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

October 16, 2025

Agenda

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

Project Purpose

1. Reduce greenhouse gas (GHG) emissions from the County fleet

2. Expand EV charging infrastructure

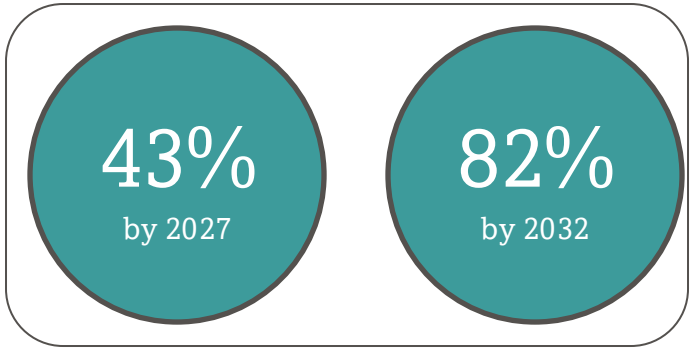
3. Engage County partners

New Mexico Clean Car Rule

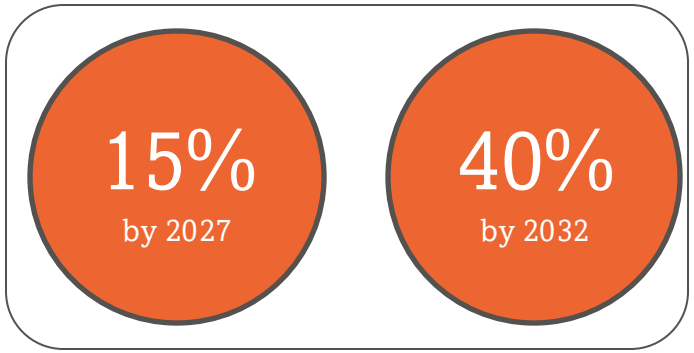
The New Mexico Clean Car Rule sets low-emission and zero-emission standards for new cars and trucks sold in the state, starting in 2026.

NMED New Mexico Environment Department

Light Duty Vehicles

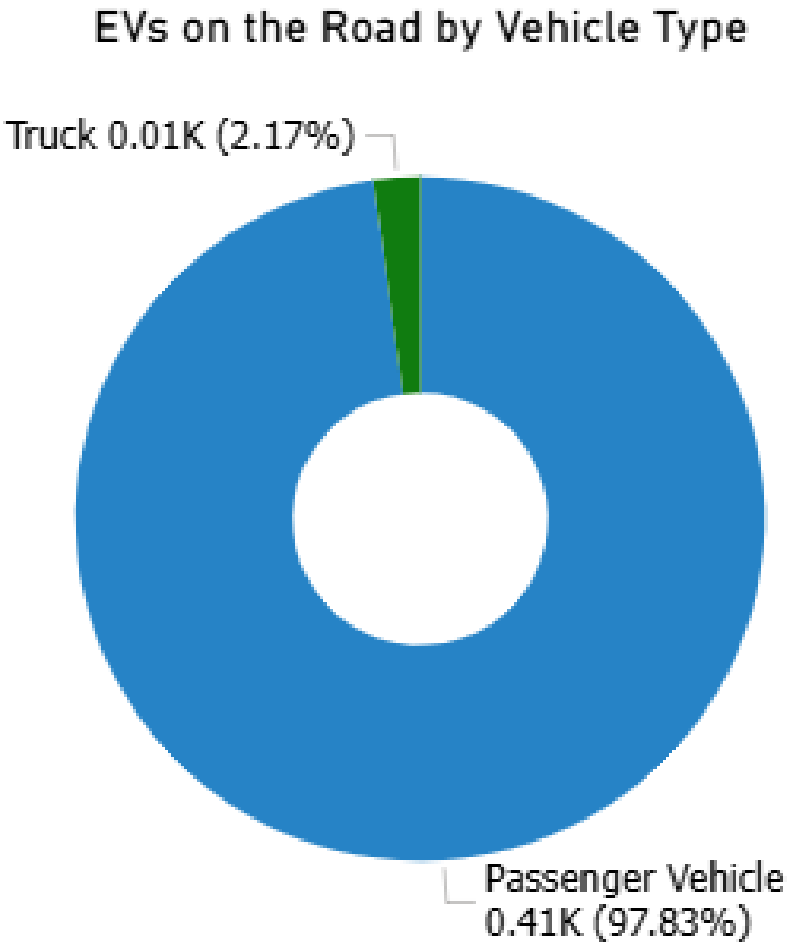


Trucks



Existing Conditions

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



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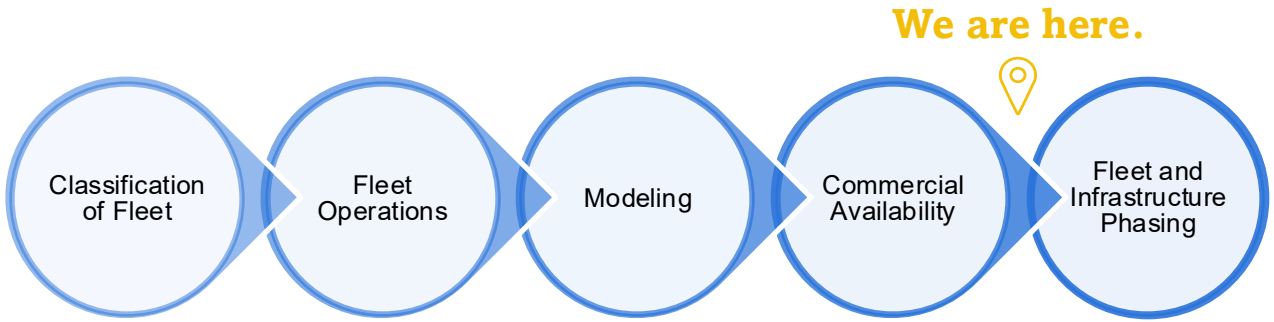
County Fleet Conversion Plan

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

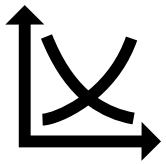


Completed Work

Site Visits

Market Scan

Fleet Utilization Assessment

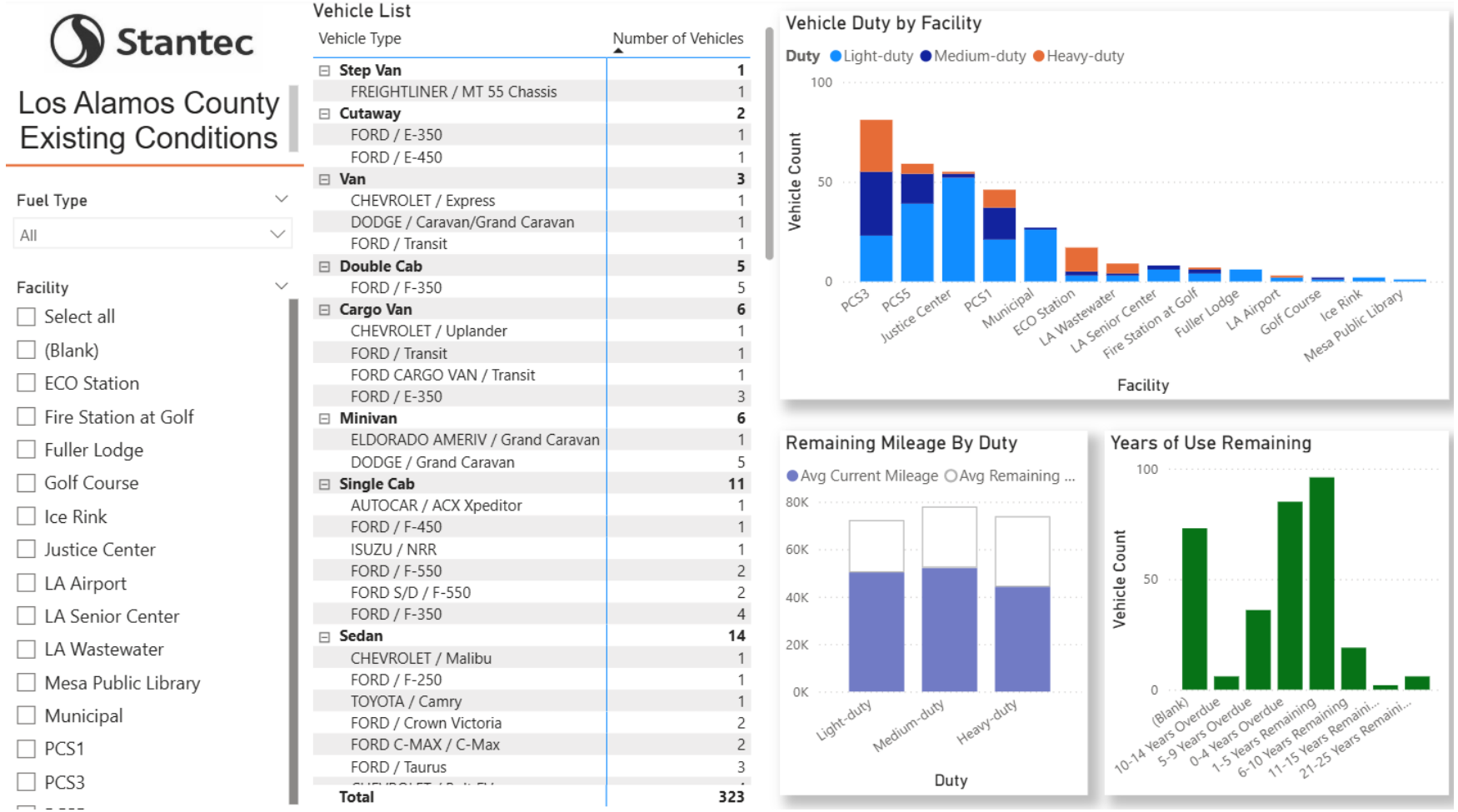


Fleet Existing Conditions

Fleet Existing Conditions

Deep dive on:

- Facilities
- Departments
- Vehicles

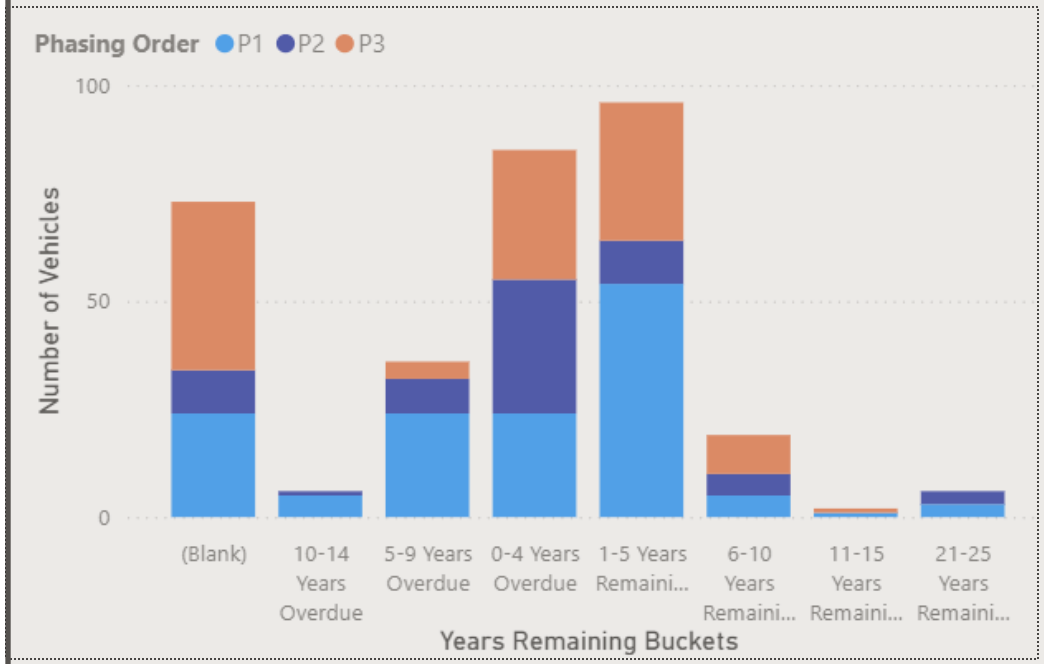


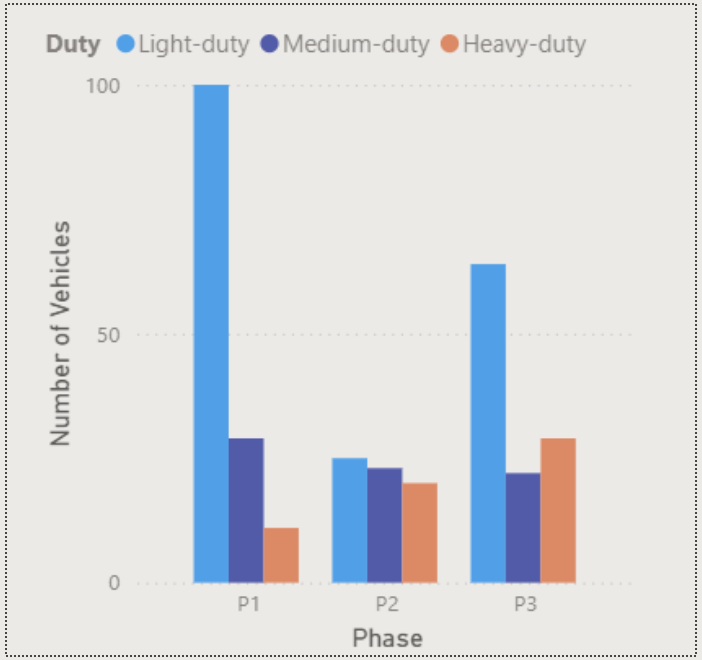
Fleet Conversion Plan

Next Steps:

- Finalize Phasing Recommendations
- Cost Assessment
- Draft and Final Plan

Example: Work in Progress





Community-Wide EV Charging Plan

We are here.

1

Existing Plans and Policies:

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

Deliverable: Contextual Scan and Assessment Technical Memo

2

Technical Analysis:

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

Deliverable: Integrated Mapping Analysis Technical Memo

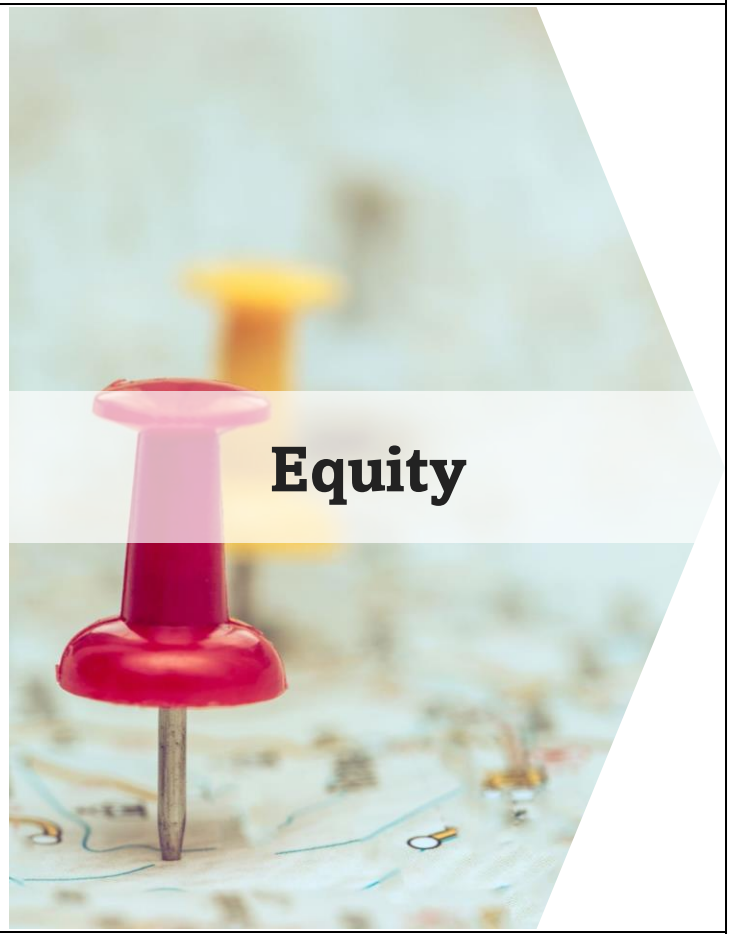
3

Final Implementation Plan:

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

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

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

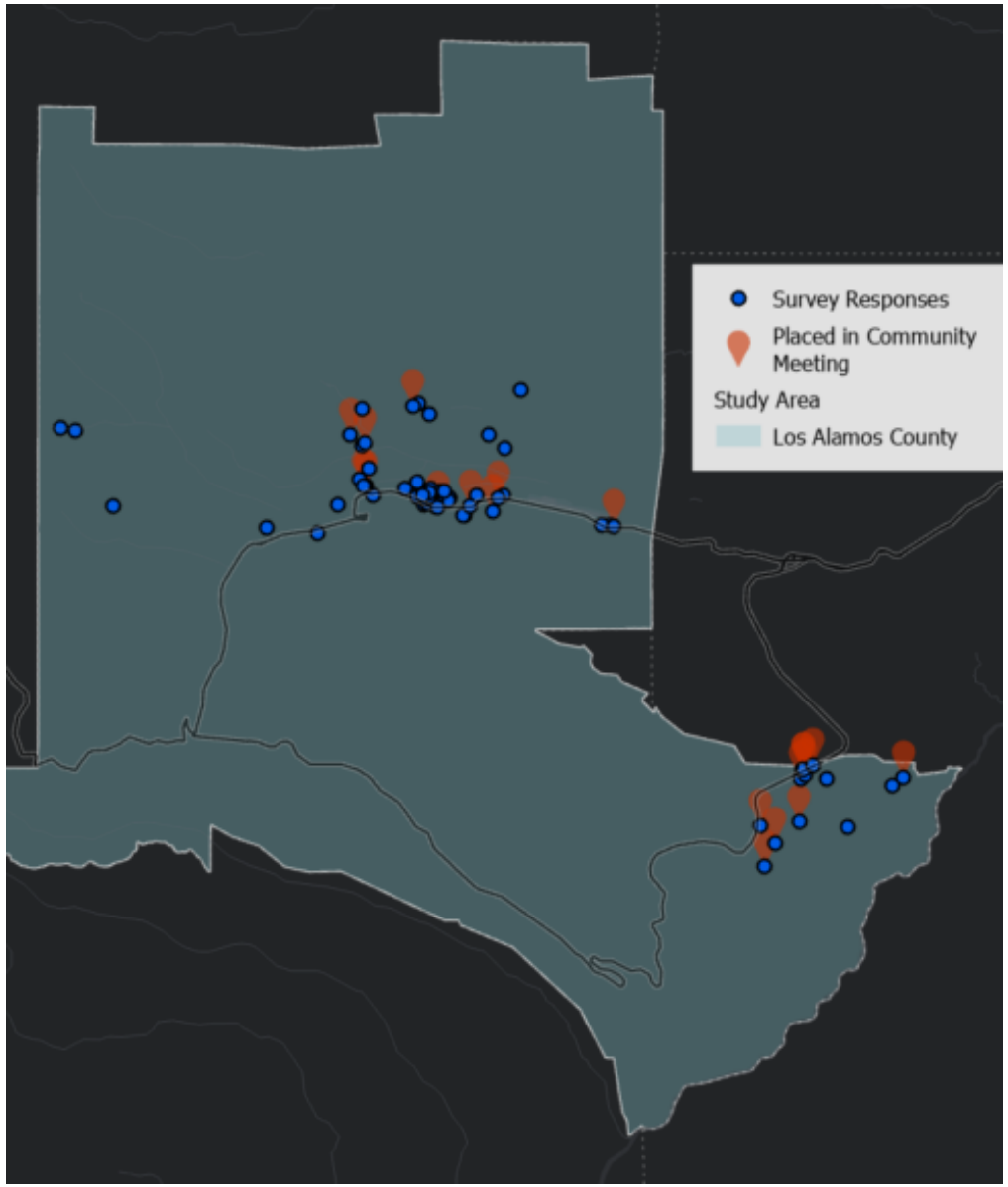
Barriers & Priorities

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%

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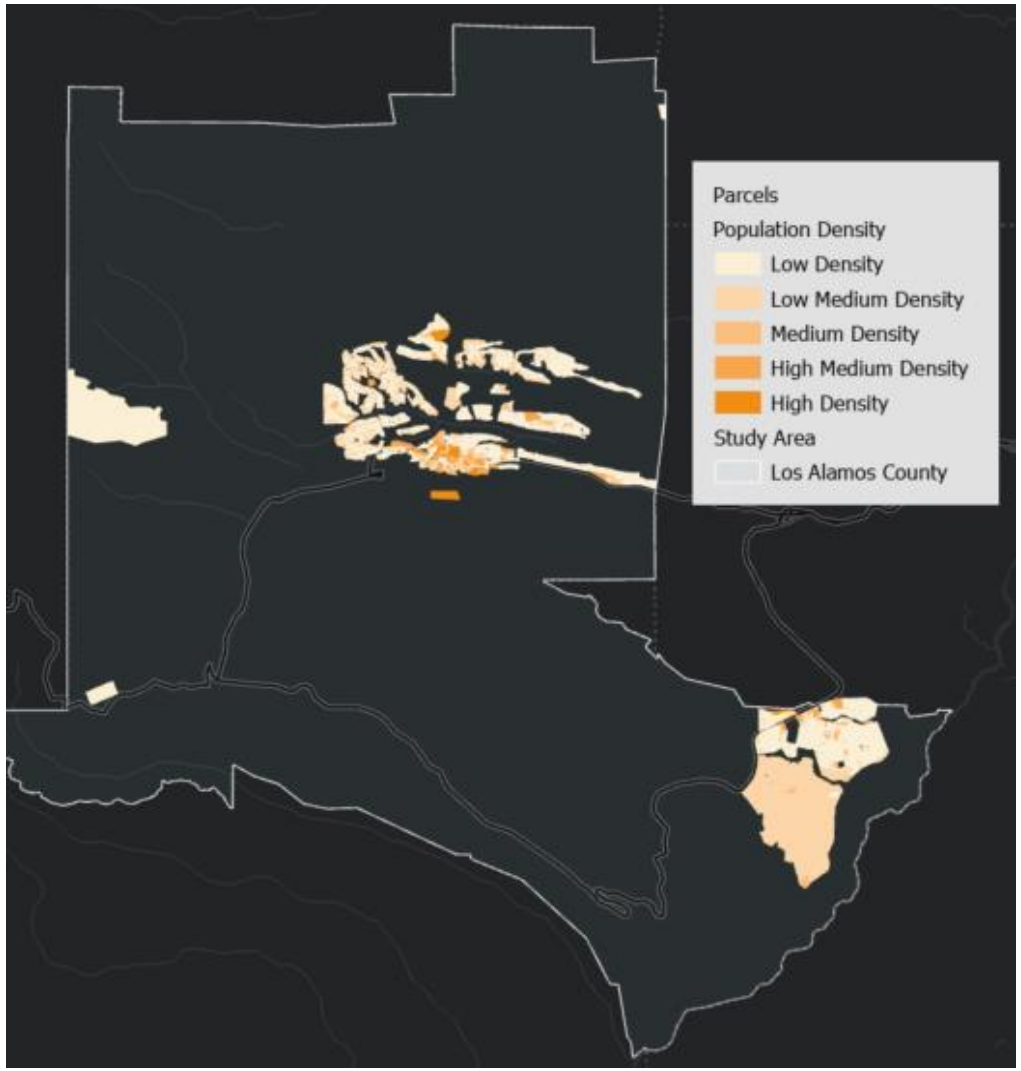
Modeling Site Suitability

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?

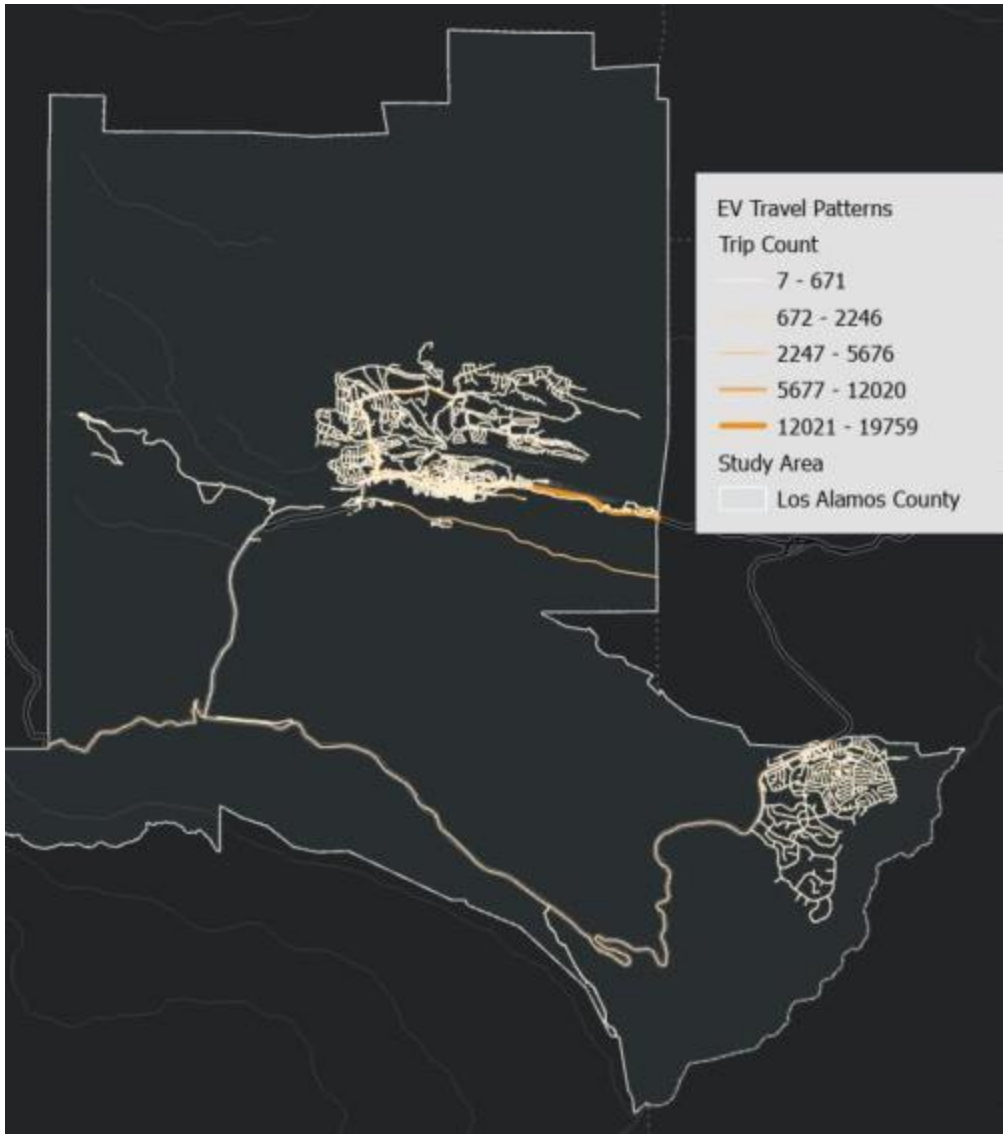


Where Do People Park Their EVs?

People park their EVs at home.

Population density is derived from:

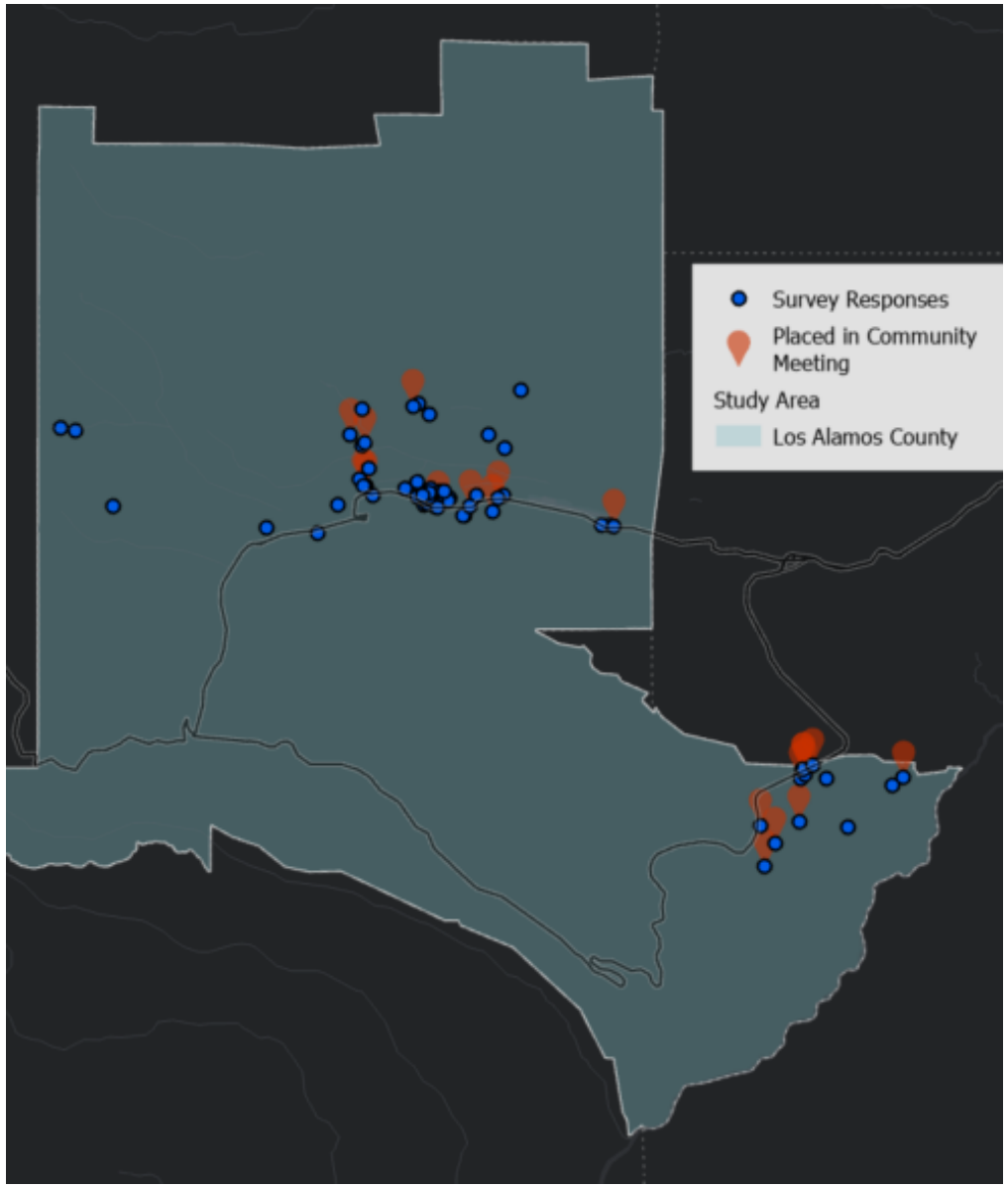
- Zoning Codes
- Parcel Ownership
- Parcel Size



**EV Travel Data from Replica*

Where Do People Drive Their EVs?

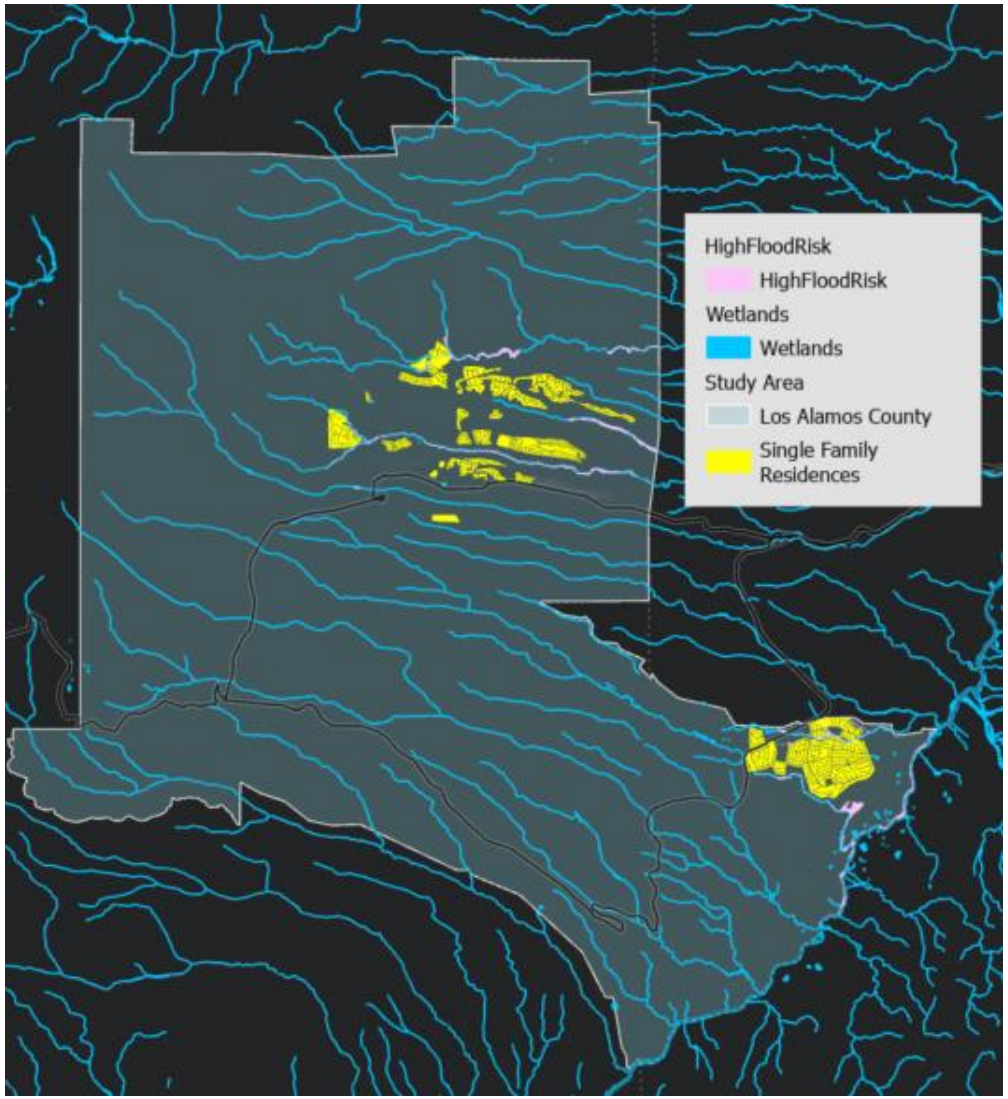
EV Travel Patterns help us understand the need for charging.



Where Do People Want Chargers?

Data collected during:

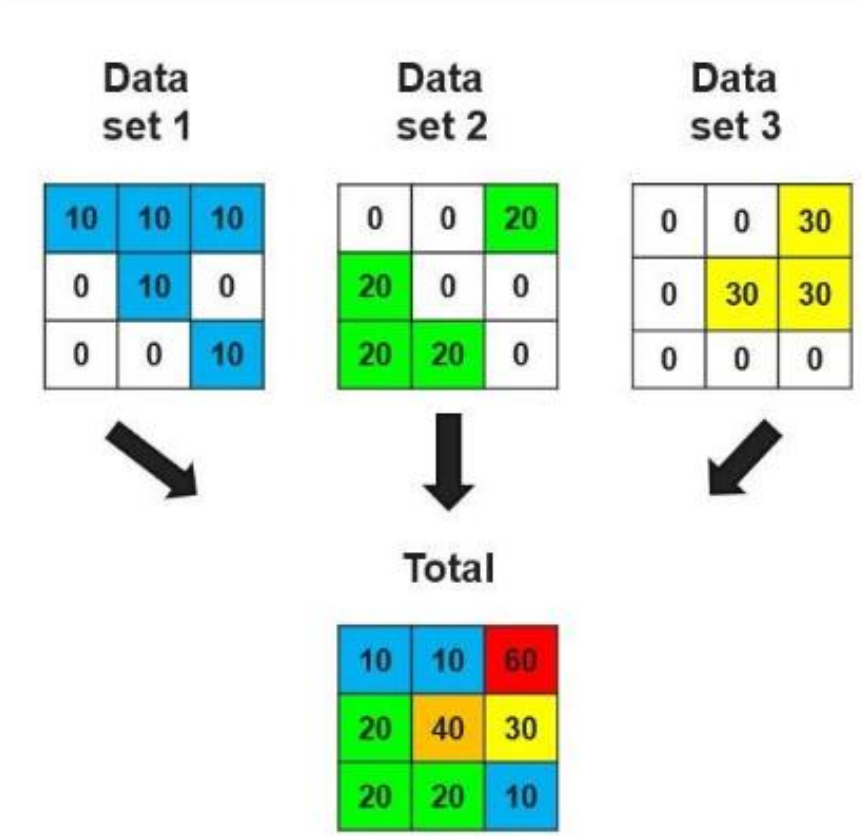
- *Public Engagement Meeting*
- *Public Survey*



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.

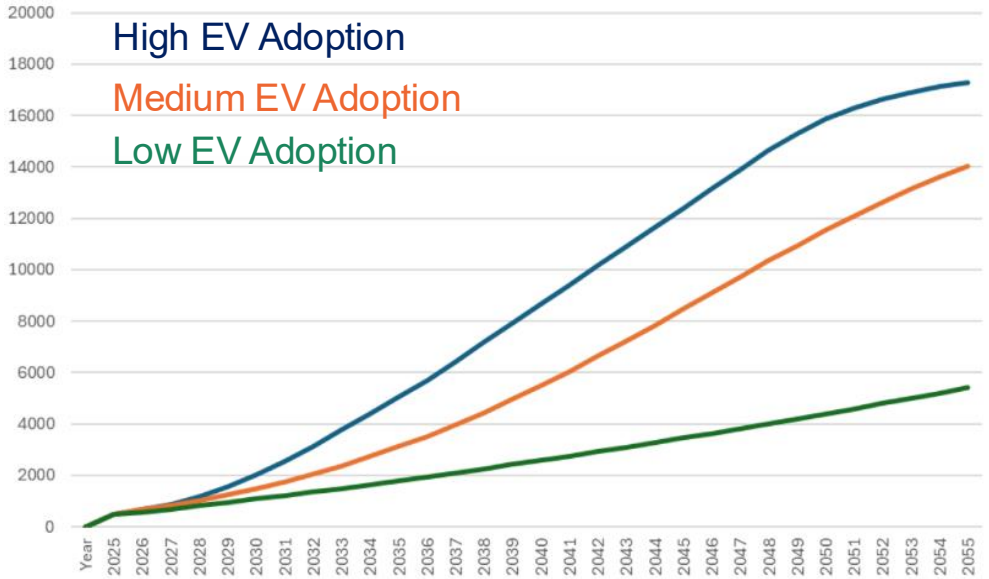
Each data set is weighted differently depending on the scenario being evaluated:

- 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

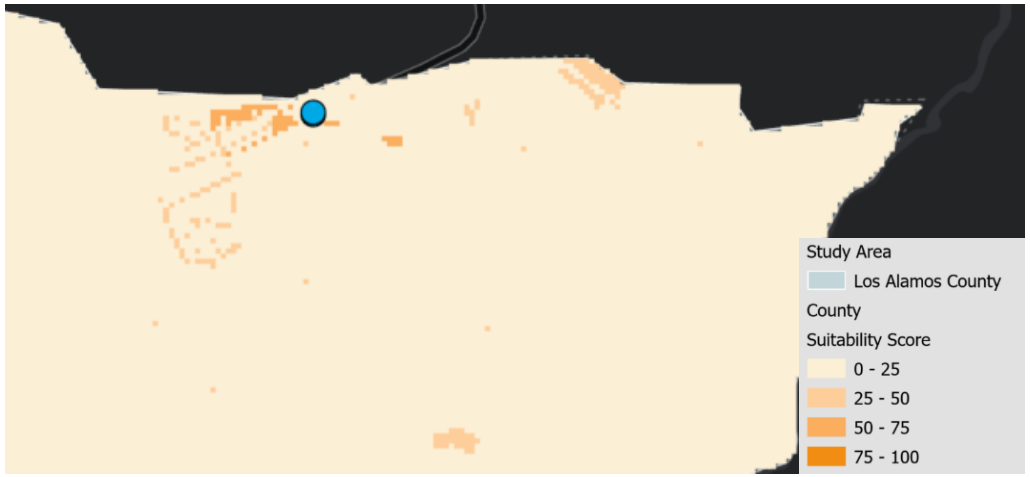
Scenario 1: At-Home Charging



- 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.

Los Alamos

White Rock

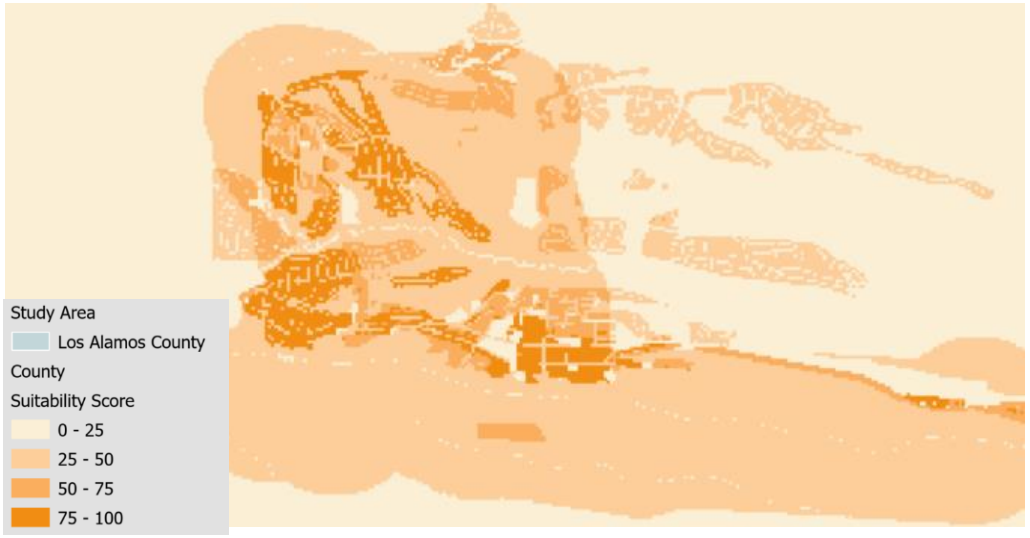


Scenario 2: County-Owned Charging

- 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	LA High School
Mesa Public Library	Sports Complex
LA Senior Center	North Mesa Elementary
Golf Course	Los Alamos Nature Center
LA Wastewater	WR Welcome Center
Ice Rink	WR Fire Department

Los Alamos



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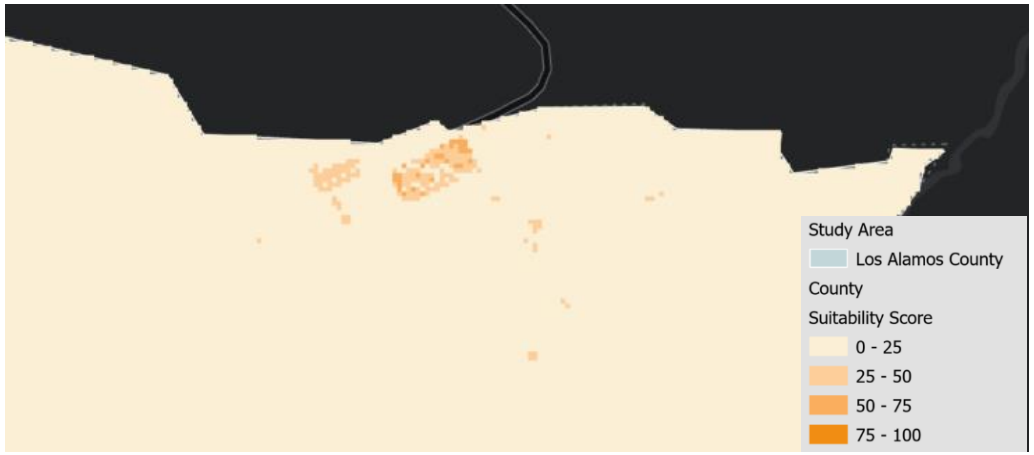
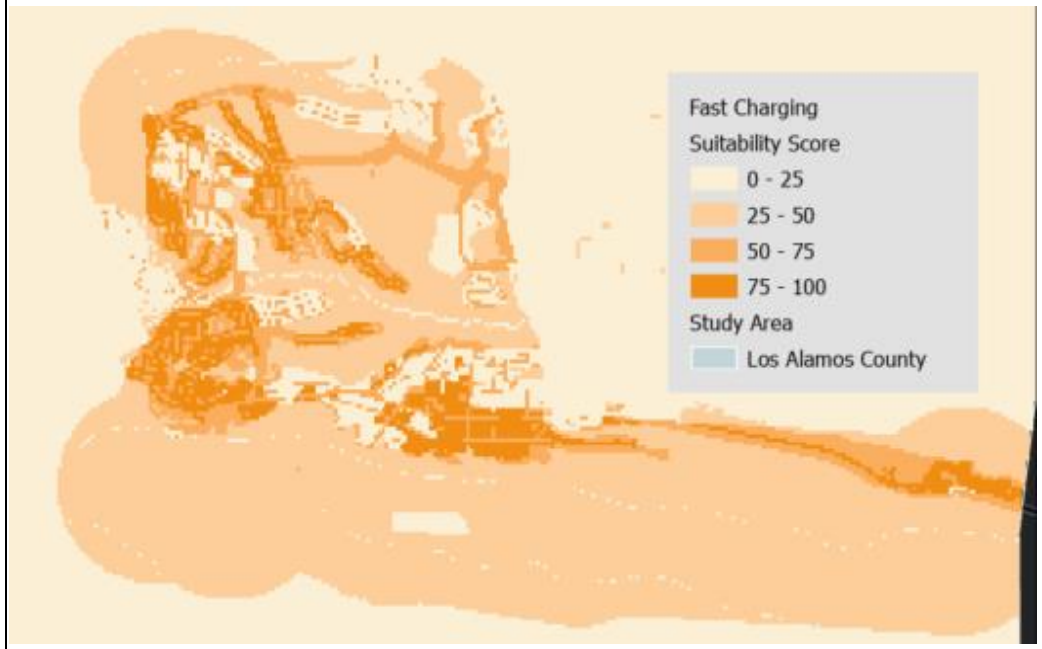


Scenario 3: Shared Level 2 Charging

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

Los Alamos



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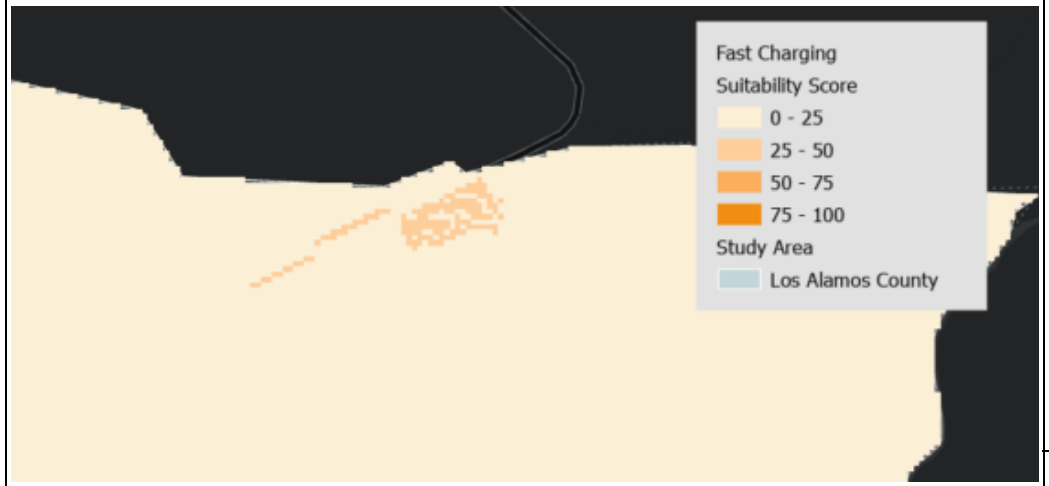
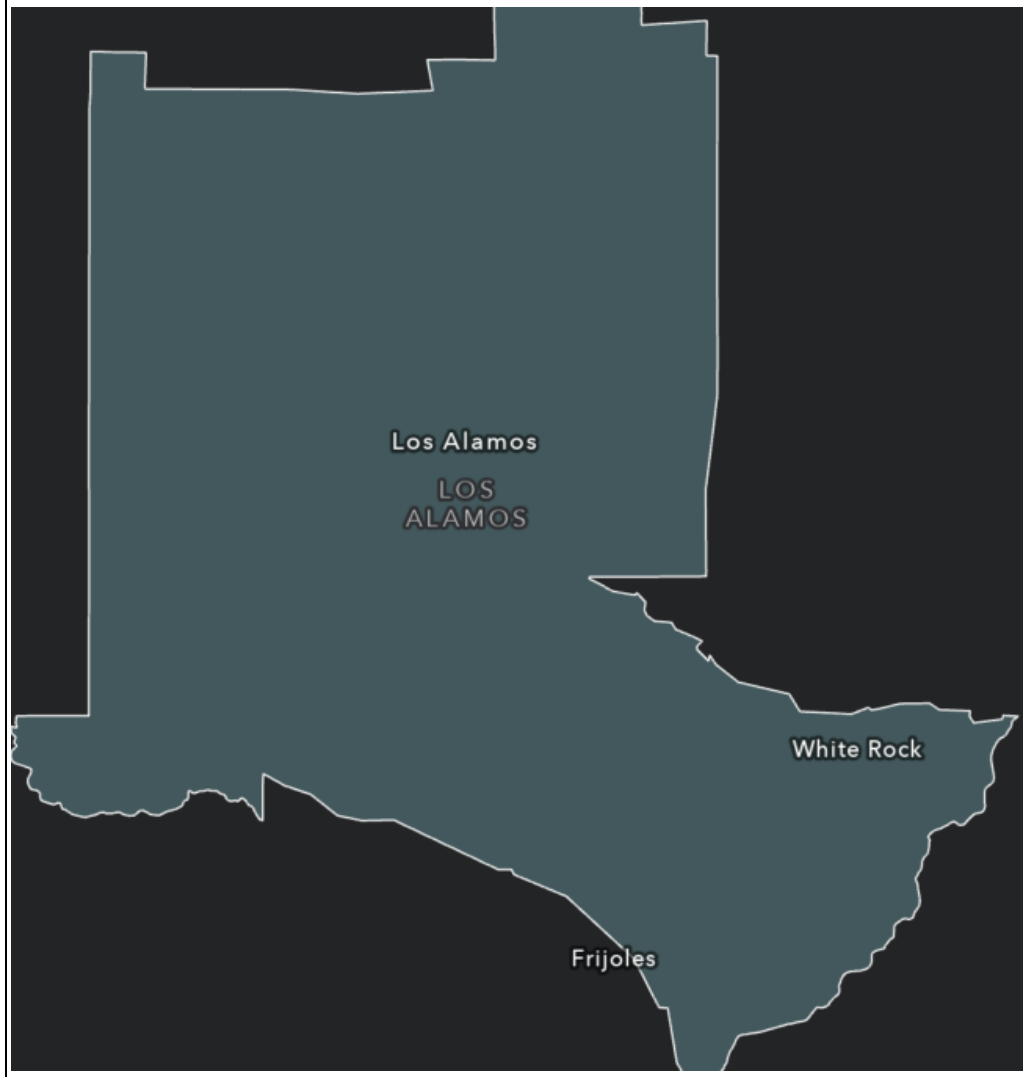


Scenario 4: Fast Charging

- Multi-family housing and commercial areas are prioritized
- Both county-owned and privately-owned 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

- County Council Presentation
- Board of Public Utilities Presentation
- Integrate feedback from meetings into draft

- Submission of Draft Plan
- Submission of Final Plan

General Questions

We welcome your feedback.