

Climate Action Plan Update

Environmental Sustainability Board Meeting | July 18, 2024

Project Team

County



Angelica Gurule
Sustainability
Manager



Linda Matteson
Deputy County
Manager



Abbey Hayward
Conservation
Coordinator



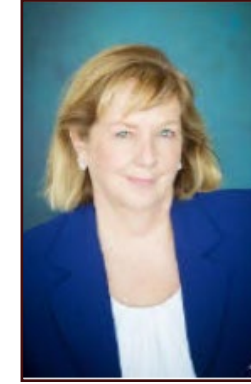
Andrea Martin
Project Manager



Alicia Fennell
Deputy Project
Manager



Jenna Decker
GHG Emissions &
Strategy Lead



Amy Miller
Outreach &
Engagement Lead



Ben Gould
Consumption-Based
Inventory Lead

Cascadia Consulting Group

AMM

EcoDataLab

Meeting Goals



Provide an update on the Climate Action Plan (CAP) development process and an overview of draft CAP components, in coordination with release of DRAFT CAP and public comment period.



Present implementation plan overview and highlight actions for year 1 of implementation.



Outline next steps in the CAP process, including upcoming community engagement.

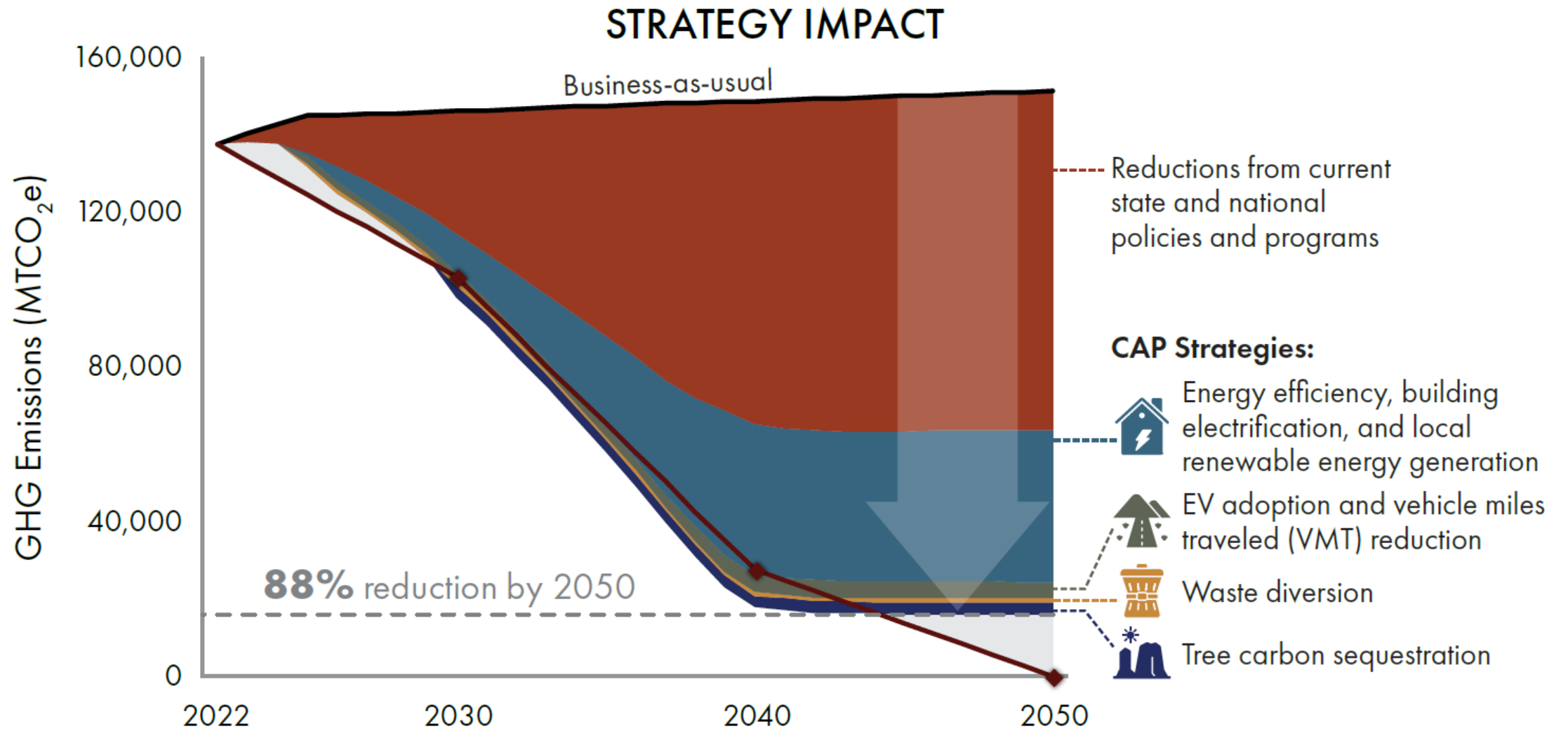
Project Update

Project Update

- Since the March Council meeting...
 - CAP targets
 - Community engagement
 - Community workshop
 - Focus groups
 - Interviews
 - Draft CAP



CAP Targets



Community Engagement

- **Community workshop (1)**
 - Hybrid public workshop in Council Chambers and on Zoom
 - ~17 community members attended in Council Chambers and 8 attended on Zoom
- **Focus groups (3)**
 - Young working families
 - Young people including high school students and young professionals
 - County employees
- **Interviews (9)**
 - Included student, teacher, business leader, County employee, engineer, environmental consultant, previous County Councilor, non-profit executive
- **Feedback from these engagements were incorporated into updated CAP strategies and actions.**

Draft Climate Action Plan

Introduction

Why a climate action plan?

The impacts of climate change—including hotter temperatures, reduced precipitation, and increasing intensity of wildfires—are being experienced in Los Alamos County and beyond. While the County has been working on sustainability initiatives for decades, a more formalized and focused effort began in December 2020, when a group of concerned Los Alamos County residents submitted a petition to the County Council requesting action on climate change. This petition led to the formation of the **Los Alamos Resiliency, Energy, and Sustainability (LARES) Task Force and a County Council initiative** to address climate change. In its final report,¹ LARES Task Force wrote:

“Climate change represents an existential threat to our community and the world, with impacts becoming evident at an accelerating rate: hotter temperatures, reduced precipitation, increasing intensity and frequency of wildfires, and more animals seeking food near our homes.”

This **Los Alamos County Climate Action Plan (CAP)** represents the next step in implementing this initiative by outlining a vision and roadmap for **reducing greenhouse gas emissions and increasing climate resilience in Los Alamos County.**

Benefits of Climate Action

Taking action on climate change can bring benefits for Los Alamos County ecosystems, residents, and businesses.



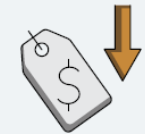
Improved quality of life & public health

Climate action can contribute to our collective health and wellbeing through clean air, clean water, and a healthy environment.



Resilient community

Climate action can enhance our community's ability to withstand and recover from environmental challenges by adopting sustainable practices.



Cost savings

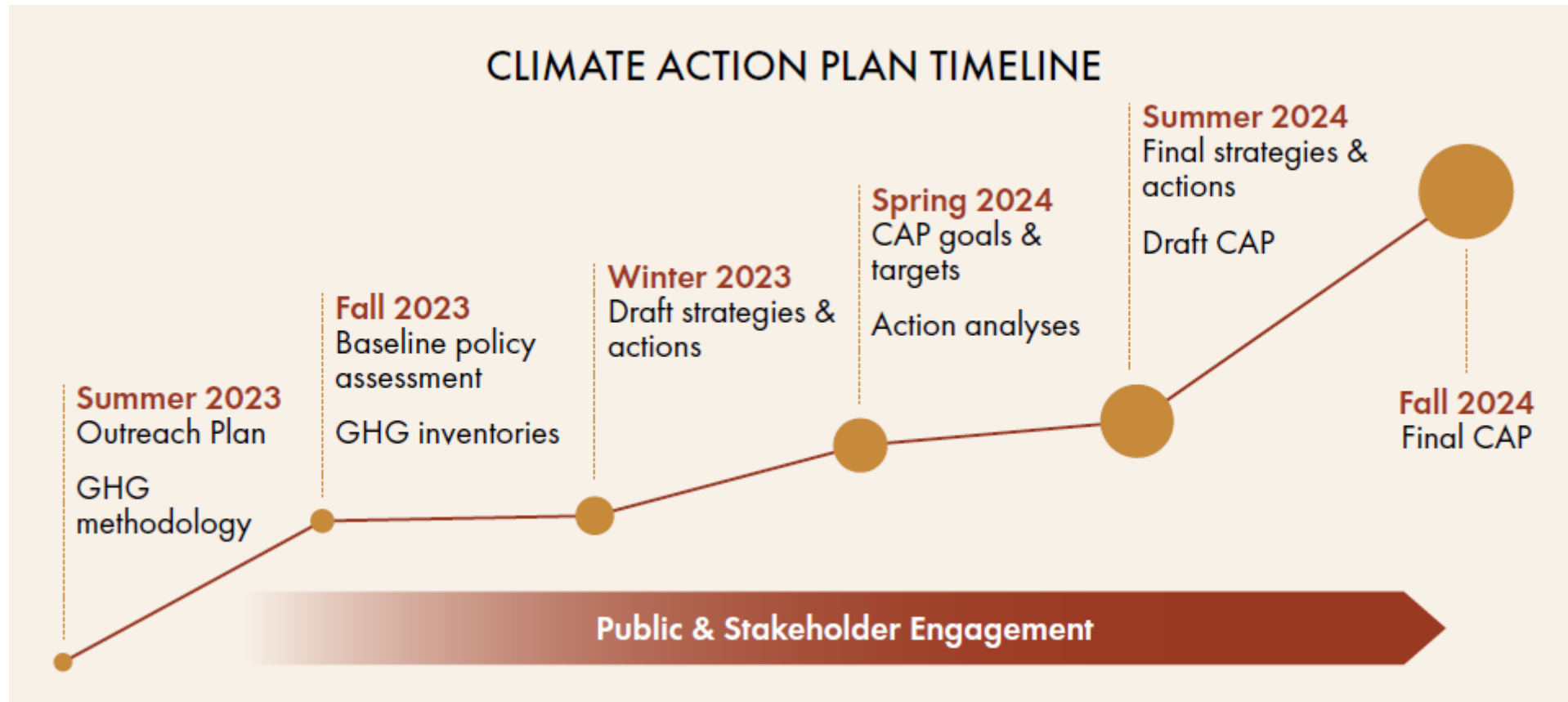
Climate action can save money by reducing waste, being smart with energy and water use, planting native landscapes, and driving less.



Environmental preservation

Climate action can help protect our local ecosystems, wildlife habitats, and natural beauty by conserving resources and reducing pollution.

How it Came Together



Community Engagement



Phase 1: Raising Profile & Visioning

Build awareness about the CAP process and gather priorities, ideas, and concerns

- Community survey
- County Council meeting



Phase 2: Collaborative Planning

Vet and refine proposed strategies and actions

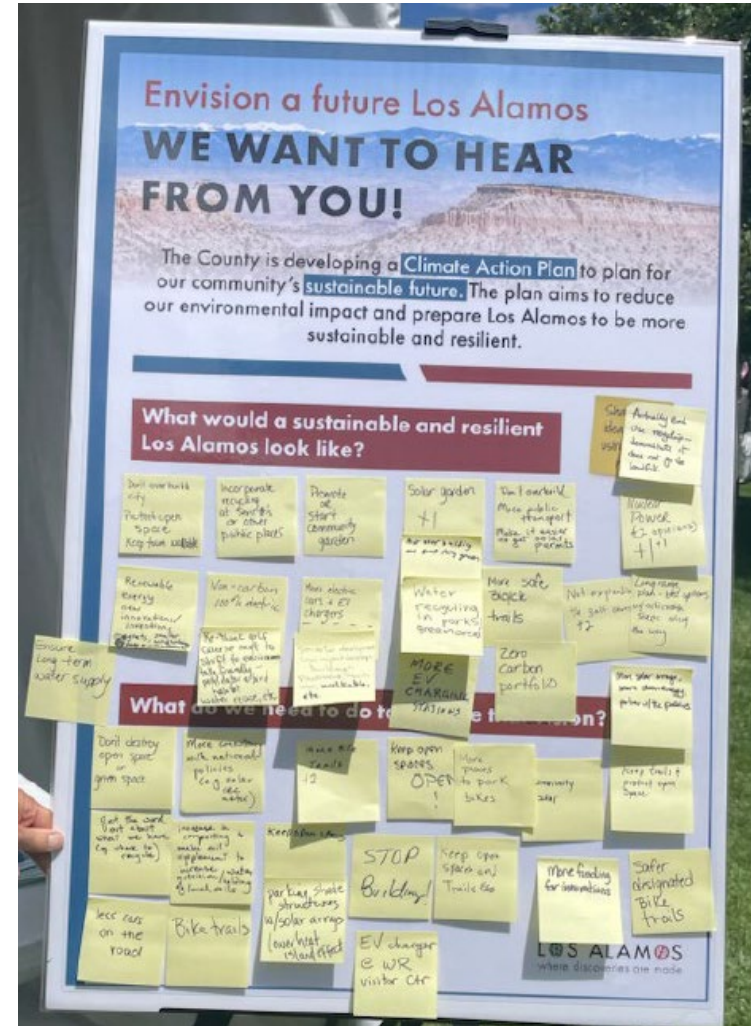
- Community workshop
- County Council meeting
- County staff meeting
- ESB meeting
- Focus groups (3)
- Interviews (9)
- Commuter survey for County Staff



Phase 3: Refinement & Implementation Transition

Solicit feedback on the draft CAP and prepare for implementation

- Public comment review of CAP
- County Council meetings (2)



What We Heard

"Decarbonize the electric utility. Quit installing natural gas infrastructure in new construction."

"Continue to make the central business district more walkable."

"Biking is my primary mode of transportation and I would love to be able to explore more of what Los Alamos has to offer with the convenience of my bike."

"I save water in the house from running water to get it hot for dishwasher and shower and use it to water outdoor and indoor plants."

"We want economically feasible solutions."

Themes:

- Energy efficient buildings
 - Affordable housing
 - Costs
 - Water scarcity
- Carbon-free energy
- Education & engagement

Climate Risk and Resilience

Wildfire and Air Quality



Higher temperatures and drought are likely to increase the severity, frequency, and extent of **wildfires**, which could harm property, livelihoods, and human health.



Wildfires are likely to make **air quality** unhealthy, especially affecting those with asthma and other health complications. Wildfires also impact drinking water supplies through contamination.



Wildfire and higher temperatures will also stress urban forests and expose them to greater risk of disease outbreaks and mortality.

Extreme Precipitation and Flooding



In New Mexico, climate change is likely to reduce **precipitation** while increasing the intensity of extreme precipitation events and likelihood of rain versus snow. This shift will increase the risk of flooding on soils hardened by drought and altered by wildfires.



Flooding and extreme precipitation events may damage transportation routes, affect energy systems such as power lines, impact ecosystems and groundwater resources, and disrupt emergency response services.

Drought and Water Systems



Climate change is projected to exacerbate **drought** conditions in the southwest, leading to water scarcity and challenges with providing water services, protecting water quality, and preserving healthy ecosystems.⁵



Projections indicate a 25% decrease in **surface water runoff and groundwater recharge** over the next 50 years, affecting agriculture and ecosystems across New Mexico.⁶

Extreme Heat



Average **temperatures** in New Mexico will likely rise, leading to more frequent and extreme heat waves. Annual average temperatures across New Mexico have risen by about 3 degrees F over the last 5 years.⁷



More frequent and intense **heat waves** will strain electricity systems and increase the demand for energy, which can lead to brownouts and power outages. Existing health conditions may lead to higher susceptibility to heat-related illnesses.

Greenhouse Gas Emissions



Community-wide sector-based

Estimates emissions produced by actions from residents, visitors, schools, County operations, and businesses within the county's geographic bounds.



County operations sector-based

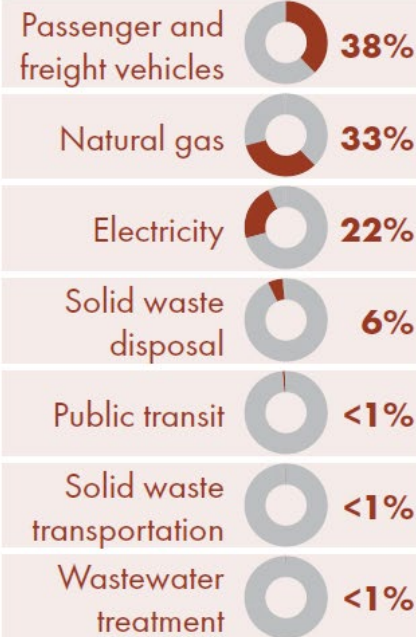
Estimates emissions produced by County-owned and -operated facilities and activities.



Consumption-based

Estimates emissions associated with the consumption activity of all households of a geographic area.

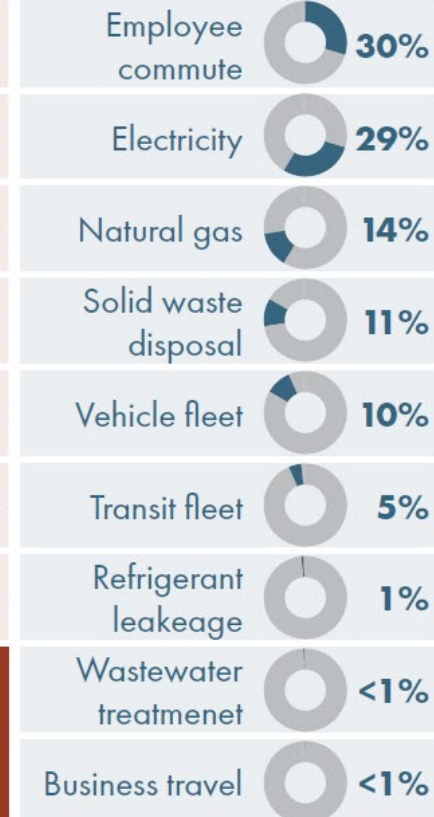
Sector-based Community-wide Emissions



TOTAL Emissions:
137,670 MTCO₂e

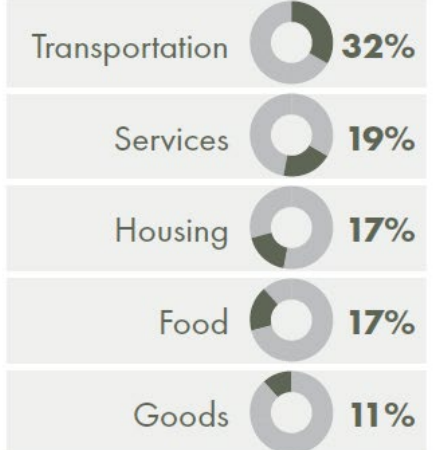
Per Capita:
7 MTCO₂e

Sector-based County Operations Emissions



TOTAL Emissions:
15,031 MTCO₂e

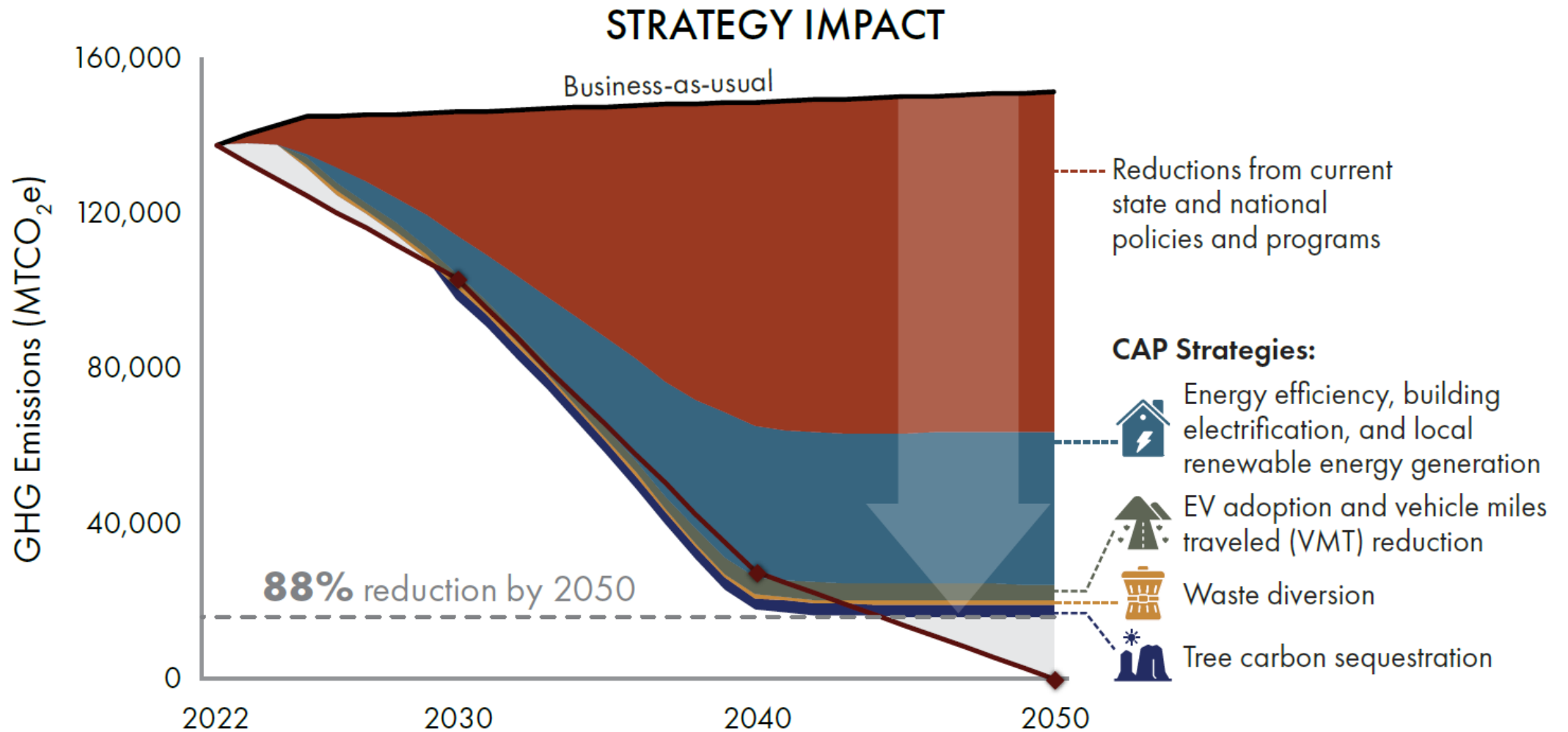
Consumption-based Community-wide Emissions






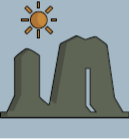


TOTAL Emissions:
374,000 MTCO₂e

Per Capita:
20 MTCO₂e

CAP Targets



Focus Areas and Strategies

	FOCUS AREA & STRATEGIES	EXAMPLE ACTIONS
	Buildings & Energy <ul style="list-style-type: none">• Increase building efficiency and decarbonization• Increase renewable energy generation	<ul style="list-style-type: none">• Encourage energy efficiency and electrification retrofits• Expand electric energy resiliency
	Transportation & Land Use <ul style="list-style-type: none">• Expand EV infrastructure and adoption• Expand and promote multi-modal connectivity and sustainable land use planning	<ul style="list-style-type: none">• Develop EV infrastructure plan• Expand mixed-use, transit-oriented development policies• Encourage multimodal transportation
	Materials & Consumption <ul style="list-style-type: none">• Maximize waste diversion	<ul style="list-style-type: none">• Expand and refine waste data tracking, reporting, and goals
	Natural Systems & Water <ul style="list-style-type: none">• Increase urban green space• Conserve water resources	<ul style="list-style-type: none">• Promote urban forest stewardship and tree preservation• Provide greywater reuse education
	Community Resilience & Wellbeing <ul style="list-style-type: none">• Enhance community understanding of climate change• Prepare the community for climate impacts	<ul style="list-style-type: none">• Invest in public climate education campaigns• Encourage adaptation upgrades
	Cross-cutting <ul style="list-style-type: none">• Encourage sustainable businesses• Promote climate education outreach	<ul style="list-style-type: none">• Develop a sustainable business certification• Expand community partnerships

Implementation Plan

Leadership and Accountability

Because of the interdisciplinary nature of climate change, the County will work across departments to implement the CAP. Key accountability approaches for implementation of the CAP are summarized below, to ensure that the County is making progress toward CAP goals.

Progress reporting and monitoring

- Report on CAP progress, challenges, and next steps to County Council and the ESB (brief reports and presentations annually; more detailed reports and presentations every 3-5 years). If needed, form new County staff and/or County advisory groups to guide and oversee CAP implementation.
- Share progress with the community (Action CC2.2).
- Update the community-wide sector-based GHG inventory every 3-5 years.

Plan adjustments and updates

- Work with County Council and the ESB to update CAP actions as needed to ensure adequate progress toward emission reduction goals.

The "Implementation Matrix" on the following pages represents the beginning of an ongoing and evolving implementation plan, which will kick off after CAP adoption.

Phasing

- Ongoing**
 Continuation of County or regional initiatives without significant changes.
- Immediate**
 1-2 YEARS (2025-2026)
 Priority actions for meeting the County's emissions reduction goals and foundational actions that pave the way for future work.
- Near-term**
 3-6 YEARS (2027-2030)
 Actions that continue moving the needle for Los Alamos to achieve its goals and establish more foundational infrastructure, partnerships, and regulations
- Mid-term**
 7-11 YEARS (2031-2035)
 Actions that require longer-term or more complex planning, coordination, and investments or may be less strongly supported by the community.

Timeframe	Lead	Funding	Relative Cost	Scope	Immediate Next Steps	Other Considerations
BE1.4: Adopt green building standards						
▶	Lead: CDD Support: CMO Sustainability Manager	• Green Building tax incentives • IRA	💰💰	👥	<ul style="list-style-type: none"> • Identify necessary staff time to devote to implementation of action • Research and decide on standards to adopt, based on noted examples, conversations with stakeholders and County staff, and Council direction • Identify technical assistance needs (could be identified as part of outreach program from BE1.3 or contractor training program development from BE1.5) and develop plan for providing technical assistance • Develop education program, including developing promotional/educational materials 	Consider combining outreach and education efforts with BE1.1 and BE1.3, as appropriate
T1.1: Promote EV adoption						
▶	CMO	<ul style="list-style-type: none"> • [NEVI Formula Program • IRA • New Clean Vehicle Tax Credit 	💰💰	👥	<ul style="list-style-type: none"> • Identify necessary staff time to devote to implementation of action • Identify and compile list of existing incentives, rebates, funding sources, resources, and information about EV purchases, prioritizing those that prioritize low-income communities • Develop education program, including developing promotional/educational materials and brainstorming a variety of education avenues (e.g., in-person workshops, tabling at events, social media posts, information on County website) • Convert municipal small engines, lawn/garden equipment, and golf carts, to be fossil fuel free within ten years • Continue pilot for municipal small engine and lawn garden equipment to determine pros and cons • Develop transition plan for municipal small engines to be fossil free within ten years 	Currently in design phase for infrastructure needs to charge and store 60+ electric golf carts. Golf carts estimated delivery is 2025.

Priority Actions

- **BE 1.3** Encourage community energy efficiency and electrification retrofits
 - Cost: \$32K | Impact: 12K MTCO₂e reduced
 - *Major emission source, cost savings*
- **BE 1.4:** Adopt green buildings standards
 - Cost: \$40K | Impact: 169K MTCO₂e reduced
 - *Major emission source, cost savings*
- **T 1.2:** Develop EV infrastructure plan
 - Cost: \$200K | Impact: 10K MTCO₂e reduced
 - *Major emission source, foundational action*

T 1.1: Promote EV adoption

Cost: \$35K | Impact: 59K MTCO₂e reduced

Major emissions source, cost savings

T 3.5: Develop a Commute Trip Reduction program

Cost: \$25K | Impact: 3K MTCO₂e reduced

Lead by example, major municipal emissions source

Potential Priority Actions for Year 2

- **T 2.1:** Expand mixed-use, transit-oriented development policies
 - Impact: 18K MTCO₂e reduced
 - *Major emissions source, co-benefits, has lasting impacts*
- **CR 1.1:** Conduct a vulnerability assessment
 - *Foundational, co-benefits, enhances climate resiliency*
- **CC 2.4:** Expand community partnerships
 - *Foundational, impactful (connects to all climate strategies)*

Next Steps

Next Steps

- **Engage with the community:** invite feedback on draft CAP through online review platform (Konveio)
- **Revise the CAP** to incorporate community and Council input
- **Finalize the CAP and implementation plan**
- Plan approval and adoption

Draft CAP Feedback Platform



Los Alamos County Climate Action Plan

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Add a comment here

Comment Type

- None -

- Feature this comment
- Notify me when new replies are posted

Post Comment

Draft CAP Feedback Integration

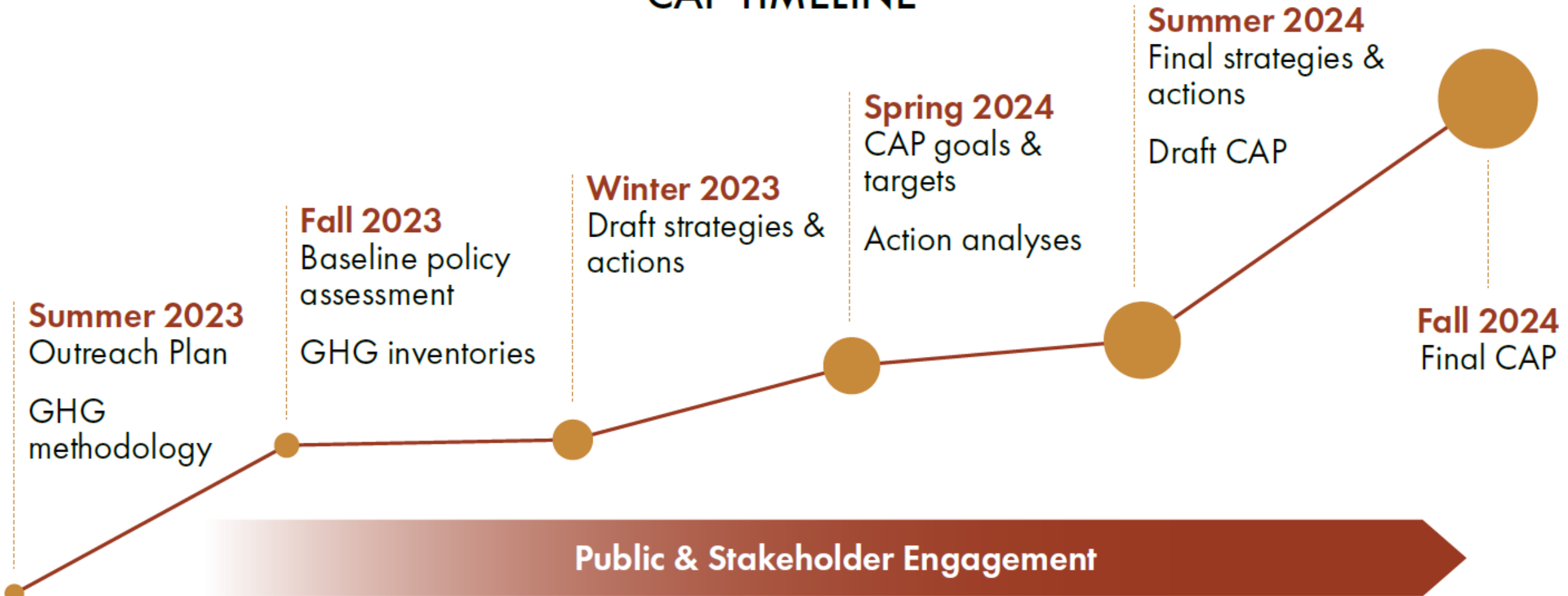
Los Alamos County Climate Action Plan - Draft CAP Feedback

Source - Broad	Source - Specific	Comment	Edits Needed?	Proposed Edits	Notes/Questions	Integrated into CAP?
<i>Examples:</i>						
Konveio	Alicia F	Add more photos of chile peppers	No			
Konveio	Andrea M	Page 45 is missing the phrase "XYZ" after "ABC"	Yes	Add "XYZ" after "ABC"		Yes

- Review public comments and integrate into CAP

CAP Timeline

CAP TIMELINE



Thank you! Questions?

Contact Information:

*Andrea Martin:
Andream@CascadiaConsulting.com*

*Alicia Fennell:
Alicia@CascadiaConsulting.com*



Backup Slides