



**Water Stewardship**

Office of Drinking Water  
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<http://www.manitoba.ca/drinkingwater>

File: 252.00

23 March 2011

Mayor and Council  
City Hall  
510 Main St.  
Winnipeg MB R3B 1B9

Dear Mayor and Council Members:

**RE: Annual Audit Report for the Winnipeg Public Water System for Year 2010**

Please find enclosed the 2010 Annual Audit Report for the Winnipeg Public Water System. As the audit reflects, your public water system fulfilled the obligations in year 2010 with regard to complying with the terms and conditions set forth in your water system's operating licence (PWS-09-412 RR).

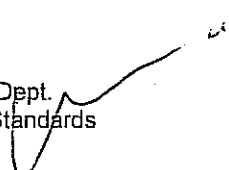
The attached report provides details of your licensing requirements and your water systems' performance.

This Audit Report is based on information submitted to this office by various sources. If your records conflict with the audit information, or if you have any questions concerning this report, you may call me at 945-8913 or contact me by email.

Sincerely,

Gilbert Bushati  
Senior Regional Drinking Water Officer

Copy: B. MacBride, Director of Water and Waste Dept.  
K. Kjartanson, Manager of Environmental Standards





Water Stewardship  
Office of Drinking Water

**Public Water System  
Annual Audit Report**

Reporting Period: Year 2010  
Date: 23/03/2011

Water System:  
Winnipeg Public water System

Code:  
252.00

Owner:  
City of Winnipeg

Owner's Representative:  
Barry MacBride, Director

**Water Quality Standards**

Percent  
Compliance

Corrective  
Action  
Forms

**Bacterial**

Total coliform and E. coli	Less than one E. coli and total coliform bacteria detectable per 100mL in all treated and distributed water	100%	-
Comments:			

**Disinfection**

Chlorine residual	A free chlorine residual of at least 0.5 mg/L in water entering the distribution system following a minimum contact time of 20 minutes	100%	-
	A free chlorine residual of at least 0.1 mg/L at all times at any point in the water distribution system	100%	Yes
Comments:	Corrective Action Reports were submitted in instances of low chlorine residual concentrations		

**Physical**

Turbidity	Less than or equal to 0.3 NTU in 95% of the measurements in a month of the effluent from each operating particulate filter	100%	-
	Not exceed 0.3 NTU for more than 12 consecutive hours of filter operation, or for two consecutive daily measurements.	100%	-
	Not to exceed 1 NTU for any continuous or daily measurement.	100%	n/a
Comments:			

**Chemical**

Result

Total trihalomethanes	Less than or equal to 0.10 mg/L as annual average of quarterly samples	0.074 mg/L
Lead (throughout the distribution system)	Less than or equal to 0.01 mg/L	0.003 mg/L
Comments:	The total THM result displayed above is the highest running annual average of quarterly samples among all six sampling locations	

**Monitoring Requirements**

Percent  
Compliance

**Bacteriological**

Total coliform and E. coli	<ul style="list-style-type: none"> <li>Weekly sampling program with each set of samples consisting of 1 raw (water treatment plant), 1 treated (Deacon Booster Pumping Station), 3 additional treated (leaving the three regional pumping stations) and a minimum of 39 distribution system water samples as per the City of Winnipeg, <i>Bacteriological Sampling Procedure –Routine</i></li> <li>Consecutive samples to be separated by at least 5 days.</li> </ul>	100%
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Water System: Winnipeg Public water System	Code: 252.00	Owner: City of Winnipeg	Operating Licence: PWS-09-412 RR
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**Disinfection**

Free chlorine (treated water)	<ul style="list-style-type: none"> <li>Continuous sampling at the water treatment plant downstream of the chlorine contact chamber (Deacon Booster Pumping Station) following a minimum of twenty minutes of contact time.</li> <li>A minimum of five confirmatory grab samples per week (separated by at least 24 hours) downstream of the chlorine contact chamber (Deacon Booster Pumping Station) following a minimum of 20 minutes of chlorine contact time. A minimum of four confirmatory grab samples per week at the same location is acceptable on weeks containing a statutory Holiday.</li> </ul>	100%
Free chlorine (distribution system)	At the same time and location(s) as the bacteriological distribution system sampling (the required minimum 39 sample sites).	100%
Total chlorine (treated water)	A minimum of five confirmatory grab samples per week (separated by at least 24 hours) downstream of the chlorine contact chamber (Deacon Booster Pumping Station) following a minimum of 20 minutes of chlorine contact time. A minimum of four confirmatory grab samples per week at the same location is acceptable on weeks containing a statutory holiday.	100%
Total chlorine (distribution system)	At the same times and location(s) as bacteriological distribution system sampling.	100%
Comments:		

**Physical**

Turbidity	<ul style="list-style-type: none"> <li>Continuous monitoring of the raw water (water treatment plant) and a minimum of three confirmatory grab samples per week from the same location.</li> <li>Continuous monitoring of the effluent from each of the operating particulate filters and a minimum of three confirmatory grab samples per week from the same locations.</li> </ul>	100%
Comments:		

**Chemistry**

General chemistry (parameter list provided by the Office of Drinking Water)	One raw sample (water treatment plant) and one treated sample (Deacon Booster Pumping Station) taken on a quarterly basis.	100%
Trihalomethanes (THMs)	Six preserved distribution system samples taken on a quarterly basis during February, May, August, and November.	100%
Lead	As per the lead loop monitoring system approved by the Director.	100%
Comments:		

**Other Regulatory Requirements**

**Emergency Response Plan**

Availability	Yes
Received	n/a
Comments:	Emergency Response Plan can be made available on request



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Code: 252.00
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Owner: City of Winnipeg
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Operating Licence: PWS-09-412 RR
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**Engineering Assessment**

Due Date	June 1, 2011
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Received	Not due until date above
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Comments:	
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**Compliance Plan**

Due Date	n/a
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Received	n/a
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Comments:	
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**2009 Annual Report**

Due Date	March 31, 2010
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Received	Yes
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Comments:	
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**Inspection by the Office of Drinking Water**

System Inspected	January 25, 2011
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Inspection Letter Sent	No
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Comments:	No deficiencies were observed during the inspection
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