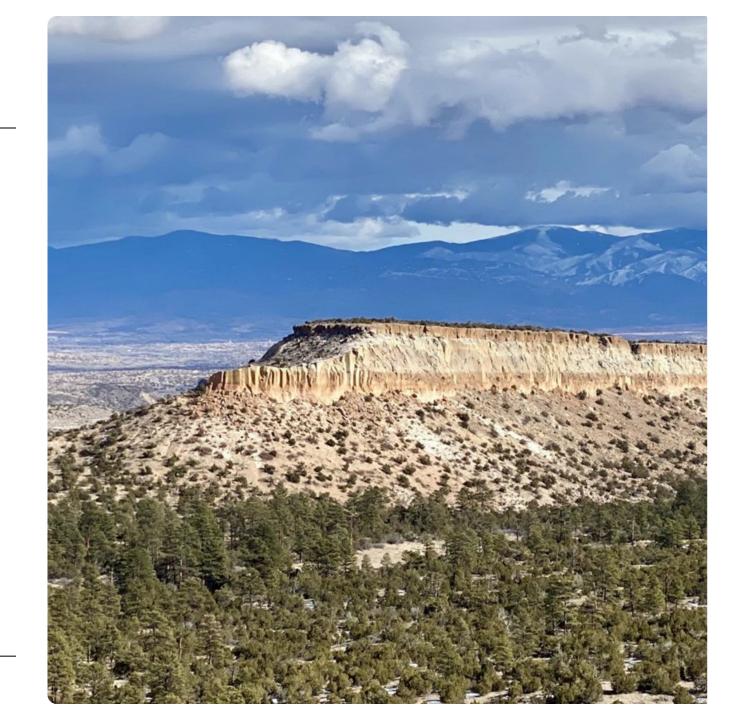
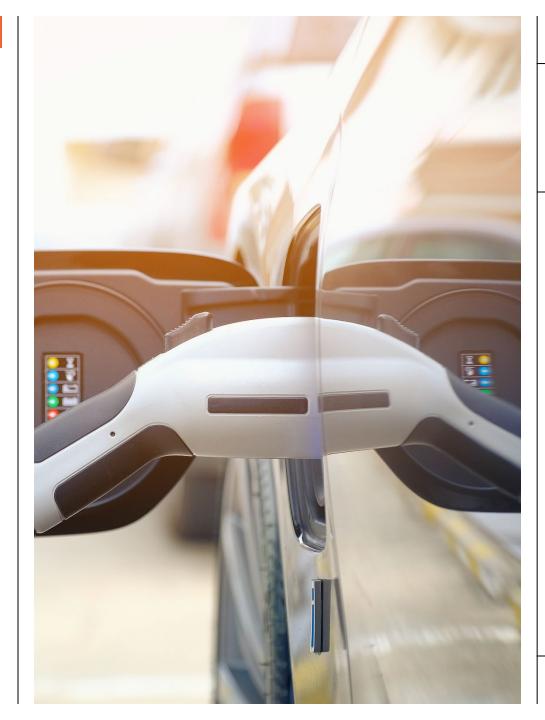


#### Los Alamos County Fleet Conversion Plan and Community-Wide EV Charging Plan

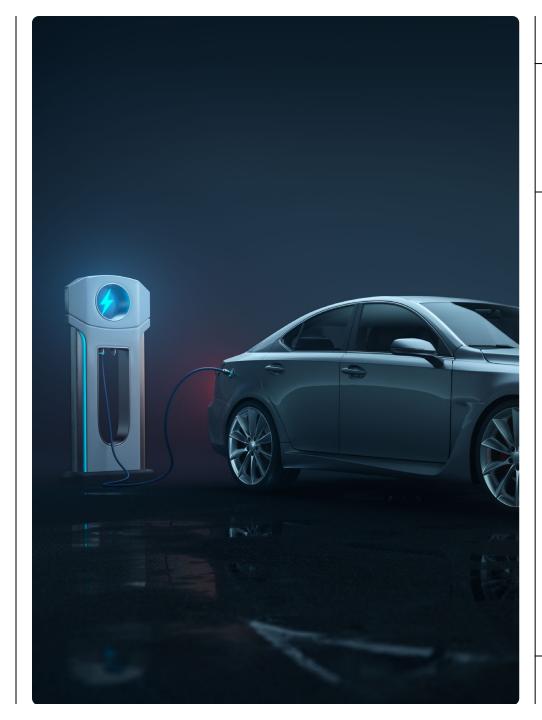
October 2025





#### Agenda

- 1. Project Purpose
- 2. EV Fleet Conversion Plan
- 3. EV Charging Plan
- 4. Discussion



#### **Project Purpose**

- Reduce greenhouse gas (GHG) emissions from the County fleet
- 2. Expand EV charging infrastructure
- 3. Engage County partners

#### New Mexico Clean Car Rule

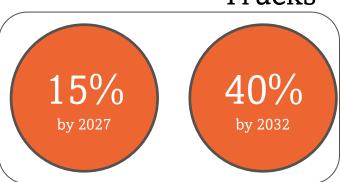
The New Mexico Clean Car Rule sets low-emission and zero-emission standards for new cars and trucks sold in the state, starting in 2026.



#### Light Duty Vehicles



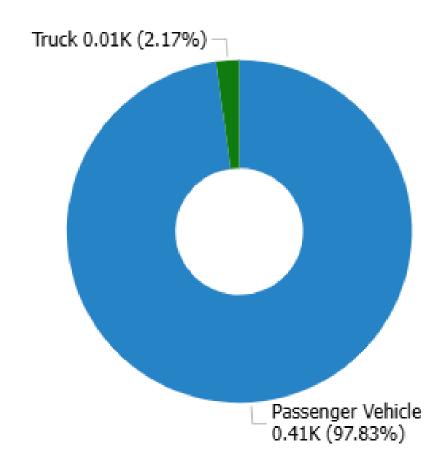
#### **Trucks**



#### **Existing Conditions**

- 284 BEVs on the Road
- 130 PHEVs on the Road
- 30 EVs per 1000 people

#### EVs on the Road by Vehicle Type





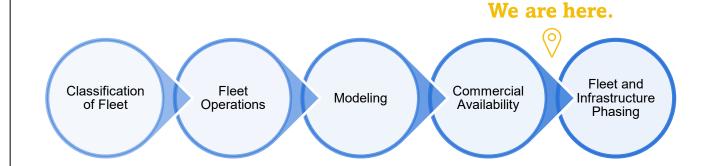


## County Fleet Conversion Plan



## **County Fleet Conversion Plan**

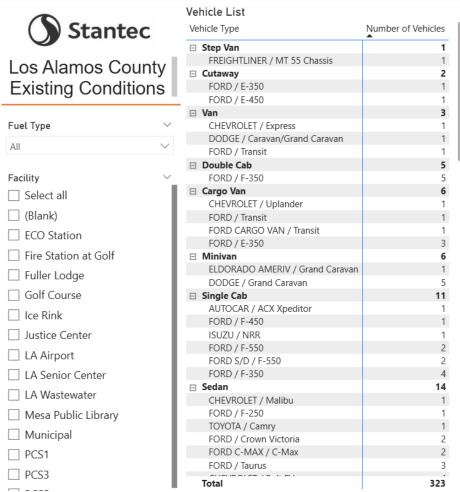
- Existing conditions
- Charging needs of the future fleet
- Vehicle replacement schedule (in progress)
- Facility assessment and infrastructure upgrades
- Greenhouse gas emissions (in progress)
- Capital and operating costs (in progress)
- Task deliverable: County Fleet Conversion Plan

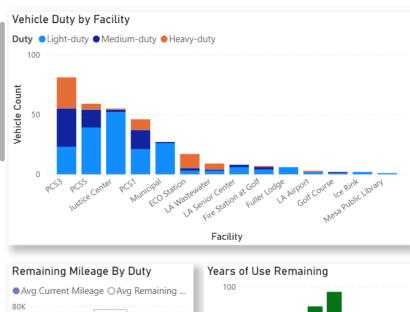


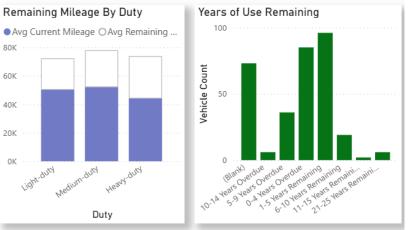
### Fleet Existing Conditions

#### Deep dive on:

- Facilities
- Departments
- Vehicles







#### **Completed Work**





#### Fleet Utilization Assessment





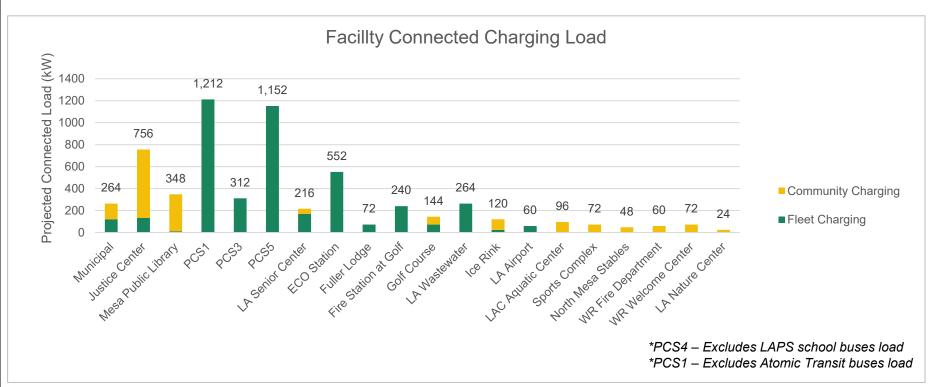


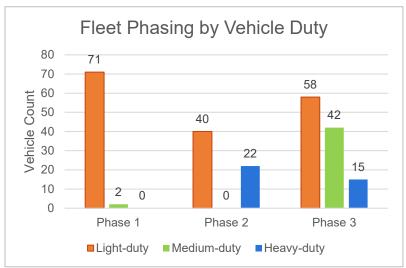


**Fleet Existing Conditions** 

### Projected Load

- Does not consider existing site capacity.
- Projected load is in addition to existing or planned chargers.





#### **Next Steps**

- Vehicle replacement schedule (in progress)
- Greenhouse gas emissions (in progress)
- Capital and operating costs (in progress)
- Draft and Final County Fleet Conversion Plan



P2

Р3





# Community-Wide EV Charging Plan



#### **Community-Wide EV Charging Plan**



#### **Existing Plans and Policies:**

- Relevant local plans
- Permitting, code, and zoning assessment

#### **Technical Analysis:**

- Demand projection
- Suitability analysis
- Equity in the mapping process

#### **Final Implementation Plan:**

- Business model assessment
- Public infrastructure costs and return on investment

**Deliverable:** Contextual Scan and Assessment Technical Memo

**Deliverable:** Integrated Mapping Analysis Technical Memo

**Deliverables:** Public Charging Infrastructure Readiness Plan

## What are we looking for in an ideal charging network?



#### First Public Engagement Overview

#### May 12, 2025: Public Visioning Session & Virtual Engagement

- Focus: Community Priorities for EV Infrastructure in Los Alamos County
- Themes: Charging availability, affordability, accessibility, equity, and visitor support

#### May – June 2025: Community Survey

- 516 Responses
- Topics: Demographics, travel behavior, barriers to EV ownership, charging priorities, preferred sites

#### **Public Comment & Survey Takeaways**

Concerns About Public Investment in EVs

Enthusiasm About Widespread Charging

#### **Public Comment & Survey Takeaways**

#### Charging Availability & Convenience

- More fast chargers needed, especially near grocery stores, dining, shopping
- Compatibility across vehicle types is important

#### Affordability & Accessibility

- Keep charging costs close to residential electricity rates
- Concerns about government investment
- Equity concern for Residents without garages/multifamily housing

#### Preferred Charging Locations

- **Top:** Grocery stores, libraries, visitor centers, parks, trailheads
- Support for tourism and economic activity
- Shared residential charging is seen as less useful

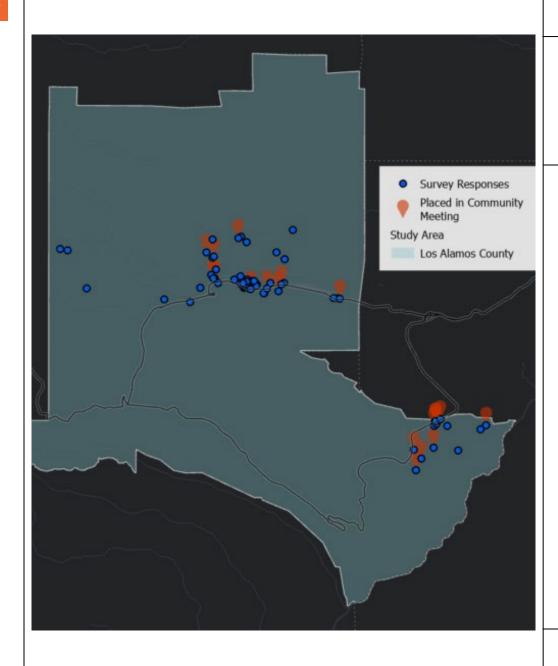
#### **Barriers & Priorities**

#### **Barriers to EV Ownership**

Barrier	Response
Range anxiety/long-distance travel	27%
High purchase costs	15%
Reliability concerns	13%
Limited charging access at home or on errands	11%

#### **Charging Network Priorities**

Priority	Response
Reliable equipment	19%
Widespread availability	17%
Ease of use: Payment & Wayfinding	15%
Low cost, safe, equitable access	11%



## **Charging Preferences & Locations**

#### **Charging Preferences**

Priority	Response
Home Charging	56%
Highway fast charging	50%
Workplace charging	33%
Destination Charging	28%



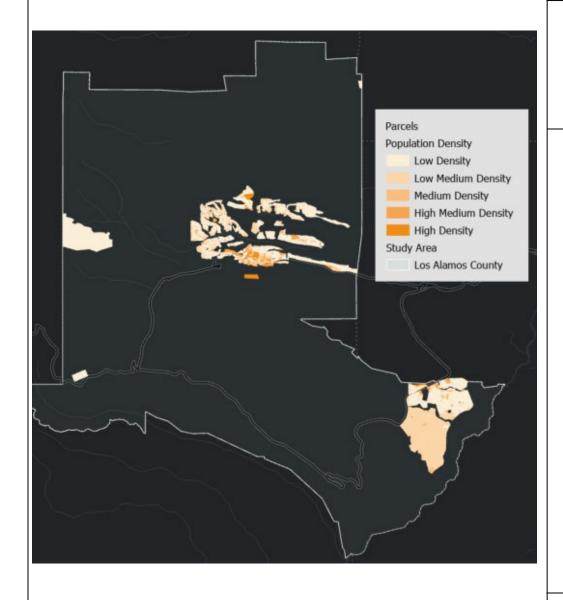
## Modeling Site Suitability



#### Where Should We Put Chargers?

#### Site Optimization is driven by several key questions:

- Where do people park their EVs?
- Where do people drive their EVs?
- Where do residents want chargers?
- What areas are less preferable for chargers?
- What areas make sense for chargers?

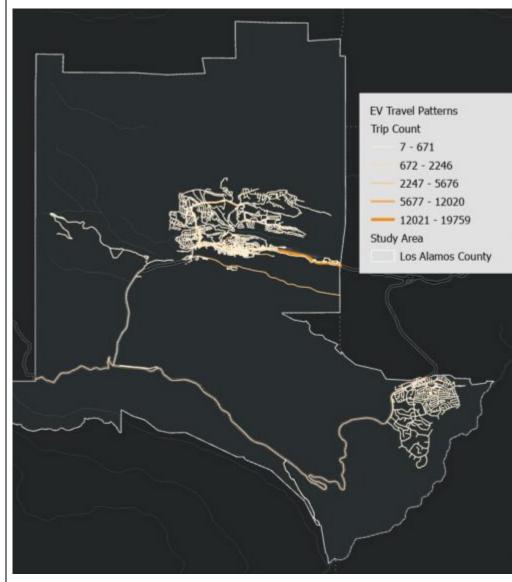


## Where Do People Park Their EVs?

People park their EVs at home.

Population density is derived from:

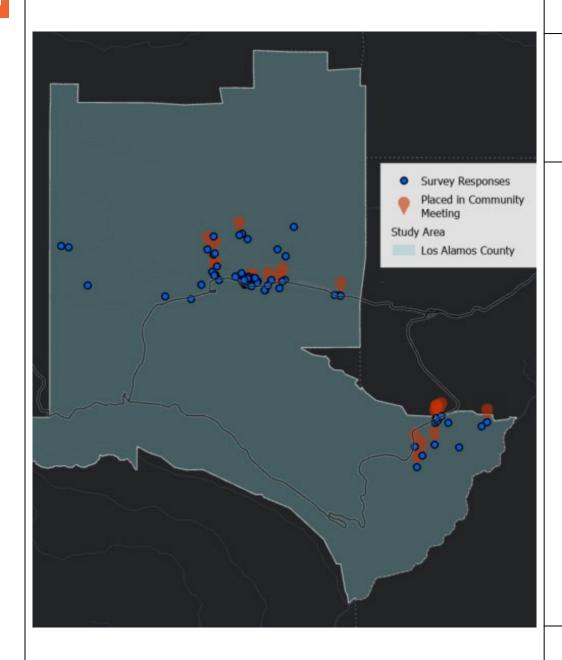
- Zoning Codes
- Parcel Ownership
- Parcel Size



\*EV Travel Data from Replica

## Where Do People Drive Their EVs?

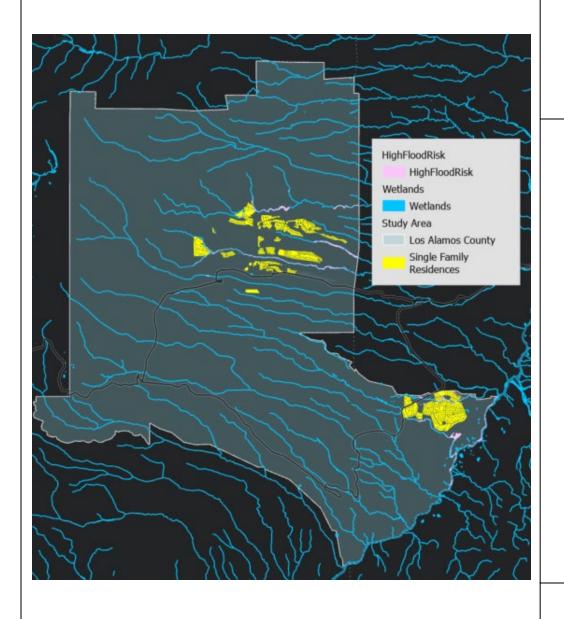
EV Travel Patterns help us understand the need for charging.



## Where Do People Want Chargers?

Data collected during:

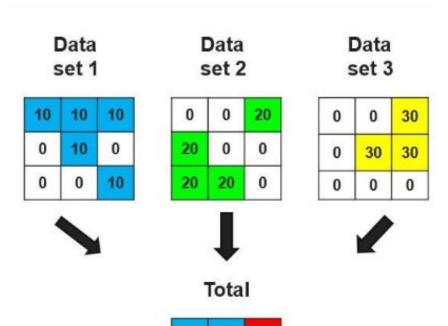
- Public Engagement Meeting
- Public Survey



### What Areas are Less Preferable for Public Chargers?

Some areas are excluded:

- Areas with high flood risk
- Exempt Federal Land
- Private Residences (for shared chargers)



## What Areas Make Sense for Chargers?

 We find optimal charging locations by merging all the input data sets.

 Different scenarios weigh each data layer differently.

## Each data set is weighted differently depending on the scenario being evaluated:

- Mixed-Use Zoning
- Single-Family Zoning
- Multi-Family Zoning
- Commercial Zoning
- Topography and Flood Risk
- EV Travel
- Recreational Land
- Parking Lots
- Private Land
- Public Land
- Community Feedback Locations
- Downtown Cores
- Circuit and Feeder Locations

#### **Site Suitability Scenarios**

- Scenario 1: Home Charging
- Scenario 2: County-Owned Charging
- Scenario 3: Shared Level 2 Charging
- Scenario 4: Fast Charging

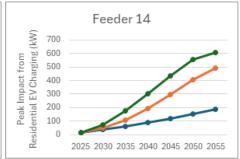
## High EV Adoption Medium EV Adoption Low EV Adoption 10000 8000 4000 0 100000 10000 100000 100000 100000

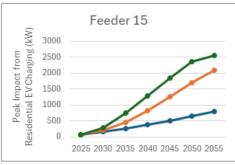
#### **Scenario 1: At-Home Charging**

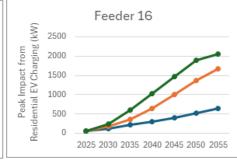
- At-Home Charging use is forecasted based on population density
- Areas with more people are assumed to have more EVs
- Adoption Rates are based on small communities similar to Los Alamos.

#### Power Load on Los Alamos Feeders over time











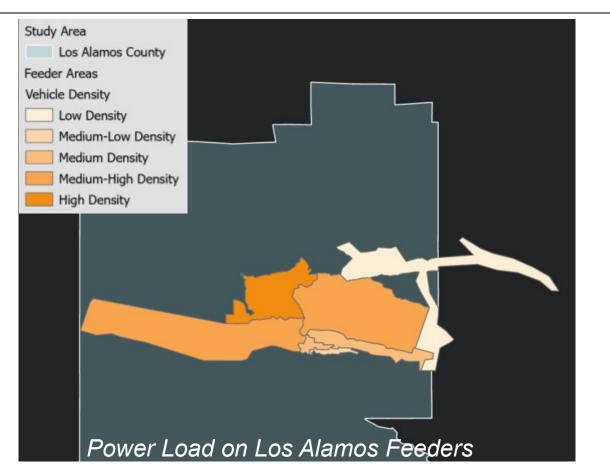


Low EV Adoption

Medium EV Adoption

High EV Adoption

## Scenario 1: At-Home Charging



#### Los Alamos



#### White Rock



#### **Scenario 2: County-Owned** Charging

- County-owned charging prioritizes downtown cores
- Only County-owned land is considered
- Informed by public comment
- **Proposed Charging Locations:**

Municipal **LAC Aquatic Center** 

**Justice Center** 

Mesa Public Library

LA Senior Center

**Golf Course** 

LA Wastewater

Ice Rink

LA High School

**Sports Complex** 

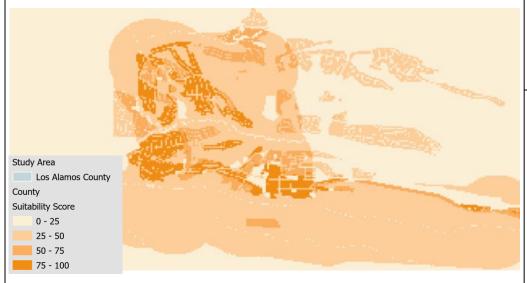
North Mesa Elementary

Los Alamos Nature Center

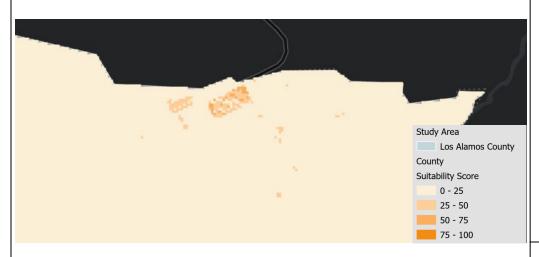
**WR Welcome Center** 

WR Fire Department

#### Los Alamos



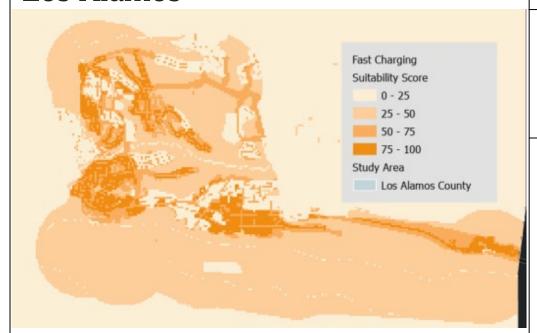
#### White Rock



#### Scenario 3: Shared Level 2 Charging

- Multi-family housing and commercial areas are prioritized
- Only privately-owned land is considered

#### Los Alamos

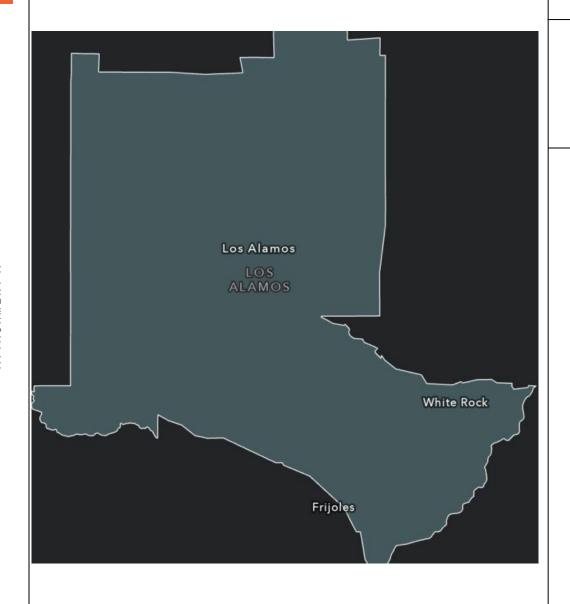


#### White Rock



#### **Scenario 4: Fast Charging**

- Multi-family housing and commercial areas are prioritized
- Both county-owned and privatelyowned land is considered
- EV Traffic Volumes and Feeder Capacity are weighted highly
- Highways score highly



#### **Site Suitability Results**

#### These maps:

- Inform the specific locations where chargers will be installed
- Reveal future energy needs
- Forecast County electrical capacity

#### **Next Steps**

- Integrate feedback from community meetings into draft
- Submission of Draft Plan
- Presentation of Draft Plan to County Council
- Presentation of Draft Plan Board of Public Utilities

#### **General Questions**

We welcome your feedback.