

Removal of micropollutants in the Mittleres Glemstal (Leonberg) WWTP

Specification of the plant:

Treatment capacity	[PE]	90,000
Load	[PE]	60,309
Inflow volumes:		
▪ Dry weather flow	[l/s]	< 140
▪ Max. wet weather flow	[l/s]	570
▪ Annual wastewater volume	[m³/a]	4,700,210



Process technology:

Mechanical treatment	Fine screen, sand and grease trap, primary clarifier
Biological treatment	Pre-denitrification, nitrification, secondary clarifier
Chemical treatment	Phosphate precipitation: simultaneous and post
Elimination of micropollutants	Simultaneous PAC-dosing in biology
Filter	Cloth filter

LEONBERG
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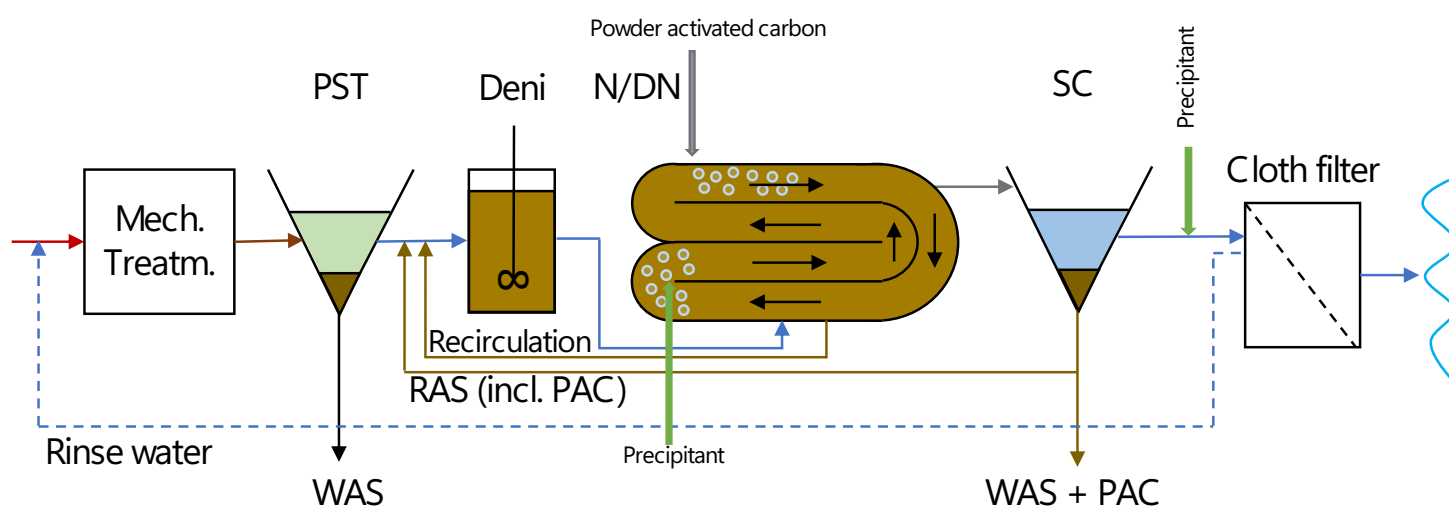


Fig 1: Process diagram of the Mittleres Glemstal (Leonberg) wastewater treatment plant

Design of micropollutant removal

Year of commissioning of the advanced treatment stage		2020
Maximal treatable flow rate	[L/s]	570
Biological stage and sedimentation		
▪ Total volume	[m³]	11,154
▪ Average PAC dose	[mg/L]	18
▪ Number of SC		2
▪ Surface area per SC	[m²]	1,010/1,590
Filter		
▪ Configuration		Cloth filter
▪ Number of filters		6
▪ Total filter area	[m²]	540
▪ Effective average filter velocity	[m/h]	5.3