

Sediment trap at the inflow to water reservoirs

Development status

Phase 2

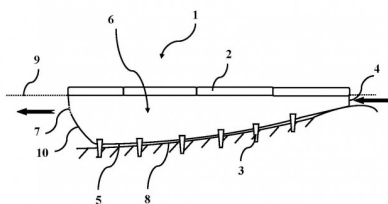
Feasibility study. There is a realistic design of the technology and the initial tests in the laboratory are leading to the specification of the technology requirements and its capabilities.

IP protection status

CZ Patent 308453 Equipment for capturing sediments, especially at the inflow to water reservoirs

Partnering strategy

licensing



Obr. 2

Challenge

The gradual damming of ponds and reservoirs in general is a major problem of the current use of the landscape, especially the big problem of pond industry. The dominant source of sediments in ponds is primarily agriculturally managed landscapes. Inappropriate agrotechnics and the composition of cultivated crops lead locally during intense storms to large erosion flushes of topsoil. It usually ends up in ponds or water reservoirs, where running water slows down and loses its ability to take off. The carried particles of soil sediment. The primary area for sedimentation is immediately the area of the tributary to the reservoir. From there, the sediment gradually gets to the deepest point of the reservoir thanks by the bioturbation of fish – at the pond it is a hunting ground. Sediment that once enters the area of a water reservoir or pond is already difficult and costly to remove.

Description

The device for capturing sediments on the in flow into water reservoirs consists of a floating tank consisting of a circumferential floating float, walls of water-permeable material fixed to the float and extending to the bottom of the water reservoir, and from the bottom connected to the wall. At least one wall is provided with an entrance for the inflow of water, and at least one wall is equipped with a perforation for the drainage of water, which is arranged under the float. The side walls and bottom of the floating tank separate the water masses inside. Water flows through here at the tributary and sediment is trapped inside. The separate chamber thus ensures a suitable separation of clean water and water with sedimentating particles. The device for capturing sediments on the inflow into water reservoirs is a simple and ineffectual form of minimizing the negative impact of anthropogenic activity in the landscape on the aquatic ecosystem.

Commercial opportunity

All owners and operators of small water reservoirs, in particular ponds that stand on watery streams and are burdened by water erosion tributaries from the in flow area, can be considered as users of this

Institution



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facility. Furthermore, it is possible to use equipment in connection with construction activities. During larger construction actions, soil that is not safe against water erosion is often uncovered or stored. With more rain, it escapes uncontrollably into the basin and clogs the water reservoirs.