TABLE S1. Summary of Detected Concentrations, Uses, Matrix Spike Recoveries, and Method Detection Limits for 55 of the 87 Organic Wastewater Contaminants measured in Nine Biosolids in this study, in µg/kg dry weight.

Compound	use	method detection limits (µg/kg)	biosolid A (45)[a]			biosolid B (41)[a]			biosolid C (40)[a]			biosolid D (42)[a]		biosolid E (37)[a]		biosolid F (41)[a]			biosolid G (42)[a]			biosolid H (42)[a]			biosolid I (30)[a]	
			5/13/03[b]	11/17/03[b]	recovery (%)[c]	5/14/03[b]	11/17/03[b]	recovery (%)[c]	8/8/03[b]	11/12/03[b]	recovery (%)[c]	11/6/03[b]	recovery (%)[c]	5/14/2004[b]	recovery (%)[c]	9/12/03[b]	11/24/03[b]	recovery (%)[c]	6/2/03[b]	1/26/04[b]	recovery (%)[c]	6/2/03[b]	1/26/04[b]	recovery (%)[c]	4/21/05[b]	recovery (%)[c]
non prescription pharmaceuticals																										
1,7-dimethylxanthine	Caffeine Metabolite	2.0	6200 (17)	3700 (11)	95	480 (49)	1100(8)	112	190 (22)	180 (27)	137	ND	180	ND	98	150 (18)	ND	114	490 (22)	ND	94	480 (7)	ND	118	ND	0
acetaminophen	Antipyretic	0.76	200 (13)	1400 (58)	82	170 (36)	71 (11)	130	28 (24)	23 (28)	17	67 (5)	16	75 (13)	127	33 (14)	ND	25	230 (34)	130 (40)	76	70 (32)	ND	26	ND	46
caffeine	Stimulant	1.3	1200 (25)	940 (19)	95	74 (29)	100 (24)	151	61 (23)	170 (19)	128	12 (32)	69	150 (22)	136	60 (14)	100 (16)	46	9 (17)	86 (43)	83	38 (34)	61 (34)	48	ND	38
cotinine	Nicotine Metab.	1.3	45 (53)	ND	32	ND	ND	108	1 (17)	3 (20)	152	6 (10)	80	ND	63	3 (11)	ND	137	28 (5)	20 (23)	90	28 (12)	15 (20)	86	ND	53
prescription pharmaceuticals																										
albuterol	Antiasthmatic	1.1	30 (22)	850 (28)	59	ND	380 (11)	51	ND	45 (18)	36	51 (10)	53	ND	25	ND	ND	120	ND	ND	9	ND	ND	8	ND	26
carbamazapine	Antiepileptic	1.7	40 (29)	33 (44)	32	12 (38)	17 (17)	107	9 (21)	11 (45)	91	8 (16)	48	19 (21)	90	17 (10)	29 (37)	71	21 (15)	13 (24)	49	26 (3)	44 (44)	46	390 (51)	33
dehydronifedipine	Antianginal	1.7	26 (17)	21 (45)	46	ND	26 (71)	205	ND	ND	186	ND	102	ND	125	ND	ND	156	3 (43)	ND	71	21 (15)	ND	25	ND	29
diltiazem	Antihypertensive	1.5	59 (34)	49 (57)	73	10 (39)	ND	156	3 (29)	ND	98	ND	53	ND		ND	ND	111	ND	ND	39	ND	6 (35)	27	ND	28
erythromycin-H_20	Antibiotic degradation product	1.7	ND	ND	32	ND	41 (32)	44	2 (6)	5 (2)	44	26 (12)	20	ND	79	8 (16)	ND	23	ND	ND	15	ND	ND	13	ND	
fluoxetine	Antidepressant	2.2	32 (34)	15 (67)	55	25 (33)	19 (13)	90	7 (19)	2 (19)	35	5 (17)	31	30 (4)	49	29 (5)	38 (11)	44	68 (8)	ND	46	65 (16)	25 (18)	28	1500 (68)	20
gemfibrozil	Antihyperlipidemic	5.5	ND	ND	105	420 (27)	330 (19)	150	120 (8)	140 (3)	110	ND	204	ND	84	170 (11)	ND	87	ND	ND	75	ND	ND	108	ND	
sulfamethoxazole	Antibiotic	1.6	160 (31)	150 (36)	32	ND	ND	135	ND	ND	69	ND	31	ND	110	ND	ND	99	ND	ND	37	ND	ND	16	ND	27
thiabendazole	Anthelmintic/Pesticide	1.0	14 (35)	9 (9)	35	14 (27)	8 (21)	76	2 (7)	2 (11)	84	6 (11)	36	19 (11)	52	ND	ND	17	2 (6)	ND	57	1 (87)	ND	13	5000 (40)	18
trimethoprim	Antibiotic	1.5	22 (27)	18 (35)	26	ND	ND	114	2 (31)	ND	97	0.7 (8)	52	ND	54	ND	ND	71	ND	3 (9)	63	ND	ND	48	ND	30
warfarin	Anticoagulant	1.3	13 (17)	90 (61)	48	37 (24)	57 (39)	178	1 (22)	5 (17)	142	22 (17)	51	25 (26)	106	10 (28)	ND	87	92 (8)	ND	75	38 (18)	ND	57	ND	55
non prescription & prescription pharmaceuticals																										
cimetidine	Antacid	0.88	14 (17)	ND	87	ND	13 (17)	94	ND	ND	94	ND	58	ND	16	ND	ND	65	50 (18)	53 (47)	47	71 (34)	ND	27	ND	
codeine	Analgesic	1.3	22 (23)	ND	52	3 (93)	8 (17)	101	ND	ND	201	ND	49	ND	45	5 (8)	ND	50	ND	8 (34)	13	ND	ND	6	ND	15
diphenhydramine	Antihistamine	1.4	170 (19)	190 (10)	71	92 (27)	89 (8)	142	23 (12)	32 (18)	86	53 (8)	37	15 (17)	66	230 (6)	330 (21)	95	230 (7)	180 (38)	55	250 (12)	250 (32)	51	7000 (48)	18
miconazole	Antifungal	0.97	360 (31)	160 (10)	124	70 (62)	100 (56)	120	14 (37)	33 (52)	14	57 (6)	108	92 (28)	97	85 (10)	460 (20)	52	340 (9)	200 (46)	87	320 (14)	330 (30)	68	ND	
nonpolar organic wastewater contaminants																										
d-limonene	Fragrance	23.7	225 (22)	157 (10)	40	190 (16)	175 (12)	70	160 (30)	ND	61	107 (14)	94	71(14)	54	232 (27)	187 (31)	52	300 (40)	163 (9)	52	220 (15)	150 (37)	47	1070 (15)	76
tonalide (AHTN)	Fragrance	12.5	5000 (21)	3100 (9)	61	3500 (17)	2500 (11)	67	880 (8)	1250 (14)	66	3400 (26)	136	78 (34)	74	4500 (9)	4200 (17)	66	5800 (3)	4070 (12)	66	4700 (6)	5200 (16)	71	427000 (14)	96
galaxolide (HHCB)	Fragrance	16.5	1400 (28)	1470 (24)	54	3700 (13)	2670 (11)	65	1100 (9)	977 (11)	71	933 (22)	107	13 (19)	69	2370 (9)	1970 (24)	61	1300 (5)	697 (20)	72	1100 (2)	767 (16)	62	177000 (20)	101
acetophenone	Fragrance	101	ND	72 (17)	47	ND	ND	65	ND	257 (32)	50	26 (9)	34	2300 (12)	61	130 (8)	82 (53)	52	170 (31)	102 (17)	35	130 (23)	62 (17)	31	2300 (22)	92
indole	Fragrance	53.5	9200 (65)	6000 (43)	60	9800 (16)	4200 (3)	44	7000 (27)	1050 (13)	52	1600 (13)	135	10600 (24)	87	1700 (21)	2130 (18)	58	1200 (22)	1470 (37)	68	980 (31)	3170 (38)	55	6800 (43)	37
4-tert-octylphenol[d]	Detergent Metabolite	22.9	2000 (41)	1040 (14)	48	360 (10)	300 (13)	53	200 (33)	167 (18)	75	1530 (20)	126	1170 (13)	70	320 (11)	217 (10)	74	2400 (4)	937 (25)	68	1400 (5)	1010 (8)	63	1120 (16)	78
para-nonylphenol-total[d]	Detergent Metabolite.	499	140000 (34)	51700 (4)	72	49000 (1)	50000 (8)	52	11000 (9)	17200 (11)	50	187000 (12)	174	606 (18)	73	28700 (11)	16700 (7)	93	200000 (0)	69700 (12)	52	170000 (4)	110000 (14)	44	483000 (20)	87
NoNonylphenol, monoethoxy–total[d]	Detergent Metabolite	336	21000 (14)	11700(21)	52	4800 (8)	4100 (5)	38	680 (15)	1500 (7)	41	4100 (5)	39	1100 (6)	97	3230 (9)	1500 (18)	74	9500 (11)	6530 (12)	53	7100 (7)	5670 (11)	41	25300 (28)	114
NoNonylphenol, dithoxy–total[d]	Detergent Metabolite	852	46000 (14)	19300 (12)	60	1600 (7)	2000 (8)	35	410 (32)	760 (11)	31	1230 (12)	61	833 (8)	62	6970 (11)	1870 (11)	84	9500 (7)	2800 (18)	62	7400 (14)	1750 (37)	58	253 (17)	73
4-cumylphenol	Detergent Metabolite	33.7	ND	ND	56	ND	ND	51	ND	ND	55	40 (21)	133	ND	71	ND	ND	63	ND	ND	81	ND	ND	72	5030 (21)	77
nonpolar organic wastewater contaminants																										
bisphenol A[d]	Fire Retardant/Plasticizer	31.6	600 (32)	630 (25)	45	1300 (44)	1570 (38)	25	1000 (30)	1500 (23)	32	3430 (19)	174	1300 (17)	62	443 (18)	260 (4)	22	570 (10)	437 (13)	66	100 (8)	547 (18)	32	4600 (9)	104
tetrabromodiphenyl ether	Fire Retardant	19.1	ND	ND	75	60 (49)	92 (26)	55	150 (43)	197 (13)	69	163 (9)	96	1530 (27)	78	105 (41)	137 (40)	63	ND	290 (28)	50	ND	ND	67	ND	0
3-beta-coprostanol	Steroid	360	91000 (14)	71000 (9)	68	13000 (22)	13000 (13)	42	16000 (26)	13800 (15)	61	18000 (25)	68	2250 (3)	66	11000 (0)	14000 (14)	86	120000 (10)	101000 (9)	119	87000 (14)	105000 (12)	84	467000 (3)	117
cholesterol	Steroid	168	142000 (17)	153000 (10)	130	15000 (42)	19700 (11)	80	19000 (6)	16300 (13)	56	59300 (20)	52	5300 (7)	124	19000 (5)	27700 (23)	93	120000 (8)	120000 (8)	104	74000 (13)	123000 (12)	68	66700 (15)	136
beta-sitosterol	Steroid	363	38000 (17)	42600 (14)	81	12000 (25)	14300 (15)	45	30000 (3)	23700 (6)	81	76000 (15)	44	31200 (7)	164	8600 (15)	42300 (18)	71	48000 (10)	37700 (8)	75	24000 (7)	42300 (12)	57	177000 (16)	83
stigmastanol	Steroid	367	4000 (9)	2830 (7)	59	2000 (5)	1500 (29)	33	3500 (6)	3630 (10)	53	1050 (13)	127	872 (11)	59	4070 (12)	18300 (74)	114	18000 (12)	9770 (9)	68	13000 (14)	11000 (9)	50	77700 (49)	58
estrone	Hormone		ND	ND	62	ND	ND	61	ND	150 (20)	58	ND	134	ND	95	ND	ND	110	ND	ND	88	ND	ND	69	ND	0
naphthalene	PAH	23.5	118 (20)	74 (11)	48	62 (5)	49 (5)	54	32 (9)	25 (18)	65	29 (11)	133	17 (27)	86	45 (48)	22 (42)	46	64 (17)	18 (20)	80	63 (16)	17 (39)	68	ND	77
phenanthrene	PAH	20.7	467 (21)	330 (13)	65	150 (21)	40 (23)	54	72 (5)	ND	73	130 (13)	89	51 (6)	75	68 (32)	38 (4)	65	66 (2)	33 (20)	76	59 (10)	39 (16)	72	1730 (27)	94
anthracene	PAH	19.8	136 (31)	102 (42)	64	60 (22)	71 (9)	52	23 (36)	ND	73	53 (24)	63	32 (8)	67	54 (48)	17 (55)	62	42 (25)	15 (38)	75	28 (19)	16 (42)	70	320 (24)	77
fluoranthene	PAH	23.2	420 (17)	380 (8)	66	410 (6)	213 (5)	64	280 (4)	25 (4)	79	147 (4)	118	763 (21)	91	143 (15)	85 (14)	60	75 (4)	28 (15)	81	62 (4)	36 (9)	78	950 (27)	96
pyrene	PAH	20.6	540 (18)	420 (21)	63	440 (6)	297 (4)	58	240 (2)	220 (12)	85	193 (6)	105	12 (5)	71	147 (17)	73 (10)	73	84 (0)	32 (15)	80	64 (2)	36 (6)	78	740 (24)	97
benzo(a)pyrene[d]	PAH	24.6	227 (17)	160 (17)	67	110 (12)	94 (4)	66	120 (17)	93 (16)	84	66 (11)	88	43 (3)	58	88 (19)	46 (15)	72	ND	ND	76	ND	ND	83	ND	94
2-methylnapthalene	Alkyl-PAH	27.8	110 (5)	61 (5)	50	ND	ND	49	ND	ND	72	ND	121	ND	70	ND	ND	56	71 (14)	12 (22)	76	66 (5)	9 (23)	78	ND	76
1-methylnapthalene	Alkyl-PAH	27.8	86 (8)	56 (7)	51	ND	ND	53	ND	ND	76	ND	124	ND	67	ND	ND	61	58 (9)	13 (36)	78	58 (8)	14 (17)	81	ND	88
2,6-dimethylnapthalene	Alkyl-PAH	24.8	150 (10)	63 (21)	54	ND	ND	60	ND	ND	79	ND	147	176 (5)	75	ND	ND	65	120 (5)	52 (22)	86	71 (9)	37 (13)	82	610 (18)	78
phenol	Disinfectant	38.2	1100 (9)	503 (16)	42	610 (20)	410 (2)	95	680 (25)	510 (11)	62	223 (3)	65	460 (30)	84	102 (7)	143 (26)	46	2100 (20)	975 (13)	48	1700 (24)	953 (14)	41	6270 (18)	111
triclosan	Disinfectant	49.6	3700 (57)	1630 (9)	57	3300 (5)	2000 (9)	57	930 (2)	1270 (6)	57	443 (10)	172	833 (18)	61	1200 (14)	1200 (14)	62	3800 (6)	3100 (9)	52	3500 (3)	3230 (15)	61	10500 (17)	124
ethanol,2-butoxy-,phosphate	Plasticizer		ND	ND	52	ND	ND	38			50	ND	65	ND	59	ND	ND	86	650 (9)	320 (71)	70	430 (25)	243 (20)	55	ND	0
diethylhexyl phthalate[d]	Plasticizer	138	20000 (5)	3300 (5)	91	4200 (31)	2400 (4)	64	1400 (12)	1830 (8)	73	1730 (7)	141	961 (13)	88	420 (23)	340 (3)	57	9400 (1)	7500 (9)	71	5800 (5)	6870 (19)	62	3330 (22)	82
para-cresol	Preservative	161	5200 (19)	1120 (16)	46	860 (34)	413 (24)	51	460 (16)	1430 (34)	63	290 (18)	29	275 (55)	110	160 (0)	140 (19)	49	2200 (17)	850 (7)	55	1900 (17)	707 (20)	50	4970 (34)	121
1,4-dichlorobenzene	Pesticide	27.6	ND	28 (6)	36	ND	ND	58			56	22 (5)	79	ND	63	127 (16)	55 (15)	48	ND	ND	66	ND	ND	58	ND	75
3,4-dichlorophenyl isocyanate	Organic Synthesis	60.4	ND	72 (17)	62	ND	81 (21)	62	530 (17)	78 (22)	68	ND	101	46 (30)	55	183 (32)	91 (27)	57	200 (21)	52 (49)	65	160 (10)	58 (48)	52	ND	0
skatol	Fecal Indicator	30.9	2300 (17)	1600 (29)	43	810 (17)	490 (10)	46	930 (25)	720 (9)	52	613 (2)	139	369 (15)	133	903 (31)	483 (8)	60	390 (11)	223 (36)	81	270 (11)	207 (20)	72	5170 (43)	94
benzophenone[d]	Fixative	31.8	ND	102 (55)	58	ND	ND	69	ND	ND	99	347 (16)	134	51 (5)	66	99 (19)	30 (27)	71	450 (8)	213 (16)	88	410 (5)	220 (14)	84	584(23)	66
anthraquinone	Dye	24.3	ND	ND	67	ND	ND	66	ND	ND	88	217 (19)	124	ND	108	ND	ND	53	ND	ND	80	ND	ND	69	ND	145
Total OWC (mg/kg)			**544**	**383**		**128**	**125**		**97**	**90**		**336**		**64**		**96**	**135**		**559**	**370**		**407**	**423**		**1811**	

[a]Value in parentheses following the sample ID is the maximum total number of organic wastewater contaminants (OWCs) detected in that biosolid

[b]Average concentration (n=3) of OWC in the biosolid collected or purchased on the given date. Value in the parentheses following the average concentration is the percent standard deviation

[c]The average percent recovery (n=3) of spiked biosolid samples

[d]Known or suspected endocrine active compound (http://www.ourstolenfuture.org/Basics/chemlist.htm); accessed January 23, 2006

ND = Not Detected