



2020

Next Stop: Equitable Access

A Transit to Parks Analysis

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Glossary of Terms

BIPOC: Black, Indigenous, People of Color (page 13)

Inclusive of Black, Indigenous, Asian, Native Hawaiian, Pacific Islanders, non-white Hispanic populations, Latinx and all people within the global majority.

Destination Parks (page 20)

Internal definition to streamline GIS analysis for transit access to parks. Inclusion of Regional (10+ acres) parks, Community (5-10 acres) parks, and Hiking and Multi-use Open Space areas.

Equality (page 13)

Differs from equity because equality means that processes and outcomes are spread equally across groups, but does not take into account historical or systemic disparities and does not inform where resources should be prioritized.

Equity (page 15)

Centers fairness in work and only exists when practices and systems work for everyone and when group identity cannot predict success and outcomes. We will also use equity to describe a social justice way of thinking that ensures resources and support are directed first to communities who have been the most underserved historically.

Green Interventions (page 13)

This describes a technique where greenspaces, parks, open spaces and other types of vegetation are created in areas that historically have lacked access to nature. This intervention serves to improve the physical and mental health of residents as well as the environmental health in the area.

Green Stormwater Infrastructure (GSI) (page 33)

In this case, we are using the definition of GSI as created by the [New Mexico Arid LID Coalition](#). GSI is a method of water management that is as sustainable, environmentally friendly and cost-effective as possible. GSI focuses on creating ecosystems to treat polluted stormwater runoff prior to entering aquifers, streams or other waterways. On-site management of stormwater is the first choice, with neighborhood or regional solutions being the next preferable solutions.

Greenspaces (page 7)

This term has multiple interchangeable definitions. In this specific report, we are using greenspaces to define a public area set aside within an urban environment for vegetation and other natural elements. Size, use, location and contents will vary greatly.

HFTS: High Frequency Transit Stop (page 27)

Defined as a transit stop where buses arrive for service every 15 minutes or less.

Low Impact Design (LID) (page 33)

In this case, we are using the definition of LID as created by the [New Mexico Arid LID Coalition](#). LID is a method of building design and community development with the intention of keeping storm water runoff as uncontaminated as possible. “Slow it down, spread it out, soak it in” is the motto of LID. Slowing the flow of stormwater reduces erosion and flooding dangers. Spreading stormwater out reduces the speed of the stormwater. Allowing the stormwater to soak into the ground recharges underground aquifers and fosters environmental growth.

Multi-Modal Transit (page 28)

A model where all means of transit are supported and safe through proper planning and urban design. This includes walking, biking, riding the bus or train, ride sharing and driving a personal vehicle.

Open Space, Parks, Acequias and Trails (page 9)

These terms are very broad, so we will define them based on how the City of Albuquerque and Bernalillo County defines them within multiple departments.

- **Open Space**

Managed to conserve natural and archaeological resources, provide opportunities for outdoor education, provide a place for low impact recreation and define the edges of the urban environment. Many are managed by CABQ’s Open Space Division, but we are broadly including spaces at the urban edge that are managed by US Fish & Wildlife, Bernalillo County, National Park Service or the Forest Service.

- **Trails**

Designated paths with an open space, greenspace or park to assist with travel in those areas for user safety and reduce negative ecological impact.

- **Parks**

Greenspaces within the urban core that are managed to provide recreational opportunities, gathering spaces, learning spaces and relaxing spaces for residents. Size and amenities will vary greatly.

- **Acequias**

Ditches or canals used for agricultural irrigation that have a rich and honored history in New Mexico. Some are co-managed to provide formal trail recreation opportunities, while others are used predominantly by farmers or informally by residents.

Transit Sovereignty (page 30)

A practice where an individual has self-governance over their means of travel, usually in reference to biking or walking.

Vulnerable or Underserved Populations (page 22)

This definition is inclusive of populations that may face multiple health, environmental or sociodemographic characteristics that put them at higher risk of social instability, chronic illness, reduced air or water quality and fewer resources due to historical and institutional discrimination or racism, and are in most need of green interventions and equitable transit.

Land Acknowledgement

Albuquerque is a beloved and beautiful city, surrounded by the splendor of Southwestern landscapes. As we work to increase equitable access to our public lands, we recognize that the principle of shared resources, shared land, respect for nature and interconnectedness was woven into the way of life for many Indigenous Peoples. We thank the Tiwa, Tewa, Towa, Keres, Diné, Zuni, Ndee and all other Indigenous Peoples who call this land home for their continuing stewardship of these lands. We honor their sovereignty and respect their unique connections to and knowledge of these places. We are committed to being more conscientious and inclusive by working closely with the Tiwa, Tewa, Towa, Keres, Diné, Zuni, Ndee, and all other Indigenous Peoples who call New Mexico home, to ensure a just and equitable future.



Acknowledgements

The Wilderness Society would like to thank many individuals and organizations for their invaluable contribution to the development of the study. Matt Stevenson from CORE GIS was the GIS analyst and cartographer, creating the data and the visuals that were critical to our recommendations.

Friends of Valle de Oro Wildlife Refuge, US Fish and Wildlife Service, New Mexico Dream Team, Environmental Education of New Mexico, New Mexico Voices for Children, Cottonwood Gulch Expeditions, Equality New Mexico, Kewa TRUTH Youth Council, Together 4 Brothers, Bernalillo County Community Health Council, National Park Service, City of Albuquerque Open Space Division, and Bernalillo County Open Space Division formed the Urban to Wild Coalition. All members of the Urban to Wild Coalition informed our recommendations so that they would address community concerns and needs, as well as lift up positive community stories.

Finally, we would like to acknowledge the Turner Foundation, a key supporter of the Urban to Wild initiative in Albuquerque.

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Preface:

Urban to Wild's Journey to Albuquerque

The physical and mental health benefits of having access to nature, specifically parks and open space, are well documented in research, oral histories and personal stories. The down sides of not having access to nature are also well documented and are contributing to increasing inequities in health disparities, educational outcomes, climate resilience and lifespan. In the urban context, public transit-dependent people often face the greatest challenges in accessing parks and open space. Although limited research has been done on the topic, park access through public transit provides a way to close gaps between people and nature in densely populated areas.

Since 2016, The Wilderness Society's (TWS) Urban to Wild program has been working to identify and reduce the barriers that exist between people in urban areas and nature so that everyone can equitably benefit from parks, open space and public lands. In 2017, we contributed to the Los Angeles County Metropolitan Transit Authority's Transit to Parks plan; in 2019, we along with CORE GIS completed a one-of-a-kind transit to parks analysis for King County, WA.

What this research highlights, and in some cases reaffirms, is that communities with a majority of non-white residents experience a lack of public transportation options to access parks and open space. Frequent bus services, basic street infrastructure to support safe pedestrian activity, ADA compliant sidewalks and bus stops, bike lanes, and amenities to facilitate travel between home and **greenspaces** are all lacking.

In both Seattle and Los Angeles, the Urban to Wild program has made large strides towards equitable access to the outdoors. In Seattle, we have collaborated with partners and agencies on Trailhead Direct, a transit-to-trails program that took 18,000 people from the urban core to regional hiking destinations in 2019. In LA, our team successfully helped pass Prop 68 which set aside \$4.1 billion for state and local parks, natural resources protection, climate adaptation, water quality, and flood protection. It also recognizes the historic and existing underinvestment in parks, trails and outdoor infrastructure in disadvantaged communities, as defined by the state.



Communities with a majority of non-white residents experience a lack of public transportation options to access parks and open space.



In 2019, we worked as members of the Park Equity Alliance to secure an annual designated funding allocation from Measure A, the Los Angeles County Safe, Clean Neighborhood Parks and Beaches Measure that will direct funds to creating parks in the communities of highest park need, in perpetuity.

As we expanded our programmatic reach into Albuquerque, New Mexico, a resilient, multicultural city with a history of prioritizing land conservation, we worked to better understand the mobility barriers residents face. We took an inclusive approach to studying transit to parks connections. The research team knew it was important to consider the data while also looking to our local partner organizations to inform and assess findings and share their personal testimonies of accessing parks and open space. What we found was similar to our findings in L.A. and King County: Communities facing the harshest inequities (before and during the current pandemic) struggle with a transit system that does not yet allow easy access to parks and open space.

Albuquerque has a network of beautiful and scenic local, regional, state and federal public lands that are visible from all directions. However, there is more to be done to create equitable access to the outdoors. As cities adapt to a rapidly changing climate and more people move into

urban centers, park pressure increases while opportunities for park space will conflict with a need to balance housing demand. Organizations, individuals, elected/appointed officials, public agencies, businesses and schools should have the opportunity to come together to suggest solutions to improve access to the outdoors to ensure a higher quality of life for all Burqueños.

We hope that the recommendations in this report will help support the goals of community members and local, state and federal jurisdictions in order to more holistically support the park access needs of people now and into the future.

"Ideally, I hope that together we can protect our greenspace and free ourselves from the false sense that somehow we are separate from one another."

Fernanda Banda
New Mexico Dream Team

Introduction:

Albuquerque: A rich history of natural areas

The city of Albuquerque is nestled in the 25-million-year-old Rio Grande Rift Valley. Albuquerque is home to nearly 700,000 Burqueños and is surrounded by iconic Southwest landscapes. The Sandia Mountains rise to the east, turning watermelon pink at sunset, while the Rio Grande river flows through the center of the city, sustaining life. To the west, lava flows, small volcanoes and petroglyphs dot a seemingly endless mesa. Not surprisingly, Albuquerque is considered one of the best urban areas in the United States in terms of access to nature.

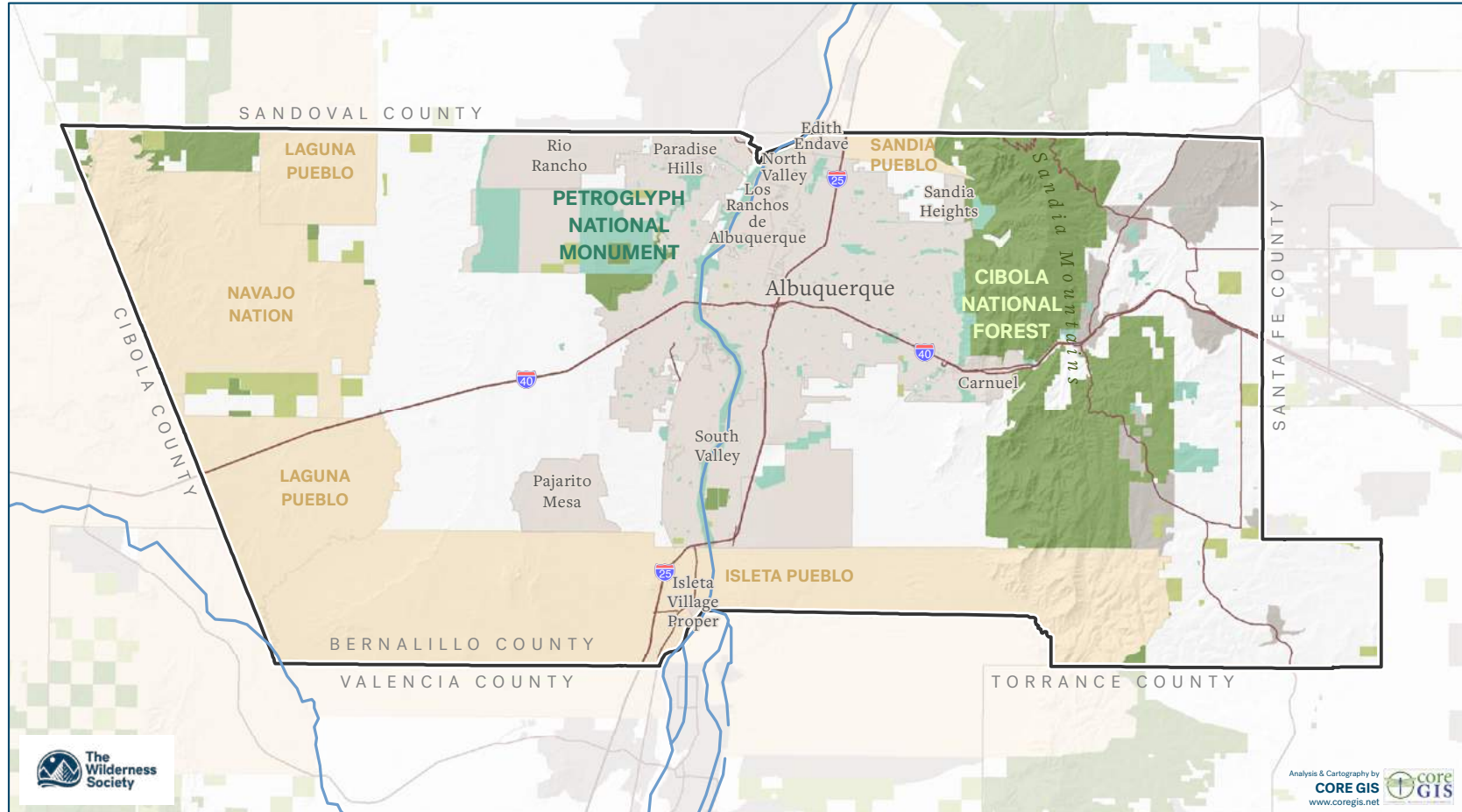
Roughly 23% of the city¹, or 27,000 acres¹, ([Map 1](#) & [Map 2](#)) are designated [open spaces](#), [parks](#), [acequias](#) and [trails](#) for residents to enjoy. If we include the open spaces from Bernalillo County, which contains the Albuquerque metro area, then residents have access to over 170,000 acres of open space for recreation. Not far behind other cities such as Anchorage, AK or Scottsdale, AZ, 90% of Albuquerque's parks and open spaces are considered natural areas that are ecologically intact or reclaimed, holding a greater ecosystem value for wildlife and people.¹ John Fire Lame Deer, Mineconju-Lakota Sioux, depicts the importance of our relationships to these natural areas when he tells us,

[I]et's sit down here, all of us, on the open prairie, where we can't see a highway or a fence. Let's have no blankets to sit, but feel the ground with our bodies, the earth, the yielding shrubs. Let's have the grass for a mattress, experiencing its sharpness and its softness. Let us become like stones, plants, and trees. Let us be animals, think and feel like animals...[a] good way to start thinking about nature, talk about it. Rather talk to it, talk to the rivers, to the lakes, to the winds as to our relatives.¹¹



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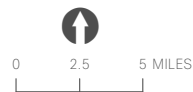
Albuquerque—Bernalillo County Regional Context



Land Manager

- Federal
- State
- Local
- NGO
- Native Lands

- Bernalillo County Boundary
- Other County Boundaries
- Cities within Study Area
- Other Cities



DATA: BERNALILLO COUNTY, USGS, CBI PAD, NMDOT

Analysis & Cartography by
CORE GIS
 www.coregis.net





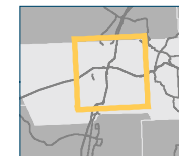
Parks, Open Space and Street Network

Parks and Open Space

- City and County
- Federal, State, Other
- Designated Pueblo Boundaries
- Albuquerque City Limits
- Bernalillo County Boundary
- Highways and Interstates
- Major Streets
- Street Network



Study Area shown in orange





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The passion to protect nature for community benefit is rooted in the land's rich history, stretching back time immemorial to the original inhabitants. For the Indigenous peoples living in the valley, land was a shared communal resource. The main inhabitants and stewards of the valley were the Tiwa Pueblo people, but it was also a major trading hub. Neighboring Keres, Tewa, Towa, Diné, Ndee and Zuni people also spent time here. During this time, land ownership was not a practiced concept and resources were shared. As land was seized and traded hands, land grants emerged. In some cases, land grants were a way for the Spanish crown to maintain governance and provide support to constituents from afar.⁹ However, there were numerous types of land grants that were distributed to Hispanic and Pueblo people for multiple purposes during Spanish (1598-1821) and Mexican (1821-1846) rule of New Mexico history.^{52,53} Like the Puebloan residents, the “idea of commons”, or shared spaces, was present in the practice of land grants.⁹ Land grants were predominantly designed to partition land such that all residents would have access to water, timber, hunting and farm land.⁹ In the 1900s, people like Aldo Leopold, Clyde Tingley and Bob Burgan are credited with advocating for Albuquerque open spaces, though the environmental movement to protect the Rio Grande in the 1960s also played a large role in emphasizing the importance of nature in an industrial age.⁹ The 1980s saw the formation of the City's Open Space division and a formal municipal protection of the “idea of commons” legacy.⁹

This year, more people are discovering the critical role nature plays in their lives. As the COVID-19 pandemic uproots routines, lifestyles and communities, the outdoors are becoming an important place for respite and sanctuary. People know that being in nature makes them feel better; but many, especially families that have been living in cities for generations, are not well connected and sometimes unaware of how important nature is to their wellbeing. One reason for this disconnection could be traced back to the concept of “dominion” over nature

"The outdoors can be as minute and intricate as the bugs and dirt on the sidewalk and as striking and impressive as a backpacking trip in Wilderness."

Monica Stert
Cottonwood Gulch Expeditions

and the need to compartmentalize humans from nature in order to cope with the destruction of nature. As land has become increasingly fragmented and urbanized, our very definitions of nature have changed to be something “out there.”

Eighty percent of people in the United States live in urban areas, and the number is increasing.⁴ As more and more people move to urban centers, the need to create equitable access to nature is crucial to human health. Increased presence of urban greenspaces statistically reduces stress, increases wellbeing, encourages and promotes physical activity, and restores cognitive function.^{5,6,7,8} These positive effects of experiences in nature are even greater for children and those of a low socioeconomic status.⁶ More recently, academic researchers, doctors, conservation organizations and cities are pivoting to focus on incorporating more nature into the urban landscape to support better overall health. Western culture is slowly catching up to what Indigenous peoples have understood since time immemorial—the importance of belonging in nature and feeling connected with nature. There are countless Indigenous viewpoints of nature and its benefits, standing in stark contrast to the white dominant culture viewpoint that encourages the exploitation of nature that led to our generational disconnection from nature.¹⁵ By increasing our access to and understanding of nature, we hope that people will rediscover their intrinsic connection to nature and heal through that process.

Reconnecting the urban world with nature also improves environmental health by improving air quality, reducing and cleaning stormwater run-off, and lowering ambient air temperature.^{7,8} In Albuquerque, these benefits are needed, not just to increase the mental and physical health of the residents, but to make the city a safer, more comfortable place to live. One of the most pressing dangers in our urban core is the Urban Heat Island (UHI) effect. This is a phenomenon that occurs when there is a large

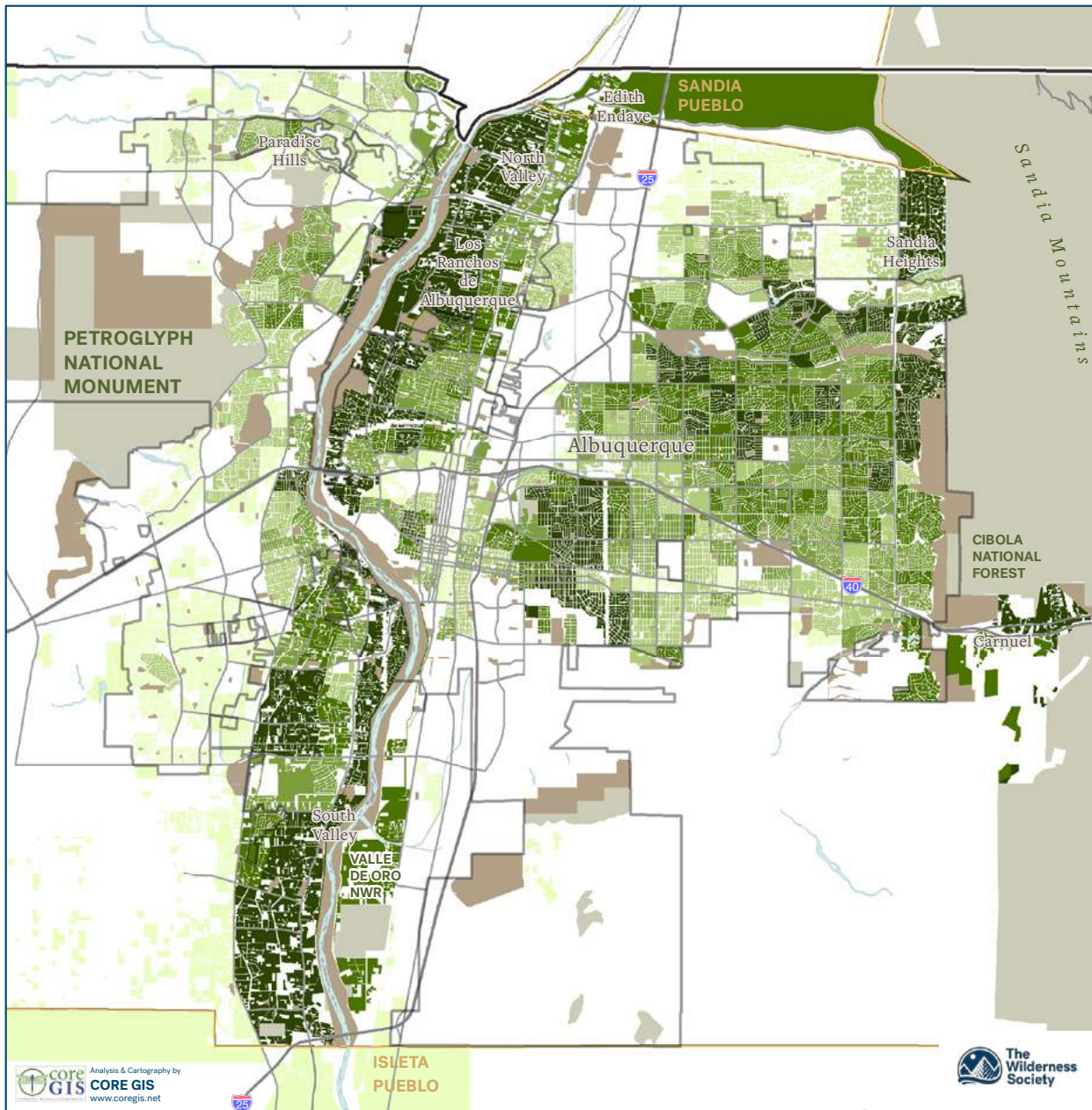
concentration of hard surfaces that absorb and radiate heat, increasing the ambient air temperature. New Mexico is the second-fastest warming state in the United States, threatening future livability.¹⁵

In Albuquerque, the UHI effect varies across the city and is worst in areas with the least greenspace (*Map 3*).¹⁰ These areas also tend to have predominantly Black, Indigenous, People of Color (BIPOC) residents with the least access to nature and the greatest risk for heat-related illnesses.¹⁰ While **green interventions** cannot be the only solution, they can be an effective mitigation strategy alongside infrastructure changes for heatwaves, and must be prioritized in high-risk neighborhoods.⁸ Through urban greening, we can make the space more livable by redesigning cities so that transit to large outdoor spaces is accessible and equitable while also adding vegetation to bus stops, neighborhood parks, schoolyards and sidewalks. In our work, we are prioritizing transit to bring people to nature and advocating how our transit spaces can be greener, safer and more welcoming to our communities.

As we saw with the UHI data, despite the acreage of greenspaces available to many residents and a shared value of nature, not everyone in Albuquerque is able to equitably benefit from and experience these spaces. Many people and organizations have been working over the years to increase access and connections to nature for the community. As a result, Albuquerque does have some of the narrowest gaps in nature access for low-income families and BIPOC.¹⁶ While there may be something close to **equality** in terms of access, quality and acreage are often not equitable.¹⁷ Therefore, we still have a long



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Percent Tree Canopy

Tree Canopy

Percentage of Block Group with Trees

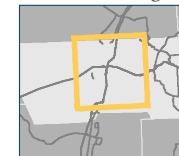
- 0.1% - 7.2%
- 7.3% - 11.4%
- 11.5% - 14.5%
- 14.6% - 18.7%
- 18.8% or more

Parks and Open Space

- City and County
- Federal, State, Other
- Designated Pueblo Boundaries
- Albuquerque City Limits
- Bernalillo County Boundary
- Highways and Interstates
- Major Streets



Study Area shown in orange





journey ahead of us to create equitable access, quality and design of our parks and open spaces. Albuquerque is a multicultural city, with nearly 59% of residents identifying as BIPOC, predominantly Latinx.² The areas of the metro-area with higher risk of sociodemographic, health and environmental vulnerabilities tend to be areas with larger populations of BIPOC, fewer parks or greenspaces and not as well serviced by transit (*Map 4 & Map 5*). These areas, predominantly the South Valley, International District, Downtown and the North Valley, have been some of the most historically underserved areas of the metro-area. In order to understand the way forward to equitable access, we have to address the history of public lands and racism. The feel-good idea that the outdoors are for all and therefore **equity** has been achieved, is a privilege that has lured individuals and industries to think there is no more work to do.¹²

Even our definition of outdoor recreation is often defined by prominent white players in these fields, leading to the elitism of outdoor sports. In a 2018 national survey, 74% of outdoor participants in national parks, forests and monuments identified as Caucasian.³ However, another survey that asked participants about outdoor activity only, not destination, showed a different story—while white participation was still the highest, BIPOC participation was much higher than visitation to national sites (50% for some groups) and Black participants went on more outings than other ethnic groups.³ The reason for lower participation on certain public lands or among certain groups cannot be linked to one thing; however, it can be generally attributed to past and present discrimination, generational trauma, lack of representation, decreased access and socioeconomics.^{5,12} Inequitable transit access, distribution of greenspaces, health care and childcare, as

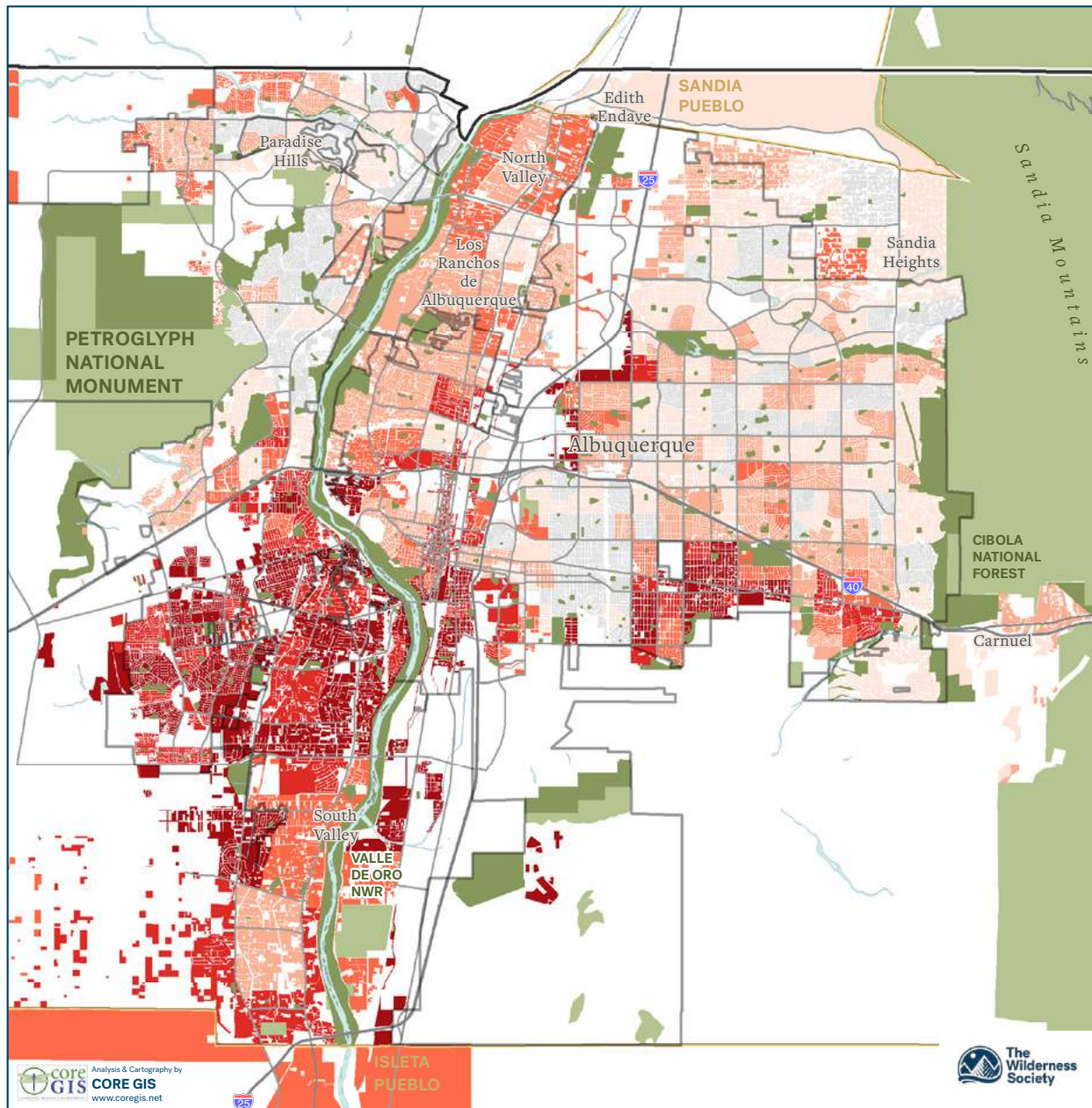
well as lack of environmental protections are also factors. In spite of these systemic barriers, communities of color have a long history of stewarding and connecting to our natural spaces. They are on the frontlines of fighting for these lands, but are rarely recognized for their work.¹⁴

As we look to the future, we are blessed to work alongside a strong coalition of community-based organizations and partners that are championing equity across all sectors throughout Albuquerque. We worked with Cottonwood Gulch Expeditions, Bernalillo County Community Health Council, Environmental Education of New Mexico, Friends of Valle de Oro National Wildlife Refuge, Kewa TRUTH Youth Council, New Mexico Dream Team, Equality New Mexico, New Mexico Voices for Children, Together 4 Brothers, Valle de Oro National Wildlife Refuge, National Parks Service, City of Albuquerque Open Space Division and Bernalillo County Open Space. A number of these organizations are nontraditional leaders within the mainstream conservation movement and their wisdom continues to support this work to move forward in a more equitable and inclusive way that would not have been possible without them. The coalition is constantly striving to be more representative of communities most directly impacted by inequities in the outdoors. In our work, we are prioritizing the voices of our communities and recognizing that transit is just one step on the journey to equitable access to the outdoors. We will continue to look at how our work can support people in accessing basic needs as well as accessing healing outdoor spaces on the local level, especially in light of changing events around the world.

"My vision for greenspace in our community is an accessible, equitable and just network of public lands that are managed hand in hand with the community they serve and that provide a diversity of outdoor experiences that fulfills the diverse needs of the people of our community."

Jennifer Owen-White

Refuge Manager at Valle de Oro Wildlife Refuge



Total Vulnerabilities

All Vulnerabilities

- 1
- 2
- 3 - 4
- 5 - 7
- 8 - 10
- 11 - 18

Parks and Open Space

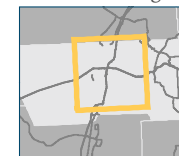
- City and County
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- Albuquerque City Limits
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- Major Streets

Total Vulnerabilities combine Sociodemographic, Health, and Environmental Vulnerabilities

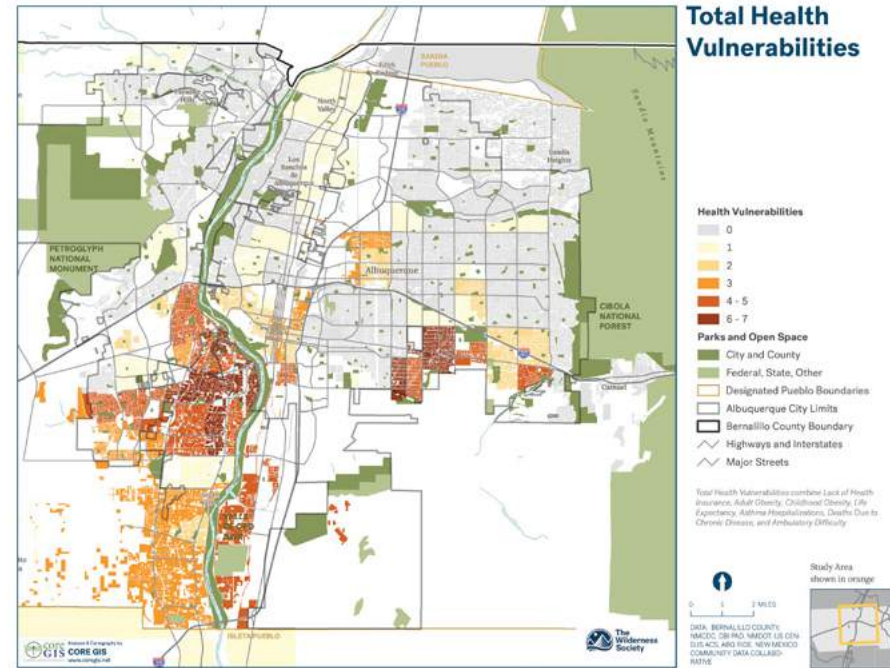
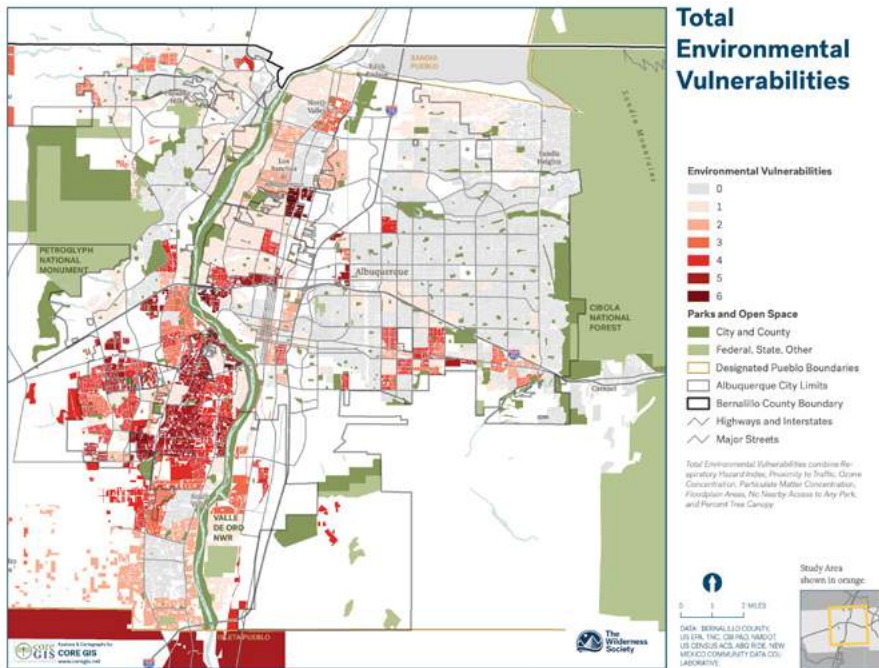
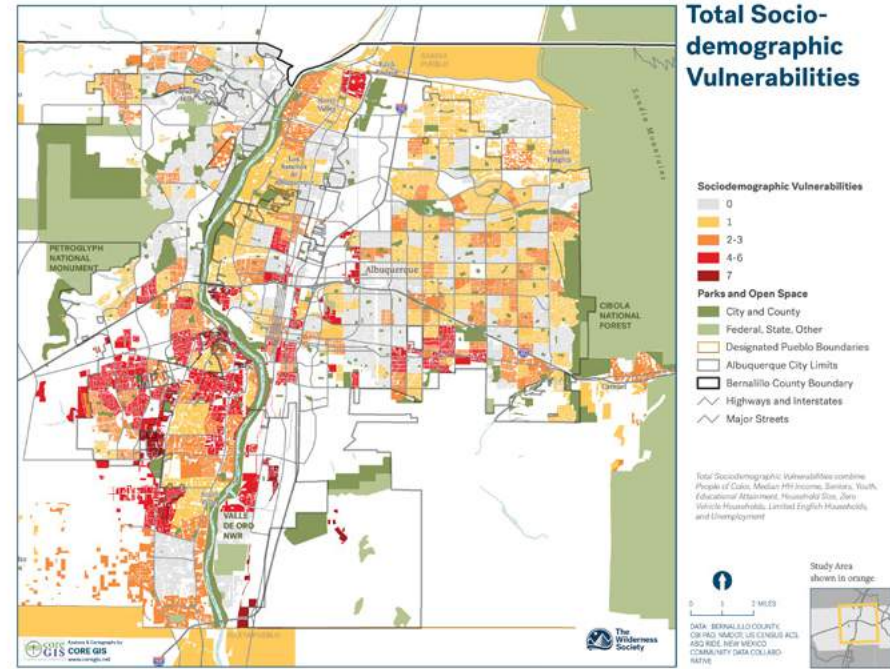


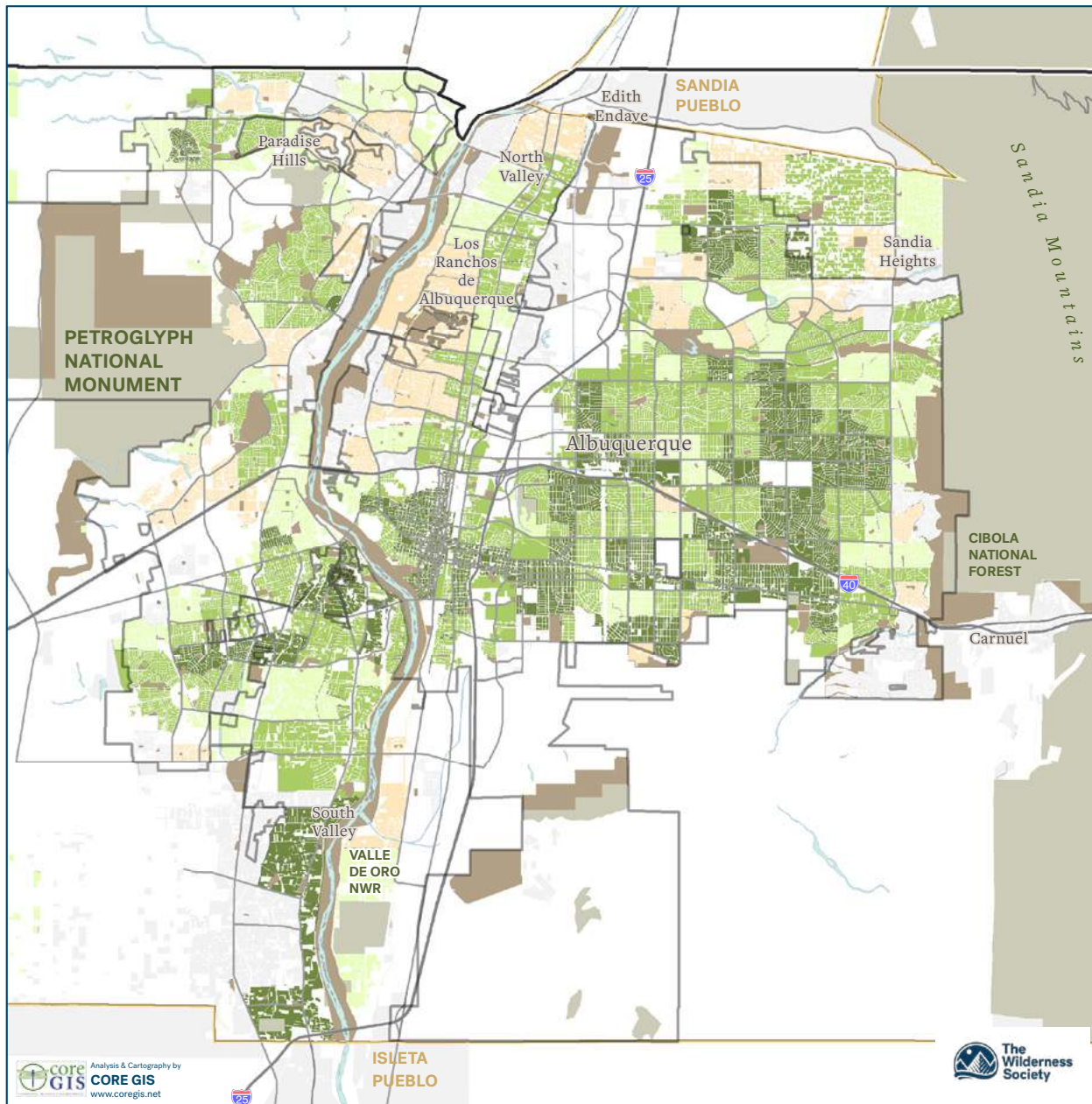
DATA: BERNALILLO COUNTY, NMDC, US EPA, CBI PAD, NMDOT, US CENSUS ACS, ABO RIDE, NEW MEXICO COMMUNITY DATA COLLABORATIVE

Study Area shown in orange



Breakdown of Map 4: Total Vulnerabilities

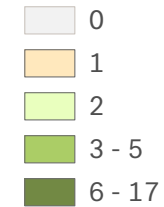




Community/Regional Parks Accessible via Transit within 30 Minutes, Wednesday PM

Parks Within 30 Minutes via Transit

Wednesday 4-8 pm

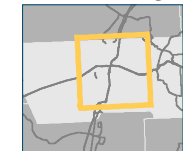


Parks and Open Space

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Study Area shown in orange



Methodology:

How did we gather our data?

This study uses Geographic Information System (GIS) technology to map and analyze transit routes to parks in the greater Albuquerque region. We layered parks, transit and demographic data to identify populations and neighborhoods that are in need of increased access to parks via transit. As we center equity in all of our work, we focus our priorities on populations who have historically and presently been most disconnected from the parks and open spaces that make the Albuquerque area unique. We thank our coalition partners for their insights into defining these populations and for their feedback on the overall methodology of the study.

Demographics

Which communities should we prioritize?



Transit

When/where/how often do public transit lines reach parks?



Parks

Which parks do we want to connect to communities?





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Parks Classifications

The parks and open space data was obtained from the City of Albuquerque Open Space Division, City of Albuquerque Parks & Recreation and the Bernalillo County Greenprint ([Map 6](#)). We classified the areas as follows based on size:

Park Classifications		
Open space:	closed facility hiking	special-use multi-use undeveloped
Regional park:		10+ acres
Community park:		5-10 acres
Neighborhood park:		1-5 acres
Pocket park:		<1 acre

While all these parks and open spaces provide varying and unique benefits, some might be considered more worthy of a bus trip due to the available opportunities, size or time spent there. We asked our partners to name specific parks they would be most likely to visit via transit and their responses generally fell into these four categories: Open Space (hiking), Open Space (multi-use), Regional and Community parks. Therefore, we will consider these four categories as **destination parks** for the transit analysis.

Transit to Parks Classifications

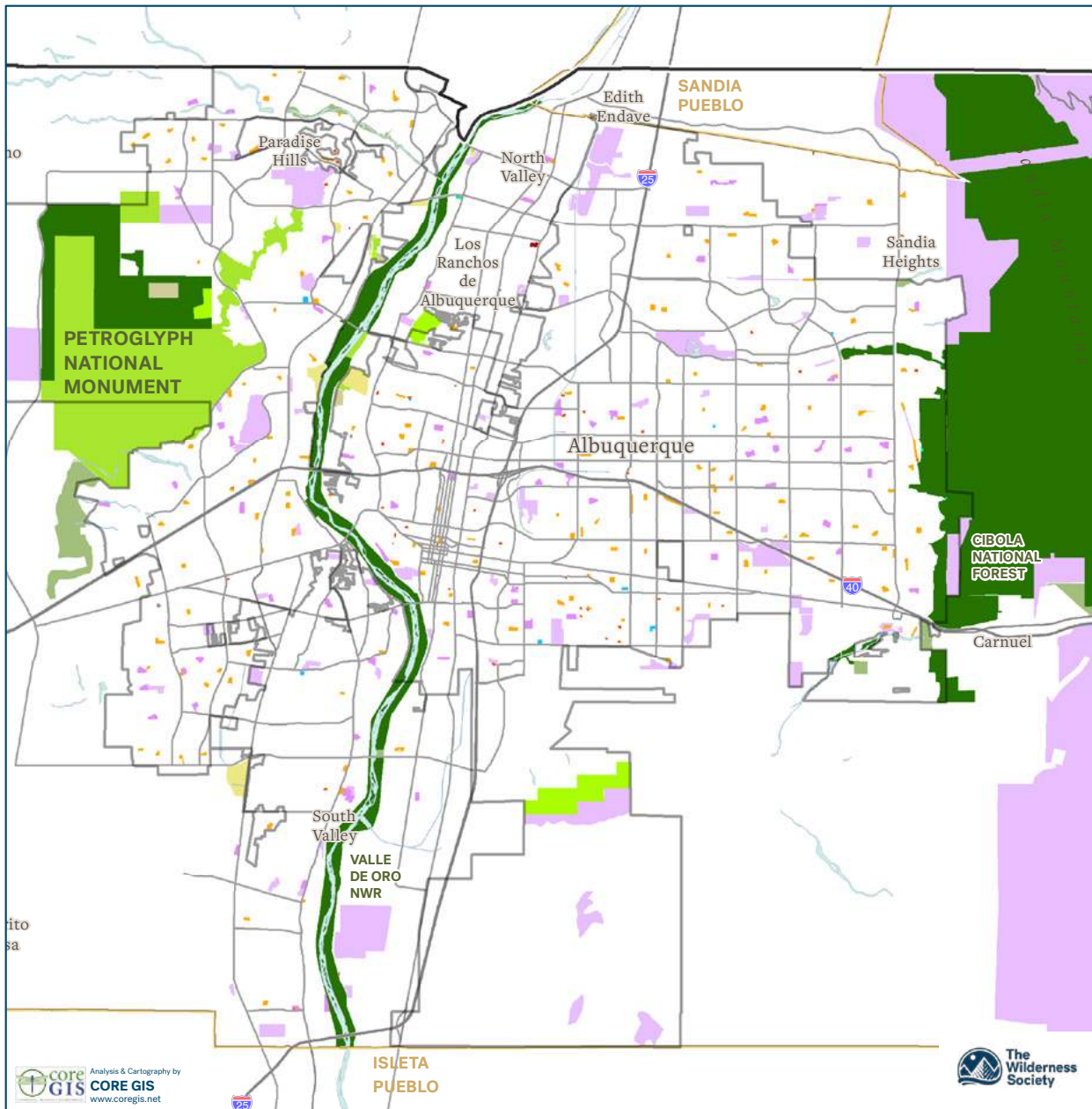
Using General Transit Feed Specification data from ABQ RIDE, we classified all areas in the Albuquerque region as having "Good", "Moderate" or "Poor" transit access to parks. We defined "Good" access as being able to reach at least 2 Community or Regional parks AND at least 1 Hiking or Multi-use Open Space within 30 minutes from home to park. This includes the time it takes to get from home to the bus stop, wait for the bus, ride the bus and get from the destination stop to the park. Any area that could not reach 2 Community or Regional parks NOR 1 Hiking or Multi-use Open Space within 30 minutes was classified as having "Poor" access and anything in between as "Moderate" access.

The majority of our partners stated that they would be most likely to visit a park on a Saturday morning. A few expressed interest in going after work on a weekday, so we mapped transit routes for a generalized Saturday from 8am-12pm and a generalized Wednesday from 4pm-8pm.



© Kay Bounkeua

Parks & Open Space by Type



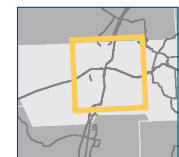
Parks

- Aquatics Facility (8)
- Fully-inclusive Playground (1)
- Pocket Park (54)
- Neighborhood Park (175)
- Community Park (75)
- Regional Park (88)

Open Space

- Open Space (closed)
- Open Space (facility)
- Open Space (hiking)
- Open Space (multi-use)
- Open Space (special use)
- Open Space (undeveloped)
- Open space (closed)
- Designated Pueblo
- Boundaries
- Albuquerque City Limits
- Bernalillo County Boundary
- Highways and Interstates
- Major Streets

Analysis & Cartography by
CORE GIS
 www.coregis.net



DATA: BERNALILLO COUNTY,
 CBI PAD, NMDOT, CITY OF
 ALBUQUERQUE

Study Area
 shown in orange

Defining Vulnerable Populations

With equity at the forefront of this work, we needed to define the populations to prioritize for increased transit access to parks. Access to parks and transit are not equal across demographics or geographies, so we aimed to focus our efforts on populations who have historically and presently faced challenges in accessing these public services.

The 23 characteristics we used to define **vulnerable populations** fall into three categories: health, environmental and sociodemographic vulnerabilities. The characteristics represent health and environmental burdens that may be mitigated by increased access to nature, and sociodemographic factors that are often correlated with lower access to parks and a higher likelihood to experience other adverse social outcomes. By choosing these populations, we focused our analysis on those who could benefit the most from increased access to parks via transit.

Sociodemographic

People of color
Household income
Seniors
Youth
Unemployment
Educational attainment
Household size (renter/owner)
Zero vehicle
Limited English

People of color: Population who racially identify as something other than “White Alone, not Hispanic or Latino.”

Household income: Gross income earned by all working members of the household.

Seniors: Population 65 years of age and over.

Youth: Population under 18 years of age.

Unemployment: Population age 16 and over who are unemployed. Numbers reflect pre-COVID levels.

Educational attainment: Population age 25 and over with a high school diploma or higher.

Household size: Average number of people in a household

Zero vehicle: Households without access to a personal vehicle

Limited English: Household in which all members age 14 and over speak a non-English language and speak English less than “very well.”

Environmental

Respiratory hazard
Proximity to traffic
PM2.5 concentration
Ozone concentration
Tree canopy
Floodplain areas
No nearby access to any park

Respiratory hazard: Ratio of air toxics exposure concentration to health-based reference concentration.

Proximity to traffic: Count of vehicles at major roads within 500 meters, divided by distance in meters.

PM2.5 concentration: µg/m³ annual average of fine inhalable particles in the air.

Ozone concentration: Ozone summer seasonal average of daily maximum 8-hour air concentration in ppb.

Tree canopy: Percentage of land area covered by tree leaves, branches, and stems when viewed from above.

Floodplain areas: Low-lying riparian areas that are high risk for flood events.

No nearby access to any park: No access to a park within 1/2 mile along the street network.

Health

Lack of health insurance
Adult obesity
Childhood obesity
Life expectancy
Asthma hospitalizations
Chronic disease
Ambulatory difficulty

Lack of health insurance: Population age 0-64 without health insurance coverage.

Adult obesity: Population age 18 and over who are have a BMI of over 30.

Childhood obesity: Population of elementary school students who are in the 95th percentile or higher for BMI.

Life expectancy: Average number of years a newborn is expected to live if current mortality rates continue to apply.

Asthma hospitalizations: Cumulative rate of asthma hospitalizations per 10,000 residents.

Chronic disease: Deaths due to chronic disease per 100,000 residents including cancer, diabetes, Alzheimer’s, hypertension, heart disease, and more.

Ambulatory difficulty: Population having serious difficulty walking or climbing stairs.



To prioritize the most vulnerable areas, we selected the block groups within the top quartile for each characteristic. For example, all 436 block groups in the study area were placed in descending order based on the percentage of youth who live there, then the top 25% of block groups on the list were pulled out. We defined the low-income characteristic as less than 80% of the household area median income (AMI), which amounts to \$40,902. We defined high people of color block groups as greater than 70% people of color.

Layering Categories

To see how transit, parks and people interact, we created a 3x3 matrix of level of transit access to parks by number of vulnerabilities. This way, we could see the varied combinations of transit access to parks and vulnerabilities and see nuances between areas rather than just “good access” and “poor access.”

We defined the levels of transit access to parks as follows

GOOD

Able to reach at least 2 Community or Regional parks AND at least 1 Hiking or Multi-use Open Space within 30 minutes

MODERATE

Able to reach either 2 Community or Regional parks OR at least 1 Hiking or Multi-use Open Space within 30 minutes

POOR

Unable to reach neither 2 Community or Regional parks NOR at least 1 Hiking or Multi-use Open Space within 30 minutes

We defined the categories of vulnerabilities as follows

LOW

Block group has 0-1 vulnerabilities

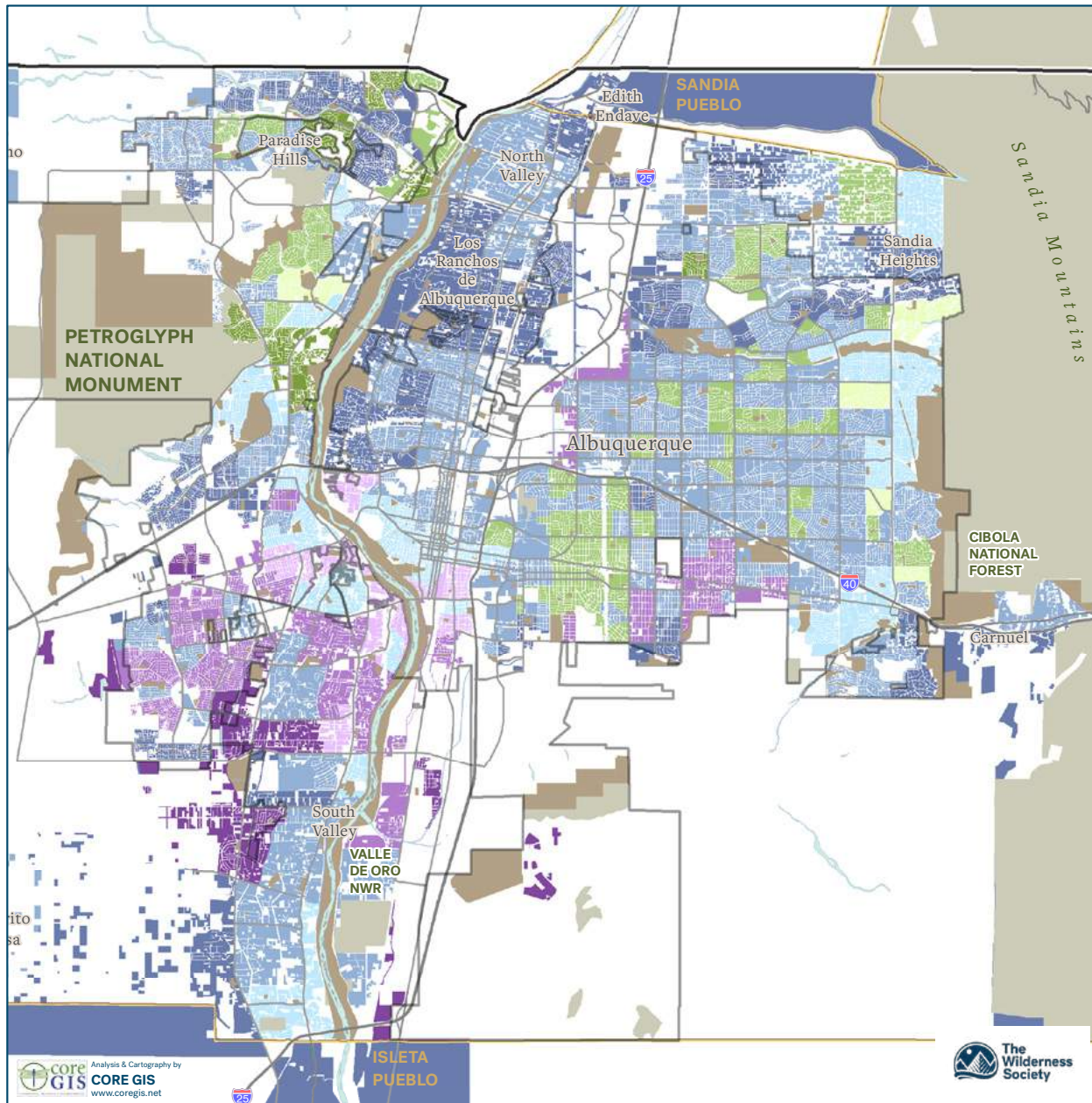
MODERATE

Block group has between 2-10 vulnerabilities

HIGH

Block group has 11-23 vulnerabilities

Block groups that have poor transit access to parks and high vulnerabilities, displayed in dark purple, are defined as Opportunity Areas, which present the greatest opportunity for equitable investment (Map 7 & Map 8).



Vulnerabilities by Transit Access, Saturday AM

Population by Number of Vulnerabilities by Quality of Transit Access

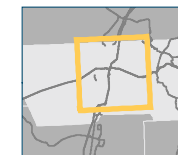
Transit Access	Vulnerabilities		
	High	Moderate	Low
Good	18,317	66,147	12,749
Moderate	90,083	252,763	64,049
Poor	24,718	135,448	14,293

Parks and Open Space

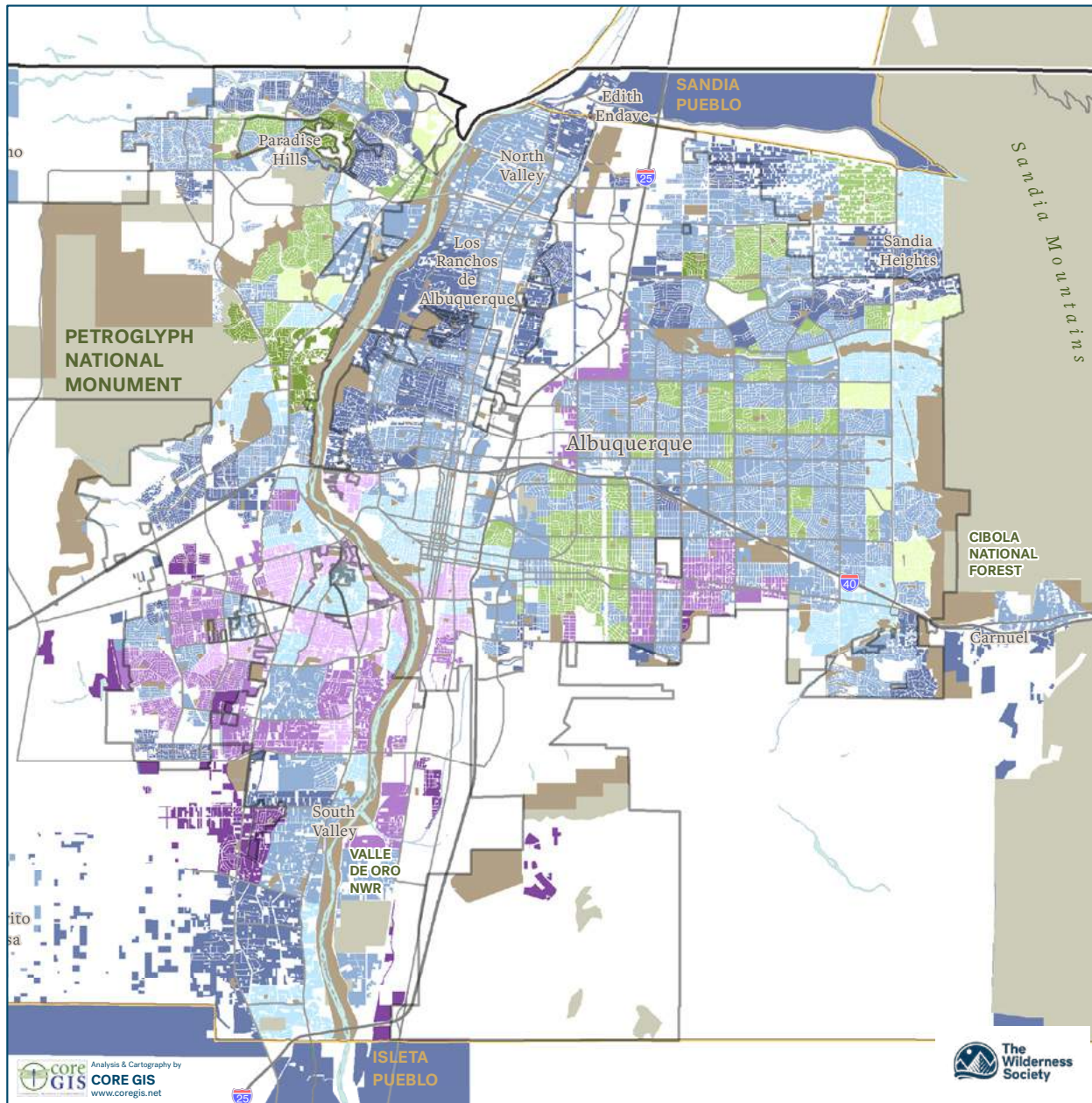
- City and County
- Federal, State, Other
- Designated Pueblo Boundaries
- Albuquerque City Limits
- Bernalillo County Boundary
- Highways and Interstates
- Major Streets



Study Area shown in orange



DATA: BERNALILLO COUNTY, CBI PAD, NMDOT, US CENSUS ACS, ABO RIDE, NEW MEXICO COMMUNITY DATA COLLABORATIVE



Vulnerabilities by Transit Access Wednesday PM

Population by Number of Vulnerabilities by Quality of Transit Access

Transit Access

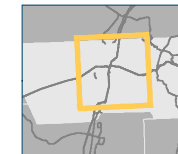
Transit Access	Vulnerabilities		
	High	Moderate	Low
Good	32,945	73,651	16,901
Moderate	79,447	255,056	62,499
Poor	20,726	125,651	11,691

Parks and Open Space

- City and County
- Federal, State, Other
- Designated Pueblo Boundaries
- Albuquerque City Limits
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- Major Streets



Study Area shown in orange



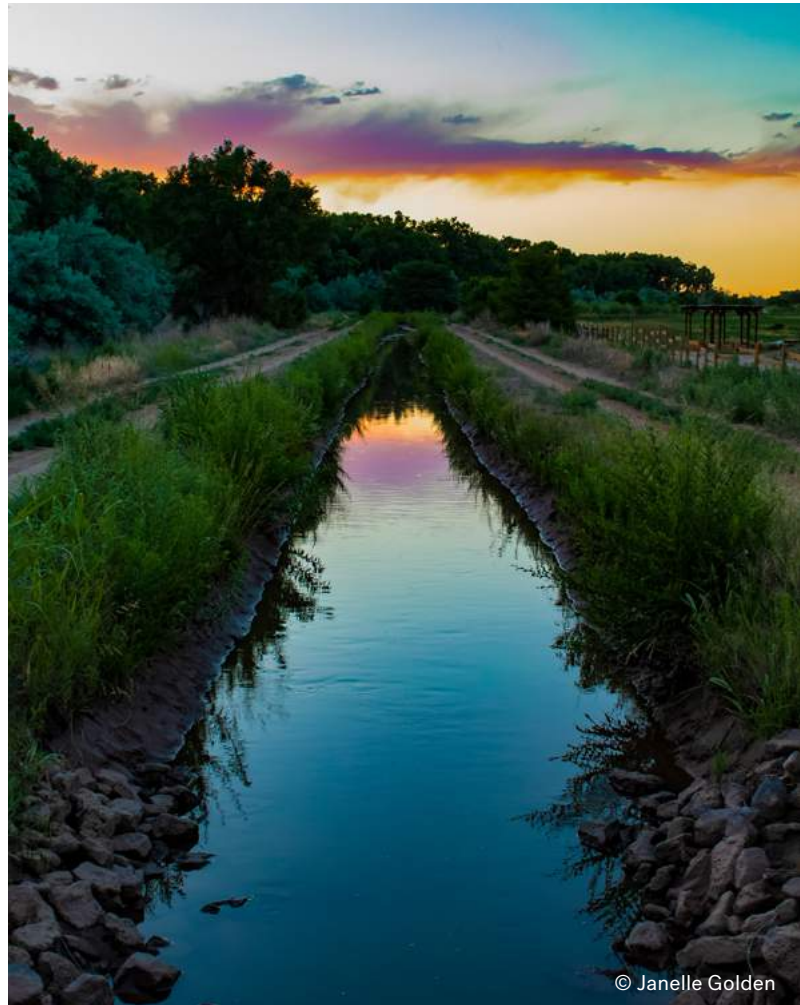
DATA: BERNALILLO COUNTY, CBI PAD, NMDOT, US CENSUS ACS, ABO RIDE, NEW MEXICO COMMUNITY DATA COLLABORATIVE

Report Recommendations

Albuquerque’s infrastructure, design and culture are the product of the decisions made, or not made, by those with influence; yet many voices have remained unheard or overlooked. From conservation and social perspectives, the city has had wonderfully high points and some low points. In some ways, the strong history of shared land and conservation ethics has placed Albuquerque as a national leader for valuing public land within and near an urban area. However, Albuquerque’s colonized history has resulted in generations of systemic inequities that have become interwoven with the fabric of society. Reckoning with this history means investing in community-led change, uplifting voices of those most affected by these inequities and reversing top down change.

Based on the data compiled by CORE GIS and the information gathered by Urban to Wild Coalition members, we have set forth a series of recommendations that reflect the findings and experiences of TWS staff, CORE GIS, and individuals from a variety of agencies and organizations working across Albuquerque. These recommendations are a tangible step towards creating a just future for Albuquerque where all people benefit equitably from public lands and nature is reintegrated as a part of everyday life. We would like to engage with and support both the City of Albuquerque (CABQ) and Bernalillo County (BernCo) in reaching this just future, as decisions made at both agencies affect all Albuquerque residents.

*The Urban to Wild Coalition
and The Wilderness Society
are committed to helping
Albuquerque achieve the outcomes
of these recommendations
and beyond through community
engagement, policy support and
research, and funding advocacy.*



© Janelle Golden

Multi-modal park connections

© Terra Reed

Recommendation

ABQ RIDE should invest in a pilot “Park Transit Line” to take community members from neighborhood hubs to parks and open spaces that would be otherwise inaccessible by public transit, using mapped Opportunity Areas as a starting point (*Map 7 & Map 8*).

While Albuquerque is in the top ten for percent of city land dedicated to parks, we have yet to fully actualize the importance of getting people to these greenspaces via public transit.¹ A nature shuttle is currently being discussed internally within CABQ Parks and Recreation, which can help provide COVID safe trips to open spaces for family units; however, this should be a priority within ABQ RIDE more broadly to better support CABQ Parks and Rec. CABQ should shift funding to ABQ RIDE to invest in a nature shuttle program because many of our iconic parks and open spaces have few transit stops and even fewer high frequency transit stops (HFTS) in close proximity (only about 5-20% of our parks and open spaces have HFTS within ¼ mile, on any given day (*Figure 1*)). This means that transit-dependent populations are forced to spend an hour or more getting to and from many of our greenspaces, when we know time is often a barrier to accessing recreational opportunities.¹⁸

"Equitable transit access in our community continues to be a pressing issue for many of our neighbors. Providing transit access to Valle de Oro NWR will not only allow others without transit access to visit, it will provide much needed transit service to our surrounding community. Through equitable access to parks and the outdoors, we improve the quality of life for our neighbors and strengthen our communities."

Nate Begay
Transportation Fellow at Valle de Oro Wildlife Refuge

Frequent Transit to Parks

HFTS within a 1/4 mile of destination parks

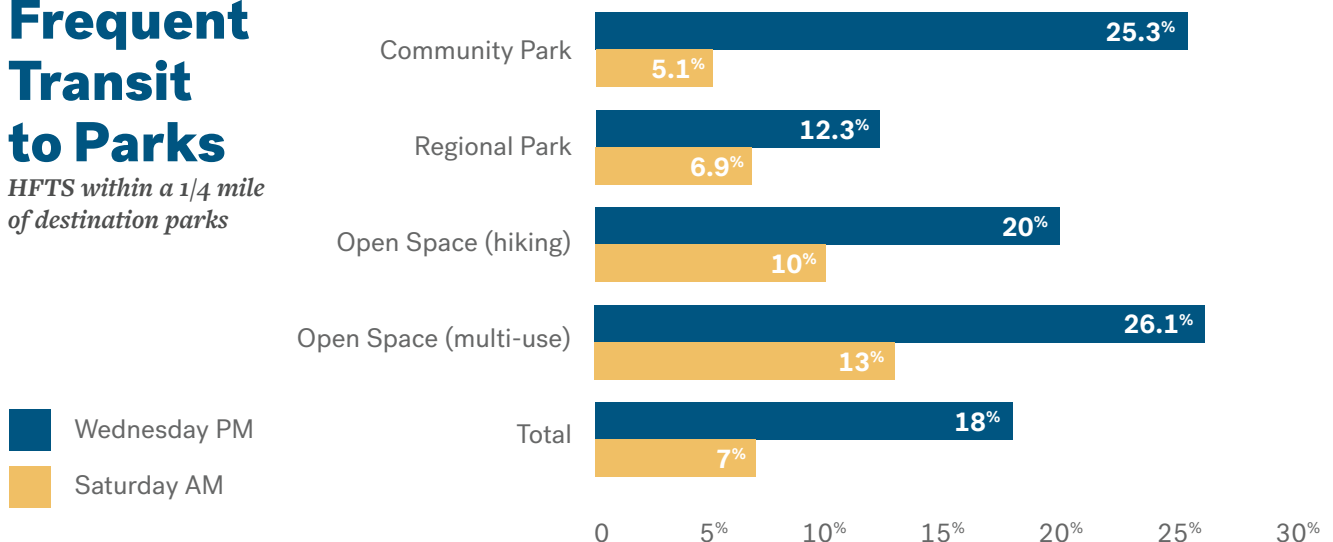


Figure 1

Other cities have utilized a transit to parks model with great success. Seattle's Trailhead Direct program took over 18,000 people to parks in 2019, most of whom had no vehicles to access these parks otherwise.¹⁹ CapeFlyer in Massachusetts was a very successful summer transit option that provided transport to the Cape and had very high non-holiday weekend ridership.²⁰ Albuquerque is currently a car-centric city, but many agencies, such as the Middle Rio Grande Council of Governments, are pushing for a **multi-modal transit** model. Prioritizing access to greenspace via public transit will align not only with multi-modal programs, but also with New Mexico's push to reduce greenhouse gas emissions.

Suggested Neighborhood Hubs to ensure the neighborhoods with the lowest transit to park access and greenspaces benefit from this transit line: Alvarado Transportation Center, Expo New Mexico, Raymond G. Sanchez Community Center, Cesar Chavez Community Center and Westside Community Center.

Suggested Destination Parks that are underserved by public transit: Valle de Oro National Wildlife Refuge, Sandia Mountain Wilderness, Elena Gallegos Open Space, Petroglyph National Monument, the Bosque (North and South ends), Sanchez Farm Open Space and Balloon Fiesta Park (*Map 9*).

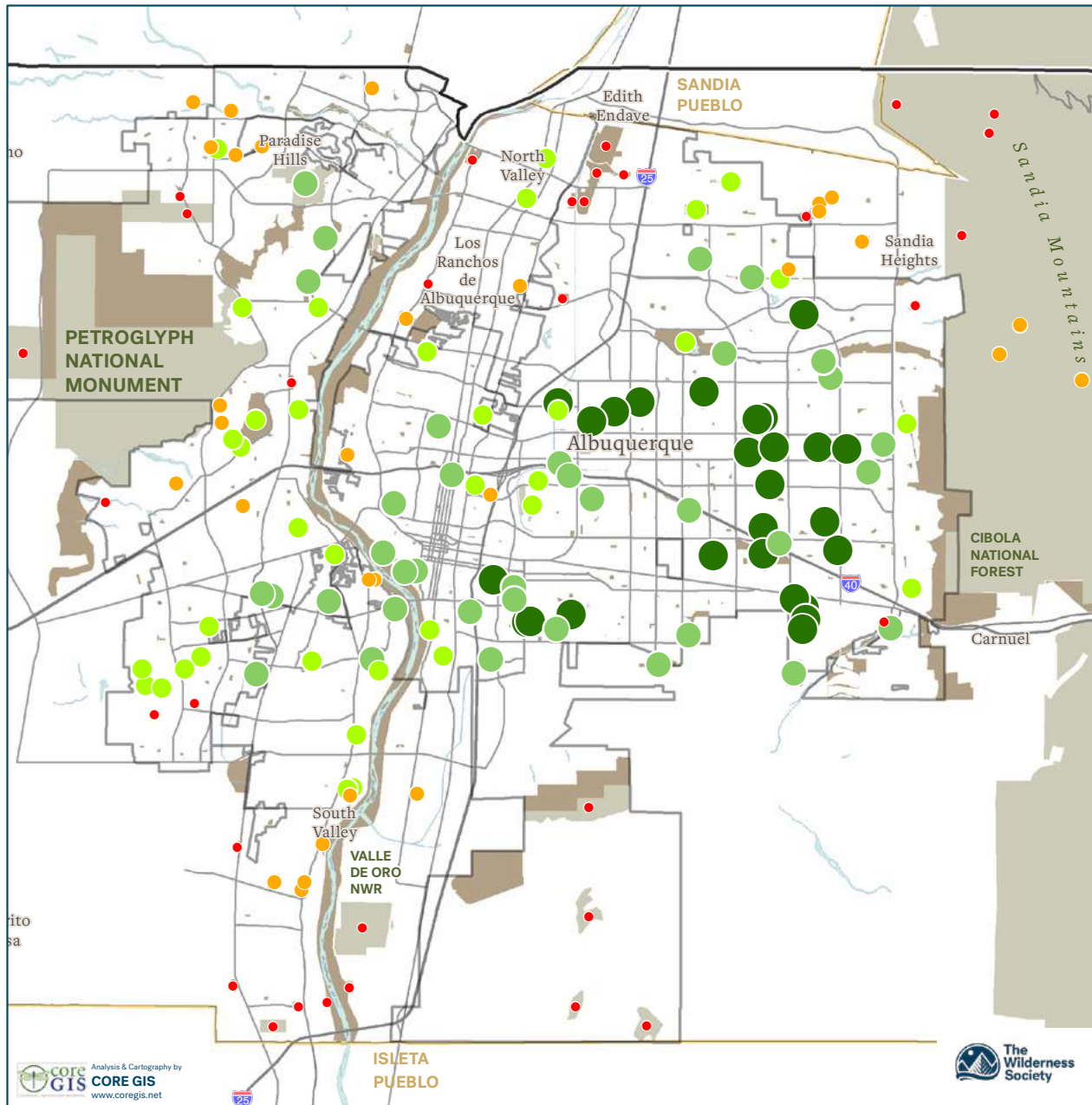
Suggested Expansion: CABQ should work with Rio Metro to encourage a more robust and frequent RailRunner service that works with the Park Transit Line to provide access to Albuquerque's parks, open spaces and park programming to surrounding communities. Transit systems in Massachusetts have utilized a flat fare and all-access weekend trips with special programming to encourage nearly 500,000 residents to explore the area via transit.²¹

"Increased transit access and park equity would have many social, health, economic, and environmental benefits for our families and communities, like greater community cohesion and engagement, healthier lifestyles - both physically and psychologically - and more attractive places for families and businesses to live and work in."

Paige Knight
New Mexico Voices for Children



© CABQ Planning Department



Community & Regional Park Accessibility, Wednesday PM

Number of Block Groups within 30 Minutes

- 0 - 1
- 2 - 5
- 6 - 10
- 11 - 20
- 21 - 43

Parks and Open Space

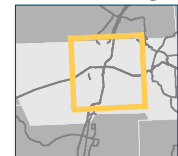
- City and County
- Federal, State, Other
- ▭ Designated Pueblo Boundaries
- ▭ Albuquerque City Limits
- ▭ Bernalillo County Boundary
- ⚡ Highways and Interstates
- ⚡ Major Streets

Analysis based on ABQ Ride GTFS data, 30 minutes or less total time including getting to bus stop, travel on bus, getting from bus stop to modeled park entrance



0 1 2 MILES

Study Area shown in orange



DATA: BERNALILLO COUNTY, CBI PAD, NMDOT, US CENSUS ACS, ABQ RIDE, NEW MEXICO COMMUNITY DATA COLLABORATIVE



© Terra Reed

Recommendation

Increase accessibility and extent of bike share and bike ownership programs, while also increasing safe biking infrastructure. Additionally, increase funding and staff capacity, such as an Active Transport Coordinator, for CABQ’s Vision Zero program, which is working to increase pedestrian and bicyclist safety.²²

Biking is a practice of **transit sovereignty** for many communities, especially for the youth.²³ Biking is also a powerful transit tool that supports the CABQ’s Climate Action Plans, reduces air pollution, creates safer streets, and contributes to a healthier lifestyle for residents.²⁴ As public transit systems shuttered across the country during the COVID-19 pandemic, the bicycle industry was overwhelmed by demand, indicating a potential paradigm shift in how cities design transit.²⁵ Internationally, nations are looking to a new future where bicycles are a commonplace mode of transit, and some are even redesigning urban centers to achieve that future.²⁶ As Albuquerque hopefully follows suit, CABQ should ensure that communities with lower

transit access have bike share programs located at or near transit stops and parks. Bike share programs have been shown to increase multimodal commuting, physical health, environmental health and investment in the local economy in multiple cities.²⁷ Additionally, since bike travel is so heavily utilized by youth, the CABQ should investigate decreasing the minimum age to use bike shares.

Recently, biking was ranked second to personal vehicles for Albuquerque residents’ primary mode of transit, indicating benefits to the community if there is increased investment in bicycle transit.^{28,29} CABQ should continue to support and expand programs such as the Esperanza bike ownership and bike maintenance program in areas of highest need to move the city collectively towards more active transport and transit sovereignty.³⁰ In addition to lack of access, traffic safety is a huge barrier to communities partaking in this type of active transit to access parks and open spaces.³¹ Supporting the expansion of the Vision Zero program to allow it to oversee implementation and planning of traffic calming structures or active street designs will help to address this safety barrier.



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Transit Equity

Recommendation

CABQ should restore transit access to pre-COVID levels with a focus on staff and community safety, then begin expanding transit to address equity gaps in service.

Prior to the pandemic, Albuquerque residents already felt that transit was infrequent and underfunded, with only 8% of the population living within ¼ mile of a HFTS (Figure 2).³² These realities have only been exacerbated by the pandemic. Studies from around the world are beginning to show that transit can be a safe travel option during this pandemic if proper safety measures are implemented.^{33,34,35,36,37,38} ABQ RIDE is already investing in new and thorough sanitation methods for improved safety measures.⁴⁷ If New Mexico continues to be a leader in pandemic response with low positivity rates, CABQ must re-examine transit closures and ensure resources are prioritized for ABQ RIDE. Many transit-dependent residents are essential workers who lost their transport to work with transit closures. The pandemic has highlighted that “...public transit...is not a business. It is a critical service for urban civilization.”³⁹ Reducing transit may have been necessary to reduce transmission, but no alternatives were presented and may have left people

stranded. In Albuquerque, 38% of low-income families do not have access to a vehicle and are transit-dependent. Especially as more people return to work, we must ensure that people have access to critical transportation needs and groups like the **Dream Corps** are putting forth ways to ensure we do this safely.⁴⁴

As the economy suffers from the pandemic and investments in public transit seem few and far between, we must think long term. Studies have shown again and again that investment into public transit boosts the economy, sometimes doubling GDP, or other times providing 5 to 1 economic return.^{40,41} Local long-range plans say investing in efficient transportation and pushing for more public or active transit over the next couple of decades can save around \$2 billion by reducing traffic.²³ Investing in resilient, efficient and equitable transportation will help boost the Albuquerque economy and prepare for pandemics and natural disasters. We know another critical issue faced by ABQ RIDE is driver shortages and this has hindered their ability to bounce back after initial pandemic-related closures. We encourage CABQ to invest in targeted hiring in areas that are most impacted by unemployment in order to bolster driver numbers and increase jobs that will in turn, help the local economy.

Proximity to Frequent Transit

Percentage of population within a 1/4 mile of a HFTS

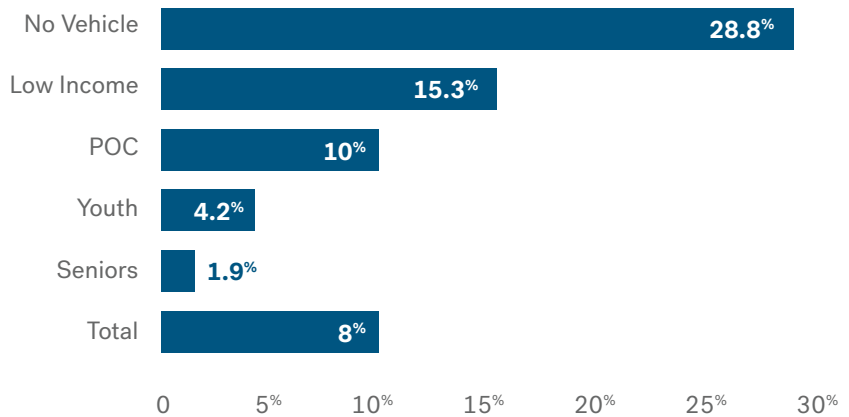


Figure 2



Recommendation

CABQ should invest in community-led comprehensive transit evaluations with a local contractor to expand equitable transit access in Albuquerque.

The data show that clear priority areas for better transit to parks are the South Valley, the International District, Westgate and parts of the North Valley (*Map 7*). However, restructuring transit should be informed by community input. While the data focus on equitable access to parks, we cannot achieve this if transit is not meeting the communities' daily needs. Other transit studies in the region have looked at transit access to grocery stores and healthcare. Those data show that Albuquerque currently has transit equality, meaning marginalized communities have equal or slightly better access to these resources.³² However, in order to achieve transit equity, we have to ensure that transit is designed by those most impacted

"With our health impact assessment (HIA) we completed in 2017-2018 we learned that young men of color would benefit from free access to transit and more frequent and better routes in their neighborhoods, especially the International District and Westgate neighborhoods."

Together 4 Brothers

by a lack of transit — transit-dependent, BIPOC and/or low-income communities. This ensures it is truly meeting community needs and is not just equal with affluent communities who are less reliant on the system. It is critical to involve communities from the very inception of a plan to ensure that transit meets their needs, is located where the need is highest and does not place undue burden on any one community. By hiring a local contractor, this ensures there is existing connection and investment in the community, and it helps keep money in the local economy. Other regions, such as the Bay Area, have put forth community-based **transit equity plans** that could be great models for Albuquerque to follow.⁴²

A positive example of CABQ taking a step towards transit equity is the budget priority passed by the City Council in early 2020 to make Albuquerque transit fare-free, building off of a successful program of fare-free youth summer bus passes. Cost of transit for those utilizing it on a daily basis can be prohibitive and would be a barrier to using transit for recreational purposes. Because of the economic downturn due to COVID-19, this priority may not be renewed. However, we strongly urge the City Council to continue to look for ways to provide budgetary support to ABQ RIDE so they can transition to a fare-free model. Another step towards transit equity is ADA compliant designs applied to all bus stops throughout the city and county. As CABQ works to upgrade ADA accessibility to some of the parks, we encourage that plans made for all bus stops within the metro area are also ADA compliant and provide adequate protection from the elements.⁴³





In addition to ensuring the voices of the transit users are used to guide changes to the existing transit system, we also must hold developers accountable to certain standards as new developments are proposed. The transit system today is the result of sprawling development that did not take into account urban quality of living. Future developments and redesigns must incorporate robust community engagement and design cluster developments that incorporate public transit, active transport, low impact design (LID), green stormwater infrastructure (GSI) and abundant park space.

Recommendation

Increase transit service on weekends to better serve vulnerable populations and increase transit to parks access.

The data show that transit access to parks declines substantially on the weekends and it can be assumed that transit to other essential services declines as well (Map 10 & Map 11). There is a roughly 10 percentage point

drop in the proportion of vulnerable populations that can reach larger parks and open spaces on the weekend within 30 minutes compared to a weekday.

This is considerable, especially when you take into account that only 24% of vulnerable populations can reach destination parks during the week to begin with (Figure 3). High frequency transit stops near parks and open spaces drop over 10% on weekends and overall HFTS drop 20% on the weekend, meaning transit riders are forced to wait close to 30 minutes or more at bus stops. Essential workers often have irregular work schedules; therefore, an alignment with a standard work schedule is a disservice to their access. Additionally, if a resident works a standard work schedule and has time to recreate outside on the weekend, they will find it extremely hard to use public transit to access our greenspaces.

"Evaluating how local transit systems serve park access is a great strategy to park equity issues and possibly help reduce crowding impacts at some heavily used parks and open space areas."

Attila Bality

National Parks Service: Rivers, Trails & Conservation Assistance Program

Good Transit Access to Destination Parks

Percent of different populations with good transit access to destination parks

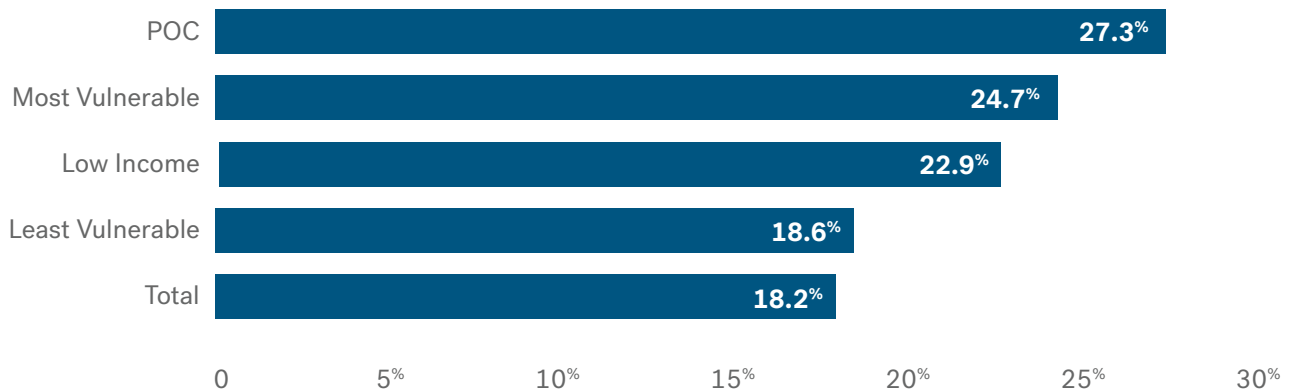
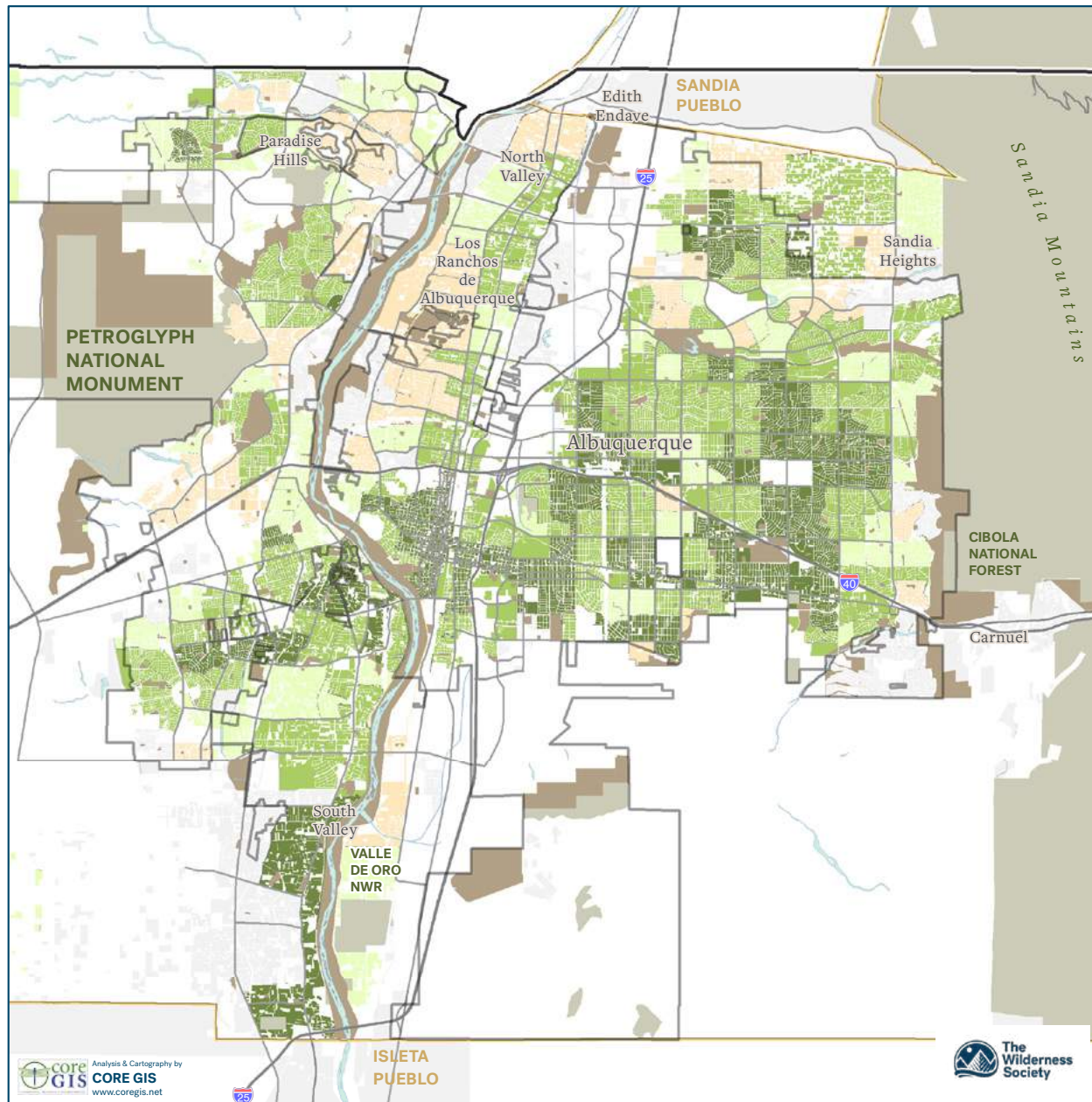


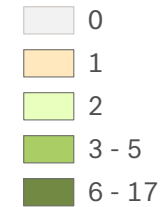
Figure 3



Community/Regional Parks Accessible via Transit within 30 Minutes, Wednesday PM

Parks Within 30 Minutes via Transit

Wednesday 4-8 pm

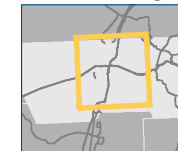


Parks and Open Space

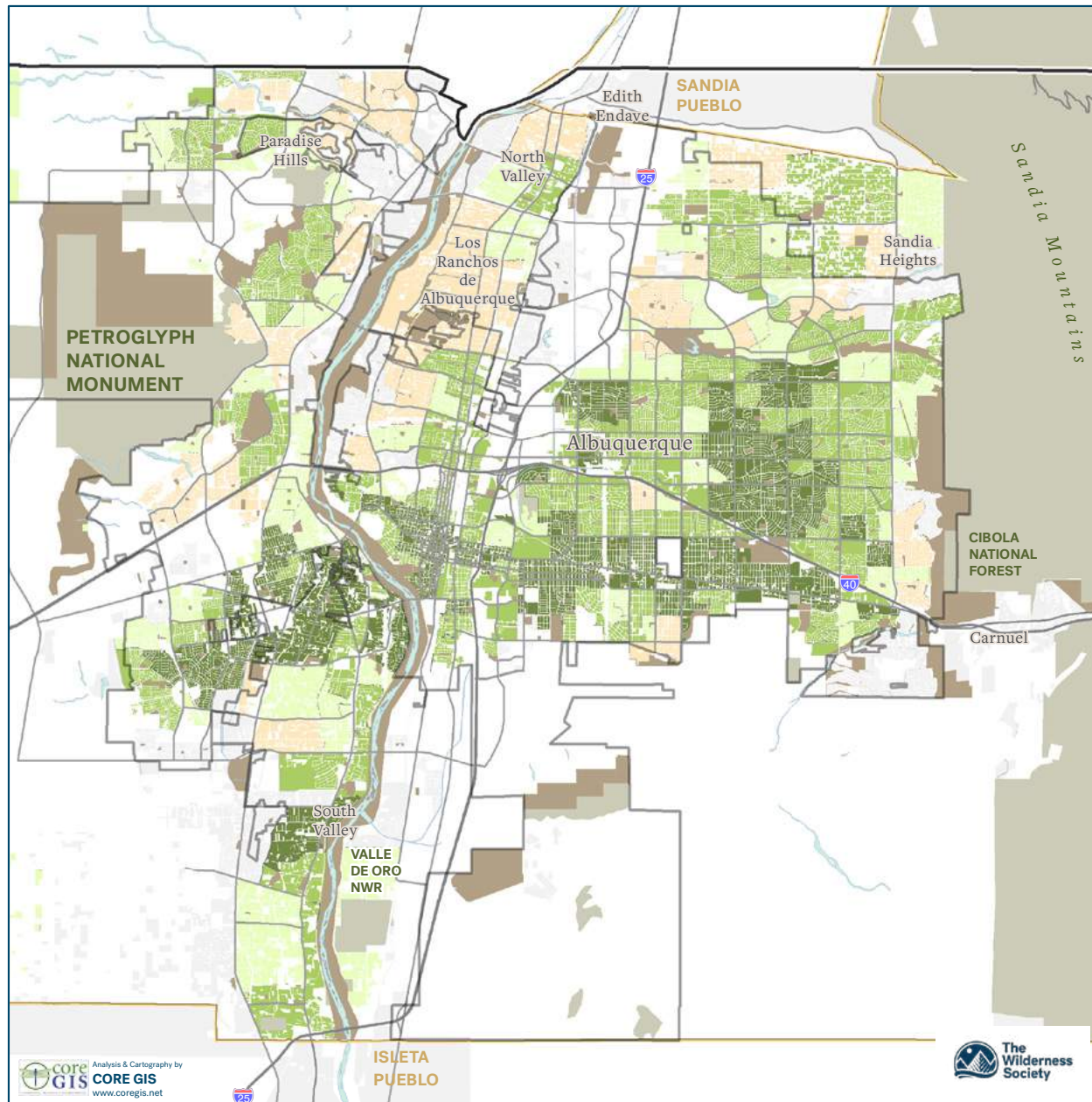
- City and County
- Federal, State, Other
- Designated Pueblo Boundaries
- Albuquerque City Limits
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- Highways and Interstates
- Major Streets



Study Area shown in orange



DATA: BERNALILLO COUNTY, CBI PAD, NMDOT, US CENSUS ACS, ABO RIDE, NEW MEXICO COMMUNITY DATA COLLABORATIVE



Community/Regional Parks Accessible via Transit within 30 Minutes, Saturday AM

Number Comm/Reg 30 min via Transit

Saturday 8 am - 12 pm

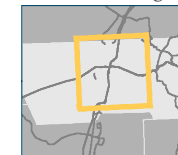


Parks and Open Space

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- Major Streets



Study Area shown in orange



Safety and Accessibility

© CABQ Planning Committee

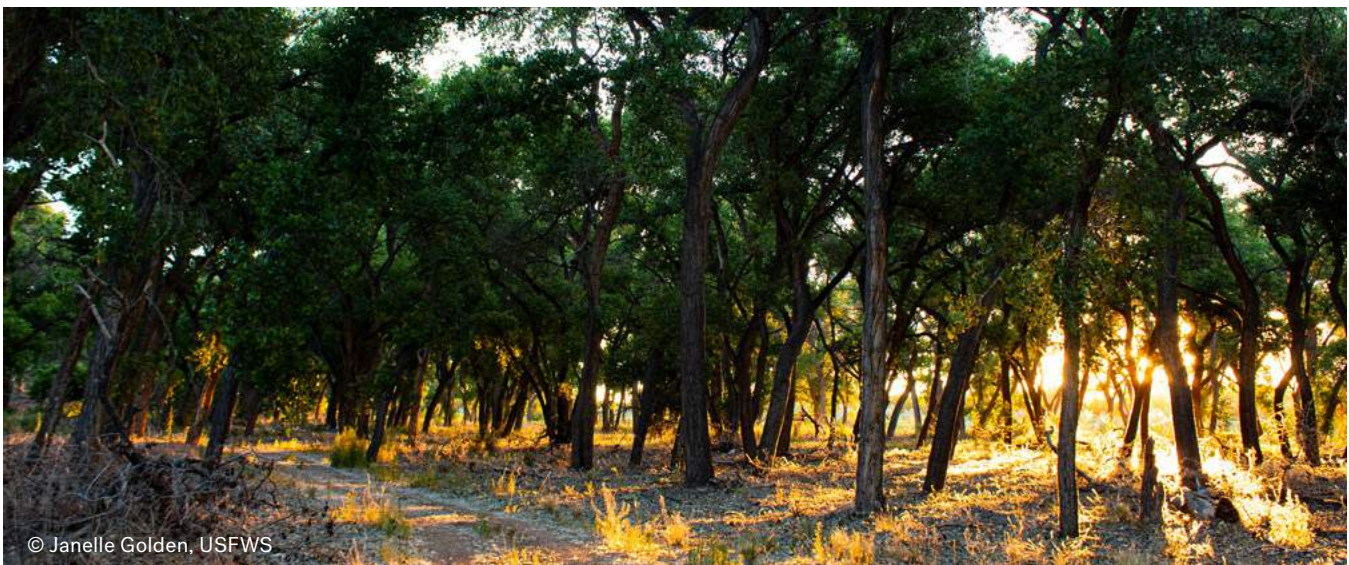
Recommendation

CABQ and BernCo should provide funding for a local consultant, such as the New Mexico Data Collaborative, to utilize open source mapping projects to update maps on trails, amenities, parks and open space.

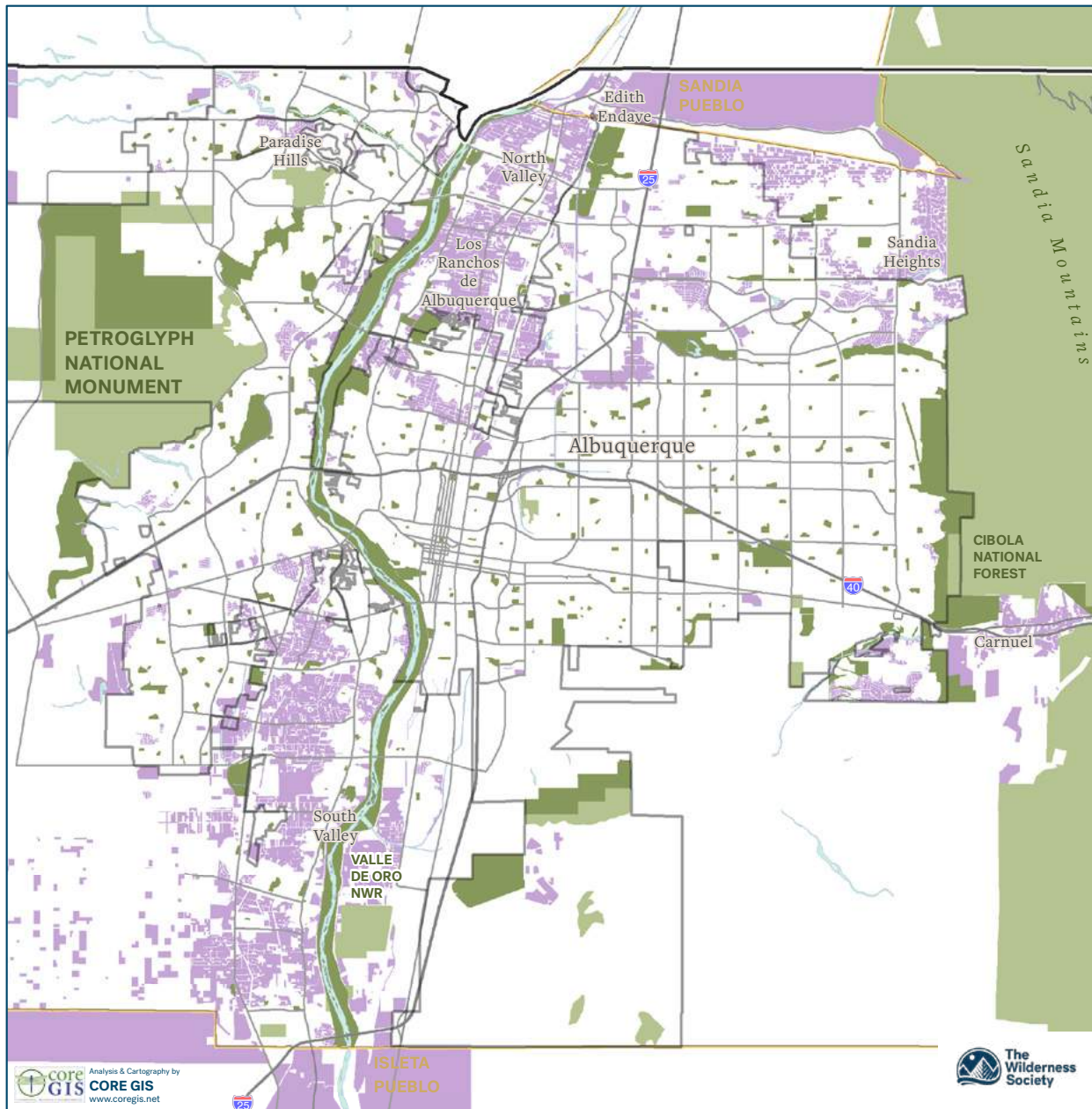
Open source mapping projects will capture community knowledge of public spaces and create a stronger relationship between the city, the county and residents. Open source mapping has shown to increase community engagement and collaboration by de-privatizing data.⁴⁵ Locally, the Albuquerque School Garden program has been utilizing open source mapping to increase awareness and investment in school gardens. Open source mapping puts data into the public domain, which fosters a sense of community and stewardship of the land. The data and information from partners indicate that community members may be relying on informal methods of accessing certain open spaces, especially the Bosque and the Foothills (Map 12). Informal, or social trails, can lead to ecological degradation and damage and may not be fully accessible for all community members. The open source mapping project will allow park staff to prioritize and advocate for

projects that pose the highest community and ecological need. This will also increase community knowledge of parks and open spaces, increasing usage with updated and coordinated maps. These maps should be translated into the languages predominantly spoken within the area (Map 13) and be made readily available online, at visitor centers and at trailheads to facilitate easy access.

Examples: Along the Bosque in the South Valley, residents may be close to open space but have to travel far to find an access point that allows them to cross the network of acequias and ditches to enter the Bosque. Valle de Oro National Wildlife Refuge recognized the need for the community to have a formalized bridge to access the Bosque and the Refuge, so they partnered with the Albuquerque Metro Arroyo Flood Control Authority to build the needed infrastructure, and are actively building partnerships for additional infrastructure necessary for better access for local community members and visitors to the Refuge and Bosque. This investment in infrastructure that safely connects multiple outdoor spaces is a prime example of increasing accessibility and connectivity.



© Janelle Golden, USFWS

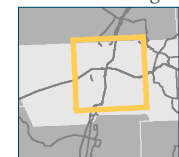


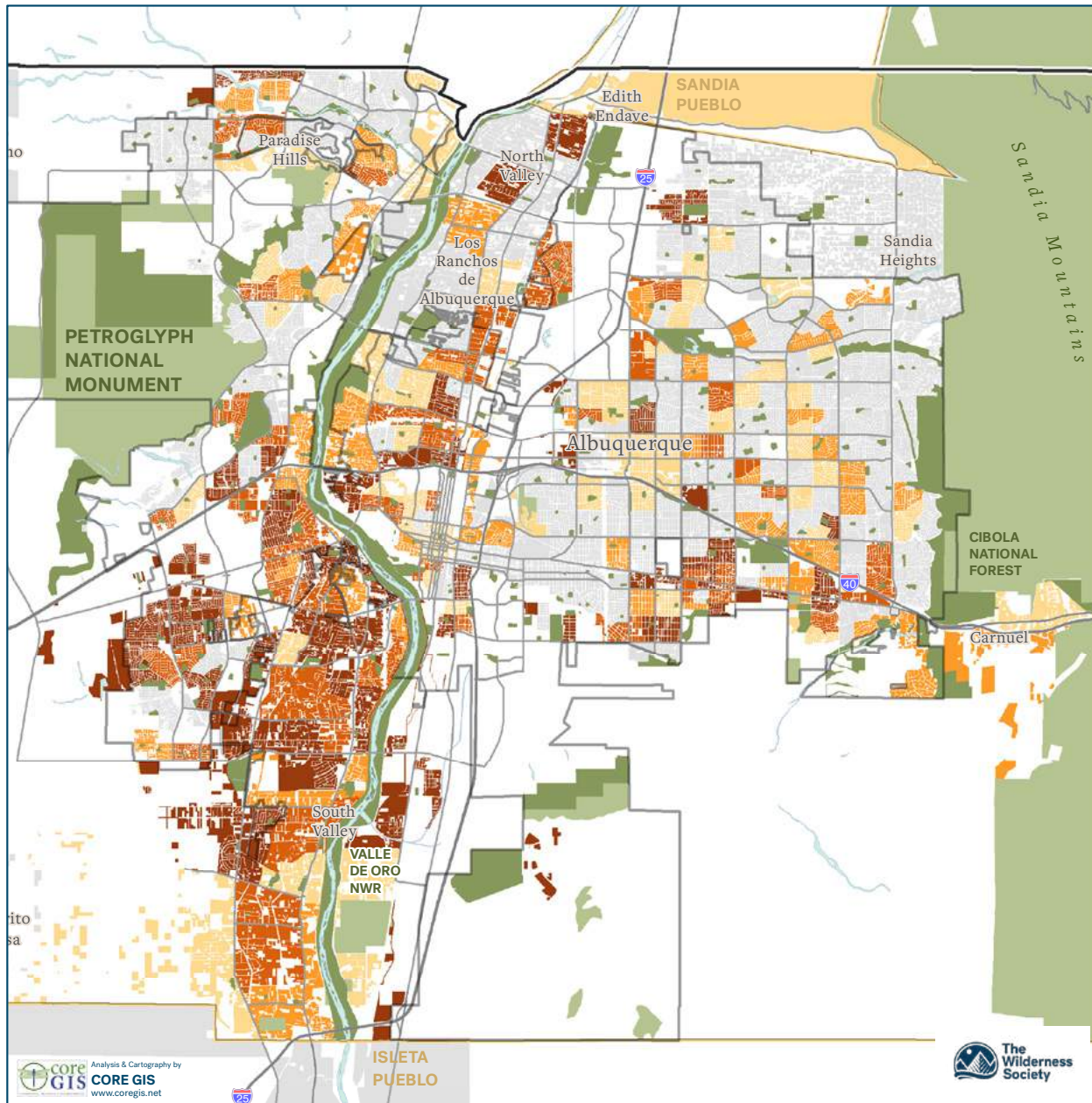
No Nearby Access to Parks and Open Space

- No Access to a Park Within 1/2 Mile Along the Street Network
- Parks and Open Space**
- City and County
 - Federal, State, Other
 - Designated Pueblo Boundaries
 - Albuquerque City Limits
 - Bernalillo County Boundary
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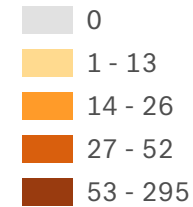




Limited English Speaking Households

Limited English

Number of Households

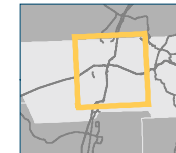


Parks and Open Space

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- Bernalillo County Boundary
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- Major Streets



Study Area shown in orange



Recommendation

CABQ and BernCo should continue to increase investments in park and trail maintenance and park updates that include culturally and linguistically tailored signage, outreach and environmental education. These improvements and maintenance should be done equitably, ensuring that communities in most need of maintenance to parks are prioritized and ADA accessibility is always considered.

Maintenance of Albuquerque Parks and Open Space is an enormous, ongoing job. The department is consistently understaffed and underfunded given the amount of land they are in charge of maintaining. It is not beneficial to stretch these resources so thin which often results in inequitable distribution of park maintenance priorities across the city. Studies have indicated that while proximity to a greenspace is not always lower for BIPOC communities, the size and quality of those greenspaces is where the systemic inequities lie.¹⁷ Thoughtful increased allocation of budget resources to increase jobs and funding within Parks and Open Space will increase the capacity of the staff to tackle issues.

"Through this work, my hope is that youth in their formative years, as well as those who are often disproportionately denied access to resources, have increased and ample opportunities to explore, learn from, and enjoy nature and participate in outdoor recreation."

Aryn LaBrake

Friends of Valle de Oro



© William Pentler

Investing in Nature and People

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Parks and Recreation departments are chronically underfunded across the country. When we look at the acreage of parks and open spaces that are under the care of CABQ and BernCo, we see how these departments lack financial support to maintain and acquire new spaces. While Albuquerque is 8 percentage points above the national median for land utilized as park space, the investment is poor at best, ranking 90th for park investment per resident.¹ This lack of funding exacerbates inequities and prevents the systemic change that many staff and community members are working towards. The Urban to Wild Coalition will work to investigate long term funding options to increase Parks and Rec budgets to support urban park quality, acquisition, and amenities through equitable designs, community engagement and investment.

Recommendation

BernCo has shifted open space priorities towards maintenance and away from land acquisition for the time being. Given the high usage during COVID and the move towards non-chemical methods of invasive species control, they require more trained maintenance staff to ensure that they can effectively manage the heavily-used open spaces they oversee. This will provide local jobs and boost BernCo Open Space staff to sufficiently maintain these natural spaces.

Commitment: With any increase in budget and staff, Parks and Rec must center equity in all of their work. The Urban to Wild Coalition commits to advocating for Parks and Rec to ensure that land acquisition and community prioritization are done in areas with the highest need for park maintenance, new amenities and park space. The Urban to Wild Coalition will help guide Parks and Rec in expanding their engagement efforts to lift up community voices in decision-making processes.

"My vision for access to greenspace in my community is that every person describes personal connection to a greenspace within walking distance from where they live."

Anna Horner

Bernalillo County Community Health Council



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Recommendation

New CABQ parks are beginning to integrate design practices that reduce ambient heat, increase wildlife benefit and conserve water. CABQ should continue these practices as new parks are created or existing parks are redesigned. In addition, CABQ and BernCo should invest in ways to integrate nature into all aspects of the public right of way, reconnecting people with nature on a daily basis. GSI and LID should be encouraged, prioritized and implemented at transit stops, medians, sidewalks, bike paths and parking lots.

Transit-orientated designs that integrate public spaces near transit stops have been shown to increase active transit and other benefits.⁴⁶ The Southwest faces water and heat crises and needs an all-hands-on-deck approach to investing in nature-based solutions. There are already examples of these projects in Albuquerque. BernCo is working on creating stormwater detention basins that serve dual purposes of managing stormwater with natural techniques and provide outdoor spaces for residents. The Albuquerque Bernalillo County Water Utility Authority is working on opening up some of their spaces to the public and investing in more GSI features.

"Access to transit and outdoor recreation is also about health and healing justice that includes a behavioral, emotional, financial, mental, physical and spiritual health and wellness."

Together 4 Brothers

Recommendation

The public health benefits of greenspaces cannot be understated, and we support continued investment in national and community-led health programming centered around access to nature in CABQ and BernCo.

There is community support for creating food forests, community gardens and food as medicine programs. CABQ Parks Management Division is working on aspects of these programs and many community partners are leading similar programs. Collaboration with community members and organizations will continue to promote the link between outdoor access and physical and mental health benefits. Greening schoolyards and increasing maintenance capacity or joint-use agreements within Albuquerque Public Schools is another critical aspect to community access to food and greenspace.

Parks for the Community, by the Community

© Cecilia Beltran, USFWS

Recommendation

CABQ and BernCo should keep synthesizing and incorporating the data from years of community engagement and surveys done by local organizations and governments to consistently push for reimagining how parks and open space will represent and serve their communities. Transit access and nature integration are steps forward, but how the parks are named, designed and created also determines access by helping communities feel welcome and connected to parks. These spaces must be safe, accessible and welcoming to LGBTQIA+ residents, immigrants, BIPOC and people with disabilities and/or limited mobility. We need systems and infrastructure-level change to ensure that the voices heard at decision-making venues are those that are most impacted by those decisions.

This starts from the very top when we ensure that boards and committees are truly representing the demographic make-up of Albuquerque. Albuquerque City Council recently passed a resolution that commits to integrating equity in their board/committee selection process and we support the implementation of these measures. Better practices then continue down with increased resources and training to build the culture of authentic community engagement. The Urban to Wild Coalition commits to helping CABQ staff connect with community organizations for outreach and supporting the implementation of legislation that prioritizes equity and representation in decision-making spaces.



"I believe the greatest asset to exploring equitable access to greenspaces and parks is in our people, our communities. By listening and responding to the needs of our communities, we can ensure outdoor access that is relevant and meaningful for all in Albuquerque."

Eileen Everett

Environmental Education of New Mexico

Recommendation

CABQ and the BernCo should continue to increase their current investment in accessibility to parks programming led by the community. CABQ had begun Neighborhood Park Activate, a program that would provide assistance to groups hosting free events at parks, but it was halted due to the COVID-19 pandemic. We make connections to nature through social cohesion and community, so funding events at parks that offer food, volunteer opportunities, music and other entertainment is a way to support community healing and connection. When it is safe to do so again, we support CABQ restarting this program, prioritizing areas of town that are most in need of park activation. The coalition will also support community outreach to encourage participation.

BernCo has been an excellent example of encouraging connections through parks and supporting the community through the pandemic by utilizing community centers. These community centers are important hubs that provide multiple services to residents, including fostering community interaction and connecting people with nature and parks. Continued investment in these programs and expansion is essential.

"Proximity to and awareness of nearby parks, trails and open space means people are more likely to use them."

Attila Bality

National Parks Service: Rivers, Trails & Conservation Assistance Program

Recommendation

CABQ and BernCo, in partnership with the Urban to Wild Coalition, should start a Public Awareness Campaign to increase community knowledge of the extensive park network and ways to visit, as well as how to get involved in designing, volunteering in and advocating for our parks. This Public Awareness Campaign must be multilingual, accessible, story and asset-based, and a reflection of the people and their experiences. In order to successfully connect with residents and create a platform that honors their stories, a narrative that is inclusive of the rich vibrant cultures of the region is essential to reclaim connections to nature and the myth of who "belongs" in the outdoors.



Conclusion

Maya Angelou's simple but powerful statement, "[d]o the best you can until you know better. Then when you know better, do better..."

exemplifies what work we have before us in Albuquerque. This city has long been placed on the top of the bad lists and overlooked on a national level due to complex historical, systemic and economic issues. As a result of those intertwining issues, some areas of Albuquerque, and the residents who live there, have not received the resources they deserve nor a place at the decision-making table. As multiple crises hit communities across the country, we must realize that incremental steps towards progress are no longer viable. The devastating pandemic and nationwide racial reckoning have only amplified and highlighted the inequities that are pervasive throughout this country. Large structural and systemic change is needed, and communities within Albuquerque have been organizing to advocate for those changes.

"Recognizing the need of Albuquerque citizens to recreate and experience nature during the COVID-19 quarantine, the Open Space Division implemented safety protocols and practices to keep these areas open to the public. These practices have proven essential to Albuquerque residents as visitation at all trailheads with digital counters jumped significantly during quarantine, some even doubling. There were over 85,000 visitations in April in the Sandia Foothills alone."

Tricia Keffer

City of Albuquerque Open Space Division

In many ways, other states are now looking at New Mexico, and more specifically Albuquerque, as leaders in the outdoor and equity movements. Albuquerque has been able to keep greenspaces open and safe for the public to use during the pandemic, with usership potentially increasing up to 51%, according to Google. In contrast, other cities have closed their parks in response to the pandemic.^{48,49} CABQ is working to create a community safety department, the first of its kind, that will work to divert calls that require mental health professionals or housing advocates away from the police department to community safety workers. Albuquerque has managed to withstand the pandemic far better than other urban centers, thanks to a comprehensive public health response and swift budget action by the administration.⁵¹ As Albuquerque continues to lead the nation as a city that embraces an equity framework and equity measures across all its departments, equity in all spaces becomes more tangible and the city inches closer towards reducing the disparities that exist for communities of color.

However, it would be naive to say that Albuquerque does not face an uphill battle as it addresses financial downturns, economic diversification implementation, systemic racism and climate change. Acknowledging a colonized state history and ensuring that communities of color are meaningfully included in conversations and actions towards substantial change within the city will give it a stronger and more sustainable future so that Albuquerque in its totality can get to a place of both knowing better and doing better. TWS and the Urban to Wild Coalition are committed to supporting CABQ and BernCo in reaching the outcomes of our recommendations. We look forward to new and improved initiatives to increase transit for transit-dependent populations in a safe manner during COVID, to investigate ways to increase investment and resources to parks, and to help bolster CABQ and BernCo's authentic outreach and engagement across all communities so that accessibility for all is at the forefront of all future programming.

Study Limitations

Lack of consistent data on park amenities, quality or entrances

Other study areas, such as in Los Angeles County, have done comprehensive parks needs assessments that include data on amenities and quality. This allows for a better classification of “destination parks” beyond just size, as we did in this study. Having more spatial and quantitative data would allow us to identify parks that provide particular activities but may be smaller than 5 acres. Additionally, more community stories about focal parks in particular neighborhoods would have allowed us to better assess “destination parks.” Albuquerque does not have that data yet so we could not look more deeply at transit destinations or other equity issues surrounding parks for this study. Finally, due to lack of capacity within CABQ, trails and entrance data were not up to date which could have caused inconsistencies in proximity and access data.

Accessibility in buses and bus stops data

ADA data on accessibility for bus lines, bus stops, or parks were not available. This means that even if there is a bus line to a particular park, it may not be ADA compliant and accessible to all visitors. Finally, proximity was based on sidewalk and street infrastructure, but whether this infrastructure was ADA compliant in certain areas is unknown and may affect the ½ mile metric we used.

Variation in geographic levels of demographic data

Datasets used to identify sociodemographic, health and environmental vulnerabilities were at varying geographic levels (block group, tract, county-specific). This can create inconsistencies as we layer characteristics and some specificity is lost in that process. Finally, large datasets means that areas lose individuality and blanket assumptions are made for certain areas without reflecting very different lived experiences for each resident.

Limited funding

Constrained funds for the project meant that we always wanted to go further and deeper into the data than we could afford. While this limited our scope, we are confident that future projects and partnerships will allow us to slowly increase the level of data we have on these issues.

COVID-19 Pandemic

The pandemic created layers of complexity that delayed and limited the scope of this work. We had hoped to include much more robust community stories and feedback around these recommendations, but were unable to gather that information. Fortunately, our wonderful partners provided invaluable feedback and represented their communities. However, in the future, we hope to include more community voices in these processes.

References

- 1 Trust for Public Lands 2020 ParkScore for Albuquerque, New Mexico
- 2 An Equity Profile of Albuquerque. 2018. W.K. Kellogg Foundation, USC Program for Environmental and Regional Equity, and PolicyLink
- 3 Outdoor Participation Report. 2018. Outdoor Foundation
- 4 Center for Sustainable Systems, University of Michigan. 2019. "U.S. Cities Factsheet." Pub. No. CSS09-06
- 5 Grahn, P., Stigsdotter, U.A. 2003. Landscape planning and stress. *Urban Forestry and Urban Greening* 2(1):1-18
- 6 Maas, J., Verheij, R.A., de Vries, S., Spreeuwenberg, P., Schellevis, F.G., and Groenewegen, P.P. 2009. Morbidity is related to a green living environment. *Journal of Epidemiology Community and Community Health* 63(12):967-73
- 7 House, E., O'Connor, C., Wolf, K., Israel, J., and Reynolds, T. 2016. *Outside our Doors: the benefits of cities where people and nature thrive*. Seattle, WA: The Nature Conservancy, Washington State Chapter, 30pp.
- 8 McDonald, R., Kroeger, T., Boucher, T., Longzhu, W., Salem, R, Adams, J, Bassett, S, Edgecomb, M, and Garg, S. 2016. *Planting Health Air: A global analysis of the role of urban trees in addressing particulate matter pollution and extreme heat*. The Nature Conservancy, 136 pp.
- 9 Schmader, M. 2020. *Open Space History: Chapter 1. City of Albuquerque*
- 10 Hurteau, S., Meier, R., Bassett, S., and Mayer, T. 2019. *Evaluating Albuquerque's Urban Heat Impacts*. Albuquerque, NM: The Nature Conservancy New Mexico Chapter, 14pp.
- 11 Velie, A.R. 1991. *American Indian Literature: An Anthology*. University of Oklahoma Press, Norman, Oklahoma, USA, pp 188-189.
- 12 American Trails. 2020. *Historical Perspective on Racism in the Outdoors and Looking Forward*. <https://www.americantrails.org/resources/the-arch-of-history-is-long-but-it-bends-towards-justice>
- 13 Leiserowitz, A., Cutler, M., and Rosenthal, S. 2017. *Climate change in the Latino Mind*. Yale University. New Haven, CT: Yale Program on Climate Change Communication.
- 14 Kirwan, P. *The Emergent Land: Nature and Ecology in Native American Expressive Forms*. University of London.
- 15 *Earth Day: Fastest Warming Cities and States*. 2019. Climate Central. <https://medialibrary.climatecentral.org/resources/earth-day-fastest-warming-cities-and-states-2019>
- 16 Rowland-Shea, J., Doshi, S., Edberg, S., and Fanger, R. 2020. *The Nature Gap: Confronting Racial and Economic Disparities in the Destruction and Protection of Nature in America*. Center for American Progress.
- 17 Rigolon, A. 2016. A complex landscape of inequity in access to urban parks: A literature review. *Landscape and Urban Planning* 153: 160-169.

- 18 Ghimire, R., Green, G.T., Poudyal, N.C., and Cordell, H.K. 2014. An Analysis of Perceived Constraints to Outdoor Recreation. *Journal of Park and Recreation Administration* 32(4):52-67
- 19 King County Parks. 2020. Trailhead Direct 2019: It just keeps getting better! <https://trailheaddirect.org/2020/01/15/trailhead-direct-2019-it-just-keeps-getting-better>
- 20 Jensen, K. 2013. MA: CapeFLYER Announces Highest Weekend Ridership. *Mass Transit*. <https://www.masstransitmag.com/rail/press-release/11048692/cape-cod-regional-transit-authority-ccrta-ma-capeflyer-announces-highest-weekend-ridership>
- 21 Keolis North America. 2019. More than 500,000 special \$10 weekend travel tickets sold. *Mass Transit*. <https://www.masstransitmag.com/rail/press-release/21105568/keolis-more-than-500000-special-10-weekend-travel-tickets-sold>
- 22 City of Albuquerque Vision Zero Program Homepage. <https://www.cabq.gov/vision-zero>
- 23 Mid Region Council of Governments: Mid-Region Metropolitan Planning Organization. 2020. *Connections 2040: Metropolitan Transportation Plan*.
- 24 City of Albuquerque Climate Action Plan. <http://www.cabq.gov/sustainability/climate-action-plan>
- 25 Goldbaum, C. 2020. Think of Buying a Bike? Get Ready for a Very Long Wait. *The New York Times*.
- 26 Department of Global Communications. 2020. UN eyes bicycles as driver of post-COVID-19 ‘green recovery’. *The United Nations*
- 27 Active Transportation and Real Estate: The Next Frontier. Bicycle Sharing: Paris, France; Montreal, Canada; Hangzhou, China. <https://uli.org/wp-content/uploads/ULI-Documents/Bicycle-Sharing.pdf>
- 28 McFarland, Matt. 2017. Why riding a bike to school is often illegal. *CNN Business*. <https://money.cnn.com/2017/07/25/technology/culture/bike-student-transportation/index.html>
- 29 Mid Region Council of Government. 2019. *Metropolitan Transportation Plan: Public Questionnaire Results*
- 30 City of Albuquerque Esperanza Bicycle Safety Education Center. <https://www.cabq.gov/parksandrecreation/recreation/bike/esperanza-bicycle-safety-education-center>
- 31 Cheyne, C., Imran, M., Scott, M. and Tien, C. 2015. Barriers to active transport in Palmerston North. *Massey University Living Labs, Palmerston North*.
- 32 Mid Region Council of Governments: Mid-Region Metropolitan Planning Organization. 2020. *Connections 2040: Metropolitan Transportation Plan: Chapter 9*.
- 33 Associated Press. 2020. Is it safe to ride public transit during the pandemic. *The Seattle Times*. <https://www.seattletimes.com/seattle-news/health/is-it-safe-to-ride-public-transit-during-the-pandemic>
- 34 AGES. Epidemiological clarification using the example of COVID-19. 2020. <https://www.ages.at/service/service-presse/pressemeldungen/epidemiologische-abklaerung-am-beispiel-covid-19>
- 35 Berrod, N. 2020. Coronavirus: why no cluster was detected in transport. *Le Parisien*. <https://www.leparisien.fr/societe/coronavirus-pourquoi-aucun-cluster-n-a-ete-detecte-dans-les-transport-05-06-2020-8330415.php>
- 36 Metcalfe, J. 2020. How risky is riding BART during the pandemic. *Berkeleyside*. <https://www.berkeleyside.com/2020/08/26/how-risky-is-riding-bart-during-the-pandemic>

- 37 Sadik-Khan, J., Solmonow, S. 2020. Fear of Public Transit Got Ahead of the Evidence. The Atlantic. <https://www.theatlantic.com/ideas/archive/2020/06/fear-transit-bad-cities/612979>
- 38 Regional Transportation District. 2020. Riding transit during COVID-19 is safer than most think when everyone follows basic safety guidelines. Mass Transit. <https://www.masstransitmag.com/safety-security/press-release/21145170/regional-transportation-district-rtd-riding-transit-during-covid19-is-safer-than-most-think-when-everyone-follows-basic-safety-guidelines>
- 39 Declines in public transit demand show essential workers' reliance on COTA and similar services. 2020. The Ohio State University College News. <https://artsandsciences.osu.edu/news/public-transit-decline-during-COVID>
- 40 Weisbrod, G. and Reno. A. 2009. Economic impact of public transportation investment.
- 41 American Public Transportation Association. 2020. Economic Impact of Public Transportation Investment.
- 42 Metropolitan Transportation Commission and Association of Bay Area Governments. 2017. Plan Bay Area 2040: Final Equity Analysis Report.
- 43 City of Albuquerque News. Significant Improvements at Piedras Marcadas Neighborhood Park Spearheaded by District 5 City Councilor Cynthia D. Borrego. <https://www.cabq.gov/council/find-your-councilor/district-5/news/significant-improvements-at-piedras-marcadas-neighborhood-park-spearheaded-by-district-5-city-councilor-cynthia-d-borrego>
- 44 DreamCorps. 2020. Securing Safe Transit: Before & After COVID-19.
- 45 Hackett, K. 2018. The Importance of Open Source in the Global Mapping Community. <https://www.youthmappers.org/single-post/2018/12/10/The-Importance-of-Open-Source-in-The-Global-Mapping-Community>
- 46 Keunhyun, P., Choi, D-A., Tian, G., and Ewing, R. 2019. Not Park Lots but Parks: A Joint Association of Parks and Transit Stations with Travel Behavior. International Journal of Environmental Research and Public Health 16(4): 547.
- 47 City of Albuquerque Transit Department. 2020. ABQ RIDE Using Special Foggers to Quickly and Easily Sanitize Buses. <http://www.cabq.gov/transit/news/abq-ride-using-special-foggers-to-quickly-and-easily-sanitize-buses>
- 48 Hayes, P. 2020. City of Albuquerque has no plans to close parks due to coronavirus. KOB-4 <https://www.kob.com/coronavirus/city-has-no-plans-to-close-parks-due-to-coronavirus/5680499>
- 49 Tufekci, Z. 2020. Keep the Parks Open. The Atlantic. <https://www.theatlantic.com/health/archive/2020/04/closing-parks-ineffective-pandemic-theater/609580>
- 50 Ramsey, A.R. and Kornfield, M. 2020. Amid calls to defund police, Albuquerque creates an alternative department. The Washington Post. <https://www.washingtonpost.com/nation/2020/06/15/wake-calls-defund-police-albuquerque-creates-an-alternative-department>
- 51 Badger, E. and Bui, Q. 2020. The Recession Is About to Slam Cities. Not Just the Blue-State Ones. The New York Times. <https://www.nytimes.com/2020/08/17/upshot/pandemic-recession-cities-fiscal-shortfall.html>
- 52 New Mexico Commission of Public Records. Land Grant Archives. <http://www.srca.nm.gov/land-grants>
- 53 Ebright, M. The Center for Land Grant Studies: Explanation of Types of Land Grants in New Mexico. <http://www.southwestbooks.org/grantstypes.htm>