

Prefeasibility Study for Sustainable Sediment Management

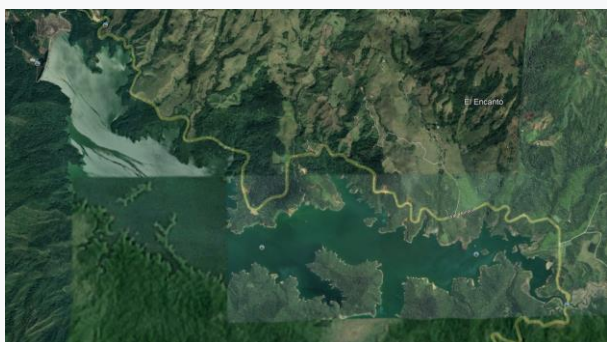
Porce II Reservoir, Colombia

Challenge

Porce II is a 405 MW hydropower plant located upstream of Porce III in Colombia. Sediment accumulation in the reservoir threatens long-term storage capacity and sustainable operation. EPM required an evaluation of dredging alternatives capable of managing sediments while minimizing environmental impacts, implementation time and lifecycle costs.



Porce II dam and reservoir, Colombia



Porce II dam & reservoir

Solution

SediCon carried out a prefeasibility study evaluating multiple dredging and sediment discharge alternatives for Porce II. The study included hydraulic transport analysis, concept design, environmental assessment, cost evaluation and implementation planning.

Several discharge options were compared to identify the most technically and economically viable long-term sediment management strategy.



Project Location

Project facts

Client: EPM
Project: Porce II Reservoir
Location: Antioquia, Colombia
Technology: Sediment management study
Installed capacity: 405 MW
Annual generation: 1,600 GWh

Results and benefits

- Multiple alternatives evaluated
- Hydraulic feasibility verified
- Environmental impacts assessed
- Cost-optimized solutions identified
- Implementation plans developed
- Basis for investment decisions

For more than 30 years, SediCon has developed and supplied proprietary sediment handling technologies from Trondheim, Norway. Our solutions for reservoirs, intakes, desanders and tunnels have been successfully implemented in hydropower projects in more than 20 countries across five continents.