



US Army Corps  
of Engineers  
Baltimore District




**Washington Aqueduct**

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

# **Annual Report of Water Analysis 2020**

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# WASHINGTON AQUEDUCT, US ARMY CORPS OF ENGINEERS ANNUAL REPORT OF WATER ANALYSIS (2020)

## Potomac River Raw Water Supply

	Miscellaneous Physical Parameters									Inorganic Ions									Microorganisms				
	pH	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	GIARDIA <i>Great Falls Intake</i>	CRYPTOSPORIDIUM <i>Great Falls Intake</i>
	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	
Jan	8.0	66	296	203	55	258	48	105	2.9	13	ND	ND	31	ND	2.1	ND	ND	0.3	22	5515	204	0.47	0.19
Feb	8.0	68	268	133	21	154	49	104	2.2	6	0.05	ND	26	ND	2.1	ND	ND	ND	23	833	78	0.09	0.19
Mar	8.0	75	279	154	3	157	57	111	2.6	5	ND	ND	30	ND	1.7	ND	ND	0.3	24	471	25	0.28	ND
Apr	7.8	63	236	132	101	233	61	97	2.5	8	---	ND	21	0.11	1.2	ND	ND	0.2	19	3568	834	0.09	ND
May	7.9	72	266	144	29	173	67	104	2.9	9	ND	ND	19	ND	1.3	ND	ND	0.2	22	1773	38	ND	ND
Jun	7.8	78	290	162	29	191	80	107	2.5	7	ND	ND	21	ND	1.1	ND	ND	0.2	22	18159	547	ND	ND
Jul	8.1	92	315	213	ND	213	86	132	2.6	6	ND	0.04	23	0.11	0.8	ND	ND	0.3	32	34508	88	ND	ND
Aug	7.9	93	321	239	17	256	80	133	3.5	7	ND	ND	23	0.12	1.0	ND	ND	ND	29	38448	543	ND	ND
Sep	8.2	96	357	199	2	201	73	141	2.8	5	ND	0.04	27	0.12	0.8	ND	ND	ND	34	7230	60	ND	ND
Oct	8.3	104	388	227	ND	227	64	157	2.2	3	ND	0.05	32	0.15	0.7	ND	ND	0.2	45	1600	25	0.28	ND
Nov	8.0	96	350	168	14	182	53	142	3.0	6	ND	ND	29	0.12	1.0	ND	ND	0.2	37	5108	404	0.28	ND
Dec	7.8	70	273	164	16	180	44	109	3.2	12	ND	ND	29	ND	1.6	ND	ND	0.2	21	9498	505	---	---

	Metals																								
	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	LITHIUM	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	379	ND	ND	33	ND	ND	30	ND	0.5	2.2	356	0.7	1.4	7	54	0.6	1.2	ND	ND	16	104	ND	ND	0.2	5.9
Feb	211	ND	ND	38	ND	ND	30	ND	0.3	1.8	319	0.4	1.8	7	38	ND	1.1	ND	ND	13	131	ND	ND	ND	5.0
Mar	143	ND	ND	34	ND	ND	32	ND	0.2	1.4	235	0.3	1.7	8	35	ND	0.9	ND	ND	14	138	ND	ND	ND	ND
Apr	432	ND	ND	35	ND	ND	27	ND	0.6	2.1	582	0.7	1.8	7	62	ND	1.3	ND	ND	12	117	ND	ND	ND	6.0
May	438	ND	ND	43	ND	ND	30	ND	1.2	2.4	765	1.4	2.4	7	87	ND	2.4	ND	ND	10	97	ND	ND	0.2	8.7
Jun	148	ND	0.6	40	ND	ND	32	ND	0.3	1.8	227	0.3	2.3	7	31	ND	1.0	ND	ND	11	151	ND	ND	ND	ND
Jul	123	ND	0.6	42	ND	ND	38	ND	0.3	2.4	565	0.4	2.1	9	34	0.7	1.1	ND	ND	14	148	ND	ND	0.3	3.4
Aug	543	ND	1.5	42	ND	0.2	38	ND	0.8	6.3	1004	3.2	2.7	8	55	0.7	2.3	ND	ND	13	148	ND	0.5	0.3	7.6
Sep	212	ND	0.6	43	ND	ND	40	ND	0.4	1.7	334	0.3	2.2	10	57	0.8	1.1	ND	ND	16	172	ND	ND	0.2	ND
Oct	120	ND	ND	40	ND	ND	44	ND	ND	1.5	97	ND	3.4	11	21	1.0	0.9	ND	ND	19	243	ND	ND	0.4	ND
Nov	145	ND	ND	46	ND	ND	41	ND	ND	2.1	202	0.3	3.3	10	41	1.0	1.1	ND	ND	15	239	ND	ND	0.3	ND
Dec	291	ND	ND	37	ND	ND	32	ND	0.4	2.7	608	0.6	1.8	7	68	0.7	1.3	ND	ND	14	144	ND	ND	0.2	6.1



# WASHINGTON AQUEDUCT, US ARMY CORPS OF ENGINEERS ANNUAL REPORT OF WATER ANALYSIS (2020)

	Inorganic Ions										Metals																											
	TOTAL AMMONIA - N	BROMIDE	CHLORIDE	FLUORIDE	NITRATE - N	NITRITE - N	ORTHOPHOSPHATE - PO4	PERCHLORATE	SULFATE	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	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	ppm	ppm	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb	
<b>Dalecarlia Water Treatment Plant Finished Water</b>																																						
Jan	0.8	ND	37	0.6	2.1	ND	2.6	0.3	37	18	ND	ND	32	ND	ND	35	ND	ND	1.2	ND	ND	1.4	7	0.7	ND	ND	0.6	2.6	ND	ND	21	136	ND	ND	ND	ND	0.8	
Feb	0.8	ND	27	0.6	2.0	ND	2.6	0.3	37	20	ND	ND	31	ND	ND	33	ND	ND	0.9	ND	ND	1.3	7	0.6	ND	ND	0.6	---	ND	ND	16	125	ND	ND	ND	ND	0.8	
Mar	0.7	ND	32	0.6	1.7	ND	2.4	0.3	34	19	ND	ND	32	ND	ND	36	ND	ND	1.0	ND	ND	1.3	7	0.6	ND	ND	0.6	---	ND	ND	20	132	ND	ND	ND	ND	0.9	
Apr	---	ND	25	0.7	1.3	ND	2.5	0.2	33	14	ND	ND	29	ND	ND	31	ND	ND	1.0	ND	ND	1.7	7	0.7	ND	ND	ND	1.9	ND	ND	15	120	ND	ND	ND	ND	ND	
May	0.8	ND	23	0.7	1.3	ND	2.5	ND	34	26	ND	ND	27	ND	ND	31	ND	ND	0.7	ND	ND	1.8	6	0.8	ND	ND	0.5	---	ND	ND	16	94	ND	ND	ND	ND	ND	
Jun	0.9	ND	26	0.7	1.1	ND	2.4	ND	39	47	ND	ND	37	ND	ND	37	ND	ND	1.0	ND	ND	1.9	7	0.7	ND	ND	0.5	---	ND	ND	19	164	ND	ND	ND	ND	ND	
Jul	0.8	ND	29	0.7	0.9	ND	2.4	0.9	46	41	ND	ND	41	ND	ND	41	ND	ND	ND	ND	ND	2.0	9	0.7	ND	0.6	0.6	2.7	ND	ND	20	161	ND	ND	ND	ND	ND	
Aug	0.9	ND	29	0.7	0.9	ND	2.5	ND	48	69	ND	0.4	45	ND	ND	41	ND	ND	1.2	ND	ND	2.1	8	1.1	ND	1.0	0.6	---	ND	ND	20	219	ND	ND	ND	1.0	ND	
Sep	0.9	ND	31	0.7	0.9	ND	2.4	0.2	43	44	ND	0.3	34	ND	ND	42	ND	ND	1.1	ND	ND	1.7	9	0.9	ND	0.8	0.6	---	ND	ND	20	176	ND	ND	ND	0.7	ND	
Oct	0.8	ND	35	0.7	0.8	ND	2.4	0.2	55	71	ND	0.2	39	ND	ND	47	ND	ND	1.2	ND	ND	1.7	10	1.0	ND	0.9	0.7	3.2	ND	ND	23	234	ND	ND	ND	ND	0.5	
Nov	0.8	ND	33	0.7	1.0	ND	2.5	0.2	52	18	ND	ND	37	ND	ND	43	ND	ND	1.6	ND	ND	1.9	10	0.8	ND	0.8	0.8	---	ND	ND	22	200	ND	ND	ND	ND	0.7	
Dec	0.8	ND	33	0.6	1.4	ND	2.5	0.2	42	25	ND	ND	36	ND	ND	36	ND	ND	1.3	ND	ND	1.6	7	0.8	ND	0.6	0.7	---	ND	ND	25	195	ND	ND	ND	ND	0.9	
<b>McMillan Water Treatment Plant Finished Water</b>																																						
Jan	0.7	ND	35	0.7	2.2	ND	2.5	0.3	38	13	ND	ND	31	ND	ND	31	ND	ND	4.5	ND	ND	1.2	8	0.2	ND	ND	0.6	2.6	ND	ND	21	134	ND	ND	ND	ND	0.8	
Feb	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mar	0.7	ND	35	0.7	1.6	ND	2.4	0.3	35	26	ND	ND	32	ND	ND	32	ND	ND	6.3	ND	ND	1.2	7	ND	ND	0.5	0.7	---	ND	ND	19	134	ND	ND	ND	ND	0.8	
Apr	---	ND	27	0.7	1.2	ND	2.5	0.3	34	29	ND	ND	31	ND	ND	25	ND	ND	3.9	ND	ND	1.5	6	ND	ND	ND	0.6	2.0	ND	ND	17	137	ND	ND	ND	ND	ND	
May	0.8	ND	23	0.7	1.2	ND	2.5	ND	34	24	ND	ND	27	ND	ND	24	ND	ND	9.9	ND	ND	1.7	6	ND	ND	ND	0.6	---	ND	ND	16	106	ND	ND	ND	ND	ND	
Jun	0.9	ND	28	0.7	1.0	ND	2.5	0.2	37	61	ND	ND	38	ND	ND	31	ND	ND	10.2	ND	ND	1.8	7	0.3	ND	ND	ND	---	ND	ND	18	164	ND	ND	ND	ND	ND	
Jul	0.9	ND	30	0.7	0.9	ND	2.5	0.5	46	25	ND	ND	38	ND	ND	31	ND	ND	10.1	ND	ND	2.1	9	0.3	ND	ND	0.5	2.6	ND	ND	20	136	ND	ND	ND	ND	ND	
Aug	0.9	ND	31	0.7	0.9	ND	2.5	0.7	49	43	ND	0.3	45	ND	ND	35	ND	ND	9.7	ND	ND	1.9	7	0.5	ND	1.0	ND	---	ND	ND	21	207	ND	ND	ND	0.7	ND	
Sep	0.9	ND	31	0.7	0.8	ND	2.5	0.3	45	37	ND	0.2	36	ND	ND	33	ND	ND	7.7	ND	ND	1.7	8	ND	ND	0.7	ND	---	ND	ND	20	180	ND	ND	ND	0.5	ND	
Oct	0.9	ND	36	0.7	0.8	ND	2.5	0.2	55	62	ND	0.2	40	ND	ND	42	ND	ND	7.5	ND	ND	1.6	10	ND	ND	0.9	0.6	3.2	ND	ND	22	222	ND	ND	ND	ND	ND	
Nov	0.9	ND	34	0.7	0.8	ND	2.5	0.2	55	39	ND	ND	39	ND	ND	38	ND	ND	8.8	ND	ND	1.8	10	ND	ND	0.8	0.7	---	ND	ND	23	217	ND	ND	ND	ND	ND	
Dec	0.9	ND	37	0.6	1.3	ND	2.5	0.2	44	15	ND	ND	36	ND	ND	29	ND	ND	8.1	ND	ND	1.8	7	ND	ND	0.5	0.7	---	ND	ND	24	189	ND	ND	ND	ND	ND	



**WASHINGTON AQUEDUCT, US ARMY CORPS OF ENGINEERS  
ANNUAL REPORT OF WATER ANALYSIS (2020)**

EPA MCL*	Miscellaneous Physical Parameters									Microorganisms			Haloacetic Acids (HAAs)						Trihalomethanes (THMs)				Volatile Organic Compounds (VOCs)																								
	pH	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						
																										5									5	100										75	
Units	ppm	uS/cm	°F	ppm	ppm	ppm	ppm	ppm	NTU	%+	%+	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	ppb	ppb	ppb	ppb	ppb	ppb	ppb

**Dalecarlia Water Treatment Plant Finished Water**

Jan	7.7	62	340	48	3.7	114	1.6	238	3	0.02	0.0	0.0	<1	---	---	---	---	---	---	9.8	6.2	1.9	ND	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
Feb	7.7	63	298	48	3.5	112	1.4	158	ND	0.01	0.0	0.0	<1	ND	8.9	ND	1.2	8.6	19	2.2	9.7	5.3	1.3	ND	16	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Mar	7.7	73	311	54	3.4	118	1.5	175	ND	0.02	0.0	0.0	<1	---	---	---	---	---	---	10.4	7.0	2.2	ND	20	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Apr	7.7	62	285	57	3.3	99	1.6	178	ND	0.02	0.8	0.0	<1	---	---	---	---	---	---	22.3	8.2	1.7	ND	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
May	7.7	65	297	62	3.5	104	1.6	162	ND	0.02	0.0	0.0	<1	ND	9.7	ND	1.5	11.5	23	2.2	17.8	7.5	1.4	ND	27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
Jun	7.7	74	334	75	3.7	114	1.5	183	ND	0.02	0.0	0.0	1	---	---	---	---	---	---	29.4	9.8	1.8	ND	41	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Jul	7.7	86	353	82	3.7	137	1.9	242	ND	0.02	0.0	0.0	2	---	---	---	---	---	---	32.3	13.7	4.5	ND	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Aug	7.7	86	348	79	3.7	135	2.4	260	ND	0.03	0.0	0.0	3	1.2	23.3	ND	3.1	25.6	53	5.3	53.8	16.6	3.2	ND	74	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Sep	7.7	90	362	71	3.7	141	2.1	208	ND	0.02	0.0	0.0	3	---	---	---	---	---	---	32.4	12.8	3.1	ND	48	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Oct	7.7	98	413	63	3.8	159	1.8	251	ND	0.02	0.0	0.0	2	---	---	---	---	---	---	14.4	12.7	6.0	ND	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Nov	7.7	91	387	52	3.6	147	2.1	225	ND	0.02	0.0	0.0	<1	ND	12.2	ND	1.5	15.4	29	3.8	19.8	10.4	2.5	ND	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Dec	7.7	69	328	43	3.6	119	1.9	199	ND	0.02	0.0	0.0	<1	---	---	---	---	---	---	11.4	6.2	1.4	ND	19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**McMillan Water Treatment Plant Finished Water**

Jan	7.7	61	338	50	3.7	110	1.6	---	---	0.01	0.0	0.0	<1	---	---	---	---	---	---	10.1	6.1	1.6	ND	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Feb	-	-	-	-	-	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Mar	7.7	65	307	58	3.6	111	1.5	172	ND	0.02	0.0	0.0	4	---	---	---	---	---	---	10.9	7.0	ND	ND	18	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Apr	7.7	56	281	61	2.9	98	1.7	176	ND	0.02	0.0	0.0	25	---	---	---	---	---	---	22.8	8.1	1.8	ND	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
May	7.7	55	278	64	3.5	94	1.8	147	ND	0.02	0.0	0.0	<1	ND	10.9	ND	1.3	11.2	23	2.1	23.5	10.0	2.4	ND	36	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Jun	7.7	67	319	75	3.7	110	1.6	168	ND	0.03	0.0	0.0	37	---	---	---	---	---	---	46.2	10.9	1.9	ND	59	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Jul	7.7	73	334	81	3.7	123	1.6	220	ND	0.02	0.0	0.0	57	---	---	---	---	---	---	34.6	13.4	4.2	ND	52	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Aug	7.7	77	348	78	3.7	127	2.0	258	ND	0.03	0.0	0.0	54	1.3	22.3	ND	2.8	22.6	49	5.3	50.3	16.3	3.7	ND	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Sep	7.7	79	343	72	3.7	129	1.9	202	ND	0.03	0.0	0.0	26	---	---	---	---	---	---	29.2	13.6	4.4	ND	47	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Oct	7.7	91	403	66	3.7	152	1.7	249	ND	0.02	0.8	0.0	6	---	---	---	---	---	---	16.8	12.0	5.5	ND	34	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Nov	7.7	85	384	57	3.7	142	1.9	232	ND	0.02	0.0	0.0	4	ND	11.2	ND	1.5	13.0	26	4.2	19.3	12.2	3.8	ND	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Dec	7.7	68	338	52	3.7	116	2.0	199	ND	0.02	0.0	0.0	4	---	---	---	---	---	---	13.2	6.4	1.3	ND	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	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  
 ppm = Parts Per Million  
 ppb = Parts Per Billion  
 ND = Not Detected  
 "..." = No Analysis Required  
 \*.. = McMillan Water Treatment Plant out of service  
 Turbidity\* = Water turbidity after filters  
 CFU/mL = Colony Forming Units per milliLiter  
 NTU = Nephelometric Turbidity Units  
 uS/cm = microSiemens per centimeter  
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WASHINGTON AQUEDUCT, US ARMY CORPS OF ENGINEERS  
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EPA MCL*	Volatile Organic Compounds																														Oxygenates & Other VOCs															
	1,2-DICHLOROETHYLENE	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	TRICHLOROFLUOROETHANE	
600				5	100	70	7				5			700						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	ppb

Dalecarlia Water Treatment Plant Finished Water

Jan	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Feb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Mar	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Apr	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
May	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Jun	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Jul	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Aug	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Sep	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Oct	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dec	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

McMillan Water Treatment Plant Finished Water

Jan	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Feb	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Mar	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Apr	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
May	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Jun	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Jul	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aug	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
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Oct	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dec	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND







# WASHINGTON AQUEDUCT, US ARMY CORPS OF ENGINEERS ANNUAL REPORT OF WATER ANALYSIS (2020)

EPA MCL*	Synthetic Organic Compounds																									Miscellaneous				Nitrosamines						Radionuclides				
	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)	N-NITROSOMORPHOLINE	N-NITROSOPIPERIDINE (NPIP)	GROSS ALPHA PARTICLE ACTIVITY	GROSS BETA PARTICLE ACTIVITY	RADIUM-226 & RADIUM-228	STRONTIUM-90	TRITIUM	
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	ppt	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L		
					200				1		500			4						3		50	200	50	0.2	30									15	50**	5			

### Dalecarlia Water Treatment Plant Finished Water

Jan	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
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Apr	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
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Oct	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
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### McMillan Water Treatment Plant Finished Water

Jan	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Feb	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
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Apr	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
May	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
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Jul	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
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EPA MCL\* = Environmental Protection Agency's Maximum Contaminant Level for regulated parameters      ppm = Parts Per Million (mg/L)      ppb = Parts Per Billion (µg/L)      ppt = Parts Per Trillion (ng/L)      ppq = Parts Per Quadrillion (pg/L)      pCi/L = Picocuries Per Liter  
 \*\* = McMillan Water Treatment Plant out of service      \*\* The MCL for beta and photon emitters is 4 mrem/year and EPA considers 50 pCi/L to be the level of concern for beta/photon emitters.      ND = Not Detected