

Clause No. 7 in Report No. 5 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on March 27, 2014.

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RESIDENTIAL SUSTAINABILITY INCENTIVE PROGRAM UPDATE

Committee of the Whole recommends adoption of the recommendations contained in the following report dated February 20, 2014 from the Commissioner of Transportation and Community Planning and Commissioner of Environmental Services:

1. RECOMMENDATIONS

It is recommended that:

1. Council endorse the update of the Sustainable Development through LEED[®] high-rise residential incentive program and replacement of the Sustainable Home Incentive Program with the water and wastewater Servicing Incentive Program.
2. Council authorize staff to develop and maintain detailed guidelines based upon the objectives as outlined in the executive summaries for the Sustainable Development through LEED[®] Program and Servicing Incentive Program.
3. Council authorize staff to assign additional servicing capacity to local municipalities in accordance with requirements of the water and wastewater Servicing Incentive Program and the Sustainable Development through LEED[®] high-rise residential incentive program.
4. The Commissioner of Transportation and Community Planning and Commissioner of Environmental Services be authorized to execute the necessary agreements required to implement the Servicing Incentive Program and the Sustainable Development through LEED[®] high-rise residential incentive program.
5. This report be circulated to the local municipal planning and works commissioners and directors and the Building Industry and Land Development Association.

2. PURPOSE

This report seeks Council's endorsement of the updated Sustainable Development through LEED® high-rise program ("the LEED program") and the replacement of the Sustainable Home Incentive Program (SHIP) with a new water and wastewater-focused Servicing Incentive Program (SIP).

3. BACKGROUND

The Region promotes residential green development by offering sustainable development incentive programs

Currently, there are two sustainable residential development incentive programs through which developments can secure additional Regional water and wastewater servicing capacity assignment through implementing water efficiency and other sustainable development measures in their developments:

- Sustainable Development through LEED® (high-rise developments)
- Sustainable Home Incentive Program (low-rise developments)

Approximately 2,200 High Rise units either built or under construction in the LEED Program in York Region

Sustainable Development through LEED® was the first residential incentive pilot program endorsed by Council in 2007. The program provides additional servicing capacity assignment at the 20, 35 or 40 per cent level to high-rise developments in Regional and Local Centres and Corridors that meet Regional sustainability requirements. New developments applying to the program must obtain the third-party LEED® Canada for New Construction's Silver or Gold certification and meet Council-approved criteria around water efficiency, three-stream waste management, energy conservation and transit-oriented development (which includes transportation demand management measures). The current program does not include inflow and infiltration (I&I) reduction measures.

There are approximately 2,200 high-rise units either built or currently under construction in the LEED program. This translates to the Region issuing 820 units of servicing allocation credits for developments building sustainably under the program.

No homes have been built under the Sustainable Home Incentive Program for low-rise development since 2009

The Sustainable Home Incentive Program was endorsed in 2009 to promote sustainability in new low-rise residential developments (detached, semi-detached and townhouses). SHIP offers an additional 10 per cent or 20 per cent servicing capacity assignment to

qualified developments. These projects must achieve third-party certification (i.e. LEED® Canada for Homes or equivalent) and meet Council-approved sustainability criteria. The program also encourages construction of sustainable homes with lower energy and water usage than homes built to the 2009 *Ontario Building Code*. SHIP does not include specific inflow and infiltration reduction targets and requirements. SHIP has not received any applications since its introduction in 2009.

Changes to the *Ontario Building Code* in 2014 have raised the bar on water conservation standards and require the programs to be updated

In spring 2013, the Ontario government announced that as of January 2014, the *Ontario Building Code* (OBC) mandates more stringent minimum water efficiency requirements for residential developments. As part of the Regional Capacity Assignment process in June 2013, these requirements were built into the Region's capacity utilization analysis to maximize the number of units available for assignment. As a result, water efficiency requirements are now a base standard and any Regional incentive programs need to achieve higher efficiencies beyond current OBC requirements.

Program review consultation with local municipal and conservation authority staff and Building Industry & Land Development Association (BILD) provided input on challenges and opportunities of the existing SHIP and the LEED programs

Between 2011 and 2013, consultation was undertaken on the SHIP and LEED programs which involved regional staff, local municipal building, engineering and planning staff, conservation authority staff, BILD and program applicants. The consultation focused on what worked well in the program, what did not, why, and opportunities to advance the objectives of both programs. Consultation findings suggested the need for program modifications including:

- Need for building performance data to compare anticipated with actual savings
- Addition of low-impact development targets and requirements
- Addition of inflow and infiltration control requirements
- Provide a "flex space" for waste diversion/management (for electronics, reusable textile and other smaller reusable items) within high rise buildings
- Extending the time frame for applicants to achieve the third-party LEED® certification from one to two years
- Removal of the separate water meter requirement for high-rise units
- Consider another third-party certification stream other than the LEED® rating system

4. ANALYSIS AND OPTIONS

Sustainable Home Incentive Program is to be replaced by a water and wastewater-focused Servicing Incentive Program that can complement local municipal sustainability programs

During the program review of the Sustainable Home Incentive Program for low rise, staff identified the need to incorporate inflow and infiltration reduction strategies which resulted in the replacement of SHIP with a new program, focused primarily on servicing, referred to as the Servicing Incentive Program. To this end, the Region has worked with local municipal staff and industry to develop detailed sewer design, construction and commissioning standards that developers are required to meet in order to qualify for additional servicing capacity assignment of 20 per cent. The SIP will also require the achievement of minimum water conservation targets to fulfill the Region's Long-term Water Conservation Strategy. An overview of the proposed SIP implementation guides is outlined in the Executive Summary in *Attachment 2*.

York Region's commitment to sustainable development is detailed in the Regional Official Plan and includes focusing growth in Regional Centres and Corridors, creating compact and complete new communities and addressing individual building performance in the areas of energy efficiency, water conservation and indoor air quality. In addition to the incentive programs offered by York Region, local municipalities are encouraged to implement the Sustainable Building and New Community Areas policies and targets of the Regional Official Plan through local municipal sustainability programs and secondary plans. The New Communities Guidelines have been developed to assist in the implementation of these policy areas.

The LEED program requires an update to reflect administrative changes and elevated sustainability targets

The LEED program needs to be updated to reflect the changes in the *Ontario Building Code*, align with new Regional Official Plan policies and targets, incorporate recommendations from consultation, and include additional requirements for inflow and infiltration control. An executive summary of the proposed LEED program implementation guide is provided in *Attachment 1* and reflects the following key changes:

- One level of additional servicing capacity assignment (30 per cent) based on water and wastewater savings that can be achieved
- Implement the Region's Sewer Design, Construction, Inspection and Implementation Guidelines for inflow and infiltration control
- Address the Sustainable Buildings and New Community Areas policies in the YROP, 2010
- Revised sustainability components to reflect 2014 *Ontario Building Code* changes
- Increased timeframe for applicants' buildings to obtain minimum third-party LEED® silver certification

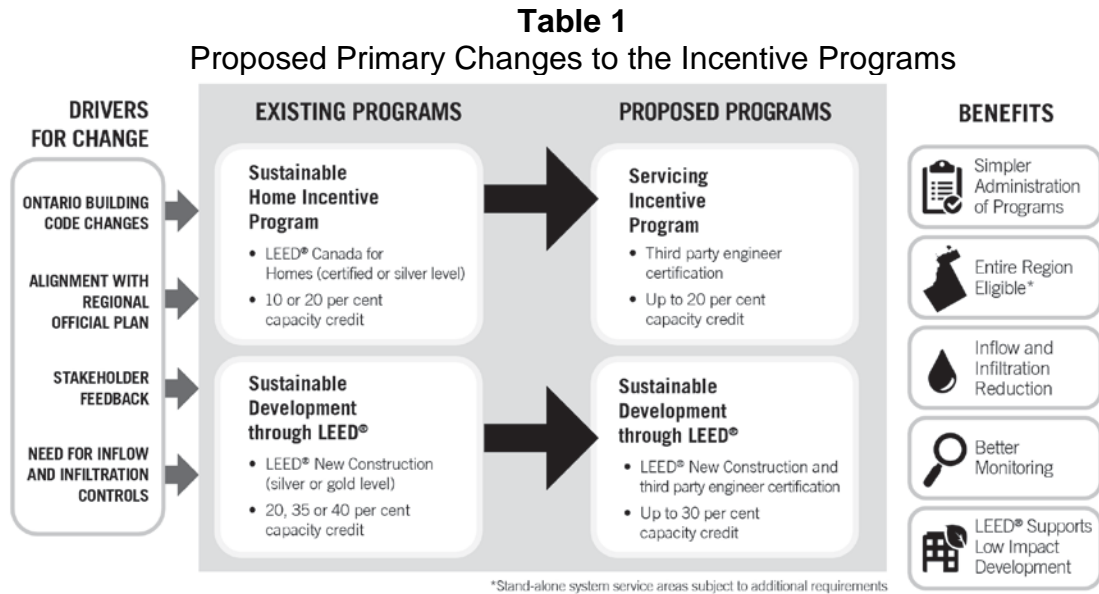
- Requirement of a maximum 4.0 litre per flush WaterSense® certified high-efficiency toilets
- Remove the requirement for separate water meter in each unit as these units did not result in significant water savings
- Introduce low-impact development requirements to achieve stormwater management targets
- Provide a flex space for waste diversion/management (for electronics, reusable textile and other smaller reusable items)
- Establish a minimum of 75 per cent of construction waste debris to be recycled or salvaged
- Ensure construction materials have a 20 per cent (by weight) recycled content

Municipalities with stand-alone systems can take advantage of the incentive programs as long as specific conditions are met

There are five stand-alone Regional water pollution control plants that have a capacity of less than 15,000 people in York Region: Kleinburg, Nobleton, Schomberg, Mount Albert and Sutton. Due to their size, performance of small stand-alone systems is sensitive to small increases in wastewater volume and strength. Under the SIP and LEED programs, capacity assignment credit is made possible through reducing inflow and infiltration to compensate flow generated by new homes. With the construction of new homes, the amount of sewage will increase. The I&I reduction will only reduce quantities of groundwater and surface water (not sanitary sewage) from entering the sewer system. To ensure that a capacity assignment credit does not compromise the safe operation of the stand-alone plants serving 15,000 people or less, additional requirements are recommended below:

- Stand-alone systems are designed to meet approved community plan populations. Additional growth beyond the approved community plan must meet existing Official Plan policy.
- A capacity assessment of the water pollution control plant, based on the most recent plant performance, will be carried out to ensure that the capacity assignment credit will be within the operating capacity of the plant. Where warranted, a more comprehensive study, including field tests, will be carried out. In any event, any cumulative capacity assignment exceeding three per cent of the system's original plant design capacity must be supported by a comprehensive assessment involving field tests. Similar capacity assessment will be carried out for the water system.
- Where required, the Region may temporarily suspend the incentive programs for individual systems if excessive inflow and infiltration and/or plant performance indicates that the system is at risk, until such time as the issues have been addressed.

Table 1 summarizes the two incentive programs and the primary changes related to the certification and servicing capacity assignment levels:



The Region will explore other incentive options to promote sustainable residential development

The long term goal is that the construction industry will build sustainably as an everyday practice. The Region, through SIP and the LEED program, has been utilizing additional servicing capacity as the incentive to promote the construction of more sustainable housing units. In the future, with the new water and wastewater infrastructure coming on-line, capacity assignment-based incentives may no longer be as attractive to developers/builders. Therefore, staff will continue to explore other incentive options, pilot projects and educational opportunities to promote sustainable residential development.

Link to key Council-approved plans

2011-2015 Strategic Plan

The new SIP leverages capacity in existing and new infrastructure to complete the build-out of developments through promoting the practices of water efficiency and inflow and infiltration control. The LEED program contains requirements and measures to help the Region sustain critical infrastructure and focus growth along Regional Centres and Corridors, both priorities in the *2011-2015 Strategic Plan*.

Vision 2051

The SIP and LEED programs help to promote sustainable buildings and communities in York Region to achieve Vision 2051 goals of living sustainably, including creating livable cities and complete communities.

Regional Official Plan (2010)

The programs help to support and implement the objectives of the Sustainable Buildings policies of the Regional Official Plan (2010), which encourage green building practices to be integrated into low and high-rise housing forms.

Other Council-approved plans

SIP and LEED help support sustainability targets, objectives and actions set out in a number of regional council-approved plans, including:

- The Inflow & Infiltration Reduction Strategy (2011)
- SM4RT Living Plan (2013)
- Long Term Water Conservation Strategy (2011)
- Community and Health Services Multi Year Plan (2010)

5. FINANCIAL IMPLICATIONS

Implementation of the Servicing Incentive Program will permit the efficient use of the water and wastewater system capacity and in turn allow the Region to direct capital funding to projects that are critical to support developments and to reduce operational and maintenance costs resulting from inflow and infiltration.

Some savings passed onto future residents can be achieved with more efficient LEED[®] certified buildings and low-density houses compared to buildings constructed to the *Ontario Building Code*. Under the LEED program and SIP, developers would be required to build to a higher standard with enhanced construction materials and fixtures at no cost to the Region or local municipality however, they do benefit from reduced servicing capacity assignment (in the form of allocation credits) through the programs.

To manage risk of default, a letter of credit is required to be posted by the program applicant.

6. LOCAL MUNICIPAL IMPACT

The SIP and LEED programs will assist municipalities in obtaining and promoting new residential developments that support both Regional and local sustainability goals.

Consultation with local building, engineering and planning staff and the building industry helped to shape the update to the residential incentive programs. Consultation will continue with both municipal staff and the development and building industry to further refine the implementation details.

7. CONCLUSION

Building sustainably as an everyday practice is one of the key purposes of the residential incentive programs. The program review resulted in the update of LEED and SHIP's replacement with SIP to integrate inflow and infiltration control measures to reduce the burden on the wastewater system. Water conservation and inflow and infiltration control measures are two key components of sustainability and the Region is supporting sustainability through the third-party LEED[®] certification, Regional Official Plan targets and local municipal sustainability programs. Council's direction to provide high quality servicing infrastructure is enhanced through the use of additional servicing capacity assignment incentives to encourage developers to incorporate higher levels of sustainable building practices into new developments. The recommendations to Council reflect the Council-approved policy framework of promoting and supporting sustainability in the construction new residential development.

For more information on this report, please contact Karen Whitney, Director, Community Planning at Ext. 71505 or Mike Rabeau, Director, Capital Planning and Delivery at Ext. 75157.

The Senior Management Group has reviewed this report.

Attachments (2)

Sustainable Development through LEED® Program Implementation Guide

March 2014

Executive Summary

Program Description

The Sustainable Development Through LEED® Program (the LEED Program) offers additional servicing capacity assignment as an incentive to promote more sustainable residential high-density developments and buildings that are four or more storeys in York Region. Developers meeting the Program criteria and requirements may qualify for servicing capacity assignment credits of 30 per cent based upon population.

Program Entry/ Eligibility Criteria

The LEED program is available to high-density development proposals within York Region meeting the following program eligibility criteria:

1. The development is a residential use with a minimum of four storeys in building height. The residential component is encouraged to be within a mixed-use building (i.e. with commercial use on ground floor).
2. The development is encouraged to be in a Regional Centre, in an approved Community/ Secondary Plan along segments of Yonge Street and Highway 7 identified as Regional Corridors in the Regional Official Plan, and/or approved Local Centre/ Corridor in the Local Official Plan.
3. The development is permitted under all applicable Regional Official Plan policies without the need for a major Local Official Plan Amendment.
4. The local municipality has already assigned the portion of the servicing allocation not covered by the servicing capacity assignment credits to the development or there is a Local Municipal agreement in place.
5. The proposed development is situated within a Local Municipality that has formally advised York Region that they wish to participate in the LEED program.
6. The project has been registered with the Canada Green Building Council under the Leadership in Energy and Environmental Design LEED® Canada for New Construction 2009 or a newer version of the rating system.

For developments serviced by stand-alone water and wastewater systems, the Region at its sole discretion will carry out a system capacity assessment to determine if capacity assignment credit (if any) can be provided without compromising the safe operation of the water and wastewater system at the time of request, based on the most current plant performance data.

Sustainability Objectives

Developments applying to the LEED program must meet sustainability requirements related to Program objectives identified in Figure 1 to the satisfaction of York Region and the applicable local municipality. The detailed requirements related to each objective are set out in the Program Guide to facilitate implementation.

Figure 1: Sustainable Development through LEED® Program Objectives

Water Conservation	<ul style="list-style-type: none"> • Reduce indoor and outdoor potable water consumption through LEED® and water efficient fixtures and appliances
Stormwater Management Practices	<ul style="list-style-type: none"> • Improve stormwater quality and quantity control through low impact development practices (i.e. rain water harvesting, bioretention)
Wastewater Flow Reduction	<ul style="list-style-type: none"> • Reduce wastewater flow by implementing the Region's Sewer Installation/ Performance Testing Specification • The Specification includes improved design and construction techniques (i.e. requirements for sanitary maintenance holes and sewers, bulkheads, extraneous flow performance testing and inspection, and sanitary flow monitoring)
Transit-Oriented Development (TOD)	<ul style="list-style-type: none"> • Promote the design and construction of development that responds to the needs of transit users and the transit services by implementing the Region's TOD Guidelines
Three Stream Waste Management	<ul style="list-style-type: none"> • Improve waste diversion rates for high-density developments through waste storage, collection and residential education strategies
Construction Resource and Waste Management	<ul style="list-style-type: none"> • Increase construction and demolition waste diversion and promote the use of recycled construction materials through the LEED® rating system
LEED® Certification	<ul style="list-style-type: none"> • Achieve LEED® Silver , Gold or Platinum Certification

Monitoring mechanisms have been built into the LEED program to evaluate building and infrastructure performances. They include:

- Collecting and analyzing building water usage data to determine savings in indoor/outdoor water consumption.
- Requiring the applicant to install wastewater flow meters to facilitate the collection and analysis of flow data.

Servicing Capacity Assignment Incentive

The LEED program awards servicing capacity assignment credits of 30 per cent to qualified developments. For proposals that will be serviced by stand-alone water and wastewater systems (i.e. Nobleton, Mount Albert), Regional staff will conduct an internal assessment to determine the eligible incentive percentage (up to 30 per cent) for the proposed development, based on information exchanged at the pre-consultation meeting.

The servicing capacity assignment incentive is calculated as follows:

For example:

If a proposed development contains 130 apartment units and qualifies for the 30% Servicing Capacity Credits, the following formulas should be used to calculate:

1. population equivalent to the proposed units
2. local municipal servicing allocation commitments
3. servicing capacity credit units awarded through this incentive program

1. **Proposed Population** = proposed units x persons per unit (PPU) factor (by housing type and municipality)
= $130 \times 2.55 = 332$ persons

2. **Local Municipal Servicing Allocation Commitment** = **proposed population** ÷ (1 + incentive)
= $332 / (1 + 30\%)$
= $332 / 1.3$
= 255 persons

3. **Servicing Capacity Assignment Credits** = **local municipal servicing commitment** × incentive
= 255 persons x 30%
= 77 persons

Participants in the LEED program do not “own” the capacity assignment credit earned through the Program. The credit will be extended to the local municipality to assign in accordance with their respective allocation policies.

Third-Party Certification Requirements

The applicant is required to obtain the following third-party certifications to demonstrate program compliance:

1. Certification from a Professional Engineer licensed under the Province of Ontario verifying the development:
 - Achieved the water efficiency requirements of the LEED program
 - Installed the required meters to measure indoor and outdoor potable water consumption

- Has been constructed to meet York Region’s Sewer Installation/ Performance Testing Specification
 - Incorporated a three-stream waste management system in the building(s).
2. Third-party LEED® Certification administered by the Canada Green Building Council (CaGBC) verifying that the development achieved a minimum Silver Certification under the Leadership in Energy and Environmental Design Canada New Construction Program, 2009.

Tri-Party Agreement

The applicant is required to enter into a Tri-party Agreement between York Region, local municipality and the applicant. This Agreement will outline the Program’s terms and conditions, including conditions that must be met to achieve and secure the Servicing Assignment credit.

Letter of Credit Requirement

This Program requires applicants to post Letters of Credit in the amount of \$2,500 per Servicing Capacity Assignment Credit person awarded, with an upper limit of \$500,000, prior to Plan of Condominium Registration.

The Letter of Credit amount is calculated as follows:

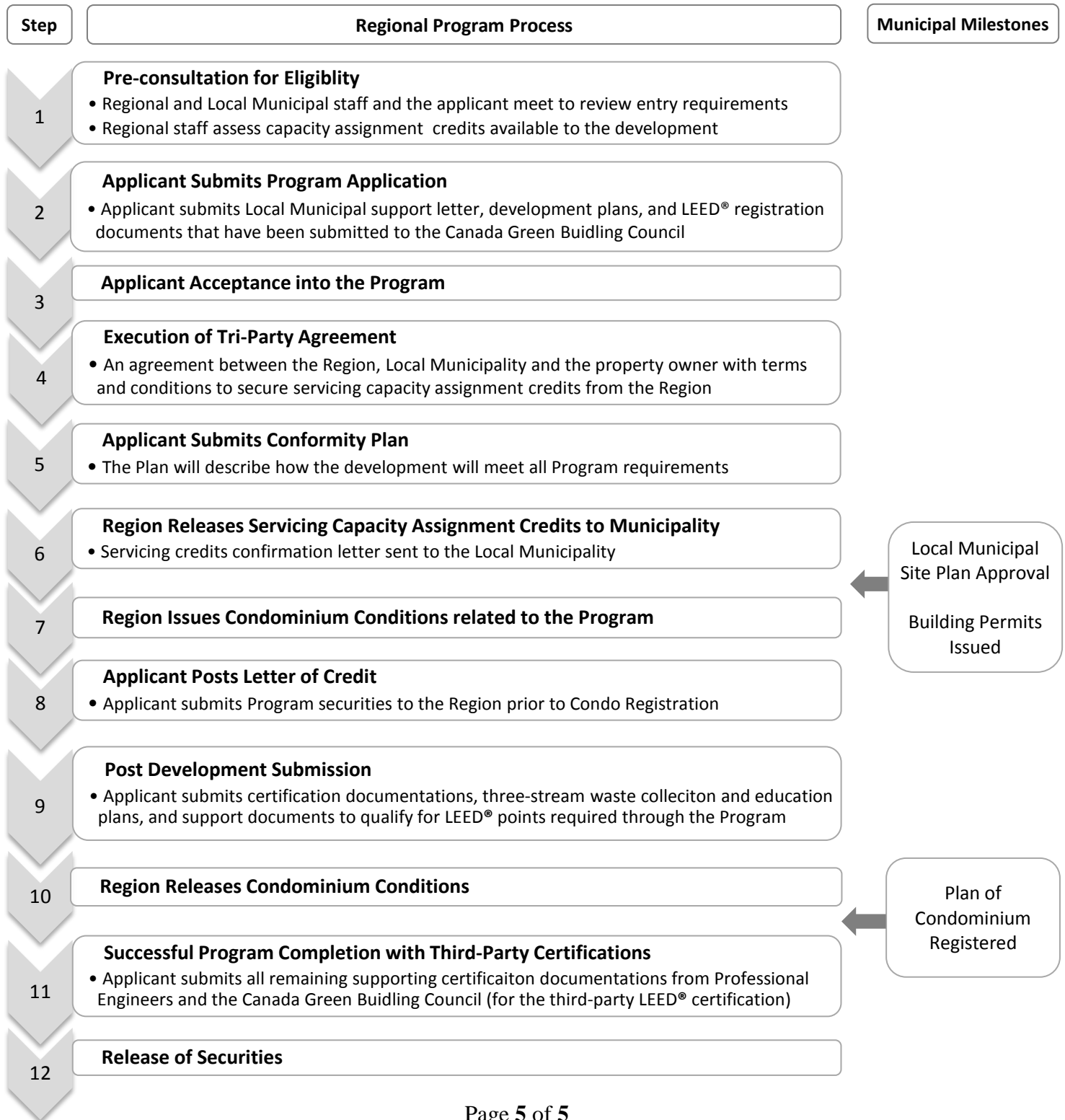
For example, if a developer qualifies for servicing capacity assignment credits equivalent to 30% of the units within a 130 unit building with a PPU (persons per unit) of 2.55, the Letter of Credit equals 77 credit persons x \$2,500 = \$192,500.

The applicant has 24 months from the date of Plan of Condominium Registration to satisfy all Program requirements and submit all required certifications. If all requirements are not fully met to the satisfaction of the Region and the local municipality within the 24-month timeframe, the full value of the Letter of Credit shall be forfeited by the applicant. The Region will draw upon the funds for remedial works within the development, to carry out retrofits (outside the development) under the regional inflow and infiltration reduction program, and/or fund Regional educational/marketing programs related to water conservation and waste management.

Application Process

To secure servicing capacity assignment credits through the LEED program, the applicant must follow the application process which requires the execution of a Tri-party Agreement, submission of a conformity report and posting of securities, as described in Figure 2.

Figure 2: Sustainable Development through LEED® Program Application Process



**Servicing Incentive Program Implementation Guide
March 2014**

Executive Summary

Program Description

The Servicing Incentive Program (SIP) offers additional servicing capacity assignment as an incentive to promote more sustainable grade-related developments and buildings up to three storeys high in York Region. Developers meeting Program criteria and requirements may qualify for servicing capacity assignment credits of 20 per cent based upon population. This percentage is based on the number of residential units requiring standard allocation from the local municipality.

Program Eligibility

To be eligible for Program entry, the proposed development must satisfy all applicable Regional Official Plan policies without the need for a major Local Official Plan amendment. The applicant and the development team must also attend a pre-application meeting with Regional and local municipal staff. At the pre-application meeting, the applicant must submit a letter to the Region and local municipality expressing interest in the Program and outlining the proposed servicing capacity assignment credits being requested for the development.

For developments serviced by stand-alone water and wastewater systems, the Region at its sole discretion will carry out a system capacity assessment to determine if capacity assignment credit (if any) can be provided. This will ensure credits can be awarded without compromising the safe operation of the water and wastewater system at the time of request, based on the most current plant performance data.

Program Requirements

Developments applying to this Program must meet requirements related to Program objectives identified in Figure 1 to the satisfaction of York Region and the applicable local municipality. The detailed requirements related to each objective are set out in the Program Guide to facilitate implementation.

Figure 1: Servicing Incentive Program Requirements

<p align="center">Water Efficiency</p>	<ul style="list-style-type: none"> • Reduce indoor and outdoor potable water consumption through integrating water efficient fixtures and appliances, and rainwater harvesting systems into the new homes
<p align="center">Wastewater Flow Reduction</p>	<ul style="list-style-type: none"> • Reduce wastewater flow by implementing the Region's Sewer Installation/ Performance Testing Specification • The specification includes improved design and construction techniques (i.e. requirements for sanitary maintenance holes and sewers, bulkheads, extraneous flow performance testing and inspection, and sanitary flow monitoring)

Monitoring mechanisms have been built into the Program to evaluate building and infrastructure performances. They include:

- Collecting and analyzing residential home water usage data to determine savings in indoor and/or outdoor water consumption
- Requiring the applicant to install wastewater flow meters to facilitate the collection and analysis of flow data

Servicing Capacity Assignment Incentive

SIP awards servicing capacity assignment credits of 20 per cent to qualified developments. For proposals that will be serviced by stand-alone water and wastewater systems (i.e. Nobleton, Mount Albert), Regional staff will conduct an internal assessment to determine the incentive percentage (up to 20 per cent) and equivalent units the proposed development is eligible to obtain, based on information exchanged at the pre-consultation meeting.

The servicing capacity assignment incentive is calculated as shown in the example below:

For example:

If a proposed development contains 100 units (80 townhouse and 20 single detached units) and qualifies for the 20% Servicing Capacity Credits, the following formulas should be used to calculate:

1. population equivalent to the proposed units
2. local municipal servicing allocation commitments
3. servicing capacity credit units awarded through this incentive program

1. **Proposed Population** = proposed units x persons per unit (PPU) factor (by housing type and municipality)
= 80 x 2.7 (ppu) + 20 x 3.1 (ppu)
= 278 persons

2. **Local Municipal Servicing Allocation Commitment** = proposed population ÷ (1 + incentive)
= 278 / 1.2
= 232 persons

3. **Servicing Capacity Assignment Credits** = proposed population – local municipal regular allocation
= 278 - 232
= 46 persons

Participants in this Program do not “own” the capacity assignment credit earned through SIP. The credit will be extended to the local municipality to assign in accordance with their respective allocation policies.

Third-Party Certification Requirement

The applicant is required to obtain third-party certification from a Professional Engineer licensed under the Province of Ontario, verifying the development:

- Achieved the water efficiency requirements of the Program
- Is equipped with the required water meters to measure indoor and outdoor potable water consumption
- Has been constructed to meet York Region's Sewer Installation/ Performance Testing Specification

Tri-Party Agreement

The applicant is required to enter into a Tri-Party Agreement between York Region, local municipality and the applicant. This Agreement will outline the Program's terms and conditions, including conditions that must be met to achieve and secure the servicing capacity assignment credit.

Letter of Credit Requirement

This Program requires applicants to post Letters of Credit in the amount of \$3,000 per credit person within the proposed development or a minimum of \$100,000 whichever is higher.

The Letter of Credit amount is calculated as follows:

For example, if a developer qualifies for servicing capacity assignment credits equivalent to 20% of the units within a 120 unit subdivision of single detached dwelling units with a PPU (persons per unit) of 3.25, the Letter of Credit equals 65 credit persons x \$3,000 = \$195,000.

To initiate release of the Letter of Credit, the program applicant must satisfy the following:

- Acceptance by the local municipality and York Region of all works constructed (including the completion of flow monitoring)
- Documentation from third-party certification verifying that the development as well as each home within the development was built according to water efficiency standards and the Region's Sewer Installation/ Performance Testing Specification attached to the SIP Implementation Guide

Upon review of the material and with concurrence from the local municipality, the Region will confirm if the Letter of Credit can be released. If the applicant is unable to achieve certification and/or pass local and Regional inspection requirements, the Region will draw upon the securities to fund remedial works in the development and/or carry out retrofits under the Regional water conservation and inflow and infiltration reduction programs.

Application Process

To secure servicing capacity assignment credits through the Program, the applicants need to follow an application process which requires the execution of a Tri-Party Agreement, submission of a conformity report and posting of securities, as described in Figure 2.

Figure 2: Servicing Incentive Program Application Process

