

East Public Water Systems-81.00, Annual Report 2021

Grand Beach Provincial Park

Purpose:

The purpose of the Public Water System Annual Report is to promote public transparency with regard to drinking water. Grand Beach Provincial Park operates a seasonal public water system from May to October.

East PWS-81.00:

The East side water system draws its water from two 5” wells with PVC casing that operate in combination, they are both roughly 190’ deep and were drilled in 2011 & 2013. Then the water is treated with Sodium Hypochlorite. The treated water is stored in an above ground storage tank and feeds the east side through gravity.

The water is treated with a 12% Sodium Hypochlorite solution that is injected into the water with a diaphragm pump. The chlorine readings leaving the facility have to have a “Free Chlorine” reading of 0.50 mg/L as per the regulations. Free chlorine distribution standard: Minimum 0.1mg/L. From May to October, daily residuals are recorded and submitted to the Drinking Water Officer, on a bi-weekly basis. Bacteriological standards were met 100% of the operating season. Samples were taken from the pump house for both Raw and Treated as well as from the furthest points on the distribution line in Bays 11 & 16.

The table below lists the water quality standards that apply to the public water system. An analytical report was compiled in August 2020.

Parameter	Quality Standard	Raw	Treated	Distribution
Total Coliform	<1 per 100ml			
E. Coli	<1 per 100ml			
Chlorine Residual			0.5mg/L	0.1mg/L
Arsenic	Less than or equal to 0.01mg/L	0.00197	0.00200	0.00201
Benzene	Less than or equal to 0.005mg/L	<0.00050	n/a	n/a
Ethylbenzene	Less than or equal to 0.14mg/L	<0.00050		

Fluoride	Less than or equal to 1.5mg/L	0.225	0.217	
Lead	Less than or equal to 0.005 mg/L	0.000278	0.000106	0.000284
Nitrate	Less than or equal to 45mg/L measured as nitrate(10mg/L)Nitrogen	<0.0010	<0.0010	
Nitrite	Less than or equal to 3mg/L measured as nitrite (1mg/L)Nitrogen	<0.0010	<0.0010	
Trichloroethylene	Less than or equal to 0.00050mg/L	<0.00050		
Tetrachloroethylene	Less than or equal to 0.01	<0.00050		
Toluene	Less than or equal to 0.06mg/L	<0.00050		
Total Xylenes	Less than or equal to 0.09mg/L	<0.00064		
Uranium	Less than or equal to 0.02mg/L	0.000256	0.000258	

On July 22, 2021, a section of pipe had to be shutdown in the campground due to a sleeve over the pipe shifting and creating a leak. A BOIL WATER ADVISORY was issued on July 23, 2021. All of the water stands in the distribution network were tagged with the notice and the reason for the advisory. Two resamples were taken 24 hours apart on July 26 & 27, 2021. Lab test confirmed that the boil water advisory could be lifted and the system was back in full service July 29, 2021.

There were no charges laid pursuant to The Drinking Water Safety Act and no more corrective actions were required.

Finally, there were no major repairs or upgrades required for the water system in 2021 and there is no discussions for expansions or upgrades in the very near future. The Office of Drinking Water did not require any additional records either. Our operators have completed training to keep and advance their licences to work effectively in this water system network.

West Public Water Systems-81.13, Annual Report 2021

Grand Beach Provincial Park

Purpose:

The purpose of the Public Water System Annual Report is to promote public transparency with regard to drinking water. Grand Beach Provincial Park operates a seasonal public water system from May to October.

West PWS-81.13:

The West side water system draws its water from two 8" wells with PVC casing that operate one at a time, they are both roughly 190' deep and were drilled in 2011 & 2016. Then the water is treated with Sodium Hypochlorite. The treated water is stored in an above ground storage tank (Water tower) and feeds the west side through gravity.

The water is treated with a 12% Sodium Hypochlorite solution that is injected into the water with a diaphragm pump. The chlorine readings leaving the facility have to have a "Free Chlorine" reading of 0.50 mg/L as per the regulations. Free chlorine distribution standard: Minimum 0.1mg/L. From May to October, daily residuals are recorded and submitted to the Drinking Water Officer, on a bi-weekly basis. Bacteriological standards were met 100% of the operating season. Samples were taken from the pump house for both Raw and Treated as well as from the furthest point on the distribution line at the water stand at 1st Avenue and 3rd Street.

The table below lists the water quality standards that apply to the public water system. An analytical report was compiled in August 2020.

Parameter	Quality Standard	Raw	Treated	Distribution
Total Coliform	<1 per 100ml			
E. Coli	<1 per 100ml			
Chlorine Residual			0.5mg/L	0.1mg/L
Arsenic	Less than or equal to 0.01mg/L	<0.00010	<0.00010	<0.00010
Benzene	Less than or equal to 0.005mg/L	<0.00050		
Ethylbenzene	Less than or equal to 0.14mg/L	<0.00050		
Fluoride	Less than or equal to 1.5mg/L	0.470	0.453	

Lead	Less than or equal to 0.005mg/L	0.000304	0.00100	0.00708
Nitrate	Less than or equal to 45mg/L measured as nitrate(10mg/L)Nitrogen	<0.0050	0.0057	
Nitrite	Less than or equal to 3mg/L measured as nitrite (1mg/L)Nitrogen	<0.0010	<0.0010	
Trichloroethylene	Less than or equal to 0.00050mg/L	<0.00050		
Tetrachloroethylene	Less than or equal to 0.01	<0.00050		
Toluene	Less than or equal to 0.06mg/L	<0.00050		
Total Xylenes	Less than or equal to 0.09mg/L	<0.00064		
Uranium	Less than or equal to 0.02mg/L	0.000294	0.000285	0.000272

There was a lead exceedance found in a distribution water sample. A confirmatory re-sample will be taken by the Office of Drinking Water in 2022.

There were no Boil Water Advisories or Water Quality Advisories issued for 2021.

There were no charges laid pursuant to The Drinking Water Safety Act and no more corrective actions were required. There were no orders issued.

Finally, there were no major repairs or upgrades required for the water system in 2021. The Water Tower was used in 2021, plans are for the Water Tower to be decommissioned for the 2022 operating season and implementing a new ground level storage tank. The Office of Drinking Water issued a permit for the upgrades, Permit # PWS-17-P10A.

The Office of Drinking Water did not require any additional records either. Our operators have completed training to keep and advance their licences to work effectively in the water system network.