

What does Net Zero for Water and Wastewater Really Mean? Tuesday, September 22, 2020

Presented by the OWWA/WEAO Climate Change Committee

12:00 p.m. Opening Remarks

12:05 p.m. **GHG and Net Zero for Water/Wastewater 101**
Emily Zegers, City of Toronto

Emily will present the types of WWT emissions and which are most significant, WWT contribution to national GHG inventories, what triggers GHG regulatory reporting warming potentials, biogenic emissions, Scope 1, 2 & 3 emissions, which are usually included when we say "Net Zero", and provide some information for attendees to gain their own expertise from references and textbooks.

12:20 p.m. **Halton's Energy and Resource Management Strategy**
Nitti Subramaniam, Halton Region

Nitti will be presenting Halton Region's journey towards Net Zero, implementation of capital and strategic projects. Although Net Zero may be a stretch goal by some, it should not deter us from aspiring to do our best.

The Journey towards Net Zero started in 2015 when Council approved the Strategic Action Plan for 2015-2018, which included the priority of Protecting the Natural Environment through initiatives such as:

- Invest in green initiatives to reduce Halton Region's carbon footprint.
- Investigate alternative energy technologies to reduce the Region's energy costs and reduce greenhouse gas emissions.
- Increase the Halton Region's waste diversion rate to extend the life of the Waste Management Site and generate long-term savings.

The result is Halton Region's Energy and Resource Management Strategy for Public Works, which identifies opportunities to utilize available resources to produce energy or other valuable resources to improve resiliency and sustainability. Recommendations from the study are extensive, complex and difficult to achieve on a number of fronts including financial, social and political. However, the myriad of recommendations were prioritized and are currently being implemented.

The priorities for Public Works were further reinforced through Council's adopted 2019-2022 Strategic Business Plan whereby staff are tasked with 5% reduction in greenhouse gas emissions and 5% reduction in hydro consumption / megalitre of wastewater treated as part of achieving the objective to reduce carbon footprint of Regional operations.

12:35 p.m. **Net Zero Strategies for Ontario**
Tim Chapman, Arup

Tim will describe the key measure that will need to be taken for the Ontario water and wastewater to contribute significantly to the ambition to make Canada Net Zero. Tim will highlight that many measures will take some time to put into place and so this should be seen as a strategic journey that the whole industry will need to collaborate in to achieve, with only a few quick fixes for those enthusiasts who want it yesterday.

12:50 p.m. **Round Table Discussion**
Moderated by Pat Coleman, Stantec

1:35 p.m. Closing Remarks

Featured Speakers

Emily Zegers, City of Toronto



Emily Zegers is a Professional Engineer with over 20 years of industry experience. She is currently employed with Toronto Water as a Senior Engineer in the Process, Innovation, and Energy group. Emily's focus areas include process optimization, instrumentation and data management, process-driven facility capital planning, and water reuse. After several years of leading greenhouse gas reporting for Toronto Water, she has developed some opinions on GHG emissions mitigation and actions the industry should be taking to achieve them. Emily is an active member of the OWWA/WEAO Climate Change Committee as well as the WEAO Wastewater Treatment and Technologies Committee.

Nitti Subramaniam, Halton Region



Nitti has been a champion of innovation over the past three decades and is currently driving the Public Works Energy and Resource management Strategic objectives of reducing consumption, recovering energy and shifting from fossil to renewable as part of Halton's "Environmental Sustainability and Climate Change Theme" outlined in its Strategic Business Plan 2019-2022.

With over 30 years of diverse "Public-Private" sector experience, in the Water sector, he has counselled over 20 Municipal Councils in Ontario, as well as managed capital programs at the City of Toronto and the Regions of York and Halton. Nitti is currently the Director of Water and Wastewater Treatment at the Region of Halton where is realizing the Net Zero journey.

Tim Chapman, Arup



Tim is a Fellow of the Institution of Civil Engineers and of the Royal Academy of Engineering. In 2011, he was awarded the ICE President's Medal for producing the institution's first significant thought piece on how to decarbonise the infrastructure sector. He was a member of the steering group for the Treasury's Infrastructure Carbon Review in 2013.

Tim was carbon expert witness between 2015 and 2019 for the Welsh Government Inquiry into the M4 Corridor Around Newport, the first time that PAS2080 was used to successfully explain the carbon impacts of a major infrastructure scheme. He is currently chair of an ICE Workstream for identifying systems level reduction in in use carbon and a member of the Association of Consulting Engineer's (ACE) Net Zero Task Force, charged with preparing an influential industry statement for COP26.

Moderated By:

Pat Coleman, Stantec



Pat Coleman is the regional practice leader for wastewater in Stantec's Toronto office. As a wastewater specialist with over 30 years of experience both in Canada and the UK, he has extensive experience in the definition of treatment solutions, full-scale plant operation, commissioning, operator training, performance testing, energy/staffing guarantees, and equipment selection. Pat recently completed his Graduate Diploma (GDip) in Climate Risk Management from the university of Waterloo. Pat advised both Environment Canada and public sector clients on climate change issues related to water resource recovery facilities. Pat is also a Certified Energy Manager.

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<https://owwa.ca/events-list.html>

Registration:

- Members: \$29 (+HST)
- Non-Members: \$49 (+HST)
- Students: Free

HST number: # R122057458

- Questions regarding registration should be directed to the OWWA office at (416) 231-1555 or waterinfo@owwa.ca
- Attendance is by advance registration only
- Webinar participants will be eligible to receive CEUs upon attending. Please provide your WWOCS numbers on the registration form
- Cancellation requests must be made in writing and sent to the OWWA office via email. **Telephone cancellations will not be accepted.** All cancellations dated up to and including one week before the webinar will be refunded. Refunds will not be issued for cancellations received after this date.