

Cologne

Cologne-Stammheim - Mechanical Inlet Aeration High-Performance Activation



Client

Stadtentwässerungsbetriebe
Köln [Cologne Urban Drainage]

Period

since 2009

Project Cost

8.100.000 €

Abstract

Cologne-Stammheim Sewage Treatment Plant is operated with a two-stage system and a high-performance activation system. The mechanical treatment units malfunction and do not meet the requirements. Building structures need to be refurbished. As a result, structures such as the mechanical units and aeration of the high-performance activation system need to be completely restructured, so that a smooth and medium-term operation could be safeguarded and the condition of basins improved. Sand discharge and sand wash as well as screen treatment will be restructured in the mechanical treatment process. Aeration units will be optimised in the high-performance biological stage.

Scope of Service

pre-design, design, approval design

basic evaluation

Technical Data

Capacity	1,570,000 PE
Dry weather flow ($Q_S/18 + Q_F/24$), $Q_{T \text{ hmax}}$	4.7 m ³ /s
Combined wastewater flow ($2Q_S/18 + Q_F/24$), Q_M	9.2 m ³ /s
BOD load	94,300 kg/d
TKN load	17,400 kg/d
P_{ges} load	4,300 kg/d