

# HydroSuction Dredge

## Malana HPP, India

### Challenge

Malana HPP is an 86 MW run-of-river hydropower plant with a 249,000 m<sup>3</sup> storage reservoir supplying four desilting basins and a 3.3 km headrace tunnel.

Abrasive sediments with an average grain size of 0.09 mm caused severe turbine wear, creating the need for an efficient sediment removal system that could operate without interrupting power production.



SediCon HydroSuction Dredge operating at Malana reservoir



Reservoir after sediment removal

### Solution

SediCon designed, supplied and commissioned a HydroSuction Dredge for the storage reservoir. The gravity-driven system removes sediments without external power and without interrupting power production.

Installed during the 2005 monsoon season, the HydroSuction Dredge utilizes excess water available during periods of high sediment transport, allowing sediments to be removed without consuming water allocated for power generation.



Project Location

### Project facts

Client: Malana Power Company Ltd.  
Project: Malana HPP  
Location: India  
Technology: HydroSuction Dredge  
Installed capacity: 86 MW  
Annual generation: 350 GWh  
Reservoir volume: 249,000 m<sup>3</sup>

### Results and benefits

- Removed 36,000 m<sup>3</sup> in 2 months
- Removes 20,000 m<sup>3</sup> annually
- No production interruptions
- No external power required
- Reduce turbine wear
- In operation since 2005

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.