Canadian National Water Efficiency Network (CNWEN)

MEETING NOTES

Tuesday, June 23, 2015
11:00 am – 2:00 pm
29 Waterworks Place
Guelph, N1E 6P7

Attendees:

Name	Affiliation	Name	Affiliation
Kathy McAlpine Sims	Halton Region		
Julie Anne Lamberts	City of Guelph	**Guests:**	
Glen Pleasance	Region of Durham	Dave Wordon	University of Guelph
Steve Gombos	Region of Waterloo	Brady Deaton	University of Guelph
Megan McCombe	Region of Peel	Jeff Aramini	Focus 21
Emily Stahl	City of Guelph	Ilya Peskov	Focus 21
Kimberly Wright-Caraballo	City of Toronto		
Conference Call	**Affiliation**	**Conference Call**	**Affiliation**
Johann Manente	Region of Peel	John Koeller	AWE
Brent Houle	City of Winnipeg	Megan Cherry	AWE
Bill Chihata	York Region	Chadarut Anan	York Region

1. Review of March 10, 2015 Meeting Notes:

Action Item from March 2015 Meeting Notes:

- Julie presented info on the Recover Greywater System.
- Has a self-cleaning filter which eliminates manual cleaning.
- Flushes every 48 hours if the greywater is unused, which is too often.
- Clarington has installed 3 of these systems and are metering results and sampling water quality. Current sampling done to date yielding nothing to be concerned about. They are reprograming units so they do not empty every 48 hours. Monitoring will cease in October unless homeowners want to continue. $2000 for unit. 200 litre capacity. A Masters Engineering student at Ryerson is completing her thesis on greywater and is monitoring 27 units but not including water quality.

2. Additions to the Agenda:

Other Business:

- Steve Gombos – Water Efficient Technologies (WET) Challenge
- Dave Wordon – Estimating the Cost Savings from Reducing Maximum Demand for Drinking Water

3. **AWE Presentation: "Cost of Water" Video – Megan Cherry, AWE**

- Megan presented AWE's new Value of Water video on the Cost of Water.
- Municipalities can customize the video, with a basic customization package of $5000 (include the 3 text boxes); animation changes are above this cost.
- Utilities may add custom messaging via text boxes, the cost of water and units, and add utility logo at the end of the video.
- Launch will occur first week of July with a tweet chat on Twitter, You Tube and AWE website.
- Feedback included:
  a) At 2 min 06 seconds, effluent from waste water treatment plant is entering the lake near the surface. This may not be representative of real world. But effluent color is representative as it is blue not brown.
- b) Image with girl drinking fountain looks strange.
- To change the "Monthly" water bill, a new voice over would need to be recorded.
- Video link is not to be distributed.

4. a) **Bill C36 – An Act to Amend the Canada Water Act**

- Duncan reported the Bill did not make any progress through the parliamentary process and will die on the Order Paper when Parliament recesses in the next week or so. May be reintroduced in the new Session of Parliament, sometime in December.

b) **ISO Standard – Water Efficiency Management**

- Duncan advised they are awaiting the naming of experts from a couple of countries (Notably the USA), and then will be canvassing the members on the best location for the first meeting of the working group to take place in November, 2015. Possibilities include Singapore and Canada.
- Sometime in July, the globalized version of SS 577 Water Efficiency Management will be circulated to WG 12 experts for comment. The comments will then be reviewed by the Convenor and her proposed responses to the comments will be circulated prior to the November Meeting.
- Mary Anne has been added as US water efficiency standard representative; John is AWE rep on water efficiency standard and flush standard; Duncan, Glen and Bill Chihata are on Canadian ISO.

5. **Guelph Mobile "Watr" Customer App Presentation** – Emily Stahl, City of Guelph & Ilya Peskov Ilya@focus21.io; Jeff Aramini jeff@focus21.io ; www.watr.io

- The Watr App uses customer billing information to target reduced consumption within individual water accounts. Customer needs to sign-up, plug in their details (age, # family members, presence of pool/hot tub, yard etc.), and set-up their goals. The app includes social norms, redeemable awards, gamification, billing, and will push notifications to user (e.g. Outside Water Use Level)
- Data is hosted on Canadian cloud based server. There is a lot of resistance from utilities with regards to US servers hosting Canadian customer data.
- Looking for local businesses such as TD, Planet Green etc. to partner with this program so customers can use points gained from participating in rebate

programs to redeem merchandise. Details are still being investigated. This has been done on the electricity side.

- Guelph currently has a point rewards system which uses an on-line engagement tool called Mind Mixer. The City asks questions on-line through community forum, and citizens that contribute to the on-line conversation get points towards our City of Guelph community centers, and local retailers. Mind Mixer has been open for 1 year and 10% of Guelph's population is participating. The Watr App is building off of this points reward system.
- Goal is to have pilot ready by the end of 2015
- Questions: Where is the accountability on the user side? Points awarded based on reduced water consumption as indicated on bill; City of Guelph verifies the rebate data, and once verified by Guelph then customer receives points.
- Process around partnerships and software upgrades is being determined by Focus21.
- Steve indicated the Region of Waterloo is working on something similar to this app.

- **Action: FOCUS 21 to send a few articles to group on privacy issues with US servers.**

6. Ontario Building Code Conservation Advisory Council Update – Glen Pleasance

- Mandate to improve the next code by reducing consumption by another 15% for water; 15% natural gas, 15% electricity.
- Suggested changes need to be submitted by November.
- Phase II of the PERC drain line testing recommended that high efficiency toilets be coded for more than single family res.
- Province is giving the direction to make code more resilient to climate change. As a result, suggestions are being made to take the code outside of buildings and begin considering LID. Rainwater Harvesting already in code.
- Province wants code to help reduce electricity peak; therefore need to codify air conditioners. Electricity from air conditions (window and whole home) exceeds space heaters. Air conditions that dehumidify then cool, are more efficient.
- Other suggestions to improve code include:
  a) Roughing in for greywater and rainwater.
  b) Reducing toilets to 3.8 Liters per flush.
  c) Water Sense for faucets, showerheads and toilets.
- With regards to hot water recirculation more monitoring of the associated electricity and water savings needs to be completed to help push this forward. Clarington is starting a project to monitor this in near future.
- Using greywater for above ground irrigation, keeps getting raised to add to Building Code.

7. Drain Water Heat Recovery – Glen Pleasance

- Drain water heat recovery – captures latent heat which would otherwise go into sewer but there is a 49 year pay back based on the Clarington study. Bill Gauley going to do more field testing and lab analysis.
- Enbridge paying for drain water heat recovery systems in Clarington, because they are required to do demand side management. $500 installed.
- As of Jan.2016 Manitoba is putting drain water heat recovery into code.

8. Other Business

- **David Worden's Presentation - Estimating the Cost Savings from Reducing Maximum Demand for Drinking Water** - *wordend@uoguelph.ca*

    - Looking for support from groups like CNWEN
    - The idea is to focus on reducing peak demands only, rather than reducing demands consistently. Businesses may innovatively come up with solutions for short periods of time – a short term strategy to reduce water use can be very different than a sustainable long term water reduction.
    - This research is premised on delaying infrastructure expansions. As expansions are delayed, better technology and information becomes available with time which can be used to assist you with estimating your demand.
    - 2 things that drive curiosity: a) cost savings – if you could estimate the cost savings of pushing back infrastructure – estimate the characters of peaks over time, how predictable, how sharp are these peaks, cost savings b) With those figures you can start to think about business friendly options. Purchase the option from business to reduce water to a certain amount if expected return is better than their bottom line.

    - The price of peak water is important to estimate because the per unit cost of peak water production is higher than base demand production.

    - Generally, irrigation is driving peak, but all water use during peak time is contributing to peak demand. Therefore, you can target anyone using water that is contributing to that peak.
    - Develop strategy to deal with drought b/c often peaks occur during droughts.
    - Businesses need to be encouraged to permanently operate efficiently but they may also be able to shift water use during off-peak times.
    - Methods to reduce peak demand could include compensating users during drought periods (e.g. Manufacturing business to reduce water use during drought periods, perhaps overlapping with staff vacation, and to make up for reduced manufacturing, production might increase during other times of year. This is done on the electricity side.); using smart meter technology to connect to social media etc. Are you willing to reduce your water by X if we pay you Y?
    - East Bay Municipal Utility District, California did study with 2500 homes, provided mobile application which texted homeowner if they had anonymous water use. Lots of irrigation systems develop leaks. There was a 20-25% reduction in water use, by providing people with smart information.

    - Engineers who plan capital projects look at trends and demand forecasting and need to be convinced that demands will be consistently reduced. Peak is a moving target, based on weather. Approach has to be consistent, repeatable, and reliable otherwise engineers won't go for it.

    - John Fitzgibbon – Landscape architecture at U of G – has student studying the perception of "If you are conserving water then your water rates will go up" and what level of cost increase is necessary to drive behavior change.

- **Water Efficient Technology (WET) Challenge, Region of Waterloo – Steve Gombos**
    - WET Challenge is for CII and Residential users and invites home owners to complete a self-audit using the AWE water calculator. The results provide an estimate of water consumption, suggestions on how to reduce water, and links to fact sheets etc.
    - Letters are distributed to high water users encouraging them to register with WET Challenge. However, 99.9% of those who've signed up aren't in the high water use category. www.regionofwaterloo.ca/wetchallenge
    - Toronto is moving away from residential audits. Third party does inspections, so liabilities are with them. Toronto gets flagged if customer bills have increased by three times. These customers receive HWU letter receiving information about how to reduce their water use. Now targeting ICI in similar way.

Round Table Updates:

- Kimberly reported that Toronto is sending promoting what shouldn't go down the toilet and why.

- Megan reported that Durham, Guelph and Waterloo Region plan to support the Water Smart Irrigation Professionals Program at the promotional level.

- CWWA has released the Public Attitudes Project – Canadians Public Attitudes on the Value of Canada's Water System Infrastructure. The report focuses on how to get the public to view water and wastewater infrastructure as a priority.

- AWE launching a set of key messages that help explain the real relationship between conservation and rates.

- Region of Waterloo – Template Assisted Crystallization (TAC) Performance Study – Steve will bring results to next meeting.

- Brent – Winnipeg is drafting RFP for consulting services to review water conservation program. If you have insights or can offer assistance please contact Brent.