

## NOTIFICATION OF NON-COMPLIANCE

March 10<sup>th</sup>, 2023

Andrew Winkler  
 MECP-London District Office  
 733 Exeter Road  
 London, ON N6E 1L3

**Re: Notification of Non-compliance with ECA Effluent Limit**

This is a notification of non-compliance with an effluent limit for the Dorchester Wastewater Treatment Plant submitted in accordance with terms and conditions of Environmental Compliance Approval NUMBER 8184-B4DJ45, and provisions of the *Ontario Water Resources Act* and *Environmental Protection Act*. This written notice confirms the verbal notification provided to Andrew Winkler on March 7<sup>th</sup>, 2023.

The following effluent parameter(s) were exceeded:

Parameter	Date of Non-Compliance (yyyy-mm-dd)	Type of Limit	Type of Sample	Result (Specify Units)	ECA Effluent Limit
Total Ammonia Nitrogen	2023-02	Monthly Average	Composite	17.6mg/L	3.0mg/L
Total Ammonia Nitrogen Loading	2023-02	Monthly Average	Composite	5.4kg/d	3.6kg/d

**Comments/Actions Taken:**

The Dorchester WWTP is currently operating two SBR basins which equates to a rated capacity of 600m<sup>3</sup>/day. Prior to February 13<sup>th</sup>, SBR#1 and SBR#4 were in operation.

On Monday February 13<sup>th</sup>, there was a mechanical failure of the decant arm in SBR#4 that forced operations staff to transfer SBR#4 contents and divert influent flow to SBR#2. This unexpected switch from SBR#4 to SBR#2 and the cold climate conditions were not ideal to favor nitrification. To further compound the nitrification issues, operations staff noticed on Tuesday, February 14<sup>th</sup> that the air actuator on SBR#1 was faulting and remaining open while the PLC showed it was closed. This fault resulted in an upset of the SBR's treatment cycle. Lastly, on Tuesday, February 21<sup>st</sup> a pressure relief valve on the blower which supplies air to the SBR's was discovered to have blown off over the long weekend. This caused a reduction in the air flow being directed to the SBR basins which was not enough to trigger an alarm but was insufficient to maintain adequate conditions to support nitrification. These unfavorable conditions prolonged the recovery of the nitrification process of the treatment plant.

During the month of February, multiple mechanical failures across several weekly sample results ended in an exceedance of the monthly average effluent limit for total ammonia nitrogen

concentration and loading. The pressure relief valve on the blower has been repaired and OCWA has obtained a quote for repairs required on the decant arm in SBR#4. OCWA is also working to develop a standard operating procedure that will detail the process of bringing an SBR basin online in an emergency situation to ensure proper commissioning and thus ensuring effluent compliance limits are met. Weekly monitoring of alkalinity is also now taking place so operations staff can further monitor the effectiveness of the nitrification process in the SBR basins.

At this time the treatment plant has since rebounded and is producing quality effluent that meets the limits specified in ECA #8184-B4DJ45.

If you have any questions or concerns, please contact me at 519-870-7841.

Sincerely,

Matthew Belding  
Process and Compliance Technician

cc: Adam Grant, MECP Water Compliance Supervisor  
Dale LeBritton, OCWA Regional Hub Manager  
Mark Harris, OCWA Senior Operations Manager  
Jarrod Craven, Thames Centre Direct of Public Works  
Kevin Willson, Thames Centre Environmental Services Superintendent  
Maegan Garber, OCWA Safety, Process and Compliance Manager