

Removal of micropollutants in the Halzhausen (Oberes Lonetal) WWTP

Specification of the plant:

Treatment capacity	[PE]	24,000
Load	[PE]	23,511
Inflow volumes:		
▪ Dry weather flow	[l/s]	41
▪ Max. wet weather flow	[l/s]	115
▪ Annual wastewater volume	[m ³ /a]	1,384,089



Process technology:

Mechanical treatment	Fine screen, sand and grease trap
Biological treatment	Pre-denitrification, nitrification, 2 lanes
Chemical treatment	Phosphate precipitation: simultaneous and post
Elimination of micropollutants	Granular activated carbon filter (GAC)
Filter	Rapid sand filter

Verbandskläranlage
AZV Oberes Lonetal
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89173 Lonsee

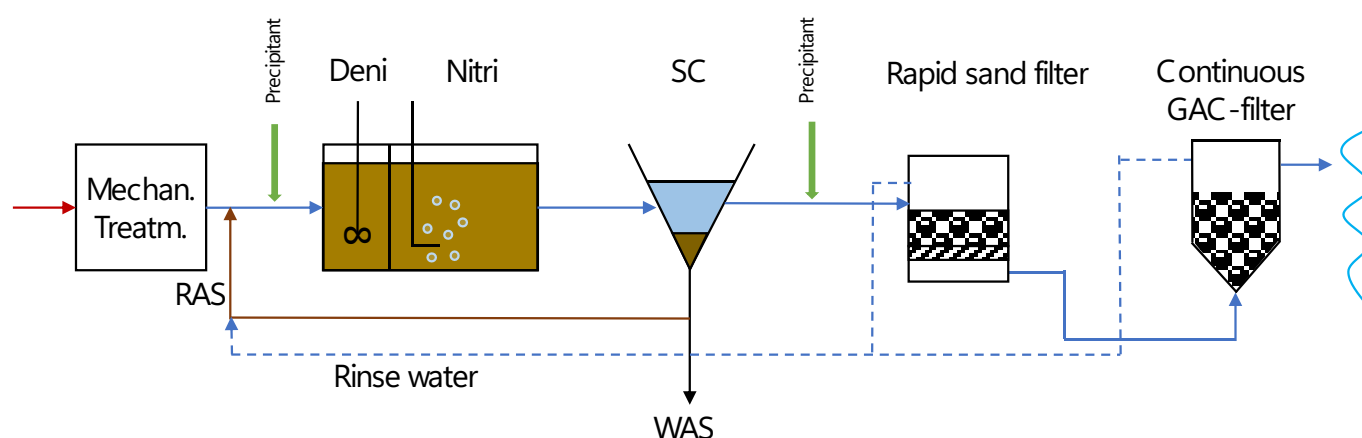


Fig. 1: Process diagram of the Halzhausen (Oberes Lonetal) wastewater treatment plant

Design of micropollutant removal:

Year of commissioning of the advanced treatment stage	2021	
Activated carbon filter		
▪ Max. treatable volume	[l/s]	90
▪ Number of filter cells		12
▪ Total surface area of the filter cells	[m ²]	79.2
▪ Total volume of the filter cells	[m ³]	30
▪ Volume of the activated carbon bed per cell	[m ³]	23
▪ Surface area of the activated carbon bed per cell	[m ²]	6.6
▪ Max. filter velocity	[m/h]	15
▪ Min empty bed contact time (EBCT)	[min]	38