

8-1. Work By Firm or Joint Venture Which Best Illustrates Current Qualifications Relevant to this Project (List not more than 10 projects)					
a. Project Name and Location	b. Nature of Firm's Responsibility	c. Owner's Name & Address and Project Manager's Name and Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in thousands)	
				Entire Project	Work for Which Firm Was Responsible
Bighorn Regional Groundwater, Level II Study Southern Bighorn Basin, WY	Paleozoic Aquifer Well Siting, Well Evaluation, Well Design, Drilling Oversight, Conceptual Design	Wyoming Water Development Commission Cheyenne, WY	December 2007 (est)	\$1,425	\$1,425

The Bighorn Regional Groundwater, Level II study is a groundwater exploration and development study funded by the Wyoming Water Development Commission that continues where the 2000 Level II Bighorn Regional Water Supply study left off. The project consists of evaluation and further development and testing of the Buffalo Creek Well No. 2, an exploration well that was drilled during the 2000 study, as well as siting/drilling and testing of a new test well to increase groundwater supply potential for the Bighorn Joint Powers Board water system. In addition to the source supply investigation, a monitoring and observation program was implemented to assess the effects of regional groundwater development on existing water rights and thermal spring flows at the Hot Springs State Park in Thermopolis.

### **BUFFALO CREEK WELL NO. 2 EVALUATION**

Buffalo Creek Well No. 2 was drilled and constructed during the 2000 Bighorn Regional Groundwater study. However, due to lost circulation problems the well was not developed sufficiently and the aquifer testing program was inconclusive. WESTON contractors mobilized a well development rig to the site in early 2006. The well was subsequently redeveloped and a 30-day pump test was conducted in March 2006. Results of the pump test were used to evaluate the potential for locating additional water supply wells near Buffalo Creek Well No. 2.



### **WELL SITING STUDY**

The major purpose of the well siting study was to investigate the potential for developing a high-yield, high-quality municipal water supply well or wellfield in the southern Bighorn Basin near Thermopolis that can be used to supplement water supplies to the Bighorn Regional Water Supply System. The preliminary well siting study identified four potential well sites within a 300 square mile study area. The Madison Aquifer was identified as the major target aquifer based on water quantity and quality issues, as well as depth to the aquifer. Although several potential well sites were identified in the study, no decision has been made by WWDC and the project sponsor on the final well location.



### **GROUNDWATER MONITORING PLAN**

In order to monitor potential impacts on existing area wells and the Thermopolis Hot Springs, WESTON developed a detailed monitoring plan that was implemented in October 2005 to monitor the impact of pump testing Buffalo Creek Well No. 2 during the long-term pump test. The plan included installing equipment and monitoring eleven wells and springs in the area. No observable impacts on nearby wells and springs were identified during the Buffalo Creek Well No. 2 testing program.