

**GRANT COUNTY
WATER COMMISSION**

Plan Details for Phase 1 of the
**Grant County Regional
Water Supply Project
(Well field and Pipeline)**

Presented to the
New Mexico
Interstate Stream Commission

December 2016

INTRODUCTION

The purpose of this report is to give the ISC board an update on the Grant County Water Commissions progress on the implementation of the Grant County Regional Water Project. We will also be explaining our progress and plans for the design, implementation, and future operation and maintenance of the project.

At the November 2014 ISC meeting, ISC staff recommended funding \$2.1 million for this Tier 2 AWSA project. The Commission tabled it. At the February 2015 ISC meeting, the Grant County Water Commission made a presentation to the ISC, requesting that the Commission reconsider funding this project. During this meeting, there were many questions that the board had about design, implementation, future maintenance, and continued operation of the project. In particular the Board was mostly concerned that the Grant County Water Commission ensured that the Town of Hurley was to get water. The ISC Board awarded the Grant County Water Commission \$2.1 million contingent that the Grant County Water Commission acquired the remaining matching funds needed to supply water to the Town of Hurley. The Board also required a plan on how the Grant County Water Commission was planning on who was going to own, operate and maintain the final project.

BACKGROUND

The AWSA application process for the Regional Fresh Water Transmission Project was initiated in 2011. This application was based upon the Town of Hurley Fresh Water PER, accepted in October 2010, and expanded based upon the proposition that Mimbres Underground Basin fresh water recharge credits could be developed at the Town of Silver City's airport water rights. The Tier 2 application was finalized in January of 2013. The total opinion of cost for the project, as submitted with that application, was \$30,123,297. The total project was envisioned to be constructed in four (4) phases:

- Phase 1; Airport water rights to Town of Hurley distribution tanks,
- Phase 2; Town of Hurley tanks to City of Bayard,
- Phase 3; City of Bayard to Village of Santa Clara
- Phase 4, Village of Santa Clara into Silver City

In November of 2014, a Regional Fresh Water Transmission PER for the Town of Silver City was finalized. This PER was based upon the premises of the AWSA application but was refined to better reflect the physical, geographic and property limitations that would constrain a design for construction and the actual construction of such a project. The proposed phases of construction for the 2014 Regional PER were based upon the goals laid out in the AWSA application.

PHASE 1

This discussion will compare the scopes of work and opinions of construction cost between the AWSA application proposed project and the Phase 1A project presently under design and the balance of the 2014 Regional PER.

Phase 1: Airport Water Rights to Town of Hurley
AWSA Application
Opinion of Cost: \$13,776,767.

The proposed Phase 1 project, as defined in the AWSA application, commenced at the Airport water right with the drilling and equipping of 4 water wells each of an average depth of 1,300 feet. We had assumed that one well would be drilled at each corner of the 1/8 section sized water right. Those 4 wells would deliver water to an 825,000 gallon head tank and booster station located at the water right, from where 30,000 feet of 16 inch diameter HDPE pipe and 20 inch pipeline bores beneath the Southwestern Railway and US Hwy 180 rights-of-way would transfer the water to the existing Hurley distribution tanks.

2014 Regional PER – Reduced Funding Case

Opinion of Cost:

Phase 1 A - \$7,753,411 (Updated 11-10-2015) One well and transmission line into Hurley

Phase 1 B - \$2,794,609 (Updated 11-10-2015) Second well

The proposed project was based upon Alternative #5 of the 2014 Regional PER, with considerations made to reduce the componentry as much as possible to still be able to reliably produce and deliver approximately 186 acre-feet/year of fresh water to the Town of Hurley along a pipeline route that was agreeable to the three property owners who would be affected by the construction and maintenance of the pipeline.

In order to gain permission of Freeport McMoRan Copper and Gold Inc. (FMI), the primary landowner between the airport and the Town, the transmission pipeline was routed around the north edge of the airport property, then east across the center of Section 24 to the property fence between FMI and the Southwestern Railroad, along which the pipeline could be buried until it crossed beneath the railroad and US Hwy 180 into Hurley. This total pipeline length is approximately 40,000 feet. 12 inch PVC pipe of varied pressure ratings would be used for the transmission line. Railroad and highway bores will be drilled at 36" to allow room for both the Phase 1 and Phase 2 transmission lines in and out of Hurley.

NMED Recommended Standards call out a minimum of 2 water sources. In order to minimize costs, only one well will be drilled in Phase 1A, at the near (NE) corner of the water right to Hurley. The well would be equipped with a 250 gpm submersible pump on a 6 inch drop pipe, to be up-sized in the future as required. Phase 1B would include a second well to be drilled on the other side of the water right parcel with

approximately 2,600 feet of transmission line and an aerial crossing of the Cameron Creek arroyo.

The initial well, and the second when developed, would deliver water to a 500,000 gallon head tank and a 400 gpm booster station located at the water right. The booster station is configured to allow the installation of a second set of booster pumps if water demand increases significantly.

Significant Cost Savings Factors in Regional PER as compared to AWSA Application

2 wells vs. 4 wells; save \$1,430,000.

12" diameter PVC pipe vs. 16" diameter HDPE pipe; save \$1,626,300.

3 Phase power to site; save \$140,000.

Significant Cost Increase Factors in Regional PER as compared to AWSA Application

44,900 LF pipeline vs 30,000 LF; cost \$734,600.

36" cased bores vs 20" cased bores; cost \$83,000.

BUSINESS PLAN

The Town of Hurley will own and operate the infrastructure. The only additional requirement that the Town of Hurley will have to change from their current operations is to add a Certified Operator for the well system. They currently have two employees who have tested for the certification and therefore will be capable of fulfilling the requirements necessary to operate the facility. As additional phases are added to the project; those members who that phase benefits will work to create partnership with Hurley to access water through phase I.

Hurley will do the billing. This will be a simple process in that they will be billing for bulk water. If the project is ever completely built out Hurley will only have to bill four communities.

Hurley has commissioned a rate study to access water through phase I, in the study completed with the help of NMED Drinking Water Bureau, there are different scenarios that includes operation and maintenance costs with one variable being the amount of funds that will need to be financed to complete construction of the project. The costs range from \$4.04 per thousand gallons to \$9.60 per thousand gallons. As phases are constructed new rate studies will be completed.

The Town of Hurley will be the one tasked with the maintenance of the project.

Matching funds secured to date are:

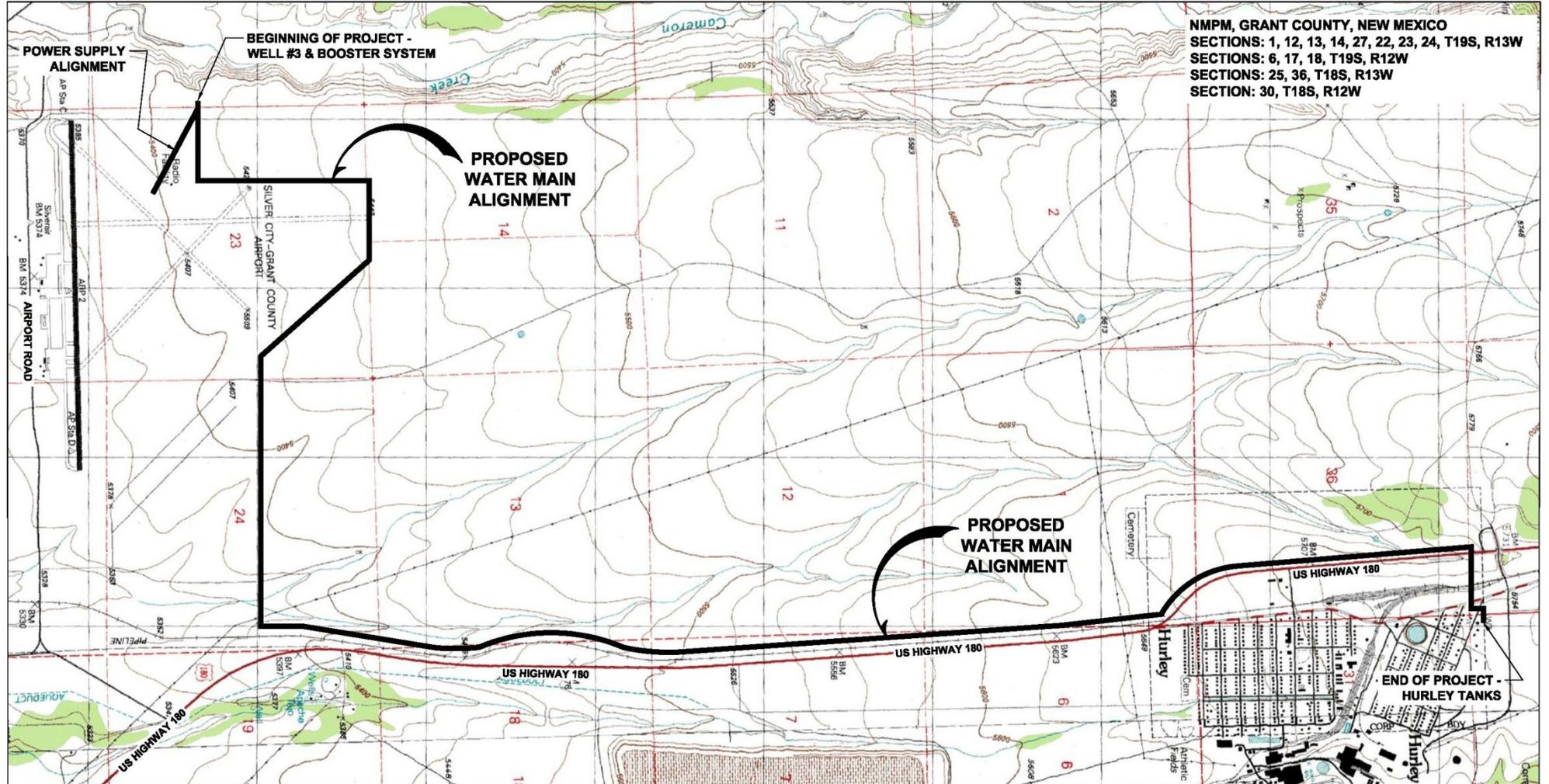
Colonias \$128, 099 for preliminary engineering report
Water Trust Board \$65,000 Water System Improvements
Capital Outlay \$100,000 Water System Improvements
Capital Outlay \$155,000 Water System Improvements
Colonias \$519,000 for engineering and design of Phase I
747 acre feet of recharge credits from the Town of Silver City
\$40,000 Freeport McMoRan Investment Fund for Phase I
Colonias Infrastructure Board \$1,793,710 for construction of Phase I

As presented, the project is phased to ensure that Hurley is the first and only community to get water from the project. The Town of Silver City has also entered into a 40 year lease with an additional renewal for the reuse credits at no cost. The only requirement placed on Hurley is that they will allow future customers that will be created through the continued construction to have access to the recharge credits through the Phase I System.

At this time the Grant County Water Commission would respectfully request that the funding that is currently allocated to the Commission for the regional water project be reallocated to the Town of Hurley. This would help to secure additional funding for Phase I of the regional water project. Also, the Grant County Regional Water Commission will submit a Resolution requesting this change, and the Town of Hurley will also submit a resolution supporting the acceptance of the award. In light of this request all parties involved will work with ISC staff to accomplish this goal.

Although the Grant County Water Commission will make this request to have Hurley become the grant recipient, this will in no way mean that the Commission will stop working to further the larger regional project. The Commission has already had some regional success working together and plans to continue its' mission of cooperation.

"NOTICE OF EXTEND PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 60 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT."



NMPM, GRANT COUNTY, NEW MEXICO
SECTIONS: 1, 12, 13, 14, 27, 22, 23, 24, T19S, R13W
SECTIONS: 6, 17, 18, T19S, R12W
SECTIONS: 25, 36, T18S, R13W
SECTION: 30, T18S, R12W

PROPOSED WATER MAIN ALIGNMENT

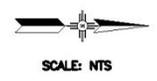
PROPOSED WATER MAIN ALIGNMENT

POWER SUPPLY ALIGNMENT

BEGINNING OF PROJECT - WELL #3 & BOOSTER SYSTEM

END OF PROJECT - HURLEY TANKS

PROJECT ENGINEER: GARY BERG



NO.	DESCRIPTION	DATE	BY

REVISIONS (OR CHANGE NOTICES)

ENGINEERS INC

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 SILVER CITY, NEW MEXICO 88661 (575) 538-5410 (FAX)

SHEET TITLE:

REGIONAL SYSTEM PHASE 1