

Guelph Water Supply Master Plan Questions and Answers

CONSERVATION AND DEMAND MANAGEMENT

1. Why does the City need to consider other alternatives aside from water conservation?
Can water conservation alone provide the water supply we need in the long-term?

Answer

The City of Guelph is already in the most favourable 25% of similar municipalities in Canada when it comes to per person water use. As a result, the potential for further demand reduction is less and will require more effort, cost, and time to realize. Although aggressive water conservation is the first recommendation of the Water Supply Master Plan, the potential water savings, at best, represents 8,000 to 16,000 cubic metres per day of capacity or approximately 5 to 10 years of growth accommodation. As a result, water conservation alone cannot meet future demands in the mid to long term. Furthermore, conservation alone will not provide enough capacity to improve the reliability of the water supply system during periods of high demand, as recommended in the Water Supply Master Plan.

2. How do Guelph's conservation efforts compare to other similar cities?

Answer

The City already has a water conservation and efficiency strategy. Initiated in 1999, this strategy includes an award winning outside water use program, and the City's program is cited as water efficiency best management practices by the Ontario Water Works Association. The City of Guelph is already in the most favourable 25% of similar municipalities in Canada when it comes to per person water use. However, there is room for further reductions and broader application to City residents and businesses, hence the recommendations in the Water Supply Master Plan to enhance the program and achieve sustainable 10 to 20% reductions in water use.

3. Has the City decreased the amount of money it spends on conservation because the Water Supply Master Plan includes other alternatives?

Answer

No, not at all, in fact the City has been steadily increasing funding to meet the levels recommended as part of the Water Conservation and Efficiency Strategy. Further enhancements are recommended as part of the Water Supply Master Plan to ensure a further 10% reduction is achieved by 2010, and to target a 20% reduction in total by 2025.

4. What is the City doing to reduce water loss from the system?

Answer

The City of Guelph has an ongoing program to reduce the amount of water that is lost. The City's current level of unaccounted for water is approximately 13% and the program's goal is to reduce this amount to the industry goal of 10%. Completion of the ongoing Water Distribution System Master Plan will further allow for water loss reduction to achieve this objective.

GROUNDWATER SOURCES

5. There is a lot of groundwater in and around Guelph. Can we meet our water supply needs through groundwater alone?

Answer

The potential available groundwater in the city is in the range of 31,000 to 59,000 cubic metres per day plus an additional 12,000 to 22,000 cubic metres per day outside of the city. In total, this represents 20 to 30 years of growth potential. However, new municipal groundwater takings must consider potential impacts on ecosystems, interference with existing supplies and other water uses, issues associated with contaminated sites, and water quality and water availability within a watershed. We must also work cooperatively with the County and the Townships to obtain water outside of the city. Not all of this potential groundwater will be available for future water supply.

6. How does the Master Plan address the protection of groundwater quality and quantity?

Answer

The work completed as part of the Water Supply Master Plan takes into account groundwater quality and quantity protection based on outputs of previous studies including the Guelph/Puslinch Groundwater Protection Study (refer to City of Guelph website). The impacts of source water protection will reduce the quantity of groundwater available from the options outlined in the Water Supply Master Plan and this reduction has been factored into the plan. Protection of groundwater will also aid in sustaining our existing sources and reduce or prevent the loss of existing or future supplies through contamination events.

7. What further research/investigation needs to be completed to assess the amount of groundwater available and the impacts to the groundwater system?

Answer

The investigations would include pump testing to confirm sustainable quantities, contaminant and/or well interference investigations, additional computer modeling and treatability studies as well as Environmental Assessments to identify and mitigate any specific natural environment impacts and source protection planning to protect the resource over time. There will be opportunities during the Environmental Assessments of each water supply project for public input and Council decision-making.

8. What is the status of the additional taking from Arkell and how much additional water can be supplied by this taking?

Answer

The City is working with the Ministry of the Environment to address the issues and concerns related to the Arkell Class Environmental Assessment. If the City obtains the full approval, this would bring online 9,500 cubic metres per day of additional capacity, which would be available for both growth and system reliability.

LOCAL SURFACE WATER SOURCES

9. What is Aquifer Storage Recovery and how much water can we secure through that alternative?

Answer

Aquifer Storage Recovery involves the storage of drinking water in underground aquifers during periods of water surplus, and subsequent recovery of this stored water during periods of high water demand. The initial estimates of the potential capacity that could be provided through Aquifer Storage Recovery is approximately 14,000 cubic metres per day, however this amount would need to be confirmed through additional studies and investigations.

10. Is water supplied from groundwater, surface water (local or Great Lakes), and Aquifer Storage Recovery equally safe to drink?

Answer

Whatever the source, all water supplied to customers by Guelph Waterworks will be treated and disinfected to meet all drinking water standards.

REGIONAL SURFACE WATER SOURCES - GREAT LAKES PIPELINE

11. The Water Supply Master Plan discusses a Great Lakes supply alternative. Does this mean if the Water Supply Master Plan is approved, the City is committed to implementing a pipeline?

Answer

The Water Supply Master Plan recommends that the City obtain more information on the Great Lakes pipeline regarding environmental/economic impacts and/or benefits, the option to partner with other municipalities, and the feasibility of this option. Once such an analysis is completed, the City can make an informed decision on whether to proceed on this basis or not in the long term. The Water Supply Master Plan recommends that a decision regarding the pipeline be made in the year 2010.

12. Does Guelph have to replace its entire water supply system to use a pipeline?

Answer

The City could implement a Great Lakes pipeline to either supplement its water supply system once reaching its maximum local capacity, or replace it in its entirety. The impacts and/or benefits of these options would be assessed as part of a feasibility assessment.

13. What are the water quality issues associated with the pipeline?

Answer

Water quality issues associated with the pipeline are no different than those for groundwater supplies, or would be encountered for local surface water supplies. All water sources are required to meet Provincial drinking water standards.

14. Doesn't a pipeline mean the City will grow substantially from our current size?

Answer

The City's growth will be determined through the local growth management strategy currently being developed.

15. What more information will staff report back to Council in relation to the Great Lakes pipeline alternative?

Answer

The first step will be for staff to hold discussions with other municipalities on potential partnerships and the nature of the feasibility studies that would be required, and then report back to council with this information.

GROWTH

16. Guelph has not determined its growth scenarios or strategy yet. How can we decide on short-term water supply alternatives when we haven't decided on growth yet?

Answer

Within the Official Plan, the City has planned for future growth. The City needs to implement the short-term options to satisfy this planned growth and improve system reliability. The City's ultimate growth will be determined through the local growth management strategy currently being developed. Regardless of growth projections, Guelph will need additional water supplies.

During the short-term implementation, the Water Supply Master Plan will be coordinated with ongoing growth and infrastructure studies including:

- *The Growth Management Strategy;*
- *The Wastewater Master Plan; and*
- *The Water Servicing and System Optimization Study.*

17. Did the City consult with the public during the development of the Water Supply Master Plan?

Answer

Considerable public consultation was provided in preparing the Water Supply Master Plan. This included the establishment of a Public Advisory Committee, and three meetings with this committee, two agency/municipality workshops, one workshop for City Council, and one workshop for the City, County and adjacent municipalities, and two public meetings for the general public.

18. Why isn't the City listening to public opinion that a pipeline is not the way to go?

Answer

Public input was solicited and incorporated into the final draft of the Water Supply Master Plan. The public will have further opportunity to provide Council directly with input before the plan is finalized.

19. What are the next steps in the process?

Answer

The next step involves Council approval, in principle, of the Water Supply Master Plan. The Water Supply Master Plan forms the first part of a Class Environmental Assessment process. Each water supply project in the short-term recommendations will be conducted under the Class Environmental Assessment process, which includes technical studies, public consultation and further Council decision-making.

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