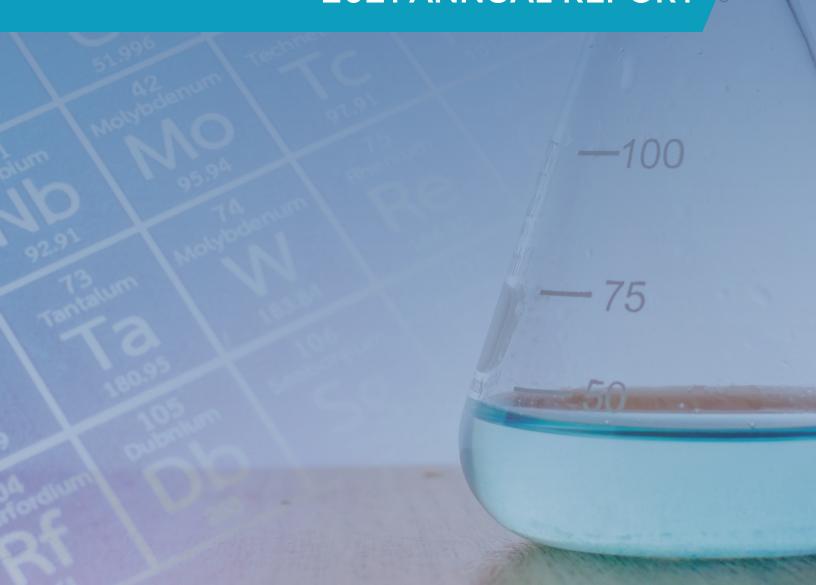


Detailed Water Quality Reports of Samples Collected in 2021

## **APPENDIX B**

Metro Vancouver Water Quality Control Annual Report for 2021

## DRINKING WATER QUALITY 2021 ANNUAL REPORT



## **APPENDIX A**

Detailed Water Quality Reports of Samples Collected in 2021

## DRINKING WATER QUALITY 2021 ANNUAL REPORT

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		Apper	Appendix A: Drinking Water Station Locations- City of Burnaby Sites (2021)	station	Locations- City of Burn	naby Sites (2021)	
Site Code	Location	Water Source	Pressure Zone	Flow Type	Main Composition	Main Size (mm)	Parameters Analyzed
BUR-490K	8550 Barnet Highway	SEY	Barnet	Q	AC/ST/DI	250/300/200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-491K	7400 Block Fraser Park Drive	SEY/COQ	Big Bend	٦	IQ	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-492K	5700 Block Marine Drive	SEY/COQ	Big Bend	Σ	C	250	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-493K	7740 20th St. (10th Ave. Res.)	SEY	Big Bend	Q	IQ	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-494K	3700 Block Banting Place	SEY/COQ	Big Bend	Q	IQ	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-495K	8400 Block Nelson Avenue	SEY/COQ	Big Bend	٦	IQ	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-496K	8200 Block Wiggins Street	SEY/COQ	Big Bend	Q	IQ	250	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-497K	8300 Block Willard Street	SEY/COQ	Big Bend	٥	IQ	250	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-498K	9001 Riverway Place	SEY/COQ	Big Bend	٦	IQ	250	Bacteriology, Turbidity, Temp., Free Chlorine, DBP
BUR-499K	3800 Block North Fraser Way	SEY/COQ	Big Bend	Σ	IQ	250	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-500K	5400 Block Dundas Street	SEY	Capitol Hill	Σ	IQ	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-529K	4800 Block Penzance	SEY	Hastings	٦	Cl	300	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-530K	400 Block Northcliffe Crescent	SEY	Hastings	٦	IQ	150	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-560K	3600 Brighton Avenue	SEY/CAP	Central Valley	Σ	IQ	300	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-561K	6100 Block Deer Lake Parkway	SEY/CAP	Central Valley	Μ	IQ	200	Bacteriology, Turbidity, Temp., Free Chlorine, Metals, DBP
BUR-562K	1300 Block Gilmore Street	SEY/CAP	Central Valley	Q	DI	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-563K	6200 Block Kingsland Lougheed Hwy	SEY/CAP	Central Valley	Σ	IQ	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-564K	4388 Still Creek Drive	SEY/CAP	Central Valley	٦	IQ	250	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-565K	5700 Block Laurel Street	SEY/CAP	Central Valley	Ν	DI	250	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-566K	4200 Block Garden Grove Drive	SEY/CAP	Central Valley	Μ	AC	150	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-567K	SS of CG Brown Pool, Sprott St	SEY/CAP	Central Valley	Ν	IQ	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-568K	3800 Block Phillips Street	SEY/CAP	Central Valley	Σ	AC	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-569K	3200 Block Smith Avenue	SEY	Hospital	٦	IQ	300	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-570K	6000 Buckingham Drive	SEY	Stanley	Σ	IQ	200	Bacteriology, Turbidity, Temp., Free Chlorine, Metals
BUR-572K	8500 Block Forest Grove Drive	SEY	Forest Grove	Ν	DI	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-573K	4400 Block Dundas St	SEY	North Burnaby	Σ	DI	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-574K	200 Block Gilmore	SEY	North Burnaby	7	IQ	250	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-575K	1100 Block Madison	SEY	North Burnaby	Σ	IQ	250	Bacteriology, Turbidity, Temp., Free Chlorine, DBP
BUR-576K	6100 Block Curtis Street	SEY	North Burnaby	٦	AC	300	Bacteriology, Turbidity, Temp., Free Chlorine

		Apper	ndix A. Drinking Water Station Locations- City of Burnaby Sites (2021)	tation L	ocations- City of Buri	naby Sites (2021)	
Site Code	Location	Water Source	Pressure Zone	Flow Type	Main Composition	Main Size (mm)	Parameters Analyzed
BUR-577K	1471 Heathdale Drive	SEY	North Burnaby	٦	IQ	150	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-578K	1600 Block Burnwood Drive	SEY	North Burnaby	Σ	IG	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-579K	3800 Block Ingleton	SEY	Hospital	Σ	IG	250	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-580K	4400 Block Moscrop Street	SEY	Hospital	٦	IQ	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-581K	7900 Block Kaymar Street	SEY/COQ	Joffre-Patterson	Σ	IQ	150	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-582K	8100 Block 16th Avenue	SEY/COQ	Kingsway	Σ	AC	200	Bacteriology, Turbidity, Temp., Free Chlorine, Metals
BUR-583K	7500 Block Edmonds Street	SEY/COQ	Kingsway	Σ	IG	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-584K	7200 Block Edmonds Street	SEY/COQ	Kingsway	Σ	IQ	250	Bacteriology, Turbidity, Temp., Free Chlorine, DBP, pH
BUR-585K	5400 Block Rumble Street	SEY/COQ	Kingsway	٦	IG	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-586K	3800 Block Rumble Street	SEY/COQ	Kingsway	Σ	IG	200	Bacteriology, Turbidity, Temp., Free Chlorine, Metals, DBP
BUR-587K	4400 Block Kingsway	SEY/COQ	Kingsway	_	D	250	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-588K	7500 Block Cumberland Street	SEY/COQ	Kingsway	Σ	IQ	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-589K	6500 Block Marlborough Street	SEY/COQ	Kingsway	Σ	D	150	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-590K	6100 Block Imperial Street	SEY/COQ	Kingsway	٦	IQ	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-592K	9800 Block Lyndhurst Street	SEY	Lake City	٦	PVC	250	Bacteriology, Turbidity, Temp., Free Chlorine, Metals
BUR-593K	3390 Lake City Way	SEY	Lake City	L	IG	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-594K	9000 Centaurus Circle	SEY	Lake City	٦	IG	200	Bacteriology, Turbidity, Temp., Free Chlorine, DBP
BUR-595K	Rochester West of North Road	SEY	Lake City	Σ	IQ	150	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-596K	561 Duthie Avenue	SEY	North Burnaby	Σ	IG	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-597K	Univ. High St. & Univ. Cresc.	SEY	Simon Fraser	D	IG	300	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-660K	North Road Across From Hume Park	SEY/CAP/COQ	Lake City	٦	AC	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-661K	5300 Block Kira Court	SEY/CAP/COQ	Hospital	L	Cl	150	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-668K	1000 Block Ayshire Drive	SEY/CAP/COQ	Curtis-Duthie	٦	IG	150	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-669K	Gatenby & Monarch	SEY/CAP/COQ	Kincaid	٦	IG	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-800K	7400 Block Mulberry Place	SEY/CAP/COQ	Cariboo	L	IG	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-850K	4300 Block Vipond Place	SEY/CAP/COQ	Kingsway	D	IG	150	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-851K	9200 Block Holmes Street	SEY/CAP/COQ	Kingsway	7	DI	200	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-852K	7200 Block Gibson Street	SEY/CAP/COQ	North Burnaby	_	DI	150	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-853K	1500 Block Sperling Avenue	SEY/CAP/COQ	North Burnaby	_	AC	200	Bacteriology, Turbidity, Temp., Free Chlorine

		Apper	Appendix A: Drinking Water Station Locations- City of Burnaby Sites (2021)	station I	ocations- City of Burr	naby Sites (2021)	
Site Code	Location	Water Source	Pressure Zone	Flow Type	Main Composition	Main Size (mm)	Parameters Analyzed
BUR-854K	5500 Block Carson Street	SEY/CAP/COQ	South Slope	_	IQ	150	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-855K	5000 Block Manor Street	SEY/CAP/COQ	Central Valley	٦	IQ	150	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-856K	Centennial Reservoir	SEY	Centennial	RES	IQ	200	Bacteriology, Turbidity, Temp., Free Chlorine, DBP
BUR-857K	Curtis Reservoir	SEY	Curtis-Duthie	RES	IQ	250	Bacteriology, Turbidity, Temp., Free Chlorine
BUR-858K	Sanderson Way	SEY	Central Valley	Σ	PVC	200	Vinyl Chloride
BUR-859K	192 North Warwick	SEY	Capitol Hill	Σ	CI	100	Bacteriology, Turbidity, Temp., Free Chlorine
			ш	xplanat	Explanatory Notes:		
Flow Types:	Flow Types: M = medium flow		SEY:	Seymou	SEY: Seymour Reservoir	Bacteriology:	Bacteriology: E. Coli, Total Coliform, Herterotrophic Plate Count
	$L=low\ flow$ D = unlooped lines with very low flow		COQ: CAP:	Coquitla	COQ: Coquitlam Reservoir CAP: Capilano Reservoir	DBP:	DBP: Disinfection byproducts
	RES = reservoir						

		Drinking Water Re	Drinking Water Reports By Station - (	City of Burnaby Sites (2021)	Sites (2021)			
Sample Name	Sample Type	Description	Sampled Date		Ecoli CFU/100mLs	Total Coliform CFU/100mLs	Turbidity NTU	HPC CFU/mL
			7-Jan-21	0.3	<1	<1	0.29	2
			22-Jan-21	0.36	<1	<1	0.2	2
			4-Feb-21	0.26	<1	<1	0.2	<2
			16-Feb-21	0.43	<1	<1	0.22	<2
			3-Mar-21	0.39	<1	<1	0.3	<2
			16-Mar-21	1.38	<1	<1	0.22	<2
			30-Mar-21	0.57	<1	<1	0.23	<2
			13-Apr-21	0.63	<1	<1	0.21	<2
			30-Apr-21	0.85	<1	<1	0.21	10
			12-May-21	0.53	<1	<1	0.3	<2
			26-May-21	0.37	<1	<1	0.19	<2
			10-Jun-21	0.26	<1	<1	0.24	<2
700V GII a	avac	907.0 Days	22-Jun-21	1.32	<1	<1	0.3	2
700 1-400	מאס		7-Jul-21	0.54	<1	<1	0.48	32
			20-Jul-21	0.19	<1	<1	0.24	9
			3-Aug-21	0.19	<1	<1	0.19	130
			18-Aug-21	0.37	<1	<1	0.25	150
			31-Aug-21	0.21	<1	<1	0.22	<2
			15-Sep-21	0.31	<1	<1	6.0	<2
			29-Sep-21	0.21	<1	<1	0.17	<2
			13-0ct-21	0.47	<1	<1	0.22	14
			26-0ct-21	0.36	7	<1	0.32	2
			9-Nov-21	0.43	7	<1	0.24	2
			23-Nov-21	0.45	<1	<1	0.2	<2
			7-Dec-21	1.14	<1	<1	0.2	<2
			21-Dec-21	0.73	<1	<1	0.2	NA
			4-Jan-21	0.54	<1	<1	0.17	2
			21-Jan-21	9.0	<1	<1	0.11	<2
			5-Feb-21	0.54	<1	<1	0.2	<2
			18-Feb-21	0.77	<1	<1	0.7	<2
			4-Mar-21	0.5	<1	<1	0.26	2
			17-Mar-21	0.48	<1	<1	0.27	<2
			31-Mar-21	0.64	<1	<1	0.1	2
			14-Apr-21	0.57	<1	<1	0.21	<2
			27-Apr-21	0.78	<1	<1	0.15	<2
			11-May-21	0.53	<1	<1	0.21	<2
			25-May-21	0.46	<1	<1	0.21	<2
			9-Jun-21	0.47	<1	<1	0.14	<2
N118_401K	avas	Foot of Byrne Boad	23-Jun-21	0.53	<1	<1	0.28	<2
100	5		6-Jul-21	0.47	<1	<1	0.31	<2
			21-Jul-21	0.48	<1	<1	0.28	<2
			4-Aug-21	0.5	<1	<1	0.31	<2
			17-Aug-21	0.17	<1	<1	2.1	<2
			1-Sep-21	0.36	<1	<1	0.28	<2

		Drinking Water Re	Drinking Water Reports By Station - City of Burnaby Sites (2021)	City of Burnaby	v Sites (2021)			
				Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	Sample Type	Description	Sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			14-Sep-21	0.3	<1	<1	1.9	2
			28-Sep-21	0.18	<1	<1	0.2	<2
			14-Oct-21	67.0	1>	<1	0.14	<2
			27-0ct-21	6.0	1>	<1	0.23	9
			10-Nov-21	67.0	1>	<1	0.21	4
			24-Nov-21	0.38	<1	<1	0.13	2
			8-Dec-21	0.47	<1	<1	0.14	<2
			22-Dec-21	0.45	<1	<1	0.29	AN
BUR-492K	GRAB	5700 BIk Marine Drive	4-Jan-21	0.84	<1	<1	0.19	<2
			21-Jan-21	0.71	<1	<1	0.18	<2
			5-Feb-21	65'0	1>	<1	0.13	<2
			18-Feb-21	68.0	<1	<1	0.34	<2
			4-Mar-21	0.81	<1	<1	0.38	<2
			17-Mar-21	0.83	<1	<1	0.31	<2
			31-Mar-21	82'0	<1	<1	0.2	<2
			14-Apr-21	2.0	1>	<1	0.17	<2
			27-Apr-21	6.73	1>	<1	0.15	<2
			11-May-21	99'0	1>	<1	0.1	<2
			25-May-21	0.58	<1	<1	0.13	<2
			9-Jun-21	0.63	<1	<1	0.24	2
			23-Jun-21	0.81	<1	<1	0.57	<2
BUR-492K	GRAB	5700 Blk Marine Drive	6-Jul-21	0.79	4	<1	0.29	<2
			21-Jul-21	9.0	4	<1	0.68	<2
			4-Aug-21	0.62	7	\ <u></u>	0.32	<2
			17-Aug-21	69.0	4	<1	0.32	<2
			1-Sep-21	0.46	7	<1	0.32	<2
			15-Sep-21	0.73	< <u>1</u>	<1	0.34	<2
			28-Sep-21	0.55	<1	<1	0.17	2
			14-Oct-21	0.47	1>	<1	0.25	<2
			27-0ct-21	65'0	<1	<1	0.16	2
			10-Nov-21	6.73	<1	<1	0.16	<2
			24-Nov-21	99'0	<1	<1	0.18	2
			8-Dec-21	0.54	<1	<1	0.13	<2
			22-Dec-21	66'0	1>	<1	0.2	NA
			4-Jan-21	9.0	1>	<1	0.21	2
			21-Jan-21	85.0	1>	<1	0.14	<2
			5-Feb-21	0.55	<1	<1	0.25	<2
			18-Feb-21	2.0	1>	<1	0.31	<2
			4-Mar-21	0.51	<1	<1	0.32	<2
			17-Mar-21	0.7	<1	<1	0.28	<2
			31-Mar-21	0.7	<1	<1	0.14	2
			14-Apr-21	0.89	<1	<1	0.24	<2
			27-Apr-21	0.73	<1	<1	0.17	<2
			11-May-21	0.61	<1	<1	0.25	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	Sites (2021)			
	1	C		Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
sample Name	sample Type	Description	sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			25-May-21	0.61	<1	<1	0.26	<2
			9-Jun-21	0.48	1>	<1	0.27	<2
7007 0110	a V a U	7740 30th St (10th Av. Bec)	23-Jun-21	0.64	<1	<1	0.33	<2
ACC+-ACC	פלאס	7.40 ZOULOU (TOUL AVE. NES.)	6-Jul-21	0.64	<1	<1	0.31	8
			21-Jul-21	0.57	<1	<1	0.38	2
			4-Aug-21	0.79	<1	<1	0.31	4
			17-Aug-21	95'0	<1	<1	0.34	56
			1-Sep-21	0.82	<1	<1	0.26	2
			15-Sep-21	9.0	1>	<1	0.33	<2
			28-Sep-21	8.0	<1	<1	0.2	2
			14-Oct-21	0.57	1>	<1	0.35	12
			27-0ct-21	0.61	<1	<1	0.43	12
			10-Nov-21	0.61	<1	<1	0.48	38
			24-Nov-21	0.57	<1	<1	0.28	12
			8-Dec-21	0.46	<1	<1	0.21	12
			22-Dec-21	0.63	<1	<1	0.41	NA
NOV-BIID-AGAK	BVG5	2700 BIL Banting Blace	4-Jan-21	9.0	<1	<1	0.19	<2
DON-494N	d AND	3700 bin barring riace	21-Jan-21	0.39	<1	<1	0.12	<2
			5-Feb-21	0.21	<1	<1	0.27	<2
			18-Feb-21	6.0	1>	<1	0.17	<2
			4-Mar-21	0.28	1>	<1	0.4	<2
			17-Mar-21	0.13	1>	<1	0.2	<2
			31-Mar-21	0.21	<1	<1	0.16	<2
			14-Apr-21	0.11	1>	<1	0.15	<2
			27-Apr-21	0.21	<1	<1	0.15	<2
			11-May-21	0.1	<1	<1	0.26	<2
			25-May-21	0.21	<1	<1	0.29	<2
			9-Jun-21	0.04	1>	<1	0.2	16
			23-Jun-21	80:0	<1	<1	0.18	18
BIID_AGAK	a V a U	2700 Blt Banting Blace	6-Jul-21	0.19	<1	<1	0.31	<2
7464	מַלְינָ	טיטט פון אינוייון אינויין פון ניין טיטעט	21-Jul-21	0.17	<1	<1	0.25	09
			4-Aug-21	0.09	<1	1	0.29	30
			17-Aug-21	0.13	<1	<1	0.24	32
			1-Sep-21	0.23	<1	<1	0.39	100
			14-Sep-21	0.25	<1	<1	0.22	230
			28-Sep-21	0.13	<1	<1	0.13	82
			14-Oct-21	0.15	<1	<1	0.24	230
			27-0ct-21	0.19	1>	<1	0.21	130
			10-Nov-21	90:0	<1	<1	0.18	130
			24-Nov-21	0.31	<1	<1	0.18	24
			8-Dec-21	0.39	<1	<1	0.17	2
			22-Dec-21	0.36	<1	<1	0.21	NA
			4-Jan-21	99:0	<1	<1	0.11	<2
			21-Jan-21	0.67	<1	<1	0.13	<2

		Drinking Water Reports By Station -	ports By Station -	City of Burnaby Sites (2021)	, Sites (2021)			
Sample Name	Sample Type	Description	Sampled Date	Chlorine Free mg/L	Ecoli CFU/100mLs	Total Coliform CFU/100mLs	Turbidity NTU	HPC CFU/mL
			5-Feb-21	0.55	<1	<1	0.17	<2
			18-Feb-21	0.83	<1	<1	0.22	<2
			4-Mar-21	0.54	<1	<1	0.34	<2
			17-Mar-21	0.61	<1	<1	0.28	<2
			31-Mar-21	9.0	<1	<1	0.1	<2
			14-Apr-21	0.65	<1	<1	0.14	<2
			27-Apr-21	0.68	<1	<1	0.12	<2
			11-May-21	0.62	<1	<1	0.09	<2
			25-May-21	0.49	<1	<1	0.16	<2
			9-Jun-21	0.59	<1	<1	0.11	<2
RIIR_AGEK	GRAB	SAOO BIK Neisen	23-Jun-21	0.66	<1	<1	0.22	<2
V004-V00			6-Jul-21	0.46	<1	<1	0.26	<2
			21-Jul-21	0.41	<1	<1	0.41	9
			4-Aug-21	0.5	<1	<1	0.33	28
			17-Aug-21	0.23	<1	<1	0.17	<2
			1-Sep-21	0.3	<1	<1	0.26	8
			14-Sep-21	0.33	<1	<1	0.26	<2
			28-Sep-21	0.5	<1	<1	0.27	<2
			14-Oct-21	0.32	<1	<1	0.12	<2
			27-Oct-21	0.51	<1>	<1	0.17	<2
			10-Nov-21	0.55	<1	<1	0.14	<2
			24-Nov-21	0.56	<1	<1	0.3	<2
			8-Dec-21	0.55	<1	<1	0.11	<2
			22-Dec-21	0.62	<1	<1	0.2	NA
			4-Jan-21	0.78	<1	<1	0.2	<2
BUR-496K	GRAB	8255 Wiggins St.	5-Feb-21	0.49	<1	<1	0.3	<2
			18-Feb-21	0.38	<1	<1	0.3	<2
			4-Mar-21	0.4	<1	<1	0.37	<2
			17-Mar-21	0.35	<1	<1	0.21	<2
			31-Mar-21	0.68	<1	<1	0.15	<2
			14-Apr-21	0.6	<1	<1	0.22	2
			27-Apr-21	0.47	<1	<1	0.17	4
			11-May-21	0.38	<1	<1	0.22	<2
			25-May-21	0.26	<1	<1	0.29	2
			9-Jun-21	0.17	<1	<1	0.17	4
			23-Jun-21	0.43	<1	<1	0.22	<2
			6-Jul-21	0.63	<1	<1	0.39	<2
7907 0110	avas	9255 Wigning St	21-Jul-21	0.67	<1	<1	0.29	<2
2001		0200 WIBBIIIS OF.	4-Aug-21	0.59	<1	<1	0.28	4
			17-Aug-21	0.39	<1	<1	0.22	<2
			1-Sep-21	0.5	<1	<1	0.24	<2
			14-Sep-21	0.58	<1	<1	0.22	<2
			28-Sep-21	0.41	<1	<1	0.2	4
			14-Oct-21	0.43	<1	<1	0.18	9

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	Sites (2021)			
Sample Name	Sample Type	Description	Sampled Date	Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
				mg/L	CFU/100mLs	CFU/100mLs	UTN	CFU/mL
			27-0ct-21	0.33	√1	<1	0.15	<2
			10-Nov-21	0.37	<b>\_1</b>	<1	0.23	<2
			24-Nov-21	0.48	<b>1</b>	<1	0.15	<2
			8-Dec-21	0.52	<b>~</b> 1	<1	0.12	<2
			22-Dec-21	0.5	<1	<1	0.27	NA
			4-Jan-21	0.71	<b>\_1</b>	<1	0.23	<2
			21-Jan-21	0.45	<1	<1	0.13	<2
			5-Feb-21	0.55	<1	<1	0.27	<2
			18-Feb-21	0.43	<1	<1	0.2	<2
			4-Mar-21	0.43	<1	<1	0.37	<2
			17-Mar-21	0.35	<1	<1	0.27	<2
			31-Mar-21	0.42	<1	<1	0.15	<2
			14-Apr-21	0.35	<1	<1	0.19	<2
			27-Apr-21	0.48	<1	<1	0.19	<2
			11-May-21	0.43	<1	<1	0.29	<2
			25-May-21	0.47	<1	<1	0.23	<2
			9-Jun-21	0.22	<1	<1	0.14	<2
7/507 GIIG	9 9 9	(2010 1) (Saint 8, Wind St. (Saint 8, Wind St.	23-Jun-21	0.18	<1	<1	0.2	4
DOR-497A	akyp D	6500 bik Willald St. (5pul & Wiggils)	6-Jul-21	0.57	<1	<1	0.29	<2
			21-Jul-21	0.13	<1	<1	0.23	10
			4-Aug-21	0.23	<1	<1	0.24	06
			17-Aug-21	0.21	<1	<1	0.48	<2
			1-Sep-21	98.0	<1	<1	6.0	16
			14-Sep-21	0.24	<1	<1	0.29	52
			28-Sep-21	0.1	<1	<1	0.24	20
			14-Oct-21	0.16	<1	<1	0.18	24
			27-0ct-21	0.18	<1	<1	0.16	2
			10-Nov-21	0.23	<1	<1	0.16	<2
			24-Nov-21	0.23	7	<1	0.19	<2
			8-Dec-21	0.34	<b>~</b> 1	<1	0.16	<2
			22-Dec-21	0.32	7	<1	0.21	NA
			4-Jan-21	0.81	√1	<1	0.13	<2
			21-Jan-21	0.63	7	<1	0.13	<2
BUR-498K	GRAB	9001 Riverway Place	5-Feb-21	0.59	<b>\_</b>	<1	0.15	<2
			18-Feb-21	0.87	7	<1	0.22	<2
			4-Mar-21	0.52	<1	<1	0.3	<2
			17-Mar-21	0.64	<1	<1	0.25	<2
			31-Mar-21	0.57	<1	<1	0.14	<2
			14-Apr-21	0.65	<1	<1	0.2	2
			27-Apr-21	99:0	<1	<1	0.14	<2
			11-May-21	0.56	<1	<1	0.22	<2
			25-May-21	69.0	<b>~</b> 1	<1	0.16	<2
			9-Jun-21	0.57	<1	<1	0.14	<2
			23-Jun-21	0.61	<1	<1	0.16	<2

		Drinking Water Reports By Station - (	ports By Station -	City of Burnaby Sites (2021)	Sites (2021)			
Sample Name	Sample Type	Description	Sampled Date	Chlorine Free mg/L	Ecoli CFU/100mLs	Total Coliform CFU/100mLs	Turbidity NTU	HPC CFU/mL
			6-Jul-21	0.72	<1	<1	0.28	<2
			21-Jul-21	0.65	<1	<1	0.37	<2
BUR-498K	GRAB	9001 Riverway Place	4-Aug-21	0.69	<1	<1	0.26	2
			17-Aug-21	0.44	7	<1	0.28	<2
			1-Sep-21	0.42	<1	<1	0.28	<2
			14-Sep-21	0.34	<1	<1	0.22	4
			28-Sep-21	0.35	<1	<1	0.21	<2
			14-0ct-21	0.38	<1	<1	0.16	<2
			27-Oct-21	0.35	<1	<1	0.17	2
			10-Nov-21	0.48	<1	<1	0.13	4
			24-Nov-21	9.0	<1	<1	0.12	<2
			8-Dec-21	0.51	<1	<1	0.15	<2
			22-Dec-21	0.68	7	<1	0.21	AN
			4-Jan-21	0.64	<b>\_</b>	<1	0.15	<2
			21-Jan-21	0.63	<1	<1	0.13	<2
			5-Feb-21	0.56	<1	<1	0.2	<2
			18-Feb-21	0.53	<1	<1	0.21	<2
			4-Mar-21	0.49	<1	<1	0.27	<2
			17-Mar-21	0.51	< <u>1</u>	<1	0.26	2
			31-Mar-21	9.0	<b>\</b>	<1	0.17	<2
			14-Apr-21	0.59	<b>\_</b>	<1	0.21	<2
			27-Apr-21	0.45	<b>\</b>	<1	0.23	<2
			11-May-21	0.58	< <u>1</u>	<1	0.21	<2
			25-May-21	0.54	7	<1	0.25	<2
			9-Jun-21	0.57	7	<1	0.15	<2
200	(		23-Jun-21	0.47	7	<1	0.28	2
DOR-499N	GRAD	3900 bik North Flaser Way	6-Jul-21	0.49	<1	<1	0.28	<2
			21-Jul-21	0.52	<1	<1	0.41	<2
			4-Aug-21	0.4	<1	<1	0.26	<2
			17-Aug-21	0.28	<1	<1	0.28	<2
			1-Sep-21	0.32	<1	<1	0.28	8
			14-Sep-21	0.27	<1	<1	0.21	2
			28-Sep-21	0.32	<1	<1	0.33	14
			14-0ct-21	0.5	<1	<1	0.18	4
			27-0ct-21	0.49	<1	<1	0.17	<2
			10-Nov-21	0.63	<1	<1	0.17	<2
			24-Nov-21	0.38	<1	<1	0.14	<2
			8-Dec-21	0.43	<1	<1	0.14	<2
			22-Dec-21	9.0	<1	<1	0.28	NA
			7-Jan-21	99.0	<1	<1	0.19	<2
			22-Jan-21	0.83	<1	<1	0.16	10
BIIR-500K	BVBS	5400 Blk Dillages St	4-Feb-21	0.6	<1	<1	0.2	<2
200	פניס	טייט טייט טייט טייט טייט טייט טייט טיי	16-Feb-21	0.76	<1	<1	0.12	<2
			3-Mar-21	0.53	<1	<1	0.12	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	Sites (2021)			
	1	:		Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	Sample Type	Description	Sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			16-Mar-21	9.0	<1	<1	0.15	<2
			30-Mar-21	0.71	<1	<1	0.12	<2
			13-Apr-21	69:0	<1	<1	0.2	2
			30-Apr-21	0.47	<1	<1	0.12	2
			12-May-21	0.72	<1	<1	0.13	9
			26-May-21	69.0	<1	<1	0.12	8
			10-Jun-21	8.0	<1	<1	0.11	4
			22-Jun-21	0.44	1>	<1	0.2	<2
			7-Jul-21	0.81	<1	<1	0.15	4
			20-Jul-21	0.57	<1	<1	0.19	<2
			3-Aug-21	0.49	<1	<1	0.24	4
BUR-500K	GRAB	5400 Blk Dundas St.	18-Aug-21	0.53	1>	<1	0.28	18
			31-Aug-21	95'0	1>	<1	0.15	<2
			15-Sep-21	0.62	1>	<1	0.16	4
			29-Sep-21	0.54	<1	<1	0.15	<2
			13-0ct-21	98'0	<1	<1	0.27	12
			26-Oct-21	0.59	<1	<1	0.17	12
			9-Nov-21	0.58	<1	<1	0.14	12
			23-Nov-21	99'0	<1	<1	0.18	9
			7-Dec-21	0.29	1>	<1	0.29	2
			21-Dec-21	69'0	1	1	8.2	NA
			22-Dec-21	0.77	<1	<1	0.17	NA
			7-Jan-21	0.68	<1	<1	0.14	8
			22-Jan-21	0.71	1>	<1	0.37	8
			4-Feb-21	62'0	<1	<1	0.23	<2
			16-Feb-21	6.0	<1	<1	60'0	<2
			3-Mar-21	0.73	1>	<1	0.13	20
			16-Mar-21	0.81	<1	<1	0.2	<2
			30-Mar-21	0.77	<1	<1	0.21	12
			13-Apr-21	0.78	<1	<1	0.27	8
			30-Apr-21	0.8	<1	<1	0.4	2
			12-May-21	0.83	<1	<1	0.16	<2
			26-May-21	0.77	<1	<1	0.11	12
			10-Jun-21	0.83	<1	<1	0.16	22
BIIR-579K	avas	5200 Alk Denzance	22-Jun-21	0.68	<1	<1	0.44	20
NC2C-1100			7-Jul-21	0.73	<1	<1	1.5	30
			20-Jul-21	0.64	<1	<1	0.24	48
			3-Aug-21	0.61	<1	<1	0.37	80
			18-Aug-21	99:0	<1	<1	0.2	40
			31-Aug-21	0.77	<1	<1	0.4	82
			15-Sep-21	0.74	<1	<1	0.21	8
			29-Sep-21	99:0	<1	<1	1.3	30
			13-0ct-21	0.76	<1	<1	2.6	270
			26-0ct-21	0.78	<1	<1	0.77	48

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	, Sites (2021)			
				Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	Sample Type	Description	Sampled Date		CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			9-Nov-21	0.73	<1	<1	0.24	80
			23-Nov-21	0.74	<1	<1	0.16	16
			7-Dec-21	0.81	<1	<1	0.19	150
			21-Dec-21	0.83	<1	<1	0.21	NA
			7-Jan-21	0.67	<1	<1	0.14	<2
			22-Jan-21	0.61	<1	<1	0.11	<2
BIID_530K	BVBS	And Bit Northeliffe	4-Feb-21	0.66	<1	<1	0.16	<2
NUCC-NUG	g GVVD	400 BIN NOLCIFIN	16-Feb-21	0.67	<1	<1	0.13	<2
			3-Mar-21	99.0	<1	<1	60:0	<2
			16-Mar-21	0.47	<1	<1	0.2	<2
			30-Mar-21	0.52	<1	<1	0.14	<2
			13-Apr-21	9.0	<1	<1	0.28	<2
			30-Apr-21	0.69	<1	<1	80.0	8
			12-May-21	0.62	<1	<1	0.1	<2
			26-May-21	0.62	<1	<1	0.12	2
			10-Jun-21	0.58	<1	<1	0.11	<2
			22-Jun-21	0.52	<1	<1	0.15	<2
			7-Jul-21	0.63	4	<1	0.1	28
			20-Jul-21	0.4	<1	<1	0.13	<2
NC5 GIIG	avas	ADO BIV Northaliffa	3-Aug-21	0.49	<1	<1	0.23	10
200	ָבָּרָאָבָּרָ בַּיּרָאָבָרָ		18-Aug-21	0.49	<1	<1	0.18	18
			31-Aug-21	0.26	<1	<1	0.14	<2
			15-Sep-21	0.65	<1	<1	0.14	<2
			29-Sep-21	0.33	<1	<1	0.18	<2
			13-0ct-21	0.5	<1	<1	0.18	22
			26-Oct-21	0.57	<1	<1	0.21	14
			9-Nov-21	0.58	<1	<1	0.12	4
			23-Nov-21	0.68	<1	<1	0.16	2
			7-Dec-21	0.5	<1	<1	0.13	4
			21-Dec-21	0.93	<b>\1</b>	<1	0.22	NA
			15-Jan-21	0.72	<1	<1	0.12	<2
			28-Jan-21	0.93	<1	<1	0.33	<2
			9-Feb-21	0.78	<1	<1	0.29	<2
			25-Feb-21	0.72	<1	<1	0.1	<2
			11-Mar-21	0.69	<1	<1	0.1	<2
			26-Mar-21	0.71	<1	<1	0.15	<2
			8-Apr-21	0.39	<1	<1	0.12	<2
			22-Apr-21	0.66	<1	<1	0.19	<2
			6-May-21	0.68	<1	<1	0.34	42
			19-May-21	0.58	<1	<1	0.27	09
			4-Jun-21	0.75	<1	<1	0.38	34
			17-Jun-21	0.87	<1	<1	0.26	58
BUR-560K	GRAB	3600 Blk Brighton	30-Jun-21	0.46	<1	<1	0.34	<2
			14-Jul-21	0.73	<1	<1	0.26	22

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	, Sites (2021)			
				Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	Sample Type	Description	Sampled Date		CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			28-Jul-21	0.62	<1	<1	0.28	99
			11-Aug-21	0.53	<1	<1	0.27	10
			24-Aug-21	0.64	<1	<1	0.24	8
			7-Sep-21	0.76	<1	<1	0.26	460
			22-Sep-21	0.38	<1	<1	0.34	10
			6-0ct-21	0.52	<1	<1	0.17	<2
			20-0ct-21	0.61	<1	<1	0.13	<2
			3-Nov-21	0.61	<1	<1	0.13	<2
			17-Nov-21	0.72	<1	<1	0.13	<2
			1-Dec-21	69:0	<1	<1	0.13	<2
			15-Dec-21	0.57	<1	<1	0.13	9
			15-Jan-21	0.74	<1	<1	0.19	<2
			28-Jan-21	0.56	<1	<1	0.13	4
			9-Feb-21	0.83	<1	<1	0.11	<2
DIID E61K	avac	sialio, 8, 2000/32/20 0/4 12000	25-Feb-21	0.78	<1	<1	0.11	2
NTOC-NOG	a Kup	Deel Lake raikway & Gipiii	11-Mar-21	0.63	<1	<1	60.0	<2
			26-Mar-21	0.77	<1	<1	0.17	<2
			8-Apr-21	0.71	<1	<1	0.08	<2
			22-Apr-21	0.77	<1	<1	0.17	2
			6-May-21	0.67	<1	<1	0.18	2
			19-May-21	0.76	<1	<b>\_</b>	0.18	2
			4-Jun-21	0.74	7	< <u>1</u>	0.15	<2
			17-Jun-21	0.55	7	7	0.77	9
			30-Jun-21	0.7	7	<1	0.36	2
			14-Jul-21	0.61	<b>\_</b>	7	0.64	4
			28-Jul-21	0.68	< <u>1</u>	< <u>1</u>	0.27	2
			11-Aug-21	0.76	<b>~</b>	< <u>1</u>	0.37	<2
BUR-561K	GRAB	Deer Lake Parkway & Gilpin	24-Aug-21	0.68	<b>^</b>	<b>√</b>	0.26	2
			7-Sep-21	0.71	<b>\_</b>	\	0.21	9
			22-Sep-21	0.59	<1	<1	0.2	<2
			6-0ct-21	0.73	<1	<1	0.28	<2
			20-0ct-21	0.78	<1	<1	0.14	4
			3-Nov-21	0.95	<1	<1	0.14	2
			17-Nov-21	1.08	<1	<1	0.14	<2
			1-Dec-21	98.0	<1	<1	0.24	2
			15-Dec-21	0.85	<1	<1	0.13	<2
			15-Jan-21	0.73	<1	<1	0.13	<2
			28-Jan-21	98.0	<1	<1	0.15	<2
			9-Feb-21	0.8	<1	<1	0.11	<2
			25-Feb-21	0.79	<1	<1	0.11	<2
			11-Mar-21	0.95	<1	<1	60:0	<2
			26-Mar-21	0.78	<1	<1	0.17	<2
			8-Apr-21	0.73	<1	<1	0.11	<2
			22-Apr-21	0.79	<1	<1	0.14	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station - (	City of Burnaby	Sites (2021)			
Sample Name	Sample Type	Description	Sampled Date	Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
	:		6-May-71	mg/L 0 96	CFU/100mLs	CFU/100mLs	0.19 0.19	CFU/mL
			19-Mav-71	80	;   <b>&gt;</b>	. >	0.13	ì
			4-Jun-21	0.8	; \\	<1	0.14	<u>-</u>
			17-Jun-21	0.61	<1	<1	0.18	<2
BUR-562K	GRAB	1300 Blk Gilmore St.	30-Jun-21	0.78	7>	<1	0.21	4
			14-Jul-21	0.93	7>	<1	0.15	2
			28-Jul-21	0.77	<1	<1	0.22	<2
			11-Aug-21	0.71	<1	<1	0.29	<2
			24-Aug-21	0.74	<1	<1	0.28	2
			7-Sep-21	0.95	<1	<1	0.25	<2
			22-Sep-21	0.77	<1	<1	0.23	<2
			6-0ct-21	0.98	<1	<1	0.18	<2
			20-Oct-21	0.82	<1	<1	0.18	2
			3-Nov-21	0.92	<1	<1	0.23	<2
			17-Nov-21	1.11	<1	<1	0.12	<2
			1-Dec-21	0.99	<1	<1	0.12	<2
			15-Dec-21	1.05	<1	<1	0.13	<2
			15-Jan-21	0.59	<1	<1	0.15	2
			28-Jan-21	9.0	<1	<1	0.21	<2
			9-Feb-21	0.61	<1	<1	0.09	<2
			25-Feb-21	0.58	<1	<1	0.15	2
			11-Mar-21	0.74	1>	<1	60:0	<2
BUR-563K	GRAB	6200 Lougheed Hwy (Kingsland Ct. cds)	26-Mar-21	0.64	1>	<1	0.1	<2
			8-Apr-21	0.7	<1	<1	60'0	<2
			22-Apr-21	0.7	1>	<1	0.13	<2
			6-May-21	0.67	<1	<1	0.26	<2
			19-May-21	0.74	<1	<1	0.1	<2
			4-Jun-21	89.0	1>	<1	0.14	<2
			17-Jun-21	0.52	<1	<1	0.11	<2
			30-Jun-21	0.71	<1	<1	0.24	4
			14-Jul-21	0.82	<1	<1	0.24	2
			28-Jul-21	0.68	<1	<1	0.13	10
			11-Aug-21	0.41	<1	<1	0.27	<2
			24-Aug-21	0.65	<1	<1	0.13	14
RIIR-563K	GRAB	6200 Lougheed Hwy (Kingsland C+ cds)	7-Sep-21	0.83	<1	<1	0.2	8
אנטטראוסם –		OZOO LOUBITECH IIWY (NIIIBNIATH CI. CUS)	22-Sep-21	0.55	<1	<1	0.16	<2
			6-0ct-21	0.5	<1	<1	0.12	<2
			20-0ct-21	0.69	<1	<1	0.14	4
			3-Nov-21	0.74	<1	<1	0.15	12
			17-Nov-21	0.59	<1	<1	0.15	<2
			1-Dec-21	0.55	<1	<1	0.14	9
			15-Dec-21	0.44	<1	<1	0.14	4
			15-Jan-21	0.68	-	-	11	9
			28-Jan-21	69.0	<1	<1	0.22	<2

		Drinking Water Reports By Station - (	ports By Station -	City of Burnaby Sites (2021)	, Sites (2021)			
Sample Name	Sample Type	Description	Sampled Date		Ecoli CFU/100mLs	Total Coliform CFU/100mLs	Turbidity NTU	HPC CFU/mL
			9-Feb-21	0.89	<1	<1	0.12	9
			25-Feb-21	0.88	1>	<1	0.1	12
			11-Mar-21	98.0	<1	< <u>1</u>	0.11	<2
			26-Mar-21	0.79	1>	<1	0.15	2
			8-Apr-21	0.56	<1	<1	0.12	<2
			22-Apr-21	0.72	<1	<1	0.19	20
			6-May-21	0.84	<1	<1	0.23	18
			19-May-21	0.77	<1	<1	0.12	8
			4-Jun-21	0.41	<1	<1	0.2	<2
			17-Jun-21	99:0	<1	<1	0.39	9
BUR-564K	GRAB	4400 Still Creek	30-Jun-21	0.71	<1	<1	0.3	16
			14-Jul-21	0.74	<1	<1	0.29	14
			28-Jul-21	0.68	<1	<1	0.28	42
			11-Aug-21	0.69	<1	<1	0.37	<2
			24-Aug-21	0.64	<1	<1	0.18	10
			7-Sep-21	0.76	1>	<1	0.28	18
			22-Sep-21	99.0	1>	<1	0.21	10
			6-0ct-21	0.67	1>	<1	0.19	4
			20-0ct-21	99:0	<1	< <u>1</u>	0.35	14
			3-Nov-21	0.92	7	<b>^</b>	0.15	<2
			17-Nov-21	1.04	<1	<1	0.12	9
			1-Dec-21	0.78	7	<1	0.13	<2
			15-Dec-21	0.55	<1	<1	0.13	<2
			15-Jan-21	0.33	\	< <u>1</u>	0.12	<2
			28-Jan-21	0.68	<1	<1	0.13	<2
			9-Feb-21	0.61	<1	<1	0.09	\$
			25-Feb-21	69.0	<1	<1	0.1	<2
			11-Mar-21	0.5	<1	<1	0.1	<2
			26-Mar-21	0.82	<1	<1	0.11	<2
BIID	BVGD	5700 BIV 1 211781 St	8-Apr-21	0.59	<1	<1	0.09	<2
VC0C-V0G	g GVAD	3700 BIN LAUIEI 31.	22-Apr-21	0.73	<1	<1	0.12	<2
			6-May-21	0.66	<1	<1	0.15	<2
			19-May-21	0.75	<1	<1	0.09	<2
			4-Jun-21	0.63	<b>\1</b>	<1	0.16	<2
			17-Jun-21	0.66	<1	<1	1.4	<2
			30-Jun-21	0.66	<1	<1	0.32	<2
			14-Jul-21	0.88	<1	<1	0.29	2
			28-Jul-21	0.75	<1	<1	0.2	<2
			11-Aug-21	0.61	<1	<1	0.24	<2
			24-Aug-21	0.68	<1	<1	0.14	38
			7-Sep-21	0.84	<1	<1	0.21	4
			22-Sep-21	0.73	<1	<1	0.19	9
BUR-565K	GRAB	5700 Blk Laurel St.	6-0ct-21	0.69	<1	<1	0.15	30
			20-0ct-21	0.34	<1	<1	0.13	40

		Drinking Water R	Drinking Water Reports By Station - City of Burnaby Sites (2021)	City of Burnaby	, Sites (2021)			
	i d			Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
sample Name	sample Type	Description	sampled Date	mg/L	CFU/100mLs	CFU/100mLs	UTN	CFU/mL
			3-Nov-21	0.7	<1	<1	0.15	9
			17-Nov-21	9.0	<1	<1	0.13	10
			1-Dec-21	0.72	<1	<1	0.16	2
			15-Dec-21	69:0	<1	<1	0.15	<2
			15-Jan-21	0.53	<1	<1	2	2
			28-Jan-21	0.74	<1	<1	0.11	<2
			9-Feb-21	0.89	<1	<1	60:0	<2
			25-Feb-21	0.84	<1	<1	0.11	<2
			11-Mar-21	99.0	<1	<1	0.1	4
			26-Mar-21	0.49	<1	<1	0.12	<2
			8-Apr-21	69'0	<1	<1	0.11	<2
			22-Apr-21	0.71	<1	<1	0.18	<2
			6-May-21	0.63	<1	<1	60:0	<2
			19-May-21	92'0	<1	<1	0.13	<2
			4-Jun-21	0.71	<1	<1	0.17	<2
			17-Jun-21	0.64	<1	<1	0.21	<2
BUR-566K	GRAB	4100 Blk Garden Grove Dr.	30-Jun-21	0.63	<1	<1	0.25	<2
			14-Jul-21	0.46	<1	<1	0.27	<2
			28-Jul-21	0.74	<b>1&gt;</b>	<1	0.15	14
			11-Aug-21	0.51	<1	<1	0.29	4
			24-Aug-21	6.73	<b>1&gt;</b>	<1	0.18	2
			7-Sep-21	0.87	7	<1	0.21	09
			22-Sep-21	0.42	7	<1	0.18	<2
			6-0ct-21	0.42	<1	<1	0.13	<2
			20-0ct-21	0.74	<1	<1	0.15	<2
			3-Nov-21	6.73	<1	1>	0.12	2
			17-Nov-21	0.82	<1	<1	0.13	<2
			1-Dec-21	8.0	<1	<1	0.15	<2
			15-Dec-21	69'0	<1	<1	0.13	<2
			15-Jan-21	0.72	<1	<1	0.15	8
			28-Jan-21	99:0	<1	<1	0.11	<2
			9-Feb-21	0.77	<1	<1	0.1	<2
			25-Feb-21	0.73	<1	<1	0.11	<2
			11-Mar-21	99:0	<1	<1	0.12	<2
			26-Mar-21	0.77	<1	<1	0.15	2
			8-Apr-21	0.57	<1	<1	0.13	<2
			22-Apr-21	0.7	<1	<1	0.33	22
BUR-567K	GRAB	SS of CG Brown Pool, Sprott St.	6-May-21	0.64	<1	<1	0.16	2
			19-May-21	0.5	<1	<1	0.16	<2
			4-Jun-21	99:0	<1	<1	0.25	<2
			17-Jun-21	0.56	<1	<1	0.16	<2
			30-Jun-21	0.71	<1	<1	0.35	2
			14-Jul-21	99:0	<1	<1	0.26	8
			28-Jul-21	0.65	<1	<1	0.3	200

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	v Sites (2021)			
		: :		Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	Sample Type	Description	Sampled Date		CFU/100mLs	CFU/100mLs	NTO	CFU/mL
			11-Aug-21	0.59	<1	<1	0.42	<2
			24-Aug-21	0.62	<1	<1	0.19	20
			7-Sep-21	0.69	<1	<1	0.16	9
			22-Sep-21	0.67	<1	<1	0.14	22
			6-0ct-21	0.75	< <u>1</u>	<1	0.27	<2
722 0110	9	+3 ++0203  000 000000 00 30	20-0ct-21	0.51	<1	<1	0.12	20
BUR-30/R	GKAB	ss of CG Brown Pool, sprotest.	3-Nov-21	0.79	< <u>1</u>	<1	0.12	8
			17-Nov-21	0.78	< <u>1</u>	<1	0.11	2
			1-Dec-21	0.98	1>	<1	0.1	<2
			15-Dec-21	0.76	<1	<1	0.12	2
			15-Jan-21	0.67	<1>	<1	0.15	2
			28-Jan-21	0.66	<1	<1	0.12	<2
			9-Feb-21	0.71	<1	<1	0.21	<2
			25-Feb-21	0.54	<1	<1	0.11	<2
			11-Mar-21	0.77	<1	<1	0.15	<2
			26-Mar-21	0.71	<1>	<1	0.11	<2
			8-Apr-21	0.8	1>	<1	0.13	<2
			22-Apr-21	0.71	<1>	<1	0.13	4
			6-May-21	0.72	<1	<1	0.32	<2
			19-May-21	0.67	<1	<1	0.19	2
			4-Jun-21	0.63	7	1	0.11	<2
			17-Jun-21	0.65	7	<1	0.16	2
BUR-568K	GRAB	3900 Blk Philips	30-Jun-21	0.69	<1	<1	0.46	2
			14-Jul-21	0.85	<1	<1	0.34	<2
			28-Jul-21	0.76	7	<1	0.31	22
			11-A119-71	0.71	\ ₩	\ \ \	0.3	0
			24-Aug-21	0.59	7 7	- \	0.13	2
			7-Sep-21	0.86	7	7	0.19	22
			22-Sep-21	0.65	<1	<1	0.16	10
			6-0ct-21	69.0	7	<1	0.15	9
			20-0ct-21	0.74	<1	<1	0.29	16
			3-Nov-21	0.87	<1	<1	0.13	10
			17-Nov-21	0.87	<1	<1	0.15	8
			1-Dec-21	0.84	<1	<1	0.1	4
			15-Dec-21	0.74	<1>	<1	0.2	12
			14-Jan-21	0.55	<1	<1	0.13	<2
			29-Jan-21	92.0	1>	<1	0.16	<2
			11-Feb-21	0.82	<b>^</b>	<1	0.11	4
			26-Feb-21	0.49	<1	<1	0.12	<2
			12-Mar-21	0.59	<1	<1	0.1	<2
			23-Mar-21	0.55	<1	<1	0.1	<2
			6-Apr-21	0.54	<1	<1	0.08	2
			20-Apr-21	1.06	<1	<1	0.19	<2
			4-May-21	0.81	<1	<1	0.09	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	sites (2021)			
Sample Name	Sample Type	Poccification	Sampled Date	Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	Sample Type		Sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTU	CFU/mL
RIIR-569K	GRAB	3200 Blk Smith	20-May-21	0.77	<1	<1	0.18	<2
אפטני אוטפ			1-Jun-21	99.0	<1	<1	0.1	<2
			16-Jun-21	0.62	<1	<1	0.13	20
			29-Jun-21	0.57	1>	<1	0.24	<2
			13-Jul-21	69.0	<1	<1	0.24	26
			27-Jul-21	0.61	<1	<1	0.13	2
			10-Aug-21	0.52	<1	<1	0.16	2
			25-Aug-21	0.62	<1	<1	0.24	<2
			8-Sep-21	22.0	1>	<1	0.18	<2
			21-Sep-21	29.0	<1	<1	0.16	2
			5-0ct-21	0.67	<1	<1	0.2	2
			19-Oct-21	0.75	<1	<1	0.15	<2
			2-Nov-21	8.0	<1	<1	0.19	<2
BUR-569K	GRAB	3200 Blk Smith	16-Nov-21	0.71	<1	<1	0.11	<2
			30-Nov-21	62'0	<1	<1	0.17	<2
			14-Dec-21	0.81	<1	<1	0.15	<2
			4-Jan-21	τ	1>	<1	0.1	<2
			21-Jan-21	92'0	<1	<1	0.11	<2
			5-Feb-21	65.0	1>	<1	0.13	<2
			18-Feb-21	66.0	<1	< <u>1</u>	0.33	<2
			4-Mar-21	0.78	<1	<1	0.16	<2
			17-Mar-21	0.77	7	<b>^</b>	0.29	<2
			31-Mar-21	0.7	7	\ \	0.17	<2
			14-Apr-21	0.65	7	< <u>1</u>	0.16	<2
			27-Apr-21	0.68	4	7	0.16	\$
			11-Mav-21	0.81	7	7	0.1	14
			25-May-21	0.68	<1	<1	0:00	\$
			9-Jun-21	0.62	7	\ \	0.1	<2
200	(		23-Jun-21	0.62	< <u>1</u>	<1	0.2	<2
BUK-5/UK	GRAB	oudd bik buckingnam Dr.	6-Jul-21	0.75	<1	<1	0.29	<2
			21-Jul-21	89:0	1>	<1	0.45	<2
			4-Aug-21	2.0	1>	<1	0.35	130
			17-Aug-21	0.71	<1	<1	0.25	160
			1-Sep-21	0.71	<1	1	0.23	46
			14-Sep-21	0.64	<1	<1	0.12	<2
			28-Sep-21	0.94	1>	<1	0.13	8
			14-Oct-21	2.0	1>	<1	0.19	12
			27-0ct-21	0.48	1>	<1	0.17	<2
			10-Nov-21	0.57	<1	<1	0.15	2
			24-Nov-21	0.72	<1	<1	0.28	8
			8-Dec-21	0.67	<1	<1	0.14	<2
			22-Dec-21	0.88	<1	<1	0.15	NA
			4-Jan-21	0.88	<1	<1	0.19	<2
			21-Jan-21	0.84	<1	<1	0.16	2

		Drinking Water Reports By Station - C	ports By Station - (	City of Burnaby Sites (2021)	, Sites (2021)			
Sample Name	Sample Type	Description	Sampled Date	Chlorine Free mg/L	Ecoli CFU/100mLs	Total Coliform	Turbidity	HPC CFU/mL
			5-Feb-21	0.82	7	7	0.3	2
			18-Feb-21	0.7	7	<1	0.34	<2
			4-Mar-21	9.0	<1	<1	0.19	<2
			17-Mar-21	9.70	<1	<1	0.29	<2
			31-Mar-21	1.22	<1	<1	0.11	<2
			14-Apr-21	1.12	<1	<1	0.2	<2
			27-Apr-21	0.74	<1	<1	0.13	<2>
			11-May-21	99.0	<1	<1	0.16	<2
7573 DI 10	avas	8300 BIX 5335	25-May-21	92'0	<1	<1	0.13	<2>
DUN-3/2N	GRAD	6200 bik rolest glove	9-Jun-21	99.0	<1	<1	0.13	<2
			23-Jun-21	0.58	<1	<1	0.18	2
			6-Jul-21	0.61	<1	<1	0.21	<2>
			21-Jul-21	0.59	<1	<1	0.48	<2
			4-Aug-21	92'0	<1	<1	98.0	4
			17-Aug-21	0.46	<1	<1	0.22	<2
			1-Sep-21	0.71	<1	<1	0.19	<2>
			14-Sep-21	99.0	<1	<1	0.19	2
			28-Sep-21	62'0	<1	<1	0.29	<2>
			14-0ct-21	0.72	4	<1	0.26	<2
			27-0ct-21	0.65	<b>^</b>	<1	0.16	<2
			10-Nov-21	0.68	4	<1	0.17	<2
2	(		24-Nov-21	0.71	7	7	0.16	<2
BUR-5/2K	GKAB	8200 BIK FOREST Grove	8-Dec-21	0.7	7	7	0.12	<2
			22-Dec-21	0.74	4	<1	0.26	NA
			7-Jan-21	0.78	7	<1	0.1	<2
			22-Jan-21	0.91	7	<1	0.18	<2
			4-Feb-21	0.77	7	<1	0.12	<2
			16-Feb-21	28.0	<1	<1	0.1	<2>
			3-Mar-21	0.59	<1	<1	0.11	<2
			16-Mar-21	0.73	<1	<1	0.1	<2
			30-Mar-21	0.73	<1	<1	0.13	<2
			13-Apr-21	0.53	<1	<1	0.13	<2
			30-Apr-21	0.79	<b>\_</b>	<1	0.07	<2
			12-May-21	0.81	<b>\_1</b>	<1	0.21	<2
			26-May-21	0.73	<1	<1	0.11	26
			10-Jun-21	0.99	<1	<1	0.11	<2
7272V	avas	AAOO Ala OOM	22-Jun-21	0.64	<1	<1	0.37	2
100 C			7-Jul-21	0.86	<1	<1	0.14	<2
			20-Jul-21	0.7	<1	<1	0.13	<2
			3-Aug-21	0.79	<1	<1	0.15	4
			18-Aug-21	0.6	7	<1	0.13	<2
			31-Aug-21	0.72	<b>\1</b>	<1	0.13	8
			15-Sep-21	0.84	<1	<1	0.15	8
			29-Sep-21	0.76	<1	<1	0.22	4

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	sites (2021)			
				Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
sample Name	sample Iype	Description	sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			13-0ct-21	0.75	<1	<1	0.17	14
			26-Oct-21	0.72	<1	<1	0.21	<2
			9-Nov-21	0.75	<1	<1	0.15	<2
			23-Nov-21	0.71	<1	<1	0.36	4
			7-Dec-21	0.77	<1	<1	0.15	<2
			21-Dec-21	0.81	<1	<1	0.14	NA
			7-Jan-21	0.8	41	<1	0.1	<2
			22-Jan-21	1	<1	<1	0.12	<2
			4-Feb-21	0.89	<1	<1	0.12	<2
			16-Feb-21	0.91	<1	<1	0.13	<2
			3-Mar-21	0.63	<1	<1	0.14	<2
			16-Mar-21	0.85	<1	<1	80.0	<2
			30-Mar-21	0.81	<1	<1	0.15	<2
			13-Apr-21	0.86	<1	<1	0.19	<2
			30-Apr-21	0.8	<1	<1	0.1	<2
			12-May-21	0.82	<1	<1	0.15	<2
			26-May-21	0.75	<1	<1	0.12	<2
BUR-574K	GRAB	200 Blk N. Gilmore	10-Jun-21	1.02	<1	<1	0.12	<2
			22-Jun-21	0.83	<1	<1	98.0	<2
			7-Jul-21	0.83	<1	<1	0.15	8
			14-Jul-21	0.56	<1	<1	0.16	<2
			20-Jul-21	0.75	<b>\_</b>	<b>\_</b>	0.12	<2
			3-Aug-21	0.76	<1	< <u>1</u>	0.13	14
			18-Aug-21	0.82	<1	<1	0.13	<2
			31-Aug-21	0.78	<1	<1	0.11	9
			15-Sep-21	0.87	<1	<1	0.13	2
			29-Sep-21	1.24	<1	<1	0.16	8
			13-0ct-21	0.83	<1	<1	0.18	8
			26-Oct-21	0.77	<1	<1	0.28	18
			9-Nov-21	0.77	4	<1	0.25	<2
RHR-574K	GRAR	200 Blk N Gilmore	23-Nov-21	0.77	<1	<1	0.23	<2
			7-Dec-21	0.79	<1	<1	0.18	10
			21-Dec-21	0.98	<1	<1	0.2	NA
			7-Jan-21	0.6	<1	<1	0.11	<2
			22-Jan-21	0.77	<1	<1	0.22	<2
			4-Feb-21	0.64	<1	<1	0.11	2
			16-Feb-21	0.55	<1	<1	60.0	<2
			3-Mar-21	0.64	<1	<1	0.11	<2
			16-Mar-21	0.84	<b>\1</b>	<1	0.11	<2
			30-Mar-21	0.93	<b>~</b> 1	<1	0.18	<2
			13-Apr-21	0.57	<b>\_1</b>	<1	0.23	<2
			30-Apr-21	0.71	<1	<1	0.07	<2
			12-May-21	0.65	<1	<1	0.22	16
			26-May-21	0.62	<1	<1	0.1	52

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	y Sites (2021)			
				Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
sample Name	sample Type	Description	sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			10-Jun-21	0.45	<1	<1	0.1	26
DIID C7CV	9 9 9	1100 DIV Madicas	22-Jun-21	0.84	<1	<1	0.17	4
AC/C-AO0	g SAD	TTOO BIN Madisoli	7-Jul-21	0.76	<1	<1	0.43	8
			20-Jul-21	0.62	<1	<1	0.11	9
			3-Aug-21	0.5	<1	<1	0.22	8
			18-Aug-21	0.64	<1	<1	0.14	24
			31-Aug-21	0.5	< <u>1</u>	<1	0.11	40
			15-Sep-21	0.59	<1	<1	0.13	36
			29-Sep-21	0.57	<1	<1	0.12	34
			13-0ct-21	0.52	<1	<1	0.16	22
			26-Oct-21	0.58	<1	<1	0.17	16
			9-Nov-21	0.64	<1	<1	0.14	2
			23-Nov-21	0.53	<1	<1	0.11	<2
			7-Dec-21	9.0	<1	<1	0.17	4
			21-Dec-21	0.98	<1	<1	0.11	NA
			7-Jan-21	1	<1	<1	0.1	<2
			22-Jan-21	0.76	<1	<1	0.12	<2
			4-Feb-21	0.84	<1	<1	0.11	<2
			16-Feb-21	0.95	<1	<1	60.0	<2
			3-Mar-21	0.7	<1	<1	0.12	<2
			16-Mar-21	0.78	<1	<1	0.17	<2
			30-Mar-21	0.55	<b>\_</b>	<1	0.11	<2
			13-Apr-21	0.76	< <u>1</u>	<1	0.24	9
			30-Apr-21	0.88	7	< <u>1</u>	0.08	<2
			12-May-21	0.81	7	<1	0.15	<2
			26-May-21	9.0	< <u>1</u>	<1	0.09	<2
BUR-576K	GRAB	6200 Blk Curtis	10-Jun-21	0.53	<b>~</b>	<b>\</b>	0.1	2
			22-Jun-21	0.8	<1	<1	86.0	<2
			7-Jul-21	0.75	<1	<1	0.19	2
			20-Jul-21	0.54	<1	<1	0.17	<2
			3-Aug-21	0.7	<1	<1	0.23	10
			18-Aug-21	99.0	<1	<1	0.19	<2
			31-Aug-21	1.18	<1	<1	0.14	<2
			15-Sep-21	0.76	<1	<1	0.15	<2
			29-Sep-21	0.74	<1	<1	0.14	4
			13-0ct-21	0.74	<1	<1	0.2	4
			26-0ct-21	0.83	<1	<1	0.16	<2
			9-Nov-21	0.94	<1	<1	0.14	2
			23-Nov-21	0.77	<1	<1	0.16	<2
BUR-576K	GRAB	6200 Blk Curtis	7-Dec-21	0.73	<1	<1	0.17	4
			21-Dec-21	0.83	<1	<1	0.18	NA
			7-Jan-21	0.89	<1	<1	0.1	<2
			22-Jan-21	0.82	<1	<1	0.11	<2
			4-Feb-21	0.76	<1	<1	60:0	<2

		Drinking Water Re	Drinking Water Reports By Station - City of Burnaby Sites (2021)	City of Burnaby	sites (2021)			
				Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
sample Name	sample Type	Description	sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			16-Feb-21	0.94	<1	<1	0.1	<2
			3-Mar-21	0.46	<1	<1	0.12	<2
			16-Mar-21	0.59	<1	<1	0.18	<2
			30-Mar-21	69:0	<1	<1	0.15	<2
			13-Apr-21	69.0	1>	<1	0.25	<2
			30-Apr-21	0.61	<1	<1	0.08	<2
			12-May-21	0.53	<1	<1	0.21	2
			26-May-21	92'0	1>	<1	60'0	<2>
			10-Jun-21	0.53	1>	<1	0.13	<2>
7777 DI 10	9 9 9	700 Uch4+c2U	22-Jun-21	0.58	<1	<1	0.17	<2
BUR-3//R	GRAB	1400 neathdale Df.	7-Jul-21	0.61	<1	<1	0.12	<2
			20-Jul-21	0.55	<1	<1	0.17	<2
			3-Aug-21	0.54	<1	<1	0.18	2
			18-Aug-21	0.45	1>	<1	0.13	4
			31-Aug-21	0.43	<1	<1	0.12	<2
			15-Sep-21	95'0	<1	<1	0.15	2
			29-Sep-21	16:0	1>	<1	0.11	9
			13-Oct-21	9.0	1>	<1	0.15	8
			26-Oct-21	0.64	<1	<1	0.22	8
			9-Nov-21	0.62	1>	<1	0.14	4
			23-Nov-21	0.52	<1	<1	0.11	9
			7-Dec-21	0.67	7	^	0.14	<2
			21-Dec-21	0.85	7	\ <u></u>	0.11	NA
			7-Jan-21	0.89	7	\ \	0.1	14
			22-Jan-21	0.85	<1	<1	0.13	<2
			4-Feb-21	0.76	7	7	0.12	2
			16-Feb-21	0.85	<b>√</b>	7	0.1	2
			3-Mar-21	0.71	<1	<b>^</b>	0.12	<2
			16-Mar-21	0.79	7	\ \	0.14	4
			30-Mar-21	0.81	< <u>1</u>	√1	0.18	<2
			13-Apr-21	8.0	1>	<1	0.14	<2>
			30-Apr-21	22.0	1>	<1	0.14	<2>
			12-May-21	0.33	<1	<1	0.16	<2
			26-May-21	0.84	<1	<1	0.08	<2
DIID E70V	9 9 9 9	Note the state of 10 A Court Attack	10-Jun-21	0.82	<1	<1	0.12	<2
No.12-4100	פניס	ייסונון אימי טו יסא, טומאאנטום אימי	22-Jun-21	0.75	<1	<1	0.28	<2
			7-Jul-21	62'0	<1	<1	0.18	<2
			20-Jul-21	0.61	1>	<1	0.17	<2>
			3-Aug-21	0.73	<1	<1	0.21	2
			18-Aug-21	0.66	<1	<1	0.18	10
			31-Aug-21	0.82	<1	<1	0.1	2
			15-Sep-21	0.71	<1	<1	0.13	<2
			29-Sep-21	0.75	<1	<1	0.16	9
			13-Oct-21	0.7	<1	<1	0.15	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	v Sites (2021)			
				Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
sample Name	sample Type	Description	sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTO	CFU/mL
			26-Oct-21	1.01	<1	<1	0.25	<2
			9-Nov-21	0.76	<1	<1	0.17	20
			23-Nov-21	0.77	<1	<1	0.15	<2
BUR-578K	GRAB	North side of IGA, Greystone Ave.	7-Dec-21	0.79	<1	<1	0.17	<2
			14-Jan-21	0.79	<1	<1	0.11	<2
			29-Jan-21	0.7	<1	<1	0.17	<2
			11-Feb-21	0.82	<1	<1	0.11	9
			26-Feb-21	0.7	<1	<1	0.1	<2
			12-Mar-21	0.51	<1	<1	0.12	<2
			23-Mar-21	0.77	<1	<1	60:0	<2
			6-Apr-21	0.8	<1	<1	0.09	<2
			20-Apr-21	0.75	<1	<1	0.16	<2
			4-May-21	6.0	<1	<1	0.1	<2
			20-May-21	0.76	<1	<1	0.15	<2
			1-Jun-21	0.72	<1	<1	0.17	<2
			16-Jun-21	69.0	<1	<1	0.16	<2
BUR-579K	GRAB	WS of BGH, on Ingleton	29-Jun-21	0.81	<1	<1	0.16	<2
			13-Jul-21	0.79	<1	<1	0.23	<2
			27-Jul-21	0.72	<1	<1	0.12	2
			10-Aug-21	99.0	1>	<1	0.14	4
			25-Aug-21	0.77	1>	<1	0.2	160
			8-Sep-21	0.64	<1	<1	0.15	<2
			21-Sep-21	0.79	< <u>1</u>	<1	0.18	<2
			5-0ct-21	0.63	< <u>1</u>	<1	0.24	<2
			19-Oct-21	0.68	1>	<1	0.17	<2
			2-Nov-21	0.81	1>	<1	0.12	<2
			16-Nov-21	0.68	<1	<1	0.15	<2
			30-Nov-21	0.64	1>	<1	0.18	<2
			14-Dec-21	0.73	<1	<1	0.13	4
			14-Jan-21	0.7	<1	<1	0.76	96
			29-Jan-21	0.48	<1	<1	0.14	92
			11-Feb-21	0.78	<1	<1	0.16	30
			26-Feb-21	69.0	<1	<1	0.13	34
			12-Mar-21	0.59	<1	<1	0.15	46
			23-Mar-21	0.7	<1	<1	0.1	28
			6-Apr-21	0.68	<1	<1	0.1	84
			20-Apr-21	0.84	1>	<1	0.14	36
			4-May-21	0.78	1>	<1	0.11	46
			20-May-21	0.67	<1	<1	0.16	160
			1-Jun-21	0.59	<1	<1	0.18	70
			16-Jun-21	0.87	<1	<1	0.12	40
BUR-580K	GRAB	4400 Blk Moscrop	29-Jun-21	0.45	<1	<1	0.22	18
			13-Jul-21	0.65	<1	<1	0.15	44
			27-Jul-21	0.65	<1	<1	0.11	26

		Drinking Water Reports By Station - (	ports By Station -	City of Burnaby Sites (2021)	Sites (2021)			
Sample Name	Sample Type	Description	Sampled Date		Ecoli CFU/100mLs	Total Coliform CFU/100mLs	Turbidity NTU	HPC CFU/mL
			10-Aug-21	0.64	<1	<1	0.17	18
			25-Aug-21	0.67	<1	<1	0.24	54
			8-Sep-21	0.69	<1	<1	0.15	<2
			21-Sep-21	0.6	<1	<1	0.14	8
			5-0ct-21	0.66	<1	<1	0.19	12
			19-Oct-21	0.84	<1	<1	0.17	9
			2-Nov-21	0.59	<1	<1	0.12	4
			16-Nov-21	0.71	<1	<1	0.61	12
			30-Nov-21	0.69	<1	<1	0.11	2
			14-Dec-21	0.59	<1	<1	0.1	9
X118_581K	avas	7900 BILK symps	4-Jan-21	0.78	<1	<1	0.11	<2
N100-N00	OKAD.	7500 DIN Nayillal	21-Jan-21	0.77	<1	<1	0.11	<2
			5-Feb-21	0.71	<1	<1	0.18	<2
			18-Feb-21	0.88	<1	<1	0.16	<2
			4-Mar-21	0.8	<1	<1	0.17	<2
			17-Mar-21	0.91	<1	<1	0.15	<2
			31-Mar-21	0.76	<1	<1	0.12	<2
			14-Apr-21	0.92	<1	<1	0.25	9
			27-Apr-21	0.73	<1	<1	0.14	<2
			11-May-21	0.73	<1	<1	0.22	<2
			25-May-21	0.75	<1	<1	0.2	4
			9-Jun-21	0.76	7	\ \	0.14	2
			23-Jun-21	0.75	7	< <u>1</u>	0.15	<2
0110 0017	9,90	,	6-Jul-21	0.67	<1	<1	0.12	<2
NTOC-NOG	g Syp	7900 BIR Nayiilal	21-Jul-21	0.65	<1	<1	0.24	2
			4-Aug-21	0.55	<1	2	0.22	14
			17-Aug-21	0.68	7	\ \	0.21	64
			1-Sep-21	0.82	<1	<1	0.13	230
			14-Sep-21	0.63	<1	<1	0.16	150
			28-Sep-21	0.76	<1	<1	0.12	100
			14-0ct-21	0.62	<1	<1	0.19	82
			27-Oct-21	0.6	<1	<1	0.14	8
			10-Nov-21	0.53	<1	<1	0.14	32
			24-Nov-21	0.6	<1	<1	0.13	9
			8-Dec-21	0.57	<1	<1	0.14	2
1			22-Dec-21	0.88	<1	<1	0.15	NA
			14-Jan-21	0.68	<1	<1	0.11	<2
			29-Jan-21	1.09	<1	<1	0.42	<2
			11-Feb-21	0.81	<1	<1	0.11	<2
			26-Feb-21	0.68	<1	<1	0.1	<2
			12-Mar-21	0.55	<1	<1	0.1	<2
			23-Mar-21	0.97	<1	<1	0.11	2
			6-Apr-21	1.06	<b>\_1</b>	<1	0.27	<2
			20-Apr-21	0.82	<1	<1	0.11	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	, Sites (2021)			
	F 1			Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
sample Name	sampie Type	Description	sampied Date	mg/L	CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			4-May-21	0.72	<1	<1	60.0	<2
			20-May-21	0.68	<1	<1	0.26	<2
			1-Jun-21	0.89	<1	<1	0.52	2
			16-Jun-21	0.52	<1	<1	0.17	<2
BUR-582K	GRAB	2nd St. School, 16th Ave.	29-Jun-21	0.57	<1	<1	0.23	<2
			13-Jul-21	0.91	<1	<1	0.23	<2
			27-Jul-21	88.0	<1	<1	0.25	110
			10-Aug-21	9.0	<1	<1	0.31	42
			25-Aug-21	68'0	<1	<1	0.24	190
			8-Sep-21	0.92	<1	<1	0.32	28
			21-Sep-21	2.0	<1	<1	0.19	26
			5-0ct-21	25.0	<1	<1	0.15	8
			19-0ct-21	0.63	<1	<1	0.28	2
			2-Nov-21	0.72	<1	<1	0.15	4
			16-Nov-21	2.0	<1	<1	0.11	<2
			30-Nov-21	69'0	<1	<1	0.13	<2
			14-Dec-21	0.78	<1	<1	0.11	<2
			14-Jan-21	68.0	<1	<1	0.13	<2
7000 0110	9,00		29-Jan-21	62'0	<1	<1	0.17	<2
BUR-303R	GRAD	New Vista Place	11-Feb-21	8.0	<1	<1	0.13	<2
			26-Feb-21	0.37	<1	<1	0.13	<2
			12-Mar-21	0.72	4	<1	60.0	<2
			23-Mar-21	0.7	7	<1	60.0	<2
			6-Apr-21	0.89	< <u>1</u>	<1	0.29	<2
			20-Apr-21	0.82	<1	<1	0.1	<2
			4-May-21	0.74	<1	<1	0.1	<2
			20-May-21	1.05	<1	<1	0.27	<2
			1-Jun-21	0.74	<1	<1	0.43	<2
			16-Jun-21	0.57	<1	<1	0.17	<2
			29-Jun-21	92'0	<1	<1	0.11	<2
			13-Jul-21	0.63	<1	<1	0.24	<2
BUR-583K	GRAB	New Vista Place	27-Jul-21	0.84	<1	<1	0.26	<2
			10-Aug-21	0.7	<1	<1	0.19	4
			25-Aug-21	0.95	<1	<1	0.28	10
			8-Sep-21	1.1	<1	<1	0.35	<2
			21-Sep-21	0.72	<1	<1	0.14	<2
			5-0ct-21	29'0	<1	<1	0.19	2
			19-0ct-21	0.67	<1	<1	0.13	<2
			2-Nov-21	0.82	<1	<1	0.17	<2
			16-Nov-21	6.73	<1	<1	0.11	2
			30-Nov-21	0.85	<1	<1	0.14	<2
			14-Dec-21	0.49	<1	<1	0.12	4
			14-Jan-21	0.7	<1	<1	0.11	<2
			29-Jan-21	1.04	<1	<1	0.4	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	, Sites (2021)			
	F			Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
sampie name	sampie Type	Description	sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			11-Feb-21	0.8	<1	<1	0.12	<2
			26-Feb-21	0.73	<1	<1	0.18	<2
			12-Mar-21	0.54	<1	<1	0.1	<2
			23-Mar-21	9.0	<1	<1	60:0	<2
			6-Apr-21	0.78	<1	<1	0.29	<2
			20-Apr-21	0.68	<1	<1	0.12	<2
			4-May-21	0.75	<1	<1	0.11	<2
			20-May-21	0.99	<1	<1	0.34	<2
			1-Jun-21	0.73	<1	<1	0.4	120
			16-Jun-21	0.62	<1	<1	0.11	<2
BUR-584K	GRAB	7200 Blk Edmonds St.	29-Jun-21	0.6	<1	<1	0.21	<2
			13-Jul-21	0.42	<1	<1	0.28	<2
			27-Jul-21	0.88	<1	<1	0.3	34
			10-Aug-21	0.51	<1	<1	0.21	9
			25-Aug-21	0.79	<1	<1	0.26	18
			8-Sep-21	0.7	<1	<1	0.32	<2
			21-Sep-21	0.63	<1	<1	0.15	<2
			5-0ct-21	0.58	<1	<1	0.18	<2
			19-0ct-21	0.62	<1	<1	0.11	<2
			2-Nov-21	0.63	<1	<1	0.11	<2
			16-Nov-21	0.92	<1	<1	0.19	2
			30-Nov-21	0.76	<1	<1	0.15	<2
			14-Dec-21	0.63	7	\ <u></u>	0.12	<2
			14-Jan-21	0.68	<1	<1	0.82	<2
			29-Jan-21	1.04	<b>\_</b>	<b>\_</b>	0.39	10
			11-Feb-21	0.8	7	<1	0.13	<2
BUR-585K	GRAB	5400 Blk Rumble St.	26-Feb-21	0.65	<b>~</b>	<1	60:0	<2
			12-Mar-21	0.67	<b>~</b>	<1	0.12	<2
			23-Mar-21	0.39	<1	<1	60:0	<2
			6-Apr-21	0.77	<1	<1	0.29	<2
			20-Apr-21	0.65	<1	<1	0.2	<2
			4-May-21	0.75	<1	<1	0.1	<2
			20-May-21	0.68	<1	<1	0.3	<2
			1-Jun-21	0.64	<1	<1	0.34	<2
			16-Jun-21	0.75	<1	<1	0.11	<2
			29-Jun-21	0.68	<1	<1	0.12	9
			13-Jul-21	0.7	<1	<1	0.23	2
			27-Jul-21	0.87	<1	<1	0.25	8
סוום נסנו/	d v d C	5400 Blv Burns   C+	10-Aug-21	0.5	<1	<1	0.37	9
NCOC-NOG	a Ayb	3400 BIK NULLBIR 31.	25-Aug-21	69.0	<1	<1	0.37	8
			8-Sep-21	69.0	<1	<1	0.41	12
			21-Sep-21	0.87	<1	<1	0.14	<2
			5-0ct-21	0.58	<1	<1	0.17	14
			19-0ct-21	69:0	<1	<1	0.18	10

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	Sites (2021)			
	1			Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	Sample Type	Description	Sampled Date		CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			2-Nov-21	92'0	<1	<1	0.15	<2
			16-Nov-21	0.72	<1	<1	0.12	2
			30-Nov-21	0.92	<1	<1	0.15	4
			14-Dec-21	0.85	<1	<1	0.13	9
			14-Jan-21	0.47	<1	<1	0.12	<2
			29-Jan-21	0.49	<1	<1	0.13	<2
			11-Feb-21	0.54	<1	<1	0.15	2
			26-Feb-21	0.55	1>	<1	0.22	<2
			12-Mar-21	29'0	<1	<1	0.13	<2
			23-Mar-21	0.67	<1	<1	0.1	<2
			6-Apr-21	0.39	<1	<1	0.16	<2
			20-Apr-21	0.34	<1	<1	0.11	<2
			4-May-21	65'0	<1	<1	0.12	<2
			20-May-21	0.42	<1	<1	0.16	<2
			1-Jun-21	0.55	<1	<1	0.27	2
			16-Jun-21	0.41	<1	<1	60:0	<2
BUR-586K	GRAB	3800 Blk Rumble St. (Greenall & Rumble)	29-Jun-21	0.51	<1	<1	0.12	<2
			13-Jul-21	0.29	<1	<1	0.16	440
			27-Jul-21	0.25	<1	<1	0.17	200
			10-Aug-21	6.0	<1	<1	0.16	10
			25-Aug-21	65'0	1>	<1	0.22	40
			8-Sep-21	0.4	<1	<1	0.14	90
			21-Sep-21	0.4	<1	<1	0.11	440
			5-0ct-21	0.22	1>	<1	0.13	460
			19-Oct-21	0.26	<1	<1	0.19	330
			2-Nov-21	9.0	<1	<1	0.13	130
			16-Nov-21	0.47	1>	<1	0.1	20
			30-Nov-21	0.38	<1	<1	0.13	12
			14-Dec-21	0.63	<1	<1	0.13	9
			14-Jan-21	0.77	<1	<1	0.2	<2
			29-Jan-21	0.61	<1	<1	0.16	<2
			11-Feb-21	0.75	<1	<1	0.22	2
			26-Feb-21	99.0	<1	<1	0.17	<2
RUR-587K	GRAB	4400 Blk Kingsway	12-Mar-21	0.61	<1	<1	0.16	<2
			23-Mar-21	9.0	<1	<1	0.11	<2
			6-Apr-21	0.47	<1	<1	0.17	<2
			20-Apr-21	0.78	<1	<1	0.19	<2
			4-May-21	92'0	<1	<1	0.11	<2
			20-May-21	0.57	<1	<1	0.24	2
			1-Jun-21	0.61	<1	<1	0.19	2
			16-Jun-21	0.72	<1	<1	0.13	<2
			29-Jun-21	0.65	<1	<1	0.18	<2
			13-Jul-21	0.7	<1	<1	0.17	<2
			27-Jul-21	0.61	<1	<1	0.14	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	Sites (2021)			
		:		Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	Sample Type	Description	Sampled Date		CFU/100mLs	CFU/100mLs	NTO	CFU/mL
			10-Aug-21	0.58	<1	<1	0.14	2
			25-Aug-21	0.65	<1	<1	0.19	<2
BUR-587K	GRAB	4499 Blk Kingsway	8-Sep-21	0.52	<1	<1	0.14	<2
			21-Sep-21	0.76	<1	<1	0.29	<2
			5-0ct-21	0.62	<1	<1	0.24	2
			19-Oct-21	0.58	<1	<1	0.16	<2
			2-Nov-21	99'0	<1	<1	0.12	<2
			16-Nov-21	0.65	<1	<1	0.15	<2
			30-Nov-21	69'0	<1	<1	0.15	<2
			14-Dec-21	8.0	<1	<1	0.49	<2
			14-Jan-21	0.77	<1	<1	0.15	<2
			29-Jan-21	0.89	<1	<1	0.35	<2
			11-Feb-21	0.85	<1	<1	0.24	<2
			26-Feb-21	0.59	<1	<1	0.15	<2
			12-Mar-21	99:0	<1	<1	0.1	<2
			23-Mar-21	0.74	<1	<1	0.1	<2
			6-Apr-21	0.82	<1	<1	0.32	<2
			20-Apr-21	0.73	<1	<1	60.0	<2
			4-May-21	29'0	<1	<1	0.11	<2
			20-May-21	0.82	<1	<1	0.28	4
			1-Jun-21	0.62	<1	<1	0.35	<2
			16-Jun-21	0.65	<b>\_</b>	<b>√</b>	0.13	<2
BUR-588K	GRAB	7500 Blk Cumberland St.	29-Jun-21	0.91	7	7	0.17	<2
			13-Jul-21	0.43	<b>\_</b>	<1	0.32	<2
			27-Jul-21	0.72	<1	<1	0.31	36
			10-Aug-21	0.45	<1	<1	0.22	16
			25-Aug-21	16:0	<1	<1	0.29	72
			8-Sep-21	2.0	<1	<1	0.31	20
			21-Sep-21	65'0	<1	<1	0.15	52
			5-0ct-21	0.42	<1	<1	0.17	2
			19-Oct-21	0.47	<1	<1	0.11	<2
			2-Nov-21	0.65	<1	<1	0.16	<2
			16-Nov-21	0.7	<1	<1	0.1	2
			30-Nov-21	0.72	<1	<1	0.17	<2
			14-Dec-21	0.65	<1	<1	0.11	<2
			14-Jan-21	0.37	<1	<1	0.44	<2
			29-Jan-21	0.64	<1	<1	0.32	<2
			11-Feb-21	95.0	<1	<1	0.2	<2
			26-Feb-21	9.0	<1	<1	0.26	<2
			12-Mar-21	0.59	<1	<1	0.12	<2
			23-Mar-21	69:0	<1	<1	0.12	<2
BUR-589K	GRAB	6500 Blk Marlborough St.	6-Apr-21	0.45	<1	<1	0.37	<2
			20-Apr-21	0.5	<1	<1	0.24	<2
			4-May-21	0.79	<1	<1	0.17	4

		Drinking Water Reports By Station - (	ports By Station -	City of Burnaby Sites (2021)	Sites (2021)			
Sample Name	Sample Type	Description	Sampled Date	Chlorine Free mg/L	Ecoli CFU/100mLs	Total Coliform CFU/100mLs	Turbidity NTU	HPC CFU/mL
			20-May-21	0.61	<1	<1	0.28	2
			1-Jun-21	0.59	<1	<1	69.0	<2
			16-Jun-21	0.93	<1	<1	0.3	<2
			29-Jun-21	0.5	<1	<1	0.12	4
			13-Jul-21	99:0	<1	<1	0.31	2
			27-Jul-21	0.54	<1	<1	0.25	12
			10-Aug-21	0.33	<1	<1	0.22	14
			25-Aug-21	0.61	<1	<1	0.5	48
			8-Sep-21	0.34	<1	<1	0.33	9
R118-589K	GBAB	6500 Blk Marlborough St	21-Sep-21	0.8	7	<1	0.28	<2
	Š		5-0ct-21	0.47	7	<1	0.18	46
			19-0ct-21	0.47	<1	<1	0.17	12
			2-Nov-21	0.62	<1	<1	0.15	4
			16-Nov-21	0.48	<1	<1	0.12	9
			30-Nov-21	99.0	<1	<1	0.19	2
			14-Dec-21	0.41	<1	<1	0.2	2
			14-Jan-21	9.0	<1	<1	0.13	<2
			29-Jan-21	1.09	<1	<1	0.45	2
			11-Feb-21	0.7	<1	<1	0.11	<2
			26-Feb-21	0.59	<1	<1	0.3	<2
			12-Mar-21	69.0	<1	<1	0.11	<2
			23-Mar-21	0.77	7	<b>√</b>	0.1	<2
			6-Apr-21	0.93	7	7	0.39	<2
			20-Apr-21	0.74	7	<1	0.1	<2
			4-May-21	0.71	<1	<1	0.1	2
			20-May-21	0.65	<1	<1	0.26	<2
			1-Jun-21	0.58	<1	<1	0.32	14
			16-Jun-21	0.72	<1	<1	0.12	<2
BUR-590K	GRAB	6100 Blk Imperial St.	29-Jun-21	0.68	<1	<1	0.12	4
			13-Jul-21	0.56	<1	<1	0.43	140
			27-Jul-21	0.7	<1	<1	0.24	8
			10-Aug-21	0.37	<1	<1	0.18	40
			25-Aug-21	0.67	7	<1	0.34	300
			8-Sep-21	0.48	7	<1	0.27	64
			21-Sep-21	0.58	<1	<1	0.17	130
			5-0ct-21	0.27	<1	<1	0.16	840
			19-0ct-21	0.56	<1	<1	0.14	54
			2-Nov-21	0.57	<1	<1	0.24	09
			16-Nov-21	0.75	<1	<1	0.13	44
			30-Nov-21	0.77	<1	<1	0.12	72
			14-Dec-21	0.67	7	<1	0.12	40
			15-Jan-21	0.57	7	<1	0.17	<2
			28-Jan-21	0.5	<1	<1	0.26	<2
			9-Feb-21	0.87	<1	<1	0.09	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	Sites (2021)			
	Contraction True		oted belowed	Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	sample Type	Description	sampieu Date	mg/L	CFU/100mLs	CFU/100mLs	UTN	CFU/mL
			25-Feb-21	69:0	<1	<1	0.11	<2
			11-Mar-21	0.68	<1	<1	0.1	<2
			26-Mar-21	0.7	<1	<1	0.11	<2
			8-Apr-21	0.75	<1	<1	0.12	<2
DIID E021/	a ۷ a ۷	+3 +53114077   0080	22-Apr-21	99:0	<1	<1	0.2	8
BUR-392N	GRAD	Soud Lyminist St.	6-May-21	69'0	1>	<1	0.22	9
			19-May-21	85.0	<1	<1	0.14	<2
			4-Jun-21	69:0	1>	<1	0.13	<2
			17-Jun-21	0.72	1>	<1	0.44	<2
			30-Jun-21	0.62	<1	<1	0.22	9
			14-Jul-21	0.58	<1	<1	0.17	2
			28-Jul-21	0.47	<1	<1	0.23	10
			11-Aug-21	0.39	<1	<1	0.52	<2
			24-Aug-21	89:0	<1	<1	0.4	<2
			7-Sep-21	0.57	<1	<1	0.28	<2
			22-Sep-21	0.65	<1	<1	0.18	<2
			6-Oct-21	0.45	<1	<1	0.14	<2
BUR-592K	GRAB	9800 Lynhurst St.	20-Oct-21	0.83	<1	<1	0.14	<2
			3-Nov-21	0.72	1>	<1	0.17	<2
			17-Nov-21	69'0	1>	<1	0.13	<2
			1-Dec-21	69'0	1>	<1	0.11	8
			15-Dec-21	69:0	<1	<1	0.12	<2
			15-Jan-21	0.63	<1	<1	0.16	<2
			28-Jan-21	95'0	1>	<1	0.21	<2
			9-Feb-21	0.65	<1	<1	60:0	<2
			25-Feb-21	69.0	<1	<1	0.12	<2
			11-Mar-21	0.44	1>	<1	0.1	<2
			26-Mar-21	0.55	<1	<1	0.11	2
			8-Apr-21	0.52	<1	<1	0.16	<2
			22-Apr-21	0.5	<1	<1	0.14	<2
			6-May-21	0.5	<1	<1	0.15	4
			19-May-21	0.42	<1	<1	0.13	<2
			4-Jun-21	0.46	<1	<1	0.16	<2
			17-Jun-21	0.53	<1	<1	0.12	<2
BUR-593K	GRAB	3300 Blk Lakecity	30-Jun-21	0.4	<1	<1	0.2	<2
			14-Jul-21	0.47	<1	<1	0.15	2
			28-Jul-21	0.56	<1	<1	0.19	9
			11-Aug-21	0.28	<1	<1	0.17	<2
			24-Aug-21	0.28	<1	<1	0.2	2
			7-Sep-21	0.59	<1	<1	0.23	9
			22-Sep-21	0.42	<b>\1</b>	<1	0.23	<2
			6-Oct-21	0.5	<1	<1	0.13	10
			20-0ct-21	0.42	<1	<1	0.12	9
			3-Nov-21	0.63	<1	<1	0.16	14

		Drinking Water Re	Drinking Water Reports By Station - City of Burnaby Sites (2021)	City of Burnaby	Sites (2021)			
	1			Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
samble Name	sample lype	Description	sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTO	CFU/mL
			17-Nov-21	0.55	<1	<1	0.13	<2
			1-Dec-21	0.63	<1	<1	0.12	<2
			15-Dec-21	69'0	<1	<1	0.13	<2
			15-Jan-21	0.64	<1	<1	0.14	<2
			28-Jan-21	0.73	<1	<1	0.17	<2
			9-Feb-21	0.77	<1	<1	0.09	<2
			25-Feb-21	0.71	<1	<1	0.11	<2
			11-Mar-21	0.73	<1	<1	0.1	<2
			31-Mar-21	0.74	<1	<1	0.11	<2
			8-Apr-21	0.71	<1	<1	0.11	<2
			22-Apr-21	0.72	<1	<1	0.14	<2
			6-May-21	2.0	<1	<1	0.23	<2
BUR-594K	GRAB	9000 Blk Centaurus Circle	19-May-21	0.63	<1	<1	0.17	<2
			4-Jun-21	0.58	<1	<1	0.15	<2
			17-Jun-21	0.88	<1	<1	0.18	<2
			30-Jun-21	0.82	<1	<1	0.16	4
			14-Jul-21	0.41	<1	<1	0.27	<2
			28-Jul-21	0.64	<1	<1	0.2	18
			11-Aug-21	25'0	1>	<1	89:0	<2
			24-Aug-21	9.0	1>	<1	0.29	38
			7-Sep-21	0.74	1>	<1	0.26	48
			22-Sep-21	0.68	<b>\_</b>	<1	0.19	16
			6-0ct-21	0.55	7	<1	0.18	22
			20-0ct-21	0.87	< <u>1</u>	<1	0.2	8
7100	(		3-Nov-21	0.72	<1	<1	0.17	8
DOR-394R	g GVVD	SOOO BIR CEII(AUIUS CIICIE	17-Nov-21	6.73	1>	<1	0.13	8
			1-Dec-21	0.72	1>	<1	0.16	4
			15-Dec-21	0.72	<1	<1	0.12	2
			15-Jan-21	0.64	1>	<1	0.15	4
			28-Jan-21	69:0	<1	<1	0.22	<2
			9-Feb-21	0.71	<1	<1	0.09	<2
			25-Feb-21	0.73	<1	<1	0.13	<2
			11-Mar-21	0.61	<1	<1	0.08	<2
			26-Mar-21	0.7	<1	<1	0.1	<2
			8-Apr-21	99.0	<1	<1	0.11	<2
			22-Apr-21	0.63	<1	<1	0.16	<2
			6-May-21	9.0	<1	<1	0.14	<2
			19-May-21	9.0	1>	<1	0.14	2
			4-Jun-21	0.59	<1	<1	0.13	<2
			17-Jun-21	0.62	<1	<1	0.17	<2
BUR-595K	GRAB	Rochester St.	30-Jun-21	0.88	<1	<1	0.2	2
			14-Jul-21	0.53	<1	<1	0.18	<2
			28-Jul-21	0.67	<1	<1	0.21	4
			11-Aug-21	0.47	<1	<1	0.65	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	Sites (2021)			
				Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
sample Name	sampie Type	Description	sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			24-Aug-21	0.42	<1	<1	0.24	8
			7-Sep-21	0.64	<1	<1	0.56	8
			22-Sep-21	0.64	<1	<1	0.13	8
			6-0ct-21	0.38	<1	<1	0.16	<2
			20-0ct-21	0.58	<1	<1	0.16	2
			3-Nov-21	69:0	<1	<1	0.17	4
			17-Nov-21	0.74	<1	<1	0.12	4
			1-Dec-21	98'0	<1	<1	0.22	2
			15-Dec-21	6.73	<1	<1	0.14	<2
			7-Jan-21	62'0	<1	<1	0.14	14
			22-Jan-21	0.82	<1	<1	0.11	<2
			4-Feb-21	29'0	<1	<1	0.16	8
			16-Feb-21	0.81	<1	<1	0.1	9
			3-Mar-21	9.0	<1	<1	0.11	<2
			16-Mar-21	69'0	<1	<1	0.12	9
			30-Mar-21	68.0	<1	<1	0.13	22
			13-Apr-21	29'0	<1	<1	0.22	24
			12-May-21	99'0	<1	<1	0.19	<2
			26-May-21	0.74	<1	<1	0.1	42
200	2	7.7	10-Jun-21	0.74	< <u>1</u>	<1	0.1	4
BUR-390R	GRAB	Sol Durine	22-Jun-21	0.77	<1	<1	0.28	8
			7-Jul-21	0.59	7	<1	0.23	44
			20-Jul-21	0.67	<b>\_</b>	<1	0.13	<2
			3-Aug-21	0.78	<1	<1	0.16	50
			18-Aug-21	0.56	4	<1	0.14	170
			31-Aug-21	0.5	4	<1	0.13	8
			15-Sep-21	69'0	<1	<1	0.13	<2
			29-Sep-21	9.0	<1	<1	0.11	12
			13-0ct-21	0.62	<1	<1	0.15	4
			26-Oct-21	62'0	<1	<1	0.18	4
			9-Nov-21	99.0	<1	<1	0.11	2
			23-Nov-21	0.4	<1	<1	0.12	<2
BUR-596K	GRAB	561 Duthie	7-Dec-21	6.0	<1	<1	0.12	4
			21-Dec-21	2.0	<1	<1	0.15	NA
			7-Jan-21	0.7	<1	<1	1.4	<2
			22-Jan-21	29'0	<1	<1	0.13	<2
			4-Feb-21	69'0	<1	<1	0.18	<2
			16-Feb-21	9.75	<1	<1	0.35	<2
			3-Mar-21	0.58	<1	<1	0.13	<2
			16-Mar-21	69.0	<1	<1	0.24	<2
			30-Mar-21	0.73	<b>\1</b>	<1	0.1	<2
			13-Apr-21	0.54	<1	<1	0.31	<2
			30-Apr-21	0.5	<1	<1	99.0	<2
			12-May-21	0.51	<1	<1	0.38	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	oorts By Station -	City of Burnaby	v Sites (2021)			
	Say Clames	\$ C	oten belames	Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
	Sample Type		Sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTO	CFU/mL
			26-May-21	0.53	<1	<1	0.31	<2
			10-Jun-21	0.56	<1	<1	0.15	<2
BUR-597K	GRAB	25 m. N. of Univ. High St. & Univ. Cresc.	22-Jun-21	0.49	<1	<1	1.2	9
			7-Jul-21	0.55	<1	<1	0.35	70
			20-Jul-21	0.52	<1	<1	0.22	2
			3-Aug-21	0.52	<1	<1	0.72	44
			18-Aug-21	0.48	<1	<1	0.34	16
			31-Aug-21	0.42	<1	<1	0.46	72
			15-Sep-21	69.0	<1	<1	82'0	10
			29-Sep-21	98'0	<1	<1	0.44	24
			13-0ct-21	0.34	<1	<1	0.55	16
			26-0ct-21	0.44	<1	<1	0.25	8
			9-Nov-21	99'0	<1	<1	0.29	12
			23-Nov-21	95'0	<1	<1	0.39	2
			7-Dec-21	89.0	<1	<1	0.82	10
			15-Jan-21	0.65	<1	<1	0.15	4
			28-Jan-21	0.52	<1	<1	0.19	16
			9-Feb-21	0.45	<1	<1	0.13	4
			25-Feb-21	2.0	<1	<1	0.12	<2
			11-Mar-21	0.46	1>	<1	0.13	<2
			26-Mar-21	9.0	1>	<1	0.15	<2
			8-Apr-21	0.63	<1	<1	0.11	<2
			22-Apr-21	0.54	7	<1	0.24	2
			6-May-21	0.48	7	<1	0.24	4
			19-May-21	0.49	<1	<1	0.12	<2
			4-Jun-21	0.63	<1	<1	0.14	<2
			17-Jun-21	0.68	4	<1	0.11	<2
BUR-660K	GRAB	North Rd. across from Hume Park	30-Jun-21	0.61	<b>\_</b>	<1	0.17	<2
			14-Jul-21	0.44	<1	<1	0.15	<2
			28-Jul-21	0.64	1>	<1	0.22	2
			11-Aug-21	0.46	<1	<1	0.15	2
			24-Aug-21	0.42	<1	<1	0.27	38
			7-Sep-21	69.0	<1	<1	0.16	18
			22-Sep-21	0.3	<1	<1	0.15	<2
			6-0ct-21	0.41	<1	<1	0.14	9
			20-Oct-21	65'0	1>	<1	0.19	10
			3-Nov-21	0.62	<1>	<1	0.12	44
			17-Nov-21	0.56	<1	<1	0.16	4
			1-Dec-21	0.71	1>	<1	0.11	10
			15-Dec-21	0.53	<1	<1	0.11	<2
			14-Jan-21	0.65	<1	<1	0.12	<2
			29-Jan-21	0.65	<1	<1	0.19	<2
			11-Feb-21	0.72	<1	<1	0.11	<2
			26-Feb-21	89.0	<1	<1	0.15	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station - (	City of Burnaby	Sites (2021)			
	1	C		Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	Sample Type	Description	Sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			12-Mar-21	0.64	<1	<1	0.1	<2
			23-Mar-21	0.61	<1	<1	60'0	<2
			6-Apr-21	0.61	<1	<1	60:0	<2
			20-Apr-21	0.74	<1	<1	0.12	<2
			4-May-21	0.72	1>	<1	0.1	<2
			20-May-21	0.61	<1	<1	0.14	<2
			1-Jun-21	0.55	<1	<1	0.12	<2
			16-Jun-21	0.94	1>	<1	60:0	<2
BUR-661K	GRAB	5300 Kira Court	29-Jun-21	69'0	<1	<1	0.17	<2
			13-Jul-21	0.67	<1	<1	0.17	<2
			27-Jul-21	0.71	<1	<1	0.12	<2
			10-Aug-21	95'0	1>	<1	0.16	4
			25-Aug-21	9.0	1>	<1	0.16	<2
			8-Sep-21	0.71	1>	<1	0.13	<2
			21-Sep-21	65'0	<1	<1	0.16	2
			5-0ct-21	0.52	<1	<1	0.19	<2
			19-0ct-21	0.57	1>	<1	0.1	<2
			2-Nov-21	29'0	1>	<1	0.22	<2
			16-Nov-21	9:0	<1	<1	0.11	<2
			30-Nov-21	0.7	<1	<1	0.12	<2
			14-Dec-21	0.74	<1	<1	0.14	<2
			7-Jan-21	0.68	< <u>1</u>	<1	0.13	<2
			22-Jan-21	0.74	7	<1	0.12	<2
			4-Feb-21	0.74	7	<1	0.11	<2
			16-Feb-21	0.68	<b>\_</b>	<1	0.09	<2
			3-Mar-21	0.63	<1	<1	0.09	<2
			16-Mar-21	99.0	< <u>1</u>	<1	0.14	<2
			30-Mar-21	0.74	<1	<1	0.14	<2
			13-Apr-21	2.0	<1	<1	0.17	<2
			30-Apr-21	0.74	1>	<1	20:0	<2
			12-May-21	0.62	<1	<1	0.11	<2
			26-May-21	8.0	<1	<1	0.12	<2
			10-Jun-21	0.61	<1	<1	0.13	2
7699 GIIB	avas	1000 Bly Aviding Dr	22-Jun-21	0.65	<1	<1	0.33	<2
200			7-Jul-21	0.68	<1	<1	0.17	4
			20-Jul-21	0.5	<1	<1	0.12	<2
			3-Aug-21	0.58	<1	<1	0.16	18
			18-Aug-21	95.0	1>	1	0.14	310
			31-Aug-21	0.37	<1	<1	0.15	<2
			15-Sep-21	0.63	<1	<1	0.14	10
			29-Sep-21	0.55	<1	<1	0.16	14
			13-0ct-21	0.69	<1	<1	0.12	<2
			26-Oct-21	0.44	<1	<1	0.13	14
			9-Nov-21	0.62	<1	<1	0.13	18

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	Sites (2021)			
	1	:		Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	Sample Type	Description	Sampled Date		CFU/100mLs	CFU/100mLs	NTO	CFU/mL
			23-Nov-21	0.75	<1	<1	0.12	14
			7-Dec-21	99:0	<1	<1	0.1	9
			21-Dec-21	0.91	<1	<1	0.11	NA
7059-011a	avas	Monarch & Gatonby (@ of 1105 Gatonby)	15-Jan-21	0.49	<1	<1	0.24	2
A600-4100	מגעוס	Molaicil & Catelloy (@ Ol 4400 Catelloy)	28-Jan-21	0.62	<1	<1	1.2	<2
			9-Feb-21	0.61	<1	<1	0.11	8
			25-Feb-21	0.69	<1	<1	0.12	<2
			11-Mar-21	0.64	<1	<1	0.1	<2
			26-Mar-21	0.62	<1	<1	0.15	9
			8-Apr-21	0.62	<1	<1	0.1	14
			22-Apr-21	0.49	<1	<1	0.13	20
			6-May-21	0.54	<1	<1	0.14	10
			19-May-21	0.69	<1	<1	0.16	56
			4-Jun-21	0.66	<1	<1	0.13	<2
			17-Jun-21	0.56	<1	<1	0.14	2
			30-Jun-21	0.53	<1	<1	0.59	<2
BUR-669K	GRAB	Monarch & Gatenby (@ of 4405 Gatenby)	14-Jul-21	0.51	<1	<1	0.33	<2
			28-Jul-21	0.54	<1	<1	1.4	8
			11-Aug-21	0.46	<1	<1	0.21	<2
			24-Aug-21	0.27	<1	<1	0.24	<2
			7-Sep-21	69.0	<1	<1	6.0	12
			22-Sep-21	0.41	4	<1	0.21	2
			6-0ct-21	0.44	<b>\_</b>	<1	0.23	4
			20-0ct-21	0.43	<1	<1	0.11	2
			3-Nov-21	0.52	4	<1	0.14	4
			17-Nov-21	0.57	4	<1	0.13	<2
			1-Dec-21	99.0	<1	<1	0.14	4
			15-Dec-21	0.46	<1	<1	0.12	<2
			4-Jan-21	69.0	<1	<1	0.21	20
			21-Jan-21	0.61	<1	<1	0.11	<2
			5-Feb-21	0.7	<1	<1	0.15	2
			18-Feb-21	0.57	<1	<1	0.18	<2
			4-Mar-21	0.64	<1	<1	0.43	<2
			17-Mar-21	0.58	<1	<1	0.22	<2
			31-Mar-21	0.48	<1	<1	0.15	2
			14-Apr-21	0.82	<1	<1	0.12	<2
			27-Apr-21	0.71	<1	<1	0.12	<2
			11-May-21	0.55	<1	<1	0.16	9
			25-May-21	0.58	<1	<1	0.12	50
			9-Jun-21	0.49	<1	<1	0.11	<2
NO08-BIIB	avay	2400 Bly Millbara	23-Jun-21	0.63	<1	<1	0.17	<2
7000		יייט טיין אין מכט אין אין מכט אין אין מכט אין	6-Jul-21	0.63	<1	<1	0.23	<2
			21-Jul-21	0.53	<1	<1	0.29	2
			4-Aug-21	0.37	<1	<1	0.25	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	sites (2021)			
	1	: .		Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	Sample Type	Description	Sampled Date		CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			17-Aug-21	0.35	<1	<1	0.17	<2
			1-Sep-21	0.38	<1	<1	0.21	2
			14-Sep-21	0.35	<1	<1	0.15	14
			28-Sep-21	0.59	<1	<1	0.13	<2
			14-Oct-21	0.45	<1	<1	0.14	2
			27-Oct-21	0.48	<1	<1	1.1	<2
			10-Nov-21	0.51	1>	<1	0.12	<2
			24-Nov-21	62'0	<1	<1	0.16	4
			8-Dec-21	89'0	<1	<1	0.11	<2
			22-Dec-21	89.0	<1	<1	0.22	NA
			14-Jan-21	0.72	<1	<1	0.18	<2
RIIR-850K	SPAR	Near Vinant and McKay	29-Jan-21	0.4	<1	<1	0.32	<2
NOCO-NOG	9645	ואפמן עולטיוע מווע ועונאמץ	11-Feb-21	0.73	<1	<1	0.19	<2
1			26-Feb-21	0.57	<1	<1	0.27	<2
			12-Mar-21	0.62	<1	<1	0.16	<2
			23-Mar-21	9.0	<1	<1	0.12	<2
			6-Apr-21	0.93	<1	<1	0.28	<2
			20-Apr-21	0.75	<1	<1	0.18	2
			4-May-21	92'0	<1	<1	0.13	<2
			20-May-21	85.0	1>	<1	0.25	<2
			1-Jun-21	6.73	1>	<1	6.0	<2
			16-Jun-21	0.72	<1	<1	0.12	<2
			29-Jun-21	0.79	<1	<1	0.24	<2
			13-Jul-21	92'0	1>	<1	0.27	20
BUR-850K	GRAB	Near Vipond and McKay	27-Jul-21	28'0	1>	<1	0.29	<2
			10-Aug-21	9.0	1>	<1	6.0	<2
			25-Aug-21	92'0	1>	<1	0.47	9
			8-Sep-21	6:0	1>	<1	0.38	9
			21-Sep-21	69'0	1>	<1	0.55	4
			5-0ct-21	0.45	<1	<1	0.55	8
			19-Oct-21	0.74	<1	<1	0.26	<2
			2-Nov-21	0.74	<1	<1	0.13	<2
			16-Nov-21	92'0	<1	<1	0.15	<2
			30-Nov-21	92'0	<1	<1	0.16	<2
			14-Dec-21	28'0	<1	<1	0.15	<2
			14-Jan-21	0.34	<1	<1	0.11	<2
			29-Jan-21	9.0	1>	<1	0.26	<2
			11-Feb-21	25.0	1>	<1	0.23	<2
			26-Feb-21	65'0	<1	<1	0.1	<2
			12-Mar-21	0.49	<1	<1	0.12	<2
			23-Mar-21	0.33	<1	<1	0.1	<2
			6-Apr-21	0.38	<1	<1	0.26	<2
			20-Apr-21	0.52	<1	<1	0.11	<2
			4-May-21	0.48	<1	<1	0.15	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	sites (2021)			
				Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	sample Type	Description	sampieu Date	mg/L	CFU/100mLs	CFU/100mLs	UTN	CFU/mL
			20-May-21	0.4	<1	<1	0.4	<2
			1-Jun-21	0.4	1>	<1	0.34	<2>
			16-Jun-21	0.45	<1	<1	0.12	<2
BUR-851K	GRAB	9225 Holmes St.	29-Jun-21	0.22	1>	<1	0.19	<2>
			13-Jul-21	0.52	<1	<1	0.24	<2
			27-Jul-21	0.62	<1	<1	0.27	<2
			10-Aug-21	0.31	<1	<1	0.27	<2
			25-Aug-21	0.63	<1	<1	0.3	<2
			8-Sep-21	0.2	1>	<1	0.25	2
			21-Sep-21	0.1	<1	<1	0.2	<2
			5-0ct-21	0.33	<1	<1	0.15	<2>
			19-0ct-21	0.15	<1	<1	0.13	82
			2-Nov-21	0.29	<1	<1	0.16	<2
			16-Nov-21	0.23	<1	<1	0.1	<2
			30-Nov-21	0.46	<1	<1	0.14	10
			14-Dec-21	0.35	<1	<1	0.15	<2
			7-Jan-21	0.88	<1	<1	0.11	<2
			22-Jan-21	0.69	<1	<1	0.13	<2
			4-Feb-21	0.51	<1	<1	0.12	<2
BUR-852K	GRAB	West of 7027 Gibson	16-Feb-21	0.83	1>	<1	80:0	<2>
			3-Mar-21	0.7	1>	<1	0.13	<2>
			16-Mar-21	0.83	<1	<1	0.13	2
			30-Mar-21	0.73	<b>\_</b>	<1	0.21	<2
			13-Apr-21	0.73	<1	<1	0.19	<2
			30-Apr-21	0.79	< <u>1</u>	<1	0.07	<2
			12-May-21	0.71	<1	<1	0.13	<2
			26-May-21	0.69	<1	<1	0.08	<2
			10-Jun-21	0.75	1>	<1	0.13	<2>
			22-Jun-21	0.77	<1	<1	0.34	<2
			7-Jul-21	0.85	<1	<1	0.31	<2
			20-Jul-21	0.55	<1	<1	0.18	2
			3-Aug-21	0.78	<1	<1	0.18	2
BUR- <b>852K</b>	GRAB	West of 7027 Gibson	18-Aug-21	0.69	<1	<1	0.19	12
			31-Aug-21	0.56	<1	<1	0.13	<2
			15-Sep-21	0.74	<1	<1	0.11	2
			29-Sep-21	0.7	<1	<1	0.17	<2
			13-0ct-21	0.67	1>	<1	0.21	4
			26-0ct-21	0.75	1>	<1	0.15	2
			9-Nov-21	0.76	<1	<1	0.12	<2
			23-Nov-21	0.77	<1	<1	0.12	<2
			7-Dec-21	0.82	<1	<1	0.12	4
			21-Dec-21	0.77	<1	<1	0.14	NA
			7-Jan-21	0.75	<1	<1	0.13	<2
			22-Jan-21	0.82	<1	<1	0.13	<2

		Drinking Water Reports By Station - City of Burnaby Sites (2021)	ports By Station -	City of Burnaby	Sites (2021)			
	1			Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
sample Name	sampie Type	Description	sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			4-Feb-21	0.86	<1	<1	0.28	<2
			16-Feb-21	0.83	<1	<1	0.09	<2
			3-Mar-21	69.0	<1	<1	0.13	<2
			16-Mar-21	0.71	<1	<1	0.12	<2
			30-Mar-21	0.72	<1	<1	0.17	<2
			13-Apr-21	9.0	<1	<1	0.22	<2
			30-Apr-21	0.84	<1	<1	20.0	<2
			12-May-21	0.72	<1	<1	0.12	<2
			26-May-21	8.0	<1	<1	80.0	<2
			10-Jun-21	0.39	<1	<1	0.11	<2
B118-853K	GBAB	1531 Spering	22-Jun-21	0.67	<1	<1	0.35	<2
NCC0-100		8 III DAO TOOT	7-Jul-21	0.79	<1	<1	0.21	<2
			20-Jul-21	9.0	<1	<1	0.17	<2
			3-Aug-21	0.74	<1	<1	0.17	<2
			18-Aug-21	69.0	<1	<1	0.19	<2
			31-Aug-21	0.73	<1	<1	0.12	<2
			15-Sep-21	9.70	<1	<1	0.12	2
			29-Sep-21	0.85	<1	<1	0.17	<2
			13-0ct-21	0.74	<1	<1	0.18	<2
			26-Oct-21	0.78	7	<1	0.24	<2
			9-Nov-21	0.89	<b>\_</b>	<1	0.14	<2
			23-Nov-21	0.76	7	<b>\_</b>	0.15	<2
			7-Dec-21	0.95	7	7	0.14	<2
			21-Dec-21	0.93	7	<1	0.19	NA
			4-Jan-21	0.79	<1	<1	0.17	<2
			21-Jan-21	2.0	<1	<1	0.14	<2
			5-Feb-21	0.55	<1	<1	60'0	<2
DIID OCAV	Q V Q U		18-Feb-21	9.70	<1	<1	0.25	<2
74C0-70G	g AVD	JOGG CAISOI	4-Mar-21	0.57	<1	<1	0.33	<2
			17-Mar-21	0.44	<1	<1	0.33	<2
			31-Mar-21	0.73	<1	<1	0.18	<2
			14-Apr-21	0.8	<1	<1	0.2	<2
			27-Apr-21	0.64	<1	<1	0.13	<2
			11-May-21	0.7	<1	<1	0.13	<2
			25-May-21	0.5	<1	<1	0.14	<2
			9-Jun-21	0.63	<1	<1	0.17	<2
			23-Jun-21	69'0	<1	<1	6:0	<2
			6-Jul-21	0.48	1>	<1	0.29	<2
			21-Jul-21	69'0	<1>	<1	0.81	<2
			4-Aug-21	0.5	<1	<1	0.4	<2
N SEAK	SPAB	703767 0933	17-Aug-21	0.35	<1	<1	8.0	<2
100		בססט כמוסטט	1-Sep-21	0.37	<1	<1	0.26	4
			14-Sep-21	0.41	<1	<1	0.18	4
			28-Sep-21	0.53	<1	<1	0.18	10

			Drinking Water Reports By Station - (	ports By Station -	City of Burnaby Sites (2021)	Sites (2021)			
14004.21   0.55   0.4		Sample Type	Description	Sampled Date		Ecoli CFU/100mLs	Total Coliform CFU/100mLs	Turbidity NTU	HPC CFU/mL
GRAB SOO9 Manor SOO9 And Carrent Office Carrent Carren				14-0ct-21	0.55	<1	<1	0.14	4
CRANG   CRANG   CRANG   CRANG   CRANG				27-0ct-21	0.94	<1	<1	0.16	2
Stoke-21				10-Nov-21	0.65	<1	<1	0.13	<2
Sheep21   O63   C4				24-Nov-21	0.65	<1	<1	0.26	<2
15-pac-21				8-Dec-21	0.63	<1	<1	0.11	2
15-Jan-21   0.659   0.4				22-Dec-21	0.75	<1	<1	0.21	NA
## Section 1				15-Jan-21	0.69	<1	<1	0.15	4
9-Feb-21 0.82 cd 2  25-Feb-21 0.75 cd 2  11-Mar-21 0.75 cd 2  11-Mar-21 0.75 cd 2  25-Mar-21 0.78 cd 2  15-Mar-21 0.78 cd 2  17-Mar-21 0.64 cd 2  17-Mar-21 0.69 cd 2  17-Mar-21				28-Jan-21	0.65	<1	<1	0.13	<2
## CRAB    15-Feb-21   0.63   <-1				9-Feb-21	0.82	<1	<1	0.11	<2
11-Mar-21				25-Feb-21	0.63	<1	<1	0.11	<2
GRAB         S009 Manor         26-May-21         0.75         <1				11-Mar-21	0.7	<1	<1	0.11	<2>
S-Apr-21   0.68   <1				26-Mar-21	0.75	<1	<1	0.13	<2>
CRAB   22-Apr-21   0.74   0.1				8-Apr-21	0.68	<1	<1	0.12	<2
GRAB         5009 Manor         6-May-21         0.78         <1				22-Apr-21	0.74	<1	<1	0.13	12
19-May-21   0.76   c4				6-May-21	0.78	<1	<1	1.3	34
GRAB         5009 Manor         4-Jun-21         0.73         <1				19-May-21	92'0	<1	<1	0.14	92
GRAB 5009 Manor 17-Jun-21 0.56 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <1 1 1-401-21 0.78 <				4-Jun-21	0.73	<b>\</b>	<1	0.19	12
GRAB 5009 Manor 30-Jun-21 0.78 <1 1				17-Jun-21	0.56	<1	<1	0.1	16
14-Ju -21   0.79   <1	BUR-855K	GRAB	5009 Manor	30-Jun-21	0.78	< <u>1</u>	<1	0.34	9
28-Jul-21 0.62 <1 11-Aug-21 0.64 <1 11-Aug-21 0.64 <1 11-Aug-21 0.64 <1 11-Aug-21 0.65 <1 11-Aug-21 0.68 <1 11-Aug-21 0.68 <1 11-Aug-21 0.68 <1 11-Aug-21 0.68 <1 11-Aug-21 0.69 <1 11-Aug-21 0.				14-Jul-21	0.79	7	<1	0.22	9
11-Aug-21   0.64   <1     24-Aug-21   1.05   <1     24-Aug-21   1.05   <1     22-Sep-21   0.68   <1     22-Sep-21   0.68   <1     6-Oct-21   0.96   <1     17-Nov-21   0.96   <1     17-Nov-21   0.96   <1     17-Nov-21   0.94   <1     17-Nov-21   0.94   <1     17-Nov-21   0.95   <1     17-Nov-21   0.95   <1     17-Nov-21   0.95   <1     17-Nov-21   0.96   <1     17-Nov-21   0.96   <1     17-Nov-21   0.07   <1     17-Nov-21   0.07   <1     17-Nov-21   0.07   <1     18-Peb-21   0.07   <1     18-Peb-21   0.07   <1     19-Apr-21   0.06				28-Jul-21	0.62	< <u>1</u>	<1	0.25	18
## Centennial Reservoir   24-Aug-21   1.05   <1				11-Aug-21	0.64	<b>\</b>	<1	0.27	<2
GRAB         7-Sep-21         0.67         <1				24-Aug-21	1.05	< <u>1</u>	<1	0.26	14
22-Sep-21 0.84 <1 Cmmial Reservoir 6-Oct-21 0.68 <1 Cmmial Reservoir 12-Mar-21 0.08 <1 Cmmial Reservoir 12-Mar-21 0.09 <1 Cmmial Reservoir 12-Mar-21 0.09 <1 Cmmial Reservoir 12-Mar-21 0.09 <1 Cmmial Reservoir 12-Mar-21 0.008 <1 Cmmial Reservoir 1				7-Sep-21	29.0	<1	<1	0.2	99
GRAB         Centennial Reservoir         6-Oct-21         0.68         <1				22-Sep-21	0.84	<1	<1	0.19	10
20-Oct-21 0.9 <1 CT   3-Nov-21 0.96 <1 CT   17-Nov-21 0.96 <1 CT   17-Nov-21 0.96 <1 CT   17-Nov-21 0.96 <1 CT   17-Nov-21 0.94 <1 CT   17-Nov-21 0.97 <1 CT   18-Reb-21 0.07 <1 CT   18-Reb-21 0.06 <1 CT   18-Apr-21 0.06 <1 CT   18-Apr-21 0.06 <1 CT   18-Apr-21 0.09 <1 CT   19-Apr-21 0.09 <1 CT   1				6-0ct-21	0.68	< <u>1</u>	<1	0.22	9
3-Nov-21   0.96   <1				20-Oct-21	6.0	<1	<1	0.34	10
T1-Nov-21 0.96 <1  1-Dec-21 0.94 <1  1-Dec-21 0.8 <1  15-Dec-21 0.03 <1  16-Dec-21 0.03 <1  16-Dec-21 0.04 <1  16-Dec-21 0.05 <1  17-Dec-21 0.05 <1  17-				3-Nov-21	0.9	<1	<1	0.11	20
1-Dec-21   0.94   <1     15-Dec-21   0.8   <1     15-Dec-21   0.8   <1     15-Dec-21   0.03   <1     15-Dec-21   0.013   <1     15-Dec-21   0.013   <1     16-Eb-21   0.07   <1     16-Eb-21   0.07   <1     16-Mar-21   0.08   <1     13-Mar-21   0.06   <1     13-Apr-21   0.06   <1     13-Apr-21   0.06   <1     13-Apr-21   0.09   <1     12-May-21   0.08   <1     10-Jun-21   0.08				17-Nov-21	0.96	<1	<1	0.12	4
15-Dec-21   0.8   <1				1-Dec-21	0.94	<1	<1	0.1	<2
GRAB     Centennial Reservoir     7-Jan-21     0.01     <1				15-Dec-21	0.8	<1	<1	0.13	<2
GRAB       Centennial Reservoir       16-Feb-21       0.07       <1				7-Jan-21	0.21	<1	<1	0.17	4
GRAB       Centennial Reservoir       4-Feb-21       0.07       <1				22-Jan-21	0.13	<1	<1	0.16	32
GRAB       Centennial Reservoir       3-Mar-21       0.01       <1				4-Feb-21	0.07	<1	<1	0.16	28
GRAB         Centennial Reservoir         3-Mar-21         0.11         <1           30-Mar-21         0.06         <1				16-Feb-21	0.27	<1	<1	0.16	<2
16-Mar-21 0.08 <1 30-Mar-21 0.06 <1 13-Apr-21 0.06 <1 30-Apr-21 0.09 <1 26-May-21 0.08 <1 10-Jun-21 0.08 <1 22-Jun-21 0.08 <1	BIIB-856K	GRAB	Contennial Reservoir	3-Mar-21	0.11	<1	<1	0.13	2
0.06     <1	NOCO-NOG	g VVD		16-Mar-21	0.08	<1	<1	1.1	130
0.06     <1				30-Mar-21	0.06	<1	<1	0.35	800
0.14     <1				13-Apr-21	0.06	<1	<1	0.23	1700
0.09 <1 0.08 <1 0 <1 0 <1				30-Apr-21	0.14	<1	<1	0.19	1100
0.08 <1 0 <1 0.08 <1				12-May-21	0.09	7	<1	0.22	1200
0 <1				26-May-21	0.08	7	<1	0.37	ΓA
0.08 <1				10-Jun-21	0	7	<1	0.46	ΙΑ
				22-Jun-21	0.08	<1	<1	0.71	LA

		Drinking Water Reports By Station - (	ports By Station -	City of Burnaby Sites (2021)	Sites (2021)			
Sample Name	Sample Type	Description	Sampled Date		Ecoli CFU/100mLs	Total Coliform CFU/100mLs	Turbidity NTU	HPC CFU/mL
			7-Jul-21	0.27	<1	<1	0.34	100
			20-Jul-21	0.2	<1	<1	0.26	26
			3-Aug-21	0.19	<1	<1	0.28	>11000
			18-Aug-21	0.27	<1	<1	0.34	3600
BUR-865K	GRAB	Centennial Reservoir	31-Aug-21	0.26	<1	<1	0.25	LA
			15-Sep-21	0.25	<1	<1	0.28	1200
			29-Sep-21	0.07	<1	<1	0.29	NA
			13-0ct-21	90:0	<1	<1	0.37	10000
			26-0ct-21	0.17	<1	<1	0.39	LA
			9-Nov-21	0.15	<1	<1	0.44	>11000
			23-Nov-21	0.03	<b>\_</b>	<1	0.55	2800
			7-Dec-21	0.39	<1	<1	0.16	30
			7-Jan-21	0.75	<1	<1	0.1	2
			22-Jan-21	0.72	<1	<1	0.1	<2
			4-Feb-21	0.86	<1	<1	0.12	<2
			16-Feb-21	0.82	<1	<1	0.12	<2
			3-Mar-21	0.67	<1	<1	0.12	<2
			16-Mar-21	0.57	<1	<1	0.11	<2
			30-Mar-21	0.7	<1	<1	60.0	<2
			13-Apr-21	0.64	<1	<1	0.19	<2
			30-Apr-21	0.75	<1	<1	0.1	<2
			12-May-21	0.61	<1	<1	0.17	<2
			26-May-21	0.62	7	<b>√</b>	0.11	<2
			10-Jun-21	0.59	<1	<1	60.0	<2
NE SETK	avas	ricysoso Docorosi	22-Jun-21	9.0	<1	<1	0.23	<2
A 700-400	9640		7-Jul-21	0.74	<1	<1	0.14	2
			20-Jul-21	69:0	<1	<1	0.15	<2
			3-Aug-21	0.62	<1	<1	0.25	4
			18-Aug-21	0.57	<1	<1	0.15	2
			31-Aug-21	0.54	<1	<1	0.15	<2
			15-Sep-21	0.69	<1	<1	0.15	2
			29-Sep-21	99.0	<1	<1	0.13	<2
			13-0ct-21	0.63	<1	<1	0.15	9
			26-0ct-21	0.97	<b>\1</b>	<1	0.18	9
			9-Nov-21	0.87	<1	<1	0.18	<2
			23-Nov-21	0.67	<1	<1	0.14	2
			7-Dec-21	0.83	<1	<1	0.14	4
			21-Dec-21	0.64	<1	<1	0.18	NA
			7-Jan-21	0.54	<1	<1	0.16	<2
			22-Jan-21	0.59	<1	<1	0.27	9
			4-Feb-21	0.61	<b>\_</b>	<1	0.11	4
			16-Feb-21	0.7	<1	<1	0.1	2
			3-Mar-21	9.0	<1	<1	0.14	<2
			16-Mar-21	0.55	<1	<1	0.12	4

		0	Diffinite water reports by station - City of Burnaby Sites (2021)	CITY OF BUILDING	JICS (202-1)			
Night	Out Toland	C. C	otol bolomos	Chlorine Free	Ecoli	Total Coliform	Turbidity	HPC
Sample Name	Sample Type	Description	sampled Date	mg/L	CFU/100mLs	CFU/100mLs	NTU	CFU/mL
			30-Mar-21	0.67	<1	<1	0.14	<2
			13-Apr-21	0.61	<1	<1	0.18	2
DIID 950K	8 4 9 0		30-Apr-21	0.58	<1	<1	0.16	10
AC.00-A00	9	192 NOTTH WATWICK	12-May-21	0.64	<1	<1	0.26	4
			26-May-21	0.7	<1	<1	0.12	2
			10-Jun-21	0.62	<1	<1	0.09	<2
			22-Jun-21	0.52	<1	<1	0.16	8
			7-Jul-21	0.5	<1	<1	2.8	2500
			20-Jul-21	0.42	<1>	<1	0.12	14
			3-Aug-21	0.29	<1	<1	0.26	44
			18-Aug-21	0.37	<1	<1	0.22	100
			31-Aug-21	0.2	<1	<1	0.13	20
0100	9	103 Marth William	15-Sep-21	0.42	<1	<1	0.13	<2
A60-A00	9	132 NOI LII WAI WICK	29-Sep-21	0.38	<1	<1	0.15	24
			13-0ct-21	0.36	<1	<1	0.13	26
			26-0ct-21	0.08	<1	<1	0.27	770
			9-Nov-21	0.16	<1	<1	0.14	640
			23-Nov-21	0.51	<1	<1	0.12	2
			7-Dec-21	0.49	<1	<1	0.14	270
			21-Dec-21	0.65	<1	<1	0.17	NA

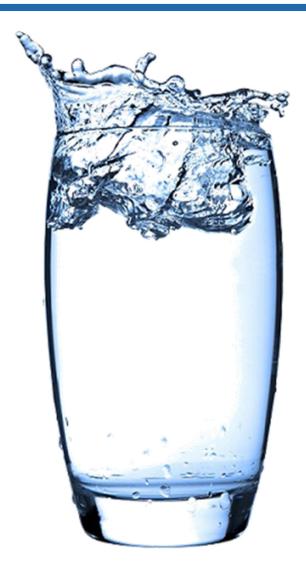
# **APPENDIX B**

Metro Vancouver Water Quality Control Annual Report for 2021

# DRINKING WATER QUALITY 2021 ANNUAL REPORT

-100

# **metro**vancouver



# Greater Vancouver Water District 2021 Water Quality Annual Report Volume 1 of 2

March 2022

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### **EXECUTIVE SUMMARY**

#### **Source Water Quality**

- In 2021, the turbidity levels of the delivered water met the requirements of the Guidelines for Canadian Drinking Water Quality (GCDWQ).
- The Capilano supply was in service for the entire year. Heavy rainfall events in November resulted in Capilano source water turbidity peaking just over 21 Nephelometric Turbidity Unit (NTU). Even with the higher turbidity, the delivered filtered Capilano water was less than 0.30 NTU as measured by online instruments for the entire year.
- The Seymour supply was in service for the entire year. Heavy rainfall events in November resulted in Seymour source water turbidity peaking at 11 NTU. The delivered filtered Seymour water was less than 0.30 NTU as measured by online instruments for the entire year.
- The Coquitlam supply was in service for the entire year. The unfiltered Coquitlam source water was greater than 1 NTU for 22 days in 2021 and did not exceed 5 NTU throughout the year in accordance with GVWD's Permit to Operate.
- The microbiological quality of the three source waters was excellent in 2021. The levels of bacteria and protozoa detected were low and indicative of high quality source water.
- Coquitlam source water quality met the bacteriological requirements for avoiding filtration outlined in the turbidity section of the GCDWQ.
- Results of the analyses of the source water for herbicides, pesticides, volatile organic compounds and radionuclides were all found to be below the recommended limits for these substances as listed in the GCDWQ.

#### Water Treatment

- The Seymour Capilano Filtration Plant (SCFP) performance, as measured by the quality of the delivered water, was excellent in 2021. The daily average turbidity of water leaving the clearwells to enter the Greater Vancouver Water District (GVWD) transmission system was an average of 0.15 NTU in 2021.
- Turbidity levels for Individual Filter Effluent (IFE) met the turbidity requirements of the GCDWQ.
- Filtration consistently removed iron, colour and organics from the Capilano and Seymour source water.
- Levels of total aluminum in filtered water were consistently below the GCDWQ operational guideline value of 0.2 mg/L for direct filtration plants using aluminum-based coagulants. The maximum value for 2021 was 0.03 mg/L.
- There were no outages of ultraviolet treatment at the SCFP and the Coquitlam Water Treatment Plant (CWTP).
- The SCFP and CWTP operated the full year using sodium hypochlorite for chlorination.
- The secondary disinfection stations boosted chlorine when required.

#### Transmission/Distribution System Water Quality

- Bacteriological water quality was excellent in the GVWD transmission mains and in-system storage reservoirs.
- Of the approximate 6,600 samples collected from the regional system for testing in 2021, none were positive for *E. coli*. The detection of an *E. coli* triggers a protocol which involves immediate notification to health and member jurisdiction officials, re-sampling, and a thorough investigation into the possible causes.
- Bacteriological water quality was excellent in the distribution systems of the member jurisdictions. Of the approximate 20,800 samples collected from member jurisdictions for

- testing in 2021, a high percentage (99.8%) were free of total coliforms, and one sample tested positive for *E. coli*.
- The running average levels of the Trihalomethane (THM) group of chlorine disinfection byproducts detected in the delivered water in the GVWD and member jurisdiction systems were
  below the Maximum Acceptable Concentration (MAC) in the GCDWQ of 100 μg/L (0.1 mg/L).
   The running average levels for the Haloacetic Acid (HAA) group of chlorine disinfection byproducts were below the GCDWQ Maximum Acceptable Concentration (MAC) of 80 μg/L (0.08
  mg/L).

#### **ACRONYMS**

ACU Apparent Color Unit

AO Aesthetic Objective (characteristics such as taste, colour, appearance, temperature that are not health

related)

BCDWPR British Columbia Drinking Water Protection Regulation

BHT Break Head Tank

BTEX Benzene, Ethylbenzene, Toluene, Xylene

CALA Canadian Association for Laboratory Accreditation

CRWPS Capilano Raw Water Pump Station

CFE Combined Filter Effluent
CFU Colony Forming Units
CO<sub>2</sub> Carbon Dioxide

CTD Conductivity, Temperature, Depth CWTP Coquitlam Water Treatment Plant

DS Distribution System
DBP Disinfection By-product
DOC Dissolved Organic Carbon

DWTP Drinking Water Treatment Program

DWTO Drinking Water Treatment Objectives (Microbiological) for Surface Water Supplies in British Columbia

E. coli Escherichia coli

ERF Energy Recovery Facility

EPA Environmental Protection Agency (USA)
ESWTR Enhanced Surface Water Treatment Rule (USA)
GCDWQ Guidelines for Canadian Drinking Water Quality

GVWD Greater Vancouver Water District

HAA Haloacetic Acid

HPC Heterotrophic Plate Count IFE Individual Filter Effluent

MAC Maximum Acceptable Concentration
MCL Maximum Contaminant Level
MDA Minimum Detectable Activity
MDL Method Detection Limit
mg/L Milligram per litre (0.001 g/L)
μg/L Microgram per litre (0.000001 g/L)

mL Milliliter

MF Membrane Filtration

mJ/cm<sup>2</sup> Millijoule per centimeter squared

MPN Most Probable Number

N/A Not Available

NTU Nephelometric Turbidity Unit PAH Polycyclic Aromatic Hydrocarbons

PFOA Perfluorooactanoic Acid PFOS Perfluorooctane Sulfonate

pH Measure of acidity or basicity of water; pH 7 is neutral

Parts per Billion (Equivalent of microgram per litre) ppb ppm Parts per Million (Equivalent of microgram per litre)

**Recycled Clarified Water** RCW Raw Water Tunnel RWT

SCADA Supervisory Control and Data Acquisition

Seymour Capilano Filtration Plant SCFP

TS **Transmission System**  $\mathsf{THAA}_5$ Total Haloacetic<sub>5</sub> Acids THM Trihalomethane TOC **Total Organic Carbon** TTHM **Total Trihalomethane** TWT Treated Water Tunnel

 $\mathsf{UV}_{254}$ Ultraviolet Absorbance at 254 nm WHO World Health Organization

WQMRP Water Quality Monitoring and Reporting Plan for Metro Vancouver (GVWD) and Local Government

Members

## WATER SAMPLING AND TESTING PROGRAM

Source Water T	otal coliform and <i>E. coli</i> urbidity	Daily
	urhidity	
G	an orang	Daily
	Giardia and Cryptosporidium	Monthly at Capilano and
		Coquitlam
А	Ammonia, colour, iron, organic carbon, pH	Weekly
А	Alkalinity, chloride, calcium, hardness, magnesium,	Monthly
m	nanganese, nitrate, potassium, phosphate, sulphate	
Α	Aluminum, copper, sodium, total and suspended solids	Bi-monthly
T	rihalomethanes, haloacetic acids	Quarterly
A	Antimony, arsenic, barium, boron, cadmium, cyanide,	Semi-annually
cl	hromium, lead, mercury, nickel, phenols, selenium,	
si	ilver, zinc	
P	Pesticides and herbicides	Annually
P.	PAHs, BTEXs	Annually
V	/OC	Annually
R	Radioisotopes	Annually
Treated To	otal coliform and <i>E. coli</i>	Daily
water T	urbidity	Daily
To	- emperature	Daily
	Ammonia, colour, iron, organic carbon, pH, aluminum at SCFP	Weekly
А	Aluminum, copper, sodium, total and suspended solids	Bi-Monthly
T	rihalomethanes, haloacetic acids	Quarterly at selected sites
cl	Antimony, arsenic, barium, boron, cadmium, cyanide, hromium, lead, mercury, nickel, phenols, selenium, ilver, zinc	Semi-annually
GVWD To	otal coliform and <i>E. coli</i>	Weekly per site
Water Mains H	leterotrophic plate count	Weekly per site
F	ree chlorine	Weekly per site
T	rihalomethanes, haloacetic acids, pH	Quarterly at selected sites
P	PAHs, BTEXs	Semi-annually at selected sites
GVWD To	otal coliform and <i>E. coli</i>	Weekly per site
Reservoirs H	leterotrophic plate count	Weekly per site
F	ree chlorine	Weekly per site
Member To	otal coliform and <i>E. coli</i>	Weekly per site
Jurisdiction H	leterotrophic plate count	Weekly per site
	ree chlorine	Weekly per site
Systems T	urbidity	Weekly per site
T	rihalomethanes, haloacetic acids, pH	Quarterly at selected sites

## 1.0 SOURCE WATER QUALITY

The first barrier in place to protect the quality of drinking water supply is the protection of the Water Supply Area to ensure the best quality source water. Source water monitoring provides ongoing confirmation that the barrier is effective, identifies seasonal changes and provides the monitoring information necessary to adjust the level of water treatment that is in place. Regular monitoring of the water sources is also a requirement of the Water Quality Monitoring and Reporting Plan for Metro Vancouver (GVWD) and Local Government Members (WQMRP).

## 1.1. Bacteriological Quality of the Source Water

The bacteriological quality of the source water is an important indicator of the degree of contamination, and the treatment required to ensure a safe water supply. The Drinking Water Treatment Objectives (Microbiological) for Surface Water Supplies in British Columbia (DWTO) Section 4.3 states "The number of E. coli in raw water does not exceed 20/100 mL (or if E. coli data are not available less than 100/100 mL of total coliform) in at least 90% of the weekly samples from the previous six months. Treatment target for all water systems is to contain no detectable E. coli or fecal coliform per 100 mL."

Table 1 summarizes E. coli data for all three GVWD water supply sources. The levels of E. coli for all three sources were below the 10% limit in the provincial turbidity guideline.

		in a six month period ending distribution of the six month period ending distribution of the six months are six months and six months are six	
Month	Capilano	Seymour	Coquitlam
Jan	4.4%	8.7%	3.8%
Feb	4.4%	9.1%	3.9%
Mar	1.1%	5.1%	0.6%
Apr	0.0%	0.0%	0.0%
May	0.0%	0.0%	0.0%
Jun	0.0%	0.0%	0.0%
Jul	0.0%	0.0%	0.0%
Aug	0.0%	0.0%	0.0%
Sep	3.8%	4.4%	3.3%
Oct	3.8%	7.6%	3.8%
Nov	3.8%	7.7%	3.8%
Dec	3.8%	7.7%	3.8%

Table 1: Percent of Samples in Six Continual Months with E. coli/100 mL Exceeding 20

Figure 1 shows the results of the analysis of the source water from 2017 to 2021 at all three intakes compared to the limits for source water bacterial levels in the DWTO. As in previous years, all three sources met the limit of not more than 10% exceeding 20 E. coli/100 mL. Also, as in previous years, samples collected at the intakes in the fall and winter had the highest E. coli levels. Typically, E. coli can be traced back to high flow levels at the main tributaries of the supply lakes and a first flush phenomenon after a period of dry weather.

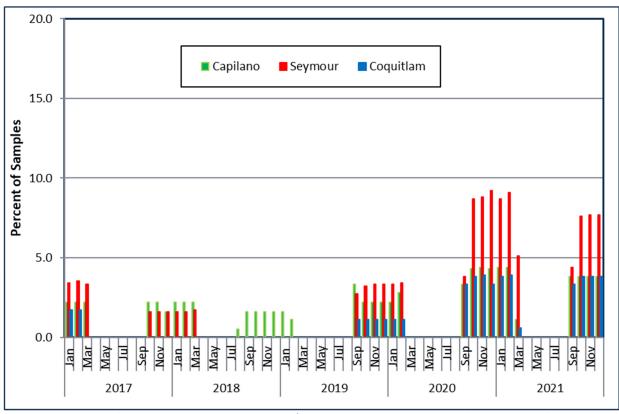


Figure 1: Percent of Samples Exceeding 20 E. coli/100 mL at all Three Sources (2017 to 2021)

Note: Metro Vancouver has protected Water Supply Areas and therefore the source of E. coli is most likely originating from endemic animals in the Water Supply Areas.

## 1.2. Source Water Monitoring for Giardia and Cryptosporidium

Unfiltered surface water supplies have the potential of containing the protozoan pathogens Giardia and Cryptosporidium. Outbreaks of Giardiasis occurred in a number of locations in BC and Washington State in the late 1980s, and Metro Vancouver has been monitoring raw water for Giardia since 1987. Since 1992, Metro Vancouver has participated in a program with the BC Centre of Disease Control Enhanced Water Testing Laboratory, to gather more information about the number and nature of cysts found in the GVWD water supplies. The program involves collecting samples from the Capilano and Coquitlam supplies upstream of disinfection.

At the SCFP, monitoring for Giardia and Cryptosporidium has focused on the recycled water returning to the head of the plant and this monitoring has confirmed that the procedures in place effectively control the levels of Giardia and Cryptosporidium in the recycled wash water from the filters.

The results of the 2021 testing program are contained in the "Metro Vancouver Detection of Waterborne Cryptosporidium and Giardia January - December, 2021 Annual Report", which was prepared by the BC Public Health Microbiology & Reference Laboratories, Environmental Microbiology, and can be found in Appendix D. Three of twelve (25%) samples collected at Capilano and three of the twelve (25%) collected at Coquitlam were positive for Giardia (Table 2).

Seymour samples are all process control samples and not Seymour source water (shown as N/A in the table).

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Capilano	75	50	18	18	50	58	33	33	33	25
Seymour	N/A									
Coquitlam	50	23	8	0	17	67	8	25	25	25

Table 2: Percent of Samples Positive for Giardia

Zero of twelve (0%) samples collected at Capilano were positive for Cryptosporidium, and zero of twelve (0%) were positive at Coquitlam (Table 3). Seymour samples are all process control samples and not Seymour source water (shown as N/A in the table).

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Capilano	16	9	9	9	25	17	8	0	0	0
Seymour	N/A									
Coquitlam	8	9	0	0	0	0	0	0	0	0

Table 3: Percent of Samples Positive of Cryptosporidium

Year to year fluctuations are demonstrated for Giardia and Cryptosporidium and there has always been considerable variation in the results.

## 1.3. Turbidity

As shown in Figure 2, GVWD water sources have been susceptible to turbidity upsets due to high runoff from storms which can cause slides and stream scouring in the Water Supply Areas, or from re-suspension of sediment from the edges of the lakes during periods of low water levels. The DWTO allows a utility to be exempt from filtration if the turbidity does not exceed specific water quality parameters requirements and provided that a number of other provisions, including source water protection and two forms of water treatment requirements, are in place. Historically the turbidity levels on both the Capilano and Seymour sources would not meet these criteria, therefore plans were developed and implemented to filter both supplies.

Filtration of 100% of the Seymour supply began in December 2009, and filtration and distribution of the Capilano supply through the Twin Tunnels connecting the Capilano and Seymour source supplies commenced in February 2015. Both the raw and treated water tunnels were fully operational in April 2015.

Section 4.4 of the DWTO (Version 1.1, November 2012) contains the following provision for filtration exemption:

For nonfiltered surface water to be acceptable as a drinking water source supply, average daily turbidity. levels should be established through sampling at equal intervals (at least every four hours) immediately before the disinfectant is applied. Turbidity levels of around 1.0 NTU but not exceeding 5.0 NTU for more than two days in a 12-month period should be demonstrated in the absence of filtration. In addition, source water turbidity also should not show evidence of harbouring microbiological contaminants in excess of the exemption criteria."

Capilano and Seymour water is filtered so these source water criteria don't apply to the delivered water. Coquitlam, which is unfiltered, was in service for all of 2021 in accordance with the DWTO.

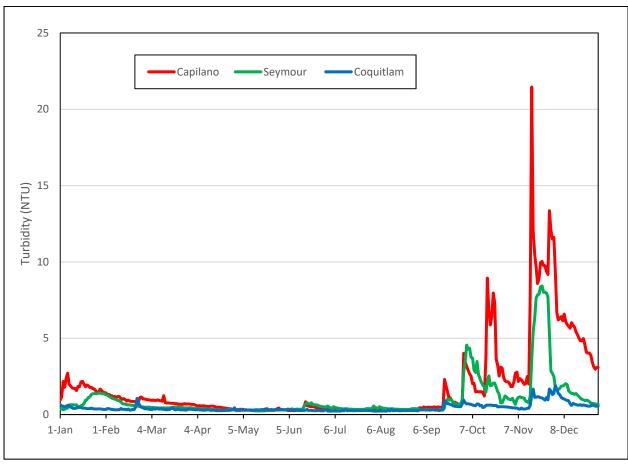


Figure 2: Average Daily Turbidity of Source Water (From In-line Readings)

## 1.4. Chemistry

## 1.4.1. Chemical and Physical Characteristics of Source Water

The chemical and physical characteristics of the GVWD source water are summarized in Appendix A of this report; detailed analytical results are provided in Volume II. The results from the chemical and physical analyses of the source water in 2021 were similar to those for other years.

## 1.4.2. Herbicides, Pesticides, Volatile Organic Compounds, Radioactivity and Uranium

Analyses of the source water for a variety of organic compounds, including all of the compounds with an specified MAC in the Guidelines for Canadian Drinking Water Quality (GCDWQ), is carried out on an annual basis in accordance with the WQMRP. The results are contained in Appendix B of this report and in Volume II. No parameters were detected above the applicable GCDWQ health based limits.

#### 1.4.3. PFOS and PFAS

The GCDWQ have added the parameters of Perfluorooctane Sulfonate (PFOS) and Perfluorooactanoic Acid (PFAS) for testing of the source and treated waters. The results are in Appendix B of this report and in Volume II. None of the chemicals in these categories were detected. Common sources of these synthetic chemicals are from consumer products and fire-fighting foam for their water and oil repellant properties.

#### 1.4.4. Limnology

The Reservoir Water Quality Monitoring Program started in 2014 collects limnology data (physical, chemical and biological parameters) for the Capilano, Seymour and Coquitlam Reservoirs. Reservoir monitoring information is important in proactively managing the supply reservoirs as water quality could be impacted by environmental variability and climate change. This program assists in ensuring that variation and trends in reservoir quality are scientifically tracked over time.

Water sampling of the source reservoirs and inflow rivers is conducted between April and November each year. Biological productivity that can influence water quality is the highest during this time of year, making it an important time for sampling and measurements. Monthly sampling of the source water is conducted by staff and sample analysis undertaken by accredited labs. More frequent water quality measurements are compiled by arrays of scientific instruments in each reservoir.

Metro Vancouver employs the services of a limnology consultant to review the annual program data, interpret physical, chemical, and biological conditions and examine long term trends. Results in 2021, as in previous years, confirmed the three reservoirs are ultra-oligotrophic (see Appendix C), which means they have low levels of available nutrients and low levels of biological production. A single value called the Trophic State Index (TSI) is used to infer time course change in water quality based on the amount of algal biomass in the water column of each reservoir. TSI values have remained consistently low since measurements began (see Appendix C), which shows low biological production. The ultra-oligotrophic classification and low TSI values are highly desirable for source drinking water supply and shows that the GVWD Water Supply Areas and reservoirs continue to supply high quality water.

There is worldwide interest in blue green algae (also known as cyanobacteria) in water reservoirs. These algae can produce toxins that are collectively known as microcystins. A common cyanobacterium in GVWD reservoirs is called Merismopedia spp., which is thought to produce these microcystins. Despite the presence of cyanobacteria, the concentration of microcystins in GVWD reservoirs remains well below levels known to affect human health and are far below the GCDWQ. This desirable condition is due to the ultra-oligotrophic status of the reservoirs. Metro Vancouver continues to monitor cyanobacteria, including Merismopedia species as well as processes in the reservoirs that control the growth of cyanobacteria and other algae. These data are routinely used to help predict changes to water quality over time related to climatic and environmental change and aid in making proactive decisions about ongoing reservoir management strategies.

# 2.0 QUALITY CONTROL ASSESSMENT OF WATER **TREATMENT**

Water treatment is the second barrier (after source water protection) relied on to assure the quality of the water supply.

Completion of the Twin Tunnels Project in 2015 successfully concluded GVWD's regional long-range water treatment enhancement plans which spanned more than ten years. Each tunnel is 3.8 metres in diameter, 7.1 kilometres long, and 160 to 640 meters below ground level, running beneath Grouse Mountain and Mount Fromme. The water from the Raw Water Tunnel (RWT) is filtered and treated alongside the Seymour source water at the Seymour Capilano Filtration Plant (SCFP). Both treated sources enter the Clearwell at the SCFP for further treatment before the blended water is distributed to the region. Blended treated water returns to Capilano through the Treated Water Tunnel (TWT) and provides high quality drinking water to the Capilano area while the remainder is distributed through the Seymour system.

## 2.1. Seymour Capilano Filtration Plant

The SCFP is a chemically assisted direct filtration plant which uses poly aluminum chloride as a coagulant with polymers to improve particle removal. These substances help aggregate particles to form visible floc. The flocculated particles are removed by passing this water through a filter medium of anthracite and sand. The result is the production of filtered water which is then exposed to ultraviolet light as the water exits each filter. The final processes are the addition of sodium hypochlorite (chlorine) and hydrated lime before the water enters the Clearwells. The West and East Clearwells are large water storage reservoirs that store and allow controlled passage of water with mixing (or blending) of the injected chlorine and hydrated lime. The Clearwells provide sufficient retention (or contact time) with chlorine to provide any further disinfection required after filtration and ultraviolet light treatment. Carbon dioxide (CO2) in solution is added to trim pH once the desired alkalinity is reached. After the Clearwells, the finished water enters the transmission system at the Seymour Treated Water Valve Chamber. The SCFP has been operational since December 2009 and the quality of the water produced has been excellent.

#### 2.1.1. Filtration

As a result of filtration treatment of the Capilano and Seymour water sources, there have been a number of changes to the characteristics of the delivered water. Some of these changes are visible, and some are not. The most obvious visible change in the water is the decrease in colour and increase in clarity. There is a total loss of brown hue that can sometimes characterize Capilano and Seymour waters before filtration. This improvement in colour is a result of removal of the naturally occurring parameters that cause the brown hue by the filtration process. Suspended particles in water that cause light to scatter (turbidity) are also removed. The end product is water that is very clear. Due to the purity of the water, it may have a slight bluish tinge.

Figure 3 compares the apparent colour of SCFP filtered water and Capilano and Seymour source waters for 2021. During the fall rainfall events, the apparent colour of the Seymour source water feeding the SCFP had a reading over 25 ACU. After the removal of the organic material through filtration, the colour of the filtered water delivered to the public was never greater than 3 ACU.

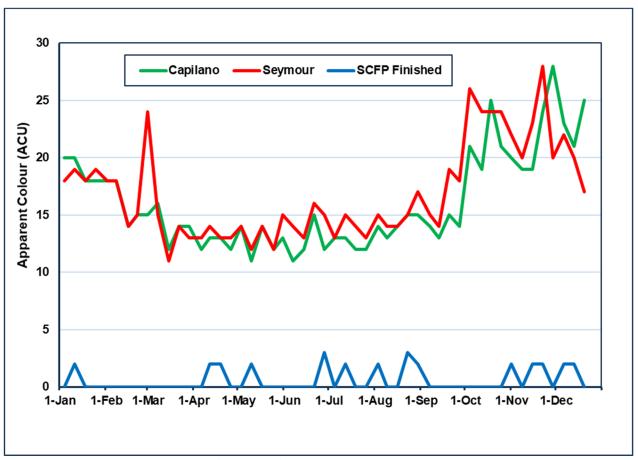


Figure 3: Apparent Colour Levels Before and After Filtration

Figure 4 compares turbidity of the two source waters that feed the SCFP to the turbidity level of the finished water. The Seymour source experienced an average daily turbidity greater than 1 NTU for 106 days. The Capilano source exceeded 1 NTU on 127 days. Since both sources were filtered at the SCFP, the maximum average daily turbidity of the delivered water was 0.22 NTU and the average was 0.15 NTU.

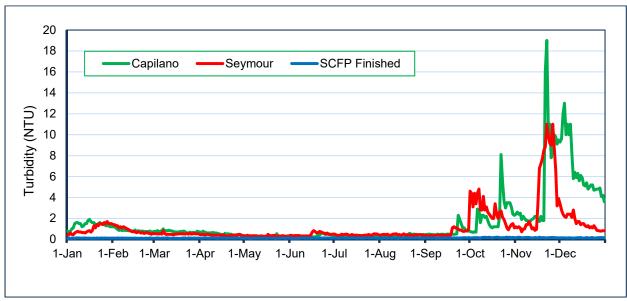


Figure 4: Average Daily Turbidity Levels Before and After Filtration

Removal of turbidity in the source water improves the aesthetic qualities of the water, but it also has the benefit of removing certain types of pathogenic microorganisms that may be present. At a minimum, properly run direct filtration plants such as the SCFP will remove up to 2.5 log (two log is a 99% reduction) of Giardia and Cryptosporidium plus 1 log of viruses. To ensure this removal, it is critical that the performance of each filter determined by the turbidity of its effluent is monitored on a continuous basis.

The GCDWQ (2020) states: "For conventional and direct filtration, less than or equal to 0.3 nephelometric turbidity units (NTU) in at least 95% of measurements either per filter cycle or per month and never to exceed 1.0 NTU."

Ideally the turbidity from each filter would never exceed 0.1 NTU; however, there are rare occurrences of turbidity readings that exceed this ideal level. The turbidity performance of all 24 filters is measured by examining the percent of time that the turbidity of each Individual Filter Effluent (IFE) met the turbidity guidelines of not greater than 1.0 NTU and at least 95% of time less than 0.3 NTU. This is summarized in Table 4. In 2021, there were no incidents where the IFE was greater than 1.0 NTU and the few incidences of filter turbidity readings that were greater than 0.3 NTU, were well within the 95% limit.

Month	Occurrence of IFE Turbidity greater than 1.0 NTU (None Allowed)	Percent of Time IFE Turbidity was less than 0.3 NTU (Minimum 95% Required)
January	0	100%
February	0	100%
March	0	99.99%
April	0	99.99%
May	0	100%
June	0	99.99%
July	0	100%
August	0	100%
September	0	100%
October	0	100%
November	0	100%
December	0	99.99%

Table 4: Monthly Filter Effluent Turbidity Summary

Under normal operating conditions the average turbidity of the filtered water at SCFP was 0.15 NTU.

All water that flows through the filters immediately passes through the ultraviolet units. The intensity of the ultraviolet lamps automatically increases when there is an increase in turbidity of the water exiting each filter. After ultraviolet treatment, the water is chlorinated as it enters the clearwell, where more than one hour of contact time is provided.

#### 2.1.2. Ultraviolet Treatment

The effluent from each filter is treated with ultraviolet light as the water exits the filter. Ultraviolet treatment is effective in altering the DNA structure of Giardia and Cryptosporidium. thus rendering cysts and oocysts, respectively, of these parasites non-infectious. Other disinfectants, especially chlorine, are ineffective against Cryptosporidium oocysts at reasonable dosages. In the unlikely event of a breakthrough of Cryptosporidium oocysts, especially at the end of a filter run, ultraviolet light is present to render any parasites that may be present as non-infectious. Oocysts are not able to proliferate inside the intestines of human hosts to cause illness after a sufficient dose of ultraviolet light. The target dosage for ultraviolet light is to achieve 2-Log (99%) Giardia and Cryptosporidium inactivation is 21 mJ/cm<sup>2</sup>.

Under normal operating conditions, two rows of lamps operating at 75% power provide sufficient ultraviolet light to meet the dosage requirement for 2-log reduction of Giardia and Cryptosporidium

Table 5 summarizes the performance of the SCFP ultraviolet system in 2021.

Month	Percent of Monthly Volume ≥ 2-log of <i>Giardia</i> and <i>Cryptosporidium</i> Inactivation (95% of monthly volume required)
January	99.83%
February	99.92%
March	99.87%
April	99.95%
May	99.95%
June	99.95%
July	99.93%
August	99.86%
September	99.94%
October	99.88%
November	99.92%
December	99.93%

Table 5: Percent of Volume Meeting Ultraviolet Dosage Requirements at SCFP

#### 2.1.3. Chlorination

Chlorination is used for disinfection at the source as well as at secondary disinfection stations to minimize bacterial regrowth in the GVWD transmission and member jurisdiction distribution systems. Chlorination provides 4-log virus inactivation with liquid sodium hypochlorite.

## 2.2. Coguitlam Water Treatment Plant

The Coquitlam Water Treatment Plant (CWTP) uses ozonation, ultraviolet treatment, soda ash and chlorination to treat water from the Coquitlam source.

Ozonation provides pre-treatment and helps remove micro-organisms from the water, reduces disinfection by-products and improves water clarity, which increases the efficiency of the subsequent ultraviolet process. Ozonation provides an additional 4-log virus inactivation to chlorination. Soda ash is then added for pH and alkalinity adjustment for corrosion control, followed by chlorination.

#### 2.2.1. Ultraviolet Treatment

Ultraviolet treatment (operational since 2014) provides for primary disinfection, and achieves 3-log inactivation of chlorine-resistant micro-organisms for Giardia and Cryptosporidium. The water is directed into 8 ultraviolet units, each containing 40 ultraviolet lamps encased in protective sleeves. Ultraviolet light emitted from the lamps passes through the water. The US Environmental Protection Agency (USEPA) requires that the ultraviolet disinfection process results in target Giardia and Cryptosporidium inactivation in at least 95% of the treated water volume on a monthly basis, which is summarized in Table 6. The USEPA standard is used because there is no Canadian standard.

Month	Percent of Monthly Volume ≥ 3-log  Giardia and Cryptosporidium Inactivation  (Minimum 95% Required)
January	99.86%
February	99.87%
March	99.88%
April	99.84%
May	99.87%
June	99.83%
July	99.91%
August	99.90%
September	99.90%
October	99.85%
November	99.88%
December	99.90%

Table 6: Percent of Volume Meeting Ultraviolet Dosage Requirements at CWTP

#### 2.2.2. Chlorination

Chlorination is used for disinfection at the source as well as at secondary disinfection stations to minimize bacterial regrowth in the GVWD transmission and member jurisdiction distribution systems. Chlorination provides 4-log virus inactivation with liquid sodium hypochlorite, which replaced the compressed chlorine gas system in 2017. Table 7 summarizes the performance of all the Coquitlam disinfection systems in 2021.

Facility	Performance	Discussion
Ozonation	Operated 99.7% of time	Acts as a pre-treatment, enhancing the removal of organics and increasing the UV Transmittance making Ultraviolet treatment more effective.  Ozone outages were due to electrical or instrument maintenance, ozone outage test, or ozone generator faults.
Ultraviolet	No loss of ultraviolet in 2021. 99.87 % of volume was treated to ultraviolet specifications	UV performance met USEPA requirements. (95% of monthly volume required).
Chlorination	100% of water was chlorinated	This facility uses chlorine as a secondary disinfectant except during an outage of the ultraviolet system when it is used for primary disinfection.

Table 7: Performance of Coquitlam Disinfection Facilities

## 2.3. Secondary Disinfection

There are 8 secondary disinfection stations operated by Metro Vancouver. The purpose of these stations is to increase the chlorine residual in the water transmission and distribution systems to meet a target residual based on a number of factors, including source water turbidity, the amount of bacterial regrowth detected in member jurisdiction distribution system samples and the chlorine demand in the water. The rate of chlorine decay is lower in the areas receiving filtered water from the SCFP and consequently, lower chlorine dosage levels are required to maintain desired chlorine residual levels. The target chlorine dose leaving the secondary facilities receiving SCFP water is 0.8 mg/L. These facilities frequently have an incoming chlorine residual high enough that boosting is not required. The target chlorine dose leaving the secondary facilities receiving CWTP water ranges from 1.20 to 1.50 mg/L.

Table 8 summarizes the performance of the secondary disinfection facilities in 2021.

Facility	Branch Main	Average	Range of	Discussion	
,		Free	Free		
		Chlorine	Chlorine		
		(mg/L)	(mg/L)		
Clayton	Whalley/Clayton	1.21	1.02 – 1.54	Supplied by Coquitlam water. Station was shut down for one day to replace existin connection to City of Surrey.	
	Jericho/Clayton	1.23	0.95 – 1.61		
Chilco/Alberni	Capilano No. 4 and No.5	0.74	0.61 – 0.83	Supplied by SCFP water.  Station was out of service periodically throughout the year due to power outages and water main isolations.	
Pitt River	Haney Main No.2	1.23	0.88 – 1.52	Supplied by Coquitlam water. Station was out of service periodically throughout the year due to power issues	
	Haney Main No.3	1.23	1.01 – 1.53	and piping breaks.	
Newton	Surrey Hickleton Main	0.99	0.38 – 1.34	Primarily supplied by SCFP water. Power loss for a few hours caused both metering pumps to fault.	
Kersland	Capilano No. 4 and No.5	0.89	0.67 – 1.10	Supplied by SCFP water. The Sodium Hypochlorite Solution injection piping was replaced in May. Station was off for 2 weeks.	
Central Park	South Burnaby Main No.1	0.77	0.70 – 1.04	Primarily supplied by SCFP water. Station was off for 2 days in March for	
	South Burnaby Main No.2	0.90	0.65 – 1.39	main repairs.	
Cape Horn	Coquitlam Main No.2	1.24	0.93 – 1.53	Supplied by Coquitlam water. Station was	
	Coquitlam Main No.3	1.24	0.79 – 1.51	out of service for 1.5 hours after a loss of power in March.	
				Main No. 2 was dosed using Main No. 3 system after a break in piping. Repairs made and systems returned to normal after 2 days.	
Vancouver Heights	Boundary Road Main No. 5	0.84	0.69 – 1.19	Supplied by SCFP water. No operational issues.	

Table 8: Performance of Secondary Disinfection Facilities

#### 2.4. Corrosion Control

Metro Vancouver's Corrosion Control Program began in the 1990s and involves several steps to reduce pipe corrosion. As part of the current Corrosion Control Program: Copper Pipes Protection initiative, further changes in pH and alkalinity were made in June 2021 to help reduce pipe corrosion through the addition of natural minerals.

The untreated water from all three sources had a pH lower than the limit of the GCDWQ of pH 7.0.

In the SCFP process, filtered water is dosed with hydrated lime (calcium bicarbonate) to raise its pH and alkalinity before it enters the clearwells. To achieve the desired alkalinity, the resultant pH is trimmed using CO<sub>2</sub> to bring it down to target levels

At the Coquitlam source, the commissioning of the CO<sub>2</sub> system at the CWTP began in 2019 and was fully operational in 2021. The CO<sub>2</sub> system with the addition of soda ash allows the GVWD to meet new target pH and alkalinity values across the entire system. Similar to the SCFP, the CO2 system is used to trim the resultant pH to desired target levels.

The average pH of the treated water leaving Seymour Capilano and Coquitlam Water Treatment Plants was 8.2 and 8.1, respectively, during 2021.

Performance of the corrosion control facilities is summarized in Table 9.

Facility	Performance	Discussion
SCFP Corrosion Control	pH ranged from 7.4 – 8.9	The annual average pH was 8.2 and was continually monitored with online instrumentation.  The pH target changed from 7.7 to 8.4 in June 2021 to enhance corrosion control.
CWTP Corrosion Control	pH ranged from 6.7 – 9.4	The annual average pH was 8.1.  On a couple of occasions in January the pH was <7.0 for a short period due to a soda ash equipment fault.  In April and December, the pH was > 9 for a short period. In April it was due to complications with the carbon dioxide dosing. In December it was related to a failure with the soda ash system.

Table 9: Performance of Corrosion Control Facilities

The chemical and physical characteristics of the GVWD treated water are summarized in Appendix A of this report and detailed analytical results are provided in Volume II.

# 3.0 TRANSMISSION/DISTRIBUTION SYSTEM WATER **QUALITY**

Schedule A of the BC Drinking Water Protection Regulation (BCDWPR) contains standards for the bacteriological quality of potable water in the Province. There are three components of this standard that apply to large utilities such as GVWD and its member jursidictions. These are:

Part 1: No sample should be positive for E. coli.

Part 2: Not more than 10% of the samples in a 30-day period should be positive for total coliform bacteria when more than 1 sample is collected.

Part 3: No sample should contain more than 10 total coliform bacteria per 100 mL.

The BCDWPR does not contain any water standards other than the three limits for E. coli and total coliform bacteria. Information on the significance of the detection of these organisms can be found in the GCDWQ - Supporting Documents, specifically:

"E. coli is a member of the total coliform group of bacteria and is the only member that is found exclusively in the faeces of humans and other animals. Its presence in water indicates not only recent faecal contamination of the water but also the possible presence of intestinal disease-causing bacteria, viruses and protozoa."

"The presence of total coliform bacteria in water in the distribution system (but not in water leaving the treatment plant) indicates that the distribution system may be vulnerable to contamination or may simply be experiencing bacterial regrowth."

To summarize, the detection of an E. coli bacteria in a sample of treated water is an indication of a potentially serious risk. The detection of total coliform bacteria may indicate intrusion into the system, or it may indicate that these bacteria are growing in the distribution system itself (regrowth).

The number of E. coli detected in both GVWD and member jurisdiction drinking water samples is typically very low. Out of more than 26,000 samples collected from GVWD and member jurisdiction systems analyzed in 2021, one sample was positive for E. coli. The detection of a positive E. coli sample triggers a protocol which involves immediate notification to health and member jurisdiction officials, re-sampling, and a thorough investigation into the possible causes.

In the GVWD transmission system, only 11 out of the approximately 6,600 samples collected, tested positive for total coliforms. Only 30 of the approximately 20,000 samples collected from the member jurisdiction distribution systems tested positive for total coliforms in 2021. The majority of the coliforms (67%) in the member jurisdiction systems appeared in the warmer water months of June through October.

The most likely source of these organisms can be attributed to bacterial regrowth. It should be emphasized that 99.8% of the samples in 2021 had no coliforms present, which is a good indicator of effective water treatment and good transmission and distribution system water quality.

## 3.1. Microbiological Water Quality in the GVWD System

#### 3.1.1. GVWD Water Mains

Water quality in GVWD water mains is monitored from the point leaving the source and throughout the transmission system. In 2021, there were approximately 4,400 samples collected and tested for the presence of indicator bacteria. The percentage of samples from the GVWD water mains that were positive for total coliform bacteria was very low, well below the 10% standard. Of the approximately 4,400 samples processed, only 9 samples tested positive for total coliforms and no samples were positive for E. coli bacteria. The compliance of monitoring results from GVWD water mains with the criteria in the BCDWPR is shown in Figure 5.

There were another 540 samples collected from stations where only chlorine residuals are measured. In addition, there are inline stations collecting data every 10-minutes after chlorination at each source, but these samples are not included in the calculations for compliance monitoring.

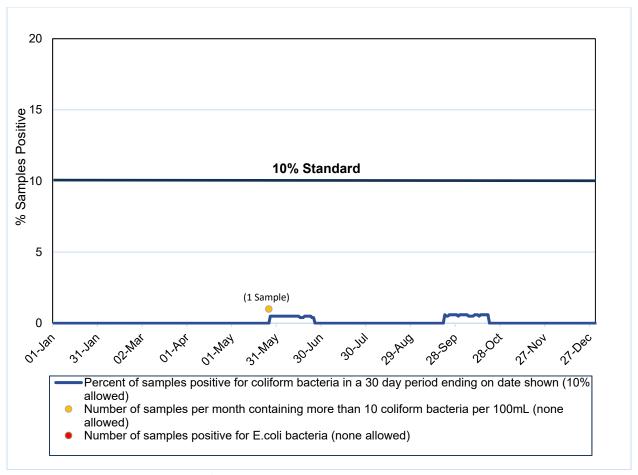


Figure 5: Bacteriological Quality of Water in GVWD Water Mains

#### 3.1.2. GVWD Reservoirs

In 2021, over 2,200 samples were collected from 21 reservoirs and tanks that are located throughout the GVWD water system. Only 2 samples were positive for total coliforms. No sample from a reservoir was positive for *E. coli*.

The compliance of 2021 monitoring results from GVWD reservoirs with the criteria in the BCDWPR is shown in Figure 6.

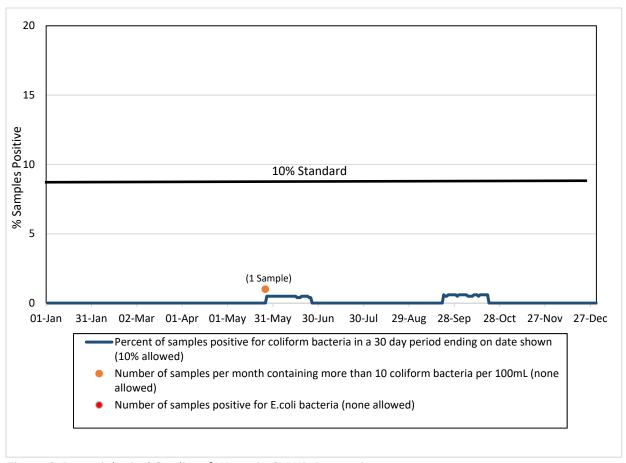


Figure 6: Bacteriological Quality of Water in GVWD Reservoirs

Reservoir water quality is optimized by the use of secondary disinfection coupled with an active reservoir exercising program that includes a minimum of weekly monitoring of chlorine residuals and bacteriology results, which can result in changes to filling levels, if necessary.

In 2021, the first of two cells of the new Jericho Reservoir was commissioned and placed into service on August 30. The reservoir will service the growing needs of the Township of Langley. The second cell is expected to be commissioned in 2022. Total storage at this facility will be 20 million litres.

Table 10 provides an overview of the status of the GVWD reservoirs from 2018 to 2021. During certain times of the year, it is not possible to cycle reservoirs as much as would be desired due to operational constraints. Despite these constraints, water quality as determined by coliform bacteria was satisfactory in all reservoirs.

Burnaby Mountain   0.49   0.53   0.57   0.53   Inspection by divers for conditions in April. Reservoir (13.2)   0.54   0.58   0.60   0.57   No operational issues	Reservoir	Average Free Chlorine (mg/L)		(mg/L)	Discussion	
Burnaby Mountain   Reservoir (13.2)	(Capacity in Million Litres)	2018	2019	2020	2021	_
Reservoir (13.2)	Burnaby Mountain		0.53		0.53	Inspection by divers for conditions in April.
Cape Horn Reservoir (40.0)   0.78   0.61   0.78   0.71   No operational issues	-					
Central Park Reservoir (35.0)	Burnaby Tank (2.3)	0.54	0.58	0.60	0.57	No operational issues
Cayton Reservoir (21.6)	Cape Horn Reservoir (40.0)	0.78	0.61	0.78	0.71	No operational issues
Clayton Reservoir (21.6)	Central Park Reservoir	0.53	0.51	0.66	0.54	No operational issues
Cell 2 removed from service October 12 to maintain water quality due to seasonal low demand.	(35.0)					
Glenmore Tanks (1.0) 0.66 0.68 0.77 0.73 No operational issues  Grandview Reservoir (13.5) 0.71 0.73 0.80 0.85 No operational issues  Greenwood Reservoir (8.8) 0.66 0.68 0.75 0.70 No operational issues  Hellings Tank (4.3) 0.47 0.48 0.54 0.56 No operational issues  Jericho Reservoir (20.0) NA NA NA NA 1.10 New reservoir.  Cell 1 was disinfected and was in operation starting on August 30.  Kennedy Reservoir (16.3) 0.56 0.52 0.58 0.65 No operational issues  Kersland Reservoir (73.7) 0.55 0.55 0.66 0.65 Reservoir No.1 removed from service in October for upgrades until Spring 2022. No Operational issues with other cell.  Little Mountain Reservoir (171.0) No operational issues with other cell.  Little Mountain Reservoir (20.0) No operational issues  No operational issues with other cell.  Little Mountain Reservoir (32.0) 0.53 0.52 0.44 0.46 No operational issues  Pebble Hill Reservoir (42.2) 0.63 0.60 0.66 0.55 0.44 No operational issues  Prospect Reservoir (42.2) 0.63 0.60 0.66 0.54 0.54 0.55 0.44 No operational issues  Prospect Reservoir (4.4) 0.64 0.66 0.76 0.73 No operational issues  Sasamat Reservoir (26.0) 0.54 0.54 0.55 0.62 No operational issues  Sunnyside Reservoir (22.7) 0.58 0.47 0.73 0.85 Cell 1 was investigated by divers in March. Cell 2 was cleaned, inspected, and	Clayton Reservoir (21.6)	1.1	1.02	1.08	1.1	Cell 1 was out of service January 1 to May
Common   C						10. Cell 2 removed from service October 12
Glenmore Tanks (1.0)						to maintain water quality due to seasonal
Grandview Reservoir (13.5)         0.71         0.73         0.80         0.85         No operational issues           Greenwood Reservoir (8.8)         0.66         0.68         0.75         0.70         No operational issues           Hellings Tank (4.3)         0.47         0.48         0.54         0.56         No operational issues           Jericho Reservoir (20.0)         NA         NA         NA         1.10         New reservoir.           Cell 1 was disinfected and was in operation starting on August 30.         Reservoir (16.3)         0.56         0.52         0.58         0.65         No operational issues           Kersland Reservoir (173.7)         0.55         0.55         0.66         0.65         Reservoir No.1 removed from service in October for upgrades until Spring 2022. No Operational issues with other cell.           Little Mountain Reservoir (171.0)         0.53         0.52         0.44         0.69         No operational issues           Pebble Ridge Reservoir (32.0)         0.45         0.46         0.55         0.44         No operational issues           Pebble Hill Reservoir (42.2)         0.63         0.60         0.55         0.44         No operational issues           Prospect Reservoir (4.4)         0.64         0.66         0.76         0.73         No operational issues <td></td> <td></td> <td></td> <td></td> <td></td> <td>low demand.</td>						low demand.
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Hellings Tank (4.3)  Jericho Reservoir (20.0)  NA  NA  NA  NA  NA  NA  NA  NA  NA  N	Grandview Reservoir (13.5)	0.71	0.73	0.80	0.85	·
Jericho Reservoir (20.0)  NA  NA  NA  NA  NA  NA  NA  NA  NA  N	Greenwood Reservoir (8.8)	0.66	0.68	0.75	0.70	No operational issues
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Little Mountain Reservoir (171.0)  Maple Ridge Reservoir (20.0)  Newton Reservoir (32.0)  Pebble Hill Reservoir (42.2)  Prospect Reservoir (4.4)  Sasamat Reservoir (26.0)  Sasamat Reservoir (22.7)  Little Mountain Reservoir (0.64  0.64  0.67  0.72  0.69  No operational issues  No operational issues  Po.44  No operational issues  Cell 1 was out of service January 1 to July 12. Cell 1 was out of service October 17 to maintain water quality due to seasonal low demand and for seismic upgrade work. No Operational issues  No operational issues  No operational issues  No operational issues  Cell 1 was investigated by divers in March. Cell 2 was cleaned, inspected, and						
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Maple Ridge Reservoir (20.0)  Newton Reservoir (32.0)  Pebble Hill Reservoir (42.2)  Pebble Hill Reservoir (42.2)  O.63  O.60  O.66  O.76  O.73  No operational issues  No operational issues  Cell 1 was out of service January 1 to July 12. Cell 1 was out of service October 17 to maintain water quality due to seasonal low demand and for seismic upgrade work. No Operational issues with other cells.  Prospect Reservoir (4.4)  O.64  O.66  O.76  O.73  No operational issues  Sasamat Reservoir (26.0)  O.54  O.54  O.55  O.65  O.75  O.75  O.75  O.75  O.85  Cell 1 was investigated by divers in March. Cell 2 was cleaned, inspected, and		0.64	0.67	0.72	0.69	No operational issues
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Pebble Hill Reservoir (42.2)  0.63  0.60  0.66  0.54  Cell 1 was out of service January 1 to July 12. Cell 1 was out of service October 17 to maintain water quality due to seasonal low demand and for seismic upgrade work. No Operational issues with other cells.  Prospect Reservoir (4.4)  0.64  0.66  0.76  0.73  No operational issues  Sasamat Reservoir (26.0)  0.54  0.54  0.65  0.62  No operational issues  Sunnyside Reservoir (22.7)  0.58  0.47  0.73  0.85  Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 1 was out of service January 1 to July 12. Cell 2 was cleaned, inspected, and						
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Cell 2 was cleaned, inspected, and	' '					·
	Sunnyside Reservoir (22.7)	0.58	0.47	0.73	0.85	
disinfected in November.						· ·
	M	0.66	0.75	0.02	0.70	
Vancouver Heights 0.66 0.75 0.82 0.78 The reservoir was cleaned by divers in	=	0.66	0.75	0.82	0.78	•
Reservoir (43.0) February while remaining in service.		0.50	0.50	0.64	0.00	·
Westburnco Reservoir 0.58 0.58 0.64 0.60 No operational issues (73.0)		0.58	0.58	0.64	0.60	ivo operational issues
Whalley Reservoir (33.4) 0.60 0.59 0.73 0.71 No operational issues	Whalley Reservoir (33.4)	0.60	0.59	0.73	0.71	No operational issues

Table 10: Status of GVWD Reservoirs (2018-2021)

## 3.2. Microbiological Water Quality in Member Jurisdiction Systems

For samples collected from member jurisdiction systems, the percent positive per month for total coliform bacteria from 2018-2021 is shown in Figure 7.

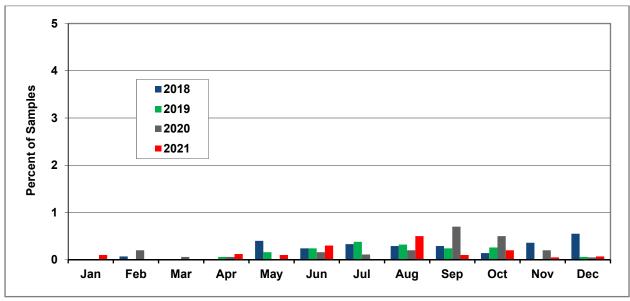


Figure 7: Percent of Samples per Month Positive for Total Coliform Bacteria (2018 to 2021)

The percentage of samples positive for total coliform bacteria in 2021 remained relatively similar as compared to 2020.

Schedule A of the BCDWPR contains standards for the bacteriological quality of potable water in the Province. There are three components of this standard that apply to local governments:

Part 1: No sample should be positive for E. coli.

Part 2: Not more than 10% of the samples in a 30-day period should be positive for total coliform bacteria when more than 1 sample is collected.

Part 3: No sample should contain more than 10 total coliform bacteria per 100 mL.

For samples from member jurisdiction systems, this requirement was met in 2021 with the following exceptions:

- One sample in January contained more than 10 total coliform bacteria.
- One sample in June contained more than 10 total coliform bacteria.
- One sample in October was positive for E. coli.

Table 11 shows the compliance with the bacteriological standards (3 parts) in the BCDWPR for samples taken within the distribution systems of the 20 member jurisdictions that are supplied with GVWD water.

Month	Number that met	Number that met	Number that met	Number that met all
	Part 1	Part 2	Part 3	requirements
January	20	20	19	19
February	20	20	20	20
March	20	20	20	20
April	20	20	20	20
May	20	20	20	20
June	20	20	19	19
July	20	20	20	20
August	20	20	20	20
September	20	20	20	20
October	19	20	20	19
November	20	20	20	20
December	20	20	20	20

Table 11: Member Jurisdiction Water Quality Compared to the Provincial Bacteriological Standards

## 3.3. Disinfection By-Products in the Transmission/Distribution Systems

As the treated water moves through the GVWD Transmission system and into the member jurisdiction distribution system's infrastructure of pipes and reservoirs, changes in water quality occur. This is mainly due to the reaction between the chlorine in the water (added during primary and secondary disinfection) and naturally occurring organic matter in the water.

One of the most significant changes is the production of chlorinated disinfection by-products (DBPs). DBPs is a term used to describe a group of organic and inorganic compounds formed during water disinfection.

Reactions between dissolved natural organic matter and chlorine can lead to the formation of a variety of halogenated DBPs. There are two major groups of chlorinated DBPs: Total Trihalomethanes (TTHMs) and Total Haloacetic Acids (THAA₅). Factors that affect DBP formation include: amount of chlorine added to water, reaction time, concentration and characteristics of dissolved organic materials (precursors), water temperature, and water pH. In general, DBPs continue to form as long as chlorine and reactive DBP precursors are present in the water.

The Maximum Acceptable Concentration (MAC) in the GCDWQ for TTHMs is a locational yearly running average of 100 ppb (0.1 mg/L) based on quarterly samples. A comparison of TTHM levels in the GVWD and member jurisdiction systems in 2021 is shown in Figure 8. All THM results from GVWD water mains and member jurisdiction systems were below the MAC of 100 ppb.

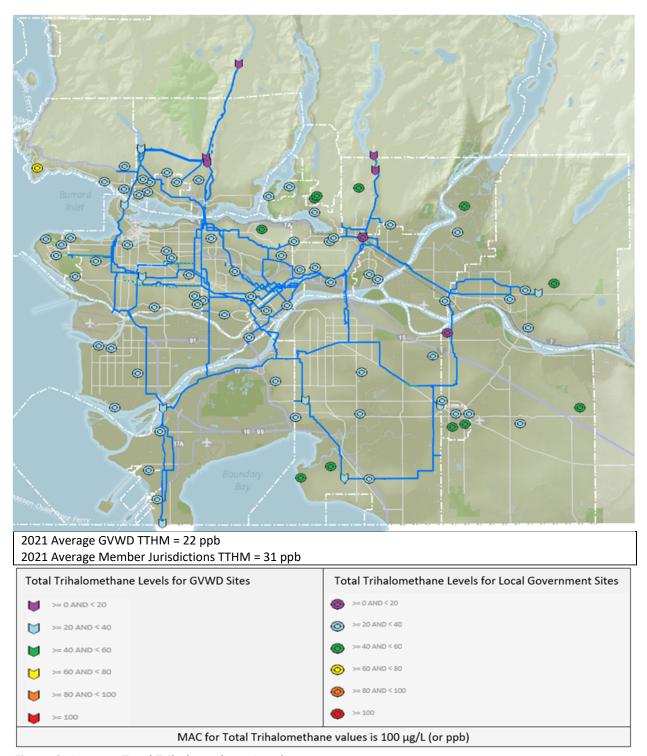


Figure 8: Average Total Trihalomethane Levels

The other group of disinfection by-products of interest is the Total Haloacetic Acid (THAA<sub>5</sub>) group. Comparison of THAA<sub>5</sub> in the GVWD and member jurisdiction systems in 2021 is shown in Figure 9. In 2021, all HAA results from GVWD water mains and member jurisdiction systems were below the MAC of 80 ppb.

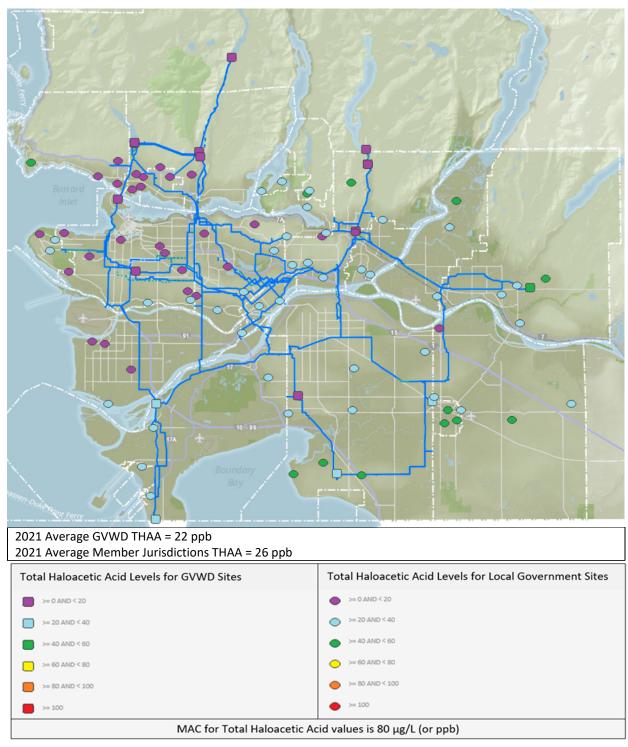


Figure 9: Average Total Haloacetic Acid Levels

## 4.0 QUALITY CONTROL/QUALITY ASSURANCE

In 1994, as required by a new BC Ministry of Health program, the bacteriology section of the GVWD Laboratory received approval from the Provincial Medical Health Officer to perform bacteriological analysis of potable water as required in the BCDWPR. An ongoing requirement of this approval is successful participation in the provincial Clinical Microbiology Proficiency Testing Program, or its equivalent. Representatives of the Approval Committee for Bacteriology Laboratories have carried out an inspection of the GVWD Laboratory facilities at the Lake City Operations Centre in February 2019 as part of the process leading up to approval of the laboratory by the Provincial Health Officer. The next inspection is scheduled for 2022.

In addition to the approval process discussed above, the GVWD Laboratory is accredited by the Canadian Association for Laboratory Accreditation (CALA) for the analysis of parameters for which the laboratory has requested certification. The GVWD Laboratory has been inspected by representatives from CALA biannually since 1995.

Accreditation for the laboratory from the Standards Council of Canada was first received early in 1996 and continued until the middle of 2005, when accreditation was granted by CALA directly.

The most recent on-site audit took place in September 2021, and CALA is expected to issue accreditation approval in Spring 2022. The next CALA inspection will take place in the fall of 2023.

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## **APPENDIX A — CHEMICAL AND PHYSICAL ANALYSIS SUMMARIES**

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## Physical and Chemical Analysis of Water Supply

2021 - Capilano Water System

	Untreated	11	eated	Canadian Guideline				
Parameter	Average	Average	Range	Days Exceeded	Limit	Reason Established		
Alkalinity as CaCO3 (mg/L)	2.8	16	9.0-25		none			
Aluminum Dissolved (μg/L)	76	34	19-63		none			
Aluminum Total (μg/L)	164	35	19-81		none			
Antimony Total (μg/L)	< 0.5	< 0.5	< 0.5	0	6	Health		
Arsenic Total (μg/L)	< 0.5	< 0.5	< 0.5	0	10	Health		
Barium Total (μg/L)	2.9	2.5	1.8-2.9	0	1000	Health		
Boron Total (μg/L)	<10	<10	<10	0	5000	Health		
Bromate (mg/L)	< 0.01	< 0.01	< 0.01	0	0.1	Health		
Bromide (mg/L)	< 0.01	< 0.01	< 0.01	ļ	none			
Cadmium Total (μg/L)	< 0.2	<0.2	<0.2	0	5	Health		
Calcium Total (µg/L)	1140	6210	3980-9320	ļ	none			
Carbon Organic - Dissolved (mg/L)	1.8	0.7	0.5-1.0		none			
Carbon Organic - Total (mg/L)	1.8	0.7	0.5-1.0	ļ ļ	none			
Chlorate (mg/L)	< 0.01	0.03	0.02-0.04	0	1	Health		
Chloride (mg/L)	< 0.5	2.4	2.0-3.1	0	=250	Aesthetic		
Chromium Total (µg/L)	<0.1	< 0.05	< 0.05	0	50	Health		
Cobalt Total (µg/L)	<0.5	<0.5	< 0.5	ļļ	none			
Color - Apparent (ACU)	16	<2	<2-3		none			
Color - True (TCU)	11	<1	<1-2	0	=15	Aesthetic		
Conductivity (µmhos/cm)	10	41	30-55		none			
Copper Total (µg/L)	2.1	< 0.5	< 0.5	0	=1000	Aesthetic		
Cyanide Total (mg/L)	< 0.02	< 0.02	< 0.02	0	0.2	Health		
Fluoride (mg/L)	< 0.05	< 0.05	< 0.05	0	1.5	Health		
Hardness as CaCO3 (mg/L)	3.5	16.6	10.5-24.3		none			
Iron Dissolved (μg/L)	34	<5	<5-5		none			
Iron Total (μg/L)	121	<6	<5-13	0	=300	Aesthetic		
Lead Total (μg/L)	< 0.5	< 0.5	< 0.5	0	5	Health		
Magnesium Total (μg/L)	166	185	147-241		none			
Manganese Dissolved (μg/L)	3.9	1.6	0.7-3.3		none			
Manganese Total (μg/L)	5.4	3.6	1.4-7.0	0	=50	Aesthetic		
Mercury Total (μg/L)	< 0.05	< 0.05	< 0.05	0	1	Health		
Molybdenum Total (μg/L)	< 0.5	< 0.5	< 0.5		none			
Nickel Total (μg/L)	< 0.5	< 0.5	< 0.5		none			
Nitrogen - Ammonia as N (mg/L)	< 0.02	< 0.02	< 0.02		none			
Nitrogen - Nitrate as N (mg/L)	0.07	0.06	0.04-0.10	0	45	Health		
Nitrogen - Nitrite as N (mg/L)	< 0.01	< 0.01	< 0.01	0	1	Health		
pH (pH units)	6.5	7.7	7.4-8.2	0	7.0 to 10.5	Aesthetic		
Phenol (mg/L)	< 0.005	< 0.005	< 0.005		none			
Phosphorus Dissolved (μg/L)	<10	<10	<10	ļļ	none			
Phosphorus Total (μg/L)	<10	<10	<10	ļ	none			
Potassium Total (μg/L)	150	150	124-169	ļļ	none			
Residue Total (mg/L)	15	28	21-37		none			
Residue Total Dissolved (mg/L)	10	30	20-40	0	=500	Aesthetic		
Residue Total Fixed (mg/L)	9	22	15-31		none			
Residue Total Volatile (mg/L)	6	6	4-9	ļl	none			
Selenium Total (μg/L)	< 0.5	< 0.5	< 0.5	0	50	Health		
Silica as SiO2 (mg/L)	3.2	3.2	2.3-3.8	ļļ	none			
Silver Total (μg/L)	< 0.5	< 0.5	< 0.5		none			
Sodium Total (μg/L)	564	1570	1420-1760	0	=200000	Aesthetic		
Sulphate (mg/L)	< 0.6	1.0	0.7-1.3	0	=500	Aesthetic		
Turbidity (NTU)	1.7	0.13	0.06-0.24		none			
Turbidity IFE (NTU)	-	-	-	-	-	-		
UV Absorbance 254 nm (Abs/cm)	0.073	0.011	0.007-0.017		none			

These figures are averaged values from a number of laboratory analyses done throughout the year. Where the range is a single value no variation was measured for the samples analyzed. Average values containing one or more results below the detection limit are preceded with "<" symbol. Minimum range values than "<" denotes not detectable with the technique used for determination. Methods and terms are based on those of the most current on-line version of "Standard Methods for the Examination of Water and Waste Water". Untreated water is from the intake prior to the raw water tunnel, treated water is from a single site in the GVWD distribution system after the treated water tunnel and before the breakhead tank. Guidelines are taken from the most current Guidelines for Canadian Drinking Water Quality summary table updated in September 2020. Capilano Source was operational for 365 days in 2021.

Treated turbidity guideline and the number of exceedances applies to Individual Filter Effluent readings; measured in events and not days.



## Physical and Chemical Analysis of Water Supply

2021 - Seymour Water System

	Untreated	Tr	reated		Canadian Gui	deline
Parameter	Average	Average	Range	Days Exceeded	Limit	Reason Established
Alkalinity as CaCO3 (mg/L)	3.3	16	8.3-24		none	
Aluminum Dissolved (μg/L)	69	34	19-63		none	
Aluminum Total (µg/L)	130	35	20-76		none	
Antimony Total (μg/L)	< 0.5	< 0.5	< 0.5	0	6	Health
Arsenic Total (µg/L)	< 0.5	< 0.5	< 0.5	0	10	Health
Barium Total (µg/L)	3.1	2.5	2.0-2.9	0	1000	Health
Boron Total (μg/L)	<10	<10	<10	0	5000	Health
Bromate (mg/L)	< 0.01	< 0.01	< 0.01	0	0.1	Health
Bromide (mg/L)	< 0.01	< 0.01	< 0.01		none	
Cadmium Total (μg/L)	< 0.2	< 0.2	< 0.2	0	5	Health
Calcium Total (µg/L)	1550	6320	3980-9180		none	
Carbon Organic - Dissolved (mg/L)	1.6	0.7	0.5-1.0		none	
Carbon Organic - Total (mg/L)	1.7	0.7	0.5-1.0		none	
Chlorate (mg/L)	< 0.01	0.03	0.02-0.04	0	1	Health
Chloride (mg/L)	<0.5	2.4	2.0-3.1	0	=250	Aesthetic
Chromium Total (µg/L)	< 0.07	< 0.05	< 0.05	0	50	Health
Cobalt Total (µg/L)	<0.5	<0.5	<0.5	i i	none	
Color - Apparent (ACU)	17	<2	<2-3		none	
Color - True (TCU)	11	<1	<1-1	0	=15	Aesthetic
Conductivity (µmhos/cm)	12	41	29-55	<u> </u>	none	. 1350110010
Copper Total (µg/L)	29.4	<0.6	<0.5-1.1	0	=1000	Aesthetic
Cyanide Total (mg/L)	<0.02	<0.02	<0.02	0	0.2	Health
Fluoride (mg/L)	<0.05	<0.05	<0.02	0	1.5	Health
Hardness as CaCO3 (mg/L)	4.5	16.7	10.6-23.9	J J	none	11041111
	63	<6	<5-29	1		
Iron Dissolved (µg/L)				0	none	A cathatia
Iron Total (µg/L)	162	<8	<5-29	0	=300	Aesthetic
Lead Total (µg/L)	< 0.5	< 0.5	< 0.5	0	5	Health
Magnesium Total (µg/L)	154	186	148-238		none	
Manganese Dissolved (µg/L)	4.2	3.0	1.9-4.6		none	
Manganese Total (µg/L)	6.2	4.0	2.2-6.2	0	=50	Aesthetic
Mercury Total (μg/L)	<0.05	<0.05	<0.05	0	1	Health
Molybdenum Total (μg/L)	<0.5	<0.5	< 0.5		none	
Nickel Total (μg/L)	< 0.5	< 0.5	< 0.5		none	
Nitrogen - Ammonia as N (mg/L)	< 0.02	< 0.02	< 0.02		none	
Nitrogen - Nitrate as N (mg/L)	0.06	0.06	0.03-0.10	0	45	Health
Nitrogen - Nitrite as N (mg/L)	< 0.01	< 0.01	< 0.01	0	1	Health
pH (pH units)	6.5	7.7	7.3-8.1	0	7.0 to 10.5	Aesthetic
Phenol (mg/L)	< 0.005	< 0.005	< 0.005		none	
Phosphorus Dissolved (μg/L)	<10	<10	<10		none	
Phosphorus Total (μg/L)	<10	<10	<10		none	
Potassium Total (μg/L)	150	142	123-169		none	
Residue Total (mg/L)	16	28	22-37		none	
Residue Total Dissolved (mg/L)	10	30	20-40	0	=500	Aesthetic
Residue Total Fixed (mg/L)	9	21	12-32	ĺ	none	
Residue Total Volatile (mg/L)	7	7	5-11	ĺ	none	
Selenium Total (µg/L)	< 0.5	< 0.5	<0.5	0	50	Health
Silica as SiO2 (mg/L)	3.1	3.1	2.3-3.8	j i	none	
Silver Total (µg/L)	<0.5	<0.5	<0.5	i i	none	
Sodium Total (µg/L)	534	1550	1400-1720	0	=200000	Aesthetic
Sulphate (mg/L)	1.1	1.0	0.7-1.3	0	=500	Aesthetic
Turbidity (NTU)	1.1	0.13	0.06-0.21	, ,	none	2 restrictio
Turbidity (NTU)	-	- 0.13	0.00-0.21	- 1	-	-
UV Absorbance 254 nm (Abs/cm)	0.070	0.011	0.008-0.017		none	-
	0.070	0.011	0.000-0.01/		HOHC	

These figures are averaged values from a number of laboratory analyses done throughout the year. Where the range is a single value no variation was measured for the samples analyzed. Average values containing one or more results below the detection limit are preceded with "<" symbol. Minimum range values than "<" denotes not detectable with the technique used for determination. Methods and terms are based on those of the most current on-line version of "Standard Methods for the Examination of Water and Waste Water". Untreated water is from a sample site prior to coagulation, treated water is from a sample site downstream of the SCFP clearwell. Guidelines are taken from the most current Guidelines for Canadian Drinking Water Quality summary table updated in September 2020. Seymour Source was operational for 365 days in 2021.

<sup>1</sup>Treated turbidity guideline and the number of exceedances applies to Individual Filter Effluent readings; measured in events and not days.



## Physical and Chemical Analysis of Water Supply

#### 2021 - Coquitlam Water System

	Untreated	T	reated		Canadian Gui	deline
Parameter	Average	Average	Range	Days Exceeded	Limit	Reason Established
Alkalinity as CaCO3 (mg/L)	1.9	16	7.1-23	Į Į	none	
Aluminum Dissolved (μg/L)	68	70	61-85		none	
Aluminum Total (μg/L)	94	94	77-141		none	
Antimony Total (µg/L)	< 0.5	< 0.5	< 0.5	0	6	Health
Arsenic Total (μg/L)	< 0.5	< 0.5	< 0.5	0	10	Health
Barium Total (μg/L)	2.2	2.2	1.9-2.4	0	1000	Health
Boron Total (µg/L)	<10	<10	<10	0	5000	Health
Bromate (mg/L)	< 0.01	< 0.01	< 0.01	0	0.1	Health
Bromide (mg/L)	< 0.01	< 0.01	< 0.01		none	
Cadmium Total (µg/L)	< 0.2	< 0.2	< 0.2	0	5	Health
Calcium Total (µg/L)	836	836	752-899	Ì	none	
Carbon Organic - Dissolved (mg/L)	1.6	1.5	1.2-2.0	î î	none	
Carbon Organic - Total (mg/L)	1.7	1.5	1.2-2.0	i i	none	
Chlorate (mg/L)	< 0.01	0.06	0.03-0.10	0	1	Health
Chloride (mg/L)	<0.5	2.2	1.8-2.7	0	=250	Aesthetic
Chromium Total (µg/L)	<0.05	< 0.05	<0.05-0.06	0	50	Health
Cobalt Total (µg/L)	<0.5	<0.5	<0.5	i i	none	Houses
Color - Apparent (ACU)	13	<2	<2-3		none	
Color - True (TCU)	9	<1	<1-1	0	=15	Aesthetic
Conductivity (µmhos/cm)	8	37	24-50	U	none	Acsulctic
Copper Total (µg/L)	4.7	<0.5	<0.5-0.6	0	=1000	Aesthetic
** **	<0.02	<0.02	<0.02	0		
Cyanide Total (mg/L)					0.2	Health
Fluoride (mg/L)	<0.05	<0.05	<0.05	0	1.5	Health
Hardness as CaCO3 (mg/L)	2.5	2.5	2.3-2.6		none	
Iron Dissolved (µg/L)	22	24	12-64		none	
ron Total (μg/L)	57	58	31-150	0	=300	Aesthetic
Lead Total (µg/L)	<0.5	<0.5	<0.5	0	5	Health
Magnesium Total (μg/L)	97	98	86-110	ļ	none	
Manganese Dissolved (μg/L)	4.2	2.6	1.5-4.2	<u> </u>	none	
Manganese Total (μg/L)	4.5	3.8	2.0-7.4	0	=50	Aesthetic
Mercury Total (µg/L)	< 0.05	< 0.05	< 0.05	0	1	Health
Molybdenum Total (μg/L)	<0.5	<0.5	< 0.5	Įl	none	
Nickel Total (μg/L)	< 0.5	< 0.5	< 0.5		none	
Nitrogen - Ammonia as N (mg/L)	< 0.02	< 0.02	< 0.02		none	
Nitrogen - Nitrate as N (mg/L)	0.07	0.08	0.04-0.10	0	45	Health
Nitrogen - Nitrite as N (mg/L)	< 0.01	< 0.01	< 0.01	0	1	Health
pH (pH units)	6.3	7.9	7.1-8.7	0	7.0 to 10.5	Aesthetic
Phenol (mg/L)	< 0.005	< 0.005	< 0.005		none	
Phosphorus Dissolved (µg/L)	<10	<10	<10	İ	none	
Phosphorus Total (µg/L)	<10	<10	<10	i i	none	
Potassium Total (µg/L)	108	109	106-112	j j	none	
Residue Total (mg/L)	12	30	21-36		none	
Residue Total Dissolved (mg/L)	10	30	20-40	0	=500	Aesthetic
Residue Total Fixed (mg/L)	6	20	12-26	i i	none	1 100 mono
Residue Total Volatile (mg/L)	6	10	7-13	i	none	
Selenium Total (µg/L)	<0.5	<0.5	<0.5	0	50	Health
Silica as SiO2 (mg/L)	2.5	2.5	2.2-2.8	J	none	Heatui
Silver Total (µg/L)	<0.5	<0.5	<0.5	<u> </u>		
487					none	A noth at:
Sodium Total (µg/L)	462	8010	5110-10600	0	=200000	Aesthetic
Sulphate (mg/L)	<0.5	<0.6	<0.5-0.7	0	=500	Aesthetic
Turbidity (NTU)	0.50	0.43	0.18-1.9	<u> </u>	none	
UV 254 - Apparent (Abs/cm)	0.071	0.023	0.015-0.060	ļ ļ	none	
UV Absorbance 254 nm (Abs/cm)	0.065	0.019	0.013-0.022	ļ ļ	none	
Zinc Total (µg/L)	<3	<3	<3	0	=5000	Aesthetic

These figures are averaged values from a number of laboratory analyses done throughout the year. Where the range is a single value no variation was measured for the samples analyzed. Average values containing one or more results below the detection limit are preceded with "<" symbol. Minimum range values than "<" denotes not detectable with the technique used for determination. Methods and terms are based on those of the most current on-line version of "Standard Methods for the Examination of Water and Waste Water". Untreated water is from the intake prior to treatment, treated water is from a single site in the GVWD distribution system downstream of CWTP. Guidelines are taken from the most current Guidelines for Canadian Drinking Water Quality summary table updated in September 2020. Recommended turbidity guidelines applies to finished treated water from an un-filtered source. Coquitlam source was operational for 365 days in 2021.

# APPENDIX B — ANALYSIS OF WATER FOR ORGANIC/INORGANIC COMPONENTS AND RADIONUCLIDES

Analysis of Source Waters for Herbicides, Pesticides, Volatile Organic Compounds and Uranium

Parameter					<del>,                                    </del>	1	1
	Units	Date Sampled	MAC	AO	Capilano	Seymour	Coquitlam
Atrazine	μg/L	06/23/21	5		<1.0	<1.0	<1.0
Azinphos-Methyl	μg/L	06/23/21	20		<1.0	<1.0	<1.0
benzene	μg/L	09/24/21	5		<0.50	<0.50	<0.50
Benzo(a)pyrene	μg/L	12/07/21	0.04		<0.0050	<0.0050	<0.0050
Bromoxynil	μg/L	06/23/21	5		<0.50	<0.50	<0.50
Carbaryl	μg/L	06/23/21	90		<5.0	<5.0	<5.0
Carbofuran	μg/L	06/23/21	90		<5.0	<5.0	<5.0
Carbon tetrachloride	μg/L	09/24/21	2		<0.50	<0.50	<0.50
Chlorpyrifos (Dursban)	μg/L	06/23/21	90		<2.0	<2.0	<2.0
Cyanobacterial toxins-	μg/L	April – Nov	1.5		<0.20	<0.20	<0.20
Microcystin-LR		2021	1.5		<0.20	<b>\0.20</b>	₹0.20
Diazinon	μg/L	06/23/21	20		<2.0	<2.0	<2.0
Dicamba	μg/L	06/23/21	120		<0.50	<0.50	<0.50
Dichlorobenzene, 1,2-	μg/L	09/24/21	200	≤ 3	<0.50	<0.50	<0.50
Dichlorobenzene, 1,4-	μg/L	09/24/21	5	≤ 1	<0.50	<0.50	<0.50
Dichloroethane, 1,2-	μg/L	09/24/21	5		<0.50	<0.50	<0.50
Dichloroethylene, 1,1-	μg/L	09/24/21	14		<0.50	<0.50	<0.50
Dichloromethane	μg/L	09/24/21	50		<1.0	<1.0	<1.0
Dichlorophenol, 2,4-	μg/L	06/23/21	900	≤ 0.3	<0.10	<0.10	<0.10
Dichlorophenoxyacetic	μg/L						
acid,2,4-(2,4-D)		06/23/21	100		<0.50	<0.50	<0.50
Diclofop-methyl	μg/L	06/23/21	9		<0.90	<0.90	<0.90
Dimethoate	μg/L	06/23/21	20		<2.0	<2.0	<2.0
Diquat	μg/L	06/23/21	70		<7.0	<7.0	<7.0
Diuron	μg/L	06/23/21	150		<10	<10	<10
Ethylbenzene	μg/L	09/24/21	140	≤ 1.6	<0.50	<0.50	<0.50
Glyphosate	μg/L	06/23/21	280		<10	<10	<10
Malathion	μg/L	06/23/21	190		<2.0	<2.0	<2.0
2-Methyl-4-	μg/L						
chlorophenoxyacetic acid		06/23/21					
(MCPA)			100		<0.50	<0.50	<0.50
Methyl-tert-butyl ether	μg/L						
[MTBE]		09/24/21	None	≤ 15	<0.50	<0.50	<0.50
Metolachlor	μg/L	06/23/21	50		<5.0	<5.0	<5.0
Metribuzin (Sencor)	μg/L	06/23/21	80		<5.0	<5.0	<5.0
Monochlorobenzene	μg/L	09/24/21	80	≤ 30	<0.50	<0.50	<0.50
N-Nitrosodimethylamine (NDMA)	ng/L	06/23/21	0.04		<1.9	<1.9	<2.0
Nitrilotriacetic acid (NTA)	mg/L	06/23/21	400		<0.050	<0.050	<0.050
Paraquat	μg/L	06/23/21	10		<1.0	<1.0	<1.0

## Analysis of Source Waters for Herbicides, Pesticides, Volatile Organic Compounds and **Uranium Con't**

Parameter	Units	Date Sampled	MAC	AO	Capilano	Seymour	Coquitlam
Pentachlorophenol	μg/L	06/23/21	60		<0.10	<0.10	<0.10
Phorate	μg/L	06/23/21	2		<1.0	<1.0	<1.0
Picloram	μg/L	06/23/21	190		<0.50	<0.50	<0.50
Simazine	μg/L	06/23/21	10		<2.0	<2.0	<2.0
Terbufos	μg/L	06/23/21	1		<1.0	<1.0	<1.0
tetrachloroethylene	μg/L	09/24/21	10		<0.50	<0.50	<0.50
Tetrachlorophenol, 2,3,4,6-	μg/L	06/23/21	100	≤ 1	<0.10	<0.10	<0.10
Toluene	μg/L	09/24/21	60	24	<0.40	<0.40	<0.40
Trichloroethylene	μg/L	09/24/21	5		<0.50	<0.50	<0.50
Trichlorophenol, 2,4,6-	μg/L	06/23/21	5	≤ 2	<0.10	<0.10	<0.10
Trifluralin	μg/L	06/23/21	45		<5.0	<5.0	<5.0
Uranium (Total)	μg/L	06/21/21	20		0.0323	0.0230	0.0460
Vinyl chloride	μg/L	09/24/21	2		<0.40	<0.40	<0.40
Xylenes, total	μg/L	09/24/21	90	≤ 20	<0.50	<0.50	<0.50

## **Monitoring of Selected GVWD Water Mains for BTEXs**

Parameters	Units	MAC	АО	_	Maple Ridge Main at Reservoir		Barnston Island Main at Willoughby PS		Main at Willoughby Jericho-Clayton Main		•		Surnaby n #2
				10-Dec	18-May	17-May	7-Dec	19-May	10-Dec	18-May	7-Dec		
Benzene	ppb	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
Ethyl Benzene	ppb	140	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
Toluene	ppb	60	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
Xylene Total	ppb	90	20	1	<1	<1	1	1	1	<1	1		

## **Analysis of Source Water for PAH's**

		aiysis oi sou					
Parameters	Units	Capila	ino	Seym	our	Coquit	lam
		19-May	07-Dec	07-Dec	17-May	19-May	07-Dec
acenaphthene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
acenaphthylene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
acridine	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
anthracene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
benz(a)anthracene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
benzo(a)pyrene	μg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
benzo(b+j)fluoranthene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
benzo(b+j+k)fluoranthene	μg/L	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
benzo(g,h,i)perylene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
benzo(k)fluoranthene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
chrysene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
dibenz(a,h)anthracene	μg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
fluoranthene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
fluorene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
indeno(1,2,3-c,d)pyrene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
methylnaphthalene, 1-	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
methylnaphthalene, 2-	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
naphthalene	μg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
phenanthrene	μg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
pyrene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
quinoline	μg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

## **Analysis of Selected GVWD Mains for PAHs**

Parameters	Units	Coquitlam Main #2	Westb Rese	ournco rvoir	Barnsto	n Island	Queens	borough	-	Kennedy Main	Haney I	Main #2	36th Ave Main
		19-May	9-Dec	18-May	7-Dec	18-May	9-Dec	19-May	9-Dec	19-May	9-Dec	17-May	7-Dec
acenaphthene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
acenaphthylene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
acridine	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
anthracene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
benz(a)anthracene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
benzo(a)pyrene	μg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0076	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
benzo(b+j)fluoranthene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.012	<0.010	<0.010	<0.010	<0.010	<0.010
benzo(b+j+k)fluoranthene	μg/L	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
benzo(g,h,i)perylene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
benzo(k)fluoranthene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
chrysene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.016	<0.010	<0.010	<0.010	<0.010	<0.010
dibenz(a,h)anthracene	μg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
fluoranthene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
fluorene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
indeno(1,2,3-c,d)pyrene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
methylnaphthalene, 1-	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
methylnaphthalene, 2-	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
naphthalene	μg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
phenanthrene	μg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
pyrene	μg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
quinoline	μg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

<sup>&</sup>lt;sup>1</sup>Benzo(a)pyrene is the only PAH compound that has guideline limit. Maximum Acceptable Concentration of Benzo(a)pyrene is 0.04μg/L

## **Monitoring of Source Waters for PFOS and PFOA**

Parameter	Sampling Date	Units	MAC	Capilano	Seymour	Coquitlam
PFOS	07/30/2021	μg/L	600	<0.010	<0.010	<0.010
PFOA	07/30/2021	μg/L	200	< 0.010	<0.010	<0.010

Parameter	Sampling Date	Units	Capilano	Seymour	Coquitlam
PFBA	07/30/2021	μg/L	<0.10	<0.10	<0.10
PFPeA	07/30/2021	μg/L	<0.10	<0.10	<0.10
PFHxA	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFHpA	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFOA	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFNA	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFDA	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFUnA	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFDoA	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFTrDA	07/30/2021	μg/L	<0.0250	<0.0250	<0.0250
PFTeDA	07/30/2021	μg/L	<0.025	<0.025	<0.025
PFBS	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFPeS	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFHxS	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFHpS	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFOS	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFNS	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFDS	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFDoS	07/30/2021	μg/L	<0.010	<0.010	<0.010
4:2 FTS	07/30/2021	μg/L	<0.010	<0.010	<0.010
6:2 FTS	07/30/2021	μg/L	<0.010	<0.010	<0.010
8:2 FTS	07/30/2021	μg/L	<0.010	<0.010	<0.010
PFOSA	07/30/2021	μg/L	<0.010	<0.010	<0.010
N-MeFOSA	07/30/2021	μg/L	<0.025	<0.025	<0.025
N-EtFOSA	07/30/2021	μg/L	<0.025	<0.025	<0.025
MeFOSAA	07/30/2021	μg/L	<0.010	<0.010	<0.010
EtFOSAA	07/30/2021	μg/L	<0.010	<0.010	<0.010
N-MeFOSE	07/30/2021	μg/L	<0.030	<0.030	<0.030
N-EtFOSE	07/30/2021	μg/L	<0.030	<0.030	<0.030
HFPO-DA	07/30/2021	μg/L	<0.20	<0.20	<0.20
ADONA	07/30/2021	μg/L	<0.010	<0.010	<0.010
9CI-PF3ONS	07/30/2021	μg/L	<0.020	<0.020	<0.020
11Cl-PF3OUdS	07/30/2021	μg/L	<0.020	<0.020	<0.020

## Analysis of Source Water for Radioactivity

				Capilano	Seymour	Coquitlam
Radioactivity	Units	Date Sampled	MAC <sup>1</sup>	Activity	Activity	Activity
Cesium-134	Bq/L	09/22/21	7	<0.33	< 0.37	<0.42
Cesium-137	Bq/L	09/22/21	10	<0.37	<0.35	<0.34
Cobalt-60	Bq/L	09/22/21	2	<0.36	<0.45	<0.45
Gross Alpha	Bq/L	09/22/21	<0.5	<0.05	<0.045	<0.056
Gross Beta	Bq/L	09/22/21	<1.0	<0.097	<0.097	<0.093
lodine-131	Bq/L	09/22/21	6	<1	<1.1	<0.97
Lead-210	Bq/L	09/22/21	0.2	<0.019	<0.019	<0.02
Radium 226	Bq/L	09/22/21	0.5	<0.0061	<0.0081	<0.0066
Radon-222	Bq/L	11/22/21	None	<4	<3.9	<3.9
Strontium-90	Bq/L	09/22/21	5	<0.0095	<0.01	<0.011
Tritium	Bq/L	09/22/21	7000	<12	<12	<12
Cesium-134	Bq/L	09/22/21	7	<0.33	< 0.37	<0.42

## APPENDIX C — ANALYSIS OF SOURCE WATERS FOR THE RESERVOIR MONITORING PROGRAM

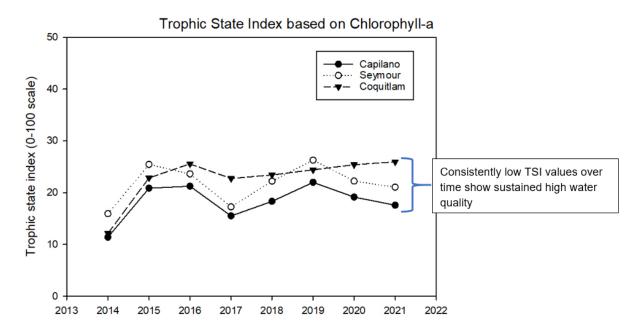
## Comparison of Water Quality in GVWD Water Supply Sources to Standard Water Quality Classifications

Chemical measurement <sup>2</sup>		Average value <sup>3</sup>							
	Ultra- oligotrophic status defined in the scientific literature <sup>1</sup>	Oligotrophic status defined in the scientific literature <sup>1</sup>	Capilano Reservoir 2014 – 2021 (2021 only in brackets)	Seymour Reservoir 2014 – 2021 (2021 only in brackets)	Coquitlam Reservoir 2014 – 2021 (2021 only in brackets)				
Total phosphorus (parts per billion)	5	8.0	3.0 (4.0)	3.0 (4.0)	3.0 (4.0)	Ultraoligotrophic (very high water quality)			
Total Nitrogen (parts per billion)	250	661	125 (117)	124 (96)	129 (131)	Ultraoligotrophic (very high water quality)			
Phytoplankton biomass (parts per billion of chlorophyll-a)	0.5	1.7	0.41 (0.36)	0.55 (0.46)	0.54 (0.68)	Ultraoligotrophic (very high water quality)			

<sup>&</sup>lt;sup>1</sup>e.g. Wetzel, R.G. 2001 River Ecosystems. 3rd edition. Academic Press. New York. Ultraoligotrophic means very low nutrient content and very low biological production: very high water quality Oligotrophic means low nutrient content and low biological production (low risk of algal blooms): high water quality <sup>2</sup>Chemical measurements are defined as follows:

- Phosphorus and nitrogen are nutrients that primarily control the growth of algae, including cyanobacteria.
- Phytoplankton biomass includes cells of all algae and cyanobacteria species in a reservoir.

<sup>3</sup>Values are averages from all water depths during April through November of all years. Values in brackets are average values only from 2021.



## APPENDIX D — REPORT TO METRO VANCOUVER ON **CRYPTOSPORIDIUM AND GIARDIA STUDY**

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## Metro Vancouver Detection of Waterborne *Cryptosporidium* and *Giardia*

## January - December, 2021 Annual Report

## January 2022

Dr. Natalie Prystajecky, Program Head Christine Tchao, Team Lead Tracy Chan, Technical Coordinator Daisy Yu, Technical Coordinator

Environmental Microbiology BCCDC Public Health Laboratory Provincial Health Services Authority







# Metro Vancouver Detection of Waterborne *Cryptosporidium and Giardia*January - December, 2021 Annual Report

## **Purpose**

To detect and quantify *Cryptosporidium* oocysts and *Giardia* cysts from Metro Vancouver reservoirs, Capilano and Coquitlam, as well as from the Recycled Clarified Water (RCW) from Seymour-Capilano Filtration Plant (SCFP).

#### Introduction

Cryptosporidium and Giardia species are parasites that infect the intestinal tracts of a wide range of warm-blooded animals. In humans, infection with Cryptosporidium species or Giardia lamblia can cause gastroenteritis. Since Cryptosporidium oocysts and Giardia cysts are resistant to chlorination, they are of great concern for drinking water purveyors (1-3). On behalf of Metro Vancouver, the Environmental Microbiology Laboratory at BCCDC Public Health Laboratory (BCCDC PHL) examined the source water of Capilano and Coquitlam reservoirs, as well as Recycled Clarified Water (RCW) at the Seymour-Capilano Filtration Plant (SCFP) for the presence of Cryptosporidium oocysts and Giardia cysts. All sample collection, testing, analysis and reporting occurred on a monthly basis using a validated method.

#### **Methods**

The Environmental Microbiology Laboratory at BCCDC PHL follows the United States Environmental Protection Agency (USEPA) Method 1623.1: *Cryptosporidium* and *Giardia* in Water by Filtration/IMS/FA (4) for the detection of oocysts and cysts in water. As stated by Method 1623.1, the performance is based on the method applicable for the quantification of *Cryptosporidium* and *Giardia* in aqueous matrices. It requires the filtration of a large volume of water and immunomagnetic separation (IMS) to concentrate and purify the oocysts and cysts from sample material captured. After the IMS purification, immunofluorescence microscopy was performed to identify and enumerate oocysts and cysts. 4'-6-diamidino-2-phenylindole staining (DAPI) and differential interference contrast microscopy (DIC) are used to confirm internal structures of the cysts and oocysts.

Raw water samples were collected by the Metro Vancouver staff at specific sampling sites at the reservoirs and filtration plants on the scheduled date each month. A desired volume of samples were filtered in the field using Pall Life Science Envirochek HV filters. After collection and filtration, the Envirochek HV filters were transported to the Environmental Microbiology Laboratory at BCCDC PHL, where they were processed and analysed within 96 hours. Positive and negative controls were included for the entire process to assess the performance of the method. Matrix spike testing was also performed at scheduled collection periods, annually for baseline assessment.







#### **Results & Discussions**

In 2021, 36 sample filters (excluding matrix spikes) were examined in total. These include:

- 12 Envirochek HV filters from Capilano reservoir
- 12 Envirochek HV filters from Coquitlam reservoir
- 12 Envirochek HV filters from SCFP-RCW

Table 1 and Figures 1-3 show the summary of all results. Detailed results per collection site can be found in Tables A1-A3 in Appendix A.

	Capilano Resei	rvoir	Coquitlam Rese	ervoir	Seymour Capilar Plant – Recycle Wate	d Clarified	
# of Filters Tested	12		12		12		
Average volume (L) Filtered per Month	50		50		770.9	)	
Average Detection Limit (oo)cysts per 100 L	<2.0		<2.0		0.31		
	Cryptosporidium	Giardia	Cryptosporidium	Giardia	Cryptosporidium	Giardia	
# Positive Filters	0	3	0	3	0	0	
% Positive Filters	0%	25%	0%	25%	0% 0%		
Max Count (oo)cysts per 100 L	0	2	0	4	0 0		

Table 1. Metro Vancouver Filter Result Summary in 2021

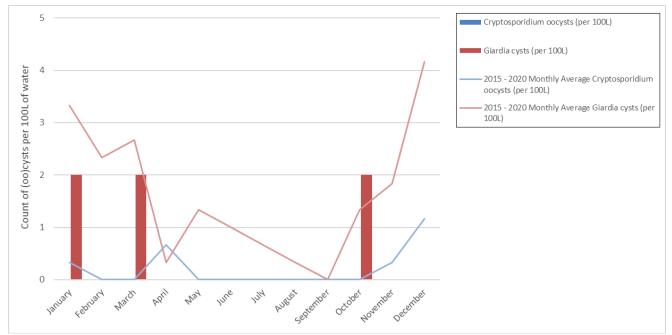


Figure 1. Capilano Reservoir Cryptosporidium Oocysts and Giardia Cysts Counts per 100 Litres of Raw Water in 2021







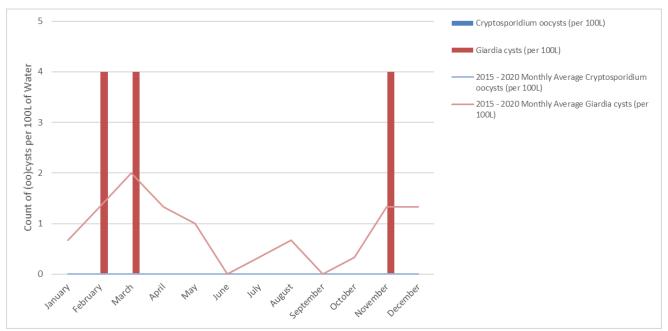


Figure 2: Coquitlam Reservoir Cryptosporidium Oocysts and Giardia Cysts Counts per 100 Litres of Raw Water in 2021

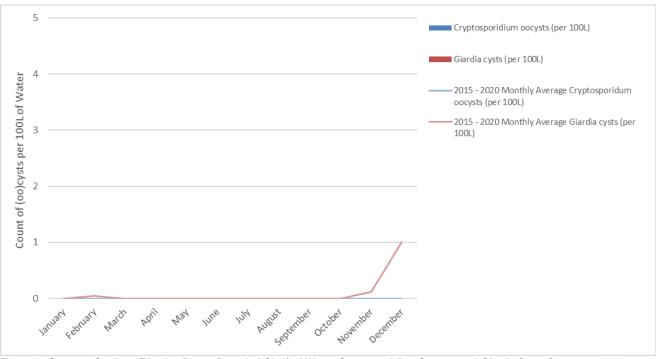


Figure 3: Seymour Capilano Filtration Plant - Recycled Clarified Water *Cryptosporidium* Oocysts and *Giardia* Cysts Counts per 100 Litres of Raw Water in 2021







Overall, similar trends were observed for both *Cryptosporidium* and *Giardia* in 2021, in comparison to historical data in 2015-2020.

DAPI staining is used as part of the confirmation of the internal structure of Cryptosporidium oocysts and Giardia cysts. DIC microscopy is used primarily for Cryptosporidium oocyst and Giardia cyst confirmation but it can also serve as an indicator of oocysts/cysts cytoplasm and cell wall integrity. While no median body (or axoneme) was observed for all Giardia cysts detected, the cytoplasm was observed indicating that the cysts were not empty and could be viable.

Summary of morphological results are listed in Tables 2 and 3. Detailed results for staining by IFA, DAPI and internal morphology, as determined through DIC microscopy, for every identified cyst and oocyst were recorded in Tables A4-A9 in Appendix A.

		DAPI -	D/	API +		DIC	
		Light blue internal	Intense	Nuclei	Empty	Oocysts	Oocysts
Site	Count	staining,	blue	stained	oocysts	with	with
Site	Count	no distinct nuclei,	internal	sky blue		amorphous	internal
		green rim	staining			structure	structure,
							sporozoites
Capilano	0	0	0	0	0	0	0
Сарпапо	O	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Coquitlam	0	0	0	0	0	0	0
Coquitiani	U	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SCFP-	0	0	0	0	0	0	0
RCW	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table 2. 2021 Summary of morphological results for Cryptosporidium oocysts observed under fluorescence microscope

		DAPI -	DAI	PI +	DIC							
		Light blue	Intense	Nuclei	Empty	Cysts with	Cysts wi	th interna	l structure			
		internal	blue	stained	cysts	amorphous	Nuclei	Median	Axoneme			
Site	Count	staining,	internal	sky		structure		Body				
		no distinct	staining	blue								
		nuclei,										
		green rim										
Capilano	3	1	0	2	0	3	0	0	0			
Сарпапо	0	33.3%	0.0%	66.7%	0.0%	100.0%	0.0%	0.0%	0.0%			
Cognition	c	6	0	0	0	6	0	0	0			
Coquitlam	6	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%			
SCFP-	0	0	0	0	0	0	0	0	0			
RCW	U	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

Table 3: 2021 Summary of morphological results for Giardia cysts observed under fluorescence microscope







DAPI staining is used as an indicator of nuclei integrity by staining the DNA. It can also approximate oocysts/cysts integrity; the absence of nuclei is indicative of an aged, damaged or non-infective cell. A number of oocysts and cysts observed across all sites had no visible nuclei indicating that they were aged and likely subjected to environmental degradation (Table 4). However, they were likely in previous infective state.

Number of Nuclei per (oo)cyst	0*	1	2	3	4	Total # of (oo)cysts
Cryptosporio	dium oocy	sts				
Capilano	0	0	0	0	0	0
Coquitlam	0	0	0	0	0	0
SCFP-RCW	0	0	0	0	0	0
Giardia cysts	5					
Capilano	1	0	1	0	1	3
Coquitlam	6	0	0	0	0	6
SCFP-RCW	0	0	0	0	0	0

Table 4: 2021 Number of nuclei in each *Cryptosporidium* oocysts and *Giardia* cysts. \*DAPI negative or only intense blue internal staining.

Due to the variations of water chemistry and organic matters between geographical area and temporally within each sampling sites, a matrix spike is performed annually to provide recovery rate estimation from each site. The results of the matrix spike recovery (2007-2021) are compiled in Table 5. Matrix recovery rates fluctuate from year-to-year, even within each site. This variation is not uncommon for the test and has been noted in USEPA's Method 1623.1.

Matrix testing in 2021 was completed in both summer and winter on two separate sampling events at each site. 50L were filtered from each site and the percentage recovery for *Cryptosporidium* oocysts and *Giardia* cysts and were noted in Table 5.







	Сар	ilano	Coquit	lam	SCFP - Recycled Clarified Water			
Year	Cryptosporidium % Recovery	Giardia % Recovery	Cryptosporidium % Recovery	Giardia % Recovery	Cryptosporidium % Recovery	Giardia % Recovery		
2007	27.6%	37.4%	28.0%	54.0%	Not collected	Not collected		
2008	25.0%	55.0%	28.0%	39.0%	Not collected	Not collected		
2009	10.0%	40.0%	16.0%	37.0%	Not collected	Not collected		
2010	28.0%	43.0%	26.0%	49.0%	17.0%	13.0%		
2011	27.0%	44.0%	22.0%	47.0%	1.0%	0.0%		
2012	38.4%	76.5%	35.0%	49.0%	7.0%	13.7%		
2013	22.4%	59.4%	16.3%	64.4%	6.1%	14.9%		
2014	Not collected	Not collected	55.0%	39.4%	18.0%	14.1%		
2015	26.3%	40.4%	2.0%	60.6%	9.1%	26.5%		
2016	35.4%	47.5%	22.2%	50.5%	9.1%	14.0%		
2017	20.2%	38.4%	22.2%	21.2%	0.0%	2.0%		
2018	43.4%	75.8%	17.1%	59.6%	1.0%	11.1%		
2019	0.0%	43.0%	1.0%	55.0%	0.0%	4.1%		
2020	5.1%	37.4%	8.1%	59.8%	0.0%	4.0%		
2021 Summer	2.0%	53.0%	0.0%	35.0%	5.1%	38.0%		
2021 Winter	11.1%	52.0%	15.2%	80.0%	0.0%	8.0%		

Table 5: Matrix Results from 2007 - 2021

#### Summary

In brief, we reported:

- 1. Overall, a steady positivity rate was observed across all sites for both *Cryptosporidium* oocysts and *Giardia* cysts.
- 2. Cryptosporidium oocysts were not detected in Capilano reservoir, Coquitlam reservoir and SCFP-RCW.
- Giardia cysts were detected in filters from Capilano and Coquitlam but not from SCFP-RCW. 25% of all filters received from Capilano were positive for Giardia, and 25% of all filters received from Coquitlam were positive for Giardia, and there were no Giardia cysts detected for SCFP-RCW.
- 4. The highest concentration of *Giardia* cysts detected in 2021 was from Coquitlam reservoir in February, March, and November (4 cysts per 100 L).







- 5. Most of the Giardia cysts detected showed evidence of environmental degradation.
- 6. Matrix recovery for *Cryptosporidium* oocyst continued to be low, which is consistent with previous years. The additional matrix collection in the summer did not confirm suspected seasonality variabilities for this year. Further summer matrix collections are recommended to continue this investigation.

These *semi-quantitative* data (reported oocyst and cyst levels) should be interpreted in the context of, and with the understanding that the current standard laboratory method, USEPA Method 1623.1, used for detecting and analysing parasites in water matrices has its limitations, with variable recovery rates depending on the water matrix and environmental conditions.

## **Acknowledgements**

The BCCDC Public Health Laboratory thanks Metro Vancouver for their ongoing support of this program and other related projects. In particular, the assistance of Larry Chow, Vila Goh, Eileen Butler, and Melody Sato of the Metro Vancouver, Water Quality Department are greatly appreciated.

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## Appendix A

Lab#	Site Sampled	Month	Date Sampled	Volume filtered (L)	Detection Limit	Cryptos poridum oocysts	Giardia cysts (per 100L)	2015 - 20 Monthly Av	
				,	(per 100L)	(per 100L)	,	Cryptosporidum	Giardia
								oocysts	cysts
								(per 100L)	(per 100L)
8150	Capilano Reservoir	January	January 17, 2021	50	<2.0	0	2	0.3	3.3
8155	Capilano Reservoir	February	February 21, 2021	50	<2.0	0	0	0.0	2.3
8160	Capilano Reservoir	March	March 14, 2021	50	<2.0	0	2	0.0	2.7
8165	Capilano Reservoir	April	April 18, 2021	50	<2.0	0	0	0.7	0.3
8173	Capilano Reservoir	May	May 16, 2021	50	<2.0	0	0	0.0	1.3
8178	Capilano Reservoir	June	June 20, 2021	50	<2.0	0	0	0.0	1.0
8185	Capilano Reservoir	July	July 18, 2021	50	<2.0	0	0	0.0	0.7
8191	Capilano Reservoir	August	August 15, 2021	50	<2.0	0	0	0.0	0.3
8196	Capilano Reservoir	September	September 19, 2021	50	<2.0	0	0	0.0	0.0
8201	Capilano Reservoir	October	October 3, 2021	50	<2.0	0	2	0.0	1.3
8211	Capilano Reservoir	November	November 14, 2021	50	<2.0	0	0	0.3	1.8
8218	Capilano Reservoir	December	December 12, 2021	50	<2.0	0	0	1.2	4.2
			2021 Average	50	<2.0	0	0.5		

Table A1. Capilano Reservoir Monthly Filter Results in 2021

Lab#	Site Sampled	Month	Date Sampled	Volume filtered (L)	Detection Limit	Cryptosporidum oocysts	Giardia cysts (per 100L)	2015 - 2 Monthly A	
					(per 100L)	(per 100L)		Cryptosporidum oocysts (per 100L)	Giardia cysts (per 100L)
8151	Coquitlam Reservoir	January	January 17, 2021	50	<2.0	0	0	0.0	0.7
8156	Coquitlam Reservoir	February	February 21, 2021	50	<2.0	0	4	0.0	1.3
8161	Coquitlam Reservoir	March	March 14, 2021	50	<2.0	0	4	0.0	2.0
8166	Coquitlam Reservoir	April	April 18, 2021	50	<2.0	0	0	0.0	1.3
8174	Coquitlam Reservoir	May	May 16, 2021	50	<2.0	0	0	0.0	1.0
8179	Coquitlam Reservoir	June	June 20, 2021	50	<2.0	0	0	0.0	0.0
8186	Coquitlam Reservoir	July	July 18, 2021	50	<2.0	0	0	0.0	0.3
8192	Coquitlam Reservoir	August	August 15, 2021	50	<2.0	0	0	0.0	0.7
8197	Coquitlam Reservoir	September	September 19, 2021	50	<2.0	0	0	0.0	0.0
8202	Coquitlam Reservoir	October	October 3, 2021	50	<2.0	0	0	0.0	0.3
8212	Coquitlam Reservoir	November	November 14, 2021	50	<2.0	0	4	0.0	1.3
8219	Coquitlam Reservoir	December	December 12, 2021	50	<2.0	0	0	0.0	1.3
			2021 Average	50	<2.0	0	1		

Table A2. Coquitlam Reservoir Monthly Filter Results in 2021

Lab#	Site Sampled	Month	Date Sampled	Volume filtered (L)	Detection Limit	Cryptosporidum oocysts	Giardia cysts	2015 - 20 Monthly Ave	-
					(per 100L)	(per 100L)	(per 100L)	Cryptosporidum oocysts (per 100L)	Giardia cysts (per 100L)
8152	SCFP - Recycled Clarified Water	January	January 19, 2021	3793.2	<0.03	0	0	0.0	0.0
8157	SCFP - Recycled Clarified Water	February	February 23, 2021	254.5	< 0.39	0	0	0.0	0.1
8162	SCFP - Recycled Clarified Water	March	March 16, 2021	426	< 0.23	0	0	0.0	0.0
8167	SCFP - Recycled Clarified Water	April	April 20, 2021	244.9	< 0.41	0	0	0.0	0.0
8175	SCFP - Recycled Clarified Water	May	May 18, 2021	201.3	< 0.497	0	0	0.0	0.0
8180	SCFP - Recycled Clarified Water	June	June 22, 2021	252.7	< 0.396	0	0	0.0	0.0
8187	SCFP - Recycled Clarified Water	July	July 20, 2021	297.3	< 0.336	0	0	0.0	0.0
8193	SCFP - Recycled Clarified Water	August	August 17, 2021	1716.8	<0.058	0	0	0.0	0.0
8198	SCFP - Recycled Clarified Water	September	September 21, 2021	296.5	< 0.337	0	0	0.0	0.0
8203	SCFP - Recycled Clarified Water	October	October 5, 2021	1318	< 0.076	0	0	0.0	0.0
8213	SCFP - Recycled Clarified Water	November	November 16, 2021	187	<0.53	0	0	0.0	0.1
8220	SCFP - Recycled Clarified Water	December	December 14, 2021	263	<0.380	0	0	0.0	1.0
	·	·	2021 Average	770.9	0.31	0	0		

Table A3. Seymour Capilano Filtration Plant - Recycled Clarified Water (SCFP-RCW) Monthly Filter Results in 2021







							Gia	ırdia					
				Giardia		DAPI -	D/	API +			DIC		
Lab #	Site name	Date sampled	Object located by FA	Shape (oval or round)		Light blue internal staining, no distinct nuclei, green rim	Intense blue internal staining	Number of nuclei stained sky blue	Empty cysts	Cysts with amorphous structure	Number of nuclei	Median Body	Axoneme
~	J.	, इ	_	~	~	▼	_	~	<b>v</b>	~	~	▼	~
8150	Capilano Reservoir	January 17, 2021	1	Oval	12x9			4		Р			
8155	Capilano Reservoir	February 21, 2021	0										
8160	Capilano Reservoir	March 14, 2021	1	Oval	13x9	Р				P			
8165	Capilano Reservoir	April 18, 2021	0										
8173	Capilano Reservoir	May 16, 2021	0										
8178	Capilano Reservoir	June 20, 2021	0										
8185	Capilano Reservoir	July 18, 2021	0										
8191	Capilano Reservoir	August 15, 2021	0										
8196	Capilano Reservoir	September 19, 2021	0										
8201	Capilano Reservoir	October 3, 2021	#1	Oval	12x5			2		P			
8211	Capilano Reservoir	November 14, 2021	0										
8218	Capilano Reservoir	December 12, 2021	0										

Table A4. Capilano Reservoir Slide Examination Results - Giardia 2021 (P = present)

							Gia	rdia					
				Giardia		DAPI -	DA	API +	DIC				
Lab #		Date sampled	Object located by FA	Shape (oval or round)	(μm) 	Light blue internal staining, no distinct nuclei, green rim	Intense blue internal staining	Number of nuclei stained sky blue	Empty cysts	Cysts with amorphous structure	Number of nuclei	Median Body	Axoneme
8151		January 17, 2021	0			_							
8156	1	February 21, 2021	1	Oval	13x9	Р				Р			
8156		February 21, 2021	2	Oval	15x10	Р				Р			
8161	Coquitlam Reservoir	March 14, 2021	1	Oval	13X7	P				Р			
8161	Coquitlam Reservoir	March 14, 2021	2	Oval	10X5	P				Р			
8166	Coquitlam Reservoir	April 18, 2021	0										
8174	Coquitlam Reservoir	May 16, 2021	0										
8179	Coquitlam Reservoir	June 20, 2021	0										
8186	Coquitlam Reservoir	July 18, 2021	0										
8192	Coquitlam Reservoir	August 15, 2021	0										
8197	Coquitlam Reservoir	September 19, 2021	0										
8202	Coquitlam Reservoir	October 3, 2021	0										
	Coquitlam Reservoir	November 14, 2021	#1	Oval	15x9	Р				P			
8212	Coquitlam Reservoir	November 14, 2021	#2	Oval	10x7	Р				P			
8219	Coquitlam Reservoir	December 12, 2021	0										

Table A5. Coquitlam Reservoir Slide Examination Results - Giardia 2021 (P = present)

							Gia	rdia					
				Giardia		DAPI -	DA	API +			DIC		
Lab#	Site name	Date sampled	Object located by FA	Shape (oval or round)	Size L x W (μm)	Light blue internal staining, no distinct nuclei, green rim	internal staining	Number of nuclei stained sky blue	Empty cysts	Cysts with amorphous structure		Median Body	Axoneme
8152	SCFP - Recycled Clarified Water	January 19, 2021	0										
8162	•	March 16, 2021	0										
8167	,	April 20, 2021	0										
8175	SCFP - Recycled Clarified Water	May 18, 2021	0										
8180	SCFP - Recycled Clarified Water	June 22, 2021	0										
8187	SCFP - Recycled Clarified Water	July 20, 2021	0										
8193	SCFP - Recycled Clarified Water	August 17, 2021	0										
8198	SCFP - Recycled Clarified Water	September 21, 2021	0										
8203	SCFP - Recycled Clarified Water	October 5, 2021	0										
8213	SCFP - Recycled Clarified Water	November 16, 2021	0										
	SCFP - Recycled Clarified Water	December 14, 2021											

Table A6. Seymour Capilano Filtration Plant – Recycled Clarified Water Slide Examination Results - Giardia 2021







						C	ryptosporidiu	m			
			С	ryptosporidiun	1	DAPI -	DAF	1+		DIC	
Lab #	Site name	Date sampled	Object located by FA	Shape (oval or round)		Light blue internal staining, no distinct nuclei, green rim	Intense blue internal staining	Number of nuclei stained sky blue	Empty oocysts	Oocysts with amorphous structure	Oocysts with internal structure, Number of sporozoites
-	Ţ.	T,	▼	_	-	▼	▼	▼	~	▼	▼
8150	Capilano Reservoir	January 17, 2021	0								
8155	Capilano Reservoir	February 21, 2021	0								
8160	Capilano Reservoir	March 14, 2021	0								
8165	Capilano Reservoir	April 18, 2021	0								
8173	Capilano Reservoir	May 16, 2021	0								
8178	Capilano Reservoir	June 20, 2021	0								
8185	Capilano Reservoir	July 18, 2021	0								
8191	Capilano Reservoir	August 15, 2021	0								
8196	Capilano Reservoir	September 19, 2021	0								
8201	Capilano Reservoir	October 3, 2021	0								
8211	Capilano Reservoir	November 14, 2021	0								
8218	Capilano Reservoir	December 12, 2021	0								

Table A7. Capilano Reservoir Slide Examination Results - Cryptosporidium 2021

			Cryptosporidium			DAPI -	DAPI +		DIC		
Lab #	Site name	Date sampled	FA	Shape (oval or round)		Light blue internal staining, no distinct nuclei, green rim	Intense blue internal staining	Number of nuclei stained sky blue	Empty oocysts	Oocysts with amorphous structure	Oocysts with internal structure, Number of sporozoites
▼	,T	T,	~	▼	~	▼	▼	▼	▼	▼	▼
8151	Coquitlam Reservoir	January 17, 2021	0								
8156	Coquitlam Reservoir	February 21, 2021	0								
8161	Coquitlam Reservoir	March 14, 2021	0								
8166	Coquitlam Reservoir	April 18, 2021	0								
8174	Coquitlam Reservoir	May 16, 2021	0								
8179	Coquitlam Reservoir	June 20, 2021	0								
8186	Coquitlam Reservoir	July 18, 2021	0								
8192	Coquitlam Reservoir	August 15, 2021	0								
8197	Coquitlam Reservoir	September 19, 2021	0								
8202	Coquitlam Reservoir	October 3, 2021	0								
8212	Coquitlam Reservoir	November 14, 2021	0								
8219	Coquitlam Reservoir	December 12, 2021	0								

Table A8. Coquitlam Reservoir Slide Examination Results - Cryptosporidium 2021

			Cryptosporidium								
			Cryptosporidium			DAPI -	DAPI+		DIC		
Lab #	Site name	Date sampled	Object located by FA	Shape (oval or round)		Light blue internal staining, no distinct nuclei, green rim	Intense blue internal staining	Number of nuclei stained sky blue	Empty oocysts	Oocysts with amorphous structure	Oocysts with internal structure, Number of sporozoites
<b>*</b>	-T	T,	~	_	~	▼	~	-	▼	▼	▼
8152	SCFP - Recycled Clarified Water	January 19, 2021	0								
8157	SCFP - Recycled Clarified Water	February 23, 2021	0								
8162	SCFP - Recycled Clarified Water	March 16, 2021	0								
8167	SCFP - Recycled Clarified Water	April 20, 2021	0								
8175	SCFP - Recycled Clarified Water	May 18, 2021	0								
8180	SCFP - Recycled Clarified Water	June 22, 2021	0								
8187	SCFP - Recycled Clarified Water	July 20, 2021	0								
8193	SCFP - Recycled Clarified Water	August 17, 2021	0								
8198	SCFP - Recycled Clarified Water	September 21, 2021	0								
8203	SCFP - Recycled Clarified Water	October 5, 2021	0								
8213	SCFP - Recycled Clarified Water	November 16, 2021	0								
8220	SCFP - Recycled Clarified Water	December 14, 2021	0							20.4	

Table A9. Seymour Capilano Filtration Plant – Recycled Clarified Water Slide Examination Results - Cryptosporidium 2021

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