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AURORA 2C LANDOWNERS GROUP INC. – INFLOW AND INFILTRATION REDUCTION – PILOT PROJECT AGREEMENT PRINCIPLES – TOWN OF AURORA

The Environmental Services Committee recommends the adoption of the recommendations contained in the following report dated July 13, 2011, from the Commissioner of Environmental Services and the Acting Commissioner of Planning and Development Services.

1. RECOMMENDATIONS

It is recommended that:

1. The Commissioner of Environmental Services be authorized to execute a tri-party agreement with the Town of Aurora and the Aurora 2C Landowners Group Inc. to undertake an inflow and infiltration reduction pilot project in the Town of Aurora, in accordance with the principles outlined herein.
2. The Regional Clerk forward a copy of this report to the Town of Aurora and the Aurora 2C Landowners Group Inc.

2. PURPOSE

The purpose of this report is to obtain Council authorization to enter into a tri-party agreement with the Town of Aurora and the Aurora 2C Landowners Group Inc. for Aurora 2C Landowners Group Inc. to undertake a pilot inflow and infiltration reduction project in the Town of Aurora in exchange for allocation of sanitary servicing capacity based on the principles as outlined below.

3. BACKGROUND

On September 23, 2010, Regional Council authorized staff to enter into an agreement with the Town of Markham and Upper Unionville Inc. to permit Upper Unionville Inc. to undertake an inflow and infiltration reduction pilot project funded solely by the developer in exchange for allocation of servicing capacity. At the same time, Council also authorized staff to consider up to one similar developer initiated project in each of the other local municipalities. Subsequently, on June 23, 2011 Regional Council authorized staff to enter into a similar agreement with the City of Vaughan and the Huntington Landowners Trustee Inc.

The agreement with Upper Unionville Inc. was executed in June 2011. The Implementation Plan describing the types and locations of remedial works has been submitted by the developer and reviewed by staff.

Preparation of the agreement with Huntington Landowners Trustee Inc. is currently underway. It is expected that the agreement will be executed in Q4 2011. Flow monitoring to locate sources of inflow and infiltration is already in progress.

In May 2011, regional staff commenced discussion with Town of Aurora staff for a third agreement with Aurora 2C Landowners Group Inc., representing the developers group for Area 2C lands in Aurora. Aurora Area 2C lands are located in the vicinity of Leslie Street and Wellington Street. (*see Attachment 1*).

On June 21, 2011, Town of Aurora Council adopted the recommendations of their General Committee Report, entitled “*2C Inflow and Infiltration Reduction Project*,” requesting the Region endorse and participate in the 2C Landowners Group inflow and infiltration reduction pilot project (*see Attachment 2*), with an objective to generate servicing capacity for 3,300 units, of which up to 3,000 units is for Aurora 2C Landowners Group and 300 units is for other developments within Town of Aurora. In the same report, Town of Aurora has committed to allocate servicing capacity to support the initial phase of build-out in the Aurora 2C lands.

4. ANALYSIS AND OPTIONS

Aurora 2C Landowners Group Inc. project provides potential benefits to the Region’s overall inflow and infiltration reduction program when conducted in accordance with the required implementation plan

Similar to the other two developer initiated projects in Markham and Vaughan, this pilot project will be undertaken by Aurora 2C Landowners Group Inc. at no cost to the Region or the Town.

Success of this project hinges on the ability to align the developer group’s interest with the Region’s overall Inflow and Infiltration Reduction Strategy. It is important that the works be carried out with a rigorous implementation plan acceptable to the Region and the Town including the proposed remedial works, flow monitoring and public communication.

Equally important to project success is that any new sewers constructed by the developers meet quality standards with minimal infiltration and inflow, and do not counteract the gains made in reducing inflow and infiltration in existing areas.

As such, similar principles of agreement adopted by Regional Council for the other two developer initiated projects are recommended below:

- The work shall be funded by Aurora 2C Landowners Group Inc. at no cost to the Region and is not eligible for Regional development charge credits
- The work shall complement the Region's broader inflow and infiltration reduction program
- Capacity assignment to the Town of Aurora shall be at the sole discretion of the Region. Capacity assignment will be provided in stages based on proven reduction of inflow and infiltration through remedial works carried out by Aurora 2C landowners Group Inc.
- The work will be carried out in prescribed catchment area(s) defined by the Region and the Town. A Work Plan outlining remedial works and flow monitoring works for the chosen catchment area shall be approved by the Region and the Town prior to commencement of the work. With approval from the Region and the Town, Aurora 2C Landowners Group Inc. may choose to expand the work into other catchment areas, provided that the remedial works in the original catchment area are completed or adequate securities (to the satisfaction of the Regional Treasurer and the Commissioner of Environmental Services and the Town) are being posted with the Region and the Town to ensure completion of the work. Aurora 2C Landowners Group Inc. is under no obligation to continue expanding the work beyond the original catchment area(s)
- The project will be deemed to be complete if enough capacity is identified to support a total capacity assignment of 3,300 units (of which 3,000 units are for Aurora 2C Landowners Group)
- The Region and/or its agent will review the analysis and monitoring works carried out by the developer to determine the inflow and infiltration reduction. At its sole discretion, the Region and/or its agent may carry out independent analysis and monitoring works to quantify and verify the inflow and infiltration reduction. All costs associated with retaining a consultant to act on behalf of the Region shall be borne by Aurora 2C Landowners Group
- The methodology used to quantify inflow and infiltration reduction shall be one adopted by the Region with a baseline defined by the Region. Verification and quantification of inflow and infiltration reduction for allocation credit will take into consideration, but shall not be limited to, the length of the monitoring period, the quality and consistency of data collected, the number and intensity of storms during the monitoring period and shall be at the sole discretion of York Region. Capacity assignment to the Town shall not exceed more than 1 unit for every 2 units of proven capacity created by inflow and infiltration reduction. The Region will at its sole discretion determine the exact allocation credit ratio to be used, based on the nature of the remediation and the flow reduction verification process
- Prior to implementing the work, a resident communication protocol shall be established by the developer and/or the Town to the satisfaction of the Region and the Town
- The Region and/or the Town may inspect the work and may require stoppage of work at their sole and absolute discretion, if the work has been commenced without obtaining the necessary approvals, or private properties entered without prior consent

- of property owners, and/or the work is not performed in accordance with the Region's overall inflow and infiltration reduction program
- All flow monitoring records obtained by the developer shall become the property of the Region at the end of the pilot project
 - Developer shall use any sewer inspection and commissioning standards developed by York Region in conjunction with local municipalities and the works shall be inspected to the satisfaction of the Region and the Town. As part of commissioning of new sewers, flow monitoring shall be carried out at the sole expense of the developer to ensure and verify that new sewers are constructed without excessive inflow and infiltration to the satisfaction of the Commissioner of Environmental Services
 - To provide adequate upfront capacity to support the initial phase of the development, the Town shall commit a portion of allocation to the Aurora 2C Landowners Group development from the existing capacity assignment
 - The developer shall be responsible for the full Regional staff costs in preparing and administering the agreement and shall pay the legal fees incurred by the Region for the agreement
 - The developer shall provide a Letter of Credit for the full estimated value of the work and where work is subsequently expanded into other catchment areas, the Letter of Credit shall increase accordingly
 - The developer shall agree to fully indemnify the Region against any and all legal action that may arise during the design and construction of works and thereafter, as well as against any action taken against the Region as a result of the Region agreeing to proceed with this project
 - Execution of the Agreement shall not be a condition precedent for draft plan approval, provided that the developer enters into a "no pre-sale agreement" for lands not having capacity commitments and provided that a Holding Zone be placed in all development lands not having capacity commitments
 - Phasing of allocation is required with ongoing monitoring with build-out over a number of years based on a phasing plan

Development shall be phased and conform to Planning requirements

York Region Official Plan Amendment No. 3 ("ROP3"), enacted in October 1997, brought Aurora Areas 2A and 2B into the Regional urban area. The Area 2C lands were identified as the most appropriate location for expansion of urban area, should additional lands be needed beyond 2016. Subsequently, York Region Official Plan Amendment No. 53 ("ROP 53") came into effect in February 2008, thereby adding the 2C Area to the Region's urban area. In September 2010, the Town of Aurora adopted the 2C Secondary Plan which proposed primarily residential uses on the west side of Leslie Street and primarily business park employment uses on the east side of Leslie Street. The Secondary Plan was subject to an Ontario Municipal Board hearing in July and the decision is currently pending.

Development will be in accordance with the 2C Secondary Plan requirements and will be phased in accordance with the provision of servicing allocation. Pre-sales will only be permitted after allocation has been provided to the development. In addition, holding provisions will be used to ensure the implementation of the phasing is linked to the provision of servicing. As discussed in previous section, a portion of the initial phase of development will be provided servicing allocation from the Town of Aurora using the Town's existing capacity.

5. FINANCIAL IMPLICATIONS

Aurora 2C Landowners Group Inc. will be undertaking the project at its own cost and will also be fully responsible for the Region's costs in retaining a consultant to assist in review and inspection of the works carried out by Aurora 2C Landowners Group Inc. and, where required, to carry out independent flow monitoring to verify inflow and infiltration reduction.

In addition, the developer group will be fully responsible for all Region staff costs to prepare and administer the agreement. All legal fees incurred by the Region for the agreement will also be paid for by the developer.

6. LOCAL MUNICIPAL IMPACT

All local municipalities will benefit from the pilot project

This project is the third developer initiated inflow and infiltration reduction project in the Region and will benefit Town of Aurora with the removal of a portion of the inflow and infiltration generated in Aurora, at no cost to the Town. York Region and the nine local municipalities are actively involved in the inflow and infiltration reduction program. Any experience gained in this pilot project will be shared with other local municipalities.

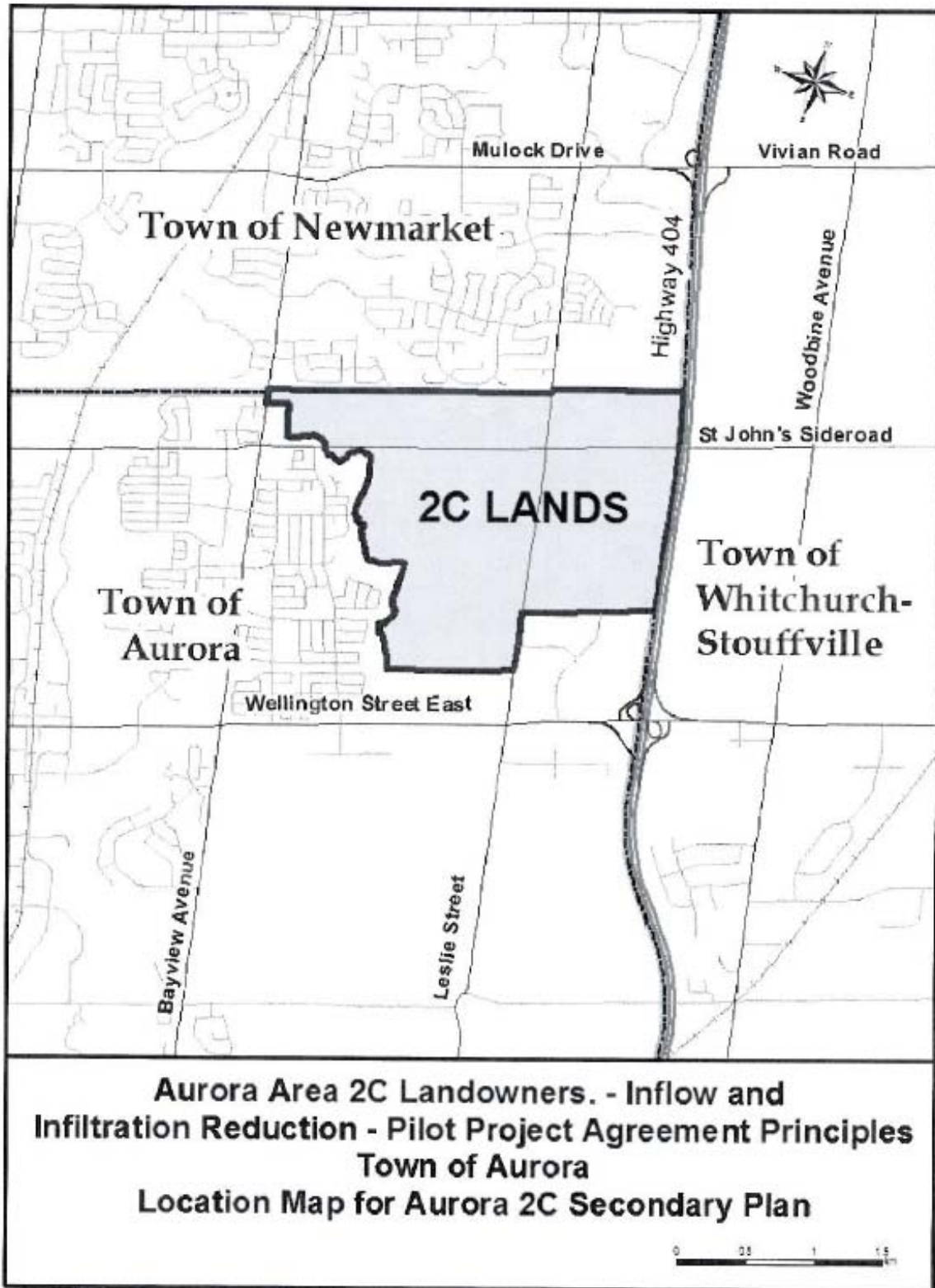
7. CONCLUSION

Success of this project requires a tri-party agreement with sound and comprehensive principles to guide the implementation of the work and provide verifiable benefits to the Region to justify granting advanced wastewater allocation. This report seeks Council endorsement of the proposed principles of agreement and authorization for the Commissioner of Environmental Services to execute the agreement.

For more information on this report, please contact Daniel Kostopoulos, Director, Capital Planning and Delivery at Ext. 5070 or Heather Konefat, Director, Community Planning at Ext. 1502.

The Senior Management Group has reviewed this report.

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





TOWN OF AURORA

GENERAL COMMITTEE REPORT

No. IES11-026

SUBJECT: *2C Inflow and Infiltration Reduction Project*FROM: *Ilmar Simanovskis, Director, Infrastructure & Environmental Services*DATE: *June 14, 2011*RECOMMENDATIONS*THAT Council receive Report IES11-026; and**THAT Council endorse the principles and terms set out in this report regarding an Inflow and Infiltration Reduction Project designed to reduce extraneous sanitary flow in exchange for additional sanitary allocation for the 2C development area; and**THAT York Region be requested to be a participant in the agreement as they have authority over Regional wastewater collection and treatment and the distribution of available system capacity to the local municipalities; and**THAT the Mayor and Town Clerk be authorized to execute the agreements to the satisfaction of the Chief Administrative Officer and the Town Solicitor with the Aurora 2C Landowners Group Inc. and the Region of York for an Inflow and Infiltration Reduction Project based on the principles outlined in this report; and**THAT a copy of this report be forwarded to York Region.*PURPOSE OF THE REPORT

The purpose of this report is to obtain Council authority to enter into a tri-party agreement with the Aurora 2C Landowners Group Inc. (2C Landowners Group) and York Region in the project to identify and reduce inflow and infiltration in the local sanitary sewer system for the mutual benefit of reducing and recovering such flows for reallocation to new development and to enhance system security.

BACKGROUND

Future sanitary allocation for Aurora is constrained by the South East Collector and the Upper York Sewage Solutions (UYSS)

Regional sanitary servicing provides for the removal and treatment of sewage collected by each of the local municipalities. System constraints and delays in the delivery of critical infrastructure has limited the amount of available sewage conveyance capacity the Region can commit towards new development. The South East Collector (SEC) is a

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trunk sewer that is intended to twin a section of the infrastructure from lower Markham into Durham Region and affects all the communities within the Duffin Creek Treatment Plant Collection area including Aurora. The Upper York Sewage Solutions (UYSS) is to address more local constraints related to East Gwillimbury, Newmarket and Aurora.

Recent approval of the South East Collector requires achieving reductions in current inflow and infiltration rates and related water conservation improvements

The Ministry of Environment (MOE), in its approval of the Individual Environmental Assessment of the SEC included a condition requiring that the Region along with its Municipal partners achieve specific environmental sustainability targets related to both I/I and water conservation. The two levels of government have been collaborating to meet this requirement and recently completed the 20 year strategy which was submitted to the MOE in March 2011 as one of the first deliverables.

Regions agreement to permit Developers to identify and implement I/I reduction strategies in exchange for sewage capacity provides interim opportunity for growth

The Town of Markham initiated a proposal to allow a developer to undertake, at its own cost, inflow and infiltration reduction works in exchange for receiving a portion of the flow reductions towards allocation for new development. This proposal was accepted by the Region on September 23, 2010. As part of this decision, the Region also agreed to allow each municipality one opportunity to implement a similar project to achieve additional allocation. Vaughan also proceeded with a proposal in March 2011 and Aurora is the third municipality to undertake the same exercise.

Opportunity has limited life and will expire once key infrastructure is completed

The opportunity for the development community to invest in inflow and infiltration reduction in exchange for allocation has a limited life contingent on completion of the key infrastructure identified above. Although the implementation of this project will take several years, it is expected that the conveyance constraints will be present until at least 2015 when SEC is completed, after which some capacity prior to the completion of UYSS (scheduled for 2018) may become available and incentive for developer investment will be reduced.

This report outlines the principles in undertaking this project and the mechanics of delivering the required results within the available window of opportunity.

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COMMENTS**Joint Region and Town I/I reduction program has identified areas of high flows within Town with repairs underway since 2009**

The Region began sewage flow monitoring in 2009 and identified opportunities for improvement in each of the 9 local municipalities. Aurora was able to take advantage of a grant program in 2009 to accelerate improvements to the problem areas resulting in an overall system investment of \$4.5M over three years that will be ending in Dec 2011. Significant improvements have been made, however opportunities for inflow and infiltration reduction still exist.

Opportunities for reducing inflow and infiltration currently focused on public infrastructure

The Town only has responsibility for the infrastructure within publicly owned lands. The section of pipe that connects a home or business to the sewer is considered private up until it reaches the property limit. The Town has primarily focused on public side infrastructure for reduction of inflow and infiltration. There are known issues with the condition of private side connections however the Town does not have an effective mandate for private side repairs. The incorporation of private side repairs is increasing as a regional consideration and the municipalities are beginning discussions to allow more effective methods of further reducing inflow and infiltration through private side improvements. This will most likely take the form of By-Laws to better enforce private side repairs and will be developed in the near future. Access to private side infrastructure further increases opportunities for reducing system inflow and infiltration.

Available allocation for 2C lands is limited and insufficient to allow for effective development to proceed at this time

Current system constraints are limiting the amount of capacity being allocated to each municipality. The current available capacity for growth in the Greenfield areas for the Town of Aurora is approximately 700 units as assigned by the Region to the year 2013. The 2C Secondary Plan which has been appealed to the OMB with a hearing scheduled for the end of June 2011 is planned to accommodate approximately 3,300 residential units. The Town is anticipating the land owners within the 2C area to submit draft plans of subdivision in the summer of 2011. Further delays in the availability of new capacity restricts development to proceed effectively.

Aurora 2C Landowners Group Inc. have approached Town to consider I/I project to recapture allocation

The 2C Landowners Group has recognized the opportunity to invest in the existing infrastructure in exchange for recovering capacity through measurable reductions in I/I flows. Discussions were initiated in mid 2010 and support from the region warrant further investigations.

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Consultants work plan has been adopted by the Region for Markham and Vaughan proposals

A Consultant retained by the 2C Landowners Group has presented a work plan which is intended to systematically locate and record flow reductions in the system. This is the same consultant engaged in Markham and Vaughan and their work plan has been previously reviewed by the Region. The work plan includes the following components:

1. Catchment area selection;
2. Initial sewage flow monitoring;
3. Catchment area testing;
4. Inflow and infiltration source identification and evaluation;
5. Remedial works to reduce inflow and infiltration;
6. Post remedial monitoring; and
7. Inflow and infiltrations reduction verification and reporting.

Expected allocation recovery from the project is sufficient to support early development

The 2C lands will require approximately 3,300 units of servicing capacity. The 2C Landowners Group is targeting 3,000 units for the purposes of this project. The recovery of allocation capacity resulting from inflow and infiltration reduction is 1 unit of servicing capacity for every 2 units of measurable and sustainable I/I recovered. As per the Towns servicing allocation policy, actual servicing allocation is granted at the draft plan of subdivision approval stage. In addition, during the review of the plans of subdivision within the 2C area, a servicing phasing plan will need to be finalized between the Town and the 2C applicants.

The Town is also requesting that an additional 10 percent of the target servicing capacity be included in the project. This additional capacity of 300 units will be assigned to the Town for allocation as the Town sees fit. Should target reductions not be achieved, the Town will continue to retain 10 percent of realized capacity from the project once a total minimum target of 2,000 units is achieved.

Proposed principles of the tri-party agreement

1. The project will target a reduction of inflow and infiltration to a measurable and sustainable rate that will achieve a maximum of 3,300 units which also includes 300 units for Town purposes.
2. The Town will commit a portion of existing available allocation towards the 2C lands upon signing of the agreement
3. Capacity assignment by the Region to the Town shall not exceed more than 1 unit of servicing capacity for every 2 units of proven capacity created by I/I reduction.
4. The Region will at its sole discretion determine the exact assignment ratio to be used based on the nature of remediation and the flow reduction verification process.

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5. Service capacity recovered that is below the target will be distributed 90 percent to the 2C Landowners Group and 10 percent to the Town for other purposes. The 2C Landowners Group will retain 100% of capacity savings up to a net of 2,000 after which the distribution ratio applies.
6. The duration of the project is intended to be the time period required to reach the allocation target however may be modified based on actual results and as agreed to by all parties.
7. The project will be deemed to be complete if enough capacity is identified to support a total capacity assignment of 3,300 units plus 300 units for Town purposes.
8. Capacity assignment to the Town shall be at the sole discretion of the Region and will be provided in stages based on proven inflow and infiltration reduction through remedial works carried out by the 2C Landowners Group.
9. The 2C Landowners Group will pay all costs incurred by the Town and the Region in relation to this project including cost of consultants retained to peer review, inspect and monitor the project, administration fees and other identifiable commitments made by the Town. Expenditure of funds will not translate into allocation of capacity if measurable reductions of flow are not identified. All financial risks of the project are with the 2C Landowners Group with no opportunity for recovery of costs from the Town or the Region.
10. The work shall be carried out in prescribed catchment area(s) defined by the Region and the Town. An implementation plan outlining the works and flow monitoring works for the chosen catchment area shall be approved by the Region and the Town prior to commencement of the work. Upon approval by the Town and the Region, the 2C Landowners Group may choose to expand the work into other catchment areas if necessary to achieve the target flow reductions provided the remedial works in the original areas are completed or adequate securities are being posted with the Region and the Town to ensure completion of the work. The 2C Landowners Group is under no obligation to continue expanding the work beyond the original catchment area.
11. The methodology used to quantify inflow and infiltration reduction shall be one adopted by the Region with baselines defined and approved by the Region. Verification and quantification of I/I reduction for allocation credit will take into consideration, but not be limited to, the length of the monitoring period, the quality and consistency of the data collected, the number and intensity of storm events during the monitoring period, and shall be at the sole discretion of the Region.
12. All flow data collected by the 2C Landowners Group shall become the property of the Region and the Town at the end of the project
13. Prior to implementing any work, a resident communication protocol shall be established by the 2C Landowners Group in cooperation with the Town and the Region to ensure adequate notification of any works directly impacting private lands and to minimize inconveniences within the community

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14. The 2C Landowners Group shall provide the Town with a letter of credit for the full estimated value of the remedial work and where work is subsequently expanded into other catchment areas, the Letter of Credit shall increase accordingly.
15. The 2C Landowners Group shall fully indemnify the Region and the Town against any and all legal action that may arise throughout the full duration of the project as well as against any action taken against the Region or the Town as a result of the Region and the Town agreeing to proceed with this project.
16. Execution of this agreement shall not be a condition precedent for draft approval of the 2C lands, provided that the 2C Landowners Group enter into a "no pre-sale agreement" for lands not having capacity commitments and provided that a Holding Zone be placed in all development lands not having capacity commitments.
17. Development shall use any sewer inspection and commissioning standards developed by York Region in conjunction with local municipalities and sewers be inspected to the satisfaction of the Region and the Town. As part of the commissioning of new sewers, flow monitoring shall be carried out at the sole expense of the 2C Landowners Group to ensure and verify that new sewers are constructed without excessive inflow and infiltration to the satisfaction of York Region

York Region Council endorsement required to execute agreement

Regional endorsement of the project will be required in order to secure capacity through I/I reduction. Staff from the Region and the 2C Landowners Group have been in discussion regarding the terms of this project and will continue to work in close cooperation to ensure objectives are achieved.

Collection of flow monitoring data is critical in plan development

Flow monitoring has commenced by the 2C Landowners Group to ensure sufficient background data is available to develop an appropriate remediation plan. This is in advance of execution of an agreement and is at the sole risk and expense of the 2C Landowners Group. Access and monitoring of the Towns sanitary system is being performed with staff supervision.

ALTERNATIVE(S) TO THE RECOMMENDATIONS

1. Council may choose to alter the target capacity allocations or to not proceed with the project at this time.

FINANCIAL IMPLICATIONS

This project will have not financial impact for the Town. All costs are to be the responsibility of the 2C Landowners Group with no guarantee of success in the outcome of the project.

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CONCLUSIONS

Short term regional sanitary servicing capacity constraints are limiting the ability for the 2C Landowners Group to plan and proceed with development in a timely manner. In addition, conditions of approval for the South East Collector trunk sewer require measurable reductions in inflow and infiltration be achieved within the sanitary system.

These conditions have created an opportunity for the 2C Landowners Group to fund and implement improvements within the Towns sanitary infrastructure for the purpose of converting a portion of any inflow and infiltration reductions into allocation for new growth.

This report identifies the principles required to proceed with this project.

ATTACHMENTS

None

PRE-SUBMISSION REVIEW

Executive Leadership Meeting of June 1, 2011

Prepared by: Ilmar Simanovskis, Director of Infrastructure & Environmental Services - Ext. 4371



Ilmar Simanovskis
Director Infrastructure
and Environmental Service



Neil Garbe
Chief Administrative Officer

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