
CHAPTER 2. ALTERNATIVES

2.1 No Action

Under the No Action Alternative, Reclamation would not approve the subcontract between the Nation and the City. The subcontract would not take effect without this approval, and the Nation would not make available to the City of Santa Fe 3,000 ac-ft/yr of the Nation's San Juan-Chama Project for the 50-year period. The City would presumably seek alternative sources of water to meet its water supply requirements. The Nation's water cannot be assumed to be available for use by Reclamation to supplement flows for the silvery minnow under the No Action Alternative. Although the Nation has entered into subcontracts with Reclamation for the use of the Nation's water to supplement flows for the silvery minnow in the past several years, the Nation's water is not subcontracted to Reclamation during any year corresponding to the term of the proposed subcontract to the City. Nor is the Nation obligated to subcontract its water to Reclamation beyond the term of the current subcontract between Reclamation and the Nation ending in 2005.

2.2 Proposed Action

The Proposed Action is Reclamation's approval of the subcontract. Approval of the subcontract will allow the Nation to utilize a portion of its water rights to benefit from water resources development through subcontract revenues as contemplated by the Federal Contract. The Nation wishes to exercise its right to subcontract under the Federal Contract. Under the subcontract, the Nation would make available for delivery to the City at the outlet works of Heron Dam up to 3,000 ac-ft/yr of the Nation's San Juan-Chama Project water entitlement. The term of the subcontract would be 50 years beginning in 2007.

As noted above, the Proposed Action does not involve conveyance of water from the point of delivery of the outlet works of Heron Dam. This EA considers the effects of the Proposed Action, including the indirect effects, by analyzing the effects on the Rio Chama, the Rio Grande, and reservoirs from Heron to Cochiti. Upon delivery and release from Heron Dam, the water would remain primarily in-river for the purpose of offsetting the effects of groundwater depletions or meeting other legal or regulatory water delivery requirements. At the City's option, all or part of this water supply may be stored in reservoirs for subsequent use by the City, or all or part of the leased water may be diverted directly from the Rio Grande as one of several sources for the City's water supply delivery system. The leased water may be fully consumptively used when diverted, subject to the conditions of applicable permits.

Under foreseeable operating conditions for deliveries of the leased water, releases would be made in a manner that is consistent with the existing operations for delivery of San Juan-Chama Project water from Heron Dam to Cochiti Reservoir as called for by the project contractors, specifically by the City. The range of the historic operations of the



project has varied between storing all or part of released water in El Vado and/or Abiquiu reservoirs for future use by contractors including the City, to conditions requiring releases below Abiquiu Dam to be concentrated in short periods depending upon specific hydrologic and operational conditions or regulatory and operational needs of the City. Similarly, release patterns for this block of water will be performed to replace calculated depletion effects on Rio Grande flows as a result of the pumping of the Buckman wellfield (offsets) or to provide for direct diversions for drinking water supply from the Rio Grande. These conditions are considered in Chapter 3, Affected Issues and Environmental Resources.

CHAPTER 3. AFFECTED ISSUES AND ENVIRONMENTAL RESOURCES

3.1 Introduction

This Chapter describes the existing conditions of the affected environment. It is based, in large part, on the information and data found in the Draft Environmental Impact Statement for the Buckman Water Diversion Project (Buckman Water Diversion Project DEIS) (USFS, 2004).

3.2 Surface Water Resources

The Proposed Action would approve the lease of water which would be released for use by the City from Heron Dam, located on the Rio Chama approximately 80 miles northwest of Santa Fe. The hydrologic setting commences at Heron Dam, south into Rio Chama, through El Vado and Abiquiu reservoirs, to Rio Chama's confluence with the Rio Grande and ending at Cochiti Reservoir.

3.2.1 Hydrologic Setting

There are four reservoirs within the Project Area: Heron, El Vado, Abiquiu, and Cochiti. Table 1 provides a summary of information about each of these reservoirs.

Table 1. Summary of Reservoir Data

Reservoir	Purpose	Storage Capacity (ac-ft)	Crest Elevation (ft)	Max Dam Height (ft)	Max Surface Area (ac)	Drainage Area (sq mi)	Type	Location	Operator
Heron	Storage and delivery of San Juan-Chama water	401,000	7,199	269	5,950	193	Earthfill	80 miles northwest of Santa Fe	Reclamation
El Vado	Storage for irrigation, recreation, incidental flood control, and sediment control	209,330 minus sediment reductions	6,902	205	3,200	877	Earthfill and steel-plated rockfill	5 miles downstream of Heron Reservoir	Reclamation

