



Energy Management & Planning

Hydroelectric Power Project Experience

CH2M HILL has provided consulting services to hydroelectric projects developers for more than 40 years.

Jordanelle Dam, Jordan Aqueduct, Utah

CH2M HILL is currently performing a feasibility study and an application for a Lease of Power Privilege from the Department of Interior for the construction of a 10- MW hydroelectric power project at Jordanelle dam and a 2.5-MW hydroelectric project on the Jordan Aqueduct in Utah. Both of these projects will be retrofits of hydropower facilities at existing Bureau of Reclamation facilities. The work includes: the optimization of the installed capacity of the projects; the preparation of preliminary drawings, construction cost estimates, and energy and revenue projections; identification of environmental issues; investigation of project financing alternatives; and the evaluation of alternatives for the sale of the energy generated at the projects.

Summersville Hydroelectric Project, West Virginia

CH2M HILL is providing technical oversight for this 80-MW hydroelectric project, located at Summersville Dam in West Virginia. The Dam is operated and maintained by the U.S. Army Corps of Engineers. Presently, water is released through a 29-foot tunnel through the dam. At the outlet, the tunnel splits into three steel pipelines, each controlled by a butterfly valve located in an existing valvehouse downstream of the dam.

The proposed project consists of attaching a 17-foot-diameter steel penstock to the valvehouse and the proposed power-house. The powerhouse will contain two Francis turbine-generator units; a 9-foot diameter Howell-Bunger valve; a tailrace structure; an electrical substation; and appurtenant facilities. An approximately 10-mile-long, 69-kV transmission line will be constructed from the sub-station to a new switching station.

The Dalles Dam, North Shore Fishway Hydroelectric Project, Oregon

CH2M HILL provided licensing, design, and construction monitoring services for this 5-MW project at the Fishway Attraction Water Supply System at the Dalles Dam on the Columbia River. This project was the first non-federal development of hydropower at a Corps of Engineers' dam on the Columbia River and used water reserved for fish bypass for hydropower generation. The construction phase involved extensive structures, tight schedule to complete, and construction procedures compatible with the nearby fish ladder.