

*South River WTP*

*SUPPLY SYSTEM*

*ANNUAL SUMMARY REPORT*

*2015*



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

## **SECTION 1: INTRODUCTION**

This report is a summary of water quality information for the South River Water Treatment Facility, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of **January 1, 2015 to December 31, 2015**. The South River Water Treatment Facility is categorized as a Large Municipal Residential Drinking Water System.

This report is prepared by The Ontario Clean Water Agency on behalf of [The Corporation of the Municipality of South River](#). A copy of the Summary Report is to be provided to the members of the municipal council by March 31, 2016.

## **SECTION 2: WHAT DOES THE REPORT CONTAIN**

The report must list the requirements of the Act, the regulations, the system's approval and any order that the system **failed to meet** at any time during the period covered by the report. The report must also specify the duration of the failure, and for each failure referred to, describe the measures that were taken to correct the failure.

For the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and future planned water uses, the following information is required to be included in this report:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
- A comparison of the summary to the rated capacity and flow rates approved in the systems approval.

### SECTION 3: DAILY FLOW RATES

In accordance with the [Municipal Drinking Water Licence](#), the South River water treatment system shall not be operated to exceed a maximum rate of flow of 1680 m<sup>3</sup>/d into the distribution system. The maximum treated water flows into the distribution system were 961.8 m<sup>3</sup>/d which occurred in [September](#).

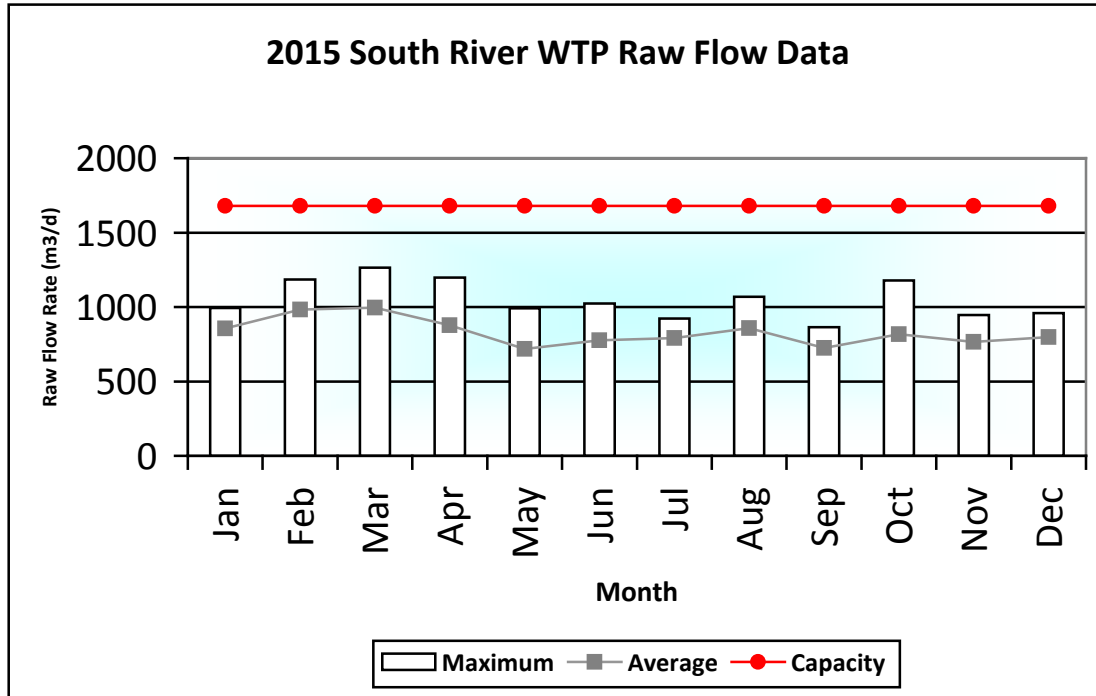
In accordance with the PTTW, the allowable rate of water taking is 19.4 L/s with a maximum daily volume of 1680 m<sup>3</sup>/d. The monthly average raw water flow for this reporting period was **834.63** m<sup>3</sup>/d and the maximum daily flow for **2015** was **1264.10** m<sup>3</sup>/d which occurred in [March](#).

Flow totals and comparison of flow rates to the rated capacity are included in the table and graph below.

The quantity of water supplied during the reporting period [did not](#) exceed the rated maximum capacity.

#### Comparison of Monthly Average and Maximum Rates of Flow

2015	RAW WATER FLOW DATA - TOTAL ALL SOURCES						
	Month	Total Monthly Raw Flow (m3)	Average Raw Flow (m3/d)	Maximum Raw Flow (m3/d)	Maximum Raw Flow Rate (L/s)	Maximum Rated Capacity	
						L/s	m <sup>3</sup> /d
January	26541.60	856.18	994.60	18.19	19.4	1680	
February	27530.40	983.23	1185.90	18.76	19.4	1680	
March	31815.20	1026.30	1264.10	17.66	19.4	1680	
April	26295.30	876.51	1197.60	18.75	19.4	1680	
May	22235.80	717.28	990.90	17.23	19.4	1680	
June	23263.00	775.43	1023.80	15.60	19.4	1680	
July	25321.9	816.84	922.70	15.36	19.4	1680	
August	26607.80	858.32	1068.00	15.27	19.4	1680	
September	21729.70	724.32	864.40	14.22	19.4	1680	
October	25325.30	816.95	1178.30	14.69	19.4	1680	
November	22976.40	765.88	945.50	13.30	19.4	1680	
December	24746.80	798.28	958.30	14.29	19.4	1680	
<b>Total</b>	<b>304389.20</b>						
<b>Average</b>		<b>834.63</b>					
<b>Maximum</b>			<b>1264.10</b>	<b>18.76</b>			



Raw Water Taking	Total Taking m3/d	Average Day m3/d	Max Day m3/d	Max Day % of PTTW allowable 1680 m3/d
2015	<b>302,660</b>	<b>830</b>	<b>1264</b>	<b>75%</b>
2014	292,812.0	802.6	1170.7	69.7%
2013	279,238	765	933	55.6%
2012	268,396	733	1260	75.0%
2011	196,898	542	945	56.3%
2010	160,311	439	792	47%
2009	184,128	504	807	48%
2008	215,539	590	854	51%

Attached as *Appendix A*, find a summary of water taking, including average and maximum flows.

## SECTION 4: SYSTEM FAILURES AND CORRECTIONS

There was a Ministry of the Environment Drinking Water Inspection conducted on September 15, 2015; Inspection Report # 1-C33LV. The facility received a 95.80% rating and had 1 non-compliance identified which resulted in no required actions. A summary of findings is included in this section.

### Non-Compliance Issues

- 1. Records did not indicate that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a Permit, Licence or Approval issued under Part V of the SDWA at all times that water was being supplied to consumers.**

There were two adverse turbidity events reported during the inspection period Failure to ensure that filtered water having a turbidity greater than 1NTU was not passed on to downstream process constitutes a violation of Schedule 16-6 of O. Reg. 170/03.

#### **Action(s) Required:**

All required notifications and corrective actions were completed for both of these reported turbidity exceedances. Process programming was adjusted to ensure compliant operation of the treatment system. No further action required.

### Adverse Incidents

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date	AWQI#
N/A						

There were no AWQI's reported in 2015 however there was one bypass at the Water Treatment Plant on December 24, 2015 of approximately 150 m3 of water due to the package plant being in continuous backwash. This incident was reported – incident #6378-AFHCYP.

## SECTION 5: RAW WATER SUBMISSION

Raw water flows were submitted to the Ministry on [Feb. 16, 2016](#)

The screenshot displays the WTRS web interface. At the top left is the Ontario logo. In the center is the 'environet WTRS' logo. At the top right is the text 'Ministry of the Environment and Climate Change'. Below the logos is a navigation bar with links: 'WT DATA | USER PROFILE | CONTACT US | HELP | HOME | LOGOUT |'. Below the navigation bar is a breadcrumb trail: 'Location: WTRS / WT DATA / Input WT Record' and a user ID 'WTRS-WT-008'. A green-bordered box contains the message: 'Water Taking Data submitted successfully.' Below this is a 'Confirmation:' section with the following text: 'Thank you for submitting your water taking data online. Permit Number: 0365-7T6P5G Permit Holder: THE CORPORATION OF THE VILLAGE OF SOUTH RIVER. Received on: Feb 16, 2016 12:39 PM. This confirmation indicates that your data has been received by the Ministry, but should not be construed as acceptance of this data if it differs from that specified on the Permit Number, assigned to the Permit Holder stated above.' At the bottom of the confirmation section are two buttons: 'Print Confirmation' and 'Return to Main Page'. At the bottom right of the page, it says 'ONTARIO CLEAN WATER AGENCY | 2016/02/16 version: v4.3.0.0 (build#: 7) Last modified: 2015/10/29'.

## SECTION 6: CONCLUSION

Raw water flows were submitted to the Ministry on  
The South River WTP delivers water that indicates the water to be free of bacteriological contamination as per sampling that was conducted throughout the year.

The South River WTP, for the **2015** operating year, was able to meet the demand of water use within the town without exceeding the Permit to Take Water.

Attached as *Appendix B*, find the **2015** Annual Report as required by Drinking-Water System Regulation O. Reg. 170/03.

### List of Acronyms and Definitions

Alkalinity	The capacity of water for neutralizing an acid solution
AWQI	Adverse Water Quality Incident- when a water sample test result exceeds the Ontario Drinking Water Quality Standards
Backwash	Water pumped backwards to clean filters
BWA	Boil Water Advisory; Issued when risk of contamination is possible in drinking water
CFU	Colony Forming Units

Chlorine Residual	A low level of chlorine remaining in water after disinfection occurs
DW	Distribution Water
DWA	Drinking Water Advisory; Issued when water cannot be consumed by any means
DWWP	Drinking Water Works Permit - provides a description of the overall system
E.Coli	Bacteria used as indicators to measure the degree of pollution and sanitary quality of water
GUDI	Groundwater Under Direct Influence – Considered to be surface water under O.Reg 170/03
HPC	Heterotrophic Plant Count
L/s	Litres per Second
m <sup>3</sup> /d	Cubic Metres per Day
MAC	Maximum Acceptable Concentration
MDL	Minimum Detection Level
MDWL	Municipal Drinking Water Licence - relates to the operation and performance requirements
mg/L	Miligrams per Litre
Ministry	Ministry of the Environment and Climate Change
MOECC	Ministry of the Environment and Climate Change
O.Reg	Ontario Regulation
PTTW	Permit to Take Water – Permit which allows water taking from groundwater or surface water
RW	Raw Water
TC	Total Coliforms
TSS	Total Suspended Solids
Turbidity	Cloudiness or haziness of water
TW	Treated Water

# ***APPENDIX A***

## **Annual Record of Water Taking**



# ***APPENDIX B***

**Annual Report:**  
**2015 Operating Year**

