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University of Bath

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1 **Tables**

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3 Table 1: Characteristics of the rivers and connected sewage treatment plants

	Median and minimum and maximum flow rate in 2011 (m ³ /s)	Number of STPs present in catchment	Dutch (NL) and Belgian (B) Inhabitants ^a	I.E. ^b of sewage treatment plants in catchment
Meuse (Eijsden)	33 (4-1273) ^c	>100	5,300,000 ^f (B)	- ⁱ (B)
Jeker	1.3 (1.0-6.5) ^e	20 ^h	101,535 ^d (B)	100,900 ^h
Geul	2.3 (0.8 – 17.0) ^e	2 (NL) 2 (B)	38,305 (NL) 21,103 (B)	59,000 (NL) - ⁱ (B)
Geleenbeek	1.9 (0.8-17.1) ^e	3	324,965 ^e (NL)	516,250 ^e
Slijbeek	- ^g	1	18,630 (NL)	25,000 ^j

4 ^a Number of inhabitants in the catchment that dispose their sewage (mainly via sewage treatment
5 plants) to the river.

6 ^b I.E.= inhabitant equivalents, the capacity of the STPs expressed as an equivalent of the amount of
7 sewage generated by one inhabitant. Since industry also generates wastewater, the number of I.E.
8 often exceeds the number of inhabitants. If the value of the I.E. is lower than the number of
9 inhabitants, the capacity of the treatment plant is insufficient for all inhabitants, or some of the
10 inhabitants are not connected to the STP.

11 ^c Data obtained from www.waterbase.nl. The minimum value is the average minimum over a period of
12 24 hours since the dataset contained occasionally negative values as a result of inaccurate
13 measurements

14 ^d Data obtained from (SPGE, 2006)

15 ^e Data obtained from Roer en Overmaas Regional Water Authority

16 ^f Data obtained from RIWA river Meuse (RIWA Maas, 2009)

17 ^g Flow rate is unknown

18 ^hThe Jeker catchment contains 20 STPs with a total capacity of approximately 108,550 I.E.. The French
 19 speaking part (Wallonia) covers 80,900 I.E. (SPGE, 2006) and the Dutch speaking part (Flanders) 27.650
 20 I.E.. As not all inhabitants are currently connected to sewage treatment, another 10 STPs with a total
 21 capacity of 34,700 are planned in Wallonia, while several thousands of inhabitants are not yet
 22 connected in Flanders (<http://www.aquadra.eu/nederlands-0/cartografie/>).

23 ⁱ The number I.E. of the STPs is not found

24 ^j Data obtained from Peel en Maasvallei Regional Water Authority

25

26 Table 2: Human excretion rates and STP removal efficiencies of the 21 of the 24 observed

27 pharmaceuticals that are used for further analysis

Pharmaceutical	Excretion	STP passage
metformin	100 % ^a	11 % ⁱ
sotalol	76 % ^b	83 % ⁱ
metoprolol	11 % ^c	77 % ⁱ
tramadol	16 % ^d	96 % ⁱ
furosemide	100 % ^e	26 % ^k
carbamazepine	26 % ^c	89 % ⁱ
paracetamol	4 % ^c	56 % ^m
gemfibrozil	5 % ^a	46 % ⁱ
venlafaxine	20 % ^f	57 % ⁿ
diclofenac	16 % ^c	63 % ⁱ
atenolol	83 % ^c	25 % ⁱ
naproxen	10 %	9 % ⁱ
sulfamethoxazole	20 % ^c	61 % ⁱ
propranolol	5 % ^c	89 % ⁱ
bezafibrate	51 % ^c	46 % ⁱ
trimethoprim	80 % ^s	93 % ⁱ
ketoprofen	55 % ^t	29 % ^o
erytromycin A	98 % ^c	33 % ^p
lincomycin	40 % ^g	83 % ^q
metronidazol	12 % ^h	61 % ^r
ibuprofen	30 % ^c	4 % ⁱ

28 ^a= (Van Loenen, 2008) ^b=(Carr et al., 1992) ^c=(Lienert et al., 2007) ^d=(Ardakani Y. H. and R., 2009) ^e

29 =(Prescott, 1980) ^f=(Howell et al., 1993) ^g=(European Medicines Agency, 1998) ^h=(Lamp et al., 1999) ⁱ=

30 (Vergouwen et al., 2011) ^j= (Wick et al., 2009) ^k=(Castiglioni et al., 2006) ^l= no data found ^m= (Radjenovic

31 et al., 2007) ⁿ= (Rúa-Gómez and Püttmann, 2012) ^o=(Radjenovic et al., 2007) ^p=(Miege et al., 2009)

32 ^q=(Watkinson et al., 2007) ^r=(Rosal et al., 2010) ^s= (European Agency for the Evaluation of Medicinal

33 Products, 1997) ^t=(Grubb et al., 1999)