

## Canadian National Water Efficiency Network (CNWEN) MEETING NOTES

**Tuesday May 31<sup>st</sup> , 2016  
11:00 am – 2:00 pm  
Waterloo Region**

### **Attendees:**

<b>Name</b>	<b>Affiliation</b>	<b>Name</b>	<b>Affiliation</b>
Kathy McAlpine Sims	Halton Region	Glen Pleasance	Region of Durham
Bill Gauley	Gauley Associates	Kimberly Wright-Caraballo	City of Toronto
Steve Gombos	Region of Waterloo	Julie Ann Lamberts	City of Guelph
<b>Conference Call</b>	<b>Affiliation</b>	<b>Conference Call</b>	<b>Affiliation</b>
Mathieu Laneuville	Quebec Ministère des Affaires municipales	Carol Salisbury	Ont. Ministry of Environment & Climate Change
Emily Stahl	City of Guelph	Johann Manente	Region of Peel
John Koeller	Keoller & Company	Brent Houle	City of Winnipeg
Todd Johnston	CRD (Victoria)	Chris Radzimirski	City of Vancouver

#### **1. Review of Feb. 2016 Meeting Notes**

#### **2. Additions to the Agenda: None**

#### **3. Ontario Building Code: Building Code Conservation Advisory Council (BCCAC) Update – Glen**

- Draft has not been circulated yet beyond the Advisory Council
- Code goes through Ministry of Municipal Affairs and Housing, but Ministry of Environment and Climate Change is also working to ensure consistency with updates to their policies and practices.

#### **4. National Building Code – Bill G.**

- National Research Council last met on Nov. 25, 2015
- Intent is to update National Plumbing Code to better recognize higher water efficiency thresholds. Note: National Code does not supersede Provincial or Territorial codes
- Working to try and facilitate the use of rainwater harvesting for a greater number of applications, such as:
  - o Water closet and urinal flushing
  - o Mop/service sinks
  - o Trap priming
  - o Hose bibbs
  - o Irrigation (including above ground irrigation)
  - o Decorative water features
  - o Fire-fighting water-storage systems
  - o Hydronic systems
  - o Cooling tower make-up
- Water must be collected from above-grade roofs made of suitable materials.
- Intent would be to have the Code allow system users to either get collected rainwater tested to ARCSA/ASPE 63 levels and/or to install a 6mm mesh at inlet to screen debris plus a first flush diversion system capable of diverting the first 0.3 litres of water per m<sup>2</sup> of roof area plus a calming inlet plus a maximum 50 micron filter.

### **PERC (Plumbing Efficiency Research Coalition)**

[http://www.plumbingefficiencyresearchcoalition.org/wp-content/uploads/2016/04/PERC-2-0\\_2-1-FINAL.pdf](http://www.plumbingefficiencyresearchcoalition.org/wp-content/uploads/2016/04/PERC-2-0_2-1-FINAL.pdf)

- PERC 2.1 Supplemental Report to Drainline Transport of Solid Waste was recently released.
- Determined that reducing pipe diameter from 4-inch to 3-inch did not consistently result in improved drainline transport.
- Found that use of high tensile strength toilet paper is major contributor to drainline blockage, however, a clear definition of “high tensile toilet paper” was not provided in the report.
- Evaluated use of 3.8 l/flush (1 gallon) toilets in commercial applications and re-verified that where sufficient supplementary flow is not available, the number of flushes required to move waste through drain pipes increases as the flush volume is reduced.
- Although the drain pipes did not completely plug during the 3.8 l/f testing, PERC does not recommend the use of 3.8 l/f or less for commercial applications but recommends maintaining a minimum flush volume of 4.8 l/flush.
- PERC testing verified that the fixture’s flush discharge curve is irrelevant to drainline transport.
- PERC testing recommends that the use of high tensile strength toilet paper be avoided.

### **5. Guelph Water Efficiency Strategy Update Emily**

- Emily presented on Guelph’s revised WES (power point slides previously emailed to all from Emily).
- Additional details at <http://guelph.ca/plans-and-strategies/water-efficiency-strategy/>

### **6. REUS Study Update – Steve**

- Steve presented on the Residential End Use Study (presentation previously emailed to all from Steve)
- John clarified there is a gallons to litres conversion error comparing 1999 toilet flush volumes on p. 13: 3.65 gallons equals 13.8L, not 18.8L
- Additional details on the project at <http://www.waterrf.org/Pages/Projects.aspx?PID=4309>

### **7. AWE Research Committee Update – Glen**

#### **Greywater Systems:**

- The greywater project is under way and is looking at the realistic costs and benefits of single family package greywater systems. The AWE Research Committee identified this as a research need because there is not a lot of information on the cost-effectiveness of such systems and utilities often come under pressure to provide incentives for them. Research to study cost effectiveness and to allow utilities to address questions on this.
- It is anticipated the project will be complete some time this summer.
- Because toilets are so efficient, water savings decline as fixtures become more efficient, and ROI becomes longer.
- Using grey water for irrigation is difficult to calculate – is the greywater use really replacing that amount of tap water, or is irrigation occurring because it’s grey water and not using tap water?
- What would water have to cost to make the systems cost effective?
- They also need to be low/no maintenance.
- In the US, laundry to landscape greywater systems are the most prevalent. In Canada, systems that recover shower water for toilet flushing seem to be more common (likely due to shorter irrigation seasons). Not a lot of data in terms of field studies, but there is some. Theoretical savings will be a part of it as well. More details in the near future.

#### **Cooling Towers:**

- The Research Committee is currently looking into a cooling tower project. A workgroup has had one meeting and will be meeting again on June 13. The idea was raised by AWE members who were seeing low participation rates in cooling tower programs. Other issues have been raised as well:
  - Barriers to implementation/participation
  - Challenges of estimating the costs and savings of cooling tower programs
  - Status of cooling tower technology and possible alternatives
  - Public health and safety.

**Outdoor Water Use:**

- The Outdoor Water Use Research studies received funding that should get them off the ground. RFPs will likely be finalized and released sometime soon.

<http://www.allianceforwaterefficiency.org/Outdoor-Water-Savings-Studies.aspx>

**AWE Tracking Tool:**

- Version 3 of the AWE Tracking Tool will be released this summer and AWE will offer a webinar.

**8. CWWA Annual Conference**

- Joint Conference in Toronto November 13 – 16, 2016
- 25 submissions – breakdown of general themes include:
  - ¼ Water Efficiency
  - ¼ Water Demand forecasting
  - ¼ Energy Efficiency in Water
  - ¼ Energy Efficiency in Wastewater

**9. Next Meetings:**

Tues. September 13<sup>th</sup>

Tues. November 29<sup>th</sup>