CHAPTER 2
Description of Alternatives

2.1 Introduction

This chapter describes and compares the alternatives considered for the Jordanelle Dam Hydroelectric Project proposal. These include the No Action Alternative (Alternative 1) and the three action alternatives (Alternatives 2 through 4). Alternative 4 has been selected as the Proposed Action. Chapter 2 includes a discussion of how the alternatives were developed, a description of each alternative, and a summary comparison of the effects of these alternatives that focuses on the issues addressed in this Final EA. Chapter 2 is intended to present the alternatives in comparable form, define the issues, and provide a clear basis for choice among options by the decision maker and the public (40 CFR 1502.140).

The focus of the description and evaluation of the effects of the alternatives in this document is the installation of: 1) the proposed powerhouse, downstream of the dam, and its associated facilities; 2) the routing of the transmission line leaving the proposed facilities and connecting to the power grid; and 3) upgrading 1.53 miles of the HL&P transmission line. All the proposed facilities are non-federal facilities. Section 208 of CUPCA states, “Use of Central Utah Project water diverted out of the Colorado River Basin for power purposes shall only be incidental to the delivery of water for other authorized project purposes. Diversion of such waters out of the Colorado River Basin exclusively for power purposes is prohibited.” The installation of the hydroelectric facility was previously planned as a project feature as part of the construction of Jordanelle Dam (Reclamation, 1979) and the operation of a hydroelectric facility would be secondary and incidental to project purposes and would not change the operation of Jordanelle Dam and Jordanelle Reservoir. There are several project purposes and numerous factors which influence operation of Jordanelle Dam and Reservoir. However, potential effects of hydroelectric power generation would not be considered when operational decisions are made for CUP project purposes.

A federal power project was not considered for analysis because by December 2002, when federal power was authorized for funding, DOI had already selected a potential lessee and entered into negotiations.

2.2 Development of Alternatives

Alternatives considered in the implementation of the Jordanelle Dam Hydroelectric Project include the No Action Alternative and three action alternatives. The No Action Alternative maintains the existing conditions at the dam, includes no construction of a hydroelectric facility, and current effects of the dam and its operation remain unchanged. The action alternatives propose to connect a penstock to an existing connection on the outlet conduit from the dam. This connection was provided in the original construction of Jordanelle Dam for the purpose of adding a hydroelectric facility. The construction of the powerhouse is common to all action alternatives and is described below. The route and configuration of the