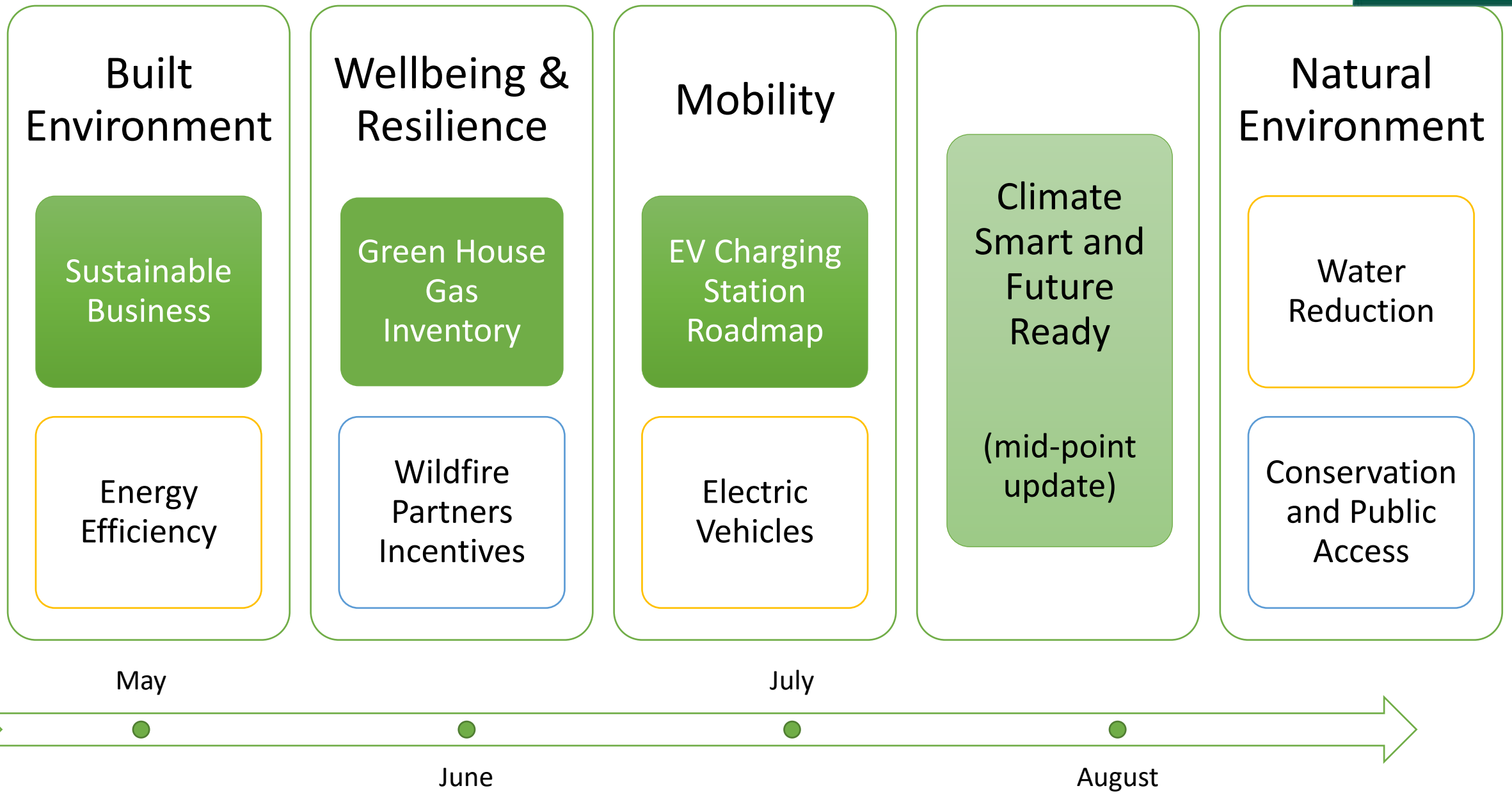
LARIMER COUNTY: COMMISSIONERS OFFICE

OPERATIONAL GREENHOUSE GAS INVENTORY AND INTERNAL CLIMATE ACTION, RESILIENCE, AND EDUCATION PLAN REPORT

JUNE 2023


Built Environment
Sustainable Business
Energy Efficiency
Wellbeing & Resilience
Green House Gas Inventory
Wildfire Partners Incentives
Mobility
EV Charging Station Roadmap
Electric Vehicles
Climate Smart and Future Ready
(mid-point update)
Natural Environment
Water Reduction
Conservation and Public Access
May
June
July
August

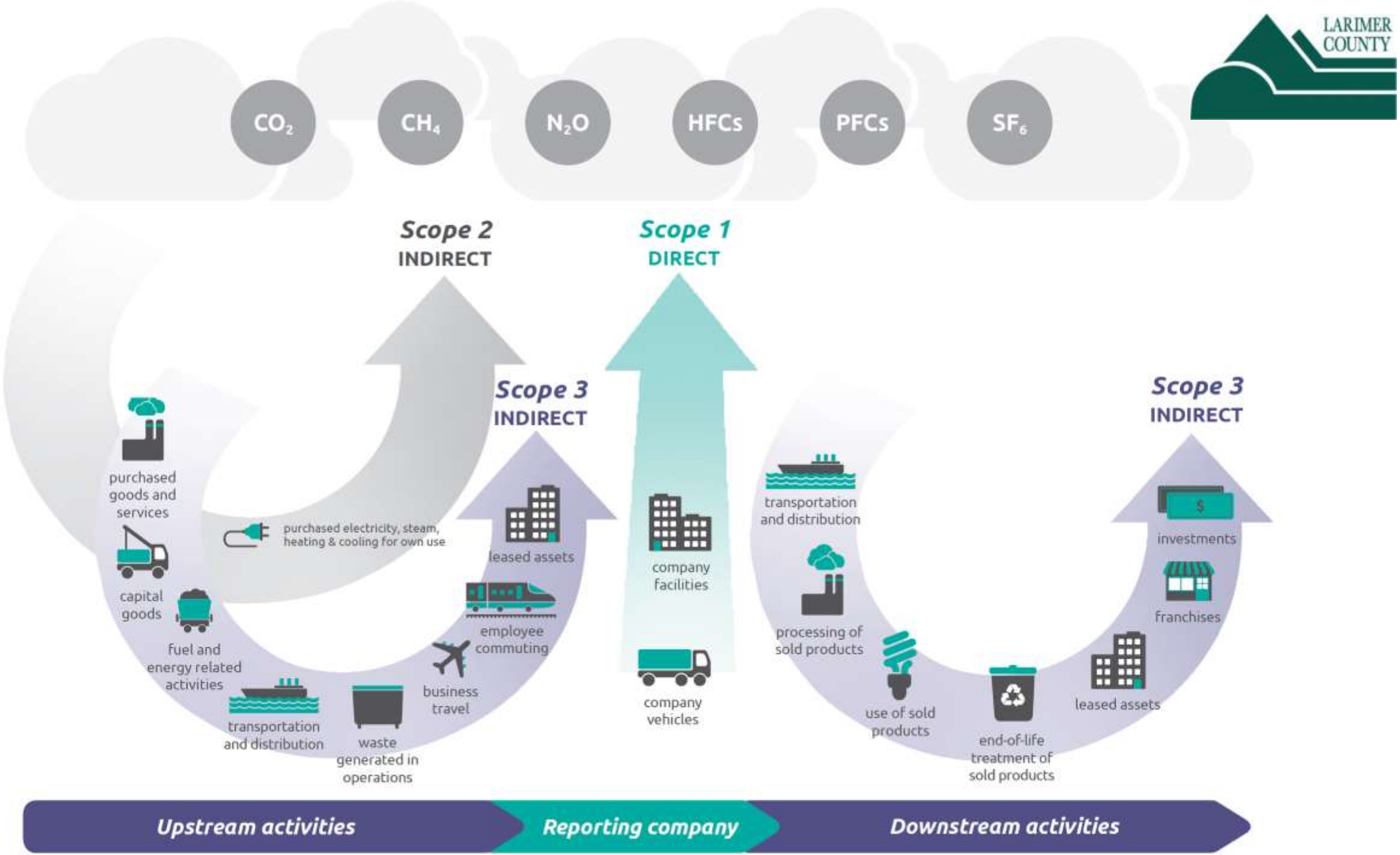
Greenhouse Gas Inventories

Why do a Greenhouse Gas (GHG) Inventory?

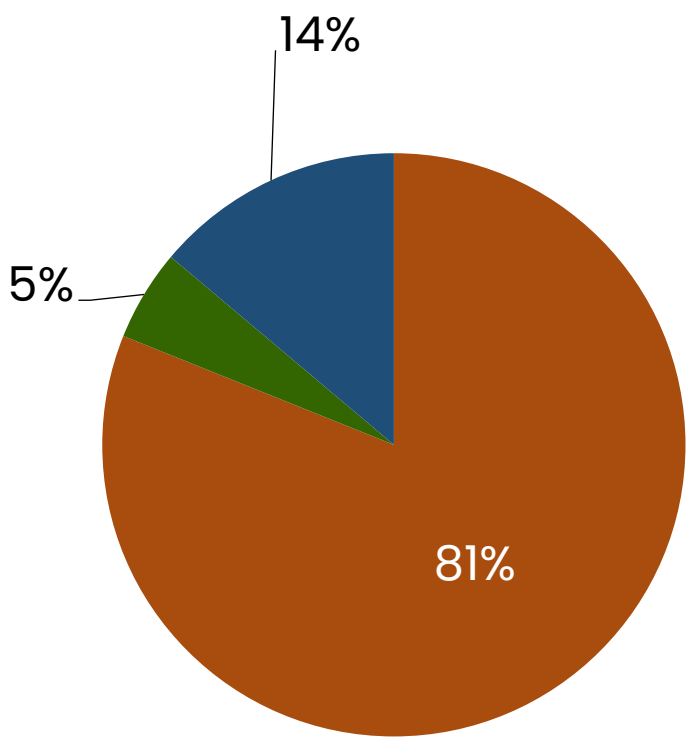
- Taking climate change seriously and desire an evidence-based approach
- Helps to focus efforts
- Maybe possible to reduce financial exposure to changing climate transition risk (e.g., GHG reduction target in terms of direct carbon tax savings)

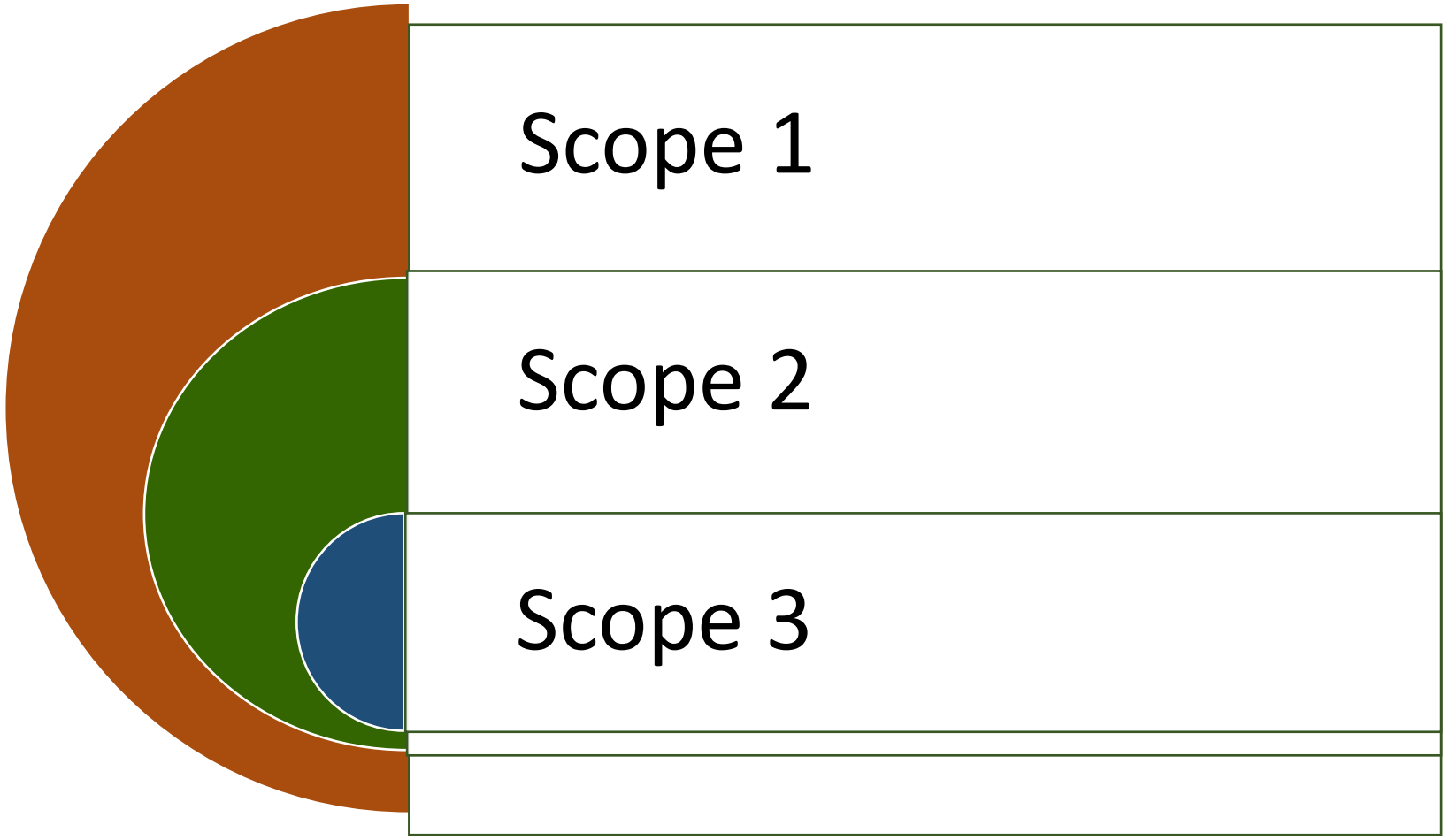
Keep these in mind …

- GHG inventories are a lagging indicator
- A changing climate is NOT merely a technical issue
- GHG inventories do not clearly indicate all that local governments can do to mitigate and adapt to changing climate conditions


LARIMER COUNTY
CO_2
CH_4
N_2O
HFCs
PFCs
SF_6
Scope 2
INDIRECT
Scope 1
DIRECT
Scope 3
INDIRECT
Scope 3
INDIRECT
purchased goods and services
capital goods
fuel and energy related activities
transportation and distribution
waste generated in operations
business travel
employee commuting
leased assets
purchased electricity, steam, heating & cooling for own use
company facilities
company vehicles
transportation and distribution
processing of sold products
use of sold products
end-of-life treatment of sold products
leased assets
franchises
investments
Upstream activities
Reporting company
Downstream activities

Larimer County Operations Greenhouse Gas Emissions by Scope (mt CO2e)

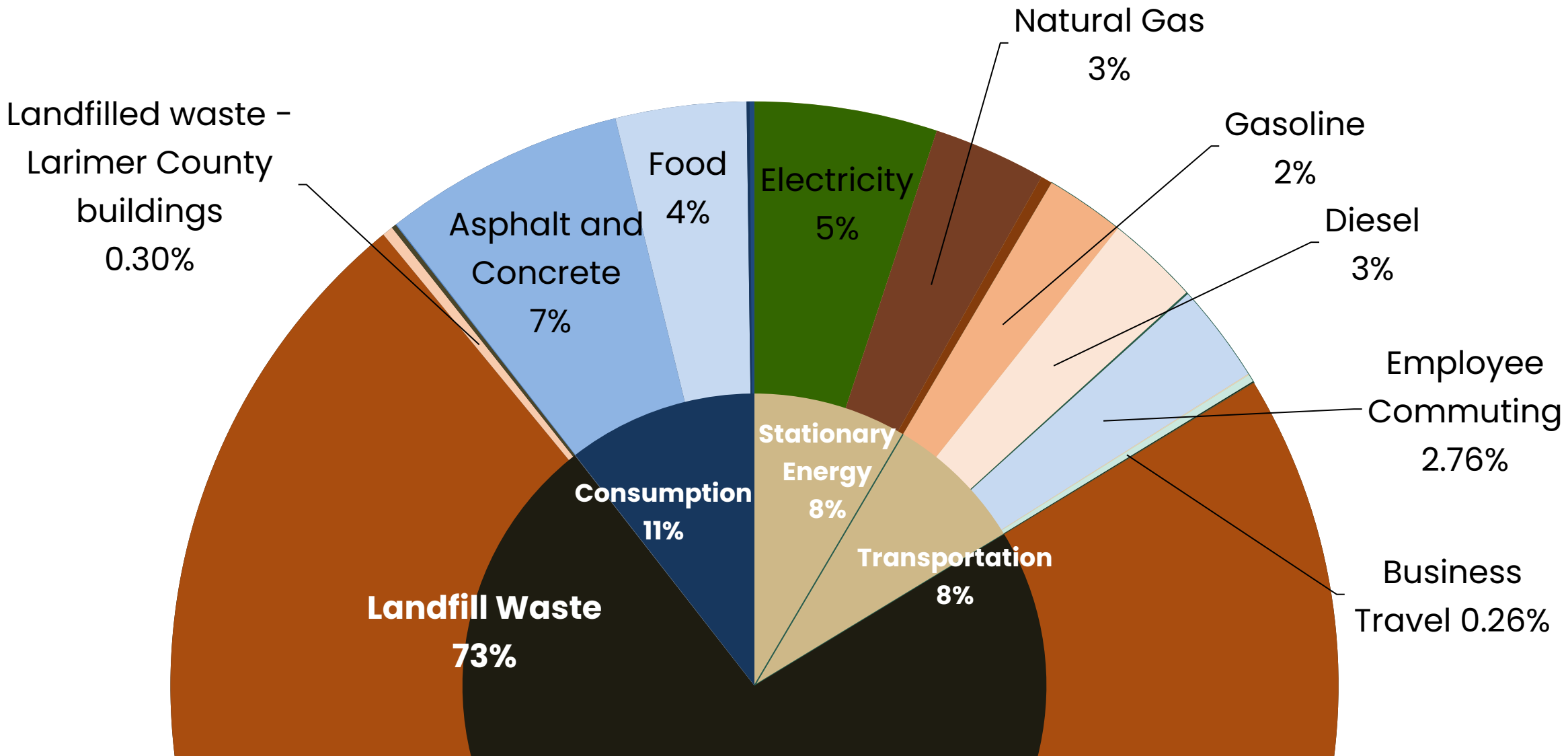




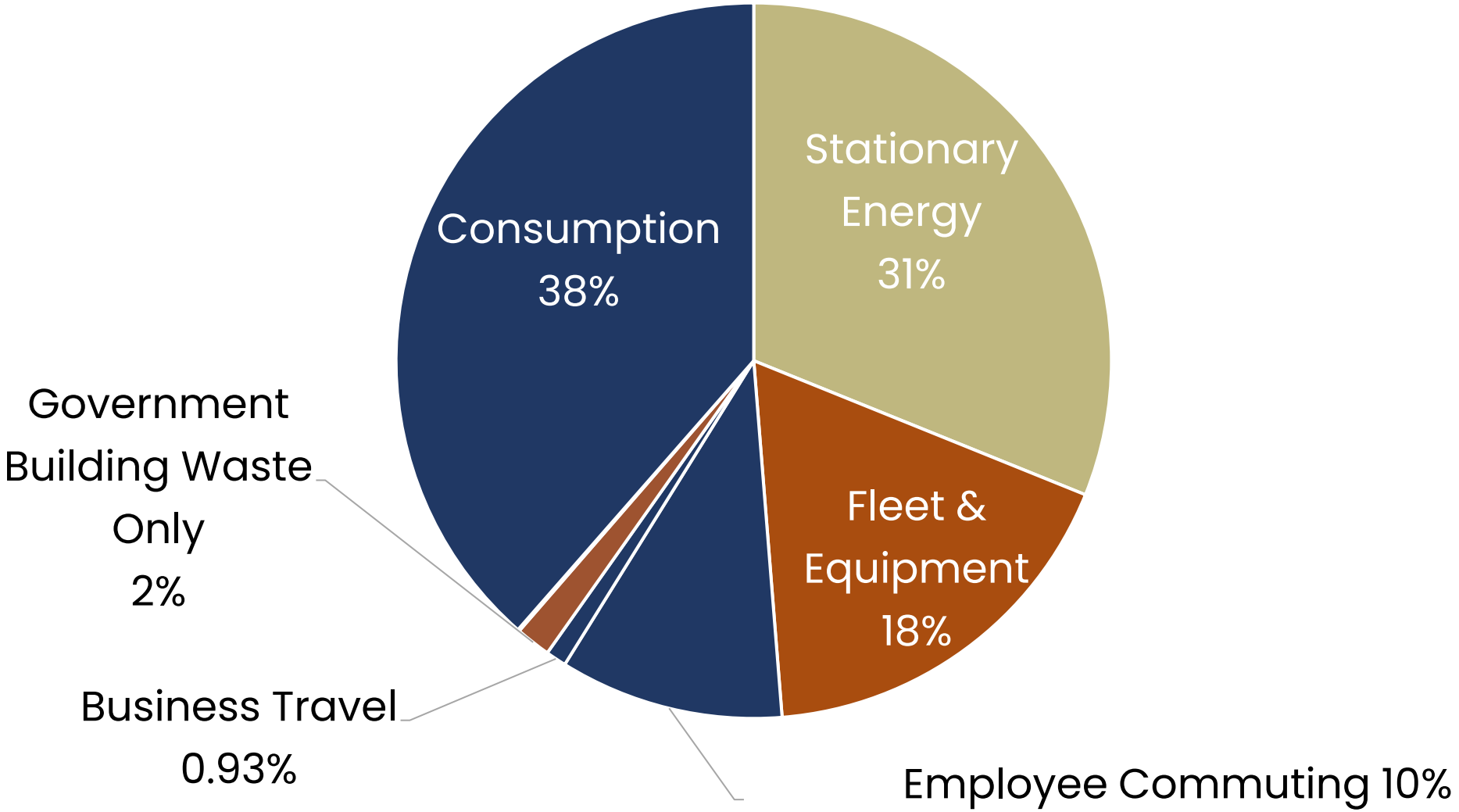
Scope 1 Scope 2 Scope 3

2022 Operational Greenhouse Gas Emission
Total 115,106 mtCO_2e

Larimer County Operations Greenhouse Gas Emissions by Sector and Source(mt CO2e)



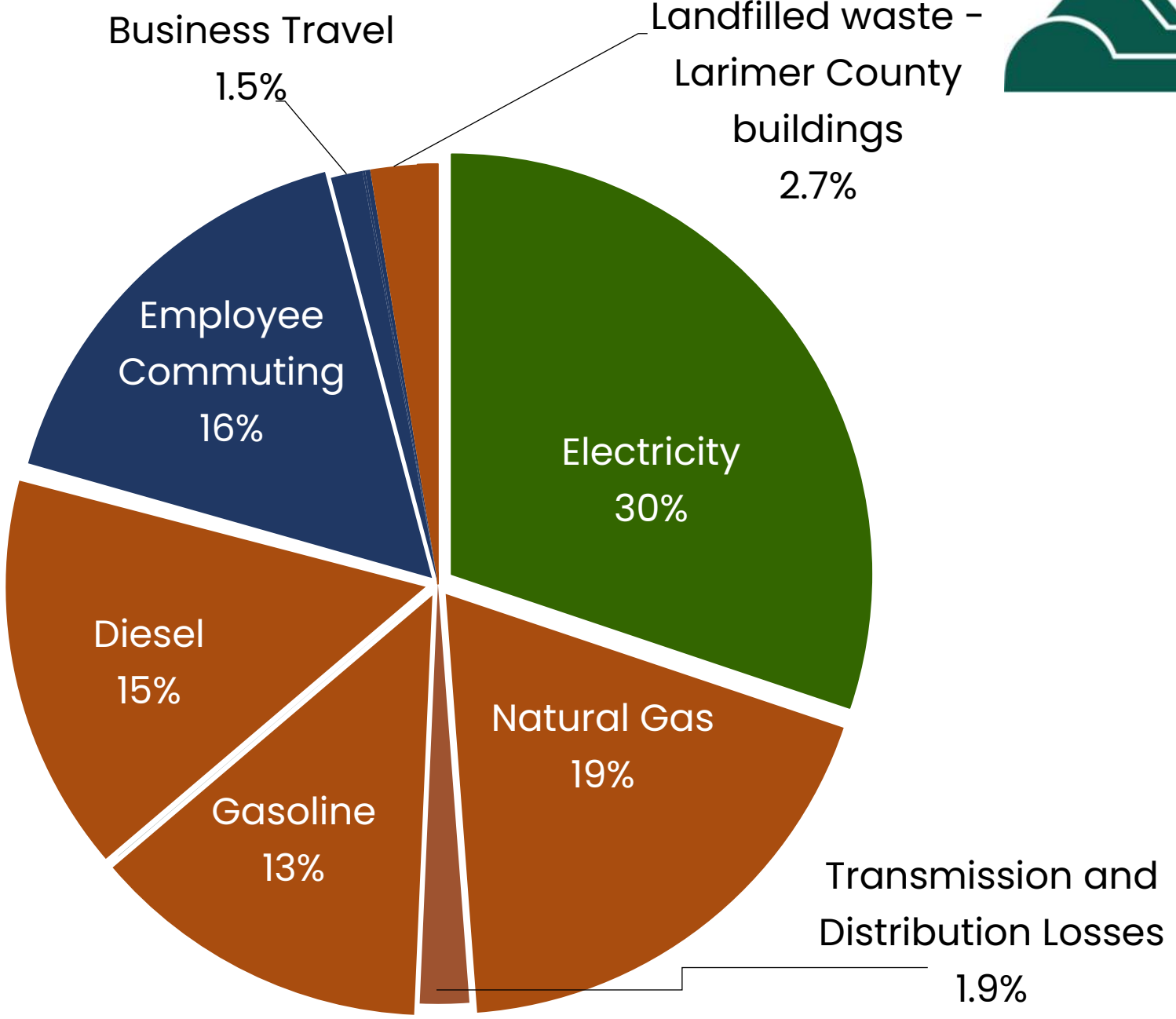
Larimer County Operations Greenhouse Gas Emissions by Sector without Landfill (mt CO2e)



Consumption of Materials
Operational Greenhouse Gas Emissions

Emission Source	Emissions (mt CO2e)	% of Total GHG (non-landfill)
Asphalt and Concrete	7,683	24.4%
Food	4,160	13.2%
Computer Hardware	94	0.3%
Paper	153	0.5%
Fertilizer	24	0.1%
Consumption of Materials Total	**12,114**	**38.5%**

Greenhouse gas emissions by Source (mt CO2e) without Landfill Waste or Consumption Sources



Larimer County Greenhouse Gas Operations Emissions Inventory comparison between 2010 and 2022
(without consumption data)

Source	2010 Emissions (mt CO_2e)	2022 Emissions (mt CO_2e)	% Change
Natural gas & propane	3,860	3,596	-7%
Building electricity	14,280	5,818	-59%
Fleet & equipment	6,075	5,538	-9%
Refrigerants	266	25	-91%
Landfilled waste	67,326	83,677	24%
Business travel	509	293	-42%
Comparable emissions total (mt CO_2e)	**92,316**	**98,948**	**7%**

INTERNAL CLIMATE ACTION, RESILIENCE, AND EDUCATION (ICARE) REPORT

ICARE Goals *IMPACTING* Operational GHG Emissions	
Built Environment, Waste, and Economy	
☐ ☐ ☐	Reduce County energy use 30% through enhancing energy efficiency and reduce GHG emissions through use of renewable energy sources by 2030.
☐ ☐ ☐	Build the infrastructure required to recycle, reuse and divert waste to achieve 40% waste diversion from the landfill by 2025 and 80% diversion by 2030.
☐ ▨ ☐	Establish guidance for the procurement of goods and services which are consistent with the strategies and goals outlined in this plan.

☐ = Planning ▨ = In Progress ∷ = Completing

INTERNAL CLIMATE ACTION, RESILIENCE, AND EDUCATION (ICARE) REPORT

ICARE Goals *IMPACTING* Operational GHG Emissions	
Mobility, Delivery of Goods, and Internet Services	
☐ ▨ ☐	Increase average miles per gallon of the County light-duty fleet by 20% through transition to alternative fuel vehicles, adoption of an idling policy and more fuel-efficient vehicles by 2030.
☐ ▨ ☐	Reduce County employee miles traveled 20% by 2030 and increase the number of services that reduce resident vehicle miles traveled.

☐ = Planning ▨ = In Progress ⁘ = Completing

INTERNAL CLIMATE ACTION, RESILIENCE, AND EDUCATION (ICARE) REPORT

ICARE Goals *Supplementing* GHG Related Goals	
Built Environment, Waste, and Economy	
☐ ▨ ☐	Increase share of industry mix to include more renewable energy, energy efficiency and greenhouse gas reduction firms in the region.
Mobility, Delivery of Goods, and Internet Services	
☐ ▨ ☐	Increase regional paved trails 50% by 2043. Increase EV Infrastructure in unincorporated Larimer County.

☐ = Planning ▨ = In Progress ⁘ = Completing

INTERNAL CLIMATE ACTION, RESILIENCE, AND EDUCATION (ICARE) REPORT

ICARE Goals *Supplementing* GHG Related Goals	
Natural Environment, Water and Agriculture	
☐ ▨ ☐	Reduce average annual irrigation water 20% by 2027.
☐ ▨ ☐	Conserve 74,108 acres of open space properties within Larimer County to protect habitats and preserve biodiversity by 2043.
Wellbeing and Resilience	
☐ ▨ ☐	Work with local food producers and distributors to increase access to sustainable and locally produced food sources.
☐ ▨ ☐	Increase employee and resident resilience by informing and incentivizing actions that promote improved air quality.
☐ ▨ ☐	Streamline incentives and lead proactive hazard mitigation and disaster avoidance by implementing 3 mitigation or resilience projects with at least 3 community partners annually.

☐ = Planning ▨ = In Progress ▩ = Completing

ICARE Leadership Accomplishments

- Colorado Communities for Climate Action (CC4CA)

- Government Equity Assets and Readiness Self-Assessment

Strategies to engage in community driven climate equity projects	0-25	26-50	51-75	76-100+
	Relationship Building	Inclusive Access	Culture Shift	Power Shift

- Employee Sustainability Awareness Team
  - Sustainability Newsletter Launch
  - Recycling Center Tour
  - E-Waste Drive