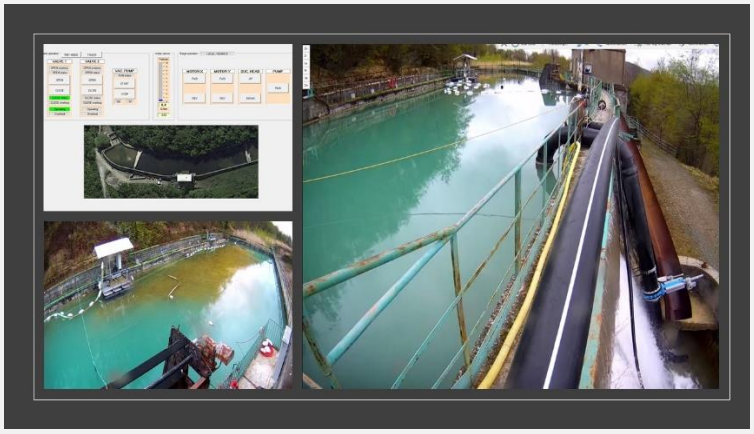
SediCon®
Removing sediments

Reference Project 2019

SediCon Desander Dredge & Sluicer for Arlia, Italy

A compact SediCon Desander Dredge and Sluicer was successfully installed and tested



SediCon Digital Platform

Dredging of Arlia reservoir

Project Description: Arlia reservoir was constructed in 1913 and its original capacity was about 16.000m^3. The reservoir is connected to Arlia Hydro Power Plant, with an installed nominal capacity of 3,75 MW. The annual sediment inlet flowrate is 4000-5000m^3/year and as the most common problem in hydro plants is represented by silting phenomena, Enel Green Power wanted to test the innovative solution of a SediCon Dredge and Sluicer.

Location: Northwest of Italy: 44.259639, 10.138917

Sediment Challenge: Arlia reservoir have a large amount of sediments.

Solution: A 150mm SediCon Desander Dredge with continuous and automatic removal of sediments was installed and used to dredge an area for a 225mm OD Sluicer. The system consists of two separate siphons, one is connected to and is the driving force of the Dredge and Sluicer, and the other works as a compensation flow siphon to dilute sediment concentration.

Remote operation The dredge is fully automatic and by using the SediCon digital platform the dredge can be operated from a local control station or from any PC with internet access. Hence SediCon can monitor the dredge performance from anywhere in the world and optimize the dredge performance over time.

Implementation/results The SediCon Dredge was installed during summer 2021 and an additional cutter system was included due to coarse sediments. The Sluicer was installed Jan/Feb 2022.
The estimated capacity is 20m^3 sediments per hour for the Dredge and the Sluicer have a theoretical capacity of 80m^3 sediments per hour.

SediCon is the leading supplier of sediment handling worldwide and provides reliable solutions with low water consumption and uninterrupted power production.