

Compound	Common Use	Previously tested in RMP?	Lit Source(s) / Date of study	Study Location	Matrix	Toxicity benchmark value	Concentration found in Environment
Albuterol (Salbutamol)	Bronchodilator	Yes	CEC list	SF Bay	Estuarine surface water	PNEC for kids 300 ug/L (Cunningham 2009)	max 1 ng/L
Albuterol	Bronchodilator	Yes	Zuccato 2005	Italy	Rivers		max 2.5 ng/L
Albuterol	Bronchodilator	Yes	Huerta 2011	Spain	Rivers		max 86 ng/L
Amitriptyline	Antidepressant	Yes	CEC list	SF Bay	Estuarine surface water/Mussel tissue	PNEC 410 ng/L (Komori 2013) EC50 0.00415 mM (<i>D. magna</i>) (ECOTOX*)	max water 0.6 ng/L mussel 6.2 ng/g dw
Amitriptyline	Antidepressant	Yes	Komori 2013	Japan	Rivers		max 9 ng/L
Amitriptyline	Antidepressant	Yes	Dodder 2013	US	Mussel tissue		mean 0.4 ng/g, max 6.2 ng/g
Alkytrimethyl - ammonium chloride (ATMAC)	Surfactant	No	Lara-Martin 2010	US	Estuarine sediment	PNEC 887 ug/L (<i>D. magna</i>) (Kuster 2009)	max 4860 ng/g
ATMAC	Surfactant	No	Li 2010	US	Estuarine sediment		max 5300 ng/g
ATMAC	Surfactant	No	Ding 2003	Taiwan	Rivers		max 1.24 ug/L
Atenolol	β-blockers	Yes	CEC list	SF Bay	Estuarine surface water/Mussel tissue	PNEC 887 ug/L (<i>D. magna</i>) (Kuster 2009)	max water 37 ng/L mussel 13 ng/g
Atenolol	β-blockers	Yes	Benotti 2009	US	Drinking water treatment plant		max 36 ng/L
Atenolol	β-blockers	Yes	Huerta 2011	Spain	Rivers		max 900 ng/L
Atenolol	β-blockers	Yes	Zuccato 2005	Italy	Rivers		max 241 ng/L
Atenolol	β-blockers	Yes	Dodder 2013	US	Mussel tissue		mean 0.45 ng/g
Atenolol	β-blockers	Yes	Ferrari 2001	Italy	River sediment		max 13 ng/g max 283 ug/kg
Benzalkonium chloride (BAC)	Surfactant/Biocide	No	Kreuzinger 2007	Austria	River/surface water/sediment	PNEC algae 0.41 ug/L (Rico 2013 ERA-AQUA model) EC50 111 ug/L (<i>L. galbana</i>) (Perez 2008)	C12 1.9 ug/L 3600 ug/kg C18 0.094 ug/L 290 ug/kg
BAC	Surfactant/Biocide	No	Li 2010	US	Estuarine sediment		C12 1000 ng/g C14 8900 ng/g C16 3800 ng/g C18 4000 ng/g
BAC	Surfactant/Biocide	No	Ferrer 2001	US	River (downstream effluent)		C12 1.34 ug/L C14 2.38 ug/L
Benzodiazepine (oxazepam)	Anxiolytic	No	Van Der Aa 2013	Netherlands	Rivers	PNEC 4.3 ug/L (Van der Aa 2013) Fish exposed to 1.8 ug/L showed behavioral effects	mean 29 ng/L max 68 ng/L
Benzodiazepine	Anxiolytic	No	Huerta 2011	Spain	Rivers		max 46 ng/L
Benzodiazepine	Anxiolytic	No	Brodin et al 2013	Sweden	European perch tissue		0.01 to 2 ug/L in treated effluent 0.001 to 0.4 ug/L in rivers and streams
Bisphenol S (BPS)	Plasticizer	No	Ji 2013	Lab	Water	EC50 55 mg/L (Chen 2001) >0.5 ug/L affected fish (Ji 2003)	N/A
BPS	Plasticizer	No	Liao 2012	US/Korea	River/lake sediments		max 1970 ng/g Korea max 4.65 ng/g US
Bisphenol A (BPA)	Plasticizer	Yes	Liao 2013	US/Japan/Korea	River/lake sediments		max 13370 ng/g Korea max 106 ng/g US
BPA	Plasticizer	Yes	Koplin 2002	US	Rivers	Freshwater PNEC 64 ug/L (Staples 2000) LOEC 50 ug/L NOEC 10 ug/L (<i>zebra danio</i>) (ECOTOX*)	max 12 ug/L
BPA	Plasticizer	Yes	Benotti 2009	US	Drinking water treatment plant		max 14 ng/L
BPA	Plasticizer	Yes	Fromme 2002	Germany	Rivers/lakes/channels (surface water/sediment)		max water 0.41 ug/L max sediment 0.190 mg/kg
BPA	Plasticizer	Yes	Shi 2013	China	River		max 160 ng/L
BPA	Plasticizer	Yes	Vethaak 2005	Netherlands	Freshwater/saltwater/estuaries, sediment, Bream tissue		max water 1000 ng/L max sediment 43 ng/g max Bream 1.4 ng/g
BPA	Plasticizer	Yes	Casajuana 2003	Spain	Aquifer near a river		max 0.025 ug/L

BPA	Plasticizer	Yes	Belfroid 2002	Netherlands	Estuarine fish tissue		max water 330 ng/L fish liver 75 ng/g
BPA	Plasticizer	Yes	Focazio 2008	US	Surface and ground water		max 1.9 ug/L
Bis(2-ethylhexyl) phthalate	Plasticizer	Yes	CEC list	SF Bay	Estuarine surface water/Mussel tissue/Cormorant eggs		max water 459 ng/L max sediment 32,000 ng/g max mussel 968 ng/g max eggs 1880 ng/g
Bis(2-ethylhexyl) phthalate	Plasticizer	Yes	Fromme 2002	Germany	Rivers/lakes/channels (surface water/sediment)	PNEC 10 ug/L (Parkerton 2000) NOEC 77 ug/L (<i>D. magna</i>) NOEC sediment 615 mg/kg (Naito 2006)	max water 97.8 ug/L max sediment 8.44 mg/kg
Bis(2-ethylhexyl) phthalate	Plasticizer	Yes	Casajuana 2003	Spain	Aquifer near a river		max 0.331 ug/L
Bis(2-ethylhexyl) phthalate	Plasticizer	Yes	Naito 2006	Japan	Freshwater/saltwater (sediment)		max freshwater 42 ug/L max saltwater 10 ug/L max freshwater sed 28 mg/kg max saltwater sed 2.4 mg/kg
Bis(2-ethylhexyl) phthalate	Plasticizer	Yes	Vethaak 2005	Netherlands	Freshwater/saltwater/estuaries (sediment/bream tissue)		max water 5000 ng/L max sediment 7600 ng/g max Bream 1503 ng/g
Bis(2-ethylhexyl) phthalate	Plasticizer	Yes	Koplin 2002	US	Rivers		max 20 ug/L
Butyl benzyl phthalate	Plasticizer	Yes	CEC list	SF Bay	Estuarine surface water/Mussel tissue/Cormorant eggs	PNEC 10 ug/L (Parkerton 2000) NOEC <60 ug/L (<i>P. subcapitata</i>) (ECOTOX*)	max water 14 ng/L max sediment 323 ng/g max eggs 46 ng/g
Butyl benzyl phthalate	Plasticizer	Yes	Vethaak 2005	Netherlands	Freshwater/seawater/estuaries (sediment/bream tissue)		max water 1800 ng/L max sediment 60 ng/g max Bream 299 ng/g
Butyl benzyl phthalate	Plasticizer	Yes	Casajuana 2003	Spain	Aquifer near a river		max 0.17 ug/L
Butyl benzyl phthalate	Plasticizer	Yes	Fromme 2002	Germany	Rivers/lakes/channels (surface water/sediment)		max water 2.95 ug/L max sediment 0.19 mg/kg
Celestolide	Musk/Fragrance	Yes	CEC list	SF Bay	Mussel tissue	NOEC 30 ug/L (<i>N. spinipes</i>) (Langdon 2010) EC50 0.16 mg/L (<i>A. tonsa</i>) (Wollenberger 2002)	max 93 ng/g
Celestolide	Musk/Fragrance	Yes	Heberer 1999	Germany	River/Lakes		max 520 ng/L
Chlorophene	Antimicrobial	No	Werner 1983	US WWTP	Influent/Effluent	NOEC 320 ug/L (<i>O. Mykiss</i>) (Davoren 2005)	max 0.21 ug/L
Chlorophene	Antimicrobial	No	Boyd 2002	US	River/Lake surface water		Not Detected
Dialkyl dimethyl - ammonium chloride (DADMAC)	surfactant/biocide	No	Miura 2008	Japanese	Rivers	PNEC 94 ug/L (Miura 2008) PNEC sediment 15 mg/kg (C10) PNEC sediment 55 mg/kg (C18)	max 3.8 ug/L
DADMAC	surfactant/biocide	No	Li 2010	US	Estuarine sediment		C10 4.1 ug/kg
DADMAC	surfactant/biocide	No	Kreuzinger 2007	Austria	surface water/sediment		C10 0.15 ug/L /510 ug/kg C18 0.19 ug/L/2100 ug/kg

Diclofenac	NSAID	No	Benotti 2009	US	Drinking water treatment plant	PNEC 100 ng/L (Grung 2008) PNEC 116 ug/L (Ferrari 2004)	max 1.2 ng/L
Diclofenac	NSAID	No	Komori 2013	Japan	Rivers	PNEC crustacean 20 ug/L (Ferrari 2004) PNEC algae 1000ug/L (Shanmugam 2013) PNEC 10 ug/L (Komori 2013)	max 140 ng/L
Diclofenac	NSAID	No	Heberer 2004	Germany	Lake bank		max 30 ng/L
Diclofenac	NSAID	No	Shanmugam 2013	Indian	Rivers		max 4.4 ug/L
Doxycycline	Antibiotic	No	Na 2013	China	Sea water	PNEC 430 ug/L [Book: Human Pharmaceuticals in the Environment: Current and Future]	max 1.56 ng/L
Doxycycline	Antibiotic	No	Harnisz 2013	Poland	Rivers		max upstream 0.23 ug/L max downstream 0.64 ug/L
Ditallowdimethyl - ammonium chloride (DTDMAC)	Surfactant/Biocide	No	Li 2010	US	Estuarine sediment	PNEC 6.2 ug/L (Beck 2000)	max 110000 ng/g
DTDMAC	Surfactant/Biocide	No	Leeuwen 1992	Netherlands	Rivers		max 34 ug/L
DTDMAC	Surfactant/Biocide	No	Versteeg 1992	US	Rivers		max 51 ug/L
DTDMAC	Surfactant/Biocide	No	Tubbing 1991	Germany	Rivers		max 25 ug/L
Diethylene - triaminepenta - acetate (DTPA)	Chelator	No	Bucheli 2001	Germany	Rivers		max 15 ug/L
Ethylene - diaminetetra - acetate (EDTA)	Chelator	No	Oviedo 2003	France, England, Germany, Switzerland, Jordan	Rivers		max 1120 ug/L
EDTA	Chelator	No	Oviedo 2003	Germany, Greece, Finland	Lake		max 44 ug/L
EDTA	Chelator	No	Oviedo 2003	Greece	Sea		max 5.85 ug/L
EDTA	Chelator	No	Bucheli 2001	Europe	Rivers		max 100 ug/L
EDTA	Chelator	No	Bucheli 2001	Switzerland	Lake sediment		max 1170 ug/kg
Erythromycin	Antimicrobial	Yes	Harrold 2009	SF Bay	Estuarine surface water	PNEC 0.2 ug/L (Ji 2012)	max 10 ng/L
Erythromycin	Antimicrobial	Yes	Zuccato 2005	Italy	Rivers	PNEC algae 20 ng/L (Li 2012)	max 15.9 ng/L
Erythromycin	Antimicrobial	Yes	Koplin	US	Rivers		max 1.7 ug/L
Erythromycin	Antimicrobial	Yes	Dodder 2013	US	Mussel tissue		max 2 ng/g
Erythromycin	Antimicrobial	Yes	Li 2012	China	Lake surface water/sediment		max water 121 ng/L max sediment 3.04 ug/kg
Fluoxetine	Antidepressant	Yes	Koplin	US	Rivers	Aquatic PNEC 8.1 ng/L (Nentwig 2006)	max 12 ng/L
Fluoxetine	Antidepressant	Yes	Harrold 2009	SF Bay	Estuarine surface water	NOEC 5 ug/L (<i>O. latipes</i>) (Langdon 2010)	<LOD
Fluoxetine	Antidepressant	Yes	CEC	SF Bay	Mussel tissue		max 7.2 ng/g
Fluoxetine	Antidepressant	Yes	Urtado 2009	US rivers	Fish tissue (liver)		max 80 ng/g
Fluoxetine	Antidepressant	Yes	Benotti 2009	US	Drinking water treatment plant		max 3 ng/L
Galaxolide	Musk/Fragrance	Yes	CEC	SF Bay	Mussel tissue	Aquatic PNEC 6.8 ug/L (Balk 2001)	max 855 ng/g
Galaxolide	Musk/Fragrance	Yes	Benotti 2009	US	Drinking water treatment plant	NOEC 111ug/L (<i>D. magna</i>) (Wollenberger 2002)	max 48 ng/L
Galaxolide	Musk/Fragrance	Yes	Urtado 2009	US rivers	Fish tissue		max 2000 ng/g
Galaxolide	Musk/Fragrance	Yes	Heberer 1999	Germany	River/Lakes		max 12,500 ng/L
Isothiazolinone	Biocide/Preservative	No	Chen 2012	China	Surface water (reservoir)	EC50 0.38-4.9 uM (Arning 2009)	max 4.9 ng/L (only paper to find in env.)
Lomefloxacin	Antibiotic	No	Dodder 2013	US	Mussel tissue	PNEC 1 ug/L duckweed (turkdogan 2009)	max 170 ng/g
Lomefloxacin	Antibiotic	No	Li 2012	China	Lake sediment		max 29 ug/kg
Lomefloxacin	Antibiotic	No	Yiruhan 2010	China	Tap water		max 179 ng/L
Lomefloxacin	Antibiotic	No	Xiao 2008	China	Rivers		max 4.9 ng/L

Metronidazole	Nitroimidazole antibiotic	No	Valcarcel 2010	Spain	Rivers	PNEC 12.5 ug/L (Valcarcel 2010)	max 1.83 ug/L
Metronidazole	Nitroimidazole antibiotic	No	Ferrari 2001	Italy	River surface water/sediment		max surface 0.068 ug/L sediment 0.27 ug/kg
Metronidazole	Nitroimidazole antibiotic	No	Kasprzyk-Horden 2008	South Wales	Rivers		max 24 ng/L
Metronidazole	Nitroimidazole antibiotic	No	Da Silca 2011	Spain	Rivers		max 30.2 ng/L
Norfloxacin	Chemotherapeutic antibiotic	Yes	CEC list	SF Bay	Estuarine surface water	PNEC 150 ng/L (Lin 2008) PNEC chronic 913 ng/L (Li 2012) EC10 245 ug/L (Brain 2004)	<LOD
Norfloxacin	Chemotherapeutic antibiotic	Yes	Singh 2013	Lab	Male Quail		
Norfloxacin	Chemotherapeutic antibiotic	Yes	Xiao 2008	China	Rivers		max 66 ng/L
Norfloxacin	Chemotherapeutic antibiotic	Yes	Yiruhan 2010	China	Tap water		max 82.7 ng/L
Norfloxacin	Chemotherapeutic antibiotic	Yes	Li 2012	China	Lake surface water/sediment		max water 156 ng/L max sediment 1140 ug/kg
Norfloxacin	Chemotherapeutic antibiotic	Yes	Koplin 2002	US	Rivers		max 0.12 ug/L
Norfloxacin	Chemotherapeutic antibiotic	Yes	Arsson 2009	India	Rivers		max 4.7 ug/L
Norfloxacin	Chemotherapeutic antibiotic	Yes	Watkinson 2009	Australia	Fresh, estuarine and marine water		max 1.15 ug/L
Norfloxacin	Chemotherapeutic antibiotic	Yes	Afonso-Olivares 2013	Spain	Sea water		max 343 ng/L
Nitrolotriacetate (NTA)	Chelator	No	Bucheli 2001	Europe	Rivers	EC50 modeled 50 ug/L (Rodil 2009)	max 20 ug/L
NTA	Chelator	No	Bucheli 2002	Europe	Drinking water		median 0.7 ug/L
Octocrylene	UV Filter	No	Gago-ferrero 2013	Brazilian coast	Franciscana Dolphin liver tissue	range 89-782 ng/g max 2400 ng/g max river 34 ng/L max sea 4461 ng/L max water 266 ng/L max sediment 635 ug/kg max 35 ng/L max 93 ng/L max lake 642 ug/kg max river 25.2 ug/kg	range 89-782 ng/g
Octocrylene	UV Filter	No	Buser 2006	Switzerland rivers	Fish tissue		max 2400 ng/g
Octocrylene	UV Filter	No	Fent 2008	Summary from worldwide data	River/Sea		max river 34 ng/L
Octocrylene	UV Filter	No	Kameda 2011	Japan	River surface water/sediment		max sea 4461 ng/L
Octocrylene	UV Filter	No	Cuderman 2007	Slovenia	River		max water 266 ng/L
Octocrylene	UV Filter	No	Amine 2012	Germany	Lake		max sediment 635 ug/kg
Octocrylene	UV Filter	No	Kaiser 2012	Germany	Lake / river sediment		max 35 ng/L
Oxytetracycline	Antibiotic	No	Ji 2012	China/Korea	Rivers	PNEC 0.31 ug/L (Ji 2012, this is comparable to Kummerer) PNEC algae 18.3 ug/L	max 1.41 - 2.2 ug/L
Oxytetracycline	Antibiotic	No	Koplin 2002	US	Rivers		max 0.34 ug/L
Oxytetracycline	Antibiotic	No	Harnisz 2013	Poland	River (up/down stream of WWTP)		max 0.45 ug/L
Oxytetracycline	Antibiotic	No	Na 2013	China	Sea water		max 6.28 ng/L
Oxytetracycline	Antibiotic	No	Lindsey 2001	US	Rivers		max 1.34 ug/L
Paraxanthine	Caffeine metabolite	No	Valcarcel 2011	Spain	Rivers	PNEC 100 ug/L	max 36 ng/L
Phenytoin	Antiepileptic	No	Huerta 2011	Spain	Rivers	PNEC >100 ug/L (Komori 2013)	max 140 ng/L
Phenytoin	Antiepileptic	No	Benotti 2009	US	Drinking water treatment plant		max 29 ng/L
Phenytoin	Antiepileptic	No	Komori 2013	Japan	Rivers		max 51 ng/L
Sulfamethoxazole	Antibiotic	Yes	Benotti 2009	US	Drinking water treatment plant	PNEC chronic 118 ng/L (Grunig 2008) PNEC chronic 590 ng/L (Ferrari 2004) PNEC 900 ng/L (Komori) PNEC sediment 1.13 ug/kg (Zhu 2013) EC10 17 ug/L (Brain 2004)	max 110 ng/L
Sulfamethoxazole	Antibiotic	Yes	CEC list	SF Bay	Estuarine surface water		max 1060 ng/L
Sulfamethoxazole	Antibiotic	Yes	Koplin 2002	US	Rivers		max 1.9 ug/L
Sulfamethoxazole	Antibiotic	Yes	Komori 2013	Japan	River		max 78 ng/L
Sulfamethoxazole	Antibiotic	Yes	Na 2013	China	Sea water		max 2.23 ng/L
Sulfamethoxazole	Antibiotic	Yes	Li 2012	China	Lake surface water/ sediment	1.13 ug/kg (Zhu 2013) EC10 17 ug/L (Brain 2004)	max water 940 ng/L max sediment 7.86 ug/kg
Sulfamethoxazole	Antibiotic	Yes	Watkinson 2009	Australia	Fresh, estuarine and marine water		max 2000 ng/L
Sulfamethoxazole	Antibiotic	Yes	Lindsey 2001	US	Rivers		max 1020 ng/L
Tonalide	Musk/Fragrance	Yes	CEC list	SF Bay	Mussel tissue	PNEC 3.5 ug/L (Balk 2001) NOEC 196 ug/L (<i>D. magna</i>) (Wollenberger 2002)	max 516 ng/g
Tonalide	Musk/Fragrance	Yes	Urtado 2009	US rivers	Fish tissue		max 290 ng/g
Tonalide	Musk/Fragrance	Yes	Heberer 1999	Germany	River/Lakes		max 6,800 ng/L

Table 1. Chemicals and studies with corresponding location, matrix and concentration are listed. Blue cells signify no PNEC for that chemical was found in the literature. Yellow cells signify at least one of the matrix concentrations is over the listed PNEC.

*The ECOTOX database (http://cfpub.epa.gov/ecotox/quick_query.htm) was used to find the toxicity threshold