

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 on existing water sources for municipal water supply for the City of Eunice. Ground water levels would continue to decline through the drought period, ultimately reducing well yields. Municipal water supply may fall below projected water demand, resulting in potential water shortages. Water shortages may affect public health and safety, including water for sanitation and fire-fighting. The lack of adequate water could affect the City of Eunice's ability to attract new development and may result in economic decline for the town.

2.3 Proposed Action Alternative

Reclamation contractors would drill an approximate 220-foot-deep water well into the Ogallala Formation to tap into the subsurface aquifer of the Lea County Underground Water Basin. A supplemental water supply source would provide additional capacity and operational flexibility for the City of Eunice and would help maintain a municipal water supply during drought and declining ground water levels. The City will obtain a permit for a well from the NMOSE.

Water produced by the proposed well would be pumped into the existing municipal water system pipeline and transported to the existing water treatment facility. The primary collection and distribution lines are already established, although a 1.2-mile segment of pipeline to connect the existing Hobbs North Water Station to the proposed well would be required (Figure 1). This related action includes the construction of approximately 1.2 miles of 8-inch collector line within an existing 20-foot wide pipeline easement to connect the proposed well to the existing infrastructure.

The well site is located on State-owned land outside of Eunice's municipal boundaries in Lea County. The well site has been previously disturbed by ranching and oil and gas 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 City of Eunice. The well pad would be approximately 1 to 2 acres in size and would be accessed by an existing 4-wheel drive road, which has an un-paved surface. 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 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 16 inches in diameter. The well would be carefully cased and sealed in the near-surface geology (i.e., the top 20 feet) with a 26-inch diameter casing to prevent any alteration of the near-surface water table.

2.4 Alternatives Considered But Eliminated from Detailed Analysis

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