

Evaluation of Municipal Water Supply Class Environmental Assessment Township of Georgian Bluffs



**Phase III Public Meeting
May 3, 2018
2 pm to 4 pm and 7 pm to 9 pm**



Background

- This Class Environment Assessment (Class EA) has been initiated to evaluate municipal water supply alternatives for the Study Area in Georgian Bluffs.
- The Study Area includes the shoreline area south of the Indian River to the City limits, the Brooke Area, and Pottawatomi Village.
- Some residents of this area have indicated an interest in receiving municipal water supply. For long term sustainability, the Pottawatomi Village water system should be connected to a larger water system.
- The Class EA process includes review of feasible alternatives and invites public input. The Class EA considers financial, natural environment, heritage and social impacts when comparing alternatives.



Water Service Alternatives

- **Alternative 1** – Expand existing East Linton water system to service the Study Area.
- **Alternative 2** – Construct new water treatment plant and water intake to service the Study Area.
- **Alternative 3** – Extend City of Owen Sound water system to Study Area.
- **Alternative 4** – Do Nothing



Summary of Alternatives

Alternative 1 – Connect to the existing East Linton water system. The existing water system has sufficient reserve capacity to service the Study Area. The total cost estimate (from Phase II) is estimated to be \$ 8.4 M, including a new water standpipe and larger size watermains for fire flows.

Alternative 2 – Build new water plant at Sarawak Family Park. New water system would be separate from the East Linton water system though the two systems could be connected together. The total cost estimate is \$11.7 M, including a new water standpipe and larger size watermains for fire flows.



Summary of Alternatives Con't.

Alternative 3 – Connect to City of Owen Sound water system. This approach includes a new water standpipe that would provide extra peak flows and fire flows to north west quadrant of the City.

The estimated cost to connect to the City water system, including a new water standpipe, is \$6.9 M.

However, Township staff and Council members have discussed the concept with City representatives in recent months. The City is not willing to further expand the City water system into Georgian Bluffs.

Alternative 4 – Do Nothing



Summary of Alternatives Con't.

- As noted, there is sufficient treatment capacity to provide servicing to the Study Area from the East Linton water system (Alternative 1).
- Only modest growth in the Study Area is estimated due to the lack of a sanitary sewer system.
- Additional water storage, however, is required, if fire flows are provided. A water storage facility is recommended at Mount Pleasant Drive for Alternatives 1 and 2.
- A booster pumping station is required to increase water pressure for higher elevations in the Study Area.



Summary of Alternatives Con't.

- Generally, no significant environmental, social or heritage impacts identified at this time for Alternatives 1 or 2. Watermains would be located on existing roads.
- Potentially, some impact to small area of agricultural land at Mount Pleasant Drive for a booster station and possible standpipe.
- Some loss of parkland (\pm 4,000 sq. ft.) if new water plant built at Sarawak Family Park for Alternative 2.



First Public Meeting – September, 2017

- First public meetings were held in September, 2017. There were approximately 24 persons at the afternoon meeting and 54 persons at the evening meeting.
- Twenty four (24) comment sheets were received from the public. There was generally strong support for a municipal water system from persons living on 30th Street West. Private wells in this area generally have low, or very low yields.
- There was mixed support for a municipal water system from residents along Grey Road 1 south of the Indian River
- Initial comments have been received from some of the residents of Pottawatomie Village regarding connecting to an expanded water system. The current small, municipal system is expensive to operate and has poor water pressure and some water quality issues.
- There was mixed support for a municipal water system in the Finden/Carney Street area.



Preliminary Preferred Alternative

- Following comments received from the first public meeting, and given that Owen Sound not interested in expanding the City water system into the Study Area, Alternative 1 is recommended as the preliminary, preferred alternative.
- This alternative includes connection to the south end of East Linton water system, constructing new watermain over the bridge at Indian River, and construction of watermains along Grey Rd 1, Grey Rd 17A, Range Road and Somers Street south to Pottawatomi Village.
- This alternative provides the lowest cost option. Results in only one water system with one, existing water treatment plant.
- Phase II cost estimate, as per previous, was \$8.4 M.



Preliminary Preferred Alternative

- Alternative 1 has been recently re - evaluated for costs.
- Alternative 1 detail provided to Township Council in March, 2018, with emphasis on cost breakdown for individual “neighbourhood” areas.
- To reduce costs as much as possible, we recommend the water standpipe be deferred initially. This eliminates fire flows, for now, in the new service area.
- The project cost estimate for Alternative 1 is revised to \$6.7 M from original estimate of \$8.4 M.
- Also – assume homes in VLA now connected to the Owen Sound water system would stay on the City water system, and that homes connected to the City water system at Grey Rd 1 boundary with the City would also stay on the City water system.



Preliminary Preferred Alternative Con't.

- Proposal to Council in March, 2018 assumed the Municipality would invest \$1.0 M to i) fund necessary watermains with few current connections and ii) partly fund the booster pumping station
- This \$1.0 M would be recouped after approximately 20 years with additional connections from existing lots adjacent to the new watermains outside of the main, neighbourhood areas.
- As assumed that 50 new connections would join at approximate cost of \$20,000 each over 20 years.
- As per previous, total cost estimate is \$6.7 M. If 50% grant obtained, net total cost would be \$3.35 M.
- Once the \$1 M financing was received from the Municipality, \$2.35 M would need to be raised by users.



Preliminary Preferred Alternative Con't.

- The cost breakdown to recover the \$2.35 M, on a neighbourhood by neighbourhood basis, is as follows:
- Pottawatomie Village – approx. \$28,000/home for 25 homes.
- 30th Street West Area – approx. \$16,400/home for 74 homes.
- Grey Road 1 and Mount Pleasant Drive Area – approx. \$6,400/home for 71 homes and vacant lots.
- All costs above exclude the \$6,700 connection and plumbing fee. The connection fee (\$6,000) goes to dedicated reserve funds for the existing East Linton water treatment plant and water standpipe.
- For Pottawatomie Village, the costs above exclude potential replacement of the existing 75 mm dia watermains in the subdivision (estimated to be approximately \$8,000 per home).



Financing

- The Municipality may offer financing that would be tied to the property.
- For instance, if total homeowner cost was \$23,100 (for 30th Street West and including the \$6,700 connection fees), the 20 year annual payment at 8% interest would be approx. \$2,350/year.
- The above payment would be tied to the property – so if the current owner moved and sold the house after 5 years, the new owner would assume the annual payment for the final 15 years.
- The above cost excludes the current, annual operating cost of approximately \$690/year per residential connection.
- The above cost assignment currently excludes size and frontage of the property. Potentially, the final cost sharing approach would include an extra payment for every m of frontage that exceeds, say, 30 m (100 ft).



Financing Con't.

- For Pottawatommi Village, the current annual operating cost is approximately \$3,000/year per home.
- This cost would reduce to approximately \$1,000/yr once connected to the East Linton system.
- The \$2,000/year savings would help offset the cost of connecting to the East Linton water system.



East Linton Water Charges

- Currently, the East Linton water rates are \$690/year as long as average water use is less than 500 l/day.
- Water meters on each home are read every 2 months. If average water use is more than 500 l/d, an extra charge of \$3.78/cubic meter is added for extra water use above 500 l/d.
- The majority of users (homes) on the East Linton water system use less than 500 l/day on average.
- This is “thrifty” use of water. Ministry of Environment water system design guidelines assume each person uses 450 l/day of water.
- Therefore, a typical home would theoretically use 1,125 l/d if there were, on average, 2.5 persons per home



Water Use and Septics

- There is a possible concern that people will use more water, once connected to a municipal water system, compared to using their own well.
- Past investigations do not bear this out.
- As noted, existing users on the East Linton water system are for the most part very “thrifty” users of the municipal water supply – with most homes using less than 500 l/day.
- In comparison, the Building Code requires septic systems to be designed for an average flow of 1,600 l/day for a typical, three bedroom home,
- Therefore, assuming a proper septic system, converting from a private well to a municipal water system should not cause septic problems, or increase the risk of septic pollution.



Private Wells

- We would appreciate volunteers coming forward to discuss their private well supplies.
- Staff would make appointments with home owners to document well supply problems.
- This information could be critical to apply for grant support for the project.
- If you are interested, please contact the Township or GSS Engineering.



Pending Government Agency Comments

- We have received comments from the Ministry of Environment and Grey County Planning.
- MOE and Grey County have both recommended full servicing (Municipal water supply and Municipal sewage servicing) be considered as part of the Class EA.
- We will be responding to these comments. However, there is no plan to include sanitary sewer servicing in the Terms of Reference for this Class EA.
- Saugeen Ojibway Nation (SON) has also provided correspondence. An initial meeting has been held with SON to initiate consultation with them.



Summary

- We would appreciate written comments by May 24, 2018 if possible.
- Comment sheets are provided at this meeting.
- Information packages on water use, the number of connections, cost breakdowns and an up to date map of the proposed water system expansion is provided on the sign in table.



Questions

We thank you for attending our meeting today.