
CONSTRUCTED WETLANDS – DESIGN PARAMETERS, OPERATING EXPERIENCES AND INTENSIFICATION POSSIBILITIES

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Horizontal and vertical flow constructed wetlands belong among frequently used near-natural methods of treatment of wastewater from small municipalities in the Czech Republic. They consist of one or more filter fields connected in series or in parallel. Horizontal flow constructed wetlands are planted with suitable wetland vegetation, mostly common reed or reed canary grass. Well-functioning mechanical pretreatment is an essential part of these technologies, which protect the filter content of biological stage from clogging by solid particles.

Constructional arrangements of vertical and horizontal flow constructed wetlands including design parameters are very important and can significantly affect not only the treatment efficiency, but also life-time of the wetlands. At present in the world and in the Czech Republic numerous research papers are dedicated to the issue of new (alternative) filter materials, clogging of constructed wetlands, which is the most serious operational problem, and many other current issues.