2024 Annual Report

1.0 - Operator Certification

BMID is administered by Robert Hrasko, P.Eng., who reports directly to the elected Board of Trustees. The EOCP has classified BMID's water distribution (WD) system as a Level IV system, and BMID's Water Treatment (WT) system as a Level IV system.

BMID continues to undertake a continuous, informal program to have Level IV operators for both the Water Distribution System and the Water Treatment Plant. This is a requirement by EOCP for facility classifications. Currently, Bryan Vig, Jeff Clark and Kurt Kover are Level IV Water Distribution certified operators. In addition, Chase Elliott is certified as Level IV Water Treatment Plant operator.

Table 1.1 – BMID Operator Certification

BMID's certified operators are as follows (End of 2024):

Name	WD Level	WT Level	Chlorine Handling
Bryan Vig	IV	I	Yes
Chase Elliott	II	IV	Yes
Keith Jensen	II	I	Yes
Timothy Bauer	I	-	Yes
Geoffrey Caldwell	II	-	Yes
Jeff Clark	IV	I	Yes
Kurt Kover	IV	-	Yes
Adrien Remillard	I	I	Yes
Logan Archer	II	-	
Jonathan Bauer	II	-	Yes
Anthony Bafaro	II	-	Yes
Scott Alexander	111	I	Yes
Mathew Poynter	II	-	Yes
Tyler Bateman	II	-	
Dustin Pedherny	I	II	Yes

2.0 - Cross-Connection Control Program

Working in partnership with the City of Kelowna, BMID staff help to ensure that all backflow prevention assemblies installed within our service area are tested annually by an approved tester. The program is to limit any potential hazards from entering the BMID water distribution system through commercial, industrial and/or institutional connections. The program is administered by the City of Kelowna using their Backflow Prevention Monitoring Software, BMID is in contact with the City when a backflow assembly is past-due for testing or when an assembly fails a test. When such an event occurs, BMID contacts the customer to ensure compliance with the program.

BMID staff are in regular contact with City of Kelowna staff to confirm that all backflow assemblies installed in BMID's service area are tested and functioning. BMID works to maintain 100% compliance within our Cross-Connection program. In addition, new and renovated facilities are inspected by the Building Inspection Departments at the City of Kelowna to ensure that all backflow prevention assemblies are installed as required. Apart from new and renovated facilities, BMID's cross-connection control program continues to run in the same manner in 2024 as in previous years. There are 914 backflow assemblies currently found in the BMID system including 12 new assemblies installed in 422 separate facility accounts.

3.0 - Water Monitoring Plan

BMID's 2024 water monitoring plan has only minor changes from the current Monitoring Plan. Recent changes to the Monitoring Plan are as follows:

- 1. Sampling at Well #4 only took place during the fall/winter when the well provided water for domestic consumption;
- 2. Sampling took place at Well #5 during the spring/summer when the well provided domestic water for the north-end of the system;
- 3. Well #6, currently used for irrigation in the north-end, is sampled monthly as BMID is investigating the possibility of utilizing Well #6 as a potable water source;
- 4. Both THM and HAA sampling in the distribution system were taken at the following locations:
 - a. Kirschner Reservoir Continuously running sample tap in locked building
 - b. Pearson School Dedicated sample station
 - c. 2921 Belgo Dedicated sample station
 - d. Ellison School- Dedicated sample station Well water
 - e. 3976 Highway 97- Dedicated sample station
- 5. As in previous years, full parameters were carried out on all raw water sources in BMID's high elevation drinking water reservoirs. Samples were also collected at the intakes of BMID's drinking water sources. Starting in 2021, Pearson Sample Station replaced Booster #1 (first customer) as the location of BMID's comprehensive distribution samples for both winter and summer samples. Well water is used as a supplemental drinking water source in the north-end for both domestic use and irrigation use. Well #4, used as the low flow winter source, was sampled in January 2024. Well #5, used as the high-flow summer source, was sampled in July 2024;
- 6. Weekly raw water samples at the Scotty Creek Intake are no longer being taken as the source is used only for irrigation. All domestic connections in the Scotty Creek subdivision and the north-end of BMID's distribution system are fed off of a combination of Mission Creek system water (via PRV 10) and ground water (Wells 4 and Well 5) after the water mains were twinned and separated for domestic and irrigation use in 2009;
- 7. Well #6 Annual comprehensive testing took place in June 2024. In addition, Well #6 was tested in October for quarterly samples including total metals, Anions and general parameters, and microbiological parameters.

Table 3.1 – BMID Water Sampling Summary

Watershed & Sources	Biological	Chemical	Full	Special	Frequency	Sample By
			Parameters	Testing		
Graystoke Reservoir			Х		Annual	LARRATT
Fishhawk Reservoir			Х		Annual	LARRATT
Loch Long			Х		Annual	LARRATT
Belgo Reservoir			Х		Annual	LARRATT
James Lake Reservoir			Х		Annual	LARRATT
Mission (Crescent) Lake				Х	Varies	CARO - BMID
St. Margaret's Lake				Х	Varies	CARO - BMID
Mission Creek Intake			Х		Semi-annual	CARO - BMID
Scotty Creek Intake				Х	Varies	CARO - BMID
Cornish Well				Х	Varies	CARO - BMID
Well #4			Х		Annual	CARO - BMID
Well #5			Х		Annual	CARO - BMID
Well #6			Х	Х	Quarterly	CARO - BMID
Raw Water Microbiologi	cal Monitoring				i	
Scotty Creek Intake				Х	Varies	BMID
WTP Intake	Х	Х	Х		Weekly	CARO-BMID
Stevens – Outlet	Х	Х	Х		Weekly	CARO-BMID
Hadden Outlet (at Screens)	Х	Х	Х		Weekly	CARO-BMID
Distribution System Mor	nitoring					
Booster #1	Х				Weekly	CARO
Screen Works	Х	Х			Weekly	CARO
2921 Belgo	Х	Х		Х	Weekly	CARO
Ellison Blow-Off	Х				Weekly	CARO
Pearson Rd	Х	Х	Х	Х	Weekly	CARO
3976 Hwy 97	Х			Х	Weekly	CARO
Prospect Reservoir	Х				Weekly	CARO
Tower's Ranch Reservoir	Х				Weekly	CARO
Kirschner Reservoir	Х	Х		Х	Weekly	CARO
Ellison School	Х			Х	Weekly	CARO
Well 4	Х		Х		Weekly	CARO
Well 5	Х		Х		Weekly	CARO
Well 6	Х	Х	Х	Х	Monthly	CARO
UV Treatment Plant				Х	Varies	CARO
7 Sites through WD System		Sampled for Pre	sence Absence		Rotation	BMID
on a 3-week rotation		-				
On-Line Monitoring						
Point of Diversion (Mission	On-line turbidity	meter				
Creek Intake)						
Water Treatment Plant	Parameters of to	urbidity, water co	nsumption and part	icle charge (s	treaming current	monitor) are all
	operating on-line	e at WTP				
Distribution Intake	On-line residual	chlorine downstr	eam of dosing loca	tion, pH and t	urbidity	
(Hadden Outlet at Screens)						
Surge Tower	On-line residual	chlorine				
Booster Station #1	On-line residual chlorine, pH, and turbidity					
BMID UV Reactor	On-line upstream/downstream chlorine, UV transmissivity, turbidity, pH and pressure					
Towers Reservoir	On-line residual chlorine					
Kirschner Reservoir	On-line residual chlorine					
Prospect Reservoir	On-line residual chlorine					
PRV #24	On-line residual chlorine					
Well 4	On-line residual chlorine, Well Level					
Well 5	On-line residual chlorine, Well Level					
Well 6	On-line residual	chlorine, Well Le	evel			

Biological Parameters						
Biological Parameters		_				
Weekly Tests by CARO	Free Chlorine	Temperature	Total	<u>E.Coli</u>		
	Residual	(field) (degrees	<u>Coliforms</u>	colonies		
	(field) (mg/L)	C)	Colonies/100	/100ml		
			mi			
Chemical Parameters				A 11 11 14		.
Weekly Tests by CARO	<u>I urbidity</u>	<u>Colou</u> r (TCU)	<u>рН</u> (рН	Alkalinity	Free Chlorine	<u>Temperature</u>
	(NTU)		units)	(mg/L	<u>Residual</u>	(field)
Quartarly Taata By CARO	Disinfaction	Tribolomothonoo	Hologootia	Cacos)	(neid) (mg/L)	(degrees C)
Quarterly resis by CARO	Byproducts	Thildonethanes	Acids			
Special Water Quality P	arameters		710100			
Mission Creek Source						
Mission Creek Source	TOC					
Screen Works	TOC					
Stevens Reservoir	Metals					
Full Parameters						
Carried out at Pearson School	ol sample stn, on a	II raw water sources	for consumption	n and on wat	tershed drinking w	ater reservoirs
Parameter	Units		•			
Alkalinity (total)	mg/L as CaCO3					
Calcium (total)	mg/L					
Colour (true)	Colour units					
Conductivity	Umhos/cm					
Hardness	mg/L as CaCO3					
Iron (total) Magnosium (total	mg/L					
Magnesium (lotal Manganese (total)	mg/L					
Nitrate & Nitrite	mg/L as N					
H	pH units					
Potassium (total)	mg/L					
Sodium (total)	mg/L					
Sulfate	mg/L					
Total Dissolved Solids	mg/L					
Turbidity	NTU					
Ortho Phosphate	mg/L as P					
Total Phosphorus	mg/L as P					
Total Organic Carbon	mg/L as i					
Total Coliform	MPN/100ml					
E.Coli Coliform	MPN/100ml					
UV Transmissivity @ 254u	%/cm					
Ammonia	mg/L as N					
Total Kjeldahl Nitrogen	mg/L as N					
Chloride	mg/L					
Fluoride	mg/L					
Aluminum	mg/L					
Antimony	mg/L					
Arsenic	mg/L					
Barium	ma/L					
Boron	mg/L					
Cadmium	mg/L					
Calcium	mg/L					
Chromium	mg/L					
Cobalt	mg/L					
Lood	mg/L					
Mercury	mg/L					
Molybdenum	mg/L					
Nickel	ma/L					
Selenium	mg/L					
Uranium	mg/L					
Zinc	mg/L					
Total Coliforms	CFU/100 MI					
E.Coli Coliforms	CFU/100 MI					

Table 3.1 – BMID Water Sampling Summary (continued)

3.2 – BMID Water Sampling Summary (continued)

BMID staff take weekly samples from 10 locations in the distribution system. For 2024, 318 samples were collected and taken to CARO Analytical for testing. Of the 318 samples collected all came back negative for *E*.Coli representing 100% of the total samples taken. Of the 318 samples taken for Total Coliforms, all 318 came back as negative for Total Coliforms representing 100.0% of samples. The inactivation of total coliforms and E.Coli coliforms in the distribution system demonstrates the effectiveness of the Water Treatment Plant, Primary Chlorination works, Ultraviolet Disinfection Plant and the secondary sodium hypochlorite top up system currently employed by BMID.

In addition to the testing conducted by CARO, BMID staff also sampled for Presence/Absence (PA) of bacteria and incubated the samples in-house. These samples took place throughout the distribution system at 7 locations. In total 109 PA samples were collected and incubated with only 1 positive sample showing the presence of bacteria. Therefore, 99.08% of the samples came back as negative for bacteria. The one positive sample (215 Kneller Rd in November) was resampled and tested by CARO Analytical on November 14th. The sample was found to be negative for both Total Coliforms and E.Coli Bacteria.

BMID staff also collected raw-water samples from three locations between Mission Creek and the point of chlorination. Samples at the Point of Diversion Intake (WTP intake or Stevens Pond intake depending on time of the year), Stevens Pond Outlet and the Distribution Intake at Hadden Pond Outlet (just prior to chlorination) are taken weekly. There is a substantive reduction in the number of *E.Coli* colonies present between the Mission Creek Intake and the Distribution Intake which demonstrates the effective settling of particles by the WTP, and as the water moves through Stevens Reservoir and Hadden Reservoir. Only *E.Coli* results for these samples are as follows:

Average <i>E.Coli</i> counts per sample	Max <i>E.Coli</i> count
11.45	93
0.76	5
0.90	9
	Average <i>E.Coli</i> counts per sample 11.45 0.76 0.90

4.0 – Water Quality Events of Note

Water advisories, positive samples, loss of service, off-spec water and customer complaints were rare throughout 2024. However, BMID noted the following occurrences when water quality issues/changes did arise.

- 1. Operational Changes of Note:
 - a. Between March 18 and 26, Stevens and Hadden Reservoirs were lowered to allow for dam inspections. The Mission Creek intake was closed for the duration of the work.
 - b. BMID's dedicated sample station at 3976 Highway 97 was hit by a vehicle and was out of commission from May 6th until June 17th.
 - c. The Mission Creek intake was closed on October 29th to allow Stevens and Hadden Reservoirs and the primary transmission main to drain. This was required to allow for an infrastructure upgrade downstream of BMID's primary chlorination station.
 - d. From November 4th to December 6th, BMID utilized Rutland Water Works groundwater to supply the BMID distribution system with potable water during an infrastructure upgrade project. Beginning on November 22nd, the Mission Creek intake resumed operations to slowly refill Stevens and Hadden reservoirs with surface water.
- 2. Off-Spec Incidences:
 - a. An Off-Spec incident occurred on April 27th, when a full power shutdown was initiated by BMID staff. The shutdown resulted in one of the three reactors closing, forcing the next reactor to initialize. During this process, small volumes of off-spec water are recorded.
 - b. A brief off-spec incident occurred at the UV station on May 18th, when flows increased suddenly during a UV reactor changeover. The UV plant responded appropriately, however, there was a delay while the reactor increased power leading to small volumes of off-spec water recorded at the station.
 - c. A volume water was labeled as off-spec at the UV plant on December 5th and 6th during the refilling process with the Mission Creek source after the shut-down. However, the off-spec water was sent to waste and did not enter the BMID distribution system.
- 3. Noteworthy Water Quality Occurrences:
 - a. One positive presence/absence bacterial sample was detected by BMID staff from the November 12th Kneller Rd sample station. The sample station was resampled and tested by CARO Analytical labs on November 14th and the two retested samples were found to have no counts of either Total Coliforms or E.Coli bacteria.
 - b. The highest turbidity level at the first customer (Booster #1) was 1.06 NTU on December 10th. This is a direct result of water being stirred in the transmission main from changing over from Rutland Water Works emergency supply back to Mission Creek supply.
 - c. None of BMID's comprehensive testing results exceeded the Maximum Acceptable Concentrations as detailed in the Guidelines for Canadian Drinking Water Quality. Only the July sample at the Pearson School had an exceedance of the operational guidance value for Aluminum (OG limit of 0.10 mg/L) BMID's sampling indicated 0.215 mg/L of Aluminum (MAC limit of 2.9mg/L).

Table 4.1 – Disinfection By-Product Testing

1. Disinfection by-product (THM and HAA) testing took place at four surface water locations and at one groundwater location. Both THM and HAA yearly averages are within the guidelines as set out in the Guidelines for Canadian Drinking Water Quality.

		THM	HAA		
	Mission		Mission		
	Creek	Groundwater	Creek	Groundwater	
Sample	Source	Source	Source	source	
Q1 Average	0.06212	0.00581	0.07473	<0.0020	
Q2 Average	0.08215	0.00611	0.08108	<0.0020	
Q3 Average	0.06098	0.00687	0.04788	<0.0020	
Q4 Average	0.09605	0.01410	0.08400	<0.0020	
Average	0.07533	0.00822	0.07192	<0.0020	

5.0 - Annual Consumption Data

- CONSUMPTION: Total annual consumption was 11,096 ML which was 94% of the five-year average of 11,795 ML. The average daily flow for 2024 was 30.40 ML/day. The maximum daily flow was on July 21, 2024, when 111.04 ML of water was consumed.
- WATERSHED: Belgo, Graystoke, Fish Hawk and Loch Long Reservoirs are high elevation reservoirs that BMID utilizes to store the highest water quality available throughout the summer months. This year, BMID's watershed experienced a lower-than-normal snowpack. Fortunately, the upper watershed received a significant late season snow fall in mid-June which delayed the need for storage water releases for several weeks. The addition of the Belgo automated gate controller also helped in more accurate release of water to the creeks and meeting BMID's year-end storage targets within Mission Creek Watershed.

Water from James Lake Reservoir is only used as an irrigation source for the Scotty Creek area of the distribution network in BMID's north-end.

The reservoir levels at 2024 year-end are summarized below. To accommodate maintenance work, Fish Hawk and Loch Long were drained completely.

Reservoir	Capacity (ML)	Volume at Yr End (ML)	% Full
Belgo Reservoir	6,815	3,059	45%
Graystoke Reservoir	5,095	2,072	41%
Fishhawk Reservoir	2,106	67	4%
Loch Long Reservoir	625	0	0%
James Lake Reservoir	1,538	569	37%
TOTAL	16,183	5,783	36%

Watershed Reservoir Data:

Graph 5.2 – Monthly Consumption



Table 5.3 – Monthly Consumption

BLACK MOUNTAIN IRRIGATION DISTRICT										
MONTHLY CONSUMPTION TOTALS AND YEAR END SUMMARY										
Year	Mission Creek	Well #4	Well #5	Well #6	Scotty Creek	NE Production	Well Water	Surface Water	RWW Water	System Total
2024	Mega Litres	Mega Litres	Mega Litres	Mega Litres	Mega Litres	Mega Litres	Mega Litres	Mega Litres	Mega liters	Mega Litres
January	254.35	13.50	0.00	0.00	0.00	13.50	13.50	254.35		267.85
February	236.13	13.14	0.00	0.00	0.00	13.14	13.14	236.13		249.27
March	251.61	14.75	0.00	0.00	0.00	14.75	14.75	251.61		266.37
April	480.10	19.43	17.91	0.00	0.00	37.34	37.34	480.10		517.45
May	1,023.61	14.28	90.08	26.74	0.01	131.10	131.09	1,023.61		1,154.71
June	1,455.35	14.46	52.58	33.90	0.00	100.94	100.94	1,455.35		1,556.29
July	2,447.78	0.00	93.98	21.74	231.31	347.03	115.72	2,679.09		2,794.81
August	1,842.69	8.10	66.53	1.89	151.99	228.51	76.53	1,994.67		2,071.20
September	1,150.01	2.76	125.74	7.89	0.79	137.18	136.39	1,150.81		1,287.19
October	435.80	16.18	0.00	0.00	0.00	16.18	16.18	435.80		451.98
November	26.18	9.98	0.00	0.00	0.00	9.98	9.98	26.18	194.43	230.58
December	208.48	11.02	0.00	0.00	0.00	11.02	11.02	208.48	29.30	248.79
Total	9,812.09	137.60	446.82	92.16	384.09	1,060.67	676.58	10196.18	223.72	11,096.48

6.0 – Completed and Ongoing Water Infrastructure Projects

 Concurrently with the Phase 1 transmission main project, BMID partnered with Mearl's Machine Works and Carver Construction to complete the Screening Works sluice gate replacement project. This project renewed 8 large sluice gates that are critical components within one of our most important facilities.

The existing gates were installed in 1968 and were manufactured using uncoated steel and cast iron. The bare metallic surfaces were in contact with water for 57 years, they were significantly corroded and had reached the end of their functional lifespan. The new gates are made from stainless steel which are much more corrosion resistant and should significantly extend their service life.

To facilitate the sluice gate installation, Hadden Pond was drained, and a fish salvage operation was conducted. The building's roof and suspended slabs were removed and later restored. A permanent ladder was installed, concrete patching was carried out, obsolete equipment was removed, and a new chlorine injection point was added. A thorough inspection of the entire facility was completed. Despite facing challenging conditions, the crews accomplished the project within a tight one-month deadline.

- BMID staff, consultants, and contractors undertook several dam safety and expansion projects throughout the year. These included the Fish Hawk sluice gate replacement and riprap armoring, the completion of Hadden, Stevens, and James Dam Safety Reviews, Graystoke Dam stability improvement design, and the Loch Long expansion design. These initiatives are critical to meeting regulations and ensuring that these water storage facilities are as safe as they can be.
- Approximately 11 connections on our primary high-pressure-concrete transmission mains were renewed between Hwy 33 and PRV #7, as well as between PRV #2 and PRV #3. These air valves, low-point drains, and services, which were over 55 years old, had reached the end of their service life. We are continuing this renewal program over the coming years to replace all original connections to the primary high-pressure concrete transmission mains. This proactive approach will significantly reduce the risk of widespread service disruptions caused by potential service line failures.
- Approximately 50 commercial and agricultural meters were replaced as a part of ongoing renewal work that started in 2022. A large portion of these meters are now 15+ years old and past their expected service life.
- The Belgo Dam reservoir release gate was retrofitted with a remotely operated gate control system. The project delivered solar panels with a battery bank, a cellular based communications system, security cameras, an onsite programable logic controller (PLC), an electronic actuator, and level sensors that measure reservoir and release channel levels. The new equipment was integrated into the existing SCADA system. It has proven to add substantial value by improving efficiencies and saving significant storage water volume throughout the season. A \$30,000 grant from the Okanagan Basin Water Board helped to fund this installation.

- SCADA connections were added to PRVs #8, #20, and #30. These connections add to BMID's large data communications network that assists our operators in monitoring and controlling the water system.
- Fish Hawk reservoir's low level outlet gate was replaced. The old gate was over 55 years old and had exceeded its service life. The new gate is constructed of stainless steel and should provide reliable service for the next 75+ years.
- PRV #8 on Wallace Rd was rebuilt and brought above ground into a kiosk. In addition, Booster #3 was eliminated. BMID has committed to modifying 1 or 2 stations per year to eliminate confined spaces as defined by WorkSafe BC. Eliminating confined space facilities will reduce the risk to the operations staff while carrying out maintenance work.
- Sandblast and epoxy both 600mm steel pipe for Mag-meters upstream of Rapid Mixers at the Water Treatment Plant.
- Installation of two small diameter Coriolis meters, at the Water Treatment Plant, on coagulant aid (Epiamine) lines to ensure appropriate dosing in mixing trains.

7.0 - WTP OPERATIONS

The Black Mountain Irrigation District's Class IV Water Treatment Plant (WTP) performed very well throughout the 2024 treatment season. Improved water quality was achieved in all water quality measurements, especially in the reduction of color, turbidity, total organic carbon levels, and disinfection by-products (Trihalomethanes and Haloacetic acids).

The BMID WTP began yearly operations on January 31st and the plant continued to run until October 28th when the water quality in Mission Creek no longer required chemical treatment to remove turbidity and colour. In total, the WTP was in operation for 259 days during the 2024 treatment season. The plant was open for 239 days the previous year and the five-year average is 248 days of treatment annually.

Turbidity spikes during freshet in Mission Creek were common, as experienced in the past. However, the 2024 season had lower peak creek run-off levels compared to the past treatment season, and fortunately, Mission Creek did not encounter the same significant flooding and high stream flow events that occurred in past years. The 2024 treatment season experienced less severe spikes in turbidity and colour compared to many previous treatment seasons. The Water Treatment Plant was able to maintain turbidity levels below 1.0 NTU (Nephelometric Turbidity Units) at the point of disinfection for the vast majority of time which the WTP was in operation. There was only a single day where the Hadden Outlet grab sample exceeded 1.00 NTU (1.20 NTU on March 4th) and this result was not duplicated on the in-line turbidity meter at a nearby location (0.55 NTU daily average for March 4th).

7.1 - PLANT FLOW

For the Mission Creek source, peak daily water production of 106.7 ML occurred on July 19, 2024. The peak instantaneous demand was recorded at 1,202 L/s. For the 2024 season, 9,601 ML of water was treated compared to an average of 9,928 ML over the past five years. In total, the WTP produced 86.5% of all water that entered the BMID distribution system. The Water Treatment Plant was placed in stand-by mode on October 28th, 2024, when the raw water quality had improved enough to no longer require chemical treatment.



Graph 7.2 – WTP Plant Flow

Daily plant flow ML for 2024 combined total for both trains

7.3 – TURBIDITY RESULTS

As set by the Canadian Drinking Water Guidelines, Black Mountain's system turbidity is to be less than at 24-hour average of 1.0 NTU at its first customer (Booster 1). Throughout the treatment season, the Water Treatment Plant was able to maintain acceptable turbidity below this guideline. Turbidity at the first customer peaked at 0.82 NTU on March 13th and 16th. During spring freshet, raw water turbidity at the Grit Pond peaked at 14.4 NTU on June 5th, 2024. This is well below the peak turbidity that the plant usually experiences during freshet.

In addition, the recorded highest turbidity at the Distribution Intake, Hadden Pond, was 1.20 NTU on March 4th, 2024, with the data obtained through a single point grab sample. Samples at this time of year can be influenced by ice melt in the reservoir that are not always representative of true conditions, as the on-line turbidity meter just downstream of this location had 0.55 NTU as its daily average.

Average turbidity levels over the treatment period at locations in the water supply system are as follows:

Location	Lab (NTU)	On-line (NTU)		
Raw Grit Pond	1.80	-		
Stevens Intake	0.33	-		
Stevens Outlet	0.39	-		
Hadden Outlet	0.40	-		
Screen Works	0.38	0.40		
Booster Stn #1	0.41	0.32		



Graph 7.4 – WTP Turbidity Results

Daily turbidity (NTU) results between raw water (Grit Pond) and treated water (Steven's Intake and Booster 1)