Grand River Environmental Network
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The proactive voice for the environment in the Grand River watershed

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February 25, 2014

Grand River Environmental Network (GREN) Comments on Region of Waterloo's Updates of Water Efficiency Master Plan (WEMP) and Water Supply Master Plan (WSMP)

A primary goal of the Grand River Environmental Network (GREN) is to promote respect for our natural world and our place in it. Our communities are near the carrying capacity of the essentials for life—water, air, energy, greenspace, aggregate, agricultural land, and wetlands—requiring aggressive preventative and improvement measures.

Since policies to protect and enhance current and future water supply sources must mesh with those that improve efficiency and conservation, this paper includes GREN's comments on both the WEMP and WSMP.

Part 1: Comments on Proposed Water Efficiency Master Plan Updates (2013)[1]

Overall, GREN supports the vision, goals and objectives of the WEMP. "A (water) supply that draws primarily from our groundwater and river water sources" rather than depending on a pipeline (see attached appendix A) from outside the Region corresponds directly with GREN's goals and commitment to sustainability. As the draft WEMP states, the water efficiency requirements to meet the goal are doable while accommodating growth. GREN offers its support for the following:

Increase the budget and staffing for the WEMP
The public's acceptance of the need for water efficiency is a testament to the Region's successful approach, but the next phase will be more challenging requiring additional resources to support it. The budget should reflect this.

Reallocate deferred pipeline funds
To achieve the goal of reducing residential water demand from 202 Lcd (litres per capita per day) to 160 Lcd, and total system demand from 285 Lcd to 235 Lcd by 2025, the additional resources can be used on the following efforts outlined in the WEMP:

- **Fast-track research and public education on waterless and salt-free water softeners.** Investment by the Region into research, development and education on waterless, salt-free water softeners will reduce water use and the amount of salt impacting water quality as well as capitalize on people already willing to conserve water but who lack accessible, reliable information about that technology.

[1] Comments are based on "Draft Water Efficiency Master Plan (2015-2025)" draft V7, Nov. 21, 2013 and "Sustaining our Water Supply: Water Efficiency Master Plan (2015-2025)" display boards, February 2014.

- **Invest more resources to train plumbers, retailers and partner professions on rainwater harvesting, greywater recycling and new water-saving technologies.**
  The barriers can be onerous, if not insurmountable, for homeowners to retrofit their homes when local plumbers and tradespeople are not trained or knowledgeable about the new technologies. It is paramount that the Region invests in training and educating plumbers and retailers in these new business opportunities to give their customers confidence that the technologies work and that someone can fix them when they don't.

Provide incentives for developers and builders to incorporate water efficiency into new builds and renovations.
This should include both residential development and institutions such as schools, universities, hospitals, recreational facilities and government buildings. The new city hall in Cambridge is a fine example of cost-effective, water efficient construction in the public sector. It should be the norm rather than the exception.

Stronger outreach to the Commercial, Industrial, and Institutional sectors about the W.E.T. program.
The WEMP notes that only a third of those interviewed were aware of the program. It should be an easy sell to those companies who know about it, especially if implementing the changes is made relatively easy by upfront work at the Region. The added bonus will be saving money on purchases of water and energy, and, in some cases, water treatment.

Include agricultural community in discussions of water efficiency
Everyone benefits when we work with our farmers to find ways and means to reduce water use while maintaining yields and profitability. Cultivating water-efficiency champions within the local farming community would help to counter the misconception that a growing municipal population means less water available for their needs.

Address misconceptions about loss of productivity and profits
The Region faces complex challenges to safeguard our local water supply, balancing public and private interests. Proactive zoning, incentives for intensification rather than sprawl, and protecting wellhead, recharge and floodplain areas requires well thought out strategies and positive communication—particularly with the townships, farmers and developers—that these measures will not curtail productivity and profits, and are indeed necessary to protect our water supply as the population grows.

Extend the WEMP to 2050 to match the timeline of the WSMP
The WEMP currently extends only to 2025. While the reduction goals until 2025 are ambitious, the research shows that we are capable of reaching even greater water efficiency between 2025 and 2050. The attached chart (Appendix B) illustrates the possibility of reducing residential water use to 137 Lcd by 2041 and then even further, to between 30 and 80 Lcd.

In short, these goals are attainable if we plan for the long term and aggressively pursue the course by:

- training the professionals and tradespeople and showing them the new business opportunities;
- promoting the research and development of new technologies, again a source of business opportunities; and
- offering incentives to the commercial and industrial sectors to showcase their water efficiencies and the cost savings to them.

Part 2: Comments on Water Supply Master Plan Update (2013)[2]

Pending an official consultation document, GREN's comments are based on the somewhat cryptic presentation boards and brief conversations with staff and consultants at the open houses.

GREN supports:

Deferment of a Lake Erie pipeline until after 2051, focussing on "the long-term sustainable water available in the Region."
Although the reason cited is "more restrictive pumping limits from the Ministry of the Environment (Clean Water Act)," this is an action that the Region should be taking even if it were not required by the provincial government. Our expectation is that the Region shares GREN's goal "to promote respect for our natural world and our place in it" which includes "long-term sustainable water available in the Region."

Water withdrawals and treatment as close to the place where it is used
Reducing the distance water is pumped saves energy. The WSMP should include reduced energy costs and environmental impacts of using less energy in the WSMP.

Water taken only from existing and new groundwater wells that don't interfere with agricultural uses.

Changing terminology from "continue" to "enhance" when referring to water efficiency programs and updating WSMP regularly (about every 5 years).

Including impact from more aggressive water efficiency plans on Regional capital and operating budgets.
The opportunity to achieve even greater reduction in water supply costs with new programs should not be hamstrung by objectives "to maintain Water Efficiency Program Budget and staff at current levels."

A number of questions and issues arose, as follows:

What data is the "Current Average Day Demand Forecast" based on?
The deferment of the pipeline option is primarily based on the success of the WEMP to reduce forecasted per capita and total water use for 2041 to approximately 170 million litres (170 ML/day). This is almost half of the projected 300+ ML/day from the last WEMP update in 2007. We need access to this background information to be able to more fully comment on the WSMP forecast.

What is the data on current water usage and projected water usage per sector (residential, industrial, commercial, institutional, and agricultural)
Accurate, reliable data is necessary to know where to focus efforts for further water usage reductions.

What is the impact on operating expenditures of the projected reduction in capital budget?
The "What Will it Cost?" presentation board shows a $65 million reduction in the 10 year capital budget if the updated WSMP is implemented. Has an assessment been made of impacts that the changes would have on operating expenditures? This would be a valuable piece of information to have when making decisions

Where is the potential for industrial, commercial and institutional water conservation?

[2] Comments are on "Water Supply Master Plan Update 2013," Public Consultation Centre presentation boards, December 2013.

The WSMP poses the question: "How much further water conservation is achievable through individual household efficiency before a practical limit is reached?" Appendix B in our submission shows that it is practical to reach per capita residential water use reductions that is half that planned for in the updated WEMP. It is critical to have the question about potential water use reduction also be posed about the industrial, commercial, and institutional sectors. The failure to ask this question is a major failing of the WSMP.

Part 3: Connection to Other Regional Programs

To achieve the goals of the WSMP, we must ensure that programs at the Region, city and township levels fully support the WSMP. These include programs that:

- Protect water supply sources from contamination by toxic substances, including road salt.
- Encourage infiltration and prevent/remove barriers to infiltration of water into ground and surface waters, and
- Restore natural water flows for the well-being of others who rely on these waters, e.g., wildlife, fish, birds, and plant life.

Although these programs are goals for the Region, cities and townships, we should not assume they are adequate to achieve the goals in our WSMP. We recommend an assessment of these other plans to ensure they are up to date and being properly implemented.

Conclusion

GREN is pleased with the overall vision and goals of the Region of Waterloo's updates of the Water Efficiency Master Plan and Water Supply Master Plan. We look forward to supporting and strengthening the Region's progressive plans to continue to provide a sustainable local water supply serving both a growing population and the needs of a healthy ecosystem.

Please do not hesitate to contact me if you require further clarification.

Sincerely,

John Jackson
Chair – Grand River Environmental Network

Prepared by Susan Bryant, John Jackson and Susan Koswan with contributions from GREN members.

Attached: Appendix A & B

Appendix A

GREN's Top Eight Reasons for Permanently Removing a Water Pipeline to a Great Lake from the WSMP

1. No huge outlay of money for the capital costs of a pipeline.

2. Not having to pump every water molecule more than 100km and treat every one, with the attendant savings in energy, greenhouse gases as well as cost.

3. Enjoying the water security we have under our current groundwater/surface water system, which has a flexibility and resilience, when problems arise, that a pipeline does not.

4. Avoiding the issues, known and unknown, of dealing with troubled Lake Erie as a drinking water source.

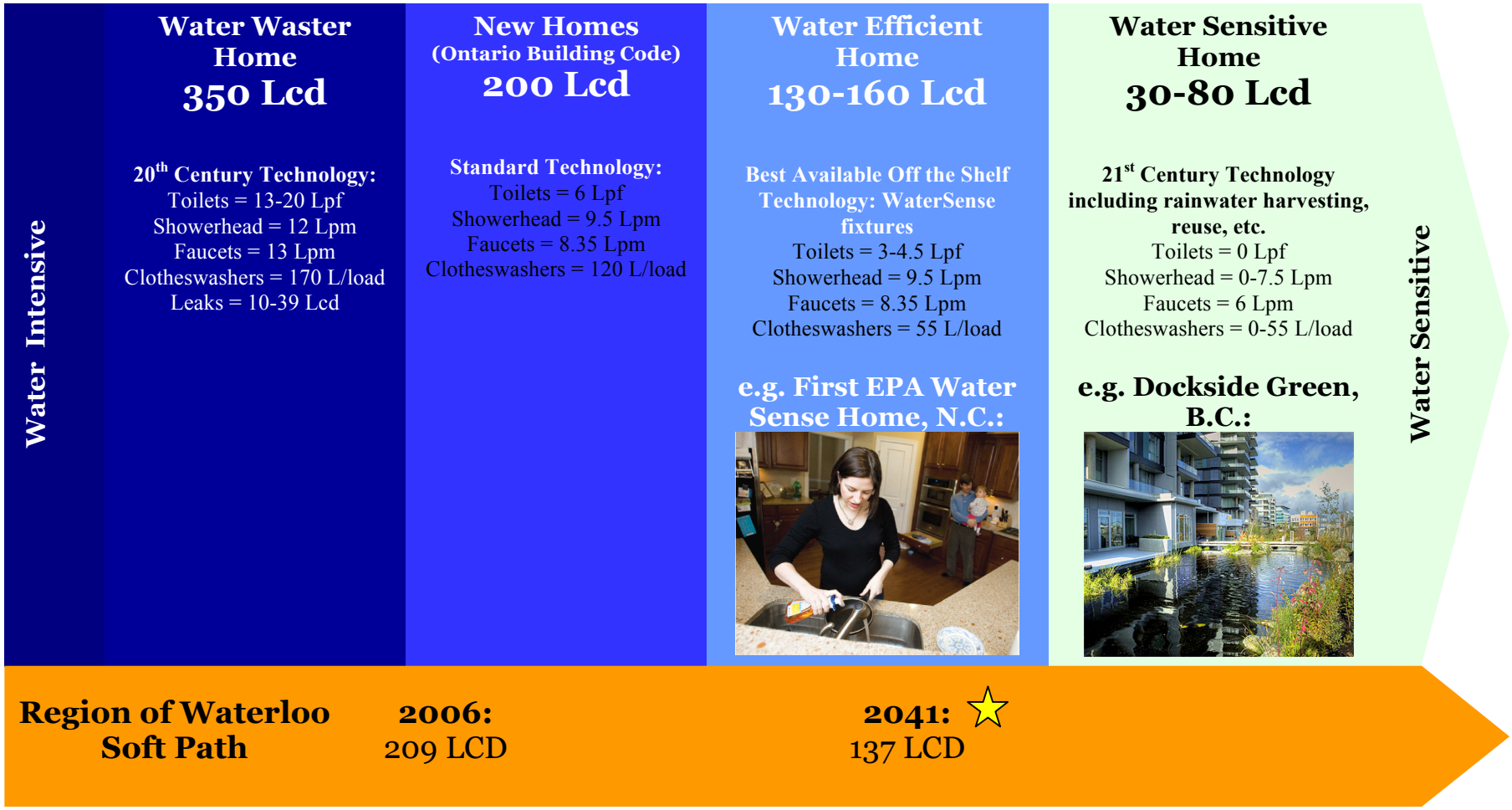
5. Avoiding the known and unknown consequences of a perception that water supply is unlimited, which would come with a pipeline, accompanied by the attendant pressures on wastewater treatment and the Grand River as the receiver of effluent.

6. Retaining governance over our water supply rather than having to share decision-making with several other municipalities.

7. Having some control over what gets into the local water supply, which we don't have over Lake Erie.

8. Continuing to set a high standard for responsible, local water stewardship, as the Region has.

Appendix B



Prepared by Carol Maas for Great Lakes United.
Funded by Ontario Trillium Foundation & the Great Lakes Protection Fund.
Prepared 2012