

Appendix F Tech Memo #4: Implementation Plan



City of London Pollution Prevention Control Plan (PPCP) Update Study

Implementation Plan Technical Memorandum

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Version Updates

The following is a record of the changes/updates that have occurred on this document:

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1. Introduction

Following the City's analysis of the weeping tile disconnection program alternatives, **Tech Memo #3** recommended the implementation of a mandatory Point-of-Sale program as the preliminary preferred strategy to manage wet weather flows and reduce overflows to the Thames River and other tributaries.

This preliminary preferred strategy was initially presented at the Public Information Centre held on May 7, 2025. However, after additional feasibility analysis and discussions with the City, the strategy has since shifted to be a mandatory Point-of-Purchase program, with a focus on the buyer instead of the seller. This would involve a new by-law or amendment to the existing by-law, requiring buyers of qualifying properties to disconnect their existing weeping tiles if connected to the municipal sanitary sewer system. An inspection would be triggered at the Point-of-Purchase (i.e., when the title transfer is flagged to the City), and a Certificate of Compliance would need to be obtained, requiring successful disconnection if applicable.

The analysis summarized in **Tech Memo #3** showed that weeping tile disconnection across the City over a long time period would achieve significant wet weather overflow volume reduction, far exceeding the minimum F-5-5 requirement for volumetric capture at overflow locations. The implementation of this program would generally reduce pressures on the sanitary system, mitigate basement flooding risks, and improve environmental management by ensuring that rain runoff, snowmelt, and groundwater is routed to the storm system instead of the sanitary sewer system. Additionally, the reduction in wet weather flows could allow the City to reclaim sewer capacity within the existing system which could be allocated to future greenfield or intensification growth.

1.1. Aims & Objectives

This Implementation Plan outlines resource requirements and phasing and discusses the critical steps required for Council buy-in and by-law legality. The aim of the **Implementation Plan Tech Memo #4** is to ensure that the high-level aspects of the weeping tile Point-of-Purchase disconnection program are well documented and provide consideration for all parties involved in the program's execution. The following objectives will guide this Tech Memo and will help to achieve this aim:

1. Define roles and responsibilities of key parties
2. Establish administrative requirements, including clear eligibility criteria and exemption cases
3. Develop compliance and enforcement mechanisms
4. Outline the inspection process
5. Create a phased timeline for the implementation plan

1.2. Industry Review

No examples were found in Ontario or Canada implementing a Certification of Compliance by-law at the Point-of-Purchase. In the United States, a similar variation of this conformance by-law can be found which offers the power for enforcement to disconnect weeping tiles at the title transfer Point-of-Sale of a qualifying residential home.

To develop an effective implementation plan, relevant key parties within the industry have been identified for resource planning, coordination and administrative purposes. The following four major parties are anticipated to be involved in all stages of the program, and may have following responsibilities:

- **City Staff and Council members:** The City staff, with support from Council, would be responsible for implementing and overseeing the program. This includes performing inspections, enforcing compliance, and providing administrative and technical guidance to homeowners. The legality of the by-law program will be overseen by the City's legal team.
- **Property Sellers:** Property sellers would be responsible for notifying potential buyers of any weeping tile disconnection work that has been previously completed and be able to provide a copy of the Certificate of Compliance, if applicable.
- **Real Estate Agents, Lawyers, and Property Buyers:** Real estate agents and lawyers would need to be aware of the disconnection requirements and would need to advise buyers of the requirements to obtain a Certificate of Compliance, if the qualifying property does not already have one. Buyers would be responsible for confirming if a weeping tile disconnection is required through a scheduled inspection with the City and would also be responsible for obtaining a Certificate of Compliance after the inspection. The timeline for inspection and compliance will be further assessed and determined in the future.
- **Licensed Contractors:** Professionals certified to work on plumbing, drainage, or foundation systems would be needed to perform the remediation. They would be responsible for ensuring that the disconnection meets technical and safety standards, including the Ontario Building Code (OBC).

1.3. City Staff Roles and Resources

A full-time employee (FTE), as defined by the City of London, is an individual who typically works 35 hours per week and 47 working weeks per year (excludes 1 week of sick time off and 2 weeks of vacation time off). To implement the disconnection program, and throughout its duration, the City would need to hire additional FTEs with a broad range of skill sets. These positions are briefly described below.

1. **Project Manager:** Oversee the program, ensuring that goals are met, timelines are followed, and resources are allocated efficiently and within budget. The Project Manager would also need to develop appropriate communication strategies to educate property owners about the program. This may include organizing workshops, preparing informational materials, managing a website, or handling inquiries from the public.
2. **Administrative Staff:** Assist with day-to-day administrative tasks, including processing Certificate of Compliance applications, maintaining records, scheduling inspections, and coordinating with licensed contractors. They must also manage communication with homeowners, including handling questions and complaints related to the Point-of-Purchase program which are expected to be high volume, especially in the beginning.
3. **Inspection and Compliance Officers:** Inspect existing drainage systems and identify potential weeping tile connection points. Ensure that the disconnection work is completed according to OBC standards and enforce compliance with the by-law.

4. **Licensed Disconnection Worker:** Excavate and prepare the site for disconnection and reconfiguration, install sump pits and pumps, test and seal, and ensure proper surface discharge. They must also make sure the work meets OBC standards and City quality control standards.
5. **Technical Support:** Provide support during weeping tile inspections and/or weeping tile disconnection work, whenever and wherever required. The objective is to learn and develop the skills required to eventually become an Inspection and Compliance Officer or a Licensed Disconnection Worker.

Example salary ranges for various FTE positions, as noted in **Table 1-1**, are high-level estimates and assumed to be base annual compensations that do not account for the cost of staff benefits, paid overtime, or annual wage increases.

Table 1-1: FTE Positions and Base Annual Compensations (as per CUPE Local 101)

FTE Position	#	Base Annual Compensation Range*
Project Manager	1	\$63,000-92,000
Administrative Staff (C05)	3	\$39,000-58,000
Inspection and Compliance Officer (C14)	Variable	\$62,000-90,000
Licensed Disconnection Worker** (C14)	Variable	\$62,000-90,000
Technical Support (C07)	Variable	\$43,000-64,000

* The base annual compensations shown in this table are high-level estimates only and do not account for the cost of staff benefits, paid overtime, or annual wage increases.

** The Licensed Disconnection Workers only required if the weeping tile disconnection and reconfiguration is performed in-house by City staff.

The total number of Inspection and Compliance Officers as well as Licensed Disconnection Workers will further assessed at a later date.

1.3.1. Coordination with Basement Flooding Grant Program

The existing *Basement Flooding Grant Program* would continue to be a voluntary and standalone initiative for homeowners who would not necessarily be planning to sell their home. Qualifying homes would benefit from the additional basement flooding protection measures offered by the program, such as a backup flow preventer and an additional sump pump battery, and may be eligible for rebates should the home also have past experience with basement flooding. It is important that the public is aware of the distinction between the program and the new by-law, in terms of eligibility for rebates or as a requirement after purchasing a property.

As a result of additional program visibility and public outreach, some increased workload may be expected for City staff working on the *Basement Flooding Grant Program*.

1.3.2. Coordination with City's Building Division

Should the initial inspection fail, and remedial work is required, the homeowner will need to submit a building permit application. A building permit is required for any construction on the property, including any work performed by a licensed contractor as part of the Point-of-Purchase program. The City's Building Division is responsible for reviewing and examining applications in accordance with the OBC. The status of the application can be tracked online using the existing Development and Business Portal.

The City's Building Division will need to be staffed with an appropriate number of additional inspectors (FTEs) to offset the increased workload expected due to the increased number of building permit applications once the by-law is implemented. Assuming the Building Division is appropriately staffed, the existing level of service can be maintained with no delays in the permitting process. This will help to resolve any issues in a timely manner and avoid any applicable enforcement penalties.

1.4. Licensed Contractors

Licensed contractors must be used to perform the disconnection of weeping tiles from the municipal sanitary sewer. As part of the implementation of the Point-of-Purchase Disconnection By-law, the City may either choose to have licensed City staff to complete the remedial work or allow homeowners to find their own preferred licensed private contractor. **Table 1-2** outlines the benefits (pros) and drawbacks (cons) of each option.

Table 1-2: Pros and Cons of Using Licensed City Staff vs. Private Contractors

	City Staff	Private Contractor
Pros	- City maintains greater control, ensures work will pass secondary inspection with minimal delay - Procedural consistency and standardization, reducing variance in quality or technique - Integrated process and easier coordination with other City staff, streamlining workflow - Reduced fraud risk to homeowners, avoiding subpar work by private contractors - Potentially lower upfront cost for homeowners, if using a flat rate - Council funding potential, included as part of the capital budget	- Cost competition between different contractors, potentially reducing overall costs for homeowners - More customization, allowing for bundling of additional services or renovations - Shifts liability for construction work from City to private contractor
Cons	Less scheduling flexibility and limited availability of City staff, leading to longer waiting times if not staffed appropriately	High potential for insufficient local market capacity (i.e., lack of plumber/contractor availability due to a sharp increase in annual property sales)

	City Staff	Private Contractor
	Increased liability, requiring additional coverage and cost for work insurance within homes and on private property	- Additional effort for homeowners to find and vet licensed contractors - Variable quality of work, if contractors do not follow industry best practices - Higher risk of non-compliance, requiring costly rework - Potential for disputes, requiring private resolution vs internal City recourse

If the City were to utilize their own staff to perform the remedial work, this could better ensure compliance and standardization; however, if there are not enough City resources available, a private contractor-based solution could offer more flexibility and potentially faster turnaround.

It is recommended that the City offer a blended approach to achieve the partial benefits of both options. Similar to how a Private Drain Connection (PDC) may need to be replaced if blocked, the homeowner will have the choice between using a qualified private contractor of their own choice or can request to have the City perform the remedial work for a flat-rate fee. The fee can either be paid as a lump sum or be added to the homeowner's property taxes over a 10-year period. Note that the flat-rate fee should be representative of the average market price, and the City may need to conduct bi-annual surveys of the market construction cost to ensure the price remains fair. The initial flat rate fee will be further assessed and determined in the future.

A low (25%), medium (50%), and high (75%) split can be used to anticipate the number of weeping tile disconnections completed using City staff. Note that this split may or may not be out of the City's control – however, there are different mechanisms that can be used such as setting a limit on a first come first served basis, where once reached, signals that the City is at capacity based on their established resources available.

2. Implementation Methodology

The overview schematic shown in **Figure 2-1** outlines the process for obtaining a Certificate of Compliance under the proposed Point-of-Purchase Disconnection By-Law, once implemented. It details the transfer of ownership trigger, the necessary weeping tile inspection conducted by City staff, the actions required if weeping tiles are connected to the sanitary system, and the Certificate of Compliance validation period. The timeline for inspection and compliance will be further assessed and determined in the future.

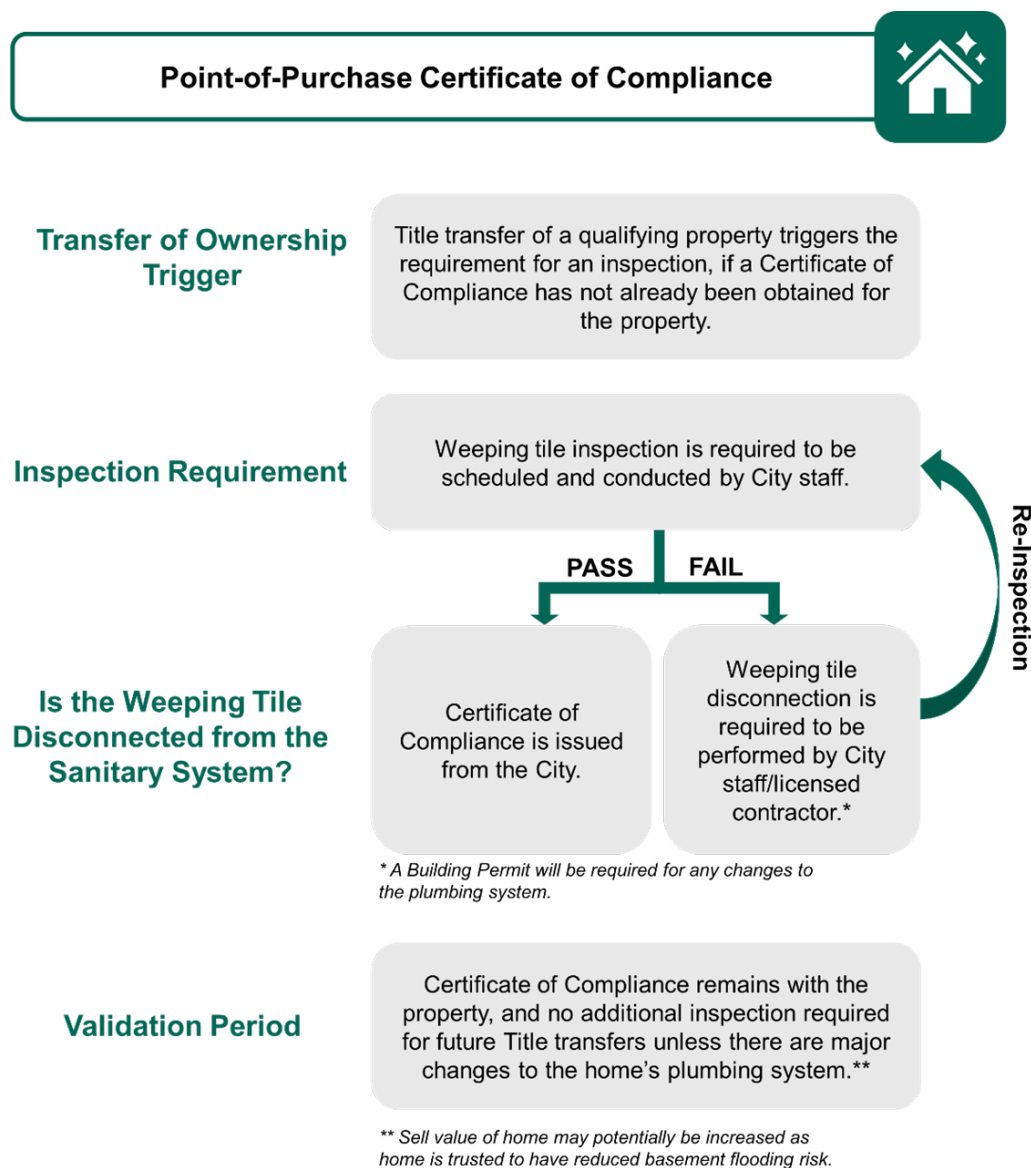


Figure 2-1: Overview Schematic of the Point-of-Purchase Certificate of Compliance

The seller is highly encouraged to complete the inspection and the required remedial work in order to obtain a Certificate of Compliance prior to closing. This could be a key selling point, and the sell value of the home may potentially be increased as the home has been inspected. However, the responsibility ultimately falls with the buyer once the property is transferred.

2.1. Inspection Process

Administrative requirements for the Point-of-Purchase inspection process mainly involve scheduling, checklist filing, and re-inspection scheduling, along with communications with homeowners regarding questions and complaints.

To aid in managing the administrative tasks, a simple platform can be set up to streamline the inspection process. Leveraging the existing platform used for building permit applications, homeowners would need to set up an online user profile that will allow them to schedule (re-)inspections, submit applications, review progress, follow-up after completion of remedial work, and access documents. This will help Administrative Staff to easily generate reports on the disconnection program progress, for example the number of inspections completed in a given timeframe.

2.1.1. Inspection Scheduling

An inspection is required for all single-family detached housing types to verify that no weeping tiles are connected to the municipal sanitary sewer system, if a Certificate of Compliance has not already been obtained for the property. The inspection must be scheduled via the website platform or over the telephone within a specified timeline of the property title transfer, and buyers should be proactive to avoid enforcement penalties. Note that inspections can also be scheduled at any point by the seller or an existing homeowner, subject to the availability of City staff.

Initial visual inspections can be assumed to take 0.5 hours, while a Building Sewer & Drain Inspections (BSDI) can be assumed to take 1.5 hours depending on access to the sanitary lateral pipe, which includes both the building sewer and the PDC. The inspections will be performed during the business hours between 8am – 4pm, Monday to Friday, not including any statutory holidays. To minimize travel time between properties, the Administrative Staff should ensure that each inspector is not overbooked, and the travel route for the day is made most efficient by grouping multiple inspections within the same geographic area. For example, if two Inspection and Compliance Officers were deployed on a given day where there were 3 properties to inspect in the northern part of the City and there were 3 properties to inspect in the southern part of the City, one area would be assigned to each Inspection and Compliance Officer for the most efficient inspection schedule.

2.1.2. Inspection Scenarios

Each inspection will require one Inspection and Compliance Officer (potentially accompanied by one Technical Support). **Figure 2-2** outlines three potential scenarios encountered during the 0.5 hour visual inspection, to determine whether there is an existing sump pump and pit and to confirm that the weeping tile is connected to it. Scenario 1 is the ideal system and results in a *pass* with no further inspections required. Scenarios 2 and 3 result in a *fail* and requires a further 1.5 hour assessment and report generation using BSDI. No excavation or invasive investigative work will be involved in the inspections, unless the homeowner would like to hire a 3rd party contractor to confirm the results, at their own expense.

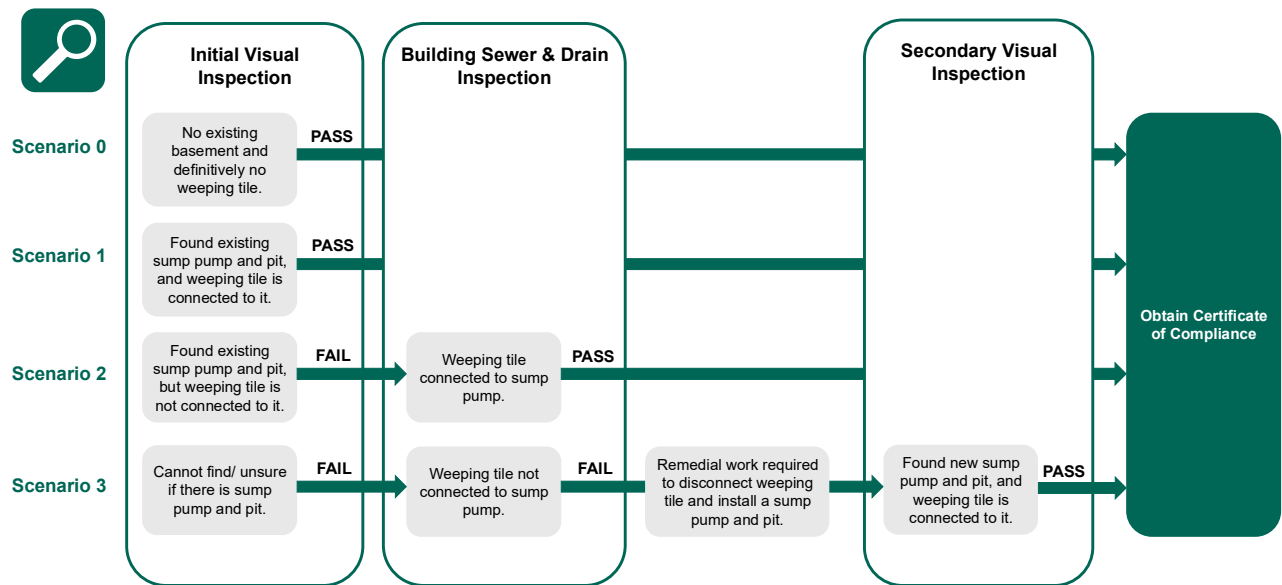


Figure 2-2: Inspection Scenarios

National Association of Sewer Service Companies (NASSCO)'s BSDI focuses on building sewers and drains and typically starts from an interior clean-out or very close to the building and goes down through the lateral toward the sewer main. The Inspection and Compliance Officers will need to become BSDI certified, which costs \$180 to complete a 1.5 hour course and exam, and requires recertification every three years. The reports generated would follow the same Pipeline Assessment Certification Program (PACP) condition-coding that the City is already familiar with. Inspection and Compliance Officers will need to have the appropriate equipment (any push camera with on-screen footage timestamp) on hand for every inspection.

Following BSDI, if a weeping tile is confirmed to be connected to a sump pump, it results in a *pass* and a Certificate of Compliance can be obtained in Scenario 2. However, if it results in a *fail*, then remedial work is required to disconnect the weeping tile and install a new sump pump and pit. In Scenario 3, an additional secondary visual inspection will be completed on a separate visit to review that the remedial work is correct, and then a Certificate of Compliance can be obtained.

2.1.3. Inspection Checklist and Record-Keeping

The initial inspection and re-inspection documentation will be completed via a checklist form. An example of the checklist form can be found in **Appendix A**, which includes a general information section, a visual inspection section, a BSDI section, and an inspection results section. Once the inspection has been completed, the homeowner will know immediately whether the inspection has passed or whether remedial work is required.

The physical copy of the checklist will be retained by the homeowner, to be passed along for future property sales, while the original copy will be filed for City record-keeping and can be access on the website platform.

2.2. Disconnection and Construction

While inspections themselves are not weather dependent and can be done in both dry and wet weather conditions, it is generally preferable that the actual weeping tile disconnection and reconfiguration be completed during dry weather conditions to facilitate the construction process for any work completed on the exterior of the property (i.e., installing the outlet to grade).

The remedial work must be completed within the specified timeline of the initial inspection date, and may vary from property to property, but the general construction process is described below. A schematic of a weeping tile, before and after disconnection, is also shown in **Figure 2-3**.

1. **Excavation:** Dig to access the existing weeping tile system.
2. **Reconfiguration:** Reconfigure the existing weeping tile to flow into the sump pit.
3. **Sump Pit Installation:** Install the sump pit in a suitable location in the basement or crawl space inside the home.
4. **Sump Pump Installation:** Install the sump pump inside the pit, ensuring it is correctly connected to the discharge line which ultimately discharges to the ground surface or storm sewer lateral, whichever is most feasible at the time of construction. Note that electrical work may also be required in order to install an isolated circuit for the sump pump.
5. **Testing and Sealing:** Ensure the system works effectively and seal off any openings.
6. **Restore to preconstruction condition:** Fill in what was excavated.

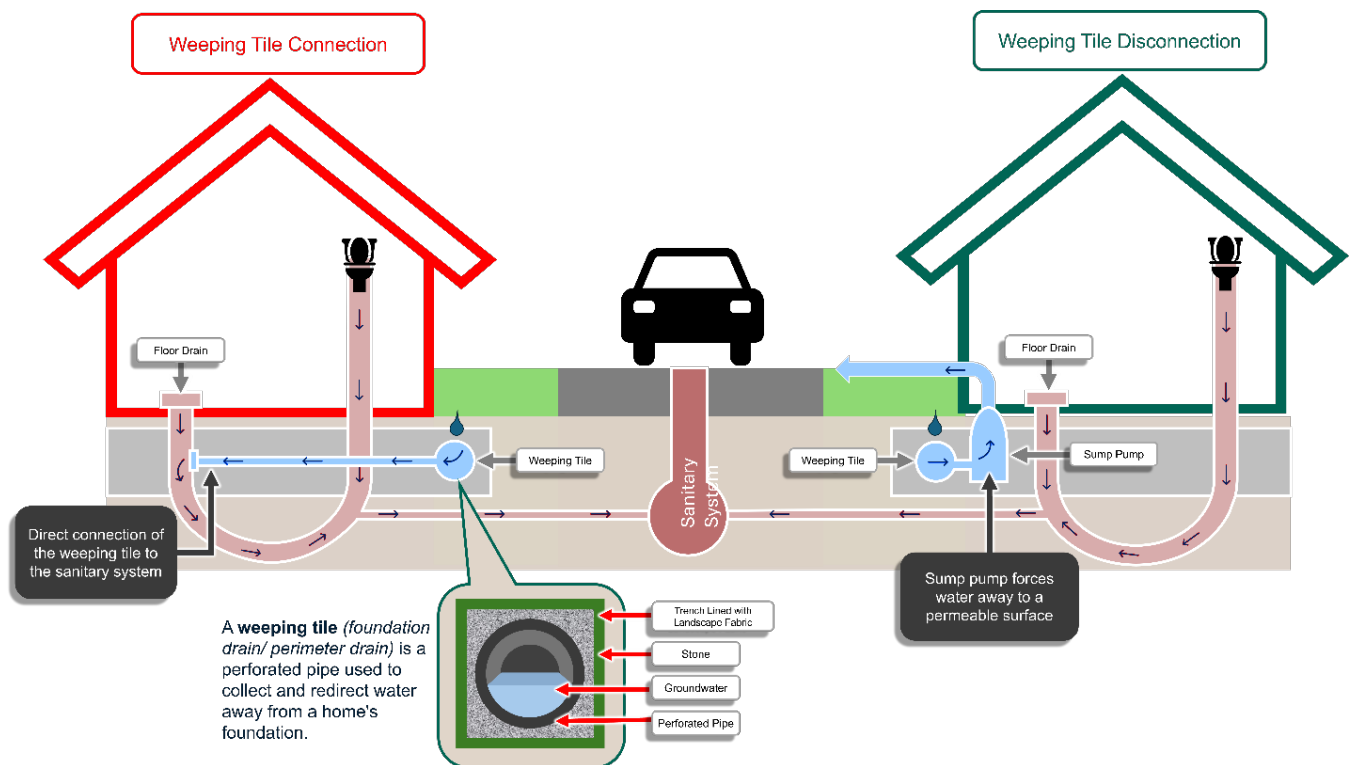


Figure 2-3: Schematic of a Weeping Tile Disconnection, Before and After

The licensed contractor will also need to ensure that the new drainage system meets the technical and safety standards as outlined in the updated 2024 OBC. The OBC sets out the minimum standards for construction, including drainage and foundation systems. While it does not explicitly cover weeping tile disconnections themselves, the OBC provides the framework for the proper management of foundation drains (weeping tiles) and installation of sump pumps and pits in a manner that prevents backflow and flooding. In general, the disconnection must not compromise the integrity of the drainage system or lead to water damage to the property or surrounding areas.

2.3. Certificate of Compliance Issuance

Once the property is clear of any weeping tile connections and the results section shows a Yes checked on the inspection checklist form, the homeowner can obtain a Certificate of Compliance from the City. The Certificate of Compliance will be issued via the website platform to be accessed by the homeowner.

The Inspection and Compliance Officer will scan and send a copy of the Inspection Checklist to the Administrative Staff who will then create a Certificate of Compliance based on the information on the checklist. This streamlined process will be integral as many inspections are anticipated per day and will help to avoid delays and enforcement penalties.

The Certificate states that the homeowner's property drainage system is compliant with the City's Point-of-Purchase Disconnection By-law. An example Certificate of Compliance is provided in **Appendix B**.

2.4. Enforcement and Validation

Enforcement of the Disconnection By-law occurs at the Point-of-Purchase, and the objective of enforcement is to ensure proper weeping tile disconnection is completed if a single-family detached home is determined to have an existing connection. It is the buyer's responsibility to schedule an inspection, complete remedial work, and obtain a Certificate of Compliance if one has not already been obtained for the property. Therefore, enforcement measures are only applicable to buyers of qualifying properties as part of the Disconnection By-law.

For example, the enforcement penalties are two-part based on the inspection and compliance timeline requirements:

- **Inspection timeline:** The City obtains record of when the title has been transferred for qualifying properties, which can further be confirmed by the Ontario Land Registry Office through their ONLAND online portal and/or through the Municipal Property Assessment Corporation (MPAC)'s online portal. Unless an initial inspection has been scheduled and completed within a specified timeline of the title transfer, the buyer will incur a monthly enforcement penalty which will be added to the property's water bill. The penalty will be terminated once the inspection has been scheduled and completed. A waiver cannot be purchased to extend the inspection timeline.
- **Compliance timeline:** Should a Certificate of Compliance not be obtained within a specified timeline of the initial inspection, due to pending remedial work, the buyer will incur a monthly enforcement penalty which will be added to the property's water bill. The penalty will be terminated once the remedial work is completed and the Certificate of Compliance is obtained. A

waiver can be purchased for special cases to extend the compliance timeline, which is further described in **Section 2.4.1**.

As well, the City may choose to use escalation measures for failure to adhere to the Disconnection By-law (i.e. failure to pay the enforcement penalties) via the water bill. When an account is not paid by the due date stated on the bill, a late payment charge will apply. Should the bill remain unpaid, the outstanding balance and additional administrative fees may be transferred to the property tax bill as per Ontario's Municipal Act.

Note that the enforcement penalties are solely for achieving weeping tile disconnection compliance, and not for generating profit. The exact amounts will be further assessed and determined in the future.

2.4.1. Certificate Waivers for Special Cases

Should the buyer require additional time to obtain a Certificate of Compliance, due to pending remedial work, then a waiver can be purchased. The full amount will be returned if a Certificate of Compliance is obtained within a specified timeline from when the waiver is issued, outlined in the guaranty. However, if a Certificate of Compliance is not obtained within this time, the waiver money will still be returned, but the buyer will incur a monthly enforcement penalty which will be added to the property's water bill, starting after a specified of the initial inspection. The cost of the certificate waiver and timeline will be further assessed and determined in the future.

2.4.2. Exemptions

Under the Disconnection By-Law, all single-family detached homes are subject to an initial visual inspection, however it is at the City's discretion whether to conduct the inspection.

New single-family detached homes that will be constructed after the Disconnection By-law has been implemented (i.e. January 1, 2028) will be exempted and therefore do not need to be inspected and required to obtain a Certificate of Compliance.

The City may also exempt eligible properties from requiring disconnection of their weeping tiles if there is no feasible way to construct a new sump pump and pit without undue disruption to either the interior or exterior of the home. These exemption situations will be noted on the Inspection Checklist Form. The homeowner may appeal whether their property should be exempted within 1 month of the inspection date, and if the appeal is successful, an additional visual inspection may be required.

2.4.3. Validation Period

It should be noted that the Certificate of Compliance remains with the property and can be accessed via an open database. No additional inspections are required for future title transfers unless there are major changes to the home's plumbing system which will requiring an inspection as part of the building permit application regardless. Therefore, the Certificate is assumed to be valid in perpetuity.

2.5. Implementation Schedule

The implementation schedule outlines the planned timeline for year 0, years 1-4, years 5-8, and years 9 and beyond, which aligns with the City's multi-year budget cycle. This will help to ensure that the Point-of-Purchase Disconnection By-law is executed in a structured and efficient manner, minimizing disruption to homeowners and optimizing resource allocation. In addition, it will be used to track the program's progress over time and allow opportunity for feedback from key parties to improve future iterations.

2.5.1. Year 0 (2027)

The primary objective for year 0 of the implementation schedule is to establish a baseline for the program, increase public awareness, and hire the necessary personnel.

Increasing public awareness is integral prior to implementation. The City would need to run public awareness campaigns to communicate with and educate the four major parties, as described in **Section 1.2**. This would involve sending out public notices/ informational brochures and holding multiple public workshop meetings.

Additionally, key resources will need to be obtained during year 0, including FTEs (licensed and certified), vehicles and equipment, and a website platform would need to be created.

2.5.2. Years 1-4 (2028-2031)

The primary objective for years 1-4 of the implementation schedule is to monitor early adoption and address any operational challenges.

During years 1-4, the following key performance indicators can be tracked:

- **Inspection Rate and Compliance:** # of properties inspected and # of properties requiring re-inspection (including data on home age, associated subcatchment area)
- **Operational:** average time for visual inspection and BSDI inspection, and average time complete remedial work if performed by a Licensed Disconnection Worker (City staff)
- **Financial:** average costs for homeowners to complete remedial work if using a private contractor (tracked via invoices if partially or fully subsidized), and average actual costs to complete remedial work if performed by Licensed Disconnection Worker

Using the key performance indicators, the City can create an annual progress report to Council and the public showing inspection rate and compliance data and program budget expenditures including remedial costs comparing private contractors versus City staff.

For the initial years 1-4, some unforeseen operational challenges may be expected which will require the City to promptly address them to facilitate smooth program rollout. Enhanced communication efforts with the public are recommended to avoid additional interface challenges.

2.5.3. Years 5-8 (2032-2035)

The primary objective for years 5-8 of the implementation schedule is to assess the mid-term performance and identify barriers for long-term adoption. The City should also continue to create annual progress reports using the key performance indicators listed above.

Using the basement flooding call logs and the inspection rate and compliance data, the City can generally assess which subcatchment areas within the sanitary sewer system are still under stress due to inflow and infiltration. Additionally, by tracking the number of weeping tiles disconnections, the hydraulic model can be used to simulate expected flow reduction based on known disconnection rates.

To help identify any barriers for long-term adoption, the City would benefit from having feedback forums to gain insights from key parties. Critical insights would be from homeowners who have gone through the entire Point-of-Purchase program process including both visual and BSDI inspections, completion of remedial work, as well as re-inspection to obtain a Certificate of Compliance. The City should also track the number of properties that have been penalized, and the # of months penalized (including data on whether a warranty was purchased) and their effectiveness in driving compliance. This will help to evaluate whether low-income, elderly, or marginalized homeowners are lagging in compliance due to potential financial inequity.

Based on the performance evaluation and key party feedback, the City may consider minor updates to the implementation plan to improve and effectively manage the program for years 9 and beyond. A proposal to Council in year 7 or 8, prior to the next multi-year budget cycle, will be required if an adjustment to the initial enforcement strategy and/or the financial support system is recommended.

2.5.4. *Years 9 (2036) and Beyond*

The primary objective for years 9 and beyond of the implementation schedule is to effectively manage the program, optimized for efficient use of resources and support.

With 8 years of data available on the number of homes inspected and disconnected, the City should review the updated property sales data and housing trends (from MPAC) to confirm that the program is still on track to disconnect the remaining single-family detached homes, as estimated by the low, medium, and high scenarios shown in **Appendix B**.

At this stage of the implementation schedule, the focus transitions from large-scale disconnection efforts to long-term program maintenance, including continued flow monitoring and compliance tracking to measure the long-term impact on sewer system capacity and resilience. Emphasis will be placed on optimizing resources by streamlining communications, reporting and oversight mechanisms. This sustained, low-intensity phase is designed to preserve the program's benefits while keeping operational demands to a minimum.

Although key parties will be familiar with all aspects of the program, occasional public meetings should still be held as an opportunity to educate the public, as necessary.

2.6. Legal Considerations

Creating a new municipal by-law requires careful attention to numerous legal considerations to ensure it is valid, enforceable, and resistant to legal challenges. Procedural fairness is essential as the by-law must be passed in accordance with the correct legislative steps as outlined above. Additionally, the language of the by-law must be clear, specific, and not overly vague, allowing homeowners to understand the requirements and enabling by-law enforcement officers to apply the enforcement measures consistently.

Should the by-law be challenged, the City's legal team can easily evaluate that the Point-of-Purchase Disconnection By-law appropriately serves a legitimate public interest without being oppressive.

To minimize legal risk, the new by-law will need to be reviewed internally by the City's legal and risk management team before it is introduced to Council. They will provide legal advice and assist the City in navigating the implementation of an unprecedented new by-law. A comprehensive review will help confirm compliance with legal standards and reduce the likelihood of future litigation.

3. Cost-Benefit Analysis

3.1. Costs

3.1.1. Program Costs

The total cost for the Point-of-Purchase Disconnection Program is a combination of the number of initial inspections completed (including visual and BSDI), the number of disconnections completed by City staff (depending on the split between Licensed Disconnection Workers and licensed private contractors), and the number of secondary inspections completed (to confirm the remedial work).

The cost for inspections can be more easily estimated since the number of inspections required is backed by 10 years of MPAC data to determine the average number of single-family detached homes sold per year. However, the cost to complete physical disconnections is much harder to estimate due to numerous uncertain or unknown parameters. For example, the exact cost of labour, vehicles, materials, and equipment is not yet known, and will depend on whether the City would require additional yard space to store their fleet of vehicles.

As the biggest cost component for the program would be the disconnection aspect, further study is recommended to fully understand all the cost associated with disconnection prior to implementing this program. It should be noted that in general the cost per disconnection would decrease as more disconnections are completed, as the capital investment and overhead expenditures by the City would be spread over a larger number of disconnection projects (i.e., it would be more cost-efficient to have a greater proportion of the disconnections completed by City staff, assuming that adequate resources are available). Council may also decide to fully-fund the remedial work required or provide partial rebates instead.

Other program costs include the labour costs for one Project Manager, three Administrative Staff, and variable Inspection and Compliance Officers, Licensed Disconnection Workers, and Technical Supports based on the number of inspections and disconnections anticipated. These staff quantities are similarly preliminary in nature and are subject to change based on further study. Public engagement costs for brochures/ notices, website management, and advertisements should also be included in overall program costs.

In summary, actual total estimated program costs will be determined at a later date.

3.1.2. Homeowner Costs

Homeowners will not be required to pay for any costs associated with the process of obtaining a Certificate of Compliance. However, unless otherwise subsidized or funded by the City, remedial costs to disconnect the weeping tile will be fully at the homeowner or buyer's expense. However, this cost can be considered easily absorbed into the final purchasing price of the home.

The aim of the Disconnection Program is not to generate profit, and any funds collected through this program (by using licensed City staff to complete the remedial work, or through enforcement penalties) will help to create a self-sustaining program to improve the resiliency and capacity of the sewer system, which is a benefit to all residents.

3.2. Benefits (Cost Savings)

3.2.1. Reduced Overflows to the Environment

Reducing sanitary sewer overflows primarily helps to repair the ecosystem and water quality of the Thames River over time, which addresses the concerns from local Conservation Authorities and First Nation communities. When these overflows are prevented through proactive source control measures, such as the Point-of-Purchase program, the City also avoids the high costs associated with environmental damage, public health risks, and legal liabilities. These savings can then be redirected toward other essential public services, making overflow reduction not only an environmental imperative but also a financially responsible strategy.

3.2.2. Reduced Basement Flooding Risk

By eliminating weeping tile connections, excess rainwater will be removed from the sanitary system, minimizes the frequency and severity of basement flooding through sewer backups. This will result in substantial cost savings for the homeowner as they would benefit from reduced insurance premiums due to lower likelihood of repeat flooding, and they would avoid any out-of-pocket expenses for non-insurance covered property damage rehabilitation, which may include mold removal or flooring replacement.

3.2.3. Reduced Infrastructure Upgrades to Support Future Growth

The Point-of-Purchase program is expected to generate significant long-term savings by deferring or avoiding the need for costly infrastructure upgrades. After implementation, peak flow volumes are expected to decrease during wet weather events, which will enable additional capacity within the existing system. As a result, major capital investments may not be required, such as upsizing trunk sewers, increasing pump sizes for pumping stations, or expanding wastewater treatment plants.

3.2.4. Reduced Operations and Maintenance at Facilities

Long-term operational and maintenance savings are expected from the decreased flow volumes entering the pumping stations and the wastewater treatment plants, reducing the overall pumping and treatment burden at these facilities. This translates into lower energy consumption, fewer maintenance requirements from wear and tear, and decreased operational costs associated with transporting and treating unnecessary flow. Additionally, by lessening the hydraulic loading on the treatment plants, the Point-of-Purchase program contributes to improved treatment efficiency and regulatory compliance, as well as frees up capacity for future growth.

4. Summary and Next Steps

The implementation plan outlined in the **Technical Memorandum #4** for the Point-of-Purchase Disconnection By-law will provide a structured and proactive approach for reducing the frequency and volume of overflows at all locations to meet the MECP Procedure F-5-5 requirements. The enforcement mechanisms outlined in this plan support a sustainable, cost-effective, and source-control focused solution to address environmental pollution, infrastructure strain, and basement flooding risks. It should be noted that consistent public education and coordination with real estate professionals and lawyers will be integral to the program's long-term success and adaptability.

It is the intent for this report to provide a basis for ensuring that adequate funding and resources will be acquired to meet the anticipated demand for inspections and disconnections, using the projected number of annual sales for single-family detached homes, according to MPAC data. With input from Council, outstanding decision items include the ideal split to perform the remedial work between in-house City staff (Licensed Disconnection Workers) versus licensed private contractors, and whether the remedial work required will be non-, partially-, or fully-funded by Council.

Next steps are to present to Council the recommendations of the City of London 2025 PPCP, including this Disconnection By-law implementation plan, and complete further study to determine actual program costs.



Appendix A – Example Inspection Checklist Form

City of London: Weeping Tile Inspection Checklist Form

Point-of-Purchase Disconnection By-law



Date of Property Title Transfer:		N/A
Date of Initial Inspection:		Re-inspection:
Property Address:		
Present at Inspection:		
Profile Number:		

Visual Inspection

Sump Pump and Pit:	☐ Yes ☐ No	Located: ☐ Basement ☐ Crawl Space ☐ Other: _____	Connected to Weeping Tile: ☐ Yes ☐ No ☐ Unknown	Discharges to: ☐ Surface ☐ Storm ☐ Unknown
Scenario 1	☐	Found existing sump pump and pit, and weeping tile is connected to it.		
Scenario 2	☐	Found existing sump pump and pit, but weeping tile is not connected to it		
Scenario 3	☐	Cannot find/ unsure if there is a sump pump and pit.		
Comments/ Notes:				

Building Sewer & Drain Inspection (BSDI) – Coded Report Attached

Interior Cleanouts Used:	
Outside Locations Used:	
Length of Lateral (m):	
Weeping Tile Connection Found:	☐ Yes ☐ No
Comments/ Notes:	

Inspection Results

Eligible to Obtain a Certificate of Compliance:	☐ Yes ☐ No
Eligible for Exemption:	☐ Yes ☐ No
Remediation Work Required:	

Inspection and Compliance Officer Name and Signature:



Appendix B – Example Certificate of Compliance

City of London: Certificate of Compliance
Point-of-Purchase Disconnection By-law



CERTIFICATE OF COMPLIANCE

Certificate Date: _____

I hereby certify that the premises commonly known as:

is hereby in compliance in all respects to the provisions of the local By-law ___ entitled
"Point-of-Purchase Disconnection Program By-law" of the City of London, Ontario.

Authorized City Representative

This Certificate does not expire and shall remain in effect indefinitely; however, it may be
revoked if the property's drainage system is found to no longer be in compliance with the
By-law__.