EXCURSION for the 2015 CLRA / MSSS Joint conference: *Land Reclamation and Soil Science: Solutions for a sustainable Future*

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Tour of southern Manitoba highlighting novel and long-standing reclamation, remediation and agricultural projects

Organised by:

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Description:

On this one-day tour, participants will visit several locations, in and close to the City of Winnipeg in southern Manitoba, where interesting novel and long-standing reclamation, remediation and agricultural research projects are underway. The tour first visits Winnipeg's beautiful Fort Whyte Alive (an environmental, education and recreation center highlighted by a 70 acre bison Prairie, > 9km of interpretive trails as well as boardwalks navigating much of their wetlands) where researchers are currently field-testing the prototype design of a floating bioplatform. These constructed floating platforms (recently featured in the CLRA publication 'Canadian Reclamation') are added to wetland vegetation and are being investigated for their capacity to remove nutrients from waterways and convert these potential environmental contaminants into a bio-resource (biomass for fuel, nutrient recycling).

Leaving Fort Whyte, the tour will go to Sage Creek subdivision in Southeast Winnipeg where the naturalized stormwater retention pond (SWRP) approach was first adopted. This relatively new retention-ponds approach in Canada integrates design considerations that support the establishment of native wetland vegetation (cattails, bulrushes, sedges, etc…) providing not only a pleasing natural aesthetic, but also dramatic water quality improvements. This approach has been so well received by stakeholders that the city of Winnipeg has mandated all new SWRPs to be designed according to this naturalized approach.

After our stop at Sage Creek we will round off our morning with a visit to Niverville, (just a short drive south on Hwy 59) where researchers are exploring the use of native plants for *in-situ* remediation of municipal bio-solids. A recently decommissioned 32 acre lagoon is the site of this first of its kind large-scale field project examining the effectiveness of both upland and wetland vegetation treatments on nutrient reduction in municipal biosolids.

Our next short drive will take us west of the Red River to the University of Manitoba's Glenlea Research Station, where we will break for lunch at the Bruce D. Campbell Food and

Farm Discovery Center. Following lunch, researchers from the University of Manitoba will lead discussions on several long-term research projects on-going at Glenlea, including Canada's oldest organic/conventional cropping and management study, and field studies exploring nutrient management, as well as microbes and the role they play in soil productivity.

Following our visit to the Glenlea Research Station, we will travel towards Fannystelle, our last stop for the tour, about one hour from Winnipeg, where we will tour a farm that is home to a research project studying novel approaches to tile drainage and water retention on agricultural land.

A pedologist will lead participants on hands-on soil classification and development discussions at the Glenlea and Fannystelle stops.

The tour will begin at 8 am and will conclude in the early evening (return to city around 6 pm). Lunch and refreshments will be provided; participants are asked to wear comfortable, sturdy footwear.