment - use of fuel in residential and commercial stationary combustion equipment (e.g., boilers and furnaces)	Nicor
Passenger vehicle use	On-road passenger vehicles operating within the community boundary	CMAP traffic modeling
Waste – MSW*, recyclables, compost	Solid waste – Generation and disposal of solid waste by the community	Roy Strom**
Forest lands	Forest lands within community	iTree***

\* Municipal Solid Waste (MSW)

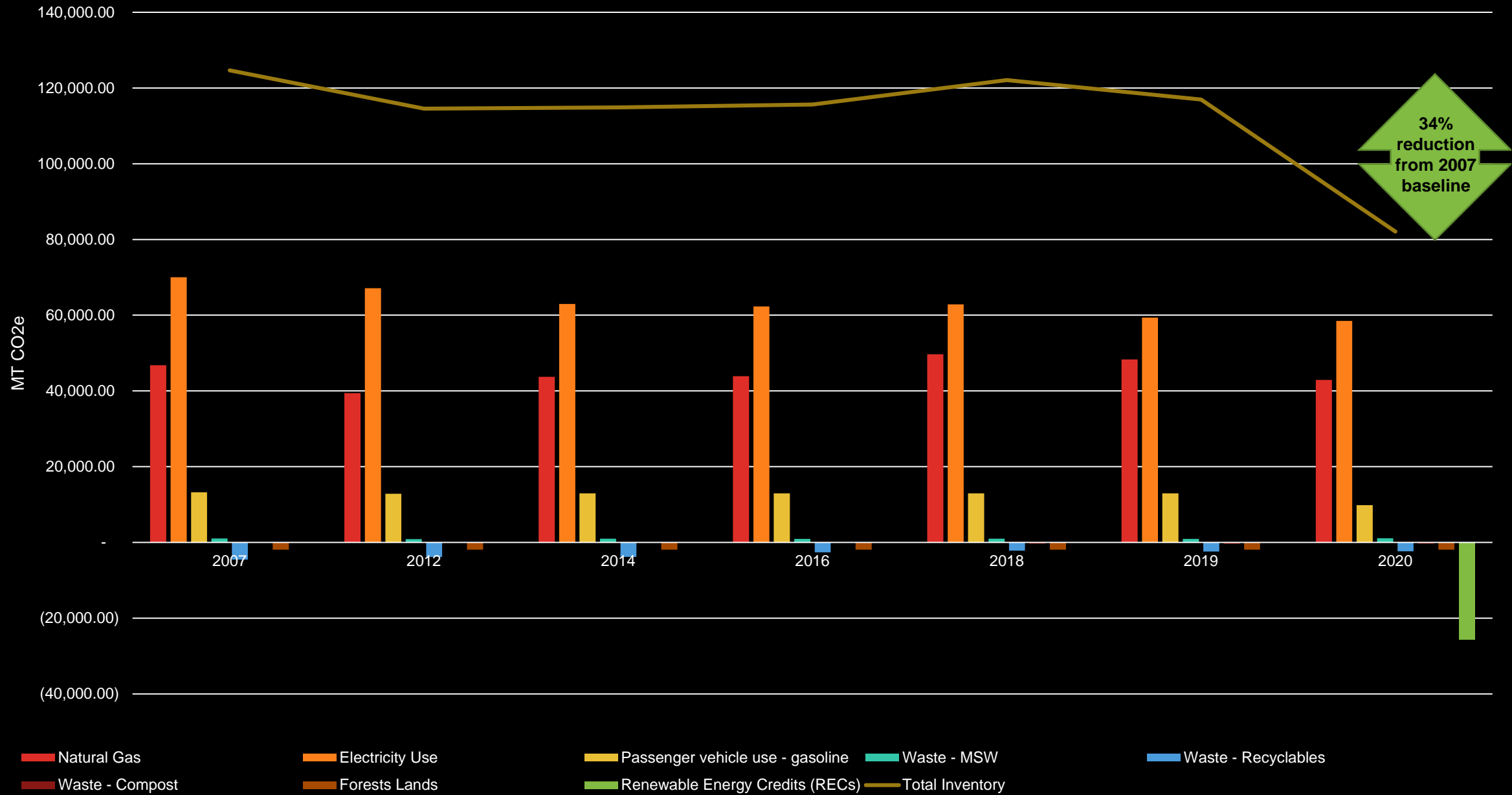
\*\* Waste GHGs calculated using EPA Waste Reduction Model (WARM v15)

\*\*\* i-trees model provided by the Chicago Region Trees Initiative of the Morton Arboretum

Additional sources that are applicable but not included for now due to lack of data:

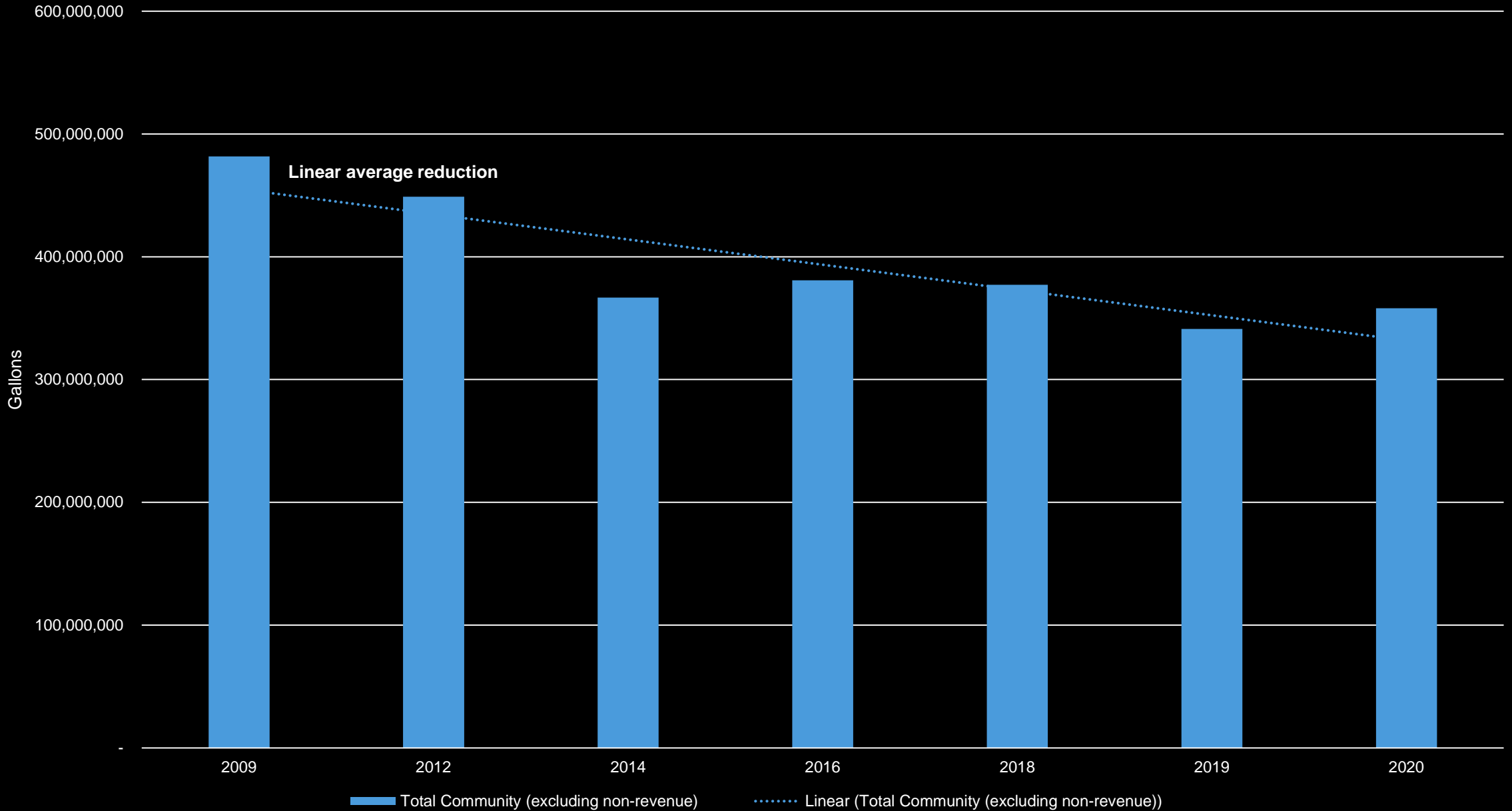
- Transportation and Other Mobile Sources - On-road freight and service vehicles operating within the community boundary
- Transportation and Other Mobile Sources - On-road transit vehicles operating within the community boundary
- Transportation and Other Mobile Sources - Transit rail vehicles operating within the community boundary
- Transportation and Other Mobile Sources - Inter-city passenger rail vehicles operating within the community boundary
- Transportation and Other Mobile Sources - Freight rail vehicles operating within the community boundary
- Wastewater and Water - Operation of water delivery facilities
- Wastewater and Water - Process emissions from operation of wastewater treatment facilities

# River Forest Greenhouse Gas (GHG) Inventory

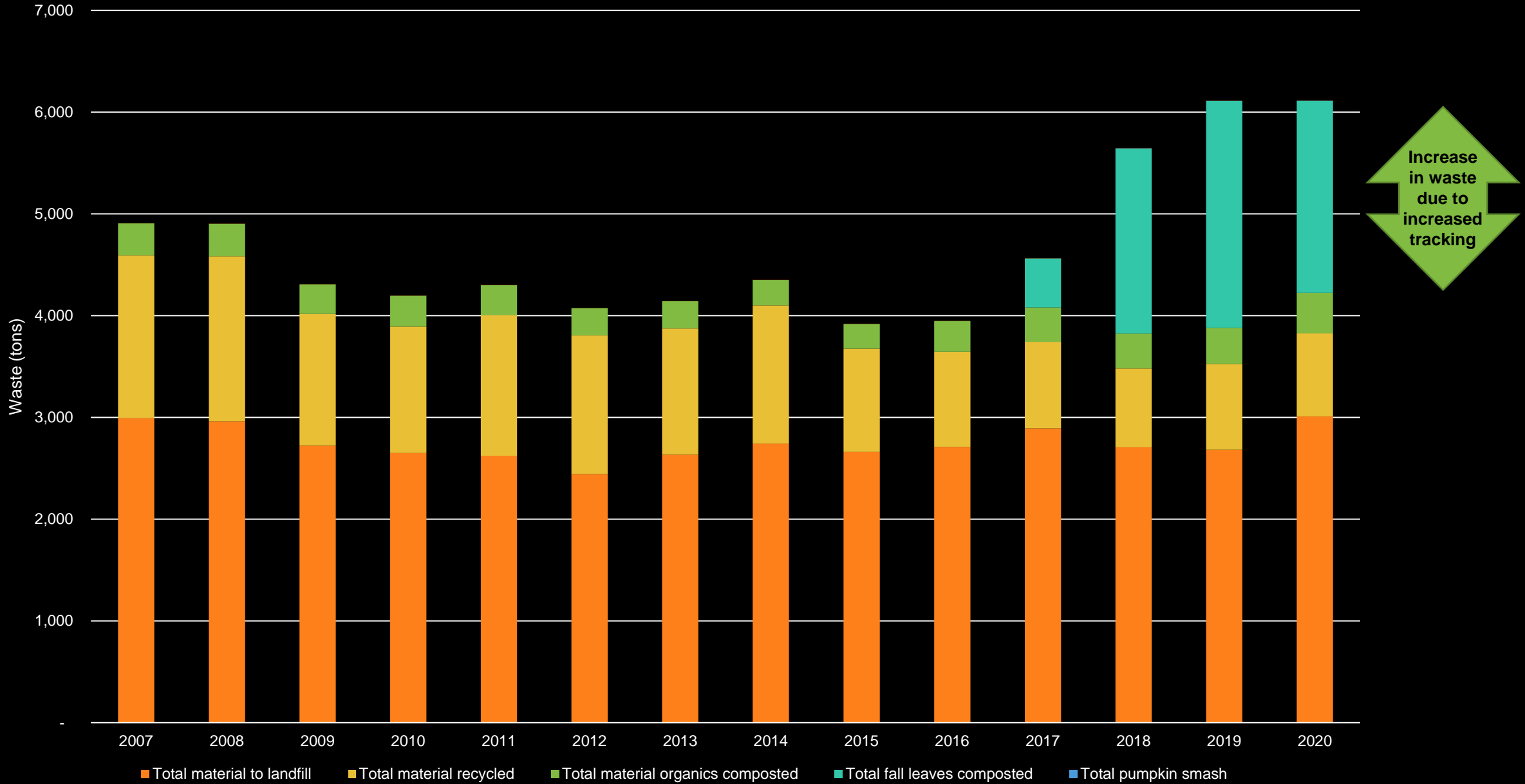


\*Current inventory is based on data available and best available methods (BAM) for calculations. There is continued opportunity to improve its completeness and accuracy as noted. Missing sources are not expected to have a material impact on the current total.

# River Forest Water Usage



# River Forest Waste





# Key takeaways

- River Forest is upholding its commitments to the Greenest Region Compact and Chicago Climate Charter, and has met PlanItGreen goals of:
  - Exceeding a reduction in GHGs to 30% below 2007 levels by 2020
  - Increase renewable energy procurement by 25% by 2020
  - Increase community solar energy projects for institutions and residents
- River Forest needs to continue its progress and not lose ground through:
  - Community Solar program rolling out in January
  - Procurement of Renewable Energy Credits (RECs) and making clean energy options available and understandable for residents
  - Energy and other GHG reduction projects in facilities and infrastructure
- Beyond GHGs, its important to continue focus on reducing water and waste impacts
- Continued next steps that will support River Forest in climate action such as:
  - Advancing the GHG inventory and achieving targets
  - Leveraging the RFSC Strategic Plan as the robust foundation for a more formal climate action plan that includes not only action to reduce GHG emissions but informs residents of risk (physical, transition) and required action as well as mitigation strategies