Water Resource Development Project

Supporting the Economic Development, Agricultural, and Environmental Needs of New Mexico

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An opportunity for public-private partnership

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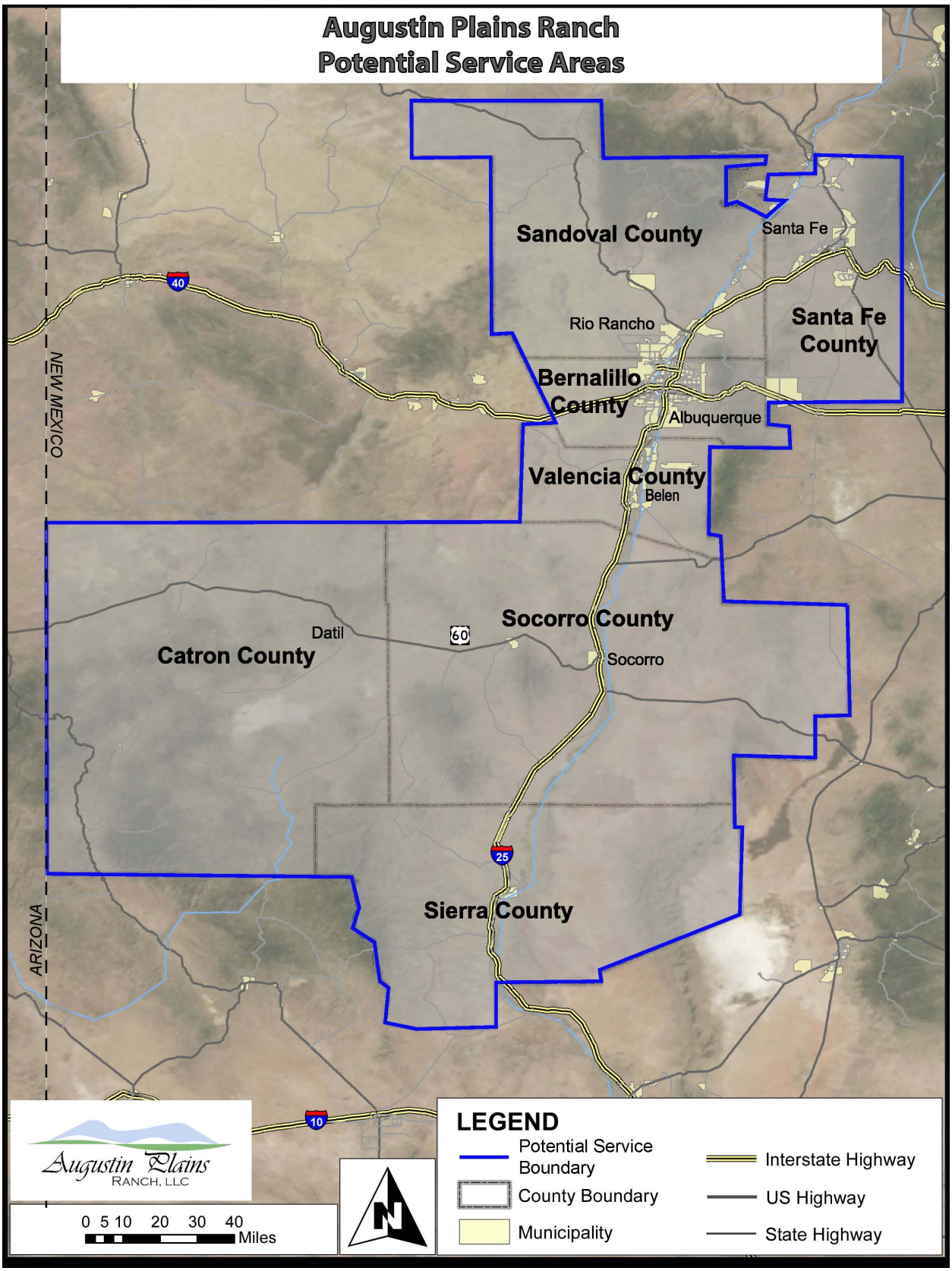
A New Management Structure for a New Water Supply

With its proposal to develop an enormous, largely untapped groundwater source, Augustin Plains Ranch (Ranch) seeks to ease water supply problems in New Mexico while managing this scarce resource for the common good. The water supply comes from a deep aquifer beneath the Ranch on the Plains of San Augustin, approximately 50 miles west of Socorro. Hydrologists, geohydrologists, and engineers have determined that this groundwater can sustain pumping of 54,000 acre-feet per year for 300 years; by comparison, metropolitan Albuquerque uses about 107,000 acre-feet-per year.

The Ranch has applied for a permit to divert this water and deliver it to those who need it the most—needs that the Ranch proposes to determine in collaboration with elected officials at the state and local level, water managers, and end-users, including water planners, municipalities, industry, and representatives of irrigators and environmental groups. The Ranch is committed to public priorities for water use and pledges to bring the water to market in a manner that upholds the public welfare, incorporates best-practices in water conservation, does not impair existing water rights, protects the environment, and upholds New Mexico's cultural heritage and agricultural traditions.


Augustin Plains Ranch
Potential Service Areas
Sandoval County
Santa Fe
Rio Rancho
Santa Fe County
Bernalillo County
Albuquerque
Valencia County
Belen
Socorro County
Datil
Catron County
Socorro
Sierra County
NEW MEXICO
ARIZONA
40
60
25
10
Augustin Plains
RANCH, LLC
0 5 10 20 30 40
Miles
N
LEGEND
Potential Service Boundary
County Boundary
Municipality
Interstate Highway
US Highway
State Highway

A New Mexico Partnership Managing a New Mexico Resource

Beneath the Plains of San Augustin in west-central New Mexico lies a recently discovered, vast aquifer of clean, readily accessible water that Augustin Plains Ranch proposes to make available to help solve water-supply problems in New Mexico's most populous region. To put that in perspective, New Mexico's largest municipal water user, Albuquerque, consumes about 107,000 acre-feet per year. To meet the city's needs, Albuquerque now relies on 48,000 acre-feet per year of water imported from the Colorado River watershed via the San Juan-Chama Diversion Project, a water supply that is vulnerable to threats from beyond New Mexico's borders.

The impact of the Augustin Plains Ranch water supply cannot be overstated. Not only is it the first new supply of native water to enter the New Mexico water scene since the Office of the Territorial Engineer was formed in 1907, but it also represents an economic development opportunity unmatched in contemporary times. New Mexico's cultural, environmental, and economic future depend directly on water supply, and the challenges of competing demands for water are already being felt across the state. Until now, it has been a zero-sum game, with increased water usage in one economic sector being achieved by moving water from another, often to the detriment of a community, the environment, or cultural traditions. With this new supply, New Mexico has the opportunity to create jobs and stimulate economic growth in harmony with statewide priorities.

Because of the crucial importance of water in maintaining public welfare, the Ranch recognizes a duty to make the water available where the need is greatest—whether irrigating crops in the Rio Grande valley, for instance, providing clean drinking water to families in Rio Rancho, or attracting and supporting new clean high-tech industries in the area. Furthermore, the Ranch has committed to developing the resource without imposing a negative impact on existing water users—there will be no impairment of existing rights and no shift of water away from a current beneficial use. Cooperation with the Department of Interior and the Interstate Stream Commission will address how water can be used to compensate during times of drastic changes in flow and in other emergency situations during which water is lacking.

The Ranch will work in collaboration with state government and the water-management community in New Mexico to determine the best and highest use of this water. These uses could include protecting junior water-rights holders from priority calls during a shortage, assuring municipalities of long-term supply, and enabling high-water-use industries to offset their pumping effects on the Middle Rio Grande Basin. The Ranch is committed to a public-private management structure, despite having already invested significant sums in the project. The Ranch estimates the final cost for full build-out will reach approximately $300 million, to be funded by private investment.

Project Goals

The overall goals of this project—including ensuring that water is available for current and future residents, development, and economic vitality—mirror the goals set forth in the New Mexico 2003 State Water Plan. The state plan calls for expanding the available water supply overall, sustaining agriculture, supporting rural development, providing drinking water to communities, complying with interstate water compact delivery requirements, preserving fish and wildlife habitat, and aiding with the restoration of river systems.

The Project supports the New Mexico 2003 Water Plan in many key areas, including these particular goals:

- Ensuring that water is available for the continued and future economic vitality of the state
- Managing this key water supply in close partnership with elected officials at the state and local levels, water planners, members of the economic development community, and other advocates for the public welfare to ensure the water is put to the best and highest use
- Ensuring a safe and adequate drinking water supply for all New Mexicans
- Developing water resources to expand the available supply
- Providing for fish and wildlife habitat preservation and maintenance, as well as river restoration
- Maintaining and enforcing interstate stream compact compliance

Project Plans

Augustin Plains Ranch will achieve these goals by drilling additional wells on the Ranch, creating an infrastructure to collect the water, and constructing a pipeline from Datil, New Mexico, along U.S. 60 to Socorro, then up the Rio Grande Valley to the Albuquerque metro area, and Santa Fe, for sale and delivery to specific users of the water in Catron, Bernalillo, Valencia, Sandoval, Santa Fe, Socorro, and Sierra counties.

The Ranch is now developing a master plan for the Water Resource Development Project. It will provide technical information about the infrastructure design: the wells, the pipeline system to gather the water, pumps (powered partially by renewable energy such as solar and wind), and the delivery pipeline that will bring water to market in the Middle Rio Grande region.

As the project moves forward, the Ranch is preparing for a May 20 hearing by the State Engineer to review the Ranch's application for a permit to divert 54,000 acre-feet of groundwater per year. The permit will also identify end users of the water in Bernalillo, Catron, Sandoval, Santa Fe, Sierra, Socorro, and Valencia counties.

Understanding the Aquifer

The Augustin Plains Ranch occupies a high grassland region in Catron County west of Socorro near the Very Large Array radio telescope. U.S. Highway 60 runs across the plains and through the Ranch, connecting the Rio Grande Valley and Socorro with the communities of western New Mexico. It's a region of ranches, long vistas, and small communities. The aquifer beneath the Ranch is part of the Rio Grande Basin as declared by the State Engineer. The Augustin Plains Ranch, LLC has invested several million dollars to prove and confirm the water source, and is prepared to conduct further research.

Recently the Ranch began investigating its underground water resources, first by retooling six relatively shallow existing wells, which were found to produce surprisingly good-quality water. Encouraged, the Ranch drilled two additional, slightly deeper wells and found more high-quality, abundant water. Recognizing that it had tapped an unsuspected groundwater source, the Ranch proceeded further, engaging one of the state's leading hydrologists, John Shomaker, and an equally highly respected geohydrologist, Michael Darr, to characterize the aquifer, which involves analyzing the geohydrology of the basin beneath the Ranch. As part of that process, the Ranch drilled a stratigraphic well and a full production well. As part of that process, modeling of the aquifer was completed that proved the presence of the water source beneath the northern part of the ranch.

Based on this information, the Ranch has moved ahead with planning to develop the water resource. The engineering firm Bohannan-Huston has been hired to design the system of wells, pumps, and pipelines to bring the water to market and is responsible for all the related engineering work on the Water Resource Development Project.

The Need

New Mexico is a relatively dry state currently experiencing long-term drought. Water is a limiting resource on economic growth. The essential challenge here is ensuring a sustainable water supply in the face of competing demands and intensive population growth. In the Middle Rio Grande Basin, which supports the state's largest population center, all available water has been put to use. This means that any new requirements for water—for instance, from the growing population of the area's communities or from new economic activity—must come through either the acquisition of water rights from existing rights holders, and the subsequent transfer from the old use to the new, or from new water sources. The City of Albuquerque is meeting its long-term water needs through the San Juan-Chama Drinking Water Project by importing 48,000 acre-feet per year of water across the Continental Divide from the Colorado River watershed. Albuquerque uses about 107,000 acre-feet per year. The City of Rio Rancho shops on the open market for water rights, which are most likely to come from agriculture and will result in a loss of farming throughout the valley.

Industry is also actively seeking to acquire water rights. Computer chip manufacturer Intel—a large water user in Rio Rancho—is searching for water rights to offset the effects of groundwater pumping on river flows in the Rio Grande, for example. Furthermore, water must be kept in the Rio Grande by court order to provide habitat for the silvery minnow, an endangered species of fish, and to maintain bosque habitat for the endangered Southwestern willow flycatcher. Meanwhile, the Interstate Stream Commission of New Mexico must ensure deliveries of surface water in accordance with interstate compacts.

These are just a few examples of the competition for scarce, overtaxed, and often unreliable water sources in New Mexico. During a drought—more and more common in recent decades—the situation only worsens. New Mexico follows a priority doctrine that means in times of shortage those with senior water rights receive their allotment before junior users. In these drought conditions, the State Engineer can apply state water rights to help make up the shortfall before issuing a "priority call" as a last resort and curtailing water to junior rights holders, who could be left literally high and dry. This year, the Middle Rio Grande Conservancy District, which provides water to farmers irrigating about 70,000 acres of cropland in the Middle Rio Grande Valley, has announced that some may not receive water because of the ongoing drought.

Given these circumstances, the Augustin Plains Ranch water is clearly the "find of the century." Consider that the City of Albuquerque has spent well over $200,000 million to import 48,000 acre-feet per year of Colorado River water across the Continental Divide to meet a little less than half its water needs. In this light, the Ranch's 54,000 acre-feet per year present a unique and tremendous opportunity to ease water shortages in the region.

Located near Datil Catron County, the Augustin Plains Ranch recognizes a particular commitment and obligation to assure neighbors there will be no negative impact on surrounding water resources. Further, the Ranch plans a concerted effort to bring direct, positive impacts to the area, its residents, and ranchers. Initiatives will be implemented to create jobs with priority hiring opportunities for residents of the Datil region. The Ranch proposes shared uses of the land for cattle grazing to provide low cost grazing and irrigation for alfalfa operations to feed cattle within the region. Other particular needs of the area and its residents will be discussed and developed between local groups and project management.

Project Details

Goal: The goal of the Augustin Plains Ranch Water Development Project is to utilize a public-private partnership to manage the provision of water where it will meet critical needs while preserving the agricultural heritage and irrigation traditions of the area, enhancing state water conservation goals, and helping the Interstate Stream Commission meet its compact commitments.

Water Quantity: Prominent hydrologists and geologists have determined that the aquifer can sustain diversions of 54,000 acre-feet per year for 300 years. That's enough to meet the annual needs of almost 300,000 people at current Albuquerque per capita consumption rates.

Water Quality: Water is of good quality.

Wells: Eventually the Ranch will drill 37 production wells to a depth of 3,000 feet. With a 20-inch diameter, each well will produce 2,000 gallons per minute.

Irrigation: The Ranch will irrigate approximately 4,400 acres, or 125 acres around each of the 37 wells. The irrigation practices will have a major impact on economic growth and job creation opportunities in the Datil area.

Pipeline: The Ranch will construct a pipeline about 130 miles long from Datil along U.S. 60 to Socorro, then north to the Albuquerque and Santa Fe areas. The project will serve water users in Bernalillo, Catron, Sandoval, Santa Fe, Sierra, Socorro, and Valencia Counties.

No Impairment of Existing Rights: The diversion and use of this water from the aquifer beneath the Ranch will not be allowed to jeopardize existing water rights or natural springs.

New Mexico Water: The Ranch will sell water and/or water rights to users in New Mexico according to priorities in the state water plan, in community water plans, and expressed by the water-management community.


Augustin Plains Ranch
Potential Pipeline Corridor
Santa Fe
Rio Rancho
Albuquerque
Belen
Socorro
AUGUSTIN PLAINS RANCH
Datil
25
40
60
Legend
Potential Pipeline Corridor
Interstate Highway
Highway
Major Road
Ranch
Municipalities
10 5 0 10 20 Miles
Augustin Plains
RANCH, LLC

Project Benefits

This project has many benefits, including

- Providing a new water supply to sustain continued economic success and balanced growth for New Mexico
- Providing protection from possible priority calls against irrigation users in the Middle Rio Grande in times of shortage by providing water to the river
- Maintaining agriculture in the Middle Rio Grande by relieving pressure on farmers to sell their water rights for municipal and industrial uses
- Supporting municipal use by providing a new water supply and a source for offsetting Middle Rio Grande pumping other than drying up existing agriculture
- Establishing a precedent for public/private partnerships based on cooperative water management that meets public needs.
- Supporting the economic development of Catron County