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CONTINGENCY PLAN AND BUDGET FOR SHORT-TERM IMPLEMENTATION OF COMMUNAL SEWAGE SERVICING IN NOBLETON

The Environmental Services Committee recommends the adoption of the recommendations contained in the following report dated April 28, 2011 from the Commissioner of Environmental Services.

1. RECOMMENDATIONS

It is recommended that:

1. The Commissioner of Environmental Services be authorized to execute an Agreement with the Township of King for Nobleton sewage servicing based on principles included in this report, and contingent on the Township of King Council endorsing the following:
 - The Township will proactively enforce the mandatory sewer connection By-law by immediately notifying residents who can connect that they must do so within 12 months of receiving notification
 - The Township will expedite design and construction of the next phases of the local sewer with the portions within the wellhead protection areas proceeding first using the previously committed \$1.3M Regional funds available
 - The Township will assume all sewage haulage costs after July 1, 2013, should the Nobleton Water Pollution Control Plant not be operational on that date due to an insufficient number of sanitary connections to the local sewage collection system
2. The Regional Clerk circulate this report to the Clerk of the Township of King.

2. PURPOSE

The purpose of this report is to seek Council authority for the Commissioner of Environmental Services to negotiate the terms of and execute an Agreement with King Township for the initial sewage servicing for the Nobleton community.

3. BACKGROUND

This report was deferred by the Environmental Services Committee on March 9, 2011 and again on April 13, 2011 to allow staff sufficient time to conclude discussions with the Township of King regarding this matter.

Sewer servicing in Nobleton is a unique situation for York Region

Concurrent implementation of new regional and local sewer systems in Nobleton is a unique situation as a new sewage treatment plant has not been previously constructed in a community without pre-existing communal servicing in York Region. Normally, as was done with the Mount Albert and Schomberg sewage plants, a local sewer system is already in place conveying sewage to an existing Regional treatment facility prior to constructing a new sewage plant. In these cases, the existing Regional plants were sewage lagoons. When the new sewage plants were commissioned, the minimum sewage flow required for operation was previously available. In Nobleton, all existing homes are currently serviced by individual septic systems and consequently there is no local collection system.

Construction of the new Regional sewer system in Nobleton was completed in mid 2010 and included a sewage treatment plant, pumping station and sanitary forcemain. The Regional sewage treatment plant cannot be operated until minimum flow requirements are met which requires 310 residential homes connected to the local sewer system (*see Attachment 1*). The 310 required connections represents approximately 10% of the rated capacity of the sewage treatment plant.

King has constructed local sewers in conjunction with Regional system

King has constructed local sewers in conjunction with construction of the Regional sewer system and the servicing for a new subdivision. Servicing is also now complete in the first phase of the new subdivision. No connections to the local sewer have been made in the existing community, however 36 occupancies have occurred in the new subdivision. The developer has been required to haul sewage from the occupied homes using a licensed private hauler.

Region Council approved 1.3 million to fund portion of local sewers within wellhead protection zones

In October 2009 Regional Council approved \$1.3M in funding towards the portion of the new local sewer required to remove existing septic systems located within wellhead protection zones of the Regional production wells. Funding was approved subject to the Township of King delivering these sections of the new local sewer in the next phase of design and construction. In December 2010 a scheduling workshop was held with Township of King staff to identify timing of construction for the next phases of new local sewers. The initial schedule identifies areas within the wellhead protection zones of the Regional production wells to be serviced by the end of 2012.

Township of King Mandatory Connection By-law came into effect in September 2010 and notices to residents have yet to be issued

On April 28, 2010 the Township of King Council approved a By-law authorizing construction of the Nobleton sanitary sewer and imposing a capital charge on property owners for its construction. This By-law includes a requirement for mandatory connection to the new local sewer and decommissioning of existing onsite septic systems within 12 months of receiving written notice that a connection must be made. Because the By-law includes financing of the project it did not come into effect until the Township received Ontario Municipal Board approval to increase their debt limit. Ontario Municipal Board approval was received on September 30, 2010 and the By-law came into effect on that day.

The developer/contractor has been working since September 2010 to complete commissioning, inspection and acceptance of new local sewers

Testing and repair of the new local sewers and assumption by the Township is anticipated by June 2011. Once the Township assumes the local sewers, it will be in a position to permit connections, pending permission from the Region, for sewage to be conveyed to the Regional pumping station. The Township By-law requires that a written notice be provided to each property owner stating that a connection can be made, and the Township is prepared to issue these notices immediately following approval.

Township of King staff have also requested support from Regional Corporate Communications staff to assist in preparing public outreach materials for advising residents on benefits of connecting to the local sewer. Regional staff are prepared to assist in this regard.

Township requests Region to cover cost of sewage hauling

Until the minimum number of required sewer connections to the local sewer are achieved to commission the Nobleton plant, sewage will need to be hauled by truck 13.5 kilometres from the Region's Nobleton Pumping Station to the Schomberg Sewage Treatment Plant. Township of King staff have requested the Region cover costs for hauling sewage to Schomberg. In an effort to assist the Township during this construction period, Regional staff are recommending an agreement with the Township including the following terms:

- The Township will proactively enforce the mandatory sewer connection By-law by notifying residents who can connect that they must do so within 12 months of receiving notification. This notification to be issued to residents by the Township immediately following assumption of the new local sewers
- The Township will expedite design and construction of the next phases of the local sewer with the portions within the wellhead protection areas proceeding first using the previously committed \$1.3M Regional funds available

- The Township will assume all sewage haulage costs after July 1, 2013, should the Nobleton Water Pollution Control Plant not be operational on that date due to an insufficient number of sanitary connections to the local sewage collection system

4. ANALYSIS AND OPTIONS

York Region to cover initial sewage haulage costs

Township of King will soon be requesting that the Region start accepting sewage flows at the Nobleton pumping station to allow residents to connect to the sanitary sewer.

Following discussions between Regional staff and Township of King staff regarding this matter, Regional staff recommend the Region cover 100% of the costs for the first 24 months of sewage hauling.

Additional costs include plant winterization and warranty extension

The current lack of sewer connections will require Regional staff to winterize the Nobleton plant for the coming winter of 2011/2012 and this may be required for the following year as well. It costs approximately \$150,000 to winterize the newly completed plant. The Township will cover all costs of sewage hauling effective July 1, 2013 should the Nobleton Water Pollution Control Plant not be operational as of this date due to an inadequate number of sanitary connections to the local sewage collection system.

The two year warranty on the Regional sewer system expires in September 2012 and if the minimum number of connections are not made until after this date the warranty will need to be extended. The cost to extend the warranty on the project is estimated at \$150,000.

5. FINANCIAL IMPLICATIONS

York Region to cover sewage haulage costs for 24 months

Estimated costs to the Region covering 100% of the sewage hauling and partial plant operation costs for up to 24 months commencing June 2011 are provided in Table 1.

Table 1
Estimated Costs of Sewage Haulage and Plant Operation

	Total costs to June 2013 (24 months) (\$)
24 Months Sewage Haulage Costs	660,000
Partial Plant Operation - \$20,000/month (est.)	480,000
Plant Winterization - 2012 and 2013	300,000
Extended Warranty (estimate)	150,000
Total York Region Costs	1,590,000
York Region Operations Budget - Nobleton	
Full Plant Operation - \$50,000/month (est.)	1,200,000

Note: 310 local connections are required to meet minimum plant flow requirements.

If the minimum number of sewer connections were made and the plant was in full operation, it is estimated that the Nobleton system would cost the Region approximately \$1,200,000 to operate for 24 months. As shown in Table 1, the Region would incur an additional \$390,000 in costs to cover 100% of the sewage hauling costs and partially operate the Nobleton sewer plant for 24 months.

The estimated costs for sewage haulage, winterization, partial plant operation and extended warranty will be reduced if 310 connections are made sooner than the 24 month period provided.

These costs will be funded from the approved Environmental Services 2011 budget.

6. LOCAL MUNICIPAL IMPACT

Initial haulage of sewage will allow local developers to connect new homes in accordance with their area specific development charge credit agreement and will also provide an opportunity for local residents to connect to the new local sewer system this year and decommission their existing septic. Local residents are required to arrange for the physical connection from their homes to the sanitary service stub at the property line. Nobleton residents would greatly benefit from decommissioning septic systems immediately surrounding the Regional production wells as this would further secure the protection of the drinking water supply in the community.

Estimated costs for the Nobleton residents to connect to the new local sewers are in the range of \$20,000 to \$25,000. These costs include the connection fee and the physical connection between the house and the service pipe at the property line.

The Township of King will manage new sewage connections and septic decommissioning, along with delivering the remaining phases of the new local sewers.

Local residents along the route from Highway 27 to the Regional pumping station on Janet Avenue will experience tanker truck traffic for the initial stages of the sewage hauling, which will require an estimated two to four tanker trucks a day along the local haul route. Eventual pumping to and haulage from the Nobleton Water Pollution Control Plant site will eliminate the truck traffic on the local roads (*see Attachment 1*).

Filling the tanker trucks with sewage will be done by normal operation of the pumping station so no additional noise will be associated with this operation.

7. CONCLUSION

York Region and the Township of King have invested substantial time and effort in getting the project to this point and it is therefore recommended that an Agreement for York Region to cover the initial sewage haulage be entered to expedite connections to the local sewer and eventual full operation of the Nobleton Sewer System.

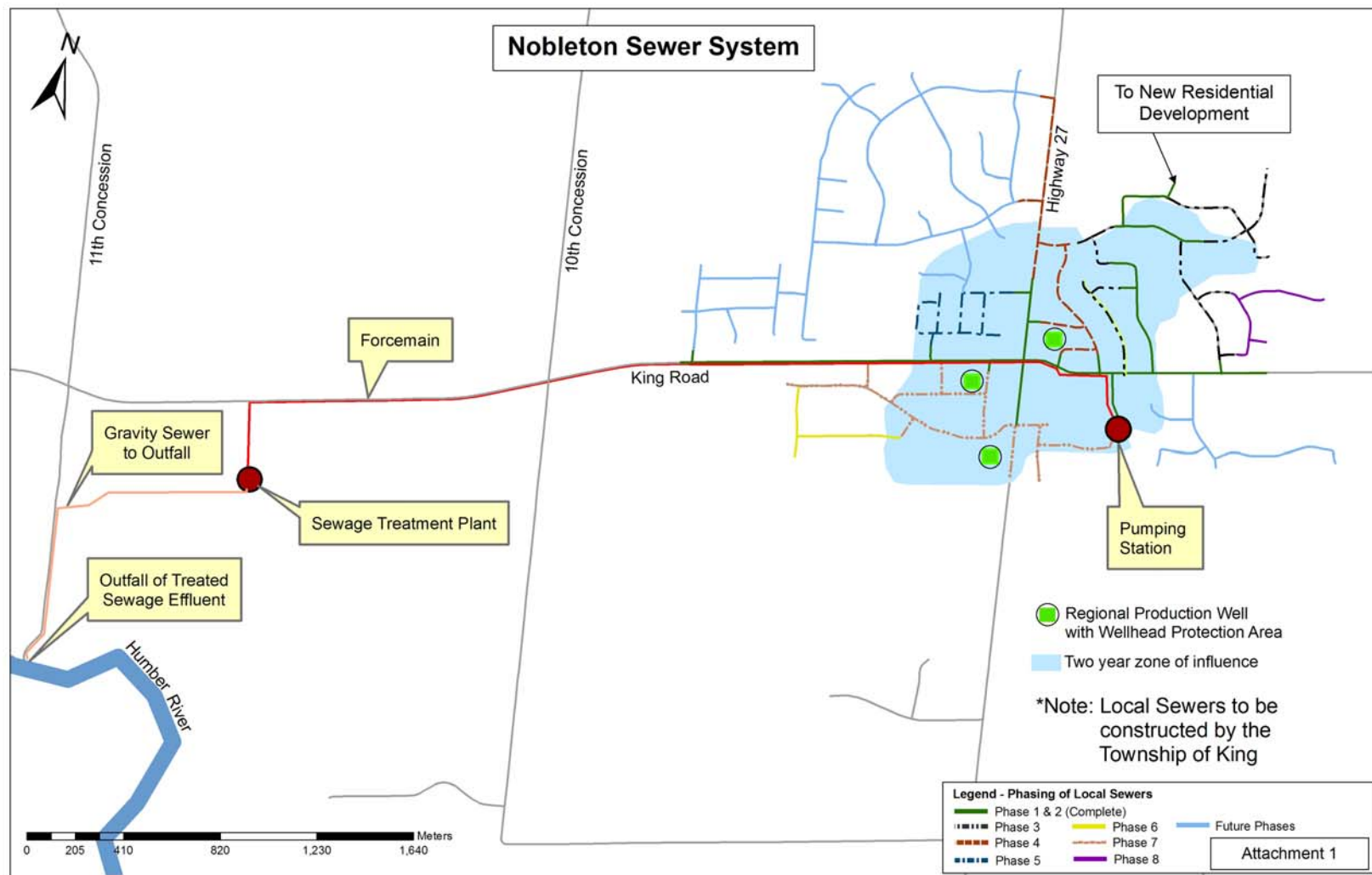
The Region's costs for sewage haulage detailed in this report should be contingent on the Township of King formally agreeing to the following:

- The Township will proactively enforce the mandatory sewer connection By-law by immediately notifying residents who can connect that they must do so within 12 months of receiving notification
- The Township will expedite design and construction of the next phases of the local sewer with the portions within the wellhead protection areas proceeding first using the previously committed \$1.3M Regional funds available
- The Township will assume all sewage haulage costs after July 1, 2013, should the Nobleton Water Pollution Control Plant not be operational on that date due to an insufficient number of sanitary connections to the local sewage collection system

For more information on this report, please contact Daniel Kostopoulos, Director, Capital Planning and Delivery, Environmental Services at (905) 830-4444 Ext. 5070.

The Senior Management Group has reviewed this report.

(The three attachments referred to in this clause are attached to this report.)



LOCATION PLAN

Contingency Plan and Budget for Short-Term
Implementation of Communal Sewage Servicing in Nobleton



ENVIRONMENTAL SERVICES

eDOCS # 2947465



Environmental Services Department

MEMORANDUM

TO: Environmental Services Committee

FROM: Erin Mahoney, Commissioner of Environmental Services

DATE: March 25, 2011

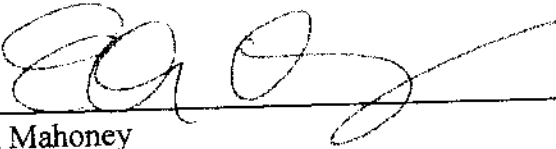
RE: **Contingency Plan and Budget for Short-Term Implementation of Communal Sewage Servicing in Nobleton**

The above noted committee report was originally included in the March 2011 Committee agenda but was deferred by Committee to April 2011.

This was done to allow for Region and Township of King staff to understand new information and questions that emerged immediately prior to March 2011 Committee and to re-confirm agreement on the cost sharing and cost recovery framework for the short term implementation of communal sewer servicing in Nobleton which consists of sewage hauling. Discussions are ongoing but require additional time.

It is of note that inflow and infiltration into new local Township sewers servicing new development currently exceeds inflow and infiltration requirements in the Township's sewer construction contract. No sewer connections can be made and the sewage hauling cannot begin until the inflow and infiltration issues with these new local sewers are resolved. Environmental Services staff have informed Township staff that the Region will accept sewage flows at the Regional sewage pumping station in Nobleton when the Township assumes ownership and operation of the new sewers and confirms that the Township's allowable inflow and infiltration limit has been met. The Township is currently working with the developer/contractor to resolve the inflow and infiltration issues. The Region is providing support to the Township on this matter as required.

It is recommended that this report be further deferred to the May 2011 Committee meeting to allow sufficient time to conclude discussions with the Township of King regarding this matter.


Erin Mahoney
Commissioner of Environmental Services

Clause No. 5 in Report No. 4 of the Environmental Services Committee was deferred by the Council of The Regional Municipality of York at its meeting on April 21, 2011.

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CONTINGENCY PLAN AND BUDGET FOR SHORT-TERM IMPLEMENTATION OF COMMUNAL SEWAGE IN NOBLETON

The Environmental Services Committee recommends:

- 1. Receipt of the communication from Erin Mahoney, Commissioner, Environmental Services, dated March 25, 2011; and**
- 2. Deferral of the recommendations contained in the following report to the May 11, 2011 meeting of the Environmental Services Committee to allow sufficient time to conclude discussions with the Township of King regarding this matter.**

1. RECOMMENDATIONS

It is recommended that:

1. The Commissioner of Environmental Services be authorized to execute a Memorandum of Understanding with the Township of King for Nobleton sewage servicing based on principles included in this report, and contingent on the Township of King Council endorsing the following:
 - The Township will proactively enforce the mandatory sewer connection by-law by notifying residents who can connect that they must do so within a reasonably prescribed period
 - The Township will expedite design and construction of the next phases of the local sewer with the portions within the wellhead protection areas proceeding first using the previously committed \$1.3M Regional funds available
2. The Regional Clerk circulate this report to the Clerk of the Township of King.

2. PURPOSE

The purpose of this report is to seek Council authority for the Commissioner of Environmental Services to negotiate the terms of and execute a Memorandum of Understanding with King Township for the initial sewage servicing for the Nobleton community.

3. BACKGROUND

Sewer servicing in Nobleton is a unique situation for York Region

Concurrent implementation of new regional and local sewer systems in Nobleton is a unique situation as a new advanced sewage treatment plant has not been previously constructed in a community without pre-existing communal servicing in York Region. Normally, as was done with the Mount Albert and Schomberg sewage plants, a local sewer system is already in place conveying sewage to an existing Regional treatment facility prior to constructing a new sewage plant. In these cases, the existing regional plants were sewage lagoons. When the new sewage plants were commissioned, the minimum sewage flow required for operation was previously available. In Nobleton, all existing homes are currently serviced by individual septic systems and consequently there is no local collection system.

Construction of the new Regional sewer system in Nobleton was completed this past summer and included a sewage treatment plant, pumping station and sanitary forcemain. The Regional sewage treatment plant cannot be operated until minimum flow requirements are met which requires 310 residential homes connected to the local sewer system. (*see Attachment 1*)

Local conveyance of sewage is the responsibility of the local municipality

Under the current two-tier service delivery model, local conveyance of sewage to the Regional sewer system is the responsibility of the Township of King. The Township of King has completed construction of local sewers in two separate contracts in conjunction with construction of the Regional sewer system and the servicing for a new subdivision. Servicing is also now complete in the first phase of the new subdivision. No connections to the local sewer have been made in the existing community, however 26 occupancies have occurred in the new subdivision. The developer has been required to haul sewage from the occupied homes using a licensed private hauler.

In October 2009 Regional Council approved \$1.3M in funding towards the portion of the new local sewer required to remove existing septic systems located within wellhead protection zones of the Regional production wells. Funding was approved subject to the Township of King delivering these sections of the new local sewer in the next phase of design and construction. In December 2010 a scheduling workshop was held with Township of King staff to identify timing of the next phases of new local sewers. The initial schedule identifies areas within the wellhead protection zones of the Regional production wells to be serviced by the end of 2012.

Township of King Mandatory Connection Bylaw

On April 28, 2010 the Township of King Council approved a bylaw authorizing construction of the Nobleton sanitary sewer and imposing a capital charge on property owners for its construction. This bylaw includes a requirement for mandatory connection

to the new local sewer and decommissioning of existing onsite septic systems within 12 months of receiving written notice that a connection must be made. Because the bylaw includes financing of the project it did not come into effect until the Township received Ontario Municipal Board approval to increase their debt limit. Ontario Municipal Board approval was received on September 30, 2010 and the bylaw came into effect on that day.

The Township has been working since September 2010 to complete the commissioning, inspection and acceptance of the new local sewers. This commissioning and acceptance work is now complete and the Township is in a position to permit connections pending permission being received from the Region for sewage to be conveyed to the Regional pumping station. The Township bylaw requires that a written notice be provided to each property owner stating that a connection can be made, and the Township is prepared to issue these notices as soon as approval is granted.

The Region is in the process of confirming approval as the Township met the allowable limit for inflow and infiltration in the new local sewer in late February 2011.

Township of King staff have also requested support from Regional Corporate Communications staff to assist in preparing public outreach materials for advising residents on benefits of connecting to the local sewer. Regional staff are prepared to assist in this regard.

Until the minimum number of required sewer connections are achieved to commission the Nobleton plant, sewage will need to be hauled by truck 13.5 kilometres from the Region's Nobleton Pumping Station to the Schomberg Sewage Treatment Plant. Township of King staff have requested the Region cover costs for hauling sewage to Schomberg. As local conveyance is the Township's responsibility, Regional staff have not agreed to cover these costs. In an effort to assist the Township, Regional staff are preparing a Memorandum of Understanding including a proposed cost sharing framework.

4. ANALYSIS AND OPTIONS

York Region and Township of King to cost share initial sewage haulage costs

Township of King staff requested the Region begin accepting sewage flows at the Nobleton pumping station to allow occupancy permits to be issued to the area developer.

Options available to York Region are as follows:

- Option 1 – Township of King manages the effort and cost of the initial sewage hauling
- Option 2 – York Region covers all costs of the initial sewage hauling
- Option 3 – York Region cost shares sewage hauling with the Township of King

Option 1 is not recommended as staff from the Township of King have indicated that the Township has not budgeted costs required for temporary haulage of sewage until the minimum number of required connections are made. The local developer has met their area specific development charge credit agreement terms for delivery of the Regional sewer system as well as their occupancy agreement requirements, consequently sewage flows must now be accommodated.

Option 2 is the highest cost option and would cost York Region \$557,600 or \$1,399,300, respectively, if the minimum number of connections are made by the end of 2011 or by the end of 2012. This option is not recommended as Nobleton's local sewage haulage would be fully funded by Regional user rates.

For Option 3, Regional staff recommend financially assisting the Township of King by sharing sewage hauling costs from Nobleton pumping station to the Schomberg sewage treatment plant. York Region's portion of the sewage haul costs would be 50% in 2011 and 25% in 2012. These cost-share percentages are based on available funding budgeted to operate the Nobleton sewer system had the Township of King achieved the required number of connections as originally anticipated.

The current lack of sewer connections required Regional staff to winterize the Nobleton plant this year and potentially next. It costs approximately \$150,000 to winterize the newly completed plant. The two year warranty on the Regional sewer system expires in September 2012 if the minimum number of connections are not made until the end of 2012. The cost to extend the warranty on the project is estimated at \$100,000.

5. FINANCIAL IMPLICATIONS

York Region will not incur additional costs to cost share sewage haulage

Estimated costs to the Region and to the Township of King for the proposed cost sharing methodology for two time scenarios described in Option 3 are provided in Table 1.

Table 1
Estimated Costs of Sewage Haulage and Plant Operation

	Total costs if required connections made by end of 2011 (9 months) (\$)	Total costs if required connections made by end of 2012 (21 months) (\$)
Total Sewage Haulage Costs	227,600	579,300
King Township Costs Haulage of Sewage (50% in 2011, 75% in 2012)	113,800	407,300
York Region Costs - Partial Plant Operation Haulage of Sewage (50% in 2011, 25% in 2012)	113,800	172,000
Partial Plant Operation - \$20,000/month (est.)	180,000	420,000
Winterization - 2011 and 2012	150,000	300,000
Extended Warranty - 2012 (estimate)		100,000
Total York Region Costs	443,800	992,000
York Region Operations Budget - Nobleton Full Plant Operation - \$50,000/month (est.)	450,000	1,050,000

Note: 310 local connections are required to meet minimum plant flow requirements.

If the minimum number of sewer connections were made and the plant was in full operation, it is estimated that the Nobleton system would cost the Region approximately \$450,000 to operate to the end of 2011. Under Option 3, the Region would incur no additional costs in covering 50% of the sewage haulage and run the plant at partial operation.

If the Nobleton sewer system remains under partial operating conditions through the following winter (2011/12) on to the end of 2012, and the Region covers 50% and 25% of the sewage hauling in 2011 and 2012, respectively, the Region would again incur no additional costs when compared to full plant operation over that time.

Funding for York Region's share of the sewage hauling and partial plant operations will come from the Environmental Services 2011 Operations budget.

It is proposed that the Region's share of the sewage haul costs would be expended first with recovery of the remaining costs from King Township.

6. LOCAL MUNICIPAL IMPACT

Initial haulage of sewage will allow local developers to connect new homes in accordance with their area specific development charge credit agreement and will also provide an opportunity for local residents to connect to the new local sewer system this year and decommission their existing septic systems. Local residents are required to arrange for the physical connection from their homes to the sanitary service stub at the property line.

Nobleton residents would greatly benefit from decommissioning septic systems immediately surrounding the Regional production wells as this would further secure the protection of the drinking water supply in the community.

The estimated costs for the Nobleton residents to connect to the new local sewers are in the range of \$20,000 to \$25,000. These costs include the connection fee and the physical connection between the house and the service pipe at the property line.

The Township of King will manage new sewage connections and septic decommissioning, along with delivering the next phases of the new local sewers.

Local residents along the route from Highway 27 to the Regional pumping station on Janet Avenue will experience tanker truck traffic for the extent of the sewage hauling. The initial months of the sewage hauling will require two tanker trucks a day along the local haul route to a maximum of 11 trucks a day by the end of the haul period when 310 sewage services are connected to the local sewer.

Filling the tanker trucks with sewage will be done by the normal operation of the pumping station so no additional noise will be associated with this operation.

7. CONCLUSION

York Region and the Township of King have invested substantial time and effort in getting the project to this point and it is therefore recommended that a Memorandum of Understanding detailing the cost sharing agreement for the initial sewage haulage be entered to expedite connections to the local sewer and eventual full operation of the Nobleton Sewer System. The cost sharing methodology detailed in this report ensures that York Region provides financial assistance to the Township of King within available funds included in the Environmental Services 2011 Operating Budget that would have otherwise been spent on plant operation.

The cost sharing methodology detailed in this report should be contingent on the Township of King formally agreeing to the following:

- The Township will proactively enforce the mandatory sewer connection by-law by notifying residents who can connect that they must do so within a reasonably prescribed period
- The Township will expedite the design and construction of the next phases of the local sewer with the portions within the wellhead protection areas proceeding first using the \$1.3M Regional funds available

For more information on this report, please contact Daniel Kostopoulos, Director, Capital Planning and Delivery, Environmental Services at (905) 830-4444 Ext. 5070.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)