Infrastructure Analysis

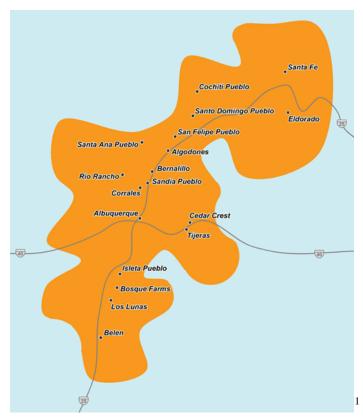
Vision

- Will ensure enough water for residents (ensure enough water for residents)
- Will set an example for education, sustainability, and resource management (set an example for education, sustainability and resource management)
- ➤ Will protect clean air (Promote clean air)
- Will encourage as much renewable energy as possible (Encourage use of renewable energy)
- Will protect and preserve natural resources (Conserve our natural resources)
- > Support new innovation in sustainable practices
- Will facilitate residential development (ensure sustainable residential land use patterns)
- Will have high speed internet available (Have high speed internet available)
- Will support home-based businesses (support growth of small scale businesses, support home-based businesses)
- ➤ Will have high speed internet and reliable cellular available

Electric

San Marcos residents receive their electric power from the Public Utility Service Company of New Mexico (PNM) and from private residential solar.

The cost to extend a power line out to a private property depends on the distance. One resident by the Allan Houser foundry gave the example of splitting a line extension with his neighbor, which cost around \$12,000.



PNM Service Area: Detail of Santa Fe-Albuquerque Region

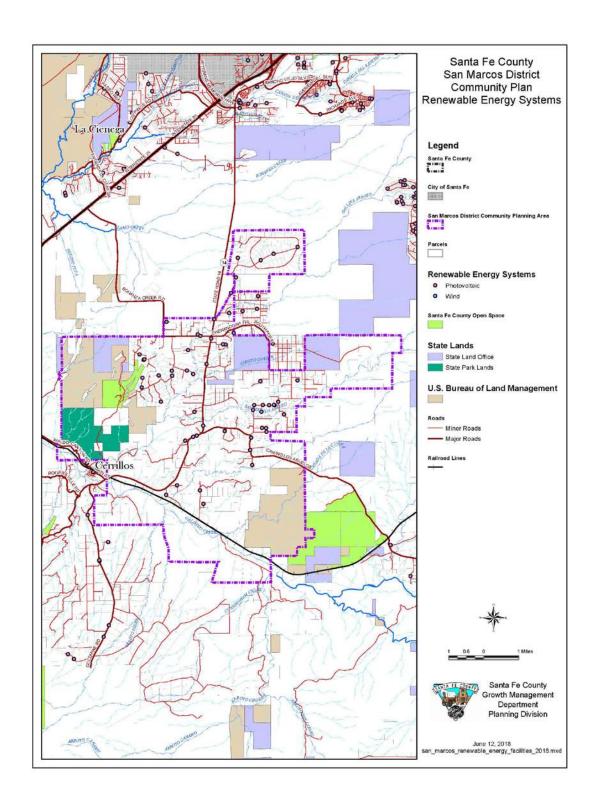
Solar

Across the PNM service area in New Mexico, about 2.6 percent of residences interconnect solar with the public utility. According to PNM's Retail Renewables Department², within the San Marcos District, there were over 50 solar units in 2016.

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https://www.pnm.com/service-area-sfe-abq

² Information from Santa Fe County Sustainability Division's discussion with SUNPOWER in 2017



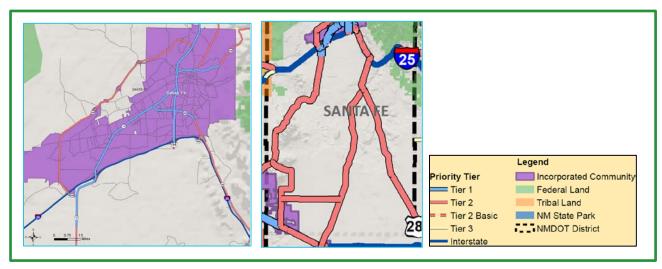
Transportation

Residents and guests to the San Marcos area enter from the North and the South via State Highway 14, 'the Turquoise Trail.' The Turquoise Trail is designated by the USDOT as one of America's Scenic Byways. As such, the Turquoise Trail receives a lot of tourism by car, motorcycle and bicycle year-round. People in the community have voiced a concern for improved bicycle facilities along HWY 14, like paved bike lanes. NMDOT owns and maintains HWY 14. In their current 'Prioritized Statewide Bicycle Network Plan,' NMDOT has identified the northern segment of HWY 14 as a Tier 1 Priority Bikeway and the remainder as a tier 2 Medium Priority Bikeway. Bike facility improvements to HWY 14 should occur in the near future.

According to the Statewide Bicycle Network Plan:

"Tier I routes are high priority bikeways that provide critical intra-urban and statewide connections between New Mexico's communities and for cross-state travel. Tier 1 routes exhibit high existing or latent demand for bicycling, and are highly appropriate for implementation of bikeway facilities. These facilities may appeal to recreational and utilitarian cyclists and demonstrate high tourism potential and recreational demand. Tier 1 routes are typically high-volume and/or high-speed roadways where additional separation between cyclists and motorists is desired.

Tier 2 routes are medium priority bikeways that exhibit existing or latent demand for bicycling and are appropriate for the implementation of bikeway facilities. Tier 2 routes typically provide long-distance or statewide connections and may appeal to recreational and/or more comfortable utilitarian cyclists. Alternative routes to Interstates are typically designated as Tier 2 facilities."



from NM Bike Plan 2018

Santa Fe County owns and maintains County Roads (CR) 42 'Camino Los Abuelos,' CR44 'Shenandoah Trail' and CR45 'Bonanza Creek Road,' from which people can access the area coming East and West. Santa Fe County also owns and maintains CR44A San Marcos Rd. E., 44B Pueblo Rd., 44C Calvin Rd., and CR44D Mesa Rd.

Many private roads also lead to the residential areas of San Marcos District. These roads are privately owned and maintained.

In 2015 and 2016, Santa Fe County conducted traffic counts. The counts per day were:

Bonanza Creek Road: 2,033 near NM 14; 685 before the I-25 entrance.

Camino Los Abuelos near NM 14: 1,169; 380 near the Amtrak/Burlington Northern Rail track.

Shenandoah Trail near NM 14: 3,510; at the Northfork/Southfork juncture 1,699; continuing on Southfork to the West Pine juncture, 905.

The higher counts near NM 14 for these three roads and much lower counts at their respective termini indicate that most of the traffic is to access development on or near the roads and not through traffic to other destinations.

In the 2015 Community Plan update, residents noted that open space and trails are important for the San Marcos area. There are two planned recreation trails in the San Marcos planning area that connect to on-road bike lanes, other trails in the County and State Park and County open space areas:

- The Galisteo Basin trail crosses the southern area of San Marcos linking the Cerrillos State Park/NM 14, the County Thornton Ranch Open Space, and the Village of Galisteo/NM 41. It also intersects the north-south NM Central/Kennedy line trail on the east side of the Thornton Open Space area.
- The north-south NM Central/Kennedy line trail connects the Community College District area extending to the southern County line. It also connects to the Arroyo Hondo which extends west to NM 14, and the Spur Trail which connects to the Santa Fe Rail trail.

Public transit service in the San Marcos Area is provided by the North Central Regional Transit District (NCRTD), which operates three weekday routes: Route 270 Turquoise Trial, Route 280 Eldorado, and Route 290 Edgewood. Santa Fe County is a voting member on the NCRTD Board. Providing additional transit service to the San Marcos area will be studied by NCRTD in their upcoming, 5-Year Service Plan. Additional Information about NCRTD and their transit service can be found at: http://www.ncrtd.org.

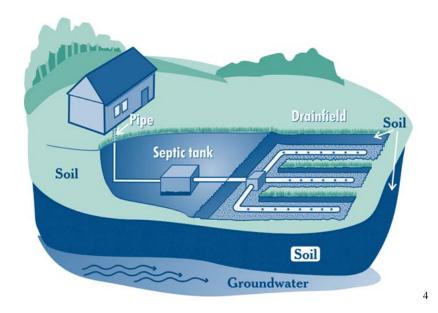
Water Distribution

County water lines end at the Turquoise Trail Elementary School. All of the San Marcos residents depend on wells or hauling water for their home water use.

See Community Services Analysis for water hauling information from the Ojo de Agua Self Service Water Dispensing Facility.

Septic

Santa Fe County does not operate any wastewater treatment in the San Marcos area, therefore all residents rely on private septic systems. New Mexico Environment Department³ regulates septic tanks, though Santa Fe County's Sustainable Land Development Code regulates how many septic tanks may be on a property (an accessory dwelling must share a septic tank with the principal residence SLDC 10.4.2.4).



Water Filling Station

Santa Fe County Utilities Department operates a 24-hour Self Service Water Dispensing Facility, call "Ojo de Agua." The facility, located at 13-B Camino Justica in the Santa Fe County Public Safety Complex, provides water for residents and businesses in the San Marcos District that have dry or underperforming wells. This facility is owned and operated by Santa Fe County and charges residents \$0.01 per gallon and commercial customers \$0.02 per gallon via a pre-paid card.

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³ https://www.env.nm.gov/liquid_waste/laws-and-regulations/

⁴ https://www.env.nm.gov/liquid_waste/



420 gallon personal water tank on an old horse trailer





Facility

Vision

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- Will set an example for education, sustainability, and resource management (set an example for education, sustainability and resource management)
- ➤ Will protect clean air (Promote clean air)
- Will encourage as much renewable energy as possible (Encourage use of renewable energy)
- ➤ Will protect and preserve natural resources (Conserve our natural resources)
- ➤ Support new innovation in sustainable practices
- Will facilitate residential development (ensure sustainable residential land use patterns)
- Will have high speed internet available (Have high speed internet available)
- Will support home-based businesses (support growth of small scale businesses, support home-based businesses)
- ➤ Will have high speed internet and reliable cellular available

Key Issues

- ❖ Diminishing water resources for current and future residents
- ❖ Private well use monitoring
- ❖ Private road requirements are difficult to comply with
- ❖ Discrepancy between County maintained roads and privately maintained roads
- ❖ Insufficient access to small-scale commercial
- ❖ Poor access to quality internet and cellular services
- **❖** Traffic control

Connecting Actions as applicable to Infrastructure Goals

- Design guidelines/standards
- Support development of GRT
- Determine appropriately scaled uses
- Determine appropriate usage
- Cell towers and broadband while respecting scenic nature
- Sports field, split cost between school and County
- **♣** Take all commercial users off of wells
- Hauling water is increasing and a concern
- Encourage water utility access along HW 14
- ♣ Rebate programs to incentivize people
 - Rain barrels
 - o Gray water
 - Washing machines
 - o Tax break
- Fire prevention like spark arresters
- ♣ Signage to improve traffic safety
 - Congested area
 - o Fire station area
 - o Blinking light
 - Traffic control
- **Let Take over roads that have more traffic**

Visions that inform Goal A:

- Will ensure enough water for residents (ensure enough water for residents)
- Will protect and preserve natural resources (Conserve our natural resources)

Goal A: Water: Promote water conservation and protection of natural resources to share the available water between residents, businesses and the animals and plants that inhabit the District.

- o Proposed Actions:
 - o Review options
 - Incentive program availability

- Size/scale of well water availability
- Scale of water hauling situation, uses?
- Determine appropriate usage
- o Building/landscaping requirements for water conservation
- o Create rebate options to incentivize water conservation
 - Rain barrels
 - Gray water
 - Washing machines
 - Tax break
- o Lobby for water utility access along HW 14
- o Restrict commercial access to well water
- o Research synthetic turf field to share between school and residents

Visions that inform Goal B:

- Will have high speed internet available (Have high speed internet available)
- ➤ Will have high speed internet and reliable cellular available
- Will support home-based businesses (support growth of small scale businesses, support home-based businesses)
- Will facilitate residential development (ensure sustainable residential land use patterns)

Goal B: Internet/cellular: Support development of infrastructure improvements to internet and cellular technologies for residents and businesses in the District.

- o Proposed Actions:
 - o Determine need of the District
 - Size/scale (cell towers, internet technologies)
 - Intensity
 - Impact
 - Commercial/private
 - Equitable
 - Caring for District scenic nature, sensible stewardship
 - o Determine appropriate usage/scale
 - o Review code options and restrictions on infrastructure development
 - o Review utility corridors and plan for appropriate infrastructure nodes

Visions and Issues that inform Goal C:

- ❖ Private road requirements are difficult to comply with
- ❖ Discrepancy between County maintained roads and privately maintained roads
- **❖** Traffic control
 - Will facilitate residential development (ensure sustainable residential land use patterns)
 - ➤ Will support home-based businesses (support growth of small scale businesses, support home-based businesses)

Goal C: Roads: Enhance traffic control in support of public health and safety, residential and commercial development while balancing the cost of maintaining roadways.

- o Proposed Actions:
 - o Review options
 - Design guidelines/standards
 - Signage needs
 - Financial feasibility of public ownership of roads
 - o Support development of GRT?
 - o Investigate high traffic roads, and possibility of public ownership
 - Signage to improve traffic safety
 - Congested area
 - Fire station area
 - Blinking light
 - Traffic control
 - Policing

Visions that inform Goal D:

- ➤ All public buildings will use solar power
- Will encourage as much renewable energy as possible (Encourage use of renewable energy)
- ➤ Will protect and preserve natural resources (Conserve our natural resources)
- Will set an example for education, sustainability, and resource management (set an example for education, sustainability and resource management)

Goal D: Renewable energy: Encourage use of renewable energy, especially on all public buildings, to protect and preserve natural resources while also setting an example for education, sustainability and resource management.

- o Proposed Actions:
 - o Review options
 - Sighting
 - Design guidelines to respect scenic nature
 - Rebate programs
 - Establish incentives
 - Tax break
 - Development incentives
 - Fee-in-lieu of requirement possibility
 - o Review cost/benefit- including environmental benefit
 - Establish partnerships