

**Ultraviolet Disinfection Wastewater
Treatment Facility 200,000 m³/day**



Case Study Details

Flow:	200,000 m ³ /day peak 57,500 m ³ /day average 250,000 m ³ /day peak hydraulic
TSS:	≤15 mg/L (based on a 30 day average)
Disinfection Standards:	≤150 E. Coli/100mL (based on a 30 day geometric mean) ≤200 E. Coli/100mL (based on a consecutive daily grab sample @ peak flow) ≤100 E. Coli/100mL (based on a consecutive daily grab sample @ average flow)

This project was incorporated as part of an upgrade to the Waterloo WWTP to enhance effluent quality and improve biosolids handling. The plant treats primarily flow from the City of Waterloo and has a rated capacity of 72,730 m³/day.

H2FLOW EQUIPMENT INC. supplied a complete TROJAN TECHNOLOGIES UV3000PLUS ultraviolet disinfection system. The system consisted of 1,440 low pressure high intensity lamps of 88.9 mm length. The plant has been operating very well, providing effective effluent disinfection and complying with the federal and provincial requirements for non-acutely toxic effluent. The installation of the UV system was the first of the upgrades undertaken at the Waterloo WWTP.

Engineering Consultant: AECOM
Operator: Ontario Clean Water Agency
Installation Contractor: Stonetown
Start-Up: 2010