

U.S. Department of the Interior
Bureau of Reclamation
Albuquerque Area Office
Albuquerque, New Mexico

FINDING OF NO SIGNIFICANT IMPACT

Brazos Drought Emergency Water Well
Rio Arriba County, New Mexico

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December 4, 2008

Date

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12/4/08

Date

FONSI Number: AAO-09-003

Summary of the Proposed Action

The U.S. Bureau of Reclamation (Reclamation) will provide funding to drill a domestic water well, approximately 540 feet deep, through the existing fractured sandstone of the Chinle Formation to tap into the existing subsurface aquifer. The well would be drilled on a site prepared by the Brazos Mutual Domestic Water Consumers Association (Association), located approximately 15 miles southeast of Chama, New Mexico. A supplemental water supply source would help local residents maintain a reliable domestic water supply during drought and would help minimize the potential for contamination of the existing water supply. The Association will obtain a permit for a supplemental well from the Office of New Mexico State Engineer.

Water produced by the well would be pumped into the Association's existing water system pipeline and transported to the existing water storage facility. The Association's water storage and distribution lines are already established for the proposed well at the existing well site and pump station. The proposed well would replace the Association's current under-performing groundwater Well #1 and shallow groundwater infiltration gallery as their primary water supply.

Background

Record drought in the southwestern United States continues to threaten domestic water supplies with severe shortages. The Association is entirely dependent on two groundwater wells and one shallow groundwater infiltration gallery well for its water supply. The existing groundwater wells are approximately 540 feet (Well #1) and 318 feet (Well #3) deep, respectively, and pull water from the Chinle Formation. The shallow groundwater infiltration gallery well pulls water from the local unconfined aquifer that is composed of alluvium. The production of Well #1 is gradually diminishing and is considered to be in the later part of its useful lifecycle. The shallow groundwater infiltration gallery well is considered to be highly susceptible to contamination and needs to be abandoned. The proposed well project is needed to replace the Association's Well #1 and shallow groundwater infiltration gallery supply.

Precipitation in the area averages 16 inches per year, but may vary from less than 12 inches to more than 20 inches. The seasonality of the precipitation and the lack of quality surface water sources in the area make a reliable groundwater source extremely important. The Association's current water supply is not adequate to meet demand during the summer, and water rationing has become an annual requirement. The drought is forecast to continue and, based on the historic record, may be very long. 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.

Environmental Impacts

The following resources and socioeconomic factors were evaluated in detail in the Environmental Assessment (EA) for anticipated impacts from implementation of the drought emergency water well(s): water resources, Federal and state-listed species, vegetation and wildlife, noxious weeds, soil erosion, air quality, cultural and archaeological resources, Indian trusts assets, socioeconomic, environmental justice, and visual resources. The following resources are discussed further in the EA document.

Water Resources

There is no information available that indicates the proposed well would impact any wells in the surrounding area. Information provided by the Association indicates the existing groundwater wells and the currently proposed well would tap into the same water source. New impacts would be less likely since a new groundwater source would not be developed and because no additional water beyond the Association's existing water rights would be removed. No significant impacts to surface water, water quality, or groundwater from this action are expected.

Federal and State Listed Species

No impact would occur to endangered, threatened, or sensitive plant or animal species on the well site.

Vegetation and Wildlife

Soils and vegetation disturbance would be kept to a minimum, vegetation cover would be left undisturbed whenever possible, and disturbed areas would be reseeded with native species. Temporary displacement of wildlife species from increased human presence and noise from the construction activities would occur in the immediate area. Wildlife would temporarily leave the area but should return in a short period. No significant impact to vegetation or wildlife is expected.

Noxious Weeds

Implementation of the proposed action has the potential to result in the introduction and establishment of State-listed and other noxious weed species. However, an aggressive revegetation plan, combined with thorough cleaning of all equipment before arriving on site, would minimize that potential.

Soil Erosion

Soils and vegetation disturbance would be kept to a minimum, vegetation cover would be left undisturbed whenever possible, and disturbed areas would be reseeded with native species.

Air Quality

During construction, there would be temporary increases in suspended dust (sediment transfer), resulting from activities such as vehicle traffic. No equipment or facilities requiring permitting through the New Mexico Environment Department Air Quality Bureau are proposed for the action.

Cultural and Archaeological Resources

There are no known structures or sites eligible for the National Register of Historic Places that would be affected by the Proposed Action. In addition, no sacred sites or traditional cultural

properties are known to exist in the project area. If cultural or archaeological resources are encountered during site preparation or drilling activities, work will stop and the Reclamation Area Archaeologist will be notified immediately. Should consultation with Tribes result in the identification of any such sites or properties, Reclamation would then consult with the Tribes concerned to ensure no adverse effects result from the Proposed Action Alternative.

Indian Trust Assets

No Indian Trust Assets have been documented in the project area. Therefore, Reclamation anticipates no impact to Indian Trust Assets resulting from the proposed action.

Socioeconomics

The proposed action would result in the creation of a small number of jobs for site preparation and drilling contractors during the construction and drilling phases of the proposed action.

Environmental Justice

Implementation of the proposed action would not disproportionately (unequally) affect any low-income or minority communities within the project area.

Visual Resources

Visual quality impacts of the proposed action would result from temporary construction activities such as the generation of fugitive dust, increased traffic at the site, and the visual effects of the drill rig and construction equipment. None of these temporary visual quality impacts are significant on a local or regional scale.

Cumulative Impacts

Cumulative impacts as a result of the Proposed Action Alternative are expected to be minimal. This project would not be expected to result in any long-term adverse cumulative effects to identified resources. The short-term cumulative effects of construction activities would be small in the overall regional context and would be temporary in nature.

Conclusion

Based on the analysis presented in the EA, Reclamation's assessment of Indian Trust Assets and Environmental Justice, and agency and public comment on the Draft EA, Reclamation finds that there would be no significant impacts associated with the proposed action. Reclamation makes this Finding of No Significant Impact (FONSI) pursuant to the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.) and the Council on Environmental Quality implementing regulations (40 CFR 1500). Reclamation has determined that the proposed action does not constitute a major Federal action that would significantly affect the human environment. Therefore, no environmental impact statement would be prepared for this proposal.