

Sewage treatment plant Dresden-Kaditz, expansion aeration plant - preceding denitrification

2. lot: 2013 to 2018

Characteristics:

- Design capacity: 890.000 PE
- Dry weather influx, max: 8.000 m³/h
- Mixed water influx: 14.400 m³/h
- Volume of expansion: 48.000 m³
(immediate extension)



Expansion Aeration Plant, 2. Lot

Scope of Work:

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| - Base estimates | - Tendering and allocation of contracts |
| - Preliminary design | - Site management |
| - Design and licence planning | - On-site construction supervision |
| - Construction planning | - Health and safety coordination |

Description:

Due to the development of the catchment area the sewage treatment plant Dresden-Kaditz has reached its capacity limit. In addition, a renewal of the old plant which was altered during the 1. lot to serve as a preceding denitrification is necessary due to structurally engineered reasons. By means of a two-stage extension planning, the use of a cascade denitrification, the consideration of the results of a dynamic simulation and the executed optimisation of the final clarifier in parallel to enhance performance, the necessary scope of the basin expansion during the immediate extension could be reduced. The forecasted load development in the future has been considered in a planned final extension, which can be implemented later on without any interruption of plant operation. In addition to the erection of new basins in the area of the preceding denitrification, an increase of the capacity for compressed air and ventilation and as well as for the transportation of the return sludge is carried out during immediate extension. All tasks are conducted during ongoing operation of the sewage treatment plant and at the same time all monitoring values are complied with.