

**DISTRIBUTION OF SEDIMENTS IN THE MOUNTAIN RIVER BED**

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Abstract

River sediments are the main problems in mountain riverbeds. This article presents data obtained in natural field conditions.

Under the influence of turbid particles formed in river currents, the efficiency of hydrotechnical facilities is decreasing.

One of the important issues is the improvement of calculation methods and technologies for the assessment of processes in the river bed and prediction of bed deformation. In this regard, special attention is paid to the scientific research works aimed at improving the technologies for preventing silting of hydrotechnical structures in the river bed and channel. Kokan hydroelectric plant can be considered as a laboratory in its own natural field conditions. Because water flows from this reservoir in certain months of the year. The rest of the time, the river is in a state without water. That is, at this time, it is possible to see, observe and measure the changes that have occurred at the bottom of the riverbed. Because it is more complicated to monitor these processes while water is passing through the hydro-grid.

Kokan hydroelectric plant currently distributes water for irrigating 59,680 areas.

A 5.8-km-long right-bank flow diverting dam was built at the upper part of the dam. The height of the dam is 2-5 m. This dam mainly served to direct the flow to the hydro-use during the transition period of floods and torrential flows.



The Kokan hydroelectric system consists of two parts, in the first part, water is distributed directly to the canals, and in the second part, the water of the Right Bank canal is cooled in a cooler and fed to the canals. The total area of Kokan hydroelectric plant is more than 20 ha. According to the conducted research, the amount of turbidity in the water coming to Hydrozel reaches 2.1...5.6 g/l. [1]

The composition of the sediments consists of fine sands and more gravels. Large gravel sediments prevent the wash chamber at the end of the clarifier from becoming buried, so it is important to try to keep them out.

The sediments that flowed in the water have been used as construction material for several years.

It is known from the conducted studies that the slope of the river bed is high, and the river sediments reach the hydronode with the flow of water. Previously, the Sokh-Soy riverbed was filled with water and flowed along the entire riverbed, now the water flows from the left bank of the riverbed. As a result, the left bank of the riverbed has eroded by several meters, as a result of which it damages the useful land areas of the population, and at the end of the Sokhsoy riverbed, several tons of muddy effluents flow into the Kokan hydroelectric system along with the flow, which has a negative effect on the operating mode of the hydroelectric system [2,3]. In the research conducted under natural field conditions, water consumption and turbidity of the Sokh River in August were measured (Figures 1, 2).

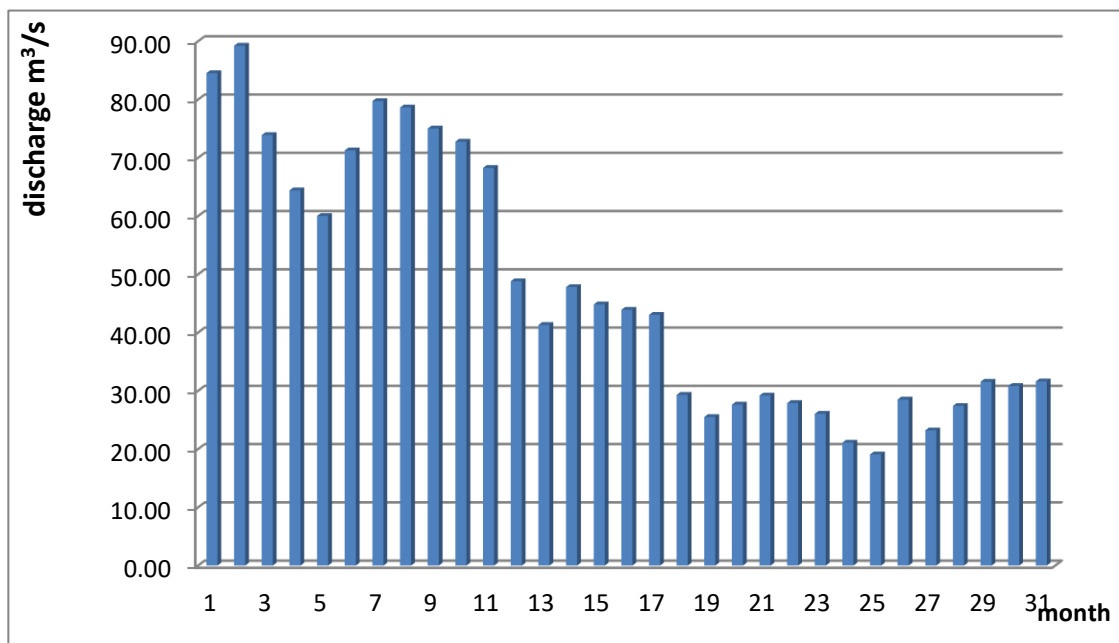


Figure 1. The graph of the change of water consumption in Sokhsoy

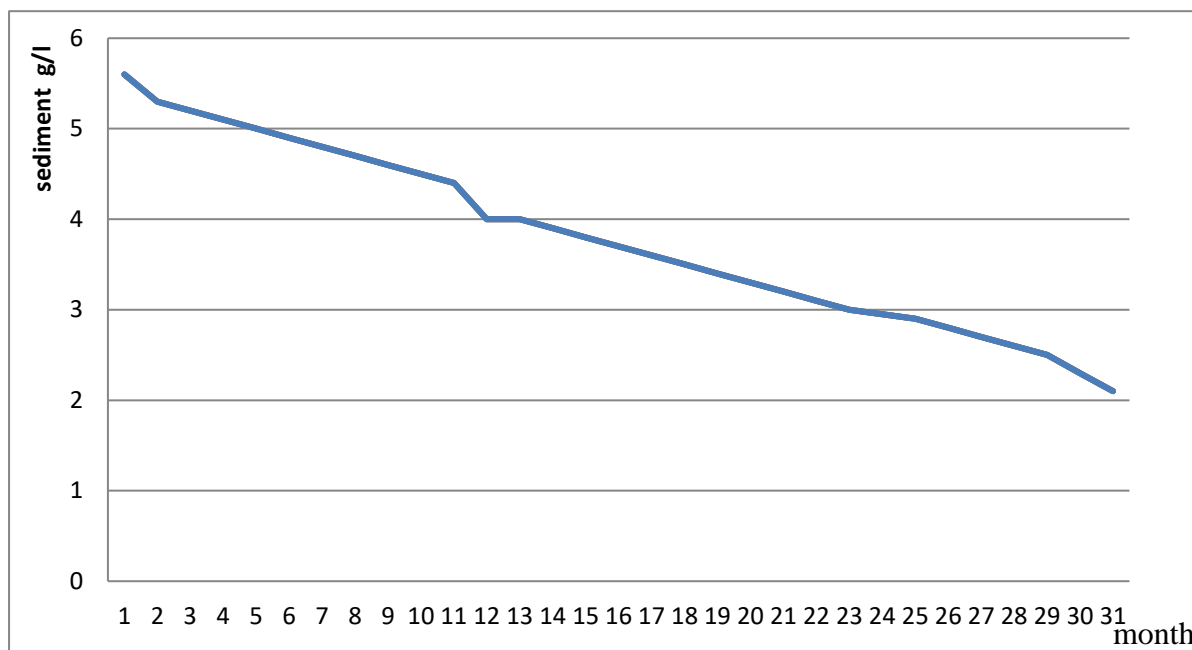


Figure 2. Turbidity amount change graph in Sokhsoy

CONCLUSION

In order to reduce the high volume of the hydrogel and silting of the channels, it is necessary to implement a design of a filter that retains large fractions of liquid in the bed of the water-carrying channel. As a result, it is possible to retain a certain part of the river sediments in the clarifier.

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