



# **Ditch Alteration Business Process Review**

## **Technical Memo #3**

**March 23, 2022**

**FINAL**

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION</b>	<b>2</b>
1.1	Project Overview	2
1.2	Objective of this Technical Memorandum	2
<b>2.0</b>	<b>DITCH ALTERATION POLICY REVISIONS</b>	<b>2</b>
2.1	Strength, Weaknesses, Opportunities, and Threats (SWOT) Analysis Matrix	3
2.1.1	Strengths	3
2.1.2	Weaknesses	3
2.1.3	Opportunities	4
2.1.4	Threats	5
<b>3.0</b>	<b>TRANSITION RECOMMENDATIONS</b>	<b>5</b>
3.1	Stakeholder Matrix and Communication Plan	5
3.2	Background and Existing Information Assessment	6
3.3	Recommended Options for Change	6
3.4	Project Management Plan for Implementation	7
<b>4.0</b>	<b>MONITORING RECOMMENDATIONS</b>	<b>7</b>
<b>5.0</b>	<b>NON-COMPLIANCE AND ENFORCEMENT</b>	<b>7</b>
<b>6.0</b>	<b>COST RECOVERY</b>	<b>9</b>
6.1	Cost Recovery Overview	9
6.2	Saskatoon’s Montgomery Place Construction Project – A Case Study in Cost Sharing for Drainage Improvement Involving Ditch Reinstatement	9
6.3	Considerations for Cost Recovery for Ditch Alterations in Ottawa	11
<b>7.0</b>	<b>SUMMARY OF RECOMMENDATIONS</b>	<b>13</b>
<b>8.0</b>	<b>CONCLUSION</b>	<b>17</b>
<b>9.0</b>	<b>REFERENCES</b>	<b>18</b>

### List of Tables

Table 1:	Ditch Alteration Policy Strategic Goal	3
Table 2:	Markham Policy Existing Ditch Fill	4
Table 3:	Ditch Alteration Key Principles Gap	4
Table 4:	Ditch Alteration Risks	5
Table 5:	Cost sharing approach for drainage improvements and driveway restoration, Montgomery Place Storm Water Management Project	10

### List of Figures

Figure 1:	Stakeholder Matrix Prioritization	6
-----------	-----------------------------------	---

### Appendices

Appendix A:	Revenue Services Local Improvement Cost Recovery Procedure
-------------	--

## **1.0 INTRODUCTION**

### **1.1 Project Overview**

---

Roadside ditches are critical infrastructure of the City of Ottawa's overall engineered drainage network along municipal streets that have a rural cross-section. They exist throughout the city in various urban, village, and rural contexts. Ditches provide an important stormwater management function within the drainage network via quantity collection and conveyance controls. In addition to assisting in the collection and conveyance of run-off from adjacent lands, roadside ditches provide a roadway drainage role that assists in preserving the longevity and integrity of the adjacent roadways which are themselves vitally important municipal infrastructure. However, the purpose and multiple benefits derived from a well-maintained, functioning municipal roadside ditch network is not widely understood by residents.

The City of Ottawa, through staff across a wide variety of services including Roads, Right of Way, Development Review and Asset Management, receives regular requests from property owners requesting to alter or fill in the ditch within the municipal right-of-way adjacent to their property. The rationale for such requests is typically either to reduce maintenance or to improve aesthetics along the street lot line. In some cases, improper ditch filling or alteration activities are completed by property owners, without municipal review and authorization. Improper ditch filling or alteration may cause an array of detrimental effects to private property or to City infrastructure, both locally as well as to the extended drainage system, and at times requiring remedial action by the City.

The City has retained Parsons to provide a professional and objective third-party review of the matter of ditch filling and alterations. The work includes preparing a series of memorandums focused on ditch function and impacts of ditch alterations, a ditch alteration policy consistency review, and a City of Ottawa alterations business process review.

Following the completion of research and dialogue held with working group meetings of key City of Ottawa staff, it was recognized that the City's approach to Local Improvement and Ditch Alteration could be improved. There is an opportunity to increase consistency and transparency, as well as to better serve and educate property owners about the importance of ditches in protecting public and private property from damage and degradation.

### **1.2 Objective of this Technical Memorandum**

---

The objective of this technical memorandum is to use the information gathered within Technical Memo #2 – Ditch Alteration Policy Consistency Review to provide an informed solution for ditch alteration in the City of Ottawa. The AECOM report and the City of Markham documentation, as well as other municipality information presented in Technical Memo #2 will be used as background information to recommend and support the solution. Recommendations to revise and streamline the current Ditch Alteration Policy and associated business processes will be presented via the analysis of strengths, weaknesses, opportunities and threats associated with implementing a ditch infill program, completed within Technical Memo #2. This memo also provides recommendations to the City for the transition from current practices to future recommended practices, including a recommendation for monitoring the policy. In conclusion this memorandum provides the principles for a full cost recovery model to cover the cost of the strategies and recommendations identified within this memorandum.

## **2.0 DITCH ALTERATION POLICY REVISIONS**

The AECOM report Annex #3: Level of Service Framework – Roadside Ditches (Feb. 2019), referenced within Technical Memo #2, provides a very detailed review of the current City Ditch Alteration Policy (Policy). The report also identifies the strengths, gaps, additions, risks, proposed approach, conclusion, and recommendations. This information was used to guide the information provided within this section of the memorandum.

## 2.1 Strength, Weaknesses, Opportunities, and Threats (SWOT) Analysis Matrix

### 2.1.1 Strengths

The AECOM report highlights the City’s Ditch Alteration Policy strengths. Parsons is in general agreement with the report findings.

First and foremost, the City has a Policy that a vast majority of Ontario municipalities do not have. The City of Markham has, since the AECOM memorandum, created a Ditch Alteration Policy, and uses the same City of Ottawa Policy wording.

The City of Ottawa Policy’s strength is that it provides a guidance for approvals, scope, technical requirements, contraventions, enforcement, for ditch alterations. The requirement of an engineering assessment within the Policy clearly uses stormwater management best practices and states how the Policy will support them.

The City recognizes that the Policy does not fully address the current ditch alteration challenges being encountered within the City and is looking to focus on making the necessary amendments. Included in this Policy review is the review of best practices used in other Canadian municipalities or jurisdictions to update and improve the current Ditch Alteration Policy.

Lastly the City’s Policy is in alignment with Provincial Regulations, Municipal Plans and Strategies, By-laws, and specifically the Ontario Water Resources Act (1990), Local Improvement Charges – Priority Lien Status, Ontario Regulation 586/06 (2012), and Ontario Municipal Act (2001).

### 2.1.2 Weaknesses

Although there are strengths to the City’s Policy there are areas of weakness that can be improved upon.

As per the AECOM report one of the weaknesses or gaps within the current Policy is the fact that it is missing a Strategic Goal and there is some contradicting information between the Policy and the City’s overall stormwater management goals and subwatershed plans. See **Table 1** from the AECOM memorandum detailing this weakness.

Gaps	Notes
<b>Strategic Goal</b>	<p>The City’s background paper states the strategic goal of the policy as:</p> <p><i>“allow ditching filling where technically feasible based on catchment wide analysis and without detrimental impacts to public or private property, or to the quantity and quality of drainage”.</i></p> <p>This is a strong statement that clearly states the City’s desire to approve ditch alteration requests wherever possible. This statement does not match the purpose stated in the Policy, which is:</p> <p><i>“create an established process in order for the City to be better able to meet its obligations and expectations of property owners with respect to managing potential storm drainage conveyance issues associated with ditch alteration. Respecting an established process will allow ditch alteration in a controlled and consistent manner”.</i></p> <p>If the City wishes to establish a strategic goal of the Policy as well as a purpose, a Strategic Goal should be stated within the Policy. At present, there is no Strategic Goal. If the City views these as two separate items, this would be considered a gap in the current policy. As well, the City should ensure these two statements are aligned with one another.</p> <p>It is also important to note how these strategic goals are aligned with the City’s overall stormwater goals and subwatershed plans. Some of the City’s subwatershed plans call for lot-level green infrastructure such as swales and rain gardens. The infilling of ditches could be seen as contradicting these objectives.</p>

Source: AECOM Technical Memorandum #1, Stormwater Maintenance Reviews, Feb 2019

**Table 1: Ditch Alteration Policy Strategic Goal**

In both the City of Ottawa Policy and the Markham Policy the words “ditch” and “swales” are not clearly defined, and they are used interchangeably. The Markham Policy does not have a separate definition for “swale” although they do define “ditch” and “roadside ditch”. Parsons agrees with the AECOM recommendation that the Policy















compliant driveway crossings due to driveways wider than the maximum size of 6.1 meters, and/or driveways with no culverts.

**Project Description**

The City of Saskatoon is undertaking the Montgomery Place Construction Project to improve storm water drainage on portions of streets within the neighbourhood. The scope of work includes restoring ditches and culvert reconstruction to provide a flow path for storm water, and driveways on City-owned rights-of-way are impacted by the project. To reduce construction impacts in the neighbourhood, the project also includes water main replacement, lead-line connection removal and replacement, and road reconstruction at the same time. Based on correspondence with staff from the Saskatoon Water utility, ditch drainage improvement projects are very new to the City of Saskatoon, with the Montgomery neighbourhood receiving the first formal capital project.

**Public Engagement**

Formal public engagement was conducted by Saskatoon Water in June 2019 and February 2020. Engagement tactics included an open house and an online survey. Three options for drainage improvement were presented for consideration:

- Option 1: Status Quo (no drainage improvements)
- Option 2: Cost-Shared Drainage Improvements (costs of culvert installation and driveway restoration to be split between the City and property owners)
- Option 3: City-Funded Drainage Improvements (City to pay all costs for driveway reconstruction)

It was noted in the June 2020 report to City Council that neighbourhood residents had “mixed reactions” to the proposed drainage improvements. New underground storm water pipes were previously included in the infrastructure proposed for Montgomery Place, to be cost-shared by citizens through a neighbourhood improvement levy. However, neighbourhood residents rejected this proposal, and so consequently there was a decision to retain the ditch and culvert system.

**Costs**

Construction activity for this project was previously scheduled for 2020 but was delayed, to finalize cost-sharing options. Based on the results of the public consultation and internal analysis, City Administration recommended to the Standing Policy Committee on Environment, Utilities and Corporate Services as well as City Council to proceed with Option 2: Montgomery Place drainage improvements would be coordinated with other planned construction, and the proposed cost sharing program would be implemented for property owners with non-compliant driveways to install culverts and restore driveways across rights-of-way to existing conditions.

It was noted that the estimated cost to install culverts and restore driveways in the City right-of-way ranged from \$2,900 to \$34,000 per property, depending on the type of surface material (e.g., gravel, asphalt, concrete, or paving stone) and length. The cost-sharing approach approved by City Council for driveway restoration for individual properties was dependent on whether the driveway was compliant with the maximum width, and whether it currently had a culvert (**Table 5**). Property owners required to cost share were presented with the opportunity to decrease their culvert crossing width and/or alter restoration material to reduce their costs.

**Table 5: Cost sharing approach for drainage improvements and driveway restoration, Montgomery Place Storm Water Management Project**

Existing Condition	Cost Allocation
Compliant driveway (i.e., equal or less than 6.1 m width) crossing with culvert	→ City to pay all culvert installation and driveway restoration costs.
Non-compliant driveway crossing (driveway is greater than 6.1 m width) with culvert	→ City will pay costs equivalent to a standard asphalt driveway crossing, which includes a new culvert. Restoration costs exceeding the standard amount

Existing Condition	Cost Allocation
	of \$6,800 will be cost-shared (60% City / 40% property owner).
Non-compliant driveway crossing with no culvert	→ Property owner to pay 100% of culvert installation costs. Driveway resurfacing costs exceeding the standard amount will be cost-shared (60% City / 40% property owner).

Property owners also had the option to spread the costs out via a property tax deferral program, like that which exists for the lead pipe replacement program. *The Private Crossings Over Ditches By-law (2020)* was passed in 2020 to establish the authority for a tax deferral program to allow property owners to pay the costs of drainage improvements over time. Section 7 of the Bylaw states that “an owner of a property that has a non-compliant private crossing may be required to pay for the costs, or a portion of the costs, of installing drainage improvements.” The property owner can enter into an agreement with the City to pay the amount due over time, with deferral durations ranging from one year to ten years. The amount due includes administrative fees, which range from 0\$ to \$365 according to the length of time of the deferral.

The Montgomery Place drainage project was also funded in part by the Investing in Canada Infrastructure Program (ICIP) through the federal and provincial governments. Total ICIP eligible costs on the project are \$8,000,000 which includes a Federal contribution of \$3.2 million, and a Provincial contribution of \$2,666,400. The City contribution of \$2,133,600 was funded by the Storm Water Management Capital Reserve within Capital Project 1619 Storm Sewer Trunk and Collection.

### 6.3 Considerations for Cost Recovery for Ditch Alterations in Ottawa

The example of the Montgomery Place Drainage Improvement Project in Saskatoon, described above, involves a cost sharing approach for drainage improvements including driveway reinstatements in an area which relies on a system of ditches and culverts. The selected approach was not a full cost recovery model, as the City still covered a portion of the driveway reinstatement costs for non-compliant driveways – however this example highlights that there are tradeoffs associated with fully City-funded vs. cost shared vs. full cost recovery approaches for ditch alterations. The following recommendations could be considered by the City of Ottawa to enhance its approach to cost recovery for ditch alterations:

- Systematize enforcement before moving from cost sharing to full cost recovery:** Based upon our limited research we did not come across a Canadian municipality that uses a full cost recovery model to recover all costs associated with ditch alterations. A full cost recovery approach would be strongly aligned with the user-pay principle; however, this approach may be more difficult to implement than a cost-sharing approach and could face opposition from residents. During the public consultations for the Montgomery Place project, some residents raised concerns about being responsible for costs when they had not undertaken the illegal ditch and driveway alterations themselves, but rather had purchased properties where previous owners had done work. In some cases, driveway alterations were undertaken prior to the introduction of the City Standard. Comments from the public engagement noted that the City had a responsibility for enforcement which was not consistently exercised, and as such, the City was perceived as responsible for bearing some costs. To ensure a sound basis for a future full cost recovery model, the City of Ottawa could first work to make the enforcement process for illegal ditch alterations more systematic.
- Begin by establishing goals and objectives for cost recovery program:** Best Practices for the development of a full cost recovery plan for municipal water and sewage services have been identified under the auspices of the *National Guide to Sustainable Municipal Infrastructure*. While the Guide pertains to municipal water and sewage services in general rather than ditch alterations and

reinstatements, it is valuable in that it clearly lays out nine steps for establishing a full cost recovery plan, the first of which is to “Set goals and objectives”. The City of Ottawa should underpin a cost recovery program for ditch alterations with a clearly articulated set of goals and objectives.

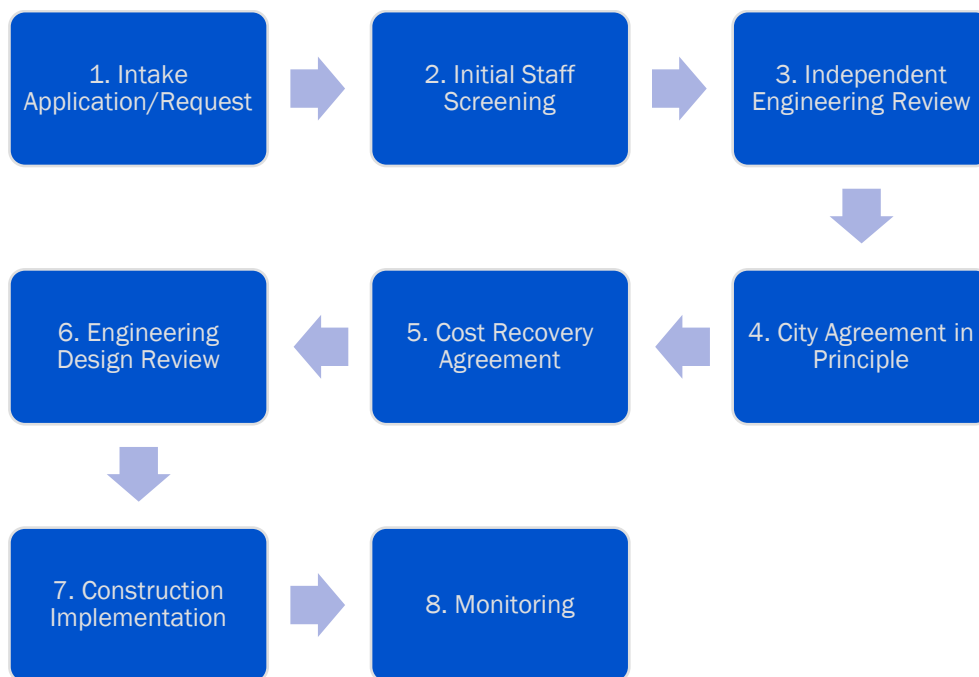
- **Entrench the user-pay principle:** The City of Saskatoon selected a cost sharing approach because it is aligned with the user-pay principle, meaning it reduces subsidization by those not benefitting from the improvements. A cost sharing approach recognizes that residents have a responsibility for ensuring that drainage is not impeded by private driveways or unauthorized ditch alterations, and that the drainage improvements would directly benefit these properties. When the City of Ottawa receives requests from property owners to alter ditches for reasons of beautification and reduced maintenance, these are benefits that will accrue to specific property owners. As such, it may not be perceived as fair to subsidize these costs from general storm water or other revenues. The City of Ottawa could entrench the user-pay principle explicitly within the Ditch Alteration Policy, either in Section 7.1 “Key Principles” or in Section 8.0 “Financing Principles”.
- **Explicitly identify the components of “all costs”:** Saskatoon’s Private Crossings Over Ditches Bylaw (2020) includes in its definitions section that administrative fees are included in the costs that property owners may be required to pay. In the current City of Ottawa Policy, Section 7.4 states that for a project to proceed in the rural area, the City have received written confirmation from the proponent agreeing to pay “all costs” associated with the ditch filling project. However, the definitions section (16.0) does not specify what the components of “all costs” are. To increase transparency in the administration of the Policy and establish a basis for full cost recovery, the revised Policy could explicitly list what is considered to form part of “all costs”. The components of full costs for ditch alteration projects can include hard costs (such as materials to construct and backfill the pipe), soft costs (such as the engineering assessment), and administrative fees including the cost of City staff effort to implement the program. The engineering assessment could alternately be a cost that applicants are expected to cover directly, rather than the City incurring a cost and subsequently seeking to recover it. Explicitly itemizing and including the list of “all costs” within the Policy could provide greater transparency and firmer justification to recover full costs from individuals requesting a ditch alteration for their property.
- **Identify roles and responsibilities for calculating full cost projects:** Section 9.0 of the current City of Ottawa Policy identifies roles and responsibilities of various City branches for administering the Policy. Financial Services is identified as having responsibilities for recovering costs incurred by the City to remove a non-compliant ditch alteration, however responsibility for establishing and calculating the full costs is not identified. To increase transparency and consistency, responsibility for this task could be identified as the purview of a particular Branch in the revised Policy.
- **Consider a tax deferral mechanism for a cost sharing program and recover administrative fees:** The City of Saskatoon provided the option for property owners to spread out the costs of drainage improvements via a property tax deferral program. This mechanism was similar to the cost sharing mechanism the City already had in place for the Lead Pipe Replacement Program. The City of Ottawa also has a Lead Pipe Replacement Program which could be used as a basis for establishing cost-sharing provisions for ditch alterations.
- **Combine multiple revenue sources:** The selection of a revenue source (or multiple revenue sources) for a cost recovery plan depends on several factors, including enabling provincial legislation; the scope for revenue generation relative to the costs that are seeking to be recovered; fairness and equity; legality of the charge; simplicity and customer comprehension; and ease of implementation. The Montgomery Place project was funded with a combination of revenue sources including property owner contributions, capital reserves from the Storm Water Utility, and provincial and federal funding. While stacking of multiple revenue sources deviates somewhat from the user pay principle, it could enable projects to advance more quickly and with a more robust scope than if user fees alone are relied upon. The City of Ottawa could investigate possible funding programs through the federal and provincial governments (such as the Investing in Canada Infrastructure Program). With current climate change initiatives, both

levels of government continue to invest in infrastructure renewals that will increase resiliency to the impact of climate change. Funding may also be available through the Federation of Canadian Municipalities (FCM).

## 7.0 SUMMARY OF RECOMMENDATIONS

In conclusion, while the City of Ottawa’s current approach to ditch alteration undoubtedly has several strengths, there are changes to policy and practice which could be adopted to streamline business processes and increase consistency and transparency.

The Local Improvement Process can continue to apply to cases involving ditch alteration requests from multiple property owners. In the event of future requests from individual property owners, it is recommended that a new business process be established to assist the City in responding to requests for proposed ditch alterations. The process involves these eight (8) steps:



### 1. Intake Application/Request

The first step in the business process would be for the requestor of a ditch infilling project to make contact with the appropriate City staff. The initiation could either be a formalized permit application form, or by means of an email to an identified staff. In either case, the City should provide a guideline document that specifies the information required by the City to intake the request, including a site map, photographs, and reason for the request.

### 2. Initial Staff Screening

Once the application/request is deemed complete by the City, staff will proceed to screen the application to determine if it is a candidate to undergo an engineering review. The requestor will be required to source and retain a qualified engineering to complete the assessment at the requestor’s cost. If staff determines that the request is merely for landscaping or aesthetic reasons, the processing of the request can be terminated at this time, and the requestor notified accordingly.

### 3. Independent Engineering Assessment

If the application/request is deemed complete, and the file has passed staff's initial screening, the case will be recommended to advance to an independent engineering assessment (see below). Should the assessment make favourable recommendations, the application/request and the recommendations will be reviewed by City staff. If the engineering assessment is not favourable, the request can be terminated at this time, and the requestor notified accordingly.

### 4. City Agreement in Principle

If the City reviews the engineering assessment, determines that the findings are keeping with the Official Plan, Infrastructure Master Plan, and associated by-laws and recommendations, and is in general agreement with the request/application, the City will notify the requestor that the municipality agrees in principle and will move towards a cost recovery agreement. If staff is not in agreement, the request can be terminated at this time, and the requestor notified accordingly.

### 5. Cost Recovery Agreement

If the City agrees in principle with the ditch infilling request, staff will propose a cost recovery solution that is appropriate to the context and will engage in dialogue with the requestor. The requestor will be required to sign a cost recovery agreement that addresses the City's costs in administering the process. A performance deposit to be held until the City's inspection and monitoring of the works is completed may also be appropriate. If the requestor does not sign the agreement, the request can be terminated at this time, and the requestor notified accordingly.

### 6. Engineering Design Review

Once the cost recovery agreement is executed, the requestor will be required to retain professional engineers to prepare engineering design drawings that meet the City's guideline. Alternatively, the City can retain qualified Engineering firms through the current Request for Standing Offer Process. Draft drawings will be reviewed by City staff and recommendations made. Once final drawings are agreed to by the City, a permit/approval will be granted by the City.

### 7. Construction Implementation

Once a permit/approval has been granted by the City, either the City will complete the works, or the requestor may proceed to retain a contractor to construct the works within the City's right-of-way. The choice will be ratified as a condition of the permit/approval.

### 8. Inspection and Monitoring

City staff will be required to inspect the construction of the ditch infilling project to determine compliance with the engineering drawings. The City shall also complete a one-year monitoring review, after which the performance deposit would be returned as appropriate, and the file closed.

Within the context of this business process above, the following policy considerations are identified.

**Parsons's emphasizes our recommendation that ditch alteration either on a lot-by-lot basis or multiple property alterations only be approved following a detailed engineering assessment of how the alteration will affect the stormwater management for the catchment area that the alteration is located within. The City's decision to approve or reject any proposed ditch alteration will informed by the engineering assessment recommendations. This assessment shall be undertaken by a qualified and experienced professional engineer, licensed in the Province of Ontario, and at the expense of the proponent.**

The City should not consider any alteration to a roadside ditch if the basis of this request is solely for aesthetic purposes only (e.g., to enhance current or proposed landscaping or for the ease of lawn mowing), which is

consistent with the benefits of Green Infrastructure from the Ministry of the Environment, Conservation and Parks new Low Impact Development Stormwater Management Guidance Manual (January 2022).

As a clarification to the current Policy, the City should determine if an Environmental Compliance Approval (ECA) is required from the Ministry of the Environment, Conservation and Parks (MECP) for the ditch alteration works. As these proposed works fall within the municipal road allowance, the City would be required to sign the ECA application form. However, the Fee associated with this application should be borne for the property owner(s).

The requirements for this detailed engineering assessment are currently outlined under *Section 7.3 Engineering Assessment of the Ditch Alteration Policy*. Since the current Policy was approved by City Council in 2008 the advancement of Low Impact Development (LID) Design Guidelines was not established until several years later. Therefore section 7.3 should be amended accordingly to recognize LID as a tool to implement sustainable stormwater practices that will help to ensure the continued health of our watersheds.

Additionally, the impacts of Climate Change need to be emphasized in recognition of the City of Ottawa's April 24, 2019 declaration of a Climate Change Emergency. The City's current Sewer Design Guidelines, Section 8.3.12 - Climate Change, provides the necessary criteria for this evaluation.

### **Streamlining Recommendations**

- **Strategic Goal:** Establish and explicitly state a Strategic Goal for the Ditch Alteration Policy, in alignment with the City's overall stormwater goals and subwatershed plans. As noted in section 2.1.2 some of the City's subwatershed plans call for lot-level green infrastructure, such as swales and rain gardens, the infilling of ditches could be seen as contradicting this objective.
- **Education:** Better educate property owners about the importance of ditches in protecting public and private property from damage and degradation. Methodology and Engagement Techniques have been proposed within the City's Public Engagement Strategy.
- **Maintain strengths of existing Policy:** Continue to require an engineering assessment within the Policy based on best practices for stormwater management.
- **Customer service principles:** Articulate guiding principles for Customer Service within the Policy.
- **Policy coherence:** Reconcile conflicting information between the Policy and the City's overall stormwater management goals and subwatershed plans.
- **Define and differentiate ditches and swales:** Establish clear definitions within the Policy to differentiate between the terms "ditch" and "swale" and differentiate the process requirements for the alteration of each.
- **Provincial policy implications:** Consideration of evolving Provincial requirements. The Ontario Ministry of the Environment, Conservation & Parks (MECP) has initiated the preparation of a Consolidated Linear Infrastructure ECA program. The province is also currently undertaking a comprehensive review of Ontario municipal stormwater management systems, including establishing requirements for infiltration and volume reduction. Until such time as these reviews have been completed and a new policy, act or legislation is established the existing legislation shall govern. The City should be aware of these continuing efforts, and potential implications such as amended stormwater management design criteria, increased monitoring, and data collection to ensure compliance.

### **Transition Recommendations**

- **Process mapping:** Outline and detail the current process for ditch alteration approval.
- **Stakeholder Matrix:** Create a stakeholder matrix using the principles established within the Public Engagement Strategy: Ditch Alteration Policy Review, including a flow chart illustrating stakeholders' current roles in the process.
- **Review of existing information:** Review existing design information to determine the need for additional engineering assessments.
- **Project Management Plan:** Create a Project Management Plan including a detailed scope of work.



- **Monitoring Plan:** Develop a plan for regular monitoring of existing ditch systems and any altered systems.

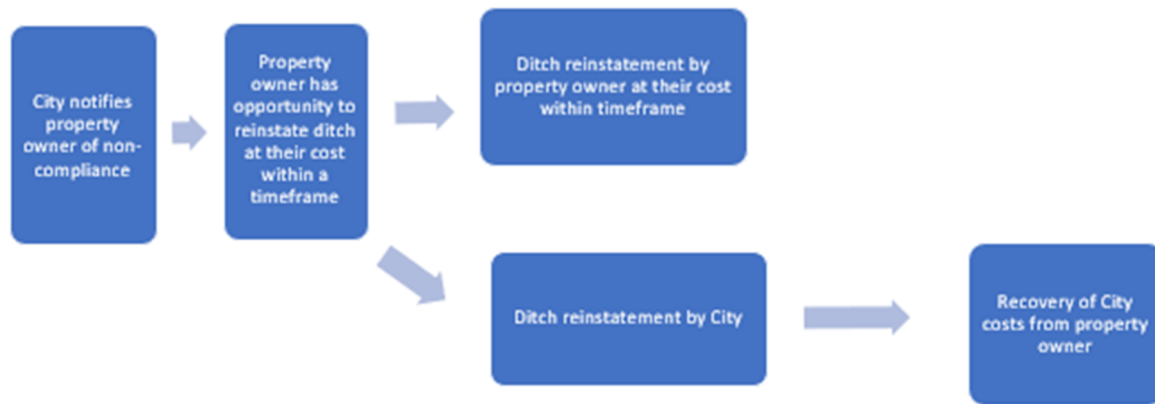
### **Non-compliance and Enforcement**

- The current Ditch Alteration Policy deals with ditch alterations that have occurred before adoption of the Policy and after adoption of the Policy. However, the mechanism for establishing non-conformance and enforcement is dealt with under the Use and Care of Roads By-law and Site Alteration By-law. Both these By-laws have been developed pursuant to the Ontario Municipal Act.
- The Ditch Alteration Policy should be a comprehensive document detailing not only Default and Remedial Action but, also Offences and Penalties or, at the very least reference the Use and Care of Roads By-law and Site Alteration By-law.
- Section 10 Contraventions of the current Policy includes a statement, that it is not the intention of the City to retroactively enforce non-compliant ditch alterations. However, it's our recommendation that the City should not preclude future enforcement or cost recovery possibilities based on whether a ditch was illegally infilled and/or reported before or after the introduction of the Policy.
- The City of Ottawa is currently formalizing an internal Enforcement Strategy. This will be a stepped enforcement strategy where the City notifies the property owner of the non-compliance, gives them an opportunity to reinstate the ditch to City standards within a set timeframe and if they don't then the City would complete the work and bill the resident the cost of the work. The enforcement strategy will be a general guidance document for staff to navigate a variety of issues they encounter within the City's right-of-way. Current City By-laws provides the necessary tools for enforcement to deal with illegal ditch infills.

The current approach process involving *Unauthorized Ditch Alteration installed Before Adoption of the Ditch Alteration Policy* involves the following steps.

- Identification of a non-compliant ditch alteration (although permitted installations that occurred prior to amalgamation will need to be examined according to the next step).
- City determination of detrimental effects or contribution to drainage issues (this provides an opportunity to take corrective actions based upon current drainage issues despite some alterations that may have been historically permitted).
- Written notice to property owner.
- Reinstatement of ditch by the City.
- Recovery of City costs from property owner to reinstate ditch.
- Recovery of non-payment of fines.

We are proposing a slight clarification to the current process, permitting the Property Owner to undertake the recommended remedial works, as identified by the City, which is outlined below.



### Cost Recovery Recommendations

- **Systematize enforcement before moving from cost sharing to full cost recovery:** This can be a precursor to establishing a future cost recovery approach.
- **Begin by establishing goals and objectives for cost recovery program:** Adhere to the National Guide to Sustainable Municipal Infrastructure’s nine step best practice process for establishing a full cost recovery plan including establishing goals and objectives tailored to local conditions.
- **Entrench the user-pay principle in the Ditch Alteration Policy:** Reduce subsidization by those not benefitting from the improvements.
- **Explicitly identify the components of “all costs”:** To increase transparency in the administration of the Policy and establish a basis for full cost recovery, the revised Policy could explicitly list what is considered to form part of “all costs”.
- **Identify roles and responsibilities for calculating full cost projects:** This could be identified as the purview of a particular Branch in the revised Policy.
- **Consider a tax deferral mechanism for a cost sharing program and recover administrative fees.**
- **Combine multiple revenue sources:** Such as the Investing in Canada Infrastructure Program and funding opportunities with the Federation of Canadian Municipalities (FCM).

## 8.0 CONCLUSION

In the City’s own words (Local Improvement Policy Review and update of Ditch Alteration Policy Report to Standing Committee on Environmental Protection, Water and Waste Management on November 16<sup>th</sup> 2021 and Council on November 24<sup>th</sup>, 2021), “By delivering a simultaneous policy and business process review of Local Improvement and Ditch Alteration, staff can propose a robust program that aligns with the City’s long-term infrastructure and environmental objectives while providing the ability to control future unapproved alteration activity.”

The business process recommendations contained within this Technical Memorandum, as summarized above, along with the supporting policy directions should provide the City with the necessary clarity to satisfy Council’s direction to update the current Policy.

## 9.0 REFERENCES

1. AECOM Technical Memorandum #1 – Stormwater Maintenance Reviews and Levels of Service Framework, February 2019
2. City of Ottawa Use and Care of Roads By-law No. 2003-498
3. City of Ottawa Site Alteration By-law No. 2018-164
4. City of Ottawa Public Engagement Strategy, Ditch Alteration Policy Review, December 2021
5. City of Ottawa Project Charter, Policy and Business Process Review of Local Improvement and Ditch Alteration, May 2019
6. Ontario Ministry of the Environment, Conservation and Parks, Draft Low Impact Development Stormwater Management Guidance Manual, January 2022
7. Federation of Canadian Municipalities (FCM), Dedicated Funding (A Best Practice by the National Guide to Sustainable Municipal Infrastructure), August 2004
8. Federation of Canadian Municipalities (FCM) and National Research Council. Water and Sewer Rates: Full Cost Recovery, 2006
9. Federation of Canadian Municipalities (FCM) and National Research Council. Stormwater Management Planning (A Best Practice by the National Guide to Sustainable Municipal Infrastructure), 2005
10. City of Saskatoon. Montgomery Place Drainage Improvements  
[https://www.saskatoon.ca/engage/montgomery-place-drainage-improvements \](https://www.saskatoon.ca/engage/montgomery-place-drainage-improvements)
11. City of Saskatoon. Standard Ditch Crossing Culvert Requirements  
<https://www.saskatoon.ca/sites/default/files/documents/transportation-utilities/construction-design/construction-services/drawings/images/1020018009.pdf>
12. City of Saskatoon. The Private Crossings Over Ditches Bylaw No. 2020

**Appendix A:**  
**Revenue Services Local Improvement Cost Recovery Procedure**

## Revenue Services Local Improvement Cost Recovery Procedure

The cost recovery process begins once the project is closed. Planning in conjunction with the FSU determined through the by-law the total amounts for each benefiting property owner and supplies Revenue with this information.

\*O. Reg. 586/06 section 36

### Description

1. Payment Options
  - a. Revenue Collections prepares information and 'Notice of Special Assessment' with a list of payment options. (Straight payout vs payment plan)
  - b. The 'Notice of Special Assessment' with payment options is sent to the Benefitting Property Owners
    - i. Revenue Collections will handle all incoming inquires from property owners.
  - c. Benefitting Property Owners select a chosen payment option and return the 'Notice of Special Assessment' to the City's Revenue Services Department contact as identified on the Notice. (note partial payments are not allowed)
    - i. If the Property Owners select a payment plan. Revenue Collections sends the payment terms to Revenue Accounting, including the total requirement, interest rate, and the number of years amortized (including in the Special Assessment Notice).
    - ii. If the Property Owner fails to return their payment option preference, it will be assumed the annual repayment schedule is preferred.
  - d. Revenue Collections will track all letters sent and letter received.
2. Annual Billing
  - a. Revenue Accounting creates the amortization schedule for the local based on information included in the Special Assessment.
  - b. Revenue accounting notifies Tax Billing of the new local to be included on the final tax bills.
  - c. The City bills local charges annually on the final tax bills
  - d. Locals reports are generated by the Tax Billing consultant, and amounts are reviewed and confirmed by revenue accounting before final billing
3. Annual SAP entry
  - a. Entry is uploaded to SAP in June to transfer local improvement billings from local improvement revenue account to a long term receivables and interest account
4. Ownership changes
  - a. Review ownership changes for local improvements with interest-free periods
    - i. Some locals have an interest-free period which becomes void in the event of a change of ownership
5. Payouts
  - a. Owners with local improvement charges on their properties have the option to pay out the remaining balance of their loan at any time
  - b. When a payout request is received, revenue accounting calculates the payout amount based on the proposed payment date

- c. Once payment is received;
    - i. A payout statement is issued to the property owner
    - ii. Payment is moved from the tax account to the local improvement revenue G/L and the local improvement code is removed from the tax account
  - d. Amortization Recalculation
    - i. SAP entry is required to transfer local improvement payout from local improvement revenue account to a long term receivables and interest account
    - ii. A payout will also affect the following year's entry, and the payout must be accounted for
6. Tax Certificates
- a. When a tax certificate is requested, the following information regarding the local improvement is included;
    - i. Local description
    - ii. Year of expiry
    - iii. Annual charge
7. Sale of Land for Tax Arrears
- a. When an account is more than 2 years in arrears, the City may choose to start the sale of land for tax arrears process.
  - b. The sale of land for tax arrears process, among other things, will recover any Local Improvement amounts that have been billed on the tax bill but not paid.
  - c. Any Local improvement balance that has not yet been billed would be transferred to the new owner and continue to be billed annually until paid off.