

Client Contact:

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Services Provided:

- **Geotechnical Study**
- **Design for Remediation of Leakage**
- **Engineering Consultation and Oversight**

Project Summary:

Cesare, Inc. (Cesare) conducted an extensive geotechnical study and provided a design for remediation of leakage for the Stillwater Reservoir, which is an embankment dam and reservoir that was constructed at a land development in southern Douglas County, Colorado in the late 1990's. The project was intended to provide a recreation lake for the planned land development, however, the reservoir was found to leak and the lake could not be filled. The design called for lining of the basin and upstream face of the dam with a PVC liner covered with a minimum of 1 foot of on-site soils. The design was favorably reviewed by the State Engineer's Office, and the project was successfully completed.

Cesare provided engineering consultation and oversight during construction to make sure the design intent was complied with. Several design modifications or changes were required during construction in order to address unforeseen conditions. Groundwater was an ongoing issue during construction, and soft ground conditions were encountered at several locations in the basin. Solutions were implemented that were technically sound, constructible, and acceptable to the State Engineer.

