



Conservation ONTARIO

Ontario's 36 Conservation Authorities



DART Protocol Standard Compliance Requirements (SCR's)

January 30, 2013 – Guelph, ON
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Outline

Standard Compliance Requirements

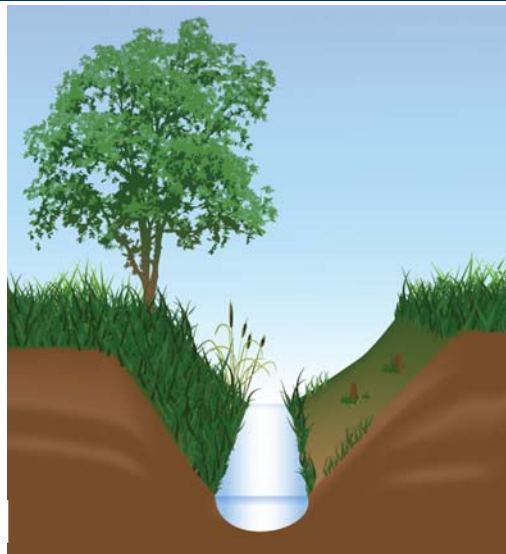
- Standard Compliance Requirements
 - Maintenance Activities Diagrams
 - Maintenance Activities
- Mitigation Examples – Two-stage and Staging
- SCR – contents and explanation
- Processes for works:
 - i) Not located in regulated wetland limits
 - ii) Located in regulated wetland limits
- Issuance of SCR's
- Emergency Works

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	✓	
Dam Maintenance and Repair	✓	
Pump Station Maintenance and Repair	✓	
Pipe, Junction Box or Catch Basin Maintenance and Repair	✓	
Bottom Only Cleanout (<i>outside of regulated wetland limits</i>)	✓	
Bottom Cleanout Plus One Bank Slope (<i>outside of regulated wetland limits</i>)	✓	
Full Cleanout (<i>outside of regulated wetland limits</i>)	✓	
Bottom Only Cleanout (<i>within regulated wetland limits</i>)		✓
Bottom Cleanout Plus One Bank Slope (<i>within regulated wetland limits</i>)		✓
Full Cleanout (<i>within regulated wetland limits</i>)		✓



Brushing Bank Slope

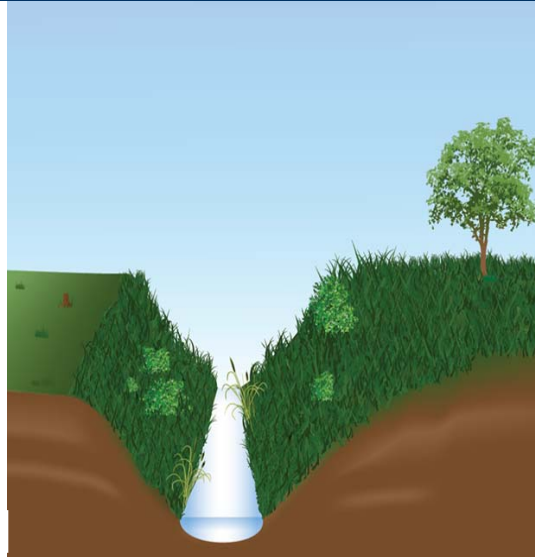
- The removal of trees and other vegetation from the side slopes of a municipal drain.
- should not disturb soil or remove the roots of any trees or shrubs.





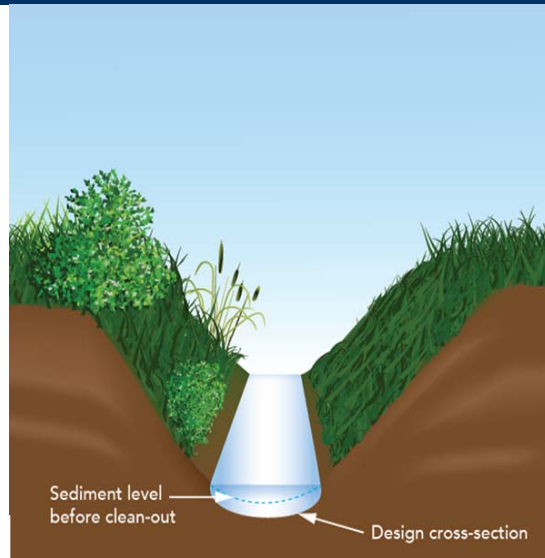
Brushing Top of Bank

- The removal of trees and other vegetation from the top of a bank.
- May require the removal of roots or the disturbance of soil.



Bottom Only Cleanout

- Removal of accumulated sediment in a drain.
 - Includes spreading of the spoil
 - Removal of vegetation in bottom of channel
- * **Bottom only cleanouts shall not go beyond design grade or cross-section**

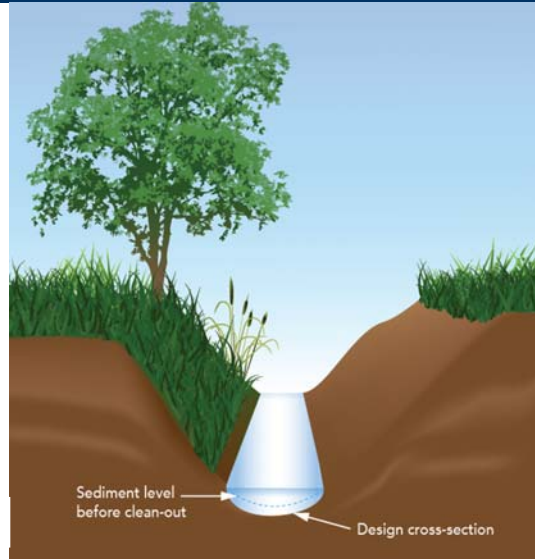




Bottom Cleanout + One Bank Slope

- Removal of accumulated sediment in a drain
- Includes spreading of the spoil
- Removal of vegetation in the bottom of the channel
- Removal of slope vegetation (including root removal)

*** Bottom and one bank slope cleanouts shall not go beyond design grade or cross-section**



Full Cleanout

- Removal of accumulated sediment in a drain
- Includes spreading of the spoil
- 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 (as required)

*** Full cleanouts shall not go beyond design grade or cross-section**





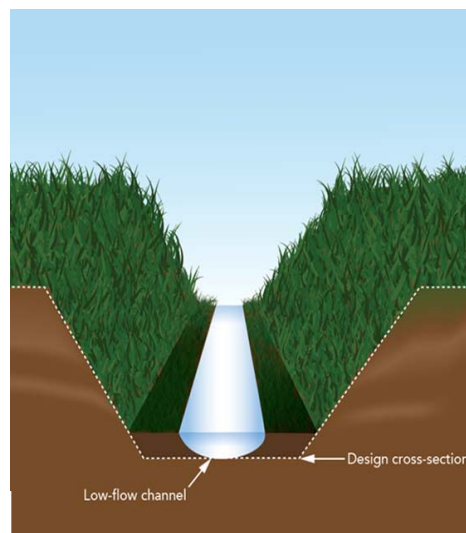
Other Activities

- 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
- Pipe, Junction Box or Catch Basin Maintenance and Repair (Standard Best Practices)



Two-stage / Low flow Channel

- Constructed or as an alternative drain maintenance technique
- low-flow channel with low-level vegetated benches on either side.
- has the capacity to convey low/normal flows in the low-flow channel, and can accommodate higher flows.
- reduces maintenance requirements by reducing erosion, turbidity, and sediment export,
- excess sediment and nutrients settle out onto the vegetated benches.





Staged Cleanouts

- “cleanout of a drain conducted in stages by dividing it into sections along its length, and maintaining one section at a time.”
- Considerations
 - sensitivity
 - scale of works
 - temporal scale
 - timing



Contents for SCR's (not located in regulated wetland limit)

- Description of Typical Works
- Activity Specific Mitigation Requirements
- General Mitigation Requirements
- Sign-off

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.

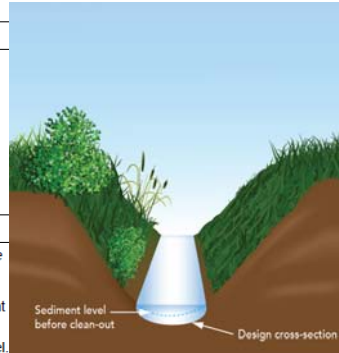
Activity-Specific Mitigation Requirements

- 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.



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: _____



Contents for SCR's (located in regulated wetland limit)

- Description of Typical Works
- General Permitting Information
- Mitigation Measures to be undertaken should a SCR be chosen
- General Mitigation Requirements
- Sign-off

STANDARD COMPLIANCE REQUIREMENTS Maintenance and Repair of Municipal Drains Constructed under the Drainage Act within <i>Regulated Wetland Limits</i> (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 <i>wetlands</i> . 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 <i>wetland</i> .	
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	
<ul style="list-style-type: none"> • 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 <i>flooding</i> upstream and downstream. • Minimize channel width to reduce sediment deposition. • Perform work in no/low flow conditions to minimize sediment movement and <i>erosion</i>. Avoid work after recent precipitation or snowmelt. • The conservation authority, <i>drainage superintendent</i> and property owner should agree on access to the site where not specified in the Engineer's Report. 	
	<p>The diagram shows a cross-section of a drain. A blue pipe is installed in a trench. A horizontal line indicates the 'Sediment level before clean-out' which is higher than the pipe's top. A dashed line indicates the 'Design cross-section' which is lower than the current sediment level. The trench is surrounded by soil and vegetation on the sides.</p>



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 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.



Process for General Works (not located in regulated wetland limit)

1. The municipality completes a Drain Maintenance or Repair Notification form for each drain maintenance or repair project, and submits it to the CA. **The Municipality is also responsible for submitting form to MNR if approvals required under ESA.**
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.

If the CA has concerns that a maintenance or repair project may not meet the SCR for that activity, the CA will advise 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



Process for General Works (not located in regulated wetland limit)

4. The CA sends a signed copy of the SCR for the specific activity being undertaken (e.g. spot clean-out) to the municipality.

By signing the SCR statement the CA is providing a written permission and acknowledges awareness of the work.

5. The municipality undertakes the work in accordance with the SCRs.
6. The Drainage Superintendent and the CA will jointly monitor activities for adherence to the SCRs (at their discretion).

The CA will endeavour to provide the signed SCR to the municipality within 15 working days of receipt of a complete notification form.



Process

(works located in regulated wetland)

Steps 1, 2 and 3 same as previous example.

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 for **works outside of regulated wetland limits** would be followed.

If the CA requires the municipality to obtain a permit, the municipality will undertake the normal permit application procedures.

“Policies and Procedures for Conservation Authority Plan Review and Permitting Activities” and the CA’s internal policies will be followed.



Process

(works located in regulated wetland)

Communication between all parties is encouraged as early as possible in order to identify, discuss, mitigate and resolve any potential issues or concerns of either party.

- The CA may place conditions on a permit, but due to the municipality's duty to maintain drainage works under the Drainage Act, the CA and 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 (DIRT).



Process

(works located in regulated wetland)

3. The municipality undertakes the work in accordance with the permit.



Issuance of SCR

For maintenance or repair activities that the conservation authority agrees fall within the scope of an SCR, the CA will make all attempts to provide sign-off for the SCR within 15 working days upon receipt of a completed notification form.



Emergency Works

- 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:
 - structural failure/collapse of a crossing
 - 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.



Conservation ONTARIO

Ontario's 36 Conservation Authorities

Questions?

Drainage Act and Conservation Authorities Act Protocol

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



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