

- 5. Feedmill Creek Stormwater Management Criteria Study, Stream Rehabilitation Class Environmental Assessment, and Area-specific Background Study for Feedmill Creek In-stream Measures**
- Étude de gestion des eaux pluviales du ruisseau Feedmill, évaluation environnementale de portée générale sur la remise en état du ruisseau Feedmill et étude préliminaire sur les redevances d'aménagement d'application restreinte relatives aux travaux dans le ruisseau Feedmill**

Committee recommendations, as amended

That Council:

- 1. approve the filing of the Class Environmental Assessment for the Feedmill Creek Stream Rehabilitation Measures, listed as Document 1, for the 30-day public review period in accordance with the *Ontario Environmental Assessment Act*;**
- 2. approve the City of Ottawa Area-specific Development Charge Background Study for Feedmill Creek In-stream Measures, listed as Document 2, and authorize the enactment of the implementing Feedmill Creek In-stream Measures Development Charges By-law, 2020, as amended by the following:**
 - a. that the following amendments be made to subsection 8(4) of the draft By-law:**
 - in clause 8(4), add the words 'plus applicable H.S.T', such that the revised clause reads "(4) An amount of \$566,000.00, plus applicable H.S.T., shall be due from the Kanata West Owners Group Inc. in accordance with the following:"**
 - in clause 8(4), subsection (b), add the words 'plus applicable H.S.T', such that the revised subsection reads "8(4)(b) The agreement shall provide for two payments, one for \$200,000.00, plus applicable H.S.T, and one for \$356,000.00, plus applicable H.S.T."**

- in clause 8(4), subsection (c), add the words 'subsection (2) and', such that the revised subsection reads "8(4)(c) The amounts set in subsection (2) and clause (b) may be adjusted upon certification by the Treasurer and the General Manager, Planning, Infrastructure and Economic Development Department that such is appropriate based upon the principles in the background study."
3. approve that no further notice be given, pursuant to the *Development Charges Act*, subsection 12(3).

Recommandations du Comité, telles que modifiées

Que le Conseil

1. approuve le dépôt de l'évaluation environnementale sur la remise en état du ruisseau Feedmill, inscrit en tant que document 1, pour la période de consultation publique de 30 jours, conformément à la *Loi sur les évaluations environnementales* de l'Ontario;
2. approuve l'étude préliminaire sur les redevances d'aménagement d'application restreinte relatives aux travaux dans le ruisseau Feedmill de la Ville d'Ottawa, inscrite en tant que document 2, et d'autoriser l'adoption du règlement municipal de mise en œuvre de 2020 qui en découle, dans sa version modifiée par ce qui suit :
 - a. que les modifications qui suivent soient apportées au paragraphe 8(4) du projet de Règlement municipal :
 - dans le paragraphe 8(4), veuillez ajouter les mots 'à laquelle s'ajoute la TVH applicable', afin que l'énoncé du paragraphe révisé soit «8(4) Une somme de 566 000 \$ à laquelle s'ajoute la TVH applicable doit être payée par Kanata West Owners Group Inc. conformément à ce qui suit :»
 - dans l'alinéa (b) du paragraphe 8(4), veuillez ajouter les mots 'auquel s'ajoutera la TVH applicable, afin que l'énoncé de l'alinéa soit «8(4)(b) Cette entente doit prévoir deux versements : un de 200 000 \$ auquel s'ajoutera la

TVH applicable, et un de 356 000 \$ auquel s'ajoutera la TVH applicable.»

- **dans l'alinéa (c) du paragraphe 8(4), veuillez ajouter les mots ' au paragraphe (2) et ', afin que l'énoncé de l'alinéa soit «8(4)(c) Les sommes indiquées au paragraphe (2) et à l'alinéa b) peuvent être ajustées si le trésorier et le directeur général de la Planification, de l'Infrastructure et du Développement économique attestent que l'ajustement est approprié d'après les principes mentionnés dans l'étude préliminaire.»**

3. **approuve qu'aucun nouvel avis ne soit donné en vertu du paragraphe 12(3) de la Loi sur les redevances d'aménagement.**

Documentation/Documentation

1. Director's report, Infrastructure Services, Planning, Infrastructure and Economic Development Department, dated November 26, 2019 (ACS2019-PIE-IS-0007)

Rapport de la Directeur, Services de l'infrastructure, Direction générale de la planification, de l'infrastructure et du développement économique, daté le 26 novembre 2019 (ACS2019-PIE-IS-0007)

2. Extract of draft Minutes, Planning Committee, December 12, 2019
Extrait de l'ébauche du procès-verbal du Comité de l'urbanisme, le 12 décembre 2019

**Report to
Rapport au:**

**Planning Committee
Comité de l'urbanisme
12 December 2019 / 12 décembre 2019**

**and Council
et au Conseil
29 January 2020 / 29 janvier 2020**

**Submitted on 26 November 2019
Soumis le 26 novembre 2019**

**Submitted by
Soumis par:**

Alain Gonthier

Director / Directeur

**Infrastructure Services / Services de l'infrastructure
Planning, Infrastructure and Economic Development Department / Services de la
planification, l'infrastructure et du développement économique**

Contact Person / Personne ressource:

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**Planning, Infrastructure and Economic Development Department / Services de la
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**Ward: KANATA NORTH (4) / KANATA
NORD (4) WEST CARLETON-MARCH
(5) STITTSVILLE (6) RIDEAU-
GOULBOURN (21)**

File Number: ACS2019-PIE-IS-0007

**SUBJECT: Feedmill Creek Stormwater Management Criteria Study, Stream
Rehabilitation Class Environmental Assessment, and Area-specific
Background Study for Feedmill Creek In-stream Measures**

OBJET: Étude de gestion des eaux pluviales du ruisseau Feedmill, évaluation environnementale de portée générale sur la remise en état du ruisseau Feedmill et étude préliminaire sur les redevances d'aménagement d'application restreinte relatives aux travaux dans le ruisseau Feedmill

REPORT RECOMMENDATIONS

That Planning Committee recommend Council:

1. Approve the filing of the Class Environmental Assessment for the Feedmill Creek Stream Rehabilitation Measures, listed as Document 1, for the 30-day public review period in accordance with the *Ontario Environmental Assessment Act*.
2. Approve the City of Ottawa Area-specific Development Charge Background Study for Feedmill Creek In-stream Measures, listed as Document 2, and authorize the enactment of the implementing Feedmill Creek In-stream Measures Development Charges By-law, 2020.

RECOMMANDATIONS DU RAPPORT

Que le Comité de l'urbanisme recommande au Conseil :

1. d'approuver le dépôt de l'évaluation environnementale sur la remise en état du ruisseau Feedmill, inscrit en tant que document 1, pour la période de consultation publique de 30 jours, conformément à la *Loi sur les évaluations environnementales* de l'Ontario.
2. d'approuver l'étude préliminaire sur les redevances d'aménagement d'application restreinte relatives aux travaux dans le ruisseau Feedmill de la Ville d'Ottawa, inscrite en tant que document 2, et d'autoriser l'adoption du règlement municipal de mise en œuvre de 2020 qui en découle.

BACKGROUND

An update to the Carp River model in 2016 identified that significant increases in peak flow and water levels would occur on Feedmill Creek, a tributary to the river (see study area in Document 3), if future development were to apply the previously accepted Stormwater Management (SWM) criteria established in the Kanata West Master Servicing Study (Stantec, 2006). This servicing study did not consider all future

development within the Feedmill Creek subwatershed that is projected to take place outside the Kanata West area. As a result, the City of Ottawa retained JF Sabourin and Associates Inc. to review flood and erosion control criteria considering the projected build-out development within the subwatershed (refer to Document 4).

The study recommended an optimal combination of SWM criteria and in-stream rehabilitation measures that would best mitigate the impacts of future development on stream function, peak flows and flood levels. This includes setting quantity control criteria for flood control purposes and quantity and runoff volume control for erosion control purposes.

This report summarizes the results from (i) the Feedmill Creek SWM Criteria Study and (ii) the Class Environmental Assessment (Class EA) for the in-stream rehabilitation measures proposed in the Feedmill Creek SWM Criteria Study. This report also provides the basis for an Area Specific Development Charge needed to finance the rehabilitation measures.

DISCUSSION

PART 1 – Feedmill Creek Stormwater Management Criteria Study

The Feedmill Creek subwatershed covers an area of 1,070 ha and is located within the west end of the City's urban area. The majority of the Feedmill Creek subwatershed is either already developed or expected to remain in its current state. However, approximately 175 ha of additional land within the subwatershed could be developed under the ultimate build out scenario, based on the City of Ottawa's Official Plan.

The study involved an evaluation of impacts on Feedmill Creek, considering existing and future development conditions, and the SWM criteria established in the Kanata West Master Servicing Study (Stantec, 2006). The study included hydrologic, hydraulic, and fluvial geomorphic assessments, involving field investigations and numerical modelling.

The fluvial geomorphic assessment of Feedmill Creek was completed from Carp Road to the confluence with Carp River, to: characterize existing physical conditions and channel stability on a reach by reach basis; identify erosion thresholds; assess channel migration and hazard limits and develop an inventory of infrastructure along the creek.

The methodology for assessing maximum allowable peak flows and water levels (up to and including the 100-year event) from future developable lands is based on post-

development to pre-development peak flow control applied at the subwatershed level, and maximum allowable water levels at Ontario Ministry of Transportation (MTO) drainage structures (bridges and culverts).

The assessment determined that future development will increase erosion risk compared to current conditions even with the implementation of on-site SWM controls, per the approved Kanata West Servicing Study. More stringent SWM is required, in addition to more extensive in-stream rehabilitation works throughout the creek, than had been recommended in the servicing study.

A number of alternatives for mitigating future development impacts on Feedmill Creek were identified and developed, including storage in SWM facilities, Low Impact Development (LID) measures, and in-stream works.

The results of the assessment demonstrated that stream rehabilitation measures are required in addition to SWM controls to mitigate erosion risks along the creek.

The recommended SWM design criteria includes peak runoff controls and implementation to Low Impact Development (LID) controls to treat runoff from more frequent rainfall events.

The recommended in-stream works includes a combination of the following measures (refer to Document 5): creek re-alignment, rock vanes/weirs to stabilize the creek, re-grading to construct habitat, channel re-shaping, debris removal, bend protection/reinforcement, re-planting, riprap enhancement in culvert, repair of existing structures, bed stabilization, and culvert removal.

Further details with respect to the determination of the recommended SWM design criteria and the required in-stream works are provided in Appendix A of Document 1.

PART 2 – Feedmill Creek Stream Rehabilitation Measures Class Environmental Assessment

Under the provisions of the Ontario *Environmental Assessment Act*, the in-stream rehabilitation measures recommended in the Feedmill Creek SWM Criteria Study must be planned as a Schedule “B” project (“flood and erosion control works”). The Class EA Study was conducted in-house and the study report is provided in Document 1. A qualitative evaluation of two different alternatives was undertaken based upon environmental, economic and social factors to determine the preferred approach to mitigate the impact of future developments on Feedmill Creek.

The first alternative assumes development proceeding without any stormwater management controls. Based on previous recommendations presented in the approved Carp River Watershed/Subwatershed Study (Robinson, 2004) this alternative is not a viable solution as the resulting impacts would be unacceptable (increased flooding at MTO structures, increased erosion, etc.). The second alternative is based on the SWM criteria presented in the Feedmill Creek SWM Criteria Study (see Part 1) plus in-stream rehabilitation measures as presented in the Criteria Study.

The preferred solution is Alternative 2 (Stormwater Management + in-stream measures). The key benefits of the preferred alternative include:

- Consistency with the recommendations from the approved Carp River Subwatershed Study (Robinson, 2004);
- Long term sustainable strategy that will mitigate the impacts of future developments on stream function, peak flows and water levels;
- Protection of existing developments and future developable lands;
- Protection of existing infrastructure, including the Highway 417 crossings to the satisfaction of MTO;
- Enhancement of existing natural system habitats.

A functional design and a cost estimate were prepared to support the evaluation and inform the detailed design.

PART 3 – Implementation of Recommended In-stream Measures

Based on the City's Cost Estimate Classification System, the Class C cost estimate for the proposed in-stream rehabilitation measures is approximately \$1.8 million, 2019 dollars, including engineering, contingencies, and related City costs. This cost is to be shared by recent and future development within the subwatershed.

In 2006, a Class EA was undertaken in response to the recommendations of the Carp River Watershed/Subwatershed Study (Robinson, 2004). The Council-endorsed Class EA included in-stream measures at four locations near the downstream end of Feedmill Creek, east of the urban boundary, north of Highway 417. To date, some of the work recommended in the EA has already been completed by Kanata West Owners Group (KWOG) as part the KW Pond 6 development area.

An agreement with KWOG is anticipated which will involve a contribution of \$556K from KWOG to the in-stream measures as recommended in the current Feedmill Creek study. This is based on the current value of the work that was to be completed, per the 2006 EA.

The remaining project cost of approximately \$1.2 million, 2019 dollars, will be recovered by means of an Area Specific Development Charge (ASDC) distributed between the future residential and Industrial/Commercial lands based on the percentage imperviousness and net area of the development.

Detailed calculations of the ASDC is provided in Document 2. The cost sharing approach is considered to be the most equitable solution for all development proponents.

RURAL IMPLICATIONS

The vacant industrial lands located within the rural area of the Feedmill Creek subwatershed are expected to comply with the recommendations of the SWM Criteria Study and contribute to the cost of the creek rehabilitation through the ASDC.

CONSULTATION

A number of consultations involving the development industry, relevant agencies and the general public were carried out as part of the preparation of the Stormwater Management Criteria Study report, including:

- Information on Ottawa.ca.
- A Technical Advisory Committee (TAC) comprised of City staff from a variety of departments and representatives from Mississippi Valley Conservation Authority (MVCA), the Ministry of the Environment and Climate Change (MOECC) and the Ministry of Transportation (MTO).
- Meeting with local development industry representatives in 2016.
- Advertisements in newspapers.
- Online consultation December 2016 to January 2017.
- Email updates to key stakeholders, including development industry representatives.

- Negotiations with development industry representatives on project contributions (2017 to 2019).
- Signs erected in AG Reed Business Park to increase awareness among rural industrial landowners.

Feedback from the Class EA consultation process can be found in Document 6.

COMMENTS BY THE WARD COUNCILLORS

Councillor Sudds, Councillor El-Chantiry, Councillor Gower and Councillor Moffatt are aware of this report.

LEGAL IMPLICATIONS

There are no legal impediments to the adoption of the recommendations in the report. A right to appeal a development charges by-law is provided by the *Development Charges Act*. The *Environmental Assessment Act* provides the ability to request an individual environmental assessment during the thirty-day review period.

RISK MANAGEMENT IMPLICATIONS

Implementation of the recommendations from Feedmill Creek Stormwater Management Criteria Study and Stream Rehabilitation Class Environmental Assessment will effectively manage potential risks to Feedmill Creek as a result of development.

ASSET MANAGEMENT IMPLICATIONS

The recommendations, as outlined in this report, align with the [Comprehensive Asset Management Program](#), by providing approved levels of service, while balancing affordability, for present and future customers and communities, in the most effective and efficient way, through planning and design.

FINANCIAL IMPLICATIONS

The Class C cost estimate for the proposed in-stream rehabilitation measures is approximately \$1.8 million (2019 dollars). An agreement with KWOG is anticipated which will involve a contribution of \$556 thousand from KWOG. The remaining project cost of approximately \$1.244 million, 2019 dollars, will be funded through the proposed Area Specific Development Charge.

ACCESSIBILITY IMPACTS

The Feedmill Creek Stormwater Management Criteria Study and Stream Rehabilitation Class EA have no accessibility impacts.

ENVIRONMENTAL IMPLICATIONS

Implementation of the recommended SWM criteria and stream rehabilitation measures will mitigate the impacts of future development on the creek, avoiding unacceptable increases in flooding and erosion and maintain or improve existing stream function.

During construction, the environmental impacts are expected to be limited, and mitigation measures will be identified at detailed design.

TERM OF COUNCIL PRIORITIES

The project is consistent with the long-term sustainability goals for stormwater management. Implementation of the SWM criteria and stream rehabilitation measures will ensure unacceptable increases in flooding and erosion are avoided and will maintain or improve the health of the creek.

SUPPORTING DOCUMENTATION

- Document 1 Feedmill Creek Stream Rehabilitation Measures Class Environmental Assessment (distributed separately)
- Document 2 City of Ottawa Area-Specific Development Charge Background Study for Feedmill Creek In-stream Measures (distributed separately)
- Document 3 Study Area
- Document 4 Future Developments within Feedmill Creek Subwatershed
- Document 5 Proposed Stream Rehabilitation Measures
- Document 6 Comments Received During Class EA Consultation Period (distributed separately)

DISPOSITION

Following Committee and Council approval, the Feedmill Creek Stream Rehabilitation Measures Class Environmental Assessment Study report (see Document 1), will be

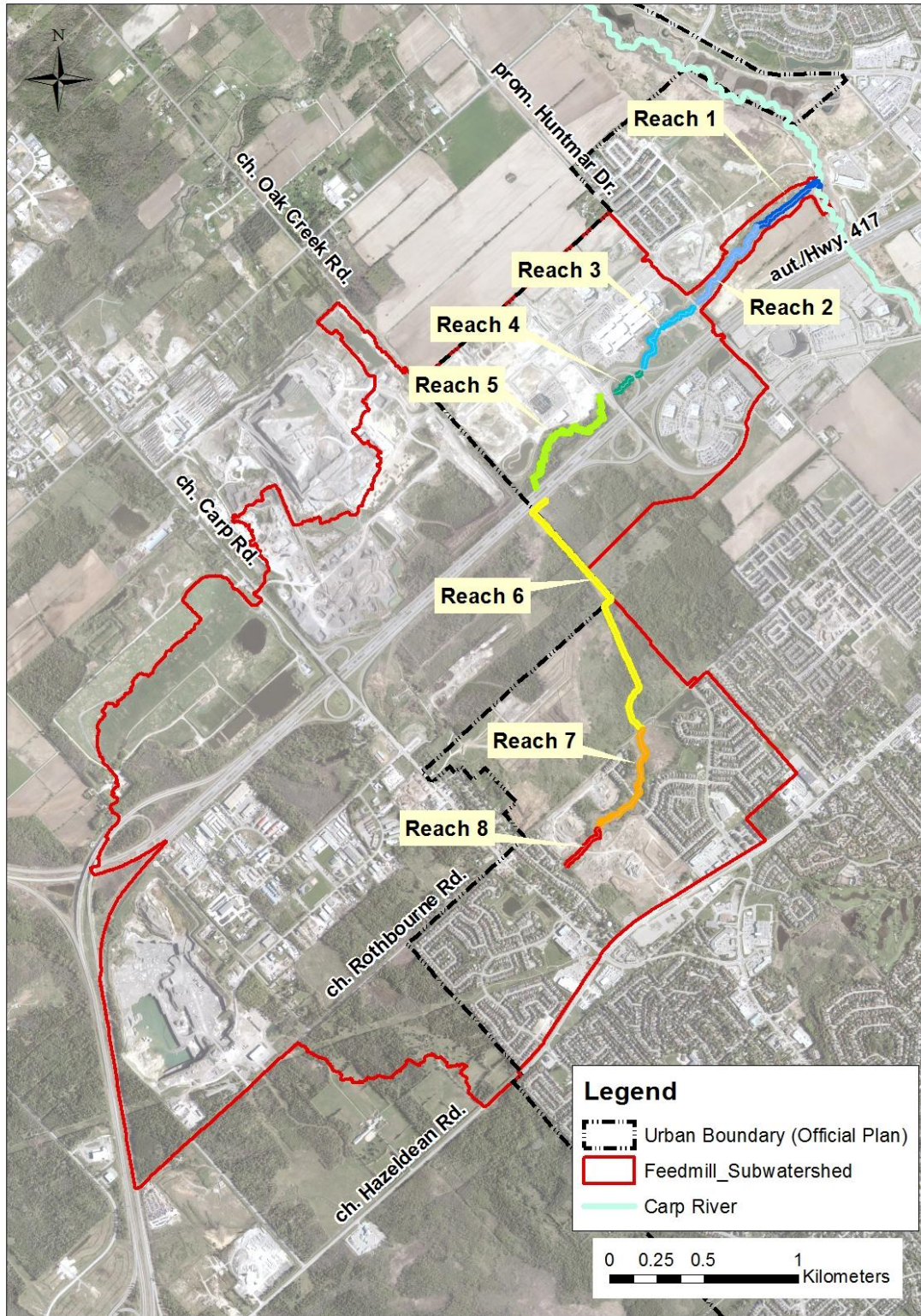
made available to the public for a 30-day review period in accordance with the Ontario Municipal Class Environmental Assessment Schedule "B" process.

Planning Services staff will apply the new stormwater management criteria to affected development applications.

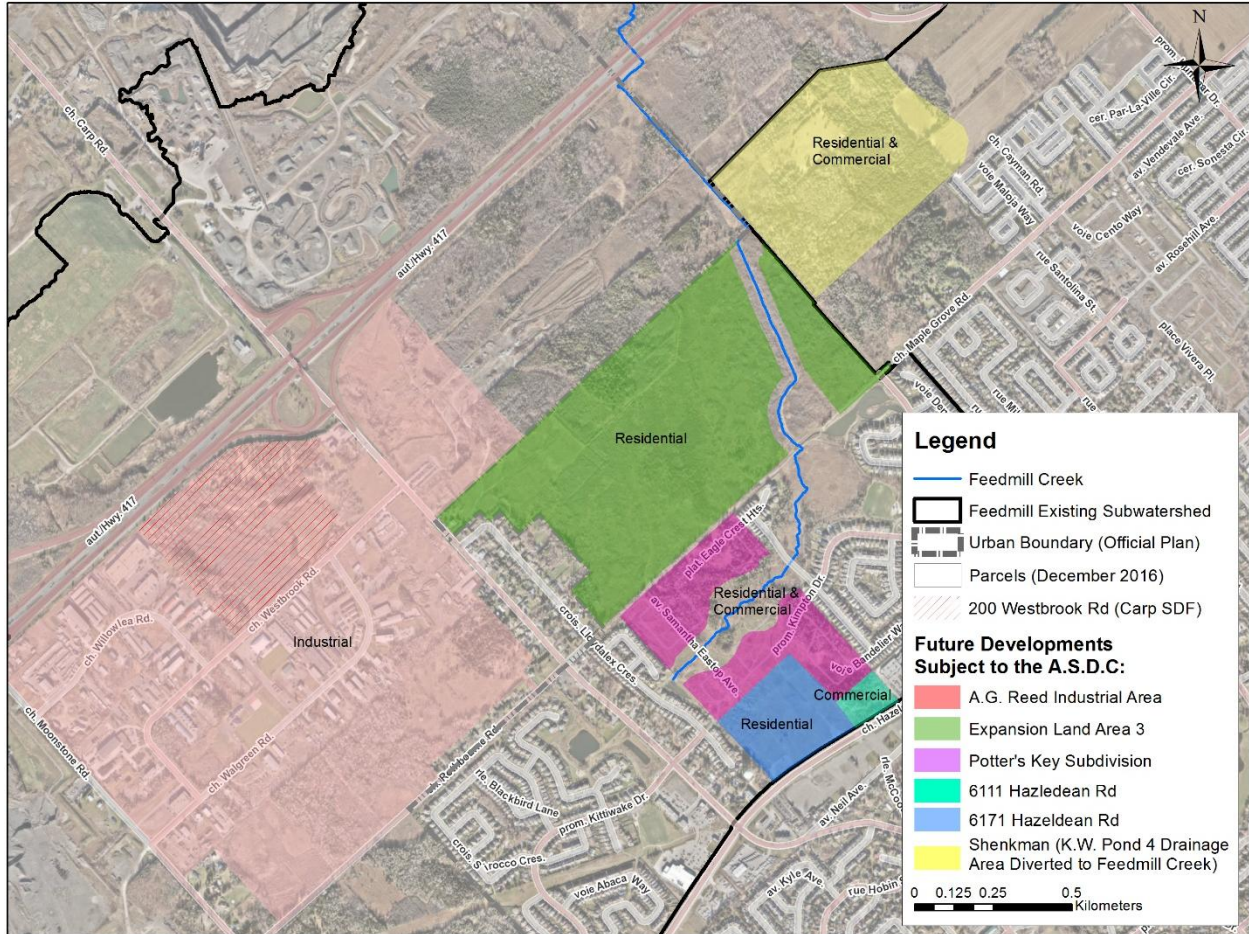
Legal Services will forward the draft development charges by-law to the Clerk's Department for enactment by Council. Notice of the adaption of the by-law will be given by staff in Planning, Infrastructure and Economic Development.

Legislative Services, Office of the City Clerk to notify Ottawa Scene Canada Signs, 415 Legget Drive, Kanata, ON K2K 3R1 of City Council's decision.

Document 3 – Study Area



Document 4 – Future Developments within Feedmill Creek Subwatershed



Document 5 – Proposed Stream Rehabilitation Measures

