

Eastern New Mexico Rural Water System (Ute Pipeline Project)

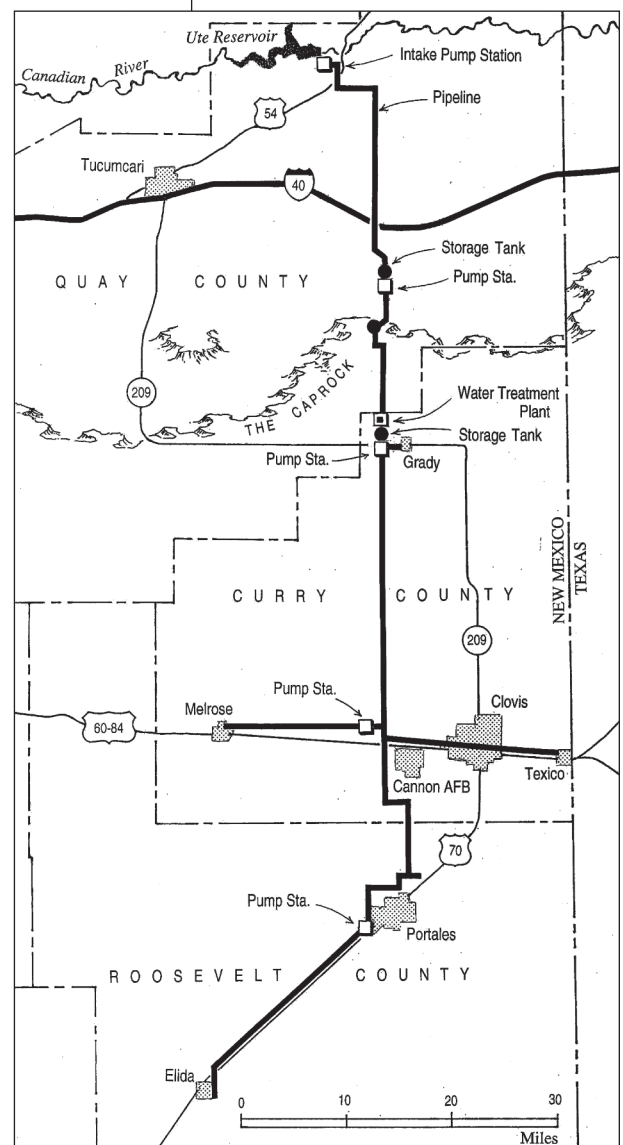
The Ute Pipeline Project (Project), officially known as the Eastern New Mexico Rural Water System (ENMRWS), is a 151-mile-long pipeline project to provide a sustainable municipal and industrial water supply for several eastern New Mexico communities and a military base. Water will be pumped from Ute Reservoir to the cities and towns of Clovis, Portales, Melrose, Texico, Grady, and Elida, as well as to Cannon Air Force Base and Curry and Roosevelt counties (see map). The entities involved in the Project have a combined population of about 73,000.

“ Anticipating the potential water needs in eastern New Mexico and in the interest of maximizing New Mexico’s use of water from the Canadian River stream system, the N.M. Interstate Stream Commission completed construction of Ute Dam and Reservoir in 1962 at a present-day cost of over \$125 million.”

N. M. State Engineer
John D’Antonio Jr., (2003–2011)

Status Bar 2014 • Eastern NM Water Utility Authority

- Legislative Finance Committee completed the program evaluation of the Water Trust Board, and found that the Board was correctly funding large regional projects such as the ENMWUA and the Navajo Gallup projects.
- Huge rains in September 2013 added 28,000 acre-feet to the Ute reservoir.
- An evaluation of alternatives by a geohydrologist for Portales found that the Ute Pipeline remains the best option but that ongoing conservation efforts are necessary until the pipeline is completed. Portales residents have reduced their consumption to 150 gallons per capita per day.
- Efforts have been undertaken to improve the watershed. A completed draft water quality plan has been submitted to NMED.
- The federal appeals court in Denver denied the city of Logan's request for an injunction pending a decision. The court has heard the city's challenge to the Project, and the parties are waiting for its decision.
- The Project received \$2.1M from the Bureau of Reclamation
- The Water Trust Board awarded 3.2M to the project for this funding cycle.



Eastern New Mexico Rural Water System
By Jerold Widdison for the Utton
Transboundary Resources Center.

The Congress authorized major federal funding for the Ute Pipeline in the Omnibus Public Land Management Act of 2009. This important milestone for the project was reached after about 45 years of effort. Attention now shifts to myriad details involved in actually constructing, financing, and administering the project.

Background

New Mexico created Ute Reservoir by damming the Canadian River near Logan in Quay County. The reservoir stores the State's share of the Canadian as allowed under the Canadian River Compact among New Mexico, Texas, and Oklahoma. The purpose of the reservoir was to create a sustainable water supply for communities that rely on the Ogallala aquifer, a water supply that is diminishing in both quality and quantity. Withdrawals from the aquifer in the service area are estimated at 249,000 acre-feet per year (afy) and recharge is estimated at 40,000 afy. The productivity of many wells has dropped dramatically and municipalities have turned to increasing the number of wells to maintain production levels. It is projected that the Ogallala aquifer as a water source for the area will last 10 more years.

Construction of the dam was completed in May of 1963, and an organization known as the Ute Dam Municipal Water Association was formed in September to move the project ahead. It included cities from Tucumcari south to Artesia. Congress authorized feasibility studies in 1966. A new organization, the Ute Reservoir Water Commission (URWC), was formed through a joint powers agreement in 1987. The N.M. Interstate Stream Commission (ISC) manages the water in the reservoir and is required to market it. In 1994, the ISC estimated the "firm annual yield" to be 24,000 afy except in extreme drought years. The firm annual yield represents the yearly amount of water that can be dependably supplied from the raw water sources of a given water supply system. In 1997, the ISC gave the URWC a first right of refusal on

that 24,000 acre-feet of water for \$36,000 annually through December 31, 2008. That date has now been extended, in view of the progress being made on the pipeline project. Had the date not been extended, the URWC would have been obligated to *purchase* up to the same amount of water for \$25 per acre-foot, or about \$600,000.

In 2001 with State approval, the eight entities in Curry and Roosevelt counties formed the Eastern New Mexico Rural Water Authority (ENMRWA) to plan, design, fund, and oversee the construction of the pipeline. The U.S. Bureau of Reclamation (Reclamation) works with ENMRWA on technical matters. In 2003, ENMRWA added members from Quay County, Tucumcari, Logan, and San Jon. Two years later those members withdrew but retained their share of reservoir water (about 7,550 afy) for future purposes, including supplying water for the "Ute Lake Ranch" community development on the south side of the reservoir. The pipeline project is thus committed to the future delivery of 16,450 afy to the remaining participants.

The Project as Planned

The Project consists of an intake facility on the south shore of the reservoir, a main water pipeline, and treatment, pumping, and delivery facilities. The pipeline will run almost due southward from Ute Reservoir as far as Portales. A number of "laterals" off the main line will bring water to Clovis, the other participating communities, and to some outlying areas of the counties. The plan is to pump the water from the reservoir to the 4,500-foot rim of the Caprock, and then to a water treatment plant near Grady. The treatment plant will serve the entire system. From the water treatment plant, the system will operate primarily by gravity flow, although three booster pump stations will be needed. Each participating entity will pay a share of the construction costs and the operation and maintenance costs of the pipeline and facilities. Each will also pay for the water itself, based upon the amount of water each entity has reserved in the Project.

Aside from construction costs, the benefited entities can expect to receive water at about \$31 per acre-foot.

The cost estimate for the full Project was \$500 million at the time of the 2009 federal authorization. According to Paul van Gulick, an engineer and Project program manager, there have been a number of studies regarding future water supply strategies for eastern New Mexico. Of these, the Ute Project shows the greatest benefit/cost ratio. The Project is necessary because of anticipated depletion of the Ogallala aquifer on which Project members rely and the consequent need for an alternative supply.

There is, however, some controversy. Opponents, especially in the Logan area, believe that when the fully operational Project will damage their lake/recreation-based economy. Logan relies on its seasonal resort of summer homes and tourism that are centered on the Ute Reservoir. Opponents argue that if the lake levels drop, those underpinnings of their economy will disappear. Reservoir levels have dropped over the last three years from 190,000 in 2010 to 118,000 acre-feet in August of 2013. By the end of December of 2013, the water level had recovered to about 143,000 acre-feet due to the late summer and fall rains. Still, the concerns about the effects of drought and the pipeline on the local economy remain.

Funding is a part of the debate. Opponents point out that the federal funding, while authorized, is largely unappropriated and assert that that Congress will never take the necessary action. They argue that the expenditures to date have been a waste of state monies and less expensive alternatives should be employed, such as purchasing water rights from agricultural users.

Some do not want the project to stop but would like some accommodation. One commentator asked that the municipal members of the Project turn to groundwater pumping during times of drought, thus preserving the recreational pool in the lake that Logan relies upon.

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Project proponents have confidence that Congress will fund the Project, and the pipeline will be built to ensure the long-term viability of their municipal water supplies. The Ute Project is viewed as critical for the water future of Clovis and other towns. It is also important to the future of Cannon Air Force Base, and failure to build the water system could spell the departure of the base.

Legislation and Funding

Numerous projects of this kind in other states have been paid for largely by federal funds. Here, the authorized cost allocation is similar to other federally supported water projects: the federal government is to pay 75 percent, the State will cover 15 percent and the ENMRWA members will take care of 10 percent. The Project costs were estimated at about \$436 million in 2008 dollars.

Federal: Initiatives to authorize and fully fund the Ute Project began to accelerate in the mid-2000s. By 2009, Senator Bingaman had incorporated the Ute Project bill and many other bills into the Omnibus Public Land Management Act (Act). The Act was signed into law on March 30, 2009. The Act authorized \$327 million as the federal share of the funding. The federal authorization included a provision for indexing; that is, the actual amount appropriated will be adjusted to reflect future changes in federal indices for construction costs. It was anticipated that the project would be constructed in phases.

The other provisions of the 2009 Act pertaining to the Ute project are simple when compared with provisions for the Navajo-Gallup project and the *Aamodt* settlement (for more information see the *Aamodt* Adjudication and Navajo-Gallup Water Supply Project articles in this edition

During 2010, the member entities made good progress on the requirements. It is important to realize that the Ute Project is *not* a federal project. It will be built, owned, and operated by participating local governments.

of *Water Matters!*), because the project does not involve water rights settlements or court approvals. Nonetheless, the Act contains several federal requirements regarding project financing and engineering design. During 2010, the member entities made good progress on the requirements. It is important to realize that the Ute Project is *not* a federal project. It will be built, owned, and operated by participating local governments.

In years prior to project authorization, federal funds to support planning and design work were obtained by congressional “write-in requests.” For example, Senator Bingaman’s requests yielded \$260,000 in 2009. Since the 2009 Project approval, annual funding is managed through federal budget processes with funds administered by the U.S. Bureau of Reclamation (Reclamation). The 2010 Energy and Water Appropriations Bill appropriated \$1 million

for design and initial construction of the intake facility at Ute Reservoir. Subsequent federal grants included \$1.3 million in FY 2012 and \$1.8 million in FY 2013. The 2014 Reclamation budget contains a \$649,000 for the Ute pipeline.

The Project is relying on the passage of Senate Bill 715—the Authorized Rural Water Projects Completion Act to provide a funding stream from the federal government. The Act would provide mandatory funding for six authorized rural water projects at a level that would allow their completion within 20 years. The bill was introduced in April of 2013 and subsequently referred to the Senate Committee on Energy and Natural Resources. On November 21, 2013, the Committee ordered that the bill be reported favorably with amendments.

State: At the state level, the New Mexico legislature has provided Project money in each year from 2006 to the present. In 2006, \$1.25 million was appropriated. In 2007, then Governor Richardson’s “Year of Water” initiatives included \$5 million for the Project, of which only \$1 million was directly appropriated. As expected, however, the legislature also approved a \$2.3 million capital outlay request for the project through the N.M. Water Trust Board (Board). In 2008, the legislature approved \$4.5 million,

**Ute Reservoir
on the
Canadian River**



also through the Board. These last appropriations required 20 percent local participation in accordance with Board policy; that is, the local entities must pay 20 percent of the amounts as specified by the legislature. In 2009, another \$4.4 million was appropriated, and the local participation amount was reduced to 10 percent. The legislature provided \$2.9 million in 2010, \$4.4 million in 2011, \$3.8 million in 2012. Also in 2012, the ENMRWA received a preliminary award of \$4.0 million. In total, the legislature has provided \$32.55 million for front-end planning, engineering services, and construction. These monies will count as part of the state’s 15 percent participation.

Water Trust Board

Incidentally, the creation of the Water Trust Fund and Board in New Mexico is owed in no small part to the early planning and fact-finding efforts on the Ute project, dating back to 2000–2001. A team from eastern New Mexico visited other states having similar regional and rural water projects to investigate and learn from their experiences. Other successful state models included significant investment to leverage local and federal funds to implement large-scale rural regional projects that could not otherwise be completed. The team brought these ideas back to New Mexico, and the eastern New Mexico legislators of the time, Pat Lyons and Joe Stell in particular, used this information to expand and give substance to the Ute Project plans. Over the next two years the Water Trust Fund and its managing Board became realities. For more information, please see the chapter “Water Trust Board” in this edition of *Water Matters!*

Pre-Construction Activities

Since project approval in 2009, the Ute Project has been gathering momentum. The Project’s sponsors presented draft legislation to the 2010 session of the legislature, seeking to transition responsibility for the project from the ENMRWA (which was formed by a

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joint powers agreement) to a new Eastern New Mexico Water Utility Authority (Authority). The legislation passed unanimously, establishing the Authority as a political subdivision of the state. The Authority is a formal and stable organization that enables the participating local governments to begin setting up specific procedures for their financial participation, such as revenue bonding procedures and user rate schedules. It provides the necessary organization for the Project’s bonds to be offered in financial markets.

The Authority has a seven-member Board appointed by the Project area’s communities and county governments. The Board has bonding authority rather than taxing authority. The Board became official on July 1, 2010 and adopted a financing plan on July 15. An umbrella Memorandum of Agreement between the Board and Reclamation concerning financing has been completed. Individual cooperative funding agreements for each phase of construction will follow as needed.

As for project planning and engineering, the standard “30 percent design” was completed in 2009, followed by a “value engineering” process. Reclamation completed a Design Estimates and Constructability (DEC) review. In parallel, it proceeded for over three years with federal environmental compliance activities including the preparation of an Environmental Assessment (EA), a Biological Assessment, and the issuance of a “Finding of No Significant Impacts” (FONSI). With these activities completed in early 2011, the groundbreaking ceremony for the first phase of the project took place in August 2011.

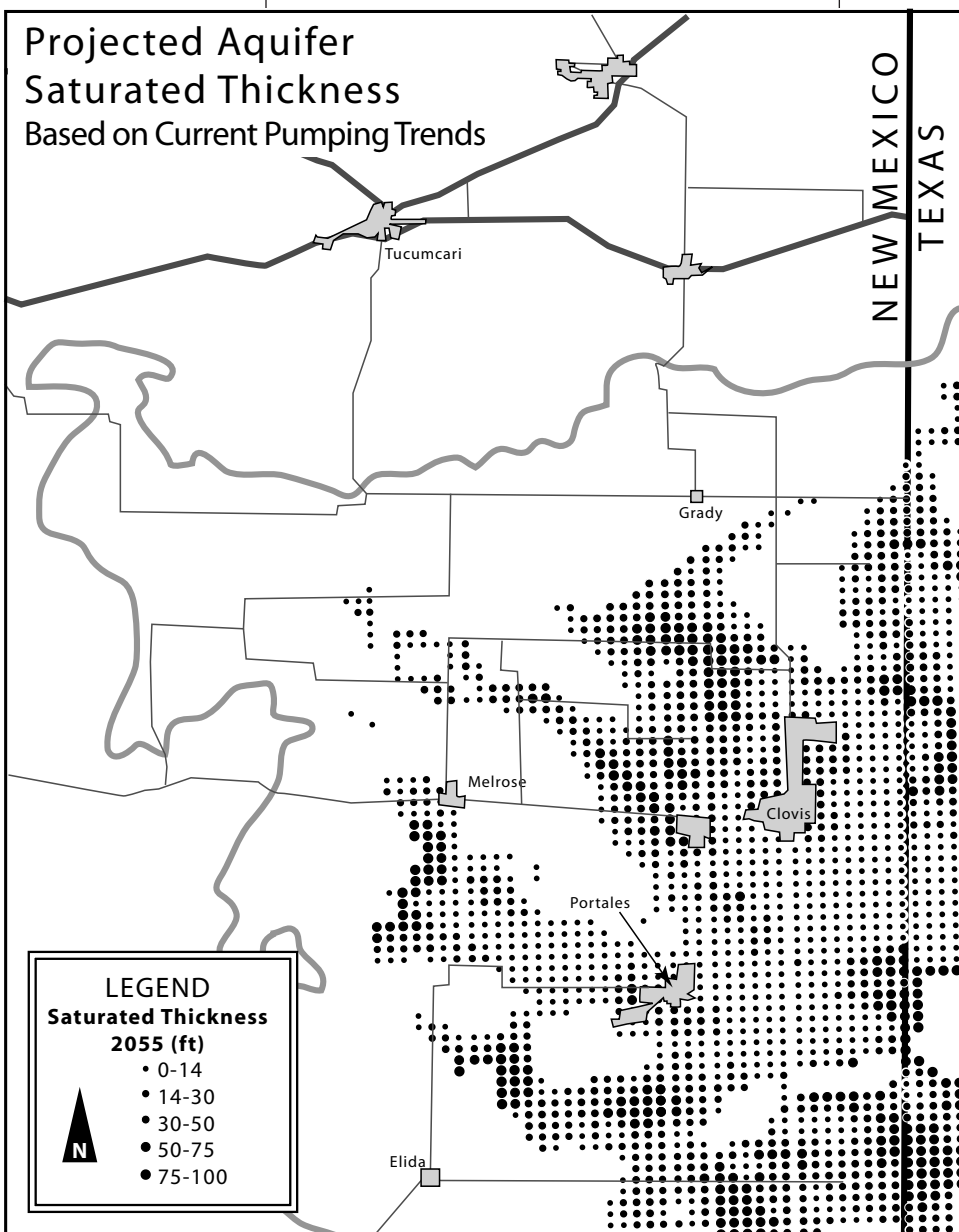
Projected Aquifer Saturated Thickness

Redrafted from CH2M Hill Technical Memorandum by C. Kenesson for *Water Matters!*

Meanwhile, the Albuquerque consulting firm of CH2M HILL was authorized to conduct a feasibility study for a wind energy plant that could generate revenues to offset some of the pipeline costs. This study indicated that a commercially operated wind farm of 200 megawatts capacity would be needed to pay for itself and to pay down a reasonable fraction—perhaps one-third—of the pipeline project cost. Currently, however, no market exists for the power that would need to be sold, inasmuch as other power-generating

entities have met their alternative-source obligations. Moreover, existing transmission lines in the region are at capacity.

Generation of hydropower was also considered. It might be possible to drop Project water down the Caprock through turbines and sell the power at peak times, then pump the water back up in off-peak times. But capital costs would increase, and profit margins associated with the peaking factor might be too small. Therefore, hydropower is currently thought to be too expensive.



Construction Activities

Construction bidding was delayed for one year while the Project acquired additional land needed for improved access to the intake facility. Another delay was encountered when the village of Logan filed a lawsuit in federal district court in April of 2012 challenging the environmental FONSI and seeking to enjoin construction. In January of 2013 the federal district court denied the motion for an injunction. The next month, a full notice to proceed was issued to ASI Constructors, Inc. Logan has appealed the lower court decision to the Tenth Circuit of Appeals.

Intake Facility: Construction of the intake facility is expected to take 22 months. Design of Phase I of the intake facility was completed and construction was begun in early 2013. By March 2013, workers began work on a \$15 million intake station on the south shore of Ute Lake that is to be completed in July 2014.

Interim Groundwater Pipeline: To meet the needs of communities running out of municipal groundwater, the Project will be built in phases in areas where the need it greatest,

Redrafted from CH2M Hill Technical Memorandum: Fresh and Brackish Groundwater Resources in the ENMRWS Project Area

rather than beginning at the reservoir and building south. The Authority will obtain the interim water supply by leasing or purchasing agricultural water rights until the project extends to the reservoir.

The contract engineering firm, CH2M HILL, is currently advancing design of the Ute pipeline trunk and laterals from Cannon AFB on south. This design phase of the Project is called the Interim Groundwater Pipeline (IGWP). The IGWP is intended to provide Eastern New Mexico Water Utility Authority members with an interim regional solution to localized problems from declining well production. The IGWP is a distinct set of components forming the “backbone” of the water system that can be constructed in phases to deliver groundwater to the member communities and Cannon Air Force Base (CAFB) several years before water is delivered from Ute Reservoir. This approach is necessary because the groundwater supply in many areas is projected only to be productive another 10 years and the construction of the entire system is estimated to take 20 years.

The purpose of the IGWP is to build first those portions of the project in proximity to member communities and CAFB to mitigate ongoing water supply quantity and quality problems. The remainder of the pipeline will be built in future phases. Presently, members are constrained to existing well fields that are near their municipal water

transmission infrastructure. The Project pipeline passes through outlying areas where water production is expected to persist longer as indicated by the distribution of blue and green cells shown in the accompanying graphic to the right. These cells represent remaining saturated thickness after fifty years of pumping based on current pumping trends. The IGWP will cost an estimated \$88 million.

Conclusion

Construction of the Eastern New Mexico Rural Water System is moving ahead. The New Mexico legislature has steadily provided funding and Congress is working legislation to provide the 75 percent federal share of the funding. The Project has become a flash point over water between the economies built around the reservoir as a recreational lake and those economies planning to depend on the reservoir as a municipal water supply. The construction schedule and design have been adapted to meet the needs of communities with wells that are becoming less and less reliable. The livelihoods of many thousands of people depend on how these conflicts, both local and congressional, are resolved.

By Jerold Widdison (2007)

Latest Update by Paul van Gulick.
ENMRWS Project Manager (July 2013)

Darcy Bushnell, Esq. (Dec. 2013)

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Contributors

Sarah Armstrong, University of New Mexico School of Law, Class of 2015

Stefanie Beninato, Ph.D., J.D.

Paul van Gulick, P.E., Program Manager, ENMWUA

Scott Verhines, P.E., Former Program Manager, ENMWUA