H2FLOW EQUIPMENT INC.

Municipality of West Elgin
Ontario, Canada

Advanced Oxydation and Disinfection Water Treatment Plant

Case Study Details

The municipality of West Elgin in south western Ontario draws its drinking water from Lake Erie. Frequently, in the late summer and early fall, the water has a musty/earthy taste and odour due to the presence of organic compounds. The municipality decided to upgrade the disinfection system and provide an advanced oxidation process (AOP) for taste and odour treatment. The main compounds which cause this problem are geosmin and MIB resulted from algal decomposition and can produce an undesirable taste and odour even in concentration as low as 10 ppt.

H2Flow in collaboration with Stantec as the project consultant recommended and supplied Trojan UV Swift ^{tm} ETC units equipped with a hydrogen peroxide delivery system. The combination of UV lights and hydrogen peroxide can effectively break down the organic compound to their harmless elements such as water and carbon dioxide and disinfect water at the same time without formation of disinfection by-products such as THMs or bromate.

The project was very successful by achieving the water quality standards of the province of Ontario with desirable test and odour.

Engineering Consultant: Stantec Consulting Ltd.
Operator: Ontario Clean Water Agency
Supplier: H2Flow Equipment Inc.