

TIJERAS CANYON/CARNUEL PLAN 2007

II. MAIN ISSUES

Discussion

Major environmental concerns identified in the planning process were water quality and wastewater issues. Needs and solutions to these problems dominated the discussions at public meetings.

There are a number of residents, particularly within the Carnuel community, whose well water is not potable due to contamination of well water sources. The land use patterns in the Carnuel area, including Santo Niño and Acequia Madre, can be defined as a high-density traditional Hispanic community development on lots less than one acre in size. This district primarily includes residential manufactured housing on the south side of I-40 as well as site built housing in newly developed subdivisions directly south of the Santo Niño church. At the January 2006 public planning session, a focus group convened and identified the *Traditional Community District* as an area within the Carnuel Land Grant boundary where Hispanic community members have lived for many generations between Old Route 66 and I-40 and south of I-40 around the Santo Niño Church and the Acequia Madre neighborhood (see Subareas Map, Appendix B, p.28). The designation acknowledges the small lot size and clustering nature of this historic area. Historically, higher density housing was centered around plazas, as in the case of the abandoned San Miguel Plaza or the placement of family home clusters known as *plazuelas*. Participants felt that the creation of this designation could be a catalyst for the future development of strategies for protecting residential land use here.

Many of the contaminated wells in the area result from septic waste (including from septic tanks and cesspools) that has made its way into the wells through the cracked rock formations. Compounding this problem is the difficulty in replacing existing liquid waste disposal systems. The small lot sizes, located primarily in Carnuel, limit the space in which septic tanks and disposal fields can be placed thus impeding the possibility of meeting current wastewater ordinances.

Future development has the potential to worsen the existing situation. In total, there are 12 lots of undeveloped land zoned A-1, totaling approximately 592 acres located in Western Tijeras Canyon. A major constraint to development on the vacant Western Tijeras Canyon properties is the lack of water and sewer service which should be considered to avoid further contamination. Landowners of undeveloped lots in Western Tijeras Canyon would like to see water and sewer service available in order for development to be possible. Road access is another issue to be resolved prior to development in this area.

The Coyote Springs Master Plan for 135 lots was reviewed by the Bernalillo County Planning Commission in June 1998. To date there has been no development at this site.

In May 2004, the Board of County Commissioners approved a Special Use Permit for a Planned Development Area for a 164-acre site called West Tijeras Canyon. Included were 103 1-acre lots, an approximately 4.1-acre office space, and 12.1 acres of private open space.

There are presumably other landowners who may be submitting applications in the future for major (6 lots or more) and minor (5 lots or less) subdivisions. Landowners and developers project this area will be developed at A-1 densities and homes built in this area may be similar to that of neighboring Four Hills.

TIJERAS CANYON/CARNUEL PLAN 2007

Needs

The existing residences in the Carnuel community must be connected to water and sewer systems in order to stop future contamination of natural resources in the area. Infrastructure must be put in place if further development is going to occur particularly on properties adjacent to Highway 333/Old Route 66. It has also become clear that to solve existing problems, sewer and water utilities must be established simultaneously. Furthermore, this is consistent with the Albuquerque Bernalillo County Ground-Water Protection Policy and Action Plan.

During the January 7, 2006 work session, many participants agreed that the Carnuel Mutual Domestic should be the water utility servicing the existing development in the area. Western Tijeras Canyon landowners expressed interest in having the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) service water infrastructure to any future development. West Tijeras landowners will continue to work with the ABCWUA to plan water utility service for the West Tijeras area.

The wastewater strategy identified by work session participants was to ultimately provide a sanitary sewer system for the entire plan area. Community members had questions about the feasibility of allowing homes and businesses in the plan area to connect to the existing sanitary sewer force main that runs from A. Montoya Elementary School in Tijeras through Carnuel that connects with the Albuquerque/Bernalillo County sewer system at Tramway Boulevard. This would mean transitioning from the use of individual septic systems to using the existing eight-inch force main sewer line that runs from the Village of Tijeras to the City of Albuquerque at Tramway and Central. This could eventually lead to a developed sewer network for the plan area. Other major components include determining the financial feasibility and administrative responsibility of such an effort. In terms of phasing the conversion to sewer service for the plan area, the immediate priority should be the *Traditional Community District*, where a majority of homes are located on lots less than ½ acre in size. The next phase could target existing homes on lots larger than ½-acre. However, the properties in Coyote Springs Master Plan area and Coyote Springs Neighborhood have a different topography and soils than Carnuel and thus do not face the same degree of severity with wastewater issues. Therefore, some residents of Coyote Springs Neighborhood may not favor a conversion to a sewer system.

TIJERAS CANYON/CARNUEL PLAN 2007

Solutions

Albuquerque Bernalillo County Water Utility Authority

The Albuquerque Bernalillo County Water Utility Authority (ABCWUA) is a joint City of Albuquerque and Bernalillo County agency that is responsible for administering the water and wastewater utility throughout much of Albuquerque and Bernalillo County. The agency strives to provide reliable, safe drinking water while protecting groundwater.

According to the ABCWUA, the existing eight inch force main that is located through the plan area along Highway 333 has a capacity of 450,000 gallons per day. This service line is at 1% capacity with only six connections to the sewer line. The sewer line has the potential to service up to 1500 homes in the plan area. There are currently about 555 homes in the plan area. The ABCWUA is aware of the public health issues related to failing septic tanks in the study area (Information Session with ABCWUA members; April 20, 2006). Although capacity of serving the plan area with sewer service by the ABCWUA is possible, some outstanding issues must be addressed. The ABCWUA has stated that in order to begin to allow sewer connections for existing homes, the following improvements would need to be implemented to the existing line for the general Carnuel area:

- Construction of a pump station on line that can lift wastewater at full capacity.
- Placement of a connection line on the south side of Highway 333.
- Placement of a connection along Highway 333, which would allow for gravity flow through the sewer line.

The following are the challenges in providing sewer service in Plan Area:

- Ability of individuals and community groups to recruit funding for engineered plans and facilities that must be constructed in order to connect to the existing force main.
- The natural geography of the plan area will increase construction cost so State capital project money as well as Federal assistance will be needed to begin service connection to the existing residential area.
- The placement of service lines to specific residential neighborhoods will have to address slope and soil conditions that may be more challenging in the construction of lines and facilities related to sewer infrastructure.
- Due to the amount of private roads, dedications of easements for the placement of sewer lines will be a challenge in some locations within the study area.

Furthermore, in order for the ABCWUA to provide sewer service to future development in the West Tijeras portion of the study area, service agreements would have to be completed between the user and provider. New development would finance the cost of connecting to the sewer line along Old Route 66.

Carnuel Mutual Domestic

In 2002, area residents, the Carnuel Acequia Association, and the Carnue Land Grant collaborated to form the Carnuel Mutual Domestic Water Users Association (Carnuel Mutual Domestic) for the purpose of establishing a community-owned water utility to address water quality issues. The Carnuel Mutual Domestic currently has over 200 members, all of whom are from the Echo Canyon, Monticello, and Carnuel neighborhoods. By the end of 2006, the Carnuel Mutual Domestic was able to secure \$2.6 million for the design and construction of a water supply well, water storage tank, and a transmission

TIJERAS CANYON/CARNUEL PLAN 2007

line initially planned to run along Highway 333 to eastbound Exit 170. Although a fill station has been designed, funding is still needed as the estimated cost for an entire community water system is \$15 million. The source of funding included Legislative, EPA, USDA Rural Development, and the Water Trust Board grants as well as a loan from USDA Rural Development. During this time, the Carnuel Mutual Domestic has worked with the New Mexico Environment Department, Rural Communities Assistance Corporation, New Mexico Office of the State Engineer, and the Albuquerque Bernalillo County Water Utility Authority to study the feasibility of implementing a community water system. Souder, Miller, and Associates was hired by the Carnuel Mutual Domestic to conduct research, write technical reports, and produce designs of the system. By the beginning of 2007, this firm had completed a Preliminary Engineering Report, a Geohydrology Report, and an Environmental Information Document. Construction of the water supply well (70gpm) had been completed and is located in Tijeras on Carnue Land Grant Board property between the A. Montoya Elementary School and the cement plant. The Carnuel Mutual Domestic has also approved Souder, Miller, and Assoc.'s design of the 140,000 gallon storage tank, pump house, and electric controls and preliminary design of a transmission line and fill station. It is possible that over the next two years, approximately 180 households could be connected to the system. The long-term plan for the Carnuel Mutual Domestic is to service the entire Tijeras Canyon/Carnuel area. The immediate focus is on existing homes in Carnuel, Monticello and Echo Canyon, which number about 900.

Carnuel Mutual Domestic as a Customer of the Water Utility Authority

For the Carnuel community, the discussion of water provision is not a new one. Despite years of conversations on connecting to a municipal water source, a concerted effort to establish utilities has only been in effect since 2005. In December 2006, the Carnuel Mutual Domestic submitted a proposal to the Albuquerque Bernalillo County Water Utility Authority to work together to provide water for the aforementioned households. More specifically, the letter requested the possibility of either leasing water rights from the Water Utility Authority or establishing a connection from the utility's water to the Carnuel Mutual Domestic's water station. In a subsequent meeting, held in January 2007 between these two entities, it was decided that the best way to move toward a community water system would be for the Water Utility Authority to allow a connection and provision of water to the Carnuel Mutual Domestic's water storage tank. The next step is for the Water Utility Authority and the Carnuel Mutual Domestic to sign a Development Agreement. This would allow the Carnuel Mutual Domestic to become a customer of and purchase water directly from the Water Utility Authority, then make it available to its members. Another requirement of the Water Utility Authority to provide service to the area is for Carnuel Mutual Domestic to present a Land Use plan and a long-term (utilities) plan indicating the establishment of a sewer system.