

Chapter 1. Purpose of and Need for Action

1.1 Introduction

Record drought in the southwestern United States continues to threaten domestic water supplies with severe shortages. The Brazos Mutual Domestic Water Consumers Association (Association) of New Mexico, is dependent on groundwater for its water supply, which is pumped from an existing shallow infiltration gallery well and two deep wells located approximately 15 miles southeast of Chama (Figure 1). The existing groundwater wells have a depth of approximately 540 feet (Well #1) and 318 feet (Well #3), respectively, and pull water from the Chinle Formation. The shallow groundwater infiltration gallery well pulls water from the local unconfined aquifer. Prolonged periods of drought can have a negative impact on groundwater levels, often requiring the need for deeper and more expensive wells.

1.2 Background

The Association's existing groundwater Well #1 is considered to be in the later part of its useful lifecycle. A new well is needed to supplement the Association's existing water supply in case of emergency. Precipitation in the area averages 16 inches per year, but may vary from less than 12 inches for several consecutive years to more than 20 inches. The seasonality of the precipitation and the lack of good quality surface water sources in the area make a reliable groundwater source extremely important to the Association's members. Support for drought emergency well drilling was authorized by the U.S. Congress in Title 1 of the Reclamation States Emergency Drought Relief Act of 1991.

1.3 Proposed Action

The Federal action addressed in this Environmental Assessment (EA) would be the funding and development of a domestic groundwater well for the Association and its membership. The proposed drought emergency water well would be drilled by a private contractor, licensed to drill water wells in the State of New Mexico, for the U.S. Department of the Interior Bureau of Reclamation (Reclamation). The Association will obtain the necessary permit to drill a supplemental water well from the New Mexico Office of the State Engineer (NMOSE). The proposed project area is located on Association-owned land approximately 9 miles east of Brazos in Rio Arriba County, New Mexico. The legal description of the well site is: NE ¼ of SW ¼ of NW ¼ of Section 07, Township 29 North, Range 05 East, N.M.P.M. The project elevation is approximately 8,050 feet above sea level. The proposed well would tie into the Association's existing domestic water supply system that is located on site.

1.4 Purpose of and Need for Proposed Action

The purpose of the proposed action is to provide a safe and reliable source of domestic water for the Association to fully utilize their existing water rights with additional capacity and operational flexibility during an emergency. The project is needed because of the severe drought and the potential for contamination of the infiltration gallery well. In addition, the project is needed to supplement the Association's existing water supply, which is rationed during summer months.

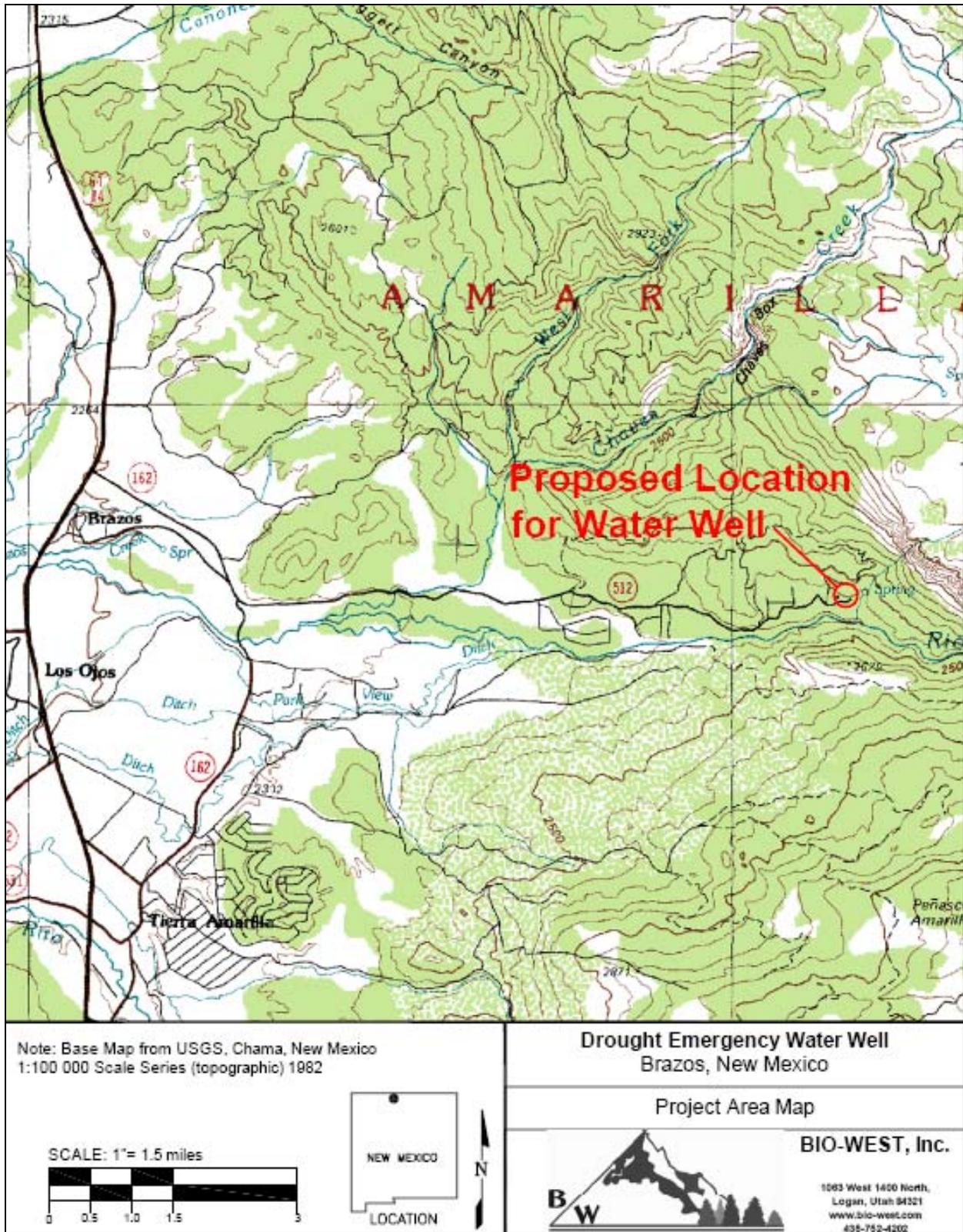


Figure 1. Brazos Drought Emergency Water Well Project Area Location Map.