

## **Chapter 2. Description of Proposed Action and Alternatives**

### **2.1 Introduction**

This chapter describes the two alternatives analyzed in this EA. Alternative A is the No Action Alternative. Alternative B is the Proposed Action Alternative. Following the alternative descriptions section, the decision-making process for advancing or eliminating alternatives is described.

### **2.2 No Action Alternative**

The No Action Alternative includes not drilling a supplemental groundwater well and continued reliance by the Association on existing groundwater sources for domestic water supply. The productivity of the current Well #1 would continue to decline through the drought period, ultimately reducing well yields. The current domestic water supply will continue to fall below projected water demand, resulting in water shortages and seasonal water rationing. Water shortages may affect public health and safety, including shortages of water for sanitation and fire fighting. In addition, the Association's existing shallow groundwater infiltration gallery well water supply would continue to be susceptible to contamination under the No Action Alternative. The lack of adequate water could affect the Association's ability to supply its membership with a reliable and safe water source, which could result in economic decline for the area.

### **2.3 Proposed Action Alternative**

Reclamation contractors would drill one groundwater well, approximately 540 feet deep, through the existing fractured sandstone of the Chinle Formation to tap into the existing subsurface aquifer. A supplemental water supply source would provide additional capacity and operational flexibility for the Association and would help maintain a domestic water supply during drought and declining groundwater levels. The Association will obtain a permit for a supplemental well from the NMOSE.

Water produced by the proposed well would be pumped into the Association's existing domestic water system pipeline and water treatment facility, and would be transported to the existing water system storage facility. The primary collection and distribution pipelines to more than 135 connections are already established.

The well site is located on Association-owned land outside of municipal boundaries in Rio Arriba County. The well site has been previously disturbed by development of the existing well and pump house, and by residential development activities. The well site is within an unincorporated area of the County with no land use zoning requirements.

The well would be placed on an existing well pad prepared by the Association. The well pad would be approximately 1 acre in size and would be accessed by Highway 512, an existing paved road. All drilling fluids and pumped test waters would be contained on the site. No water or drilling fluids would be allowed to flow into nearby natural drainages. A stormwater pollution prevention plan (SWPPP) would be prepared and implemented by the drilling contractor. Any

temporary retention structures would be built on previously disturbed land. The proposed well would be 6 inches in diameter.

## **2.4 Alternatives Considered But Eliminated from Detailed Analysis**

Congressional authorization and funding for the Proposed Action Alternative is specifically for drought emergency domestic water wells. Therefore, no other alternatives were considered.