PRESS RELEASE

Wetskills-Canada 2014 launches with the Brain Hurricane Event!

Ryerson University, Toronto, Canada - Wetskills Water Challenge is being held for the first time in North America! Twenty students hailing from universities in Canada, United States of America and The Netherlands gathered at Ryerson University in Toronto on June 9, 2014 to start their working days of the Wetskills Water Challenge. Together with several experts from Canada, they did the BrainHurricane on five specific water challenges in Canada. After a day of gathering information, meeting various experts, hearing different opinions and discussing all the ideas, the teams were really puzzled. A good ground for the next days to come up with great concepts about dedicated water challenges. One of the students during the BrainHurricane stated it clearly: "*It was a busy, tiring, but also an interesting, nice, and great day. I learned a lot and I am looking forward to see the results of every group.*"

Wetskills-Canada 2014
The thirteenth Wetskills Water Challenge is driven by twenty students (from The Kingdom of the Netherlands, US, and Canada with Bachelor, Master and PhDs in engineering, science, environment, and business studies) with a passion for water. There are five teams and each team addresses one specific water challenge. The cases are formulated by Canadian and Dutch organizations and governments in the water sector. The participants work on their solutions in collaboration within their team during an extensive two-week program in Toronto from 5 to 20 June 2014. Each team will present their case solutions during Ryerson Urban Water Day at Ryerson University (245 Church Street) at 1 pm on 17 June. The winners of Wetskills Canada 2014 will be announced at the Canadian Water Summit on June 18th at The International Centre in Mississauga.

Brain Hurricane
The Brain Hurricane is the launch day of Wetskills Canada 2014. The 5 cases were delivered to the student teams and invited experts from a variety of backgrounds and were available for the student teams to pose questions. Invited Experts included: Shahram Tabe, Drinking Water Engineering Specialist, Ontario Ministry of the Environment; Dale Henry, Director of Engineering Services, Ontario Clean Water Agency; Leanne Gelsthorpe, Business Development Manager, OCE; Jane Kearns, Senior Advisor, MaRS cleantech and physical sciences; Don Lewis, Senior Specialist, Sustainability and Water Management, Novus Environmental; Arun Hindupur, Infrastructure Planning Engineer, City of Guelph; Lynda McCarthy, Professor, Department of Chemistry and Biology, Ryerson Urban Water Centre; Geoff Riggs, IBM Project Manager, Global Business Services - Smarter Planet. "*Wetskills is an innovative program that brings together students from multiple disciplines, with a variety of backgrounds, and introduces them to water challenges from their own and other countries. It is a brilliant approach to experiential learning, and Ryerson Urban Water is thrilled to host Wetskills for the very first time in North America*," stated Dr. Imogen Coe, Dean, Faculty of Science, Ryerson University. "*Ryerson University is Canada's leading innovation university and fully embraces a hands-on approach to solving real-world problems, using an interdisciplinary approach, and a*

diverse team-based strategies. Ryerson Urban Water Centre, is the natural host for the first Wetskills competition in North America."

Wetskills students were challenged by means of a brainstorming session in a speed dating format. Each team had ten minutes to pose questions to the experts individually. A Wetskilda alarm (a bell with the logo of Wetskills) measured and pressured the time that was available to get acquainted with one another and share ideas and inspiration. By doing this, the teams had a kick start of the further brainstorm to come up with ideas about their study case. Johan Oost (programme manager Wetskills) stated: '*It was excellent to have so many different experts in the room. This is the fourth time we do the BrainHurricane format within the Wetskills Water Challenge. The event in Canada was a step forward to utilize the power of such speed-dating event, because more than twenty external experts joined the session. You experience the variety of the Canadian water sector in such event, meaning industries, governmental institutes, academic institute and so on: all came together and were eager to help the teams. The participants were really puzzled after the speed-date session. It is great to see the information flow on each topic from different angles. But the real challenge for the teams starts now: to narrow the information and ideas towards a concept. That is where the teams have to break boundaries. I am looking forward to that process.*'

Five water cases

All the participants are divided into five teams and are challenged to come up with out-of-the-box solutions. Their young minds are tapped into to come up with innovative ideas concerning:

- Team 1: Green infrastructure to mitigate storm water effects
- Team 2: Reduction of phosphorus levels in urban runoff
- Team 3: Wastewater Treatment Solution for a Growing Village
- Team 4: Monitoring of pollutions by the mining industry
- Team 5: Emerging Contaminants in New Sanitation

Winners to be Announced at the Canadian Water Summit

On June 17 at 1 pm, Ryerson Urban Water is launching their inaugural Ryerson Urban Water Day and the Wetskills Canada 2014 teams will present their solutions to the 5 challenging cases by means of a Pitch and Poster Session. The Pitch and Poster Session will be evaluated by a Judging Panel comprised of 2 judges from The Kingdom of The Netherlands, and 3 judges from Canada. The winners will be announced and awarded at the Canadian Water Summit on June 18th at the International Centre in Mississaugua at 1:40 pm.

About Wetskills

Wetskills Water Challenges are an innovative approach of networking and knowledge exchange for students and young professionals in the water sector. It is a two-week event for students and young professionals with a passion for water from all over the world. The challenges are organized during formal water sector related events in cooperation with the Dutch water sector. In trans-disciplinary and international teams, the participants develop their own innovative and out-of-the-box solutions for water challenges in a changing world. Since 2010, Wetskills has attracted more than 250 participants from more than 50 international universities and organisations. Thirteen Wetskills events have taken place so far in China, Indonesia, Oman, Israel, Egypt, Morocco, South Africa (2x), Mozambique, Romania, The Netherlands (2x) and now Canada.

Wetskills Water Challenge is a program, is organised under the umbrella of Human Capital Water & Delta Program, organised by Netherlands Water Partnership (NWP), in cooperation with the Royal Netherlands Water Network, H_2Oost and other partners within the water sector. The Wetskills Water Challenge in Canada (2014) is supported and organised by The Royal Dutch Consulate in Toronto and Ryerson University. The cases are provided by Toronto Water, Environment Canada, Golder, Delcan and Municipality the Nation, Incas^3 & CanNorth and DeSaH & Wageningen University.

We kindly invite the public to attend the finals on 17 May 13.00-16.00 at Ryerson University (245 Church Street, ENG 103). More information can be found on Facebook (Wetskills page), www.wetskills.com, http://wetskillscanada2014.blogspot.com (daily blog) or contact Johan Oost, programme manager Wetskills, johan.oost@wetskills.com, phone +16475334394 (Canada) and +31626785402 (The Netherlands).

For more detailed information on the five case studies:

Team 1: Green infrastructure to mitigate storm water effects
Last year Toronto was heavily struck by a stormwater event. The existing urban infrastructure was not able to handle the massive rainfall. Large parts of the city were flooded and the damage was huge. 'Green Infrastructure' could be one of the answers for this problem. Green Infrastructure are designed areas of urban greenery which are able to retain stormwater. This should reduce the costs, improve the aesthetical value and leads to the efficient use of land. Toronto Water ask the team to design an area with the Green Infrastructure philosophy, to retain excess storm water. Focus lays on costs,.

Team 2: Reduction of phosphorus levels in urban runoff
An excess of Phosphorus results in huge algae blooms and these blooms are harmful to the environment. The main sources of Phosphorus are agriculture run-off (manure and fertilizer for crops) and from industrial and domestic (detergents) waste streams. Another source of Phosphorus is the spillage of wastewater during heavy rainfall in urban areas. Environment Canada challenges the team to develop a concept of to reduce or even remove the phosphorus levels during heavy rainfall in urban area.

Team 3: Wastewater Treatment Solution for a Growing Village
The Village of Limoges in Nation Municipality, just east of Ottawa, is undergoing rapid growth. Not only will its seasonal-release sewage lagoons soon be overloaded but the fact that continuous discharge to the Castor River is not permitted means that a new form of treatment capable of achieving a much higher effluent quality will be necessary if the Village is to grow. The proposal is to use mechanical treatment in the form of a sequencing batch reactor followed by filtration and UV disinfection. However, even tertiary treatment is in sufficient to permit continuous discharge during periods of low river flow and the Ministry of the Environment has limited its approval to a Stage 1 plant rated at 3,500 m^3/d. The challenge is provide the Municipality with a solution beyond Stage 1 when projected flows are expected to reach 6,900 m^3/d..

Team 4: monitoring of pollutions by the mining industry
Canada has numerous of resources under the ground which can be utilized by the mining industry. The mining industry has been developed all over Canada's surface. Due to the mining industry harmful compounds, like heavy metals, come to the surface. These could leech into the environment. Authorities face difficulties on monitoring the levels of these harmful compounds and what levels harm the environment. Incas3 and Can North challenge the team to come up with a device which is able to measure the harmful compounds and alarm the authorities when levels exceed certain harmful levels within an hour.

Team 5: Emerging Contaminants in New Sanitation
Traditional wastewater treatment requires energy inputs to remove carbon, nitrogen, and phosphorous without either recovering any of these resources or in many cases removing emerging contaminants. New, decentralized sanitation systems collect and then treat grey and black water separately to produce biogas, recover nutrients, deliver clean biosolids, and produce clean water. A major challenge to recovery and reuse of these resources is the presence of emerging contaminants in the outgoing products. Even trace concentrations of pharmaceuticals, hormones, and personal care products can diminish the quality and thus applicability of the fertilizers, biosolids, and effluent water. Wageningen University and DeSaR together challenge the team to design a system that recovers resources while removing emerging contaminants, and then consider the policy and business aspects related to implementation of such a system in Canada.