

Washington Aqueduct

U.S. ARMY Corps of Engineers

Annual Report of Water Analysis 2014

Prepared by:

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Plant Operations Branch
Washington Aqueduct
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Washington, D.C. 20016-2514







Potomac River Raw Water Supply

				Miscella	neous Ph	ysical Pa	rameters	i							Inorga	nic lons						Mic	roorganis	ms	
	рн	ALKALINITY	CONDUCTIVITY	DISSOLVED SOLIDS	SUSPENDED SOLIDS	TOTAL SOLIDS	TEMPERATURE	TOTAL HARDNESS	TOTAL ORGANIC CARBON	TURBIDITY	TOTAL AMMONIA - N	BROMIDE	CHLORIDE	FLUORIDE	IODIDE	NITRATE - N	NITRITE - N	ORTHOPHOSPHATE - PO4	PERCHLORATE	SULFATE	ALGAE COUNT	TOTAL COLIFORM	<u>E. COLI</u>	GIARDIA	CRYPTOSPORIDIUM
		ppm	uS/cm	ppm	ppm	ppm	°F	ppm	ppm	NTU	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppb	ppm	org/mL	MPN/100mL	MPN/100mL	cysts/L	Oocysts/L
Jan	7.7	70	357	205	46	251	44	109	2.4	11	0.05	0.04	45	ND	ND	2.5	ND	ND	0.6	24	891	1668	30	ND	ND
Feb	7.7	65	401	142	18	160	46	102	2.3	13	0.06	0.05	64	ND		2.2	ND	ND	0.4	22	1684	411	8	ND	ND
Mar	7.7	69	322	157	ND	157	51	102	1.8	4	ND	ND	46	ND		2.0	ND	ND	0.3	23	1517	17	1	ND	ND
Apr	7.6	69	319	146	3	149	61	98	2.5	8	ND	ND	36	ND	ND	1.7	ND	ND	0.4	20	2076	2692	83	ND	ND
May	7.5	63	253	141	1	142	68	91	2.4	25	ND	ND	25	ND		1.6	ND	ND	0.3	19	1790	6609	170	ND	ND
Jun	7.7	84	306	141	12	153	76	114	2.7	15	ND	ND	28	ND		2.0	ND	ND	0.3	20	2116	1666	28	ND	ND
Jul	7.8	105	363	198	1	199	80	143	2.3	9	ND	ND	33	0.12	ND	1.7	ND	ND	0.5	29	2171	1146	5	ND	ND
Aug	7.8	104	396	220	ND	220	78	143	2.6	7	ND	ND	36	0.12		1.5	ND	ND	0.8	34	1286	1384	25	0.09	ND
Sep	8.0	107	420	235	ND	235	76	156	2.5	5	ND	0.05	38	0.14		1.2	ND	ND	0.5	47	1102	502	7	ND	ND
Oct	7.9	109	427	258	2	260	69	156	2.8	5	ND	0.04	39	0.13	ND	1.4	ND	ND	0.6	43	532	193	7	0.13	ND
Nov	8.0	114	432	212	ND	212	60	168	2.7	4	ND	0.04	39	0.12		1.4	ND	ND	0.6	40	384	376	9	0.18	ND
Dec	7.8	79	344	174	ND	174	52	120	3.0	9	ND	0.04	35	ND		1.9	ND	ND	0.6	28	1030	2606	13	ND	ND

														Metals													
	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	САБМІИМ	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	LITHIUM	MAGNESIUM	MANGANESE	MOLYBDENUM	NICKEL	POTASSIUM	SELENIUM	SILVER	SODIUM	STRONTIUM	THALLIUM	THORIUM	URANIUM	VANADIUM	ZINC
	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Jan	503	ND	0.5	33	ND	ND	34	1.5	ND	1.7	445	ND	1.8	6	42	ND	2.5	2.5	ND	ND	26	130	ND	ND	ND	ND	3.6
Feb	715	ND	0.6	38	ND	ND	31	1.6	0.6	2.0	761	8.0	2.3	6	49	ND	2.7		ND	ND	34	121	ND	ND	ND	0.7	4.9
Mar	177	ND	ND	33	ND	ND	31	0.7	ND	1.1	145	ND	2.0	6	43	ND	1.8		ND	ND	24	128	ND	ND	ND	ND	2.5
Apr	436	ND	ND	35	ND	ND	30	1.2	ND	1.7	444	0.5	1.7	6	68	ND	2.1	2.1	ND	ND	19	113	ND	ND	ND	0.5	3.3
May	553	ND	0.5	38	ND	ND	28	ND	ND	1.5	390	0.4	1.4	5	49	0.4	1.3		ND	ND	13	106	ND	ND	ND	ND	ND
Jun	482	ND	0.7	41	ND	ND	34	ND		1.8	296	0.4	1.4	7	42	0.4	1.6		ND	ND	15	134	ND	ND	ND		ND
Jul	197	ND	0.6	44	ND	ND	43	ND	ND	1.7	95	ND	1.8	8	44	0.4	1.2	3.6	ND	ND	19	184	ND	ND	ND	ND	ND
Aug	192	ND	0.6	44	ND	ND	42	ND	ND	1.9	118	ND	2.3	10	39	0.4	1.3		ND	ND	20	199	ND	ND	0.3	ND	ND
Sep	437	ND	0.5	45	ND	ND	44	ND	ND	2.7	79	ND	3.0	11	35	0.4	1.6		ND	ND	23	236	ND	ND	0.3	8.0	3.5
Oct	208	ND	0.4	42	ND	ND	45	ND	ND	2.0	66	ND	2.5	11	27	0.4	1.1	3.7	ND	ND	23	226	ND	ND	0.2	1.0	1.5
Nov	204	ND	ND	41	ND	ND	51	ND	ND	1.9	58	ND	2.4	10	23	0.5	0.9		ND	ND	22	238	ND	ND	ND	ND	1.8
Dec	230	ND	0.4	34	ND	ND	35	ND	ND	1.6	155	ND	1.6	8	23	0.5	0.9		ND	ND	19	148	ND	ND	ND	ND	4.6



				-	norgai	nic Ion	s																	Me	tals													
	TOTAL AMMONIA - N	BROMIDE	CHLORIDE	FLUORIDE	IODIDE	NITRATE - N	NITRITE - N	ORTHOPHOSPHATE - PO4	PERCHLORATE	SULFATE	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	САБМІИМ	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	LITHIUM	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	POTASSIUM	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	ppb	ppm	ppm	ppm	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb
						1									1		1	•			1																	
	Dale	carlia	Wate	r Trea	atmer	t Pla	nt Fin	ished	l Wate	er																												
Jan	0.7	ND	50	0.6	ND	2.4	ND	2.5	8.0	40	22	ND	ND	30	ND	ND	35	0.2	ND	8.0	ND	ND	1.3	6	1.1	ND	ND	1.5	2.5	ND	ND	33	142	ND	ND	ND	ND	1.0
Feb	0.7	ND	68	0.7		2.3	ND	2.5	0.4	39	20	ND	ND	31	ND	ND	35	ND	ND	8.0	ND	ND	1.6	6	8.0	ND	ND	1.6		0.6	ND	39	139	ND	ND	ND	ND	1.1
Mar	0.6	ND	46	0.6		2.1	ND	2.4	0.4	36	19	ND	ND	32	ND	ND	33	0.7	ND	0.8	ND	ND	1.5	6	0.6	ND	ND	1.7		0.6	ND	27	132	ND	ND	ND	ND	6.5
Apr	0.2	ND	39	0.7	ND	1.7	ND	2.4	0.4	34	20	ND	ND	33	ND	ND	33	0.6	ND	0.7	ND	ND	1.5	6	0.6	ND	ND	1.4	2.2	ND	ND	24	132	ND	ND	ND	0.3	0.7
May	0.6	ND	28	0.7		1.6	ND	2.4	0.3	34	18	ND	0.3	32	ND	ND	32	ND	ND	0.8	ND	ND	1.2	5	0.4	ND	0.3	8.0		ND	ND	19	111	ND	ND	ND	ND	ND
Jun	0.7	ND	33	0.7		2.0	ND	2.4	0.5	35	25	ND	0.3	36	ND	ND	36	ND	ND	0.8	ND	ND	1.3	7	0.5	ND	0.5	8.0		ND	ND	22	134	ND	ND	ND	ND	ND
Jul	0.6	ND	38	8.0	ND	1.7	ND	2.3	0.6	43	51	ND	0.4	41	ND	ND	45	0.3	ND	0.9	ND	ND	1.5	9	0.8	ND	0.6	1.0	3.2	ND	ND	25	195	ND	ND	ND	8.0	ND
Aug	0.7	ND	41	0.7		1.5	ND	2.3	0.9	49	52	ND	0.4	42	ND	ND	44	ND	ND	1.0	ND	ND	1.7	10	0.9	ND	0.9	0.9		ND	ND	26	201	ND	ND	ND	8.0	ND
Sep	0.7	ND	43	0.7		1.2	ND	2.2	0.7	61	66	ND	0.5	42	ND	ND	46	ND	ND	1.1	ND	ND	2.3	11	1.0	ND	1.0	1.1		ND	ND	29	235	ND	ND	ND	1.0	ND
Oct	0.8	ND	43	0.7	ND	1.4	ND	2.3	8.0	57	34	ND	0.4	40	ND	ND	47	ND	ND	1.3	ND	ND	2.1	11	0.6	ND	1.0	1.1	3.8	ND	ND	28	223	ND	ND	ND	0.7	8.0
Nov	0.7	ND	43	0.7		1.4	ND	2.3	0.7	54	24	ND	0.3	38	ND	ND	53	ND	ND	1.2	ND	ND	1.9	10	0.6	ND	0.9	8.0		ND	ND	26	237	ND	ND	ND	ND	1.3
Dec	0.7	ND	37	0.7		1.9	ND	2.4	0.6	44	19	ND	ND	31	ND	ND	38	ND	ND	1.0	ND	ND	1.7	8	8.0	ND	0.6	0.7		ND	ND	24	153	ND	ND	ND	ND	1.0
	McMi						t Finis				1	ı	ı			1		1	ı	1		1			1 1		-				-							
Jan	0.8	ND	45	0.7	ND	2.2	ND	2.5	0.6	41	29	ND	ND	29	ND	ND	27	ND	ND	3.4	ND	ND	1.2	6	ND	ND	ND	1.4	2.5	ND	ND	30	130	ND	ND	ND	ND	0.9
Feb	8.0		65	0.7		2.4	ND	2.6	0.5	41	19	ND	ND	33	ND	ND	28	0.6	ND	3.2	ND	ND	1.6	6	ND	ND	ND	1.8		0.7	ND	42	145	ND	ND	ND	ND	1.2
Mar	0.6	ND	47	0.7		2.0	ND	2.5	0.4	36	16	ND	ND	31	ND	ND	26	0.6	ND	2.5	ND	ND	1.4	6	ND	ND	ND	1.5		0.6	ND	30	126	ND	ND	ND	ND	1.4
Apr	0.3	ND	41	0.7	ND	1.6	ND	2.4	0.4	35	25	ND	ND	32	ND	ND	26	0.5	ND	2.3	ND	ND	1.4	6	ND	ND	ND	1.4	2.2	ND	ND	24	126	ND	ND	ND	0.2	1.0
May	0.7	ND	30	0.7		1.5	ND	2.4	0.3	35	22	ND	ND	32	ND	ND	25	ND	ND	2.9	ND	ND	1.2	5	ND	ND	0.3	0.8		ND	ND	20	112	ND	ND	ND	ND	ND
Jun	8.0	ND	33	0.7		1.7	ND	2.4	0.4	37	29	ND	ND	37	ND	ND	28	ND	ND	7.9	ND	ND	1.4	6	ND	ND	0.5	0.9		ND	ND	22	133	ND	ND	ND	ND	ND
Jul	0.6		37	8.0	ND	1.5	ND	2.3	0.5	43	55	ND	0.3	40	ND	ND	39	ND	ND	8.2	ND	ND	1.3	8	0.5	ND	0.5	0.9	3.1	ND	ND	23	167	ND	ND	ND	0.5	ND
Aug	0.7		40	0.7		1.4	ND	2.4	0.7	50	43	ND	0.3	42	ND	ND	36	ND	ND	8.3	ND	ND	1.6	10	0.6	ND	8.0	0.7		ND	ND	27	198	ND	ND	ND	-	ND
Sep	0.7	ND	43	8.0		1.2	ND	2.3	0.9	62	60	ND	0.3	42	ND	ND	41	ND	ND	8.4	ND		1.9	11	0.5	ND	0.9	1.0		ND	ND	29	230	ND	ND	ND	8.0	ND
Oct	0.8	ND	43	8.0	ND	1.3	ND	2.3	0.7	60	38	ND	0.3	40	ND	ND	43	ND	ND	11	ND	ND	2.1	11	0.5	ND	1.1	1.1	4.2	ND	ND	29	234	ND	ND	ND	0.3	ND
Nov	0.7	ND	41	0.7		1.4	ND	2.3	0.7	55	30	ND	ND	38	ND	ND	46	ND	ND	7.1	ND	ND	1.7	9	0.2	ND	0.9	0.9		ND	ND	26	227	ND	ND	ND	ND	0.7
Dec	0.7	ND	43	0.7		1.8	ND	2.4	0.7	48	18	ND	ND	33	ND	ND	32	ND	ND	5.7	ND	ND	1.9	9	ND	ND	0.7	8.0		ND	ND	27	173	ND	ND	ND	ND	1.0



																											•															
			Misce	llanec	us Ph	nysica	l Para	meters	s	1	N	licroo	rganisı	ns		Hal	oaceti	ic Aci	ds (HA	AAs)		Tril	nalom	ethan	es (TH	IMs)					١	/olatile	e Orga	anic C	ompo	unds	(VOCs	5)				
	Hd	ALKALINITY	CONDUCTIVITY	TEMPERATURE	CHLORINE	TOTAL HARDNESS	TOTAL ORGANIC CARBON	TOTAL DISSOLVED SOLIDS	TOTAL SUSPENDED SOLIDS	TURBIDITY (Average)*	TOTAL COLIFORM (% positive)	E. COLI (% positive)	ALGAE COUNT	HETEROTROPHIC PLATE COUNT	DIBROMOACETIC ACID	DICHLOROACETIC ACID	MONOBROMOACETIC ACID	MONOCHLOROACETIC ACID	TRICHLOROACETIC ACID	TOTAL HALOACETIC ACIDS	BROMOCHLOROACETIC ACID	CHLOROFORM	BROMODICHLOROMETHANE	CHLORODIBROMOMETHANE	ВКОМОГОКМ	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*																											5							5	100							75
Units		ppm	uS/cm	°F	ppm	ppm	ppm	ppm	ppm	NTU	%+	%+	org/mL	CFU/mL	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		Wat			1				Wate		1			1	1	1		1	1	1	1	1	1	1																	
Jan	7.7	67	409	41	3.9	113			1	0.03		0.0	5	1								4.4	3.9	1.7	ND	10	ND			ND	ND			ND	ND	ND	ND	ND	ND	-		ND
Feb	7.7	66	430	41	3.7	112		164	ND	1	-	0.0	16	<1	ND	7.3	ND	1.2	7.8	16	1.7	7.8	4.0	0.8	ND	13	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
Mar	7.7	67	357	47	3.4	108	-	188	1	1	-	0.0	0	<1								8.3	5.9	1.7	ND	16	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
Apr	7.7	69	372	58	3.2	108	-	190				0.0	0	<1								19.6		2.2	ND	31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
May	7.7	64	297	66	3.7	102		162	ND	1	-	0.0	0	<1	ND	9.0	ND	1.4	8.8	19	2.5	21.6		2.0	ND	33	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
Jun	7.7	81	351	76	3.7	119		194	1	1		0.0	0	<1									11.5	-	ND	42	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
Jul	7.7	99	403	81	3.7	147	1.7	220	1	1		0.0	5	1								36.4			ND	54	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
Aug	7.7	100	437	79	3.6	151	1.9	243		0.04		0.0	4	2	ND	16.4	ND	2.3	16.8	36	4.6		14.3		ND	50	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
Sep	7.7	101	452	76	3.7	161	1.8	253		0.04	-	0.0	11	3								30.7	16.2	-	ND	51	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
Oct	7.7	103	456	66	3.7	163		268	1	0.04		0.0	0	3								20.9			ND	36	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
Nov	7.7	109	452	52	3.7	173	-	238	ND			0.0	3	<1	ND	8.3	ND	1.2	9.9	19	3.8	16.3			ND	30	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
Dec	7.7	76	387	46	3.7	128	1.8	228	ND	0.04	0.0	0.0	3	<1								12.3	6.6	1.3	ND	20	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
				_																																						
						1			1	Nater			10		l	l	l		l	l	l		4 -				NID.	ND	NB	NB		ND		ND	N.D.	NB		NB		Lun	ND	
Jan	7.7	55	360	45	3.7	100		165	-	0.03		0.0	16	<1		7.5		4.4	7.6	46	2.4	7.5	4.7	1.4	ND	14	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND		ND
Feb	7.7	67	457	46 50	3.7	112		81		0.02	-	0.0	16	<1	ND	7.5		1.4	7.4	16	2.4	7.1	5.1	1.3	ND	14	ND	ND ND	ND ND		ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND ND		ND ND
Mar	7.7	58 58	360 344	60	3.4	99	1.3	182 188	ND 2	0.02		0.0	0	<1 1								7.3 19.4	5.7 8.1	1.8	ND ND	15 29	ND ND	ND	ND	ND	ND ND	ND ND	ND ND	ND	ND	ND ND	ND ND	ND ND	ND ND	ND		ND
Apr						92	1.5			0.03	-	0.0	0		ND	10.4	ND.	4.2	10.2	22	2.7			2.0		39			ND													ND
May	7.7	54 67	293	68	3.6			158				0.0	0	<1		10.4			10.3		2.7	27.6			ND									ND	ND	ND	ND	ND	ND	ND ND		
Jun Jul	_					-			_																															ND		-
Aug																																								ND		
Sep										0.04				35																										ND		
Oct										0.03																														ND		
Nov										0.02																														ND		
										0.03				<u> </u>	מא		_	1.4	13.4																					ND		
Dec	1.1	18	414	51	ა./	133	1.7	411	מא	0.02	0.0	0.0	U	\ 1								14.1	0.0	1.7	ND	24	ΝD	ΝD	ND		ΝD	ND	ND	ND	ΝD	ND	ИП	ND	ND	ND	מא	מא



		_																																											
																Vol	atile (Organ	ic Co	mpou	ınds																		Охус	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									
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
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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,l)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
				2													0.5	3						0.2										40			2		$\bigsqcup^{!}$	$\bigsqcup^{!}$			70	200
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	2,4-DB	DCPA MONO & DIACID DEGRADATE	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-ETHYLHEXYL)PHTHALATE	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	HEPTACHLOR 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			\Box	0.2							40
its	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	ppl
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WASHINGTON AQUEDUCT, US ARMY CORPS OF ENGINEERS **ANNUAL REPORT OF WATER ANALYSIS (2014)**

										Synthet	ic Orga	nic Con	npound	s											Nitrosa	amines				Rad	dionucli	des	
	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)	N-NITROSODIMETHYLAMINE (NDMA)	N-NITROSO-n-PROPYLAMINE (NDPA)	N-NITROSODIBUTYLAMINE (NDBA)	N-NITROSODIETHYLAMINE (NDEA)	N-NITROSOMETHYLETHYLAMINE (NMEA)	N-NITROSOPYROLIDINE (NPYR)	GROSS ALPHA PARTICLE ACTIVITY	GROSS BETA PARTICLE ACTIVITY	RADIUM-226 & RADIUM-228	STRONTIUM-90	TRITIUM
EPA MCL*					200					1		500			4					3		50							15	50**	5		
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	ppt	ppt	ppt	ppt	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L

Dalecarlia Water Treatment Plant Finished Water

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McMillan Water Treatment Plant Finished Water

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Apr	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND														
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Jul	ND	0.09	ND	3.1	ND	ND	ND	ND																									
Aug																																	
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EPA MCL* = Environmental Protection Agency's Maximum Contaminant Level for regulated parameters

ppb = Parts Per Billion (µg/L)

ppt = Parts Per Trillion (ng/L)

pCi/L = Picocuries Per Liter ND = Not Detected "---" = No Analysis Required

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Jan
Feb
Mar
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											Miscell	aneous										
	DIBROMOCHLOROPROPANE (DBCP)	ETHELYNE DIBROMIDE (EDB)	CYANIDE	2,3,7,8-TCDD (DIOXIN)	1,4-DIOXANE	CHLORATE	HEXAVALENT CHROMIUM	17 ALPHA-ETHYNYLESTRADIOL	17-BETA-ESTRADIOL	4-ANDROSTENE-3,17-DIONE	EQUILIN	ESTRIOL	ESTRONE	TESTOSTERONE	PERFLUOROOCTANESULFONIC ACID (PFOS)	PERFLUORO-1-BUTANESULFONIC ACID (PFBS)	PERFLUORO-1-HEXANESULFONIC ACID (PFHxS)	PERFLUOROHEPTANOIC ACID (PFHpA)	PERFLUORO-N-NONANIONIC ACID (PFNA)	PERFLUOROOCTANOIC ACID (PFOA)	1,3-BUTADIENE	CHLORODIFLUOROMETHANE
EPA MCL*	200	50	0.2	30																		
Units	ppt	ppt	ppm	ppq	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppt	ppt

Dalecarlia Water Treatment Plant Finished Water

	ND	ND	ND	ND	ND	200	0.09	ND														
	ND	ND	ND	ND	ND	140	0.09	ND														
	ND	ND		ND	ND	430	0.10	ND														
Ī	-		ND																			
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Ī	ND	ND	ND	ND	ND	330	0.06	ND														
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McMillan Water Treatment Plant Finished Water

Jan	ND	ND	ND	ND	ND	160	80.0	ND														
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Mar																	-			-		
Apr	ND	ND	ND	ND	ND	120	0.08	ND														
May																-						
Jun																						
Jul	ND	ND		ND	ND	250	0.10	ND														
Aug			ND																			
Sep																-						
Oct	ND	ND	ND	ND	ND	405	0.08	ND														
Nov																-						
Dec											-						-			-	-	

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

ppm = Parts Per Million

ppb = Parts Per Billion

ppt = Parts Per Trillion (ng/L) ppq = Parts Per Quadrillion (pg/L)

ND = Not Detected

"---" = No Analysis Required