

2. Opening Remarks

- 2.1 A CLC member commented that sufficient time should be provided to review the meeting agenda and presentation materials prior to future CLC meetings.
- 2.2 CLC members commented that three hour meetings are too long. PB noted that future meetings will be a maximum of 2 hours and start at 6:30 p.m. to accommodate those CLC members with a long commute.
- 2.3 Three alternative dates will be provided to the committee when scheduling future CLC meetings. Meeting materials will be provided one week in advance to allow sufficient time for the committee members to review the materials prior to the meeting.
- 2.4 CLC members indicated they would like to focus the meeting on discussion of the basis/role of the committee.

3. Communications Protocol

- 3.1 A CLC member suggested that a protocol be developed for non-members to communicate with the CLC. Email addresses of the CLC members could be provided to the public to provide input. SM will email all CLC members to determine which members are willing to share their contact information (email) with the other members of the CLC.

Action: City
- 3.2 PB suggested that all correspondence from the CLC be sent directly to her. As the Public Consultation Coordinator, she will distribute the emails to the CLC and appropriate resources to ensure the comments are received and addressed.
- 3.3 The City is currently developing a website which will be used to share information about the project including information bulletins, CLC meeting minutes, CLC presentation materials, frequently asked questions and reports. The website will not be limited to the CLC members; the entire community will be able to access the content.

4. Memorandum of Understanding (MOU)

- 4.1 Several members expressed concern that the MOU was provided as opposed to the terms being developed with consensus of the committee.
- 4.2 PB explained that the MOU was provided as a starting point for review with the committee.
- 4.3 It was questioned whether the CLC will have an impact on the recommended solution. PB confirmed that the CLC will have an impact, along with additional public and agency consultation undertaken by the City.
- 4.4 PB explained that the project team is currently at the start of the EA process. Decisions regarding the preferred alternative have not been made.
- 4.5 A CLC member suggested based on previous work on committees, that the CLC should come to a full understanding of the work to be done, followed by presentation of reports to support the work to be completed. There is a need to understand and agree to the Terms of Reference based on the MOU.
- 4.6 A CLC member had a question regarding the size of quorum. PB explained that the CLC is not really a voting committee. Recommendations will be based on consensus through open dialogue and discussion.

5. Alternative Solutions

- 5.1 It was questioned why a well and water storage facility is being evaluated instead of other alternatives.

- 5.2 A CLC member questioned why the problem statement for the EA is not the same as the problem statement of the 2004 Master Plan, including the first two recommendations of water conservation and well supply from an alternative well field. The CLC member is not convinced that water conservation has been fully implemented as recommended in previous reports.
- 5.3 PB explained that the recommendations from the Master Plan are what triggered the Environmental Assessment stage.
- 5.4 PB suggested a review of the project history (as provided in the CLC presentation) since several issues have been raised on the project background.

6. Project History

- 6.1 AC explained that there are at least 10 years of studies leading up to this Environmental Assessment study. He reviewed key findings from previous reports including:
- Carlisle Peak Demand Report (Neptune 2004)
 - Carlisle Water Supply Master Plan and Class EA (Stantec 2004)
 - Carlisle Water Supply Evaluation and Addendum (Stantec 2004)
 - Carlisle Well Siting Study (Dillon 2006)
 - Carlisle Water Supply Study (Stantec 2010)

7. Water Conservation

- 7.1 A CLC member questioned whether water conservation measures and monitoring as recommended in the Stantec report was fully implemented and therefore there is a “perception” of a shortage of water.
- 7.2 A CLC member added that the water shortage issue is related to the summer (irrigation).
- 7.3 A CLC member explained that the CLC needs to be comfortable that the first two options from the Master Plan have been addressed appropriately. The Master Plan suggested a 5-year monitoring program and SM noted that to her knowledge this data was not available. Concern was expressed that the need for a new well has been established when water conservation has not been fully addressed.
- 7.4 PB explained that it was never the intention to stop water conservation initiatives. Water conservation is a component of the solution; however, water conservation may not be enough to fully address the water demands.
- 7.5 AC explained that even considering water conservation, additional storage would still be required.
- 7.6 A CLC member questioned whether any analysis was completed not including the 76 highest water users in the RSA. In his opinion, constructing a new well and storage facility is subsidizing extreme water requirements.
- 7.7 A CLC member expressed concern that water conservation was not fully implemented. Construction of new facilities is the most expensive solution possible. The CLC member commented that the City of Guelph and City of Kitchener have reduced their consumption significantly through implementation of water conservation programs.
- 7.8 AC questioned whether the CLC members would be willing to take an initiative to promote water conservation in the community. PB expanded on the above suggestion questioning whether additional people from the community should be approached to be part of this initiative to go beyond what the City has done and reach out to the community to help raise awareness on the importance of water conservation.
- 7.9 A CLC member suggested that conservation could be enforced by the City enforcing their bylaw.

- 7.10 A CLC member noted that the report suggested that water conservation was tried and failed, however a decrease in demand was observed for those residents who participated. There was no impact for those who didn't participate. Water conservation needs to be addressed as a first priority.
- 7.11 PB explained that water conservation issue is not closed. There is still an opportunity to implement water conservation measures as a component of the solution. The CLC can provide suggestions on how to further implement water conservation - recognizing the core objective of the project is for the City to provide sufficient water supply to residents.
- 7.12 A CLC member indicated that constructing additional facilities is "feeding the addiction". The City is putting up another tower without addressing the problem.
- 7.13 A CLC member emphasized that the Committee would like to get to the root cause. The issue of water conservation needs to be dealt with on a community level. The impact of all alternative solutions should be identified and one solution is conservation. How much water residents use is based on assumptions. There is a need to test alternatives to determine a solution that makes sense.
- 7.14 PB commented that looking at past experience with conservation, it does not appear that conservation alone will solve the problem. The City has a municipal responsibility to provide water to the RSA.
- 7.15 PB explained that the alternatives do not need to be standalone (A, B, C, D). Conservation can be carried forward with each option.
- 7.16 A CLC member commented that there should be emphasis on controlling irrigation.
- 7.17 PB summarized based on the comments received, the CLC would like to look at conservation as a primary solution when reviewing alternatives.
- 7.18 A CLC member suggested that the Neptune report be circulated to CLC members for review and that the City undertake discussions with other municipalities that have implemented successful water conservation programs such as the City of Guelph.
- 7.19 A CLC member suggested that the Committee first focus on water conservation with the next meeting to review alternative strategies.
- 7.20 PB explained that municipalities need to provide water to their residents. If growth is to be allowed as designed in the Official Plan and Places to Grow, the City is required to provide the servicing. The project team cannot just look at water conservation in isolation; the team needs to keep in mind the overall problem – to provide sufficient quantity and quality of water to meet demands.

8. Population Projections

- 8.1 AC reviewed the basis of the population projections.
- 8.2 Several CLC members indicated that they have surveyed several residents and only 10% of the residents that they have spoken to are interested in connecting to the municipal system. They questioned why 100% conversion of private wells was used since the City is not developing a 25 year plan.
- 8.3 SM clarified that the infrastructure is based on full-build out of the community (i.e. beyond 30-years). Properties which have the infrastructure in front of them have a right to connect to the municipal system and must be considered in the demand projections.
- 8.4 PB commented that 15 years from now people may want to connect to the water system. It is much more difficult to provide the required volume after the fact. These demands need to be considered in the planning and design now.

- 8.5 Several CLC members were in agreement with the 100% conversion rate of private wells for design.
- 8.6 SM noted that there are only 20 lots designated for future development in the Carlisle RSA. The 147 lots stated in the previous presentation was due to an error in one of the background reports and has been re-evaluated.

9. Hydrogeological Investigation

- 9.1 A CLC member questioned the ability of the aquifer to sustain the demand required. Based on previous reports, Pepper's Hill was the most probable site for water, and yet there is no water at this site. This CLC member commented that he observed drawdown in his residential well during the well testing.
- 9.2 DB explained that the hydrogeological investigation was completed to assess the above. DB explained that a CLC member's well across Centre Road is drilled deep into the dolostone bedrock, while most nearby residential wells just tap into a fracture zone at the top of the bedrock. During the investigation a second fracture zone was encountered near the base of the aquifer. As soon as they drilled into the deeper zone, groundwater levels in a nearby deep well experienced a quick drop in water levels, followed by a sharp increase to a level that was higher than the initial static condition. The interpretation of this situation was that the water from the shallow fracture zone was flowing down the well into the deep fracture zone, causing a local decrease in water levels in the shallow zone and an increase in water levels in the deep zone.
- 9.3 A CLC member clarified that he was talking about a different well. DB explained that the data logger installed in his private well was not functioning properly based on comparisons with hand-measured data.
- 9.4 A CLC member commented that since 2006 there have been several studies on where to put a well. However, the water is not available. Time and resources were spent to find the best location, and that location was wrong.
- 9.5 A CLC member suggested that the time may be better used making water conservation work.
- 9.6 A CLC member questioned the capacity of the aquifer to deliver the supply on an ongoing basis.
- 9.7 DB explained that the scope of this study is not to establish alternative well sites. Previous studies were completed to determine sites with the highest probability of meeting the City's requirements. Site 1a-A will be investigated next.
- 9.8 A CLC member commented that other users (such as Nestle) were just granted a permit this year. They are currently only taking 60% of the allowable limit. What happens when they start using the remainder of the volume? In addition, Carlisle is a farming community. What happens to the aquifer if additional permits are granted?
- 9.9 PB explained that the MOE does not review each Permit To Take Water application in isolation.

10. Demand Projections

- 10.1 AC explained that there are separate requirements triggering the need for additional storage versus flow. The wells should be sufficient to provide maximum day demands. The storage facility is sized based on a combination of fire, equalization and emergency storage required as recommended in the Fire Underwriters Survey (FUS) and MOE Design Guidelines for Drinking Water Systems.
- 10.2 AC reviewed the demand projections and fire requirements. He explained that the fire flow requirements are slightly larger than the previous report since a detailed review of the community was completed. The calculation was based on the largest house in the RSA.
- 10.3 A CLC member commented on whether a range could be provided (min, max).

- 10.4 AC explained that even if the demand were reduced by 30% through conservation, storage would likely still be required.
- 10.5 Several CLC members noted that they have had problems with sufficient water supply in the area in the past during summer months.
- 10.6 A CLC member acknowledged that an additional storage facility is needed. The storage facility will handle peak demand requirements so the system doesn't experience water shortages. If the usage can't be impacted, storage will provide an insurance policy to help prevent shortages. Storage will need to be implemented in addition to water conservation.
- 10.7 PB commented that the purpose of the project is to provide sufficient water to address the needs of the service population. The purpose is not just conservation and not necessarily three separate alternatives. The preferred solution must provide sufficient storage and supply.
- 10.8 Several CLC members agreed that the problem statement should be revised based on the statement above. PB noted that the existing problem statement touches upon all of the issues.
- 10.9 A CLC member commented that the private well conversions will likely use less water than the current average demand. Per capita demands from these households should not be based on the historical demands in the RSA.
- 10.10 AC explained that the revised flow demands were based on SCADA data for the wells as provided by the City.

11. Problem Statement

- 11.1 PB explained that the problem was reviewed partly during the Master Plan and partly in this ongoing Schedule 'C' Class EA. First the problem statement is established, followed by alternative solutions, followed by alternative designs for the preferred solution.
- 11.2 The CLC proposed the mission statement be revised to the following:

Provide sufficient water supply to all users within the Study Area in a just and sustainable manner.
- 11.3 The methodology to meet the mission statement will include conservation, storage, expansion of the existing groundwater supply, a new well and a new water storage facility.
- 11.4 PB noted that the mission statement is currently not being met in the RSA. Conservation will form part of the solution, but it may not be the whole solution. An evaluation of alternatives will be completed under the Class EA process to evaluate technical feasibility as well as natural, social/cultural and economic impacts.

12. Fire Protection

- 12.1 A CLC member commented that the City of Hamilton has superior coverage due to tanker systems. The two insurance companies he spoke to were satisfied.
- 12.2 A CLC member questioned why treated, potable water is being used for fire when a reservoir could be used just for fire.
- 12.3 A CLC member noted that the Dragon's Fire Golf Course has hydrants. AC noted that these are private and not connected to the distribution system.
- 12.4 A CLC member noted that only 32% of the land mass is covered by hydrants.
- 12.5 A CLC member questioned whether a facility with a standpipe could be constructed at Bronte Creek. There is an abandoned water bottling facility on the 11th Concession.

- 12.6 A CLC member questioned whether it would be possible to make the existing water tower bigger. AC explained that the existing tower is currently in operation and this tower configuration cannot be modified to increase storage capacity.
- 12.7 PB emphasized the project team is still reviewing alternative solutions. There are still issues if the fire supply is not part of the municipal system (i.e. if there were a standpipe installed by Halton Conservation). The MOE looks at ensuring the supply is available and that there is sufficient water pressure to fight fires (i.e. 20 psi).
- 12.8 A CLC member only recalls one fire in 40 years when a pumper truck was used to fight a fire. The basis for the storage design includes conditions that have not historically occurred in Carlisle.
- 12.9 AC commented that the FUS looks at a number of factors, not just distance from the municipal supply.
- 12.10 A CLC member suggested that the solution could include a storage facility to deal with fire issues and water conservation to satisfy the City of Hamilton requirement to develop more homes based on the Official Plan.

13. Next Steps

- 13.1 PB confirmed that the CLC is in agreement with the population calculations.
- 13.2 A CLC member questioned whether additional information could be provided on the highest water users so that calculations could be performed if those highest users scaled down consumption.
- 13.3 SM suggested that the project team can contact the City of Kitchener and/or the City of Guelph to determine if someone is willing to attend the next CLC meeting to present their water conservation program.
Action: WSP/City
- 13.4 The next meeting should be scheduled ASAP subject to the availability of staff from other municipalities to discuss water conservation.
- 13.5 PB indicated that any specific comments on the MOU should be sent to her directly.
- 13.6 SM thanked the CLC members for their participation in the meeting and interest in the project.

End of Meeting Summary