

		Theoretical	Measured	Consented
Population	No.	8617		
Resident Population	No.	7723		
Holiday population	No.	894		
Consumption	l/hd/d	145	Default 145l/h/d Default 100l/hd/d - Min 40l/h/d	
Infiltration	l/hd/d	100		
Trade flow	m3/d	39		
Trade PE	No.	400		
per capita BOD	kg/d	0.06	Default	
per capita Ammonia	kg/d	0.0077	Default	
Trade COD	kg/d	23.98	AI Info	
COD:BOD		2.4	Default	
DWF	m3/d	2150	1430 Measured - 08/14-07/25	2150 DWF Consent
ADF	m3/d	2795	1859	2795
3DWF	m3/d	4728	4941 Measured - 07/01/2025	4968 FFT Consent
Form A	m3/d	13948		8813 FA Consent
Works Configuration		3DWF Enter 3DWF, FA or All Flows	FFT Enter FFT, DWF or DWF plus recirc	FFT Enter FFT, DWF or DWF plus recirc
	m3/d	4728	4941	4968
			477	717
			1430 Theoretical min night flow Recirc default DWF or enter recirc	2150 Theoretical min night flow Recirc default DWF or enter recirc
Storm Tanks				
Actual	m3	561.18		
Shortfall against 68l/hd	m3	25		
Primary Tank				
Volume	m3	570.48	570.48	570.48
Surface Area	m2	201.09	201.088	201.09
Retention @ FFT	h	2.90 Min 2 h FFT, 1.5h FA	2.77 Min 2 h FFT, 1.5h FA	2.76 Min 2 h FFT, 1.5h FA
Upflow @ FFT	m/h	0.98 Max 1.2m/h FFT, 1.5 m/h FA	1.02 Max 1.2m/h FFT, 1.5 m/h FA	1.03 Max 1.2m/h FFT, 1.5 m/h FA
Retention @DWF	h	6.37	9.57	6.37

Settled load							
Removal in PST	%	30%	30% default (Range 25% to 35%)				
BOD	kg/d	369	Calculated	295	UWW 2023-2025	295	UWW 2023-2025
Ammonia	kg/d	66	Calculated	66	Theoretical	66	Theoretical
Mineral Filters							
Filter Volume	m3	3870.33		3870.3		3870.3	
Filter Surface Area	m2	1994.58		1994.6		1994.6	
Organic Loading Rate	kgBOD/m3d	0.10		0.08		0.08	
Amm loading rate	kgAMM/m3d	0.017		0.017		0.017	
Minimum Wetting Rate	m3/m2/hr			0.040		0.060	
Hydraulic Loading	m3/m3/d			1.277		1.284	
Circular Humus Tank							
Volume	m3	186.56		186.56		186.56	
Surface Area	m2	103.88		103.88		103.88	
Retention @ FFT	h	2.71	Min 2 h FFT, 1.5h FA	2.59	Min 2 h FFT, 1.5h FA	2.58	Min 2 h FFT, 1.5h FA
Upflow @ FFT	m/h	0.66	Max 1.2m/h FFT, 1.5m/h FA	0.69	Max 1.2m/h FFT, 1.5m/h FA	0.70	Max 1.2m/h FFT, 1.5m/h FA
Retention @DWF	h	5.95		8.95		5.95	
Dortmund Humus Tanks							
Volume	m3	384.40		384.40		384.40	
Surface Area	m2	123.20		123.20		123.20	
Retention @ FFT	h	3.00	Min 2 h FFT, 1.5h FA	2.87	Min 2 h FFT, 1.5h FA	2.86	Min 2 h FFT, 1.5h FA
Upflow @ FFT	m/h	1.04	Max 1.2m/h FFT, 1.5m/h FA	1.09	Max 1.2m/h FFT, 1.5m/h FA	1.09	Max 1.2m/h FFT, 1.5m/h FA
Retention @DWF	h	6.60		9.93		6.60	
Sludge Tanks							
Sludge tank volume	m3	546					
10d storage required volume	m3	301.60	assume sludge @ 2%				