

MAIN DATA OF THE NORTH-PEST WASTEWATER TREATMENT PLANT INVESTMENT

Total Population Equivalent: 1 333 333 PE

Influent wastewater quantity to be treated:

Maximum daily wastewater quantity Q_{\max} [m ³ /d]	200 000
Average daily wastewater quantity Q_{aver} [m ³ /d]	182 000
Minimum daily wastewater quantity Q_{\min} [m ³ /d]	146 000
Average hourly wastewater quantity $Q_{\text{averhaver}}$ [m ³ /h]	7 583
Maximum hourly wastewater quantity Q_{maxhmax} [m ³ /h] [m ³ /s]	12 513 3,48

Load:

Load	Measurement	Average daily load	Maximum daily load*
COD	kg/day	133.406	146.600
BOD ₅	kg/day	72.800	80.000
N-NH ₄	kg/day	7553	8300
TSS	kg/day	63.336	69.600
TP	kg/day	1.984	2.180
TN	kg/day	11575	12720

Technological data

Name	Units	Existent part only	New part only	Total
Primary Sedimentation Tank Volume	m ³	4 600		4 600
Activated sludge Tank Volume	m ³	58 252	49 661	107 913
Part of Volume Denitrification	m ³	10 485	8691	19 176
Part of Volume Nitrification	m ³	47767	40970	88737
Recirculation (IR + RAS)	%	320	320	
Blower capacity	Nm ³ / h	100 000	60 000	160 000
Final Sedimentation Tank Volume	m ³	30 780	24 056	54 836

Requirements for Discharged Water

Parameters	Effluent standards
COD	75 mg/
BOD ₅	25 mg/l
N-NH ₄	5 mg/l
TSS	35 mg/l
TP	2 mg/l
TN	30 mg/l
NO ₃	50 mg/l

Construction of the new aeration tanks: concreting



The new aeration tanks: structural works



Process flow diagram of the Wastewater Treatment Plant of Budapest

Technological modification of the existing facilities



