

ENVIRONMENTALLY FRIENDLY SOLUTIONS

SediCon systems are the most environmentally friendly solutions available in the market. We work with nature, not against it!



River during a flood (natural condition)



Outlet of SediCon sediment removal system

Sediment transport in rivers

Sediment transport is a natural process in all rivers. During floods, rivers carry an important amount of bed and suspended load and reach high sediment concentration levels. Sediments are crucial to maintain the biological and morphological stability in the river. When a dam is made, natural motion of solid material is interrupted to be temporary trapped in reservoir / pond, affecting the natural balance of the river.

Removing sediments

SediCon's technology considers sediment management measures that release sediments back into the river in the most similar way to natural regime transport condition. This dynamic maintains or restores the sediment balance ensuring a minimum environmental impact and become the most benign solution.

Environmentally friendly solutions

SediCon systems are the most environmentally friendly solutions for several reasons:

- SediCon systems uses gravity as driving force, without need of additional source of power; fuel or electric. Risk of spilling fuel into water body is completely avoided and carbon footprint is close to zero.
- Sediments are released back into the river with a controlled concentration and thus, being able not to exceed the natural value which occurs during floods.
- Sediments are released back into the river preferably during rainy season, therefore, a dilution takes place and environmental impact is even lower.
- Sediment removal can be combined with the environmental flow

Studies and documentation

A follow up study focused on the monitoring of 13 species of fishes and macroinvertebrates was done during the dredging of Doña Julia HPP, in Costa Rica. The result suggest that the impact of the sediment discharge was localized and temporal. The river and the species living in it have the possibility to adapt and recover from the situation.

Estimations of CO2 emissions were done for the case of El Canadá HPP, Guatemala. Recovering the peaking capacity of this project reduces emissions in the order of 6,000 tons of CO2 per year. Besides, by comparing two equipment in this project, it was estimated that emissions of hydrosuction dredging are only around 2% of the emissions from a diesel dredge with the same removal capacity.

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