

#### **Washington Aqueduct**

#### **U.S. ARMY Corps of Engineers**

# Annual Report of Water Analysis 2016

Prepared by:

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Approved by the Chief, Washington Aqueduct



#### **Potomac River Raw Water Supply**

				Miscella	aneous Ph	ysical Pa	rameters							In	organic lo	ns						Microor	ganisms		
	Нф	ALKALINITY	CONDUCTIVITY	DISSOLVED SOLIDS	SUSPENDED SOLIDS	TOTAL SOLIDS	TEMPERATURE	TOTAL HARDNESS	TOTAL ORGANIC CARBON	TURBIDITY	TOTAL AMMONIA - N	BROMIDE	CHLORIDE	FLUORIDE	NITRATE - N	NITRITE - N	ORTHOPHOSPHATE - PO4	PERCHLORATE	SULFATE	TOTAL COLIFORM	E. COLI	<u>GIARDIA</u> Great Falls Intake	CRYPTOSPORIDIUM Great Falls Intake	<u>GIARDIA</u> Little Falls Intake	CRYPTOSPORIDIUM Little Falls Intake
		ppm	uS/cm	ppm	ppm	ppm	°F	ppm	ppm	NTU	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	MPN/100mL	MPN/100mL	cysts/L	Oocysts/L	cysts/L	Oocysts/L
Jan	7.6	67	266	138	7	145	47	101	2.8	19	ND	ND	25	ND	1.9	ND	ND	0.4	23	4322	91	ND	ND	ND	ND
Feb	7.7	63	373	137	8	145	47	103	2.0	44	0.06	0.05	58	ND	2.0	ND	ND	0.4	22	140	4	ND	ND	ND	ND
Mar	7.7	75	316	180	4	184	55	114	1.8	10	ND	ND	34	ND	1.9	ND	ND	0.3	23	78	9	ND	ND	ND	ND
Apr	7.8	87	355	200	12	212	62	132	2.3	9	ND	ND	35	0.11	1.5	ND	ND	0.3	29	95	6	0.50	ND	0.60	0.30
May	7.6	67	275	114	ND	114	64	101	3.0	14	0.06	ND	26	ND	1.2	ND	ND	0.2	21	802	17	0.30	ND	0.10	0.20
Jun	7.7	76	289	144	12	156	77	114	3.1	12	ND	ND	23	ND	1.1	ND	ND	ND	27	1458	17	0.10	ND	0.40	ND
Jul	7.9	93	353	214	3	217	83	141	2.7	6	ND	0.05	31	0.12	0.9	ND	ND	0.3	34	1195	5	ND	ND	0.10	ND
Aug	8.0	87	255	229	2	231	82	129	3.1	10	0.05	0.05	32	0.12	0.8	ND	ND	0.4	36	1450	10	0.10	ND	0.10	ND
Sep	8.1	88	384	246	3	249	78	139	2.5	8	ND	0.06	35	0.14	0.3	ND	ND	0.5	48	896	16	ND	ND	ND	ND
Oct	8.1	101	396	253	7	260	65	150	3.3	8	0.05	0.05	33	0.15	1.0	ND	ND	1.8	47	187	5	ND	ND	ND	ND
Nov	8.1	125	468	254	2	256	55	180	2.6	4	0.06	0.05	39	0.16	0.8	ND	ND	0.3	51	50	3	ND	ND	ND	ND
Dec	8.0	112	427	243	ND	243	46	156	2.8	6	ND	0.06	41	0.14	1.2	ND	ND	0.3	45	3130	76	0.18	ND	0.84	ND

													Metals												
	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	САБМІИМ	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	ПТНІОМ	MAGNESIUM	MANGANESE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	SODIUM	STRONTIUM	THALLIUM	THORIUM	URANIUM	ZINC
	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Jan	177	ND	0.3	32	ND	ND	31	ND	ND	1.2	162	ND	1.5	6	33	0.4	1.2	ND	ND	15	124	ND	ND	ND	3.2
Feb	556	ND	ND	37	ND	ND	31	ND	0.2	1.6	247	0.3	1.6	6	52	0.7	1.3	ND	ND	21	129	ND	ND	ND	3.5
Mar	296	ND	0.3	32	ND	ND	36	ND	0.3	1.2	355	0.4	1.4	6	37	0.4	1.1	ND	ND	17	99	ND	ND	ND	3.0
Apr	269	ND	0.5	39	ND	ND	39	ND	0.2	1.4	181	0.2	1.8	8	85	0.5	1.2	ND	ND	19	157	ND	ND	0.2	6.1
May	827	ND	ND	38	ND	ND	30	ND	0.7	2.5	121	1.2	1.9	7	79	0.3	2.5	ND	ND	15	87	ND	ND	ND	6.3
Jun	157	ND	ND	38	ND	ND	35	ND	ND	3.7	170	0.2	2.0	6	73	0.7	0.9	ND	ND	15	137	ND	ND	ND	3.8
Jul	196	ND	ND	40	ND	ND	42	ND	0.2	3.1	182	0.2	1.8	9	82	0.8	1.3	ND	ND	17	167	ND	ND	0.2	5.6
Aug	331	ND	0.2	42	ND	ND	37	ND	0.3	3.1	388	0.5	1.7	9	76	1.1	1.5	ND	ND	20	127	ND	0.7	ND	4.3
Sep	206	ND	0.6	38	ND	ND	35	ND	0.3	2.5	111	ND	2.8	13	37	1.2	1.1	ND	ND	23	199	ND	ND	0.3	2.7
Oct	320	ND	0.3	50	ND	ND	44	ND	ND	3.2	177	0.3	3.1	10	57	1.2	1.6	ND	ND	19	216	ND	ND	0.3	3.8
Nov	225	ND	0.7	43	ND	ND	51	ND	ND	2.0	81	ND	2.8	13	33	1.0	1.2	ND	ND	25	247	ND	ND	0.3	3.1
Dec	138	ND	ND	40	ND	ND	46	ND	ND	2.5	183	0.3	2.7	10	18	0.8	1.4	ND	ND	25	205	ND	ND	0.3	4.1

ppm = Parts Per Million org/mL = Organisms per milliLiter ppb = Parts Per Billion
CFU/mL = Colony Forming Units per milliLiter

ND = Not Detected NTU = Nephelometric Turbidity Units MPN/100mL = Most Probable Number per 100 milliLiters µS/cm = microSiemens per centimeter "---" = No Analysis Required



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		ı		Ino	rganic	lons	ı	T					ı	1				ı			1	1	Metals	1		1					1					
	TOTAL AMMONIA - N	BROMIDE	CHLORIDE	FLUORIDE	NITRATE - N	NITRITE - N	ORTHOPHOSPHATE - PO4	PERCHLORATE	SULFATE	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	САБМІՍМ	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	ГІТНІОМ	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	SELENIUM	SILVER	SODIUM	STRONTIUM	THALLIUM	THORIUM	URANIUM	VANADIUM	ZINC
EPA MCL*				4	10	1					6	10	2000	4	5		100								2			50				2		30		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb
	Dale	carlia	Water	Trea	tment	Plant	Finis	hed V	/ater																											
Jan	0.7	ND	30	0.6	2.0	ND	2.4	0.4	37	15	0.3	0.2	27	ND	ND	31	ND	ND	0.7	ND	ND	1.1	7	0.8	ND	0.7	0.7	ND	ND	21	125	ND	ND	ND	ND	ND
Feb	0.7	ND	40	0.6	2.1	ND	2.5	0.3	36	14	ND	ND	32	ND	ND	33	ND	ND	1.0	ND	ND	1.2	6	0.9	ND	0.6	8.0	ND	ND	26	149	ND	ND	ND	ND	0.9
Mar	0.3	ND	36	0.7	2.0	ND	2.5	0.4	34	17	0.4	ND	30	ND	ND	38	ND	ND	0.6	ND	ND	1.1	6	0.6	ND	1.0	0.9	ND	ND	21	103	ND	ND	ND	ND	0.6
Apr	ND	ND	39	0.7	1.5	ND	2.5	0.3	38	29	ND	ND	33	ND	ND	40	ND	ND	1.2	ND	ND	1.6	8	0.6	ND	1.0	8.0	ND	ND	24	157	ND	ND	ND	ND	0.6
May	8.0	ND	32	0.7	1.4	ND	2.5	0.3	36	29	0.4	0.2	37	ND	ND	36	ND	ND	1.1	ND	ND	2.0	6	0.9	ND	1.3	0.9	ND	ND	20	163	ND	ND	ND	ND	8.0
Jun	0.8	ND	28	0.7	1.1	ND	2.4	ND	39	40	ND	0.2	34	ND	ND	38	ND	ND	0.8	ND	ND	1.9	6	0.5	ND	ND	0.9	ND	ND	22	142	ND	ND	ND	ND	ND
Jul	8.0	ND	34	0.7	0.9	ND	2.5	0.4	47	35	0.3	0.3	40	ND	ND	44	ND	ND	0.9	ND	ND	1.8	9	0.9	ND	1.0	0.7	ND	ND	23	183	ND	ND	ND	ND	ND
Aug	0.7	ND	38	0.8	8.0	ND	2.4	0.3	50	28	ND	0.3	37	ND	ND	40	ND	ND	1.0	ND	ND	2.5	9	0.9	ND	0.8	0.9	ND	ND	23	134	ND	0.6	ND	ND	ND
Sep	8.0	ND	40	0.8	0.3	ND	2.4	0.6	60	78	ND	0.4	35	ND	ND	36	ND	ND	1.2	ND	ND	2.1	13	1.5	ND	1.1	0.9	ND	ND	27	202	ND	ND	ND	ND	ND
Oct	0.7	ND	37	0.7	1.0	ND	2.3	1.4	60	42	ND	0.3	48	ND	ND	47	ND	ND	1.2	ND	ND	2.5	10	1.2	ND	1.1	1.2	ND	ND	24	229	ND	ND	ND	ND	0.6
Nov	0.7	ND	44	0.7	0.7	ND	2.3	0.3	65	43	ND	0.3	41	ND	ND	53	ND	ND	1.2	ND	ND	2.5	12	0.9	ND	1.0	1.0	ND	ND	29	251	ND	ND	ND	ND	8.0
	0.7	ND	44	0.7	1.2	ND	2.3	0.3	60	27	ND	ND	36	ND	ND	48	ND	ND	1.0	ND	ND	2.7	11	0.6	ND	8.0	1.0	ND	ND	31	216	ND	ND	ND	ND	0.9
	МсМ	illan V	Vater	Treatr	ment	Plant I	Finish	red W	ater	•			•		•	•	•	•																	,	
Jan	8.0	ND	28	0.6	1.9	ND	2.5	0.4	40	15	ND	ND	29	ND	ND	28	ND	ND	6.0	ND	ND	1.1	6	ND	ND	0.4	0.9	ND	ND	20	127	ND	ND	ND	ND	ND
Feb	8.0	ND	45	0.6	1.9	ND	2.6	0.4	37	18	ND	ND	32	ND	ND	27	ND	ND	3.7	ND	ND	1.2	6	0.3	ND	0.4	8.0	ND	ND	31	145	ND	ND	ND	ND	8.0
Mar	0.4	ND	37	0.7	1.8	ND	2.6	0.3	35	15	ND	ND	29	ND	ND	26	ND	ND	3.5	ND	ND	1.2	5	0.2	ND	0.7	0.7	ND	ND	25	98	ND	ND	ND	ND	ND
Apr	ND	ND	40	0.7	1.4	ND	2.5	0.5	39	33	0.3	ND	31	ND	ND	36	ND	ND	3.9	ND	ND	1.4	8	ND	ND	1.2	0.9	ND	ND	24	149	ND	ND	ND	ND	ND
May	0.8	ND	33	0.6	1.3	ND	2.5	0.6	38	28	ND	ND	39	ND	ND	28	ND	ND	6.9	ND	ND	2.0	7	0.3	ND	ND	1.0	ND	ND	22	176	ND	ND	ND	ND	ND
Jun	0.8	ND	29	0.7	1.1	ND	2.5	ND	38	75	ND	ND	34	ND	ND	30	ND	ND	8.1	ND	ND	2.1	5	43	ND	ND	1.1	ND	ND	20	134		ND	ND	ND	2.4
Jul	0.7	ND	34	0.7	0.9	ND	2.4	0.4	49	45	ND	ND	38	ND	ND	37	ND	ND	7.2	ND	ND	1.5	8	1.7	ND	0.7	0.6	ND	ND	23		ND	ND	ND	ND	ND
Aug	0.7	ND	37	0.8	8.0	ND	2.4	0.3	51	57	ND	0.3	42	ND	ND	36	ND	ND	7.5	ND	ND	2.3	10	0.6	ND	0.9	0.7	ND	ND	22	208	ND	ND	ND	ND	ND
Sep	0.8	ND	40	0.8	0.3	ND	2.4	1.1	60	60	ND	0.3	38	ND	ND	31	ND	ND	8.1	ND	ND	1.9	12	1.1	ND	1.1	0.7	ND	ND	27	208	ND	ND	ND	ND	0.5
Oct	8.0	ND	38	0.7	0.9	ND	2.4	0.8	60	33	ND	0.3	42	ND	ND	36	ND	ND	9.9	ND	ND	2.7	11	0.2	ND	1.0	1.1	ND	ND	27	217	ND	ND	ND	ND	ND
Nov	0.7	ND	43	0.7	0.7	ND	2.4	0.3	64	54	ND	0.2	41	ND	ND	43	ND	ND	11	ND	ND	2.4	12	ND	ND	0.9	1.0	ND	ND	28	241	ND	ND	ND	ND	ND
Dec	8.0	ND	40	0.7	1.1	ND	2.4	0.3	61	31	ND	ND	38	ND	ND	44	ND	ND	5.5	ND	ND	2.8	11	ND	ND	8.0	1.1	ND	ND	25	241	ND	ND	ND	ND	1.2

\*EPA MCL = Environmental Protection Agency's Maximum Contaminant Level for regulated parameters

ppm = Parts Per Million

ppb = Parts Per Billion



	ALINITY JUINITY JUINITY ORINE ANIC CARBON														Hal	oaceti	ic Aci	ds (HA	AAs)		Tri	halom	ethan	es (TH	Ms)					\	/olatile	e Orga	anic C	ompo	unds	(VOC	 3)				$\overline{}$
	Hd	ALKALINITY	CONDUCTIVITY	TEMPERATURE	CHLORINE	TOTAL HARDNESS	TOTAL ORGANIC CARBON	TOTAL DISSOLVED SOLIDS	TOTAL SUSPENDED SOLIDS	TURBIDITY (Average)*	TOTAL COLIFORM (% positive)	E. COLI (% positive)	HETEROTROPHIC PLATE COUNT	DIBROMOACETIC ACID	DICHLOROACETIC ACID	MONOBROMOACETIC ACID	MONOCHLOROACETIC ACID	TRICHLOROACETIC ACID	TOTAL HALOACETIC ACIDS	BROMOCHLOROACETIC ACID	CHLOROFORM	BROMODICHLOROMETHANE	CHLORODIBROMOMETHANE	BROMOFORM	TOTAL TRIHALOMETHANES	BENZENE	BROMOBENZENE	BROMOCHLOROMETHANE	BROMOMETHANE	tert-BUTYLBENZENE	sec-BUTYLBENZENE	n-BUTYLBENZENE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE	CHLOROMETHANE	2-CHLOROTOLUENE	4-CHLOROTOLUENE	DIBROMOMETHANE	1,3-DICHLOROBENZENE	1,4-DICHLOROBENZENE
EPA MCL*											%+	%+	CFU/mL	_												5	_						5	100			$\square$			$\vdash$	75
Units														ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
	Dale	carli	a Wa	ter Tı	reatm	nent F	Plant	Finis	shed	Wate	r																														
Jan	7.7	65	311	43	3.9	104	1.5	143	ND	0.04	0.0	0.0	<1								9.6	4.9	1.1	ND	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Feb	7.7	63	350	42	3.8	108	1.3	157	ND	0.03	0.0	0.0	<1	ND	7.7	ND	1.1	6.3	15	1.8	8.1	4.1	0.8	ND	13	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mar	7.7	73	347	54	3.2	121	1.2	190	ND	0.03	0.0	0.0	<1				-				7.0	5.2	2.1	ND	14	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Apr	7.7	83	381	62	3.1	132	1.7	224	ND	0.04	0.0	0.0	<1								20.7	9.1	2.0	ND	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Мау	7.7	68	331	64	3.6	113	1.7	146	ND	0.04	0.8	0.0	<1	ND	11.7	ND	1.6	12.4	26	2.4	21.4	7.4	1.0	ND	30	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Jun	7.7	74	334	77	3.5	117	2.0	177	2	0.04	0.0	0.0	2								52.4	13.3	1.6	ND	67	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Jul	7.7	90	388	84	3.6	148	2.0	239	ND	0.04	0.0	0.0	1								35.0	16.8	4.7	ND	56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aug	7.7	82	286	83	3.6	137	2.1	252	ND	0.04	0.8	0.0	4	1.2	16.6	ND	2.4	16.1	36	5.9	40.1	21.3	6.3	ND	68	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sep	7.7	83	418	79	3.7	145	1.8	270	ND	0.03	0.0	0.0	2								25.7	19.2	7.7	0.6	53	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oct	7.7	95	437	66	3.7	158	2.2	271	ND	0.03	0.0	0.0	3								25.8	16.1	3.9	ND	46	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov	7.7	116	500	54	3.7	183	1.9	271	ND	0.04	0.0	0.0	<1	ND	9.7	ND	1.1	11.0	22	4.4	19.1	14.8	4.3	ND	38	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7.7	108	465	44	3.8	163	1.9	277	ND	0.04	0.0	0.0	<1								8.5	11.3	5.9	ND	26	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
											ı		ı		ı								ı																		
		1			1		1	inish		1		0.0		1					1	I	1						l I						1								
	Jan 7.7 56 299 48 3.7 100 1.8 155 ND 0.04 0												14								8.5	6.3	1.8	ND	17	ND	ND		ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND
Feb	7.7	61	353	47	3.7	99	1.4	103		0.03		0.0	<1	ND	7.5	ND	1.2		14	2.7	7.1	5.3	1.6	ND	14	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
													3								12.3		3.2	ND	24	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Apr	7.7	74	372		3.1	125		219	ND	0.04		0.0	<1								11.5		3.0	ND	22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
													2	ND	13.0		1.8	14.6		3.7		11.8		ND	42	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Jun 7.7 62 314 76 3.7 106 2.1 176 4 0.04 0 Jul 7.7 77 375 81 3.7 135 1.9 221 ND 0.04 0												43								-	15.8		ND	55	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Jul	7.7	77	375		3.7	135						0.0	33								1	16.7		ND	66	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aug	7.7	76	283		3.7			224		0.04		0.0	15	1.1	18.0		1.9	17.1	38		<u> </u>	19.8		ND		ND		ND		ND	ND		ND	ND			ND	ND	ND		ND
Sep	7.7	74	407			133		248		-		0.0	12									19.7		0.6	63	ND		ND		ND	ND		ND	ND		ND	1				
Oct	7.7	85	420			143	-	264		-		0.0	7								_	16.9		ND	52	1	-	ND		ND	ND		ND	ND		ND	ND	ND		ND	ND
Nov	7.7	106	1		3.7	173	-			0.04		0.0	24	ND		ND	1.1		20	3.8	+	13.8		ND	39	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND	ND	ND
Dec	7.7	105	448	50	3.7	160	1.8	256	ND	0.04	0.0	0.0	40								11.0	10.8	3.9	ND	26	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

\*EPA MCL = Environmental Protection Agency's Maximum Contaminant Level for regulated parameters

Turbidity\* = Water turbidity after filters org/mL = Organisms per milliLiter

ppm = Parts Per Million
CFU/mL = Colony Forming Units per milliLiter

ppb = Parts Per Billion ND = Not Detected
NTU = Nephelometric Turbidity Units

"---" = No Analysis Required μS/cm = microSiemens per centimeter



			1				1	1	1				ı			Vo	atile (	Orgar	ic Co	mpoı	nds																		Охуо	jenate	es & C	Other \	/OCs		
	1,2-DICHLOROBENZENE	DICHLORODIFLUOROMETHANE	1,1-DICHLOROETHANE	1,2-DICHLOROETHANE	trans-1,2-DICHLOROETHYLENE	cis-1,2-DICHLOROETHYLENE	1,1-DICHLOROETHYLENE	1,3-DICHLOROPROPANE	2,2-DICHLOROPROPANE	1,2-DICHLOROPROPANE	trans-1,3-DICHLOROPROPENE	cis-1,3-DICHLOROPROPENE	1,1-DICHLOROPROPENE	ETHYLBENZENE	HEXACHLOROBUTADIENE	ISOPROPYLBENZENE	4-ISOPROPYLTOLUENE	METHYLENE CHLORIDE	NAPHTHALENE	n-PROPYLBENZENE	STYRENE	1,1,1,2-TETRACHLOROETHANE	1,1,2,2-TETRACHLOROETHANE	TETRACHLOROETHYLENE	TOLUENE	1,2,3-TRICHLOROBENZENE	1,2,4-TRICHLOROBENZENE	1,1,1-TRICHLOROETHANE	1,1,2-TRICHLOROETHANE	TRICHLOROETHYLENE	TRICHLOROFLUOROMETHANE	1,2,3-TRICHLOROPROPANE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	TOTAL XYLENES	VINYL CHLORIDE	2-BUTANONE (MEK)	4-METHYL-2-PENTANONE (MIBK)	DI-ISOPROPYL ETHER	METHYL TERT-BUTYL ETHER (MTBE)	TERT-AMYL ETHYL ETHER (TAME)	TERT-BUTYL ETHYL ETHER (TBEE)	BROMOETHANE	CARBON DISULFIDE	TRICHLOROTRIFLUOROETHANE
EPA MCL*	600			5	100	70	7			5				700				5			100			5	1000		70	200	5	5					10,000	2							1		
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
	Dale	carli	ia Wa	iter 1	Γreat	men	t Pla	nt Fi	nishe	ed W	ater		•												,					•	•														
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\*EPA MCL = Environmental Protection Agency's Maximum Contaminant Level for regulated parameters

ppb = Parts Per Billion



																				S	ynthe	etic O	rganio	c Com	poun	ds																			
	ACENAPHTHENE	ACENAPHTHYLENE	ACETOCHLOR	ACIFLOURFEN	ALACHLOR	ALDICARB	ALDICARB SULFONE	ALDICARB SULFOXIDE	ALDRIN	ANTHRACENE	AROCHLOR 1016 (PCBs)	AROCHLOR 1221 (PCBs)	AROCHLOR 1232 (PCBs)	AROCHLOR 1242 (PCBs)	AROCHLOR 1248 (PCBs)	AROCHLOR 1254 (PCBs)	AROCHLOR 1260 (PCBs)	TOTAL PCBs	ATRAZINE	BAYGON	BENTAZON	BENZ(a)ANTHRACENE	BENZO(b)FLUORANTHENE	BENZO(g,h,I)PERYLENE	BENZO(a)PYRENE	BENZO(K)FLUORATHENE	alpha-BHC	beta-BHC	delta-BHC	BROMACIL	BUTACHLOR	BUTYLBENZYLPHTHALATE	CAFFEINE	CARBARYL	CARBOFURAN	alpha-CHLORDANE	gamma-CHLORDANE	CHLORDANE	CHLORPYRIFOS (DURSBAN)	CHLOROBENZILATE	CHLORONEB	CHLOROTHALONIL	CHRYSENE	2,4-D	DALAPON
EPA MCL*					2													0.5	3						0.2										40			2						70	200
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
	Dale	carli	ia Wa	ater 1	Γreat	men	t Pla	nt Fi	nish	ed W	ater																																		
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\*EPA MCL = Environmental Protection Agency's Maximum Contaminant Level for regulated parameters

ppb = Parts Per Billion



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	2,4-DB	DCPA MONO & DIACID DEGRADATE	2,4'-DDD	2,4'-DDE	2,4'-DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	DIBENZ(a,h)ANTHRACENE	DICAMBA	3,5-DICHLOROBENZOIC ACID	DICHLORPROP	DICHLORVOS (DDVP)	DIELDRIN	DIETHYLPHTHALATE	di-(2-ETHYLHEXYL)ADIPATE	di-(2-ЕТНҮLHEXYL)РНТНАLATE	DIMETHOATE	DIMETHYLPHTHALATE	DI-N-BUTYLPHTHALATE	DI-N-OCTYLPHTHALATE	2,4-DINITROTOLUENE	2,6-DINITROTOLUENE	DINOSEB	DIQUAT	ENDOTHALL	ENDRIN	ENDRIN ALDEHYDE	EPTC	FLUORANTHENE	FLUORENE	GLYPHOSATE	HEPTACHLOR	HEPT ACHLOR EPOXIDE	HEXACHLOROBENZENE	HEXACHLOROCYCLOPENTADIENE	3-HYDROXYCARBOFURAN	INDENO(1,2,3,c,d)PYRENE	ISOPHORONE	LINDANE	ENDOSULFAN I (alpha)	ENDOSULFAN II (beta)	ENDOSULFAN SULFATE	MALATHION	METHIOCARB	METHOMYL	METHOXYCHLOR
EPA MCL*																400	6							7	20	100	2					700	0.4	0.2	1	50				0.2							40
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
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<sup>\*</sup>EPA MCL = Environmental Protection Agency's Maximum Contaminant Level for regulated parameters

ppb = Parts Per Billion



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Nov

### WASHINGTON AQUEDUCT, US ARMY CORPS OF ENGINEERS ANNUAL REPORT OF WATER ANALYSIS (2016)

										Synthet	ic Orga	nic Con	npounds	3										Miscell	aneous				Nitrosa	mines		
	METOLACHLOR	METRIBUZIN	MOLINATE	trans-NONACHLOR	OXAMYL	PARAQUAT	PARATHION	PENDIMETHALIN	PERMETHRIN	PENTACHLOROPHENOL	PHENANTHRENE	PICLORAM	PROPACHLOR	PYRENE	SIMAZINE	TERBACIL	TERBUTHYLAZINE	THIOBENCARB	TRIFLURALIN	TOXAPHENE	2,4,5-T	2,4,5-TP (SILVEX)	DIBROMOCHLOROPROPANE (DBCP)	ETHELYNE DIBROMIDE (EDB)	CYANIDE	2,3,7,8-TCDD (DIOXIN)	N-NITROSODIMETHYLAMINE (NDMA)	N-NITROSO-n-PROPYLAMINE (NDPA)	N-NITROSODIBUTYLAMINE (NDBA)	N-NITROSODIETHYLAMINE (NDEA)	N-NITROSOMETHYLETHYLAMINE (NMEA)	N-NITROSOPYROLIDINE (NPYR)
EPA MCL*					200					1		500			4					3		50	200	50	0.2	30						
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppt	ppt	ppm	ppq	ppt	ppt	ppt	ppt	ppt	ppt

#### **Dalecarlia Water Treatment Plant Finished Water**

	ND	8.3	ND	ND	ND	ND	ND																									
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#### **McMillan Water Treatment Plant Finished Water**

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Jun				-	-					-							-				-			-	-							
Jul	0.07	ND	0.07	ND	-	ND	ND	ND	ND	ND	ND	ND																				
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Nov																																
Dec																																

EPA MCL\* = Environmental Protection Agency's Maximum Contaminant Level for regulated parameters

ppb = Parts Per Billion (μg/L)

ppt = Parts Per Trillion (ng/L)

ND = Not Detected

"---" = No Analysis Required