

Human Health Risk Assessment – an Emerging Issue in Municipal Wastewater

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There is increasing public concern over the potential health impacts associated with human exposures to water-borne contaminants, including those that may be present in municipal waste streams, given the reliance upon surface water for drinking water, traditional activities, and recreational uses.

In a recently released document from the Canadian Council of the Ministers of the Environment for municipal wastewater facilities, there are several recommendations relating to more comprehensive sampling and chemical analysis of effluent and receiving waters. In addition, human health risk assessment and the calculation of site-specific objectives for wastewater are mandated in the document.

To date, Intrinsic has been involved in conducting human health risk assessments of varying complexity in association with municipal wastewater projects. This presentation will provide an overview of the CCME requirements for risk assessment, some case studies highlighting the different approaches used to date, and some unique issues encountered and how they were managed, including ongoing public stakeholder consultation early and often throughout the assessment.

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Since 2007, Intrinsic has been involved in several health risk assessment projects associated with municipal wastewater.

Karen Phillipps is currently a Scientist at Intrinsic in the Calgary office, and has been working in the toxicology and risk assessment field for over 9 years. She has a B.Sc in Medical Toxicology and an MSc in Toxicology and Food Safety, both from the University of Guelph, and is also a Board certified toxicologist with the American Board of Toxicology.