

Policies for the Administration of
Ontario Regulation 177/06



Development, Interference with Wetlands and Alterations
to Shorelines and Watercourses

Appendix I

**Drainage Act and Conservation Authorities Act Protocol
Protocol for Municipalities and Conservation Authorities for Drain
Maintenance and Repair Activities.**

Drainage Act and Conservation Authorities Act Protocol

Protocol for Municipalities and Conservation Authorities
in Drain Maintenance and Repair Activities



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Preface

In 2008, the inter-agency *Drainage Act* & Section 28 Regulations Team (DART) was established by the Ministry of Natural Resources (MNR) and the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) to explore the options and propose solutions to the legal liability issues for municipalities and conservation authorities arising from provisions in the *Drainage Act* and the *Conservation Authorities Act*. DART includes representatives from MNR, OMAFRA, Conservation Ontario, conservation authorities, the Drainage Superintendents Association of Ontario, the Ontario Society of Professional Engineers Land Drainage Committee, Ontario Federation of Agriculture, Ontario Farm Environmental Coalition, and the Rural Ontario Municipal Association. The Team's goal was to develop a means for municipalities and conservation authorities to fulfill their responsibilities under the *Drainage Act* and *Conservation Authorities Act* respectively without compromising the intent of either statute. The Team developed a draft *Drainage Act* and *Conservation Authorities Act* Protocol. Included in the Protocol is a joint Drain Maintenance or Repair Notification Form which may be used to apply for permissions from conservation authorities, MNR, and Fisheries and Oceans Canada. After public consultation, the Protocol and Notification Form were approved by the Ministers of Natural Resources and Agriculture, Food and Rural Affairs and are now Provincial policy. These documents are intended for internal use by municipal and conservation authority staff.

MNR # 52712
© Queen's Printer for Ontario, 2012
ISBN 978-1-4606-0722-0 (PRINT)
ISBN 978-1-4606-0723-7 (PDF)

Cette publication est également disponible en français

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Throughout this document, any terms appearing in italics are defined in the Glossary of Terms for purposes of this protocol.

1. Introduction

Municipal drains have been a fixture of rural Ontario's infrastructure since the 19th century. Most *municipal drains* were constructed to improve the drainage of agricultural land by serving as the discharge point for private agricultural tile drainage systems. In providing this function, they also serve as vital infrastructure for all facets of land use in rural Ontario, and without them, many areas of the province would be subjected to regular flooding, reduced production from agricultural land and increased public health risks. Under the *Drainage Act*, municipalities are legislated to maintain and repair drains and to respond to petitions for new drainage systems. A comprehensive description of the *Drainage Act* and *Conservation Authorities Act (CA Act)* is presented in Appendix V, and both acts are available online through e-Laws (www.e-laws.gov.on.ca).

Under Section 28 of the *CA Act*, conservation authorities (CAs) regulate *development* in or adjacent to *watercourses*, *wetlands*, the shoreline of the Great Lakes-St. Lawrence River System or inland lakes, river or stream valleys, *hazardous lands* and other areas where, in the opinion of the Minister, *development* should be prohibited or regulated or should require the permission of the authority. A conservation authority may grant permission for development if, in the opinion of the authority, the control of *flooding*, *erosion*, *dynamic beaches*, *pollution* or the conservation of land is not affected. CAs also regulate activities that change, divert, or interfere in any way with the existing channel of a river, creek, stream or *watercourse*, or that change or interfere in any way with a *wetland*. *Municipal drains* are generally *watercourses* as defined under the *CA Act* and are therefore regulated by CAs.

Because of incongruent provisions between the two provincial Acts, there is potential for legal liability issues with regard to *maintenance* and *repair* of existing drains. If a municipality is unable to proceed with required drain *maintenance* or *repair* because of requirements for a *CA Act* S. 28 permit, the municipality could be held liable for any consequences. If drain *repair* and *maintenance* activities are carried out (with or without a *CA Act* S. 28 permit) and impact regulated areas with respect to the CA's regulatory responsibilities under the *CA Act*, the CA could be held liable for not undertaking or enforcing its regulatory responsibilities.

This protocol provides provincially-approved guidance to conservation authority staff and municipal representatives (e.g. *drainage superintendents*) regarding the most appropriate practices and permit requirements for *municipal drain maintenance* and *repair* activities.

2. Purpose and Scope

This Protocol only addresses the *maintenance* and *repair* of drains as required by the *Drainage Act* and does not address issues around new drains and improvements to existing drains.

Included in the Protocol is a set of Standard Compliance Requirements (SCRs) for regular *repair* and *maintenance* activities that, if followed, would serve as the written permission to proceed with work under the *CA Act*. The SCRs documented in this Protocol are to be implemented and adhered to by conservation authority staff and *drainage superintendents*. The Ministry of Natural Resources (MNR), which administers the *CA Act*, and the Ministry of Agriculture, Food and Rural Affairs (OMAFRA), which is responsible for the *Drainage Act*, have a responsibility to ensure their respective legislation is applied equally and fairly within the province. In order to assess the effectiveness of these standard compliance requirements, each ministry will periodically undertake a review of the implementation of this Protocol.

This Protocol also uses a 'Notification of Drain Maintenance or Repair' form (see Appendix II) which serves as a combined notification form for works requiring permissions under the federal *Fisheries Act* and the Ontario *Endangered Species Act* as well as the provincial *CA Act*. The 'Notification of Drain Maintenance or Repair' form is intended to simplify the application process for proponents by using a single form for all permissions. The form must still be submitted to each of the agencies from which permissions are required. This protocol does not apply to permissions under the federal *Fisheries Act* or the Ontario *Endangered Species Act* in any other respects.

Good communication among all parties remains fundamental for these SCRs to be effective. Municipalities and conservation authorities should be in regular communication to understand one another's interests and be aware of changes and developments. In order for this Protocol to be successful, municipalities and CAs should meet at minimum annually to discuss the municipality's workplan. Proponents of a drainage project should initiate contact about a particular project as early in the process as possible to ensure a common understanding on all sides and to address any potential issues before they become more serious.

3. Compliance Procedures for Drain Maintenance and Repair

3.1 Standard Compliance Requirements

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act

This protocol includes Standard Compliance Requirements (SCRs) for *repair* and *maintenance* activities that, if met, would satisfy the objectives of a *CA Act S. 28* permit. Written permission under Section 28 of the *CA Act* can be achieved either by adhering to an SCR issued by a CA or by obtaining a regular *CA Act S. 28* permit. Each SCR contains activity-specific mitigation requirements, which apply only to that activity, and general mitigation requirements, which are standards that must be maintained on all drain *maintenance* and *repair* projects. Exceptions from the general mitigation requirements (emergency measures) should occur only in situations on a *municipal drain* that demand the immediate attention of the municipality. Examples include the structural failure or complete collapse of a crossing on a drain or the *flooding* of property caused by the blockage of a *municipal drain*. In situations where emergency measures are undertaken by the municipality, the *drainage superintendent* should notify the appropriate CA as soon as is practical.

Certain activities within *regulated wetland limits* have the potential to interfere with *wetlands*. Therefore, it is recommended that a *CA Act S. 28* permit still be required for these activities. However, a CA can choose to use the SCRs outlined in this protocol to provide written permission rather than requiring a permit. The decision to use the SCR within *regulated wetland limits* is at the discretion of the CA and should be assessed on a case-by-case basis. Where permits are required for drain *maintenance* and *repair*, due to the municipality's duty to maintain drainage works under the *Drainage Act*, a CA and a municipality shall work cooperatively to maintain the drain with written permission with or without conditions.

Table 1 outlines the *repair* and *maintenance* activities for which SCR statements are available to serve as a written permission in place of a permit for an activity under S. 28 of the *CA Act*. Table 1 also identifies those *repair* and *maintenance* activities for which a permit is recommended, although an SCR may be used for these activities at the discretion of the CA. The SCRs for all activities identified in Table 1 are documented in the following pages.

Table 1. Recommended use of Standard Compliance Requirements and permits for drain maintenance and repair activities

Activity	SCR statement recommended	Permit recommended
Brushing bank slope	✓	
Brushing top of bank	✓	
Debris Removal and Beaver Dam Removal	✓	
Spot Clean-out	✓	
Culvert Replacement	✓	
Bank Repair or Stabilization and Pipe Outlet Repair	✓	
Dyke Maintenance and Repair	✓	
Water Control Structure Maintenance and Repair	✓	
Pump Station Maintenance and Repair	✓	
Bottom Only Cleanout (outside of <i>regulated wetland limits</i>)	✓	
Bottom Cleanout Plus One Bank Slope (outside of <i>regulated wetland limits</i>)	✓	
Full Cleanout (outside of <i>regulated wetland limits</i>)	✓	
Bottom Only Cleanout (within <i>regulated wetland limits</i>)		✓
Bottom Cleanout Plus One Bank Slope (within <i>regulated wetland limits</i>)		✓
Full Cleanout (within <i>regulated wetland limits</i>)		✓

3.2 Procedures

Timely, clear and open communication between all parties is required to mitigate the risk of projects not receiving the required CA sign-off within the desired timeframe. The municipality should communicate its annual workplan for *maintenance* and *repair* activities to the CA as early as possible; CAs and municipalities should meet at minimum annually to discuss the workplan. Should a CA have concerns that a *maintenance* or *repair* project may not meet the Standard Compliance Requirements for that particular type of activity, the CA will notify the municipality and communicate its concerns as soon as possible.

Where a CA determines that a site visit is necessary to assess an application, the *drainage superintendent* and CA should conduct site visits jointly when possible. If a site visit is not possible, the CA should work with the *drainage superintendent* to acquire the necessary information about the project.

If a dispute occurs over a permission (e.g., over conditions on a permit) to maintain or repair a drainage works, parties are encouraged to refer the issue to the Drainage Issues Resolution Team (see Appendix 1) before taking their dispute to a legal appeal body. This mediation team, consisting of drainage sector and conservation authority representatives, will provide an independent assessment of the best means of addressing the requirements of both statutes. If no acceptable resolution can be found, standard statutory procedures remain available.

3.2.1 Procedures for general works (not located in a regulated wetland limit):

1. The municipality completes a Drain Maintenance or Repair Notification form (see Appendix II) for each drain *maintenance* or *repair* project, and submits it to the CA. Note that the municipality is also responsible for submitting the notification form to MNR if approvals are required under the *Endangered Species Act*.
2. The CA acknowledges receipt of the form to the municipality.
3. The CA screens the work proposed in the notification form, and may request additional information if the notification form is incomplete.
4. The CA sends a signed copy of the SCR for the specific activity being undertaken (e.g. spot clean-out) to the municipality. The CA will endeavour to provide the signed SCR to the municipality within 15 working days of receipt of a complete notification form.
5. Should the CA have concerns that a *maintenance* or *repair* project may not meet the SCR for that particular type of activity, the CA will communicate its concerns to the municipality as soon as possible. The CA may require a full permit application, in which case the municipality will undertake the normal permit application procedures.

6. By signing the SCR statement, the CA is providing a written permission under the appropriate *Conservation Authorities Act* S.28 regulation and acknowledges awareness of the work. The *drainage superintendent* and the CA will jointly monitor activities for adherence to the SCRs at their discretion.
7. The municipality undertakes the work in accordance with the SCRs.

Should the municipality be unable to meet the conditions listed in the SCRs or the project be beyond the scope of an SCR statement, a full permit application and review process would be required. In the event of non-adherence by the municipality to the SCRs provided, CAs may issue a notice of violation under their *CA Act* S. 28 regulation and if necessary enter into legal proceedings.

3.2.2 Procedures for works within a regulated wetland limit (see *Glossary of Terms*)

1. The municipality completes a Drain Maintenance or Repair Notification form (see Appendix II) for each drain *maintenance* or *repair* project and submits the form to the CA. Note that the municipality is also responsible for submitting the notification form to MNR if approvals are required under the *Endangered Species Act*.
2. The CA acknowledges receipt of the form to the municipality.
3. The CA screens the work proposed in the notification form, and may request additional information if the notification form is incomplete.
4. The CA may require the municipality to obtain a permit for the work, or the CA may determine that the relevant SCR would satisfy its requirements, in which case the process outlined above for works outside of *regulated wetland limits* would be followed.
5. If the CA requires the municipality to obtain a permit, the municipality will undertake the normal permit application procedures.
6. Timely, clear and open communication between all parties is encouraged.
7. The municipality is encouraged to pre-consult with the CA as early as possible to identify, discuss, mitigate and resolve any potential issues or concerns from either party.
8. The CA will make a permit decision and notify the municipality of this decision in writing in accordance with the process and timelines outlined in MNR's "*Policies and Procedures for Conservation Authority Plan Review and Permitting Activities*" and the CA's internal administrative and service delivery policies.
9. The CA may place conditions on a permit, but due to the municipality's duty to maintain drainage works under the *Drainage Act*, a CA and a municipality shall work cooperatively to maintain the drain with written permission, with or without conditions. If the CA does not feel it can approve the permit or the municipality disagrees with the conditions placed on the permit, and no agreement can be reached between the parties, the issue can be referred to the Drainage Issues Resolution Team (see Appendix I).
10. The municipality undertakes the work in accordance with the permit.

For all *maintenance* or *repair* activities that the CA agrees fall within the scope of an SCR, the CA will endeavour to provide sign-off for the SCR statement within 15 working days upon receipt of the notification form.

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the *Drainage Act*

A. Brushing Bank Slope

Description of Typical Works

The removal of trees and other vegetation from the side slopes of a *municipal drain*.

Activity-Specific Mitigation Requirements

- To preserve slope stability, the vegetative root structure should be preserved. Brushing the bank slope should not disturb soil or remove the roots of any trees or shrubs.
- Engineer's Report to be examined to determine the municipality's working space. Where options exist, work from North or East side is preferred.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment (e.g. frozen or dry soil conditions or the use of load distributing machines or mats).
- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____ Municipality: _____

Work Zone* : FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
 Impact Zone** : FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
 Length of Work Zone: _____ metres

*Work Zone = part of the drain where the work is actually occurring

** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone

Signature of Conservation Authority Official: _____
 Name _____ Signature _____

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act

B. Brushing Top of Bank

Description of Typical Works

The removal of trees and other vegetation from the top of a bank. This may be required for easement maintenance and site accessibility. In certain situations brushing the top of bank may require the removal of roots or the disturbance of soil.

Activity-Specific Mitigation Requirements

- Remove vegetation selectively; mature trees should be preserved where possible.
- Whenever possible, avoid removing roots.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment (e.g. frozen or dry soil conditions or the use of load distributing machines or mats).
- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____ Municipality: _____

Work Zone* : FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
 Impact Zone** : FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
 Length of Work Zone: _____ metres

*Work Zone = part of the drain where the work is actually occurring

** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone

Signature of Conservation Authority Official: _____
 Name Signature

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act

C. Debris Removal and Beaver Dam Removal

Description of Typical Works

Removal of log jams, garbage, beaver dams or other obstructions.

Activity-Specific Mitigation Requirements

- Brush or debris should be placed in a location where it cannot re-enter or block the channel.
- Debris removal including the disposal of the sediment should be conducted in a manner consistent with the Engineer's Report and authorizing by-law.
- Minimize *flooding* upstream and downstream by drawing the water down slowly.
- Avoid performing work when flow conditions are elevated due to recent rainfall to minimize sediment and debris movement and *erosion*.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment (e.g. frozen or dry soil conditions or the use of load distributing machines or mats).
- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____ Municipality: _____

Work Zone* :	FROM Lot _____ Conc. _____	TO Lot _____ Conc. _____
Impact Zone** :	FROM Lot _____ Conc. _____	TO Lot _____ Conc. _____

Length of Work Zone:	_____ metres	
<i>*Work Zone = part of the drain where the work is actually occurring</i> <i>** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone</i>		
Signature of Conservation Authority Official:	_____ <i>Name</i>	_____ <i>Signature</i>
Date:	_____	

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act

D. Spot Cleanout

Description of Typical Works

Cleanout of isolated sediment build-up that is significant enough to cause *erosion* or flow blockage/*flooding* concerns in the channel. This may include a sediment trap (dug below design grade) cleanout. If cleanout will be continuous along the drain, refer to bottom cleanout.

Activity-Specific Mitigation Requirements

- There should be no appreciable change in grade with the removal of sediment.
- Spot cleanouts including the disposal of the sediment should be conducted in a manner consistent with the Engineer's Report and authorizing by-law.
- Minimize *flooding* upstream and downstream.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment (e.g. frozen or dry soil conditions or the use of load distributing machines or mats).
- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____ Municipality: _____

Work Zone* :	FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
Impact Zone** :	FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
Length of Work Zone:	_____ metres

**Work Zone = part of the drain where the work is actually occurring*

*** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone*

Signature of Conservation Authority Official:	_____	_____
	<i>Name</i>	<i>Signature</i>
Date:	_____	

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act

E. Culvert Replacement

Description of Typical Works

Replacement of a culvert in accordance with the Engineer's Report. Replacement culverts must be the diameter and length and installed at the location specified in the Engineer's Report.

Activity-Specific Mitigation Requirements

- Minimize disruption to the channel and bank slopes.
- Placement of any material removed cannot impact flow.
- Culverts are to be embedded and appropriate *erosion* protection installed.
- Minimize *flooding* upstream and downstream.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment (e.g. frozen or dry soil conditions or the use of load distributing machines or mats).
- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____

Municipality: _____

Work Zone* :	FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
Impact Zone** :	FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
Length of Work Zone:	_____ metres

**Work Zone = part of the drain where the work is actually occurring*

*** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone*

Signature of Conservation Authority Official:	_____	_____
	<i>Name</i>	<i>Signature</i>
Date:	_____	

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act

F. Bank Repair or Stabilization and Pipe Outlet Repair

Description of Typical Works

Includes restoration of bank slopes to the original design in the Engineer's Report and localized activities to prevent bank failure, such as the placement of rip rap, seeding the bank, and the use of geotextile materials.

Activity-Specific Mitigation Requirements

- Control the placement of stabilization works to minimize *erosion* and sediment travel impacts downstream.
- Minimize disruption to the channel.
- Perform work in no/low flow conditions to minimize sediment movement and *erosion*.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment (e.g. frozen or dry soil conditions or the use of load distributing machines or mats).
- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____ Municipality: _____

Work Zone* :	FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
Impact Zone** :	FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
Length of Work Zone:	_____ metres

**Work Zone = part of the drain where the work is actually occurring*

*** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone*

Signature of Conservation Authority Official:	_____	_____
	<i>Name</i>	<i>Signature</i>
Date:	_____	

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act

G. Dyke Maintenance and Repair

Description of Typical Works

Replacement, repair of breaches, or bank restoration of dykes as set out in the original Engineer's Report.

Activity-Specific Mitigation Requirements

- Minimize *flooding* upstream and downstream.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment (e.g. frozen or dry soil conditions or the use of load distributing machines or mats).
- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____ Municipality: _____

Work Zone* : FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
 Impact Zone** : FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
 Length of Work Zone: _____ metres

*Work Zone = part of the drain where the work is actually occurring

** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone

Signature of Conservation Authority Official: _____
 Name _____ Signature _____

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act

H. Water Control Structure Maintenance and Repair

Description of Typical Works

Structural *maintenance, repair* or replacement of a water control structure in accordance with the specifications under the Engineer's Report.

Activity-Specific Mitigation Requirements

- Minimize *flooding* upstream and downstream.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment (e.g. frozen or dry soil conditions or the use of load distributing machines or mats).
- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____ Municipality: _____

Work Zone* : FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
 Impact Zone** : FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
 Length of Work Zone: _____ metres

*Work Zone = part of the drain where the work is actually occurring

** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone

Signature of Conservation Authority Official:	_____	_____
	Name	Signature

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act

I. Pump Station Maintenance and Repair

Description of Typical Works

Structural repairs or replacing a pump station in accordance with the specifications under the Engineer's Report.

Activity-Specific Mitigation Requirements

- Minimize *flooding* upstream and downstream.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment (e.g. frozen or dry soil conditions or the use of load distributing machines or mats).
- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____ Municipality: _____

Work Zone* : FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
 Impact Zone** : FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____
 Length of Work Zone: _____ metres

*Work Zone = part of the drain where the work is actually occurring

** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone

Signature of Conservation Authority Official: _____
 Name _____ Signature _____

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act outside of *Regulated Wetland Limits*

J. Bottom Only Cleanout

Description of Typical Works

Removal of accumulated sediment in a drain, including spreading of the spoil, removal of vegetation in bottom of channel and access to the site.

Activity-Specific Mitigation Requirements

- There should be no appreciable change in grade with the removal of sediment.
- Bottom only cleanouts including the disposal of the sediment should be conducted in a manner consistent with the Engineer's Report and authorizing by-law
- Minimize *flooding* upstream and downstream.
- Minimize channel width to reduce sediment deposition.
- Perform work in no/low flow conditions to minimize sediment movement and *erosion*. Avoid work after recent precipitation or snowmelt.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment (e.g. frozen or dry soil conditions or the use of load distributing machines or mats).
- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____		Municipality: _____	
Work Zone* :	FROM Lot _____ Conc. _____	TO Lot _____ Conc. _____	
Impact Zone** :	FROM Lot _____ Conc. _____	TO Lot _____ Conc. _____	
Length of Work Zone:	_____ metres		
<p><i>*Work Zone = part of the drain where the work is actually occurring</i></p> <p><i>** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone</i></p>			
Signature of Conservation Authority Official:	_____	_____	
	<i>Name</i>	<i>Signature</i>	
Date:	_____		

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act outside of *Regulated Wetland Limits*

K. Bottom Cleanout Plus One Bank Slope

Description of Typical Works

Removal of accumulated sediment in a drain, including spreading of the spoil; the removal of vegetation in the bottom of the channel and removal of slope vegetation, including root removal; and access to the site.

Activity-Specific Mitigation Requirements

- There should be no appreciable change in grade with the removal of sediment.
- This work, including the disposal of the sediment, should be conducted in a manner consistent with the Engineer's Report and authorizing by-law
- Minimize *flooding* upstream and downstream.
- Perform work in no/low flow conditions to minimize sediment movement and *erosion*. Avoid work after recent precipitation or snowmelt.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment (e.g. frozen or dry soil conditions or the use of load distributing machines or mats).
- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____ Municipality: _____

Work Zone* :	FROM Lot _____ Conc. _____	TO Lot _____ Conc. _____
Impact Zone** :	FROM Lot _____ Conc. _____	TO Lot _____ Conc. _____
Length of Work Zone:	_____ metres	
<p><i>*Work Zone = part of the drain where the work is actually occurring</i></p> <p><i>** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone</i></p>		
Signature of Conservation Authority Official:	_____ Name	_____ Signature
Date:	_____	

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act outside of *Regulated Wetland Limits*

L. Full Cleanout

Description of Typical Works

Removal of accumulated sediment in a drain including spreading of the spoil; the removal of vegetation in the bottom of the channel and removal of slope vegetation, including root removal; the removal of trees and other vegetation from the top of a bank; and access to the site.

Activity-Specific Mitigation Requirements

- There should be no appreciable change in grade with the removal of sediment.
- This work, including the disposal of the sediment, should be conducted in a manner consistent with the Engineer's Report and authorizing by-law
- Minimize *flooding* upstream and downstream.
- Perform work in no/low flow conditions to minimize sediment movement and *erosion*. Avoid work after recent precipitation or snowmelt.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment (e.g. frozen or dry soil conditions or the use of load distributing machines or mats).
- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____ Municipality: _____

Work Zone* :	FROM Lot _____ Conc. _____	TO Lot _____ Conc. _____
Impact Zone** :	FROM Lot _____ Conc. _____	TO Lot _____ Conc. _____
Length of Work Zone:	_____ metres	
<p><i>*Work Zone = part of the drain where the work is actually occurring</i></p> <p><i>** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone</i></p>		
Signature of Conservation Authority Official:	_____ Name	_____ Signature
Date:	_____	

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act within *Regulated Wetland Limits*

(For use where permits not required)

M. Bottom Only Cleanout

Description of Typical Works

Removal of accumulated sediment in a drain, including spreading of the spoil, removal of vegetation in bottom of channel and access to the site.

General Permitting Information

Certain activities have the potential to cause interference with *wetlands*. Therefore, it is recommended that a permit be required for these activities. However, a conservation authority can choose to request that the standard compliance requirements outlined below be followed rather than issuing a permit. Additional consultation may be necessary for works within a *wetland*.

Where permits are required, a conservation authority may attach conditions to the permit, but due to the municipality's duty to maintain drainage works under the Drainage Act, a conservation authority and a municipality shall work cooperatively to maintain the drain with written permission, with or without conditions.

If a dispute occurs over a permit (e.g., over permit conditions) to maintain or repair a drainage works, parties are encouraged to refer the issue to the Drainage Issues Resolution Team before taking their dispute to a legal appeal body. This mediation team, consisting of drainage sector and conservation authority representatives, will provide an independent assessment of the best means of addressing the requirements of both statutes. If no acceptable resolution can be found, standard statutory procedures remain available.

Mitigation Measures to be undertaken should Standard Compliance Requirements be Chosen

- There should be no appreciable change in grade with the removal of sediment.
 - This work, including the disposal of the sediment, should be conducted in a manner consistent with the Engineer's Report and authorizing by-law.
 - Minimize *flooding* upstream and downstream.
 - Minimize channel width to reduce sediment deposition.
 - Perform work in no/low flow conditions to minimize sediment movement and *erosion*. Avoid work after recent precipitation or snowmelt.
 - The conservation authority, *drainage superintendent* and property owner should agree on access to the site where not specified in the Engineer's Report.
-

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment
-

- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____ Municipality: _____

Work Zone* :	FROM Lot _____ Conc. _____	TO Lot _____ Conc. _____
Impact Zone** :	FROM Lot _____ Conc. _____	TO Lot _____ Conc. _____
Length of Work Zone:	_____ metres	

*Work Zone = part of the drain where the work is actually occurring

** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone

Signature of Conservation Authority Official:	_____	_____
	Name	Signature

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act within *Regulated Wetland Limits*

(For use where permits not required)

N. Bottom Cleanout Plus One Bank Slope

Description of Typical Works

Removal of accumulated sediment in a drain, including spreading of the spoil; the removal of vegetation in the bottom of the channel and removal of slope vegetation, including root removal; and access to the site.

General Permitting Information

Certain activities within *regulated wetland limits* have the potential to cause interference with *wetlands*. Therefore, it is recommended that permit be required for these activities. However, a conservation authority can choose to request that the standard compliance requirements outlined below be followed rather than issuing a permit. Additional consultation may be necessary for works within a *wetland*.

Where permits are required, a conservation authority may attach conditions to the permit, but due to the municipality's duty to maintain drainage works under the Drainage Act, a conservation authority and a municipality shall work cooperatively to maintain the drain with written permission, with or without conditions.

If a dispute occurs over a permit (e.g., over permit conditions) to maintain or repair a drainage works, parties are encouraged to refer the issue to the Drainage Issues Resolution Team before taking their dispute to a legal appeal body. This mediation team, consisting of drainage sector and conservation authority representatives, will provide an independent assessment of the best means of addressing the requirements of both statutes. If no acceptable resolution can be found, standard statutory procedures remain available.

Activity-Specific Mitigation Requirements

- There should be no appreciable change in grade with the removal of sediment.
- This work, including the disposal of the sediment, should be conducted in a manner consistent with the Engineer's Report and authorizing by-law
- Minimize *flooding* upstream and downstream.
- Perform work in no/low flow conditions to minimize sediment movement and *erosion*. Avoid work after recent precipitation or snowmelt.
- The conservation authority, *drainage superintendent* and property owner should agree on access to the site where not specified in the Engineer's Report.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment

- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____ Municipality: _____

<p>Work Zone* : Impact Zone** : Length of Work Zone:</p>	<p>FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____ FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____ _____ metres</p>
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*Work Zone = part of the drain where the work is actually occurring

** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone

<p>Signature of Conservation Authority Official:</p>	<p>_____</p> <p>Name</p>	<p>_____</p> <p>Signature</p>
--	--------------------------	-------------------------------

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act within *Regulated Wetland Limits* (For use where permits not required)

O. Full Cleanout

Description of Typical Works

A full cleanout includes bottom cleanout of a drain, including spreading of the spoil; the removal of vegetation in the bottom of the channel and removal of slope vegetation, including root removal; the removal of trees and other vegetation from the top of a bank; and access to the site.

General Permitting Information

Certain activities within *wetlands* have the potential to cause interference with *wetlands*. Therefore, it is recommended that a permit be required for these activities. However, a conservation authority can choose to request that the standard requirements outlined below be followed rather than issuing a permit. Additional consultation may be necessary for works within a *wetland*.

Where permits are required, a conservation authority may attach conditions to the permit, but due to the municipality's duty to maintain drainage works under the Drainage Act, a conservation authority and a municipality shall work cooperatively to maintain the drain with written permission, with or without conditions.

If a dispute occurs over a permit (e.g., over permit conditions) to maintain or repair a drainage works, parties are encouraged to refer the issue to the Drainage Issues Resolution Team before taking their dispute to a legal appeal body. This mediation team, consisting of drainage sector and conservation authority representatives, will provide an independent assessment of the best means of addressing the requirements of both statutes. If no acceptable resolution can be found, standard statutory procedures remain available.

Activity-Specific Mitigation Requirements

- There should be no appreciable change in grade with the removal of sediment.
- This work, including the disposal of the sediment, should be conducted in a manner consistent with the Engineer's Report and authorizing by-law
- Minimize *flooding* upstream and downstream.
- Perform work in no/low flow conditions to minimize sediment movement and *erosion*. Avoid work after recent precipitation or snowmelt.
- The conservation authority, *drainage superintendent* and property owner should agree on access to the site where not specified in the Engineer's Report.

General Mitigation Requirements

General mitigation requirements are standards that must be maintained on all drain *maintenance* and *repair* projects.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment (e.g. frozen or dry soil conditions or the use of load distributing machines or mats).
- Place brush, debris and sediment in such a location as to minimize entry into the channel.
- Perform work in appropriate flow conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Except on cultivated lands, any areas of disturbed or bare soil around the drain should be seeded with native, non-invasive herbaceous material while the ground is moist and conditions are appropriate for germination.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted in the _____ drain in accordance with the notification form, provided maintenance and repair activities comply with all standards set out above. This permission does not relieve the applicant of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____ By-Law No.: _____

Period of Validity: _____ to _____

Location: Location map attached

Geographic Township: _____ Municipality: _____

Work Zone* : Impact Zone** : Length of Work Zone:	FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____ FROM Lot _____ Conc. _____ TO Lot _____ Conc. _____ _____ metres
--	--

*Work Zone = part of the drain where the work is actually occurring

** Impact Zone = linear length of watercourse extending 1 km downstream of the bottom end of the Work Zone

Signature of Conservation Authority Official:	Name	Signature
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Date: _____

STANDARD BEST PRACTICES

Maintenance and Repair of Municipal Drains Constructed under the Drainage Act

P. Pipe, Junction Box or Catch Basin Maintenance and Repair

Description of Typical Works

Drainage Infrastructure	Definition	Repair Activity
Pipe	A buried conduit used to convey water beneath the land surface	<ul style="list-style-type: none"> Replacing a section of collapsed or broken pipe Removing roots or other blockages
Junction Box	A structure buried in the ground that allows the connection of various pipes entering at different elevations.	<ul style="list-style-type: none"> Periodic removal of sediment from the junction box bottom; Repair or replacement of the junction box structure.
Catchbasin	An inlet structure that allows surface water to drain into a pipe <i>municipal drain</i>	<ul style="list-style-type: none"> Periodic removal of sediment from the catchbasin bottom; Repair or replacement of the catchbasin structure.

There are no regulatory impacts typically associated with Pipe, Junction Box or Catch Basin repairs and no Standard Compliance Requirement statement is required. *Drainage superintendents* should still follow best practices set out below as a matter of good practice while doing these repairs.

Best Practices

Below are standards that should be maintained as a matter of good practice during these repairs.

- Choose conditions and equipment appropriate to minimize site disturbance by equipment.
- Place brush and debris in such a location as to limit entry into the pipe.
- Perform work in appropriate conditions to minimize debris movement and *erosion*.
- Limit soil movement and *erosion*; use control measures if necessary before work begins.

Typically *Conservation Authorities Act S. 28* Regulation permissions are not required for pipe, junction box or catch basin repairs.

4. Glossary of Terms

For the purposes of this protocol, it is important to note that where definitions are provided in the *Conservation Authorities Act* or its regulations, these definitions (e.g. “development”) prevail for the implementation of *Conservation Authorities Act* Section 28 ‘Development, Interference with Wetlands and Alterations to Shorelines and Watercourses’ regulations, even if other legislation or relevant policy documents define these terms differently. Where a term has not been defined under the *Conservation Authorities Act* (e.g. erosion hazard, flood hazard) definitions have been provided from other Acts or policy or developed as part of this Protocol. These definitions are intended to give the reader an interpretation of the term and do not prejudice or represent what may at a later date be defined under the *Conservation Authorities Act*. Definitions of terms specific to the *Drainage Act* and defined under the *Drainage Act* are also provided.

Development¹:

- a) the construction, reconstruction, erection or placing of a building or structure of any kind,
- b) any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure,
- c) site grading, or
- d) the temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere.

Drainage Superintendent²: A municipal position appointed by municipal council under the authority of the *Drainage Act*. The superintendent is responsible for the inspection, maintenance, repair and overall management of municipal drains on behalf of municipal council.

Dynamic Beach Hazard³, dynamic beach: dynamic beaches are areas of inherently unstable accumulations of shoreline sediments along the Great Lakes – St. Lawrence River System and large inland lakes, as identified by provincial standards, as amended from time to time. The dynamic beach hazard limit consists of the flooding hazard limit plus a dynamic beach allowance.

Erosion Hazard⁴, erosion: the loss of land, due to human or natural processes, that poses a threat to life and property. The erosion hazard limit is determined

¹ Conservation Authorities Act (1990).

² Definition written by Drainage Act and (S. 28) Regulation Team.

³ Provincial Policy Statement, 2005.

⁴ Technical Guide: River and Stream Systems Erosion Hazard Limit (Understanding Natural Hazards, 2001).

using considerations that include the 100 year erosion rate (the average annual rate of recession extended over a one hundred year time span), and an allowance for slope stability.

Flooding Hazard⁵, flooding: the inundation of areas adjacent to a shoreline or a river or stream system and not ordinarily covered by water.⁶ In Ontario, either storm-centred events, flood frequency based events, or an observed event may be used to determine the extent of the flooding hazard. These events are:

- a. A **storm-centred event**, either Hurricane Hazel storm (1954) or Timmins storm (1961). A storm-centred event refers to a major storm of record which is used for land use planning purposes. The rainfall actually experienced during a major storm event can be transposed over another watershed and when combined with the local conditions, flooding hazard limit can be determined. This centring concept is considered acceptable where the evidence suggests that the storm event could have potentially occurred over other watershed in the general area.
- b. **100 year flood** event is a frequency based flood event that is determined through analysis of precipitation, snow melt, or a combination thereof, having a return period (or a probability of occurrence) of once every 100 years on average (or having a 1% chance of occurring or being exceeded in any given year). The 100 year flood event is the minimum acceptable standard for defining the flooding hazard limit.
- c. An **observed event**, which is a flood that is greater than the storm-centred events or greater than the 100 year flood and which was actually experienced in a particular watershed, or portion thereof, for example as a result of ice jams, and which has been approved as the standard for that specific area by the Minister of Natural Resources.

Hazardous Land⁷: land that could be unsafe for *development* because of naturally occurring processes associated with flooding, erosion, dynamic beaches or unstable soil or bedrock.

Hydrologic Function⁸: the functions of the hydrological cycle that include the occurrence, circulation, distribution and chemical and physical properties of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere, and water's interaction with the environment including its relation to living things.

⁵ Technical Guide: River and Stream Systems Flooding Hazard Limit (Understanding Natural Hazards, 2001).

⁶ Provincial Policy Statement, 2005.

⁷ Conservation Authorities Act (1990).

⁸ Provincial Policy Statement, 2005.

Maintenance⁹: the preservation of a drainage works.

Municipal Drain¹⁰: A “drainage works” as defined under the *Drainage Act*. Under the *Act*, a drainage works is defined as a drain constructed by any means, including the improving of a natural *watercourse*, and includes works necessary to regulate the water table or water level within or on any lands or to regulate the level of the waters of a drain, reservoir, lake or pond, and includes a dam, embankment, wall, protective works or any combination thereof. To be a municipal drain, there must be a municipal by-law that adopts an engineer’s report that defines the drainage system and states how the cost of the system is to be shared among property owners.

Pollution¹¹: any deleterious physical substance or other contaminant that has the potential to be generated by *development* in an area to which a regulation made under clause 28 (1) (c) in the *CA Act* applies.

Provincially Significant Wetland¹²: an area identified as provincially significant by the Ontario Ministry of Natural Resources using evaluation procedures established by the Province, as amended from time to time.

Repair¹³: the restoration of a drainage works to its original condition.

Regulated wetland limit¹⁴: The regulated wetland limit comprises wetlands and ‘other areas’ regulated by conservation authorities, as approved by the Minister of Natural Resources under Section 28(5)(e) of the *CA Act*. Though Section 28 regulations for each CA vary, for most CAs, these ‘other areas’ are areas where *development* could interfere with the *hydrologic function* of a wetland, including areas within 120 metres of all provincially significant wetlands and wetlands greater than 2 hectares in size, and areas within 30 metres of wetlands less than 2 hectares in size. The individual CA regulation should be consulted to determine the extent of the “other areas”.

Staged cleanout: cleanout of a drain conducted in stages by dividing it into sections along its length, and maintaining one section at a time. The temporal scale of staging may vary depending on the sensitivity of the watercourse.

Two stage/low-flow channel: a channel cross-section, created either by design or as an alternative drain maintenance technique, consisting of a central low-flow channel with low-level vegetated benches on either side. The two-stage drain has the capacity to convey low or normal flows in the central channel at higher

⁹ Drainage Act (1990)

¹⁰ Definition written by Drainage Act and (S. 28) Regulation Team.

¹¹ Conservation Authorities Act (1990)

¹² Provincial Policy Statement, 2005.

¹³ Drainage Act (1990)

¹⁴ Definition written by Drainage Act and (S. 28) Regulation Team.

velocity to minimize sediment deposition, and can also accommodate higher flows. This design reduces maintenance requirements through a reduction in erosion, turbidity, and sediment export, and by allowing excess sediment and nutrients to settle out onto the vegetated benches. (See Appendix III, Figure 6.)

Watercourse¹⁵: an identifiable depression in the ground in which a flow of water regularly or continuously occurs.

Watershed¹⁶: an area that is drained by a river and its tributaries.

Wetland¹⁷: means land that

- a) is seasonally or permanently covered by shallow water or has a water table close to or at its surface,
- b) directly contributes to the hydrological function of a watershed through connection with a surface watercourse,
- c) has hydric soils, the formation of which has been caused by the presence of abundant water, and
- d) has vegetation dominated by hydrophytic plants or water tolerant plants, the dominance of which has been favoured by the presence of abundant water

but does not include periodically soaked or wet land that is used for agricultural purposes and no longer exhibits a wetland characteristic referred to in clause c) or d).

¹⁵ Conservation Authorities Act (1990).

¹⁶ Conservation Authorities Act (1990)

¹⁷ Conservation Authorities Act (1990)

Appendix I: Drainage Issues Resolution Team Terms of Reference

The Drainage Act and Conservation Authorities Act Protocol outlines provisions for a Drainage Issues Resolution Team in the event that the guidelines are not sufficient to resolve concerns.

Municipalities and conservation authorities from time to time may have difficulty in resolving drainage and permitting issues surrounding *maintenance* or *repair* works within *municipal drains*. The Protocol is intended to provide a framework to resolve many issues that may arise between these two parties. When a situation between the two parties cannot be resolved, to the point where mediation is necessary, then either party may request assistance from the Ministries of Natural Resources and of Agriculture, Food and Rural Affairs to establish a Drainage Issues Resolution Team.

Common Goal:

Members of a Drainage Issues Resolution Team will recognize and respect the need and responsibility for drainage in Ontario, as provided through the *Drainage Act*, and the protection of *watersheds* and public safety as provided for under the *Conservation Authorities Act*.

It is the goal of a Drainage Issues Resolution Team to focus on practical solutions that facilitate good working relationships while meeting *Drainage Act* and *Conservation Authorities Act* legislative requirements. A Drainage Issues Resolution Team will mediate discussions among the parties to ensure a consistent approach and provide technical direction on resolving the issues, while considering all interests in order to achieve a balance of societal values.

Purpose of the Drainage Issues Resolution Team:

A Drainage Issues Resolution Team shall:

- Listen to the concerns presented by both parties
- Discuss alternatives and opportunities
- Provide solutions which can balance the goals of all parties

Representation:

A Drainage Issues Resolution Team will include representatives from the Drainage Superintendents Association of Ontario and/or Drainage Engineers and from conservation authorities. A list of volunteers from these groups will be created and maintained by the Ministries of Agriculture, Food and Rural Affairs and of Natural Resources. Representatives will be appointed from this list by the Ministries as needed.

Suggested representatives will include:

- Two representatives from the drainage sector
- Two representatives from conservation authorities

Process:

Where the parties have been unable to come to a solution using the Protocol and need assistance to resolve conflict:

- One or both parties may contact a designated representative from the Integration Branch, Regional Operations Division at the Ministry of Natural Resources or the Environmental Management Branch, Food Safety and Environment Division at the Ministry of Agriculture, Food and Rural Affairs. Each party must submit their concerns in writing to their respective Ministry representative.
- The Ministry representatives will then appoint representatives from a list of volunteers from each group to assist in resolving the issues. Appointed representatives should be regional but without bias.
- The group of four representatives will constitute a Drainage Issues Resolution Team. The Team will try to mediate, and may suggest or present new ideas to resolve the issues at hand.
- A brief written report outlining the details of the issue and proposed solution(s), drafted by a Drainage Issues Resolution Team, will be presented to the parties involved.
- The Team will meet within a reasonable time frame acceptable to all parties, and if a date cannot be set within a reasonable time, the initiating parties may request alternative representatives.

Meetings:

- The Ministries of Natural Resources and Agriculture, Food and Rural Affairs will develop a list of volunteers across the province for Drainage Issues Resolution Teams. The volunteers appointed to resolve a given issue will determine meeting dates and locations as necessary for the situation. Volunteers will be responsible for any costs incurred from participation on a team (e.g., travel costs).

Decision-Making:

- After all information has been collected by the two parties, and after any field investigation completed by the Drainage Issues Resolution Team, a decision from the team should be rendered within thirty days.
- Decision-making will be conducted on a consensus basis. If consensus cannot be achieved, multiple solutions may be offered.
- If no acceptable resolution can be found, standard statutory procedures remain available.

- Mediation by the Drainage Issues Resolution Team will be undertaken without prejudice. Recommendations of the team do not set legal precedent.

Appendix II: Notification of Drain Maintenance or Repair

The Drain Maintenance or Repair Notification Form is available from the Drainage Superintendents Association of Ontario. It is designed to be usable by multiple agencies so that the applicant need only fill out one form. The form must still be submitted separately to each relevant agency: to the conservation authority where permission is required under the *Conservation Authorities Act*, *Fisheries Act* or *Species at Risk Act*, and to the Ministry of Natural Resources where permission is required under the *Endangered Species Act*.

For each drain *maintenance* or *repair* project, the municipality completes a Drain Maintenance or Repair Notification form and submits it separately to each relevant agency. The agency acknowledges receipt of the form to the municipality, and screens the work proposed. If necessary, the agency will contact the municipality for additional information about the work proposed.

For projects requiring permission from the conservation authority, where a proposed *maintenance* or *repair* activity is able to meet the Standard Compliance Requirements (SCR) outlined in this document, and if the conservation authority agrees that the work proposed meets the SCR, the authority will send a signed copy of the accompanying SCR statement to the municipality. The signed copy of the SCR statement will constitute written permission to proceed with the activity. The conservation authority and *drainage superintendent* will then monitor the project at their discretion for adherence to the SCR.

The conservation authority is not responsible for notifying or providing information to the Ministry of Natural Resources or vice versa. The applicant must submit the form to each relevant agency.

Appendix III: Diagrams of Drain Maintenance or Repair Activities

Figure 1: Brushing bank slope (Standard Compliance Requirements Statement A)

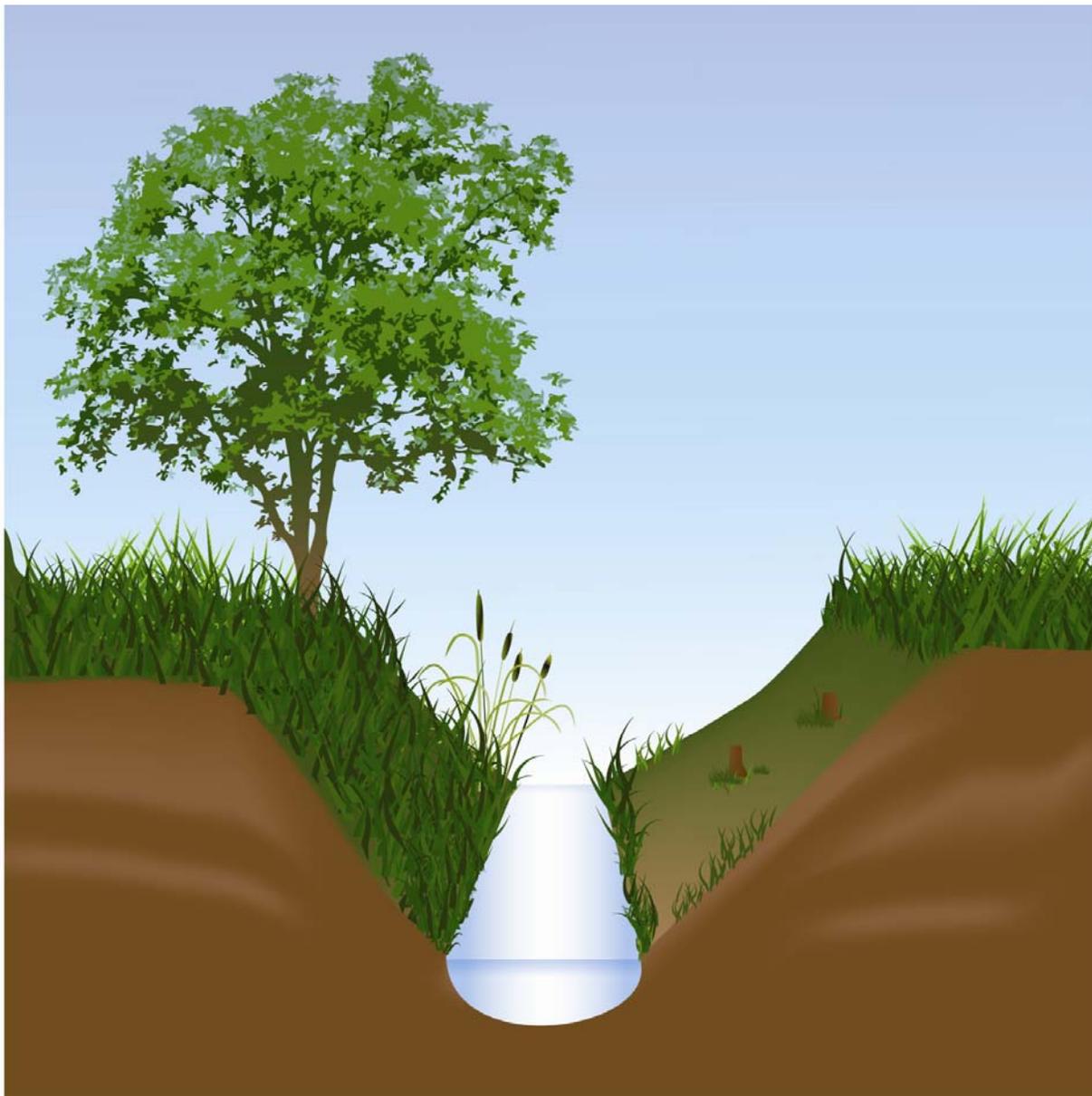


Figure 2: Brushing top of bank (Standard Compliance Requirements Statement B)

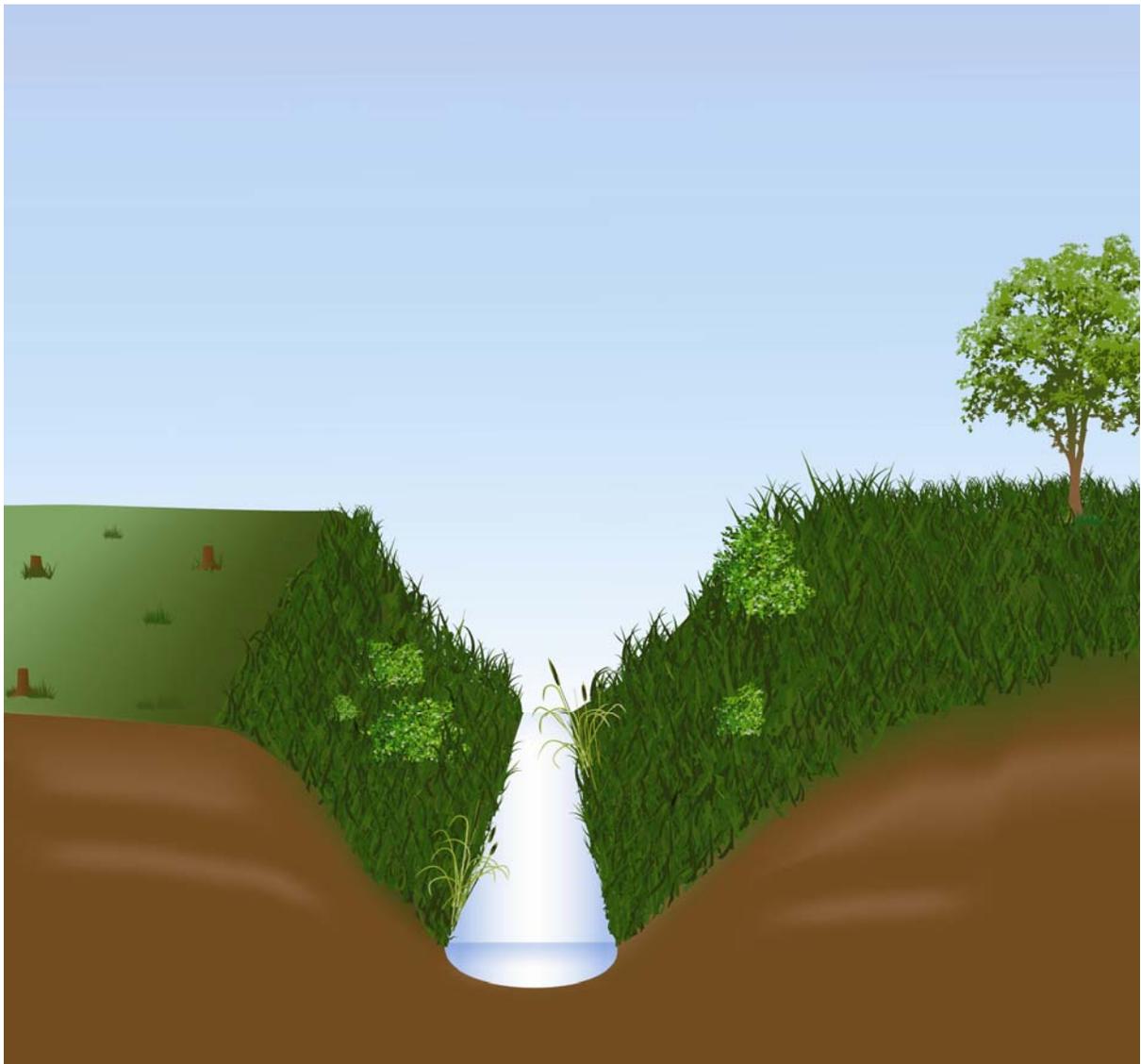


Figure 3: Bottom only cleanout (Standard Compliance Requirements Statements J, M)



Figure 4: Bottom cleanout plus one bank slope (Standard Compliance Requirements Statements K, N)

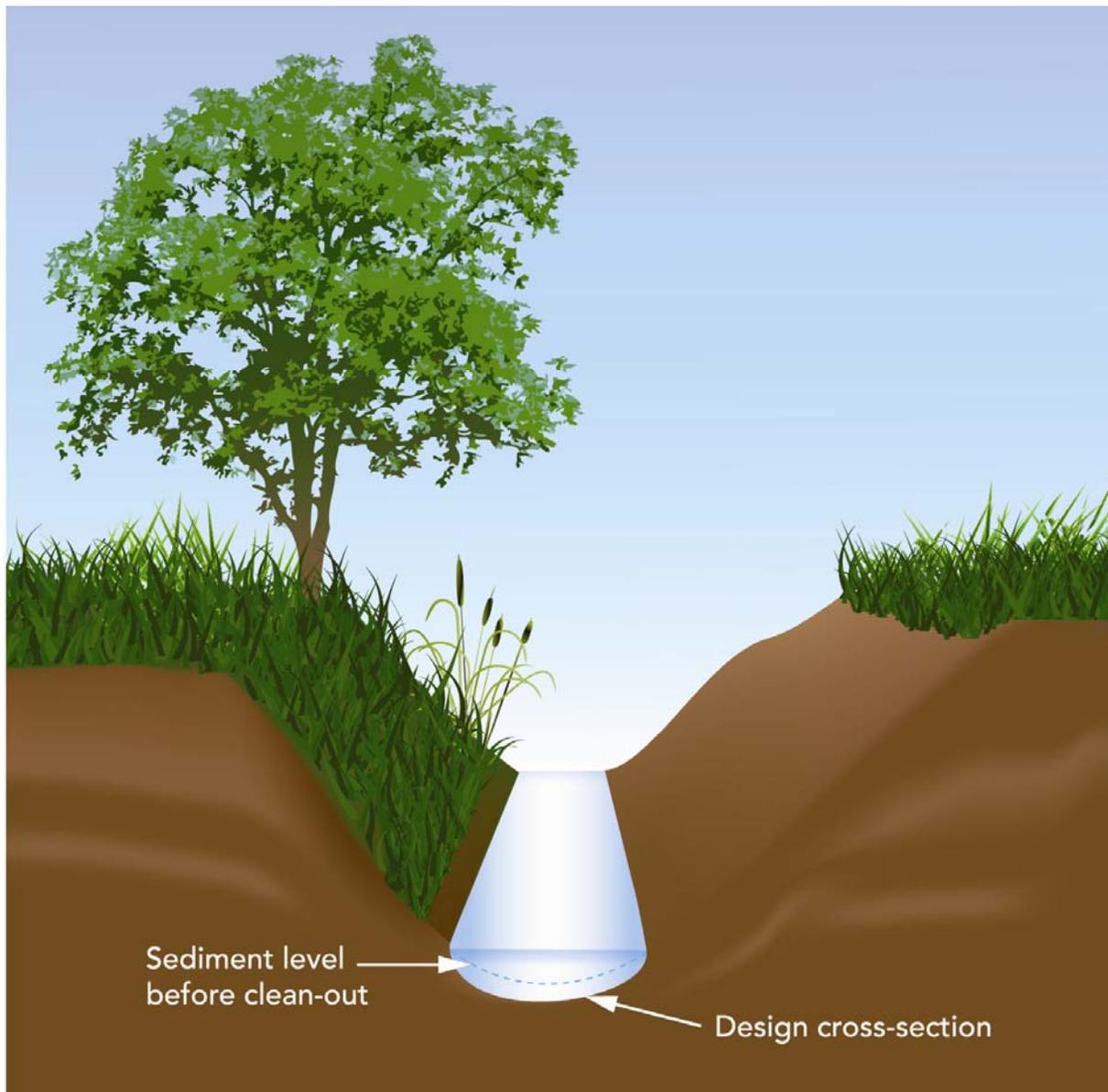


Figure 5: Full cleanout (Standard Compliance Requirements Statements L, O)

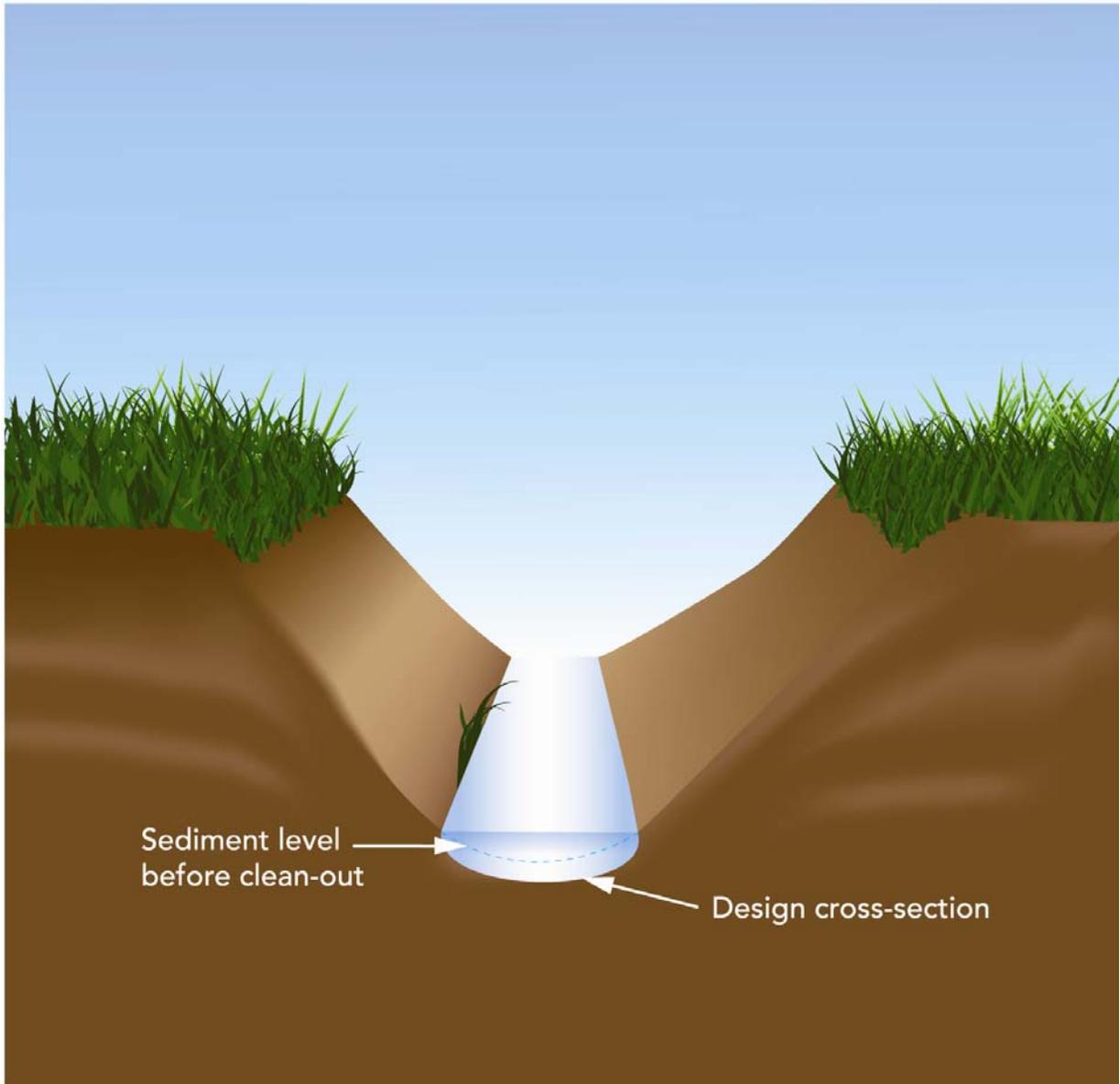
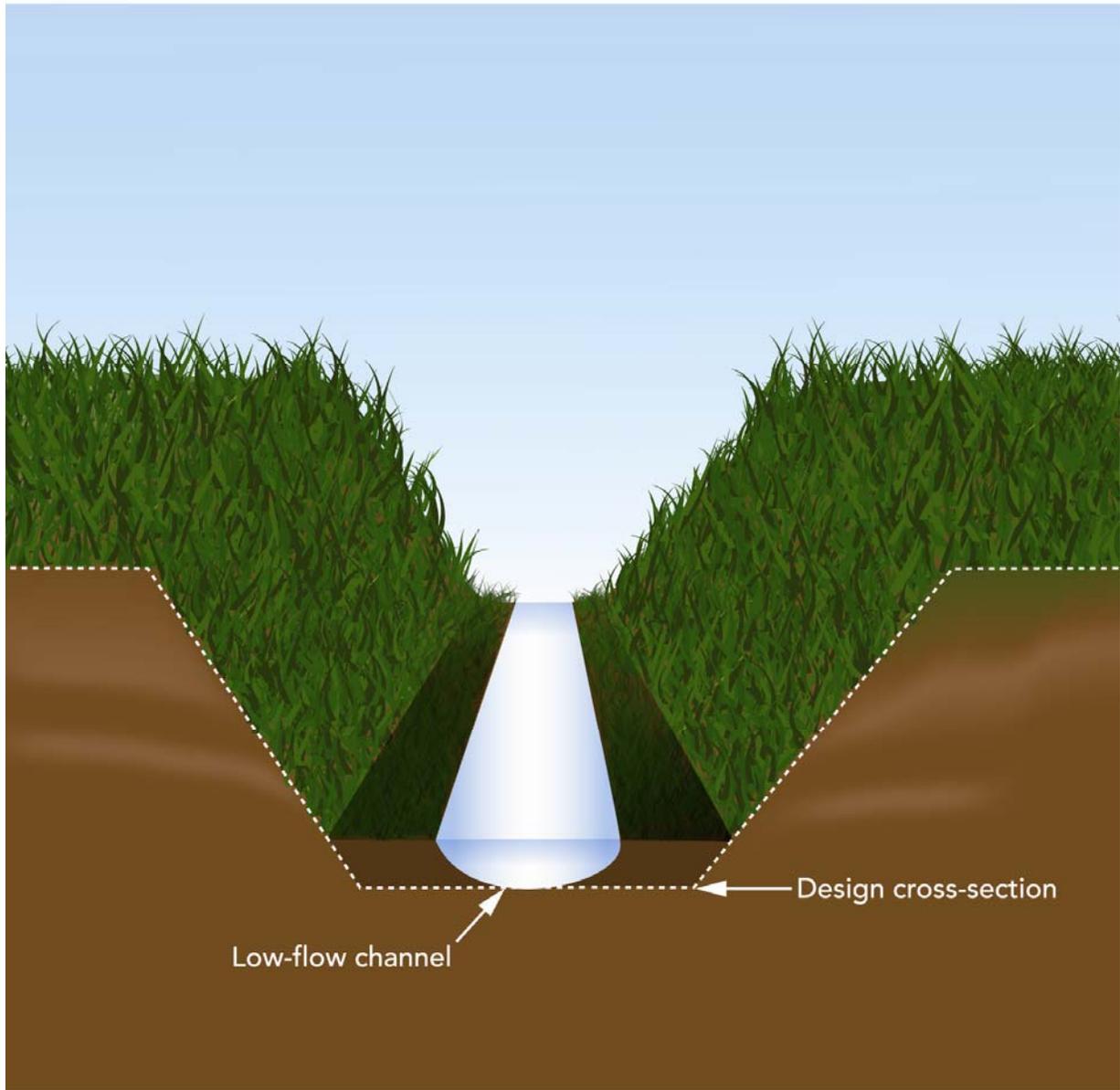


Figure 6: Two-stage/low-flow channel (Sediment and Erosion Control Measures)



Appendix IV: Agency Roles and Responsibilities

Ministry of Natural Resources (MNR)

The Ministry of Natural Resources is responsible for natural hazard prevention and management in Ontario. The *Conservation Authorities Act* is administered by MNR through its Conservation Authorities Program in the Integration Branch and Biodiversity Branch at MNR.

Where CAs exist, they have been delegated responsibility for delivering natural hazard management programs on behalf of their participating municipalities and the province, including *flooding* and *erosion* control, flood forecasting and warning, ice management, and natural hazard prevention through municipal plan input and regulating *development* in natural hazard areas. MNR provides the overall direction, guidance and technical standards with respect to natural hazard management.

Ministry of Agriculture, Foods and Rural Affairs (OMAFRA)

The Environmental Management Branch of the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is responsible for the administration of the *Drainage Act*, the *Tile Drainage Act* and the *Agricultural Tile Drainage Installation Act*. OMAFRA staff provide guidance, direction and training in the use of these statutes.

Municipalities

Municipalities have the legislative responsibility, under Section 74 of the *Drainage Act*, to repair and maintain *municipal drains* which are a critical part of the municipal infrastructure in Ontario. Municipal Councils, by by-law, may appoint a *drainage superintendent* to initiate, supervise and assist in the *maintenance, repair* and improvements of *municipal drains*.

Under the *Conservation Authorities Act*, conservation authorities are created as corporate bodies with boards of directors; the boards are comprised of representatives appointed by participating municipalities. The number of representatives each municipality may appoint is proportional to the population of the municipality within the authority's jurisdiction, and is determined by the CA Act. Most of these appointees are elected municipal councilors. The programs undertaken by conservation authorities in natural hazard prevention and management under the *CA Act* are jointly funded by the province and participating municipalities. The participating municipalities may also direct and fund conservation authorities in additional programs of local resource management interest such as stewardship.

Municipalities therefore have responsibilities connected with both the *Drainage Act* and the *Conservation Authorities Act*.

Conservation Authorities

Through the *Conservation Authorities Act*, 36 conservation authorities have been established in Ontario. Conservation authorities are local resource management agencies organized on a *watershed* basis that deliver programs for municipalities and the province.

Under Section 28 of the *Conservation Authorities Act*, conservation authorities regulate *development* in or adjacent to *watercourses*, *wetlands*, the shoreline of the Great Lakes-St. Lawrence River System or inland lakes, river or stream valleys, *hazardous lands* and other areas where, in the opinion of the Minister, *development* should be prohibited or regulated or should require the permission of the authority. A conservation authority may grant permission for development if, in the opinion of the authority, the control of *flooding*, *erosion*, *dynamic beaches*, *pollution* or the conservation of land is not affected. CAs also regulate activities that change, divert, or interfere in any way with the existing channel of a river, creek, stream or *watercourse*, or that change or interfere in any way with a *wetland*. Permission may be denied, granted, or granted with conditions.

Appendix V: Relevant Legislation

1. The *Drainage Act*
2. The *Conservation Authorities Act*

Drainage Act

The *Drainage Act* defines a process whereby property owners can petition their local municipality to develop communal solutions to solve drainage problems. On several occasions, the *Act* has been reviewed and refined to the point that the procedure now provides affected property owners with numerous opportunities to express their needs, desires, concerns and opinions in the development of a proposed drainage project.

The *Drainage Act* is primarily used in rural Ontario but is occasionally used to resolve drainage issues in urban areas. It has also been used to develop a legal outlet for storm and surface water generated from urban areas. Regardless of where the *Drainage Act* is used, the end result of using the procedures in the *Act* is the construction of a “municipal drain”. *Municipal drains* are communal drainage systems that are designed to accommodate water flowing from the properties located within the *watershed*. They are as vital to rural Ontario as storm sewers are to urban areas.

New Drain Construction (Section 4)

The *Drainage Act* provides a procedure that allows landowners to petition their local municipality to construct a "drainage works" to resolve their drainage problems. The *Act* defines “drainage works” as:

a drain constructed by any means, including the improving of a natural watercourse, and includes works necessary to regulate the water table or water level within or on any lands or to regulate the level of the waters of a drain, reservoir, lake or pond, and includes a dam, embankment, wall, protective works or any combination thereof

Physically, a municipal drain is simply a drainage system. Most *municipal drains* are either ditches or closed systems such as pipes or tiles buried in the ground. They can also include structures such as dykes or berms, pumping stations, buffer strips, grassed waterways, storm water management ponds, water control structures, culverts and bridges. Even some creeks and small rivers are now considered to be *municipal drains*. To minimize negative impacts, sometimes a right of way along a *watercourse* or through a *wetland* is identified as a municipal drain strictly for the purpose of removing beaver dams and other obstructions without the need for channelization work.

When a petition for drainage is filed at the municipal office, the municipality must notify the conservation authority or, where there is no conservation authority, the District office of the Ministry of Natural Resources, who have an opportunity to comment on the proposed project and to request an environmental appraisal. Thirty days after the notice has been sent out, the municipality retains an engineer. The engineer holds an “on-site meeting” with the affected landowners, agencies and other interested parties invited. One of the purposes of this meeting is to determine what the landowners want to achieve with this drainage system and to also determine the various factors that could influence the design of the system. Some examples of the factors that influence drain design is the presence of buried public utilities, poor soil conditions, the need for an outlet for tile drainage, current land use, possible future land use changes, the presence of fish habitat, or compliance with other applicable laws.

The municipal council can instruct the appointed engineer to prepare a preliminary report. This process allows the engineer to explore different options (e.g. form of drain or drain routes) that could be used to address the problem and the associated costs. After a meeting to consider this preliminary report, a preferred alternative is selected and the engineer is instructed to prepare the final report.

The engineer will then perform the detailed survey and site examination of the area and develop plans, profiles and specifications for the proposed drain design. Since most drains are located primarily on private land, the engineer also develops recommended “allowances” to be paid to affected landowners for land lost or damages that will occur during the construction of the drainage system and this becomes part of the cost of the drain. Since a key element of every *Drainage Act* project is cost recovery, the engineer will also include “assessment schedules” in the report that assesses a share of the cost to all the landowners in the *watershed* of the drain. Finally, the engineer must also ensure that the proposed project complies with all applicable law.

Once the report is prepared, the engineer sends it to the municipal council who invites all the landowners, agencies and other affected parties to a “meeting to consider the report” where they can express concerns about the proposed project. After this meeting, council can either refer the report back to the engineer for modifications or they can proceed to the next step in the process by adopting the engineer’s report by provisional by-law.

At this stage, landowners, agencies and other affected parties have the right to appeal the engineer’s report to three different appeal bodies:

- 1) The Court of Revision is a municipally appointed appeal body. Property owners who feel they are assessed unfairly for the cost of the project can appeal their assessment to this appeal body. Hearings are held locally.
- 2) The Agriculture, Food and Rural Affairs Appeal Tribunal is a provincially

- 3) The Drainage Referee is a provincially appointed appeal body that hears appeals on the legality of a project or the procedural application of the *Drainage Act*. Hearings are held in the local courthouse.

After all appeals have been dealt with, the council gives final passage of the by-law adopting the engineer's report, thereby authorizing construction of the drainage system. After the drain is constructed, the total cost of the project is determined and the costs are prorated to the property owners in the *watershed* of the drain in proportion with the amounts in the assessment schedule in the engineer's report.

In summary, a municipal drain:

- 1) Is a community project — through the public process with numerous meetings and various appeal rights, landowners, agencies and other affected parties have the right to question, comment on and challenge virtually every aspect of the proposed project.
- 2) Has legal status — the communally accepted standards for the project are contained in the engineer's report and are adopted by municipal by-law. This by-law gives the municipality the authority to enter onto land to construct the drain and levy the cost of the project to the landowners.
- 3) Is municipal infrastructure — once a municipal drain has been constructed under the authority of a by-law, it becomes part of that municipality's infrastructure. The local municipality is responsible for repairing and maintaining the municipal drain in accordance with the engineer's report. In certain circumstances, the municipality can be held liable for damages for not maintaining these drains.

Improvement of Existing Drains (Section 78)

A municipality can only manage a drain to the standard of the current engineer's report. Sometimes, because of changes in agricultural practices, land use, or the need for environmental enhancements, the existing drain standard is no longer suitable. When this occurs, new communally accepted standards need to be developed for the drain. Therefore, the local municipality appoints an engineer to prepare a new report for the improvement of the drain. No petition is required, but many municipalities ask a landowner to submit a written request for the work. Once an engineer has been appointed, similar procedures are followed as for a new drain.

This ability to make improvements to a drain is essential, not only from a water-carrying perspective, but also to allow environmental enhancements to be included in the drain that were never considered when the drain was initially

constructed. For example, “Wetland Drain Restoration Projects” would be authorized through the improvement section of the *Drainage Act*.

Maintenance and Repair of Existing Drains (Section 74)

The *Drainage Act* clearly assigns the responsibility for the *maintenance* and *repair* of *municipal drains* to the **local municipality**. The cost of performing this work is levied to the upstream landowners in the *watershed* of the drain. If the municipality does not perform these responsibilities, it can be held liable for damages that occur to landowners along the drain. A municipal council therefore maintains drains as part of its regular infrastructure maintenance, but also has a responsibility to act when it receives a request for *maintenance* or *repair* from a landowner affected by the condition of a municipal drain.

The activities of *maintenance* and *repair* are both performed on behalf of council by their appointed *drainage superintendent*. Once appointed by by-law, the *drainage superintendent* has the authority to enter onto land to perform these duties. The cost of *maintenance* and *repair* work is assessed to the upstream landowners in the *watershed* of the drain in accordance with the current accepted assessment schedule. For these reasons, it is common to combine both activities into the single term of ‘maintenance’.

The terms “*maintenance*” and “*repair*” are often used interchangeably, but the difference is notable. Section 1 of the *Drainage Act* states that:

- *Maintenance* means the preservation of a drainage works;
- *Repair* means the restoration of a drainage works to its original condition.

This means that repairs must be done in accordance with the communally accepted standards for that drain as detailed in the plans, profiles and specifications in the engineer’s report. Since *repair* involves the restoration of a drainage works to its original condition, the superintendent should have the plans, profiles and specifications of that drain in order to ascertain what the original condition actually was. Therefore, sediment removal from an open ditch municipal drain, repair or replacement of a tile municipal drain, repair or replacement of a culvert or bridge and many more activities are all considered as *repairs*. However, deepening or widening a drain beyond its original design or relocating a drain are not *repair* activities. If a municipality undertook these types of activities without developing new communal standards (new engineer’s report), the assessed landowners would be able to legally challenge the municipality’s actions.

However, *maintenance* is not bound by the plans, profiles, and specifications in the engineer’s report, provided the work is for the “preservation” or “well-being” of that drain. Therefore, *maintenance* quite clearly includes activities such as the removal of brush, controlling vegetation growth and seeding disturbed bank slopes. *Maintenance* would also include the video inspection of a tile municipal

drain. The removal of beavers from a municipal drain, performed in compliance with the *Fish and Wildlife Conservation Act*, would also be considered *maintenance*. Finally, *maintenance* would also include the installation of silt fences and sediment traps to avoid sediment being deposited in lower reaches of a municipal drain.

In summary, a municipality has no authority to undertake *repair* work on a municipal drain that deviates from the communally accepted standards for the drain as defined in the engineer's report. *Maintenance* activities that reduce the need for future *repair* work can be undertaken.

Enforcement

Once a drainage system has been constructed under the *Drainage Act*, the municipality has a responsibility to manage the system on behalf of the community of landowners in the *watershed* of the drain. If someone has blocked a municipal drain, the *Drainage Act* provides the municipality the authority to order the removal of that blockage and, if the work is not completed within the time allowed, to remove the blockage and place the costs on the tax roll of the property owner. The *Act* also provides the municipality with the right to take legal action against anyone who damages a municipal drain.

There are also broad enforcement powers granted to the Drainage Referee, the legal appeal body under the *Drainage Act*. The Referee has the authority to determine claims and disputes, including claims for damages. The Referee also has the authority to hear applications for orders to do or to restrain activities under the *Drainage Act*.

The Drainage Superintendent (Section 93)

The *drainage superintendent*, employed by the municipality, has a central function in *Drainage Act* activities. The superintendent is essentially the local "municipal drain manager" whose responsibilities include inspecting drains, maintaining drains, and liaising with landowners, council, contractors, environmental approval agencies, etc. The cost of employing the *drainage superintendent* is charged to the general funds of the municipality.

Conservation Authorities Act

The *Conservation Authorities Act* is administered by the MNR and provides for municipalities within a common *watershed* to enter into partnership with the Province to establish a conservation authority (CA) for local resource management work. There are currently 36 CAs in Ontario. The objects of a CA under the *Conservation Authorities Act* are to establish and undertake, in the

area over which it has jurisdiction, a program designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals.

The *Conservation Authorities Act* was created in 1946 in response to erosion and drought concerns, recognizing that these and other natural resource initiatives may be best managed on a *watershed* basis. In 1956, in response to the severe economic and human losses associated with Hurricane Hazel (1954), amendments to the *Conservation Authorities Act* first enabled conservation authorities to make regulations to prohibit filling in floodplains. These regulations were broadened in 1960 to prohibit or regulate the placing or dumping of fill in defined areas where, in the opinion of the conservation authority, the control of *flooding*, *pollution* or the conservation of land may be affected. In 1968, amendments to the *Conservation Authorities Act* further extended the regulations to prohibit or control construction and alteration to waterways, in addition to filling.

In 1998, the *Conservation Authorities Act* was amended to ensure that regulations under the *Act* were consistent across the province and complementary to provincial policies. Significant revisions were made to Section 28, which led to the replacement of the previous “Fill, Construction and Alteration to Waterways” Regulation with the current individual *Conservation Authorities Act* S. 28 “Development, Interference with Wetlands and Alterations to Shorelines and Watercourses” Regulations. These individual *Conservation Authorities Act* S. 28 regulations were approved by the Minister of Natural Resources in 2006, and are consistent with Ontario Regulation 97/04, which outlines the form and content that the individual regulations must have.

Through these regulations conservation authorities regulate *development* in or adjacent to river or stream valleys, the shoreline of the Great Lakes-St. Lawrence River System or inland lakes, *hazardous lands* and other areas where, in the opinion of the Minister, *development* should be prohibited or regulated or should require the permission of the authority. These ‘other areas’ are areas where *development* could interfere with the hydrologic function of a *wetland*, generally including areas within 120 metres of all *provincially significant wetlands* and *wetlands* greater than 2 hectares in size, and areas within 30 metres of *wetlands* less than 2 hectares in size. CAs also regulate activities that change or interfere with *wetlands* or with the existing channel of a *watercourse*.¹⁸

It should be noted that it is not necessary to map a feature before it can be regulated. While individual *Conservation Authorities Act* S. 28 regulations refer to maps, which approximate regulation limits (and may be subject to revision), the text of the regulation prevails. The provincially approved *Guidelines for Developing Schedules of Regulated Areas* (2005) identify the requirements for

¹⁸ For the *CA Act* see http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90c27_e.htm; for O.Reg 97/04 see http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_040097_e.htm

the preparation of maps and/or revisions to existing maps. Detailed studies requested at the time of an application may further refine or delineate the regulated features based on these guidelines (e.g. *hazardous lands*).

To receive permission for *development* under the *Conservation Authorities Act*, it must be demonstrated in an application to the satisfaction of the authority that the control of *flooding, erosion, pollution, dynamic beaches* or the conservation of land will not be affected. The control of *dynamic beaches* is generally applicable to the Great Lakes shorelines and large inland lakes regulated areas.

To support permit applications, the submission of technical studies may be necessary. These technical studies must be carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of the conservation authority. These established procedures should be in keeping with MNR's Technical Guides for Natural Hazards (MNR, 2002a; MNR, 2002b; MNR, 1996a; MNR, 1996b; and MNR 1996c), other Provincial guidelines and/or guidelines approved by the conservation authority Board that are within the intent of the Act and regulation. Expertise for reviewing technical studies varies among conservation authorities. Where expertise within the conservation authorities is not available, the authority may request that the study be peer-reviewed by a qualified professional at the expense of the applicant. Under Section 21 of the *Conservation Authorities Act*, CAs may charge fees to process applications for permission under S.28 regulations.

In conjunction with MNR-approved policy and guidelines such as the Natural Hazard Technical Guides, CA board-approved policies provide a decision-making framework for the review of applications under the *Conservation Authorities Act* S. 28 individual regulations. Under MNR's Policies and Procedures for Conservation Authority Plan Review and Permitting Activities, CA Board-approved policies are to ensure a consistent, timely and fair approach to the review of applications, staff recommendations and Board decisions.

CAs must issue permissions in writing. A CA may issue a permit, issue a permit with conditions, or refuse a permit. Should a proponent violate a permission, including conditions on a permit, or undertake works without a permission, the CA may issue a notice of violation and if necessary enter into legal proceedings.

For an application to be refused or where the applicant objects to the conditions of approval, the *Conservation Authorities Act* requires that the applicant be given the opportunity to a hearing by the conservation authority Board or Executive Committee (sitting as a Hearing Board). The provincially approved Section 28 (3) Hearing Guidelines (2005) provides a step-by-step process for conducting hearings required under Section 28 (12), (13), (14) of the *Conservation Authorities Act*. Conservation authorities should conduct a hearing under their individual Regulation in a manner consistent with these guidelines. The Hearing

Board is empowered by law to make a decision, governed by the *Statutory Powers Procedures Act*. It is the purpose of the Hearing Board to evaluate the information presented at the hearing by both the authority staff and the applicant and to decide whether the application will be approved with or without conditions or refused.

An applicant who has been refused permission or objects to conditions imposed on a permission may, within 30 days of receiving the written notice of the hearing decision, appeal to the Minister of Natural Resources, who may refuse the permission or grant permission, with or without conditions. The Mining and Lands Commissioner has been assigned the authority, duties and powers of the Minister of Natural Resources by regulation under the *Ministry of Natural Resources Act* to hear appeals from the permit decisions of conservation authorities made under the *Conservation Authorities Act*. The Commissioner's decision is final and binding. There are no further appeal procedures with the exception of a "judicial review" based on a decision where there is a perceived "error in law."

Enforcement

An authority may appoint officers to enforce the regulation. Under S.28 (16) of the *Conservation Authorities Act*, if a person violates a permission, including conditions on a permit, or undertakes works without a permission, the CA may issue a notice of violation and if necessary enter into legal proceedings. A person convicted of contravening the regulation may be fined and/or ordered to remove *development* or rehabilitate a *watercourse* or *wetland*, as per S.28 (17) of the *CA Act*.