

STAFF REPORT: ENGINEERING AND PUBLIC WORKS DEPARTMENT

REPORT TO: Council
MEETING DATE: May 12, 2014
REPORT NO.: EPW.14.037
SUBJECT: Hoover/Teskey Wastewater Servicing Project Update
PREPARED BY: Reg Russwurm, Director of Engineering and Public Works

A. Recommendations

THAT Council receives Report EPW.14.037 entitled “Hoover/Teskey Wastewater Servicing Project Update”;

AND THAT Council approve a 20 year financing period for the cost recovery of the Hoover/Teskey Wastewater Servicing Project;

AND THAT Council direct Staff to issue the tender for the Hoover/Teskey Wastewater Servicing Project.

B. BackgroundProject Initiation

In the Town’s efforts to continue to extend municipal water and wastewater servicing to those areas of the Town that are not currently serviced, the Town has moved forward with the provision of wastewater collection to residents along Hoover Lane and Teskey Drive. A map of the service area is provided as Attachment 1.

The Hoover / Teskey Service Area is identified in the Official Plan as a full service area for both water and wastewater services. It is a goal of the Town to eventually provide water and sanitary services to designated areas. A comprehensive Municipal Class Environment Assessment was completed for the Thornbury, Lora Bay & Camperdown Service Areas which determined the preferred solution was to provide full municipal servicing using various methods. This study identified several future servicing projects to be undertaken by the Town including the Hoover Lane, Teskey Drive and Camperdown Road project. Some of the other identified servicing projects have already been completed, such as the Wensley Drive area. An individual survey of in-place septic systems was not completed given the logistics of undertaking such an assessment. The relative age of the structures, lot size and distance to the Georgian Bay were utilised to determine the need for the provision of municipal servicing to protect the natural environment

The Hoover / Teskey Service Area has been included in the five year capital budget since 2010 with engineering planned to commence in 2013 and construction in 2014 subject to Council approval.

Project Communication

The Town has informed affected property owners of the extension of wastewater servicing over several years at key points.

The public process inherent in the adoption of an Official Plan and the preparation of a Municipal Class Environmental Assessment are required by legislation to be undertaken in a manner to permit an opportunity for any interested stakeholder to become informed of future projects that affect their properties and to voice their concerns.

Similarly, a formal public process was followed which led to the adoption of By-law 2010-11 imposing capital sewer charges for the use of the Town's wastewater system in the Camperdown Service Area. A Public Information Centre was held in September 2009 to inform the area benefitting property owners of the future assessment of costs and a Public Meeting was held in October 2009 for Council to receive public input. The property owners in the Hoover / Teskey Service Area were duly notified of the pending by-law.

To ensure the affected property owners were apprised of the initiation of the wastewater service extension in the Hoover / Teskey Service Area, a letter was sent in November 2012 to describe the project to the residents and outline the expected costs based on the capital budget and best information available at the time. Similar correspondence was sent October 2013 once C.C. Tatham & Associates (Tatham) had been retained to provide engineering services to update the information sent in 2012.

Further to the written communication, the Town conducted two Public Information Centres (PIC's) where the same material was presented to area property owners about the project including design concepts and cost estimates. The first PIC was held on Thursday February 27 at Town Hall. Four residents attended the PIC. A second PIC with the same information was held on Saturday March 1 where seven residents attended. Three packages were sent to residents who were unable to attend either PIC. A project specific webpage has also been populated with correspondence and documentation presented at the PIC's.

Notice of Objection

On April 23, 2014 Mayor Anderson and Council received a "Notice of Objection" from Mr Art Southin on behalf of 37 property owners that would be affected by this project. Mr. Southin's submission noted that of the 37 residents contacted, 31 residents signed "Notice of Objection" (Attachment 2), 5 residents are in favour of the project and 1 resident wished to remain neutral. He also noted that some of the residents own more than 1 property.

Staff note that of the 31 residents objecting to the project, 7 attended at least one of the PIC's. These objecting residents represent 33 individual properties.

The Notice of Objection state the reasons for the objection as:

1. No Benefit To Us
2. Unaffordable
3. Inferior System

Below is a description of the objection with Staff's observations.

- 1. No Benefit to Us:** "The Proposed Project confers no benefit upon us as we all have fully functional septic systems we are satisfied with."

As to the statement that the property owners receive no benefit; Staff have no reason to counter the individual opinions of the petitioners. The benefit received however should be considered in a larger context. All private wastewater (septic) systems ultimately need to be replaced. The benefit is arguably realised at some time in the future when that cost is avoided – likely within the capital repayment period of typically 15 to 20 years. A benefit is also realised to the community as a whole in the long term because the natural environment is better protected by having septic systems removed from the shoreline. The Town's wastewater treatment system operates under strict provincial regulations and thus has lower impacts on the natural environment than a series of private septic systems of varying efficiencies. Staff feel therefore that benefit is received by the owner - albeit a question of how the benefit is measured and the timeframe considered.

Should Council choose; a door to door individual survey can be commissioned to document the need and preference of the property owners to have a private versus municipal wastewater treatment system. However, Staff do not recommend this undertaking without first understanding how the information will be gathered, measured and fed into the decision making process given the added cost of gathering such data and which in the end will be assigned to the project for cost recovery.

- 2. Unaffordable:** "The Proposed Project imposes considerable upfront and ongoing service, maintenance and electrical consumption costs. The project seeks to recapture \$11,856⁽¹⁾ for the benefit of others, specifically the Camperdown Developers Group, costs that were borne in the past on their behalf"

Notes:

- A. The \$11,856 was based on 2010 estimates of the Highway 26 Sewer Main and the Thornbury Wastewater Treatment Plant cost sharing. This figure is \$11,872 presently reflecting current price estimates.

The issue of Affordability can be addressed through a discussion of the Affordability Guidelines and the Highway 26 Sewer Main Costs.

A. Affordability Guidelines

The Town's 2006 Guideline for Municipal Sewer & Water Extension Projects (2006 Guideline) references 3 key points when evaluating affordability:

1. All projects should be deemed to be affordable for both the Town and the property owners;
2. If there are no provincial/federal grants benefitting a project, then Town reserve funds will not be used to further reduce the costs to benefiting property owners, unless necessary to meet the affordability criteria;
3. Benefitting owners will be given payment options. At least one option will allow the property owner to pay not more than an affordable threshold amount annually based on current costs (i.e. approximately \$1,500) over an extended term.

Council has authorized in principle (Report EPW.14.010 Revised) the recovery of costs related to a portion of the Hoover Lane and Teskey Drive works from benefitting property owners on an equivalent unit basis. The cost allocation to bring the sewer and lateral installation to their lot line, based on 58 units including deferred developments, is shown in Table 1 below.

Table 1
Estimated Servicing Cost Allocation per Unit

Engineering & Construction Costs ⁽¹⁾ (estimated)	\$10,166
Hwy 26 Trunk Sewer Main ⁽²⁾	\$ 6,546
Thornbury Wastewater Plant	\$ 5,326
Total Cost per Equivalent Unit	\$22,038

Notes:

1. The final costs will be determined once the actual project costs are known upon the completion of the Works.
2. Highway 26 Trunk Sewer Main Costs are non-interest bearing

In addition to the servicing costs in Table 1, property owners will require a connection from their property line to their dwelling. It has been estimated that these "private costs" would be approximately \$8,500 per individual property (\$4,000 for the grinder pump and the remainder for installation, related plumbing, etc.). The estimated total costs per property are provided in Table 2.

Based on the Town’s 2006 Guideline for Municipal Sewer & Water Extension Projects (2006 Guideline) financing options can be reviewed for benefiting owner costs related to (a) sanitary sewer works serving costs and (b) plant and infrastructure costs. Private costs have historically been excluded from Town financing, with the exception of the purchase of grinder pumps upon Council’s discretion. Table 2 outlines the estimated total cost per property and the amounts eligible for financing under the 2006 Guideline.

Table 2
Estimate of Cost per Unit and Eligible Financing

	Estimated Cost	Eligible for Financing
Servicing Cost	\$ 22,038	\$ 22,038
Private Cost:		
Grinder Pump	\$ 4,000	\$4,000*
Other (Installation)	\$ 4,500	
Total Costs per Property	\$ 30,538	\$ 26,038

*Financing of Grinder Pumps would require the approval of Council and would be excluded from the affordability threshold.

EPW.14.010 outlined financing terms for the servicing costs of \$22,038 over 15 years, with an estimated annual repayment of \$1,910. The estimated annual repayment has been updated to reflect the non-interest bearing portion of Highway 26 Trunk Sewer Main costs of \$6,546, which reduces the annual repayment from \$1,910 to \$1,764 over a 15 year financing term. Interest rates are estimates at this time, and will be based on Infrastructure Ontario rates one week prior to the passage of the by-law.

To reduce the burden on property owners, alternative repayment terms can be considered. As shown in Table 3, extending the repayment term from 15 years to either 20 or 25 years would reduce the annual repayment.

Table 3
Financing Options

Financing Term	15 years	20 years	25 years
Servicing Costs Financed*	\$ 22,038	\$ 22,038	\$ 22,038
Private Costs Financed (Grinder Pump)	\$ 4,000	\$ 4,000	\$ 4,000
Interest Rate	3.45%	3.75%	3.94%
Annual Repayments on Servicing Costs:			
Construction & Plant Costs (Interest Bearing)	1,327	1,105	977
Trunk Sewer Costs (Non Interest Bearing)	436	436	436
Total Servicing Related Annual Repayments	\$ 1,764	\$ 1,541	\$ 1,413
Annual Repayment on Private Costs			
Grinder Pump (Interest Bearing)	343	285	252
Total Annual Repayments	\$ 2,106	\$ 1,826	\$ 1,666

*Highway 26 Trunk Sewer Main costs are non-interest bearing (\$6,546).

In determining the affordability threshold for report EPW.14.010, Staff indexed the 2006 affordability threshold of \$1,500 to 2014 dollars, with index rates equal to the Development Charge index rate. As shown in Table 4, the indexed affordability threshold in 2014 dollars is equal to \$1,929, which exceeds the estimated annual repayments of \$1,764 based on a 15 year repayment term and therefore meets the 2006 Guideline's affordability criteria.

Table 4
Indexed Affordability Threshold

	Index Rate	Affordability Threshold
2006		\$ 1,500
2007	6.90%	\$ 1,604
2008	5.80%	\$ 1,697
2009	11.59%	\$ 1,893
2010	-5.10%	\$ 1,797
2011	0.80%	\$ 1,811
2012	4.30%	\$ 1,889
2013	1.80%	\$ 1,923
2014	0.30%	\$ 1,929

In summary, the 2006 Guideline outlines that “all projects should be deemed to be affordable for both the Town and the property owners”. Table 3 and 4 above, illustrates that according to the 2006 affordability threshold in 2006 dollars, the project would meet the threshold financed over a period of 20 years. In 2014 dollars, the project is deemed to be affordable financed over 15 years.

B. Highway 26 Trunk Sewer Main Costs

The objection also raised the concern that the residents are being asked to recapture costs for the benefit of others, particularly the Camperdown Developers Group. Staff feel there is some misperception that the property owners are subsidising development. That is certainly not the case.

When the Camperdown Development was proposed, Town Council insisted that: i) the trunk sanitary system be sized to accommodate the existing un-serviced lots in the area, ii) the developers frontend the trunk sewer, and iii) the developers provide the funding at no interest. The Town’s obligation in return is to use best efforts to recover the costs on an equal per unit basis from those properties benefiting from the extension of servicing within the Camperdown Service Area. Those monies collected for the trunk sewer are returned to the developer group.

Instead of the idea that the existing owners are somehow funding development, the Town leveraged the opportunity presented through the development of Camperdown to enable trunk servicing at reasonable economies of scale at no interest. Without the additional capacity provided by development, the cost to provide municipal wastewater servicing to the Camperdown Service Area would have been much higher.

Regarding treatment plant costs, the Town has in the past and will in the future expand the treatment plan capacity. As such, each newly connected lot is required to “buy” an equivalent share of the plant capacity to recover costs.

3. Inferior System: “The Proposed Project, unlike our existing septic systems, is not gravity fed and therefore requires the use of an electric grinder/pump mechanism that is prone to breakdown and power outages. Being without a functioning sewer system means we would, in effect, also be without water during power outages, as there is nowhere to discharge it while the sewer system is inoperative”

The concern raised in this objection is the inability of the grinder pumps to operate during power outages. It is agreed that without a source of standby power, grinder pumps are non-functional during power outages.

Based on typical household water use during a power outage, the supplier estimates there is 24 hours of holding capacity in the wet well of the grinder pump. A point to keep in mind is that during power outages, electrical appliances that use water such as dish washers and washing machines are also not functional. Generally during a power outage, the amount of water utilised drops significantly.

A grinder pump is not much different than a sump pump system that some properties may utilise to pump sewage from basements or even entire houses into a septic tank. In such situations, the property owner must be aware of the limitations of the installed system and manage water usage accordingly during power outages. Where a homeowner is very concerned about wastewater holding capacity, a standby generator can be utilised to power the grinder pump.

In order to negate the issue of wastewater storage during a power outage, the alternative to a low pressure system is a gravity sewer connection. Staff considered a gravity sewer system during the scoping of the project but deemed a low pressure sanitary sewer system to be the more cost efficient and viable solution due to the:

- a. insufficient grades to accommodate a gravity system which triggers costs associated with the installation and maintenance of a sanitary sewage pumping station;
- b. extensive rock removal in order to install the sewer at the required depth of approximately 2.5 to 3m; and,
- c. likelihood that shoreline properties may now or in the future require a sewage pump anyways if the basement is lower than the sewer or a gravity service is otherwise impractical.

For cost comparison, Attachment 3 is the engineering estimate of the costs to install gravity sanitary sewer for the project. The cost is in the order of \$32,292 per unit while the estimate for a low pressure system is \$10,166. Even if the cost of a grinder pump (\$4,000), yearly electrical costs (approximately \$75) and conservative replacement within 20 years (\$4,000) is factored onto the initial capital cost, the cost of a low pressure system is around two thirds the cost of a gravity system. Thus, Staff feel a low pressure system is the most appropriate design solution for this project.

Cost Recovery Options

It is understandable the crucial issue to the property owners is the cost of the servicing project and the cost recovery. Staff have heard that servicing is wished, but that the costs are unreasonable. If the project proceeds, the Town has a range of options available as outlined below to address cost recovery.

1. Council approves a 15 year financing term to benefiting property owners for the estimated amount of \$22,038 or \$1,764 per year.
2. Council approves a 20 year financing term to benefiting property owners for the estimated amount of \$22,038 or \$1,541 per year.
3. Council approves additional financing to benefiting property owners for the purchase of grinder pumps up to \$4,000 per unit, for a total eligible financing of up to \$26,038. Grinder pumps are currently excluded from eligible financing costs, as they are deemed to be a "private cost". Financing terms would be

similar to the term approved in either option 1 or 2, and are to be excluded from the affordability threshold. Installation and other private costs (estimated at \$4,500) would remain the responsibility of the property owner. Should this option be considered further, Staff recommend that the a lump sum allowance be given towards the purchase of a grinder pump instead of the Town making a bulk purchase of units due past experiences with the administrative problems experienced on a previous project along with unit sizing challenges. Regardless, the Town could facilitate a discussion between a preferred vendor and interested property owners to obtain bulk pricing.

4. Council approves using Wastewater Reserve Funds to reduce the owner's cost burden by providing funds to recover the cost that are above \$1,500 annual repayment. The 2006 Guideline states that the "Town reserve funds will not be used to further reduce the costs to benefiting property owners, unless necessary to meet the affordability criteria." Table 2 and Table 3 of this reports outlines that the estimated cost of \$22,038 is within the affordability criteria, therefore funding from the Wastewater Reserve Fund is not recommended by Staff.
5. Delay the assessment of the capital cost until the owner connects to the wastewater system. Council could consider a scheme whereby payment of the capital costs are deferred until a physical connection is made or a specific time frame has pasted, say 5- 10 years. This option is being evaluated as a direct response to the Letter of Objection and earlier comments received by the Town. Staff do not recommend this approach without fully understanding the Town's capabilities to administrate such a process and how future payment arrangements would be structured. The key concerns are listed below:
 - a. This type of arrangement has not been used by the Town on any previous projects and would set a precedent that would be difficult to not extend to future projects.
 - b. As soon as a property owner has the physical ability to connect to the system, the property should be deemed to be benefitting, regardless if they choose to connect. Property owners will have the benefit of the system, along with reserved capacity in the system, therefore should contribute towards the maintenance of the system. Historically, properties have had the option to connect, however they have always been charged the costs of construction, sewer main and plant charges in addition to a monthly unconnected fee to maintain wastewater infrastructure. This is a similar concept to the Council approved unconnected vacant lots fee introduced in 2013 for vacant lots fronting municipal wastewater services. The vacant lot fee recognizes that while the system is not directly being utilized by the vacant lots, there are future replacement costs for servicing these lots that should be recovered from all benefitting properties.
 - c. Any deferred payments would be internally financed by the Town through reserves or user rates until owners connect; restricting the use of funds for other investment or capital purposes. The Town's carrying costs will need to be recouped from owners choosing deferred payment.

- d. Increased administrative time and costs would be required to track the units selecting the deferred payment option, changes in ownership upon the sale of the benefitting property, the timing of collections and the amounts due upon connection.
6. Delay the capital project until 2015 or later. Incurred expenditures for design to date will remain unfinanced until the project is completed. A project delay will provide an opportunity to re-assess the project need however may also result in higher costs due to rate increases or re-work. Since the Town has a stated objective to service un-serviced areas as outlined in the Official Plan, the Municipal Class Environmental Assessment and past practices, Staff do not recommend a change in its approach to extending wastewater servicing in a timely manner.

Staff Recommendation

Although Staff well recognise a significant portion of the property owners have voiced an objection to the project for a range of reasons, Staff feel a key concern is cost recovery. To reduce the annual repayment cost, Staff recommended that the Town utilise a 20 year repayment term to lower the annual cost of the estimated capital cost of \$22,038 from \$1,764 to \$1,541 which is near the 2006 affordability figure.

With respect to the objection based on no benefit and an inferior system, this Report outlined how the benefit should be considered outside of the immediate situation and that the proposed system is the lowest cost by a wide margin.

Again recognising the stated objections, Staff are recommending that the Town proceed with the issuance of the tender. Staff generally do not advise issuing a tender without a reasonable expectation of entering a contract because contractors expend effort and costs to bid a project. Staff feel on balance though that this project should advance to the next stage. Once the tender cost is known, the cost recovery amounts can be recalculated. Should the costs come in higher and/or be deemed unaffordable, Council can chose to not proceed with the project or determine a means to deem the project affordable.

C. The Blue Mountains' Strategic Plan

Completing this project assists with the Town's Strategic Plan Goal #2 "Addressing the Town's Municipal Infrastructure needs".

D. Environmental Impacts

The primary environmental benefit of this project will be to connect the units along Hoover Lane and Teskey Drive to the municipal wastewater system thereby eliminating septic systems currently in use along the Georgian Bay shoreline.

The construction activities will generate greenhouse gases, noise and dust as is typical with such work. Staff will ask the Contractor to participate in the Town's anti-idling program and will monitor the overall project to minimize disturbances.

E. Financial Impact

Through EPW.14.010, Council authorized a total budget of \$681,463 for the Hoover/Teskey Wastewater Servicing project; with \$589,608 funded from benefitting property owners and \$91,854 funded from the Road Reserve. Servicing cost per benefitting property owner was estimated at \$22,038, and private costs estimated at \$8,500.

In response to the Letter of Objection and affordability concerns, Staff recommend extending financing terms to 20 years, which ease the annual financial burden on the benefitting property owners. The impact on the Town will be an increase in interest income, offset by the slower recovery in financed amounts.

Any delay in project could result in an increase in engineering fees due to higher rates and any re-work requested.

F. In Consultation With

The Report has been prepared in consultation with the Finance Department.

G. Attached

1. Hoover Lane & Teskey Drive Sanitary Servicing Area Map
2. Notice of Objection, Art Southin – Camperdown Area Residents Group, received April 23, 2014
3. Engineering estimate to provide gravity sanitary sewer, C. C. Tatham & Associates, April 29, 2014

Respectfully submitted,

Reg Russwurm
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Director, Engineering and Public Works

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Hoover Lane & Teskey Drive Sanitary Servicing Area



RECEIVED
APR 23 2014

April 23, 2024

To: Mayor Anderson and Council

Re: Hoover Lane/Teskey Drive Sewer Project - Notice of Objection.

The Camperdown Residents Group managed to contact 37 property owners who would be affected by this project. An overwhelming majority of residents object to the project, as proposed. Of the 37 residents contacted, 31 residents signed the attached 'Notice of Objection'. 5 residents are in favour of the project. 1 resident wishes to remain neutral. Some of these 37 people own more than one property.

The last notice we received from the town stated; "Currently the project falls outside the estimated 'Affordability Guidelines' and once the engineering cost estimates are received, Council will make a decision and determine if the project will move ahead. Should the project be considered unaffordable at any point throughout the project, steps will be taken to ensure the project is made affordable or the decision will be made not to proceed with the works". Since we have not received any additional notice, we assume this decision has yet to be made.

We trust our objections will be taken into consideration.

Respectfully,



Art Southin
Camperdown Residents Group

attachment: Notice_of_Objection.pdf

p.s. I personally would like the opportunity to meet with council members individually prior to the 'Affordability Guidelines' decision. Please get in touch with me so we can arrange to meet for a coffee. Thanks,



NOTICE OF OBJECTION

Page 5

Re: Proposed Hoover Lane & Teskey Drive Sanitary Servicing and Camperdown North Improvements (the "Proposed Project")

Attention: The Town of Blue Mountains

We, the undersigned owners of properties on Hoover Lane, Teskey Drive and Camperdown Road, object to the Proposed Project for a number of reasons, including:

No Benefit To Us:

The Proposed Project confers no benefits upon us as we all have fully functional septic systems that we are satisfied with.

Unaffordable:

The Proposed Project imposes considerable upfront and ongoing service, maintenance and electrical consumption costs. The project seeks to recapture \$11,856 for the benefit of others, specifically the Camperdown Developers Group, costs that were borne in the past on their behalf.

Inferior System:

The Proposed Project, unlike our existing septic systems, is not gravity fed and therefore requires the use of an electric grinder/pump mechanism that is prone to breakdown and power outages. Being without a functioning sewer system means we would, in effect, also be without water during power outages, as there is nowhere to discharge it while the sewer system is inoperative.

Petition not attached.

TOWN OF THE BLUE MOUNTAINS
HOOVER LANE AND TESKEY DRIVE SANITARY SERVICING AND ROAD RECONSTRUCTION
CCTA PROJECT NO. 113161
DATE: APRIL 29, 2014
SUMMARY OF GRAVITY SEWER VS FORCEMAIN WITHIN RIGHT-OF-WAY PER UNIT COSTS

DESCRIPTION	GRAVITY SEWER	LOW PRESSURE FORCEMAIN
Road Reinstatement Work	\$163,050	\$163,050
Sanitary Work	\$1,451,300	\$293,200
Subtotal Works	\$1,614,350	\$456,250
Engineering	\$88,296	\$79,758
Subtotal including Engineering	\$1,702,646	\$536,008
10% Contingencies	\$170,265	\$53,601
Total Estimated Construction Costs ¹	\$1,872,910	\$589,608
COSTS PER UNIT WITHIN RIGHT-OF-WAY (58 Units)	\$32,292	\$10,166

1 Cost excludes HST.