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Supplementary table 1: Compounds included in the qualitative screening of drinking water

α -Hydroxyalprazolam	Dipyridamole	Nodularin
α -Hydroxytriazolam	Disopyramide	Norbuprenorphine
17- α -Ethinylestradiol	Disulphoton	Nordiazepam
2-(2-Methyl-4-chlorophenoxy)propanoic acid	Diuron	Norfenefrine
2,4-Dichlorophenoxyacetic acid	Dixyrazine	Norfentanyl
2-Amino-5-nitrobenzophenone	Dodine	Normorphine
2-Hydroxyethylflurazepam	Doxapram	Nortriptyline
2-Methyl-4-chlorophenoxyacetic acid	Doxepin	Noscapine
3,4-Methylenedioxyamphetamine	Ecgoninemethylester	Olanzapine
3,4-Methylenedioxy-methamphetamine	Embutramide	Omethoate
3,5-Xylyl methylcarbamate	Enalapril	Ondansetron
3-Acetyldeoxynivalenol	Ephedrine	Orphenadrine
3-Hydroxycarbofuran	Epinephrine	Oxadixyl
4-(2,4-Dichlorophenoxy) butyric acid	Epoxiconazole	Oxamyl
4-(4-Chloro-o-tolyloxy)butyric acid	Eprosartan	Oxazepam
4-Benzamidosalicylic acid	Gliquidone	Propiconazole
5-(p-Methylphenyl)-phenylhydantoin	Esmolol	Oxcarbazepine
5Aminosalicilic acid	Fluazifop	Pirenzepine
6-Mercaptourine	Esprocarb	Oxetacaine
6-O-Monoacetylmorphine	Estazolam	Oxitropium
7-Aminoclonazepam	Estradiol	Oxprenolol
7-Aminoflunitrazepam	Estrone	Oxycodone
7-Aminonitrazepam	Ethenzamide	Oxydemeton-methyl
9-Hydroxyrisperidone	Ethiofencarb	Paclobutrazol
Abamectin	Ethiofencarb-sulphone	Papaverine
Aceclidine	Ethiofencarb-sulphoxide	Paracetamol
Acephate	Ethyl dipropyl(thiocarbamate)	Parathion
Aceprometazine	Ethyl glucuronide	Parathion-methyl
Acetamidiprid	Ethyl sulphate	Paroxetine
Acetazolamide	Etofenprox	Penconazole
Acetylsalicylic acid	Etoazole	Pencycuron
Aciclovir	Famoxadone	Pendimethalin
Acrylamide	Famphur	Pentachlorophenol
Adenine	Felodipine	Pentobarbital
Adenosine	Fenarimol	Pentoxifyverine
Adrenalone	Fenazaquin	Perazine
Afla B1	Fenbuconazole	Permethrin
Afla B2	Fendiline	Perphenazine
Afla G1	Fenetylline	Phenazone

Afla G2	Fenfluramine	Phencyclidine
Ajmaline	Fenhexamid	Pheniramine
Alachlor	Fenobucarb	Phenmedipham
Alanycarb	Fenoprop	Phenthoate
Aldicarb	Fenothiocarb	Phenylephrine
Aldicarb sulphoxide	Fenoxap-p-ethyl	Phenyltoloxamine
Aldicarb sulphone	Fenoxycarb	Phorate
Alprazolam	Fenpropimorph	Phorate sulphoxide
Alprenolol	Fenpyroximate	Phosalone
Alprostadiol	Fentanyl	Phoxim
Amantadine	Fenthion	Physostigmine
Ametryn	Fenuron	Picoxystrobin
Amiloride	Fexofenadine	Pilocarpine
Aminocarb	Flazasulphuron	Pindolol
Aminophenazone	Flecainide	Pioglitazone
Aminopromazine	Florosulam	Pirbuterol
Amiodarone	Fluazifop-p-butyl	Pirimicarb
Amiphenazole	Fluazinam	Pirimiphos-ethyl
Amitriptylin	Fluconazole	Pirimiphos-methyl
Amobarbital	Fludioxonil	Piroxicam
Amoxicillin	Flufenacet	Prajmalium
Amphetamine	Flufenoxuron	Prazepam
Apomorphine	Flumeturon	Prazosin
Aprinidine	Flunitrazepam	Primidone
Atenolol	Fluometuron	Procainamide
Atorvastatin	Fluoxetine	Prochloraz
Atrazine	Fluphenazine	Progesterone
Atropine	Flurazepam	Promazine
Azelaic acid	Fluroxypyr	Promecarb
Azinphos methyl	Flusilazole	Prometon
Azinphos-ethyl	Fluvoxamine	Prometryn
Azoxystrobin	Fosthiazate	Propachlor
Aztreonam	Furathiocarb	Propafenone
Befunolol	Furosemid	Propallylonal
Benalaxyl	Gabapentin	Propamocarb
Bendiocarb	Gallopamil	Propamocarb HCl
Benfuracarb	Glibenclamide	Propanil
Benomyl	Glibornuride	Propaquizafop
Benserazid	Glimepiride	Propargite
Bentazon	Glipizide	Propazine
Benzatropine	Haloperidol	Propionylpromazine
Benzocaine	Haloxypop	Propoxur
Benzoctamine	Haloxypop methyl	Propranolol
Benzoyllecgonine	Heptenophos	Propyphenazone
Benzthiazide	Heroin	Propyzamide
Berberine	Hexaconazole	Prosulphuron

Betaxolol	Hexaflumuron	Prothiopendyl
Bezafibrate	Hexazinone	Protriptyline
Biperiden	Hexythiazox	Pseudoephedrine
Bisoprolol	Hydrochlorothiazide	Pyraclostrobin
Bitertanol	Hydrocodone	Pyributicarb
Boscalid	Hydrocortisone	Pyridate
Brallobarbital	Hydromorphone	Pyrimethanil
Bromacil	Hydroxyzine	Pyriproxyfen
Bromazepam	Imazalil	Quetiapine
Bromocriptine	Imazamox	Quinapril
Bromoxynil	Imazapyr	Quinine
Brompheniramine	Imidacloprid	Quinmerac
Bromuconazole	Imipramine	Quinoxifen
Bucetin	Indomethacin	Quizalofop-p-ethyl
Bunitrolol	Indoprofen	Ramipril
Bupirimate	Indoxacarb	Ranitidine
Bupivacaine	Ioxynil	Repaglinide
Bupranolol	Iprodione	Resmethrine
Buprenorphine	Iprovalicarb	Rimsulphuron
Buprofezine	Irbesartan	Risperidone
Buspirone	Isofenfos	Ritodrine
Butaperazine	Isoprocarb	Ropivacaine
Butocarboxim	Isoproturon	Rosiglitazon
Butocarboxim-sulphoxide	Isoxaflutole	Scopolamine
Butoxycarboxim	Ketamine	Sebuthylazine
Cadusafos	Ketoprofen	Serotonin
Caffeine	Ketorolac	Sertindole
Carazolol	Lamotrigine	Sertraline
Carbamazepine	Lenacil	Sethoxydim
Carbaryl	Lercanidipine	Siduron
Carbendazim	Levocabastine	Sildenafil
Carbenoxolone	Levomepromazine	Simazine
Carbetamide	Lidocaine	Simetryn
Carbinoxamine	Linuron	Sotalol
Carbofuran	Lisinopril	Spinosad A
Carbosulphan	Loperamide	Spinosad D
Carboxin	Loratadine	Spiroxamin
Carbuterol	Lorazepam	Sulphotep
Carteolol	Lormetazepam	Sulindac
Carvedilol	Losartan	Sulpiride
Celiprolol	Lufenuron	Sulprofos
Cetirizine	Lysergide	Talinolol
Chlorcyclizine	Malaoxon	Tamoxifen
Chlordiazepoxide	Malathion	Tebuconazole
Chlorfenvinphos	Maprotiline	Tebufenozide
Chloridazon	Mecarbam	Tebufenpyrad

Chloropropham	Meclizine	Tebuthiuron
Chlorothiazide	Medazepam	Teflubenzuron
Chlorotoluron	Meloxicam	Telmisartan
Chlorphenethiazine	Melperone	Temazepam
Chlorpheniramine	Mepanipyrim	Tepraloxym
Chlorpromazine	Mepindolol	Terbucarb
Chlorprothixene	Mescaline	Terbutialazine
Chlorpyrifos	Mesoridazine	Terbutialazine desethyl
Chlorsulphuron	Metaclazepam	Terbutylazine
Chlortoluron	Metalaxyl	Terbutryn
Cilazapril	Metamfepramone	Terfenadine
Cimetidine	Metamitron	Testosterone
Cinchonine	Metamphetamine	Tetracaine
Cinnarizine	Metazachlor	Tetrachlorvinphos
Citalopram	Metformin	Tetraconazole
Clemastine	Methabenzthiazuron	Tetrahydrocannabinol
Clenbuterol	Methadone	Tetrazepam
Clobazam	Methamidophos	Tetryzoline
Clobutinol	Methiocarb	Theobromine
Clofentezine	Methiocarb-sulphone	Theophylline
Clomazone	Methomyl	Thiabendazole
Clomethiazole	Methoxyfenozide	Thiacloprid
Clomipramine	Methylphenidate	Thiamethoxam
Clonazepam	Metipranolol	Thidiazuron
Clonidine	Metobromuron	Thiobencarb
Clopyralid	Metolachlor	Thiodicarb
Clothianidin	Metoprolol	Thiofanox
Clozapine	Metosulam	Thiofanox-sulphone
Cocaine	Metoxuron	Thiophanate methyl
Codeine	Metribuzin	Thiuridazine
Cortisone	Metronidazole	Thiuram
Coumaphos	Mevinphos	Tilidine
Coumatetralyl	Mexiletine	Timolol
Cyanazine	Mianserin	Tizanidine
Cyanuric acid	Miconazole	Tocainide
Cyclicine	Microcystin LA	Tokuthion
Cymoxanil	Microcystin LF	Tolbutamide
Cyproconazole	Microcystin LR	Toliprolol
Cyprodinil	Microcystin LW	Tolyfluanid
Demeton-S-methyl	Microcystin LY	Tramadol
Demeton-S-methyl-sulphone	Microcystin RR	Trazodone
Desalkylflurazepam	Microcystin YR	Triadiminol
Desethyl atrazine	Midazolam	Triallate
Desipramine	Midodrine	Triamcinolone
Desisopropyl atrazine	Minoxidil	Triamterene
Desmedipham	Mirtazapine	Triazolam

Desmethyldomipramine	Mizolastine	Triazophos
Desmethyflunitrazepam	Moclobemide	Trichlorofon
Dextromethorphan	Molinate	Triclopyr
Dextropropoxyphene	Monochloracetate	Trifloxystrobin
Diazepam	Monocrotophos	Triflumuron
Diazinon	Monolinuron	Trifluperazine
Dicamba	Monuron	Trifluperidol
Dichlorvos	Morphin-3 β D-glucuronide-D3	Trifluralin
Dicrotophos	Morphine	Triforine
Difenoconazole	Morphine-3- β -D-glucuronide	Trimethoprim
Diffubenzuron	Myclobutanil	Trimipramine
Diffufenican	Naled	Urapidil
Dihydrocodeine	Naloxone	Valsartan
Dihydroergotamine	Nandrolone	Vardenafil
Dilazep	Nicardipine	Venlafaxine
Diltiazem	Nicosulphuron	Verapamil
Dimefuron	Nicotine	Vincamine
Dimepiperate	Nifedipine	Vinclozolin
Dimethachlor	Nifenazone	Warfarin
Dimethenamide	Nimodipine	Yohimbine
Dimethoate	Nisoldipine	Zaleplon
Dimethomorph	Nitenpyram	Zearalenon
Dinoprost	Nitrazepam	Zolpidem
Dinoterb	Nitrendipine	Zopiclone
Dioxacarb	Nitrilotriacetic acid	Zuclopenthixol
Diphenhydramine	Nivalenol	
Diphenylamine	N-Nitrosodimethylaminem	

Supplementary table 2: Quantitative levels of three selected contaminants of emerging concern in drinking water: atrazine, terbuthylazine and carbamazepine

Atrazine concentration (µg/L)				
Sampling site	Summer	Autumn	Winter	Spring
BFN North tap	0.020233	0.152667	0.014700	0.015867
BFN South tap	0.011100	0.185000	0.018733	0.151667
Bloemfontein	0.024833	0.023833	0.014200	0.013433
Cape Town	0.000410	0.000343	0.000008	0.000113
Durban	0.018000	0.015075	0.004043	0.012467
Johannesburg	0.126667	0.152500	0.114333	0.122333
Pietermaritzburg	0.018233	0.022600	0.016067	0.016967
Port Elizabeth	0.007480	0.001273	0.000000	0.000304
Pretoria	0.038667	0.163250	0.000138	0.006437
Terbuthylazine concentration (µg/L)				
Sampling site	Summer	Autumn	Winter	Spring
BFN North tap	0.041900	0.032567	0.017833	0.043767
BFN South tap	0.009513	0.036300	0.008587	0.031200
Bloemfontein	0.058700	0.038100	0.018133	0.044400
Cape Town	0.002880	0.001587	0.000026	0.002087
Durban	0.035400	0.037025	0.012700	0.029800
Johannesburg	0.136333	0.141750	0.099200	0.108000
Pietermaritzburg	0.021767	0.025925	0.016833	0.019133
Port Elizabeth	0.000471	0.000377	0.000038	0.007020
Pretoria	0.069533	0.205500	0.000187	0.009970
Carbamazepine concentration (µg/L)				
Sampling site	Summer	Autumn	Winter	Spring
BFN North tap	0.296667	0.037200	0.155667	0.145333
BFN South tap	0.017367	0.017800	0.017233	0.040733
Bloemfontein	0.324000	0.123667	0.159000	0.151000
Cape Town	0.000299	0.000159	0.000034	0.000038
Durban	0.010933	0.021625	0.004083	0.009183
Johannesburg	0.008103	0.011625	0.006717	0.005853
Pietermaritzburg	0.001310	0.001625	0.001023	0.000804
Port Elizabeth	0.001827	0.000726	0.000071	0.000824
Pretoria	0.029667	0.136750	0.000094	0.002020