

E.B. CAMPBELL HYDROELECTRIC STATION DAM SAFETY AND INSTRUMENTATION UPGRADE

SaskPower

Saskatchewan River



Project Description

The E.B. Campbell Dam is located in northeast Saskatchewan on the Saskatchewan River east of Nipawin. The project was constructed in the 1960's and includes a 33.5 m (110 ft) high earth dam, a 5 bay spillway, a 5 km (3 mile) power canal, a 288 MW capacity intake-penstock- powerhouse and dyke system. KGS Group completed a Dam Safety Review of the project and were then commissioned to assess requirements for a major upgrade of the instrumentation system and the depressurization well system for the artesian bedrock aquifer, to meet the CDA guidelines. The work included a stability design evaluation, plus identification, prioritization and design of a monitoring network of pneumatic piezometers, standpipe piezometers, inclinometers and relief wells. Installation was completed in 2004. In addition a protocol manual has been prepared for field procedures, reporting procedures, presentation and assessment of data, including instrumentation descriptions, range of readings and significance, and trigger levels for action.