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Mar 22 | Apr 20 | May 17 | Jun 15

World Water Day

March 22, 2017



Canadian Water Resources Association

Promoting Effective Water Management

CWRAWEBINAR SERIES

Innovations in Water & Wastewater Treatment

FEATURING GUEST SPEAKERS:

WEBINAR 1—MARCH 22, 2017—10:00 AM CST

Patrick Pulak, P.Eng., Directory of Engineering Services & Water Resources, City of Brandon

City of Brandon Water Reclamation Facility

In 2007, the City of Brandon partnered with Maple Leaf Canada and Pfizer Pharmaceuticals to upgrade the existing Industrial Wastewater Treatment Plant. The upgrade allowed Brandon to achieve the phosphorous and nitrogen effluent limits prescribed in the Province's Nutrient Management Strategy. Since completion, the plant has consistently produced effluent below the limits for Total Phosphorous and Total Nitrogen of 1.0 mg/l and 15 mg/l, respectively.

WEBINAR 2—APRIL 20, 2017—12:00 NOON CST

Chris Penner, B.Sc., MNRM, Ecologist & Environmental Designer, Scatliff+Miller+Murray

Wetland Vegetation and Urban Runoff: A Case Study in Enhanced Landscape Environmental Performance

Over 10 years ago, Scatliff+Miller+Murray Landscape Architects helped introduce the naturalized style storm-water retention basin (NSRB) design now seen throughout Winnipeg. The NSRB is characterized by robust wetland vegetation and native prairie grass uplands. For this concept to gain traction, S+M+M understood that credible revegetation expertise was needed, and it had to be done properly the first time. This webinar will address how the NSRB became a major environmental success story and a new city design standard, and how credible biological input working cooperatively with designers and engineers can create practical improvements in landscape environmental performance.

WEBINAR 3—MAY 17, 2017—12:00 NOON CST

Travis Parsons, P.Eng., Chief Engineer, Manitoba Water Services Board

Reduction of Trihalomethane Disinfection By-products in the Yellowhead Regional Co-op

The Yellowhead Regional Water Cooperative supplies treated water from the City of Portage la Prairie to three Manitoba Municipalities through an extensive network of rural water pipelines and reservoirs. The Co-op's Trihalomethane (THM) levels are above the maximum allowable concentration as required by Health Canada's Guidelines for Canadian Drinking Water Quality (GCDWQ) due to dissolved organics remaining in the treated water supply which react with free chlorine used for disinfection. THM levels are exacerbated due to long retention times in regional pipelines and reservoirs which increases the reaction time between dissolved organics and free chlorine. The Manitoba Water Service Board is working with the City of Portage la Prairie by implementing treatment system upgrades to reduce dissolved organics at the supply source. Additionally, there are plans to develop a full scale pilot project in the Co-op's far reaching community of Plumias to remove volatile THM compounds in the Plumias reservoir.

WEBINAR 4—JUNE 15, 2017—12:00 NOON CST

Steve Sager, P.Ag., Soil Resource Specialist, Agriculture and Agri-Food Canada

Addressing Nutrient Contamination of Tile Drainage Effluent with Denitrifying Woodchip Bioreactors in Cooler Climate Areas

Across Canada, tile drainage continues to be installed in agricultural fields to help producers adapt to a changing climate and excess soil moisture. Generally, high-value crop production is associated with the increased utilization of fertilizers, enriching the ground with nitrogen and phosphorus. Thus, while tile drainage is beneficial from an agronomic perspective, it may have deleterious effects from an environmental perspective. Effluent from these systems containing elevated levels of nitrate and phosphorus is typically moved from fields to streams and rivers without providing additional treatment. This webinar will highlight results from four experimental woodchip bioreactor sites in Canada. The sites were established to determine if woodchip bioreactors can: (1) significantly reduce effluent nitrate concentration, (2) reduce nitrate concentration in water while not producing significant quantities of nitrous oxide, and (3) be a feasible and beneficial management practice for reducing nutrient export from tile drained fields in Canada.

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