

## Canadian National Water Efficiency Network (CNWEN)

### MEETING NOTES

Tuesday, March 10, 2015

11:00 am – 2:00 pm

Halton Region

1075 North Service Road West, Oakville

#### Attendees:

| Name                | Affiliation                          | Name            | Affiliation        |
|---------------------|--------------------------------------|-----------------|--------------------|
| Kathy McAlpine Sims | Halton Region                        | Megan McCombe   | Region of Peel     |
| Julie Anne Lamberts | City of Guelph                       | Johann Manente  | Region of Peel     |
|                     |                                      |                 |                    |
| Conference Call     | Affiliation                          | Conference Call | Affiliation        |
| Mary Ann Dickinson  | AWE                                  | Brent Houle     | City of Winnipeg   |
| Duncan Ellison      | ISO                                  | John Koeller    | Koeller Associates |
| Steve Gombos        | Region of Waterloo                   | Bill Gauley     | Gauley Associates  |
| Glen Pleasance      | Region of Durham                     | Bill Chihata    | Region of York     |
| Todd Jamieson       | Capital Regional District (Victoria) |                 |                    |

1. **Review of March 2015 Meeting Notes:**

No amendments.

2. **Additions to Agenda** (none)

3. **AWE Project Updates - Mary Ann:**

a) **Draft of a Demand Hardening Study** will be reviewed at end of June, 2015

b) **Greywater Study:**

Proposal is to provide a summary of work to date, and conduct a cost/benefit analysis of existing grey water programs and systems including retrofit approach. AWE will not issue an RFP until sufficient funding is confirmed.

**Action:** Julia will provide update on Guelph's program: Her response was that beyond the 25 systems installed for the 2011 pilot project, zero rebates have been given out since then between 2012 – 2014.

c) **Outdoor Water Use Study:**

**Phase 1** is complete – was review of existing info.

<http://www.allianceforwaterefficiency.org/OWSRIrelease.aspx>

**Phase 2** is to compile new research. AWE is compiling a project advisory committee to help design and plan Phase 2. Waterloo, Peel, Guelph and Halton expressed interest.

**4. Private Member's Bill - Duncan Ellison**

Bill is before Parliament and has not yet been assigned a Parliamentary Committee.

**ISO Water Efficiency Standard – Duncan Ellison**

The balloting on the proposal closes March 13. A working group of 12 has been created to address it.

**5. CNWEN Water Billing and Per Capita Consumption Calculation Survey**

The committee discussed the similarities and differences between methodologies for collecting consumption data and calculating consumption rates, noting the significant variation that exists.

**Julie Ann** indicated she would provide the following information on **National Water/WW Benchmarking Initiative** definitions that might be useful in future Metering/Billing conversations:

|  |  |
|--|--|
| <a href="#">Per capita average day consumption for residential customers</a> | Annual average daily per capita residential water consumption in l/capita/day = Total volume delivered to residential customers in ML / 365 days / population served * 1,000,000 litres per ML. If the Total volume delivered to residential customers is unknown due to lack of metering then no data should be provided unless there are estimates for residential consumption based on studies. <i>(Should be based on your own residential customers and exclude treated water supplied to neighbouring regions/municipalities.)</i> |
| <a href="#">Average Day Demand (ML/d)</a>                                    | Water demanded by the distribution system, which is less than the total amount of raw water entering the plant (units used are ML/day). Collect both design and current average day demand for the treatment plant. Average Day Demand = Total Annual Treated Water (ML) / 365 days (Include treated water volume supplied to neighbouring regions/municipalities)   |
| <a href="#">Maximum Day Demand (ML/d)</a>                                    | Maximum volume per day flowing through the plant for any day in the year (units used are ML/day). Collect both design and current maximum day demand for the treatment plant. (Include treated water volume supplied to neighbouring regions/municipalities)   |

## 6. AWE’s Value of Water Study

Bill Gauley reported the following: Through discussions with Mary Ann it was decided that it would be extremely difficult to get enough representative samples of projects/programs that have made some concerted effort to identify the monetary value associated with withdrawing less water from the environment. Even if we were able to obtain some reports, it is unlikely that the evaluation would have been completed in the same manner by different agencies – making it harder to compare the values.

As such, it was decided the best strategy would be to have a few interested water efficiency experts develop some theoretical values based on a range of different parameters, such as scarce water supply, seasonal water supply, moderate water supply, plentiful water supply, etc.

The value of themselves as well as the rationale for selecting these values would be described by this group of experts in a document. This document would then be sent to a large number of North American water and water efficiency experts, including academics, utility managers, etc., and these experts would be asked whether or not they agreed with the general accuracy of the values and the supporting parameters. If they do not agree, they would be asked to provide their rationale for not agreeing as well as a suggestion for a more appropriate value.

The idea behind this methodology is that it is a lot easier for someone to evaluate a presentation than it is for them to come up with a presentation on their own. The process does not have to be unanimous. For example, if we can say that eight out of 10 water efficiency experts in North America believe the value of water under certain conditions is X then that will be good enough.

**Guelph’s Economic Study** – Julie Anne presented info from a June 2011 Guelph Council Report that compared the costs of future water supply and wastewater treatment with and without water conservation. See summary table below. For more information please refer the section titled “Financial Benefits and Operational Efficiencies” in the report attached to the meeting notes.

| Plan                             | Net Present Value (NPV) with Reduced Conservation Programming<br>(2006 dollars) | Net Present Value (NPV) with WSMP 20% Reduction Target<br>(2006 dollars) |
|----------------------------------|---|--|
| Water Supply Master Plan         | \$92,515,456  | \$49,847,529   |
| Wastewater Treatment Master Plan | \$59,743,881  | \$16,657,935   |

### Net Benefit in Avoided Infrastructure Costs (NPV 2006 Dollars)

Water: \$42,667,927

Wastewater: \$43,085,946

- New water supply will cost \$3 to \$8 per liter per day, while reclaimed water will cost less than \$4 per L per day. The costs associated with reclaimed water supply are the costs involved to develop and implement a water conservation and efficiency program, it includes staffing, training costs, marketing and educational materials, research costs, etc.
- The lower end of the New Supply costs (\$3/L/d) is considering that some of the sources are more expensive to implement than others, however, this lower end of the scale is considering one source of new water, so this alone wouldn’t provide enough supply for the next 25 years.
- This year, Guelph determined they are spending about \$1.06 on conservation programming per Litre of water saved, rather than the <\$4 noted in the slide below. This considers total annual conservation program expenditures from 2006 to 2014. Total dollars spent from 2006 – 2014

compared to total water saved during same period. This is an update over the information presented in the slide below which is from a previous Guelph presentation:



**7. CWWA 2015 Conference**

Deadline for papers is March 31<sup>st</sup>.

**8. Other Business:**

**IWA Conference**, sponsored by US EPA, is in Cincinnati, April 20 -25, 2015. Twenty-seven countries, includes an Efficiency session.

**CCME** (Canadian Council of Ministers of the Environment) has undertaken “Project 567-2015 – Principles for Water Pricing.” It is a scan of Canadian and international jurisdictions to examine existing approaches/frameworks to water pricing. Based on this information, the Consultant will develop a consistent set of principles applicable to Canadian jurisdictions for water pricing and provide supporting rationale for the principles. The Consultant will also undertake a limited literature review and include information on how governments can and do use water pricing to respond to existing and emerging water management issues including, but not limited to, climate change.

The project was awarded to Dr. Ted Horbulyk, an economist with extensive knowledge and experience in water pricing. CCME hopes to have the report published sometime summer 2015.

**9. Next Meetings:**

Tues. May 12

Tues. June 23

Tues. September 15

Tues. November 10