

Appendix 4. Total concentrations and estimated loads of pharmaceuticals and organic wastewater compounds detected in 24-hour flow-weighted influent and effluent composite samples.

[ND, North District Wastewater Treatment Plant; CD1, Central District Wastewater Treatment Plant 1; CD2, Central District Wastewater Treatment Plant 2; SD1, South District Wastewater Treatment Plant 1; SD2, South District Wastewater Treatment Plant 2; HS, Homestead Wastewater Treatment Plant; Mgal/d, million gallons per day µg/L, micrograms per liter; %, percent; lb/d, pounds per day]

	ND influent wet	CD1 influent wet	CD2 influent wet	SD1 influent wet	SD2 influent wet	HS wet wet	ND wet dry	CD1 wet dry	CD2 wet dry	SD1 wet dry	SD2 wet dry	HS wet dry	ND effluent wet	CD1 effluent wet	CD2 effluent wet	SD1 effluent wet	SD2 effluent wet	HS effluent wet	ND effluent dry	CD1 effluent dry	CD2 effluent dry	SD1 effluent dry	SD2 effluent dry	HS effluent dry
Flow (Mgal/d)	90.4	48.8	69.7	62.1	28.2	5.6	47	36.3	40.6	53.2	18.8	4.5	90.4	48.8	69.7	62.1	28.2	5.6	47	36.3	40.6	53.2	18.8	4.5
Total concentration (µg/L)																								
Semivolatile organic compounds	29.2	22.9	40.8	12.0	19.5	17.7	15.3	298.0	22.5	23.7	23.2	40.5	1.6	1.0	1.2	4.9	2.3	0.3	1.4	2.7	0.7	1.8	0.8	0.8
Pesticides and pesticide degradates	0.75	0.26	0.23	0.18	0.27	0.56	0.05	0.42	0.09	0.16	0.45	0.08	0.27	0.24	0.24	0.46	0.44	0.25	0.24	0.61	0.23	0.46	0.43	0.33
Wastewater indicator compounds	466.1	268.9	303.0	328.1	347.7	278.6	600.8	51.0	380.3	435.5	429.8	216.6	23.5	23.0	9.1	41.5	31.1	4.5	23.8	25.9	22.9	25.8	39.1	6.0
Pharmaceutical compounds	36.37	36.41	31.28	17.65	21.85	44.85	61.27	45.24	33.98	53.31	40.72	126.62	0.22	0.21	0.15	0.46	0.31	0.28	0.67	0.86	0.19	0.46	1.63	0.59
Antibiotics	3.24	1.58	3.50	3.96	5.65	4.86	1.18	3.34	1.64	3.14	3.69	6.20	1.39	1.69	1.38	2.41	1.90	1.15	4.20	2.30	3.76	2.99	2.32	1.72
17-beta-estradiol	0.07	0.04	0.02	0.08	0.04	0.02	0.01	0.02	0.00	0.22	0.09	0.05	0.02	0.02	0.07	0.02	0.08	0.01	0.02	0.01	0.00	0.01	0.00	0.02
Total	536	330	379	362	395	347	679	398	438	516	498	390	27.0	26.2	12.1	49.7	36.1	6.47	30.4	32.4	27.8	31.5	44.3	9.47
Fraction of compound classes to total concentration (%)																								
Semivolatile organic compounds	5.5	6.9	10.8	3.3	4.9	5.1	2.3	74.9	5.1	4.6	4.7	10.4	6.0	4.0	10.2	9.8	6.3	4.7	4.7	8.2	2.6	5.7	1.9	8.4
Pesticides and pesticide degradates	0.1	0.1	0.1	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.1	0.0	1.0	0.9	2.0	0.9	1.2	3.9	0.8	1.9	0.8	1.4	1.0	3.5
Wastewater indicator compounds	87.0	81.5	80.0	90.7	88.0	80.4	88.5	12.8	86.7	84.4	86.3	55.5	87.0	87.8	74.7	83.4	86.1	69.1	78.5	80.1	82.4	81.9	88.2	63.5
Pharmaceutical compounds	6.8	11.0	8.3	4.9	5.5	12.9	9.0	11.4	7.8	10.3	8.2	32.5	0.8	0.8	1.2	0.9	0.9	4.3	2.2	2.7	0.7	1.5	3.7	6.2
Antibiotics	0.6	0.5	0.9	1.1	1.4	1.4	0.2	0.8	0.4	0.6	0.7	1.6	5.1	6.5	11.4	4.8	5.3	17.8	13.8	7.1	13.5	9.5	5.2	18.2
17-beta-estradiol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.6	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.2
Estimated loads (lb/d)																								
Semivolatile organic compounds	22.1	9.3	23.7	6.2	4.6	0.8	6.0	90.2	7.6	10.5	3.6	1.5	1.2	0.4	0.7	2.5	0.5	0.0	0.6	0.8	0.2	0.8	0.1	0.0
Pesticides and pesticide degradates	0.6	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.2	0.1	0.0	0.1	0.2	0.1	0.2	0.1	0.0
Wastewater indicator compounds	351.4	109.4	176.1	169.9	81.8	13.0	235.5	15.4	128.8	193.2	67.4	8.1	17.7	9.3	5.3	21.5	7.3	0.2	9.3	7.8	7.8	11.4	6.1	0.2
Pharmaceutical compounds	27.4	14.8	18.2	9.1	5.1	2.1	24.0	13.7	11.5	23.7	6.4	4.8	0.2	0.1	0.1	0.2	0.1	0.0	0.3	0.3	0.1	0.2	0.3	0.0
Antibiotics	2.4	0.6	2.0	2.0	1.3	0.2	0.5	1.0	0.6	1.4	0.6	0.2	1.0	0.7	0.8	1.2	0.4	0.1	1.6	0.7	1.3	1.3	0.4	0.1
17-beta-estradiol	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	403.9	134.3	220.2	187.4	92.9	16.2	266.0	120.5	148.5	229.0	78.1	14.6	20.4	10.7	7.1	25.7	8.5	0.3	11.9	9.8	9.4	14.0	7.0	0.4