



Full Authority Agenda

March 22, 2023 KCCA Admin Centre

10:00 a.m.

This meeting will be held electronically. The recording and draft minutes will be posted to KCCA’s web site on March 23, 2023. The meeting will be streamed live at the following link:

Facebook Page - <https://www.facebook.com/KettleCreekCA/>

Audio/Video Recording Notice

“Board members, staff, guests and members of the public are reminded that the Full Authority Board/Committee meeting is being recorded, and will be posted to the Authority’s web site along with the official written minutes. As such, comments and opinions expressed may be published and any comments expressed by individual Board members, guests and the general public are their own, and do not, represent the opinions or comments of the Full Authority and/or the KCCA Board of Directors.

The recorded video of the Full Authority meeting is not considered the official record of that meeting. The official record of the Full Authority meeting shall consist solely of the Minutes approved by the Full Authority.”

Introductions and Declarations of Pecuniary Interest

Hearing Board

Minutes of Meetings

a) February 8, 2023 Full Authority Meeting	3
a) February 22, 2023 Annual General Meeting	9

Matters Arising

a) Media Report (Marianne)	15
b) Project Tracking (Elizabeth)	17
c) Watershed Conditions (Jennifer)	19
d) Diversity, Equity and Inclusion Report (Marianne)	21
e) Quarterly Progress Report (Betsy)	23

Recommendation: That Matters Arising a) through e) be received.

Correspondence

a) From MPP Rob Flack to Minister David Piccini, MECP Re: Board Representation February 15, 2023	27
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Statement of Revenue and Expenses



Full Authority Agenda

March 22, 2023 KCCA Admin Centre

10:00 a.m.

New Business

- a) Automated Payments (Jessica).....34
Recommendation: That staff proceed to establish automatic bank withdrawals for the identified corporate vendors outlined in the staff report.
- b) 2023 Conservation Areas Fees Update (Joe).....36
Recommendation: That the KCCA Board of Directors approve the updates to the 2023 Conservation Area Fees as presented.
- c) Floodplain Mapping RFP Results (Jennifer)39
Recommendation: That the contract for the KCCA Enhanced Riverine Floodplain Mapping Project be awarded to Aquafor Beech with an upset limit of \$117,125 including applicable taxes to allow for final determination of project scope and contingencies.
- d) Watershed Report Card (Jennifer)42
Recommendation: That the 2023 Watershed Report Card and the 2023 Watershed Report Card Background Report be approved as presented.
- e) Section 28 Permit Update – Standard Compliance Requirements (Joe).....78
Recommendation: That the KCCA Board of Directors approve the Standard Compliance Requirement forms of the “Drainage Act and Conservation Authorities Act Protocol (DART)” and the “2021 Memorandum of Understanding between Conservation Ontario and Hydro One networks Inc.” as Section 28 Regulation Permits for associated development or alterations.
- f) March Planning and Regulations Activity Report.....197
Recommendation: That March Planning and Regulations Activity Report be received.

Closed Session

- a) Closed Session Minutes February 8, 2022
- b) Property Matter – Potential Acquisition
- c) Property Matter – Security of Property

Up Coming Meetings

KCCA Full Authority Meeting	April 19, 2023	Hybrid	10:00 a.m.
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Full Authority Minutes

February 8, 2023

A meeting of the Full Authority of the Kettle Creek Conservation Authority was held on Wednesday, February 8, 2023 at 10:05 a.m. The meeting was streamed live to Facebook.

The meeting came to order at 10:05 a.m.

Audio/Video Record Notice

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The recorded video of the Full Authority meeting is not considered the official record of that meeting. The official record of the Full Authority meeting shall consist solely of the Minutes approved by the Full Authority.

Ms. VanHooren conducted a roll call with the following members identifying their presence:

Members Present:

Frank Berze	Middlesex Centre	In Person
Lori Baldwin-Sands	St. Thomas	In Person
Grant Jones	Southwold	In Person
Todd Noble	Central Elgin	In Person
Sam Trosow	London	Virtual
John Wilson	Malahide	In Person

Members Absent:

Jim Herbert	St. Thomas
Sharron McMillan	Thames Centre

Staff Present:

Jennifer Dow	Water Resources Supervisor	Virtual
Joe Gordon	Manager of Planning and Development	In Person
Jessica Kirschner	Resource Assistant	Virtual
Jeff Lawrence	Forestry and Lands Supervisor	Virtual
Betsy McClure	Stewardship Program Supervisor	Virtual
Elizabeth VanHooren	General Manager/Secretary Treasurer	In Person

Brandon Lawler	Forests and Lands Technician	Virtual
Marianne Levogiannis	Public Relations Supervisor	Virtual
Rob Lindsay	Conservation Area Coordinator	Virtual

Guests:

Jim Frederick	Partner, Graham Scott Enns	Virtual
Scott Trevors	Senior Manager, Graham Scott Enns	Virtual

As some members and guests attended virtually, all votes were recorded and are included in the Recorded Vote Registry.

Introductions & Declarations of Pecuniary Interest

There were no declarations of pecuniary interest.

Hearing Board

There was no Hearing required.

Members entertained a request from staff to enter Closed Session at the beginning of the meeting.

The livestream of the meeting stopped and resumed following the Closed Session.

Closed Session

The Closed Session meeting began at 10:07 a.m.

FA30/2023

Moved by: Lori Baldwin-Sands

Seconded: Todd Noble

That the Full Authority move to Closed Session to discuss legal, personnel or property matters.

Carried

FA31/2023

Moved by: Frank Berze

Seconded: John Wilson

That the Full Authority revert to open session and report.

Carried

The Open Session resumed at 10:17 a.m.

a) Minutes

FA32/2023

Moved by: Todd Noble

Seconded: Frank Berze

That the minutes of the Closed Session meeting of January 18, 2023 be approved.

Carried

b) Legal Matter

FA33/2023

Moved by: John Wilson

Seconded: Todd Noble

That staff proceed as directed on a Legal Matter.

Carried

Minutes of Meeting

FA34/2023

Moved by: Frank Berze

Seconded: John Wilson

That the minutes of the January 18, 2023 Full Authority meeting be approved.

Carried

Matters Arising

FA35/2023

Moved by: Frank Berze

Seconded: John Wilson

That Lori Baldwin-Sands be named as Kettle Creek Conservation Authority's representative on the Western Fair Association.

Carried

Correspondence

- a) Invitation to Lower Thames Valley Conservation Authority AGM

VanHooren noted that she expected to receive invitations from the Catfish Creek Conservation Authority and the Long Point Region Conservation Authority for their respective Annual General Meetings. Dates and times for these meetings were also shared and members encouraged to RSVP directly or through VanHooren.

FA36/2023

Moved by: Lori Baldwin-Sands

Seconded: Todd Noble

That the correspondence be received as presented.

Carried

Statement of Revenue and Expenses

- a) 2022 Draft Audited Financial Statements (Staff Report)
- b) Draft Financial Statements (Scott Trevors/Jim Frederick – Graham Scott Enns)
- c) Audit Planning and Finding Letters

Scott Trevors provided an overview of the draft Financial Statements. Members were invited to ask questions. The Statements will be presented for final approval at the Annual General Meeting.

FA37/2023

Moved by: Frank Berze

Seconded: Todd Noble

That the report on the Draft Audited Financial Statements be received and that the Audit Planning and Finding Letters be executed.

Carried

New Business

- a) Draft 2023 Budget

Member municipalities did not submit any questions or concerns. The 2023 Budget as updated will be presented for approval at the Annual General Meeting.

FA38/2023

Moved by: Todd Noble

Seconded: Frank Berze

That staff report on the updated Draft 2023 Budget be received.

Carried

- b) Dalewood Dam Inspection Report

FA39/2023

Moved by: Lori Baldwin-Sands

Seconded: Todd Noble

That the staff report and GD Vallee's letter dated January 10, 2023 be received.

Carried

- c) Homelessness and Encampment Safety

FA40/2023

Moved by: Frank Berze

Seconded: John Wilson

That the KCCA Safe Work Procedure for Homelessness and Encampment Safety be approved as presented.

Carried

- d) February Planning and Regulations Report

FA41/2023

Moved by: Todd Noble

Seconded: John Wilson

That the February 2023 Planning and Regulations Activity Report be received.

Carried

New Business

Baldwin-Sands requested that staff prepare a report for the March Meeting on how staff plan to support and implement an Indigenous land acknowledgement and other calls to action.

Upcoming Meetings

The next meeting of the Full Authority will be the Annual General Meeting on February 22, 2023 starting at 10:00 a.m.

FA42/2023

Moved by: Lori Baldwin-Sands

Seconded: John Wilson

That the meeting adjourn.

Carried

The meeting adjourned at 10:59 a.m.



Elizabeth VanHooren
General Manager/Secretary Treasurer

Grant Jones
Chair

DRAFT

Recorded Vote Registry FA30/2023 to FA35/2023

A=Absent Y=Yes N=No

Board Member	FA30/2023	FA31/2023	FA32/2023	FA33/2023	FA34/2023	FA35/2023
Baldwin-Sands	Y	Y	Y	Y	Y	Y
Berze	Y	Y	Y	Y	Y	Y
Herbert	A	A	A	A	A	A
Jones	Y	Y	Y	Y	Y	Y
McMillan	A	A	A	A	A	A
Noble	Y	Y	Y	Y	Y	Y
Trosow	Y	Y	Y	Y	Y	Y
Wilson	Y	Y	Y	Y	Y	Y
Result	Carried	Carried	Carried	Carried	Carried	Carried

Recorded Vote Registry FA36/2023 to FA41/2023

A=Absent Y=Yes N=No

Board Member	FA36/2023	FA37/2023	FA38/2023	FA39/2023	FA40/2023	FA41/2023
Baldwin-Sands	Y	Y	Y	Y	Y	Y
Berze	Y	Y	Y	Y	Y	Y
Herbert	A	A	A	A	A	A
Jones	Y	Y	Y	Y	Y	Y
McMillan	A	A	A	A	A	A
Noble	Y	Y	Y	Y	Y	Y
Trosow	Y	Y	Y	Y	Y	Y
Wilson	Y	Y	Y	Y	Y	Y
Result	Carried	Carried	Carried	Carried	Carried	Carried

Recorded Vote Registry FA42/2023

A=Absent Y=Yes N=No

Board Member	FA42/2023
Baldwin-Sands	Y
Berze	Y
Herbert	A
Jones	Y
McMillan	A
Noble	Y
Trosow	Y
Wilson	Y
Result	Carried



Annual General Meeting Minutes

February 22, 2023

The 2022 Annual General Meeting of the Kettle Creek Conservation Authority was held on Wednesday, February 22, 2023 at 10:05 a.m. The meeting was streamed live to Facebook.

The meeting came to order at 10:05 a.m. Elizabeth VanHooren read the following statement:

Audio/Video Record Notice

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The recorded video of the Full Authority meeting is not considered the official record of that meeting. The official record of the Full Authority meeting shall consist solely of the Minutes approved by the Full Authority.

Ms. VanHooren conducted a roll call with the following members identifying their presence:

Members Present In Person:

Lori Baldwin-Sands	City of St. Thomas
Grant Jones	Southwold Township
Jim Herbert	City of St. Thomas
Sharron McMillan	Thames Centre
John Wilson	Malahide Township

Members Present Virtually:

Sam Trosow	City of London
Todd Noble	Municipality of Central Elgin

Members Absent:

Frank Berze	Middlesex Centre
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Staff Present In Person:

Mike Buis	Lake Whittaker Coordinator
Jennifer Dow	Water Resources Supervisor
Joe Gordon	Manager of Planning and Development

Jessica Kirschner
Brandon Lawler
Jeff Lawrence
Rob Lindsay
Betsy McClure
Marianne Levogiannis
Scott Pinnell
Elizabeth VanHooren

GIS and Information Services Coordinator
Forests and Lands Technician
Forestry and Lands Supervisor
Dalewood Coordinator
Stewardship Program Supervisor
Public Relations Supervisor
Maintenance and Safety Coordinator
General Manager/Secretary Treasurer

Guests:

Jim Frederick
Scott Trevors

Graham Scott Enns
Graham Scott Enns

As some members were joining the meeting electronically all votes were recorded and are included in the Recorded Vote Registry.

Introductions & Declarations of Pecuniary Interest

There were no declarations of pecuniary interest.

Chair's Remarks

The Chair welcomed everyone to the Annual General Meeting. The Authority continues to work to protect life and property from natural hazards while always partnering with member municipalities and willing landowners to improve programs and services. The Chair welcomed new members to the Board advising them that they had the opportunity to work with a committed staff dedicated to the mission of integrated watershed management and a community that values the work of KCCA and is depending on KCCA to positively manage watershed resources.

General Business

- a) Presentation of 2022 Financial Statements

Scott Trevors presented a brief explanation of the Financial Statements.

AM1/2023

Moved by: Jim Herbert

Seconded: Lori Baldwin-Sands

That the Year 2022 Financial Statements be adopted as presented.

Carried

- b) Presentation of the 2022 Annual Report

Elizabeth VanHooren presented the 2022 Annual Report. Staff were recognized for their dedication and resiliency over the past year.

AM2/2023

Moved by: Sharron McMillan

Seconded: John Wilson

That the Year 2022 Annual Report be adopted as presented.

Carried

c) Presentation of 2022 Elgin Clean Water Program Annual Report

Betsy McClure provided an overview of the Elgin Clean Water Program's accomplishments in 2022.

AM3/2023

Moved by: Lori Baldwin-Sands

Seconded: Jim Herbert

That the 2022 Elgin Clean Water Program Annual Report be received.

Carried

d) Presentation of the 2023 Budget and Municipal Levy

A preamble to the budget and levy vote was read by VanHooren as follows:

To provide conformity with legislation and regulations governing approval of Conservation Authority levies:

1. *The proposed Year 2023 Levy and Apportionment for KCCA was circulated by registered mail to member municipalities on January 18, 2023, in order to provide a minimum 30 day notice to budget and levy approval on February 22, 2023. There is a 5.0% averaged levy increase over 2022 levels or \$52,357.00.*
2. *A recorded vote will be taken, with each member responding either "For" or "Against" the motion. The motion carries or is lost, according to the total of weighted votes assigned to each board member. This weighted vote is based upon the Modified Current Value Assessment apportioned to that portion of each municipality within the jurisdiction of the KCCA watershed.*
2. *The 2023 levy and budget approved by the Board will be circulated by registered mail or emailed to participating municipalities on February 23, 2023, who if not satisfied, may appeal to the Mining and Lands Commissioner by March 31, 2023. Thereafter, no appeals are allowed and the Year 2023 budget and levy will be final.*

AM4/2023

Moved by: Todd Noble
Seconded: Sam Trosow

That the 2023 Budget of the Kettle Creek Conservation Authority be approved as presented;

That the member municipalities be assessed for payment:

Matching Levy	\$465,631.22
Non-Matching Levy	\$542,215.28
Special Levy	\$ 91,653.94
Total General Levy	\$1,099,500.00

And that each member municipality’s share of the 2023 General Levy be calculated using “Modified Current Value Assessment.

Carried

By Regulation, a recorded Vote was taken for Year 2023 Levy and Budget Approval. In the event that not all of a municipality’s member(s) are present, the member(s) in attendance represent(s) only their proportion of the municipal weighting in the voting.

The motion carried with 64.74% of the weighted vote and 100% of the weighted vote present.

AM4/2023 Recorded Vote

Member Municipality	Present	Levy %	Weight %	In Favour	Opposed	Absent
City of London		56.75	50			
Sam Trosow	•		16.67	•		
Not Appointed			16.67			
Not Appointed			16.66			
City of St. Thomas		27.72	32.04			
Lori Baldwin-Sands	•		16.02	•		
Jim Herbert	•		16.02	•		
Central Elgin		7.86				
Todd Noble	•		9.08	•		
Southwold		3.98				
Grant Jones	•		4.60	•		
Thames Centre		1.34				
Sharron McMillan	•		1.56	•		
Middlesex Centre		1.67				
Frank Berze			1.93			•
Malahide		0.68				
John Wilson	•		0.79	•		
Total		100	100	64.74%		

e) Launch of KCCA’s On-line Screening Map

Joe Gordon and Jessica Kirschner provided an overview of KCCA’s new On-line Screening Map to be launched immediately following the meeting. The tool allows KCCA to improve on its client services and accountability. Using the on-line screening map landowners will be able to map their property within the Kettle Creek watershed to determine if their property is affected by regulations under the *Conservation Authorities Act* including whether their property is located within a flooding or erosion hazard.

Special Presentation

a) Staff Recognition

The Chair recognized Marianne Levogiannis, Public Relations Supervisor for 5 years of service. She will receive a gift certificate to a local restaurant.

b) Board Recognition

The Chair recognized eight members of the 2022 Board of Directors that were not reappointed to the Board. Trees will be planted in their honour throughout the watershed. The Chair also recognized Alison Warwick, a member of the Board since 2019 and Chair of the Board in 2022. Alison was not present at the meeting but will receive a framed photo from local artist Barry Acheson.

Retiring Board Members were able to choose the tree species to be planted on their behalf. Their choice of tree and years of services are outlined below.

Member	Years of Service	Tree
Bill Mackie (City of London)	11 years	Red Maple
Ralph Winfield (City of London)	11 years	Red Oak
Stephen Harvey (Middlesex Centre)	6 years	Red Maple
Dennis Crevits (Central Elgin)	6 years	Red Maple
Elizabeth Peloza (City of London)	6 years	Hackberry
Alison Warwick (Thames Centre)	4 years	Framed Picture
Dominique Giguère (Malahide)	4 years	Red Oak
Steve Peters (City of St. Thomas)	2 years	Red Oak

The Chair also recognized Jack Baker who recently passed away on January 9, 2023. Jack served over 20 years on the Kettle Creek Conservation Authority Board of Directors and was Chair from 1978 – 1979. A tree will also be planted in his honour.

Elizabeth VanHooren then recognized Ted and Duggie Gill for their donation of 46 acres of Carolinian forest and meadow habitat to create the Deer Ridge Conservation Area. It is the first land donation for the Authority since the 1970’s and KCCA’s only conservation area in Southwold Township. The Gills were presented with a wooden plaque bearing the Deer Ridge Conservation Area name and date of establishment. A formal ceremony will be held on site in 2023 when the property officially opens to the public.

The Chair thanked members, staff and the public for attending the meeting. The next meeting of the Full Authority will be March 22, 2023 at 10 a.m.

AM5/2023

Moved by: Lori Baldwin-Sands

Seconded: John Wilson

That the meeting adjourn at 10:50 a.m.

Carried



Elizabeth VanHooren
General Manager/Secretary Treasurer

Grant Jones
Chair

Recorded Vote Registry AM01/2023 to AM05/2023
A=Absent Y=Yes N=No

Board Member	AM01/2022	AM02/2022	AM03/2022	AM04/2022	AM05/2022
Baldwin-Sands	Y	Y	Y	Y	Y
Berze	A	A	A	A	A
Herbert	Y	Y	Y	Y	Y
Jones	Y	Y	Y	Y	Y
McMillan	Y	Y	Y	Y	Y
Noble	Y	Y	Y	Y	Y
Trosow	Y	Y	Y	Y	Y
Wilson	Y	Y	Y	Y	Y
Result	Carried	Carried	Carried	Carried	Carried



Kettle Creek
Conservation Authority

Media Report



Interested in becoming a seasonal camper at [Dalewood Conservation Area](#) or [Lake Whittaker Conservation Area](#)? This is a reminder that the seasonal camping application will open for applicants starting March 15.



Still looking for a summer job? Look no further! Summer jobs are still available at [Dalewood Conservation Area](#) and [Lake Whittaker Conservation Area](#). For more information and to fill out the online job application, please visit: <https://www.kettlecreekconservation.on.ca/employment/>



Facebook/Instagram Summary

March 2023

Facebook Followers: 19,536
Instagram Followers: 7,809
Facebook Post Reach: 17,700
Instagram Reach: 1,400



Top Tweet earned 743 impressions

The gray treefrog (*Hyla versicolor*) ability to change its colour - hence its scientific name. Next time you're exploring our Conservation Areas, keep your eyes out for this chameleon-like frog! In the meantime, enjoy these pictures taken in the watershed.

[#WorldWildlifeDay](#)

pic.twitter.com/uIXfgOJ6rP

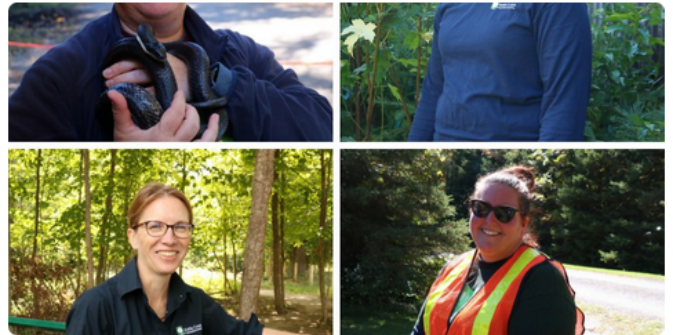


♥ 4

Top media Tweet earned 340 impressions

Happy International Women's Day! Today we're celebrating the skilled and knowledgeable women who work at KCCA. [#EmbraceEquality](#) [#WomenInScience](#) [#WomenInStem](#)

pic.twitter.com/Ua0mt8knCB



↻ 1 ♥ 7

[View Tweet activity](#)

[View all Tweet activity](#)

ROGERS tv

**NEXT WEEK
TODAY**

IN ST THOMAS-ELGIN



Twitter Summary

November—January

Impressions: 4,010

Tweets: 12

Followers: 1,383



Corporate Services

- Watershed Report Card design, mapping and statistics complete.
- Staff uniforms and corporate wear order underway.
- Updates to KCCA website, including navigation changes, webpage additions and webform adjustments.
- Attended the Equity, Diversity, and Inclusion Strategy webinar hosted by the Ontario Chamber of Commerce.
- Collection of March 1st payments; 2023 returning seasonal camper applications complete; new seasonal camper application launched on March 15
- Prepared Aspira prior to online reservation launch to ensure necessary site closures are in place and updates for the 2023 season
- KCCA's webmap launched successfully; to date the webmap has been visited 40 times

Flood Forecasting/Environmental Monitoring

- Completed the Final Reporting for the 2022 WECI Projects.
- Completed the 2023 Watershed Report Card and 2023 Watershed Report Card Background Report.
- Managed the Request for Proposal process for the KCCA Enhanced Riverine Floodplain Mapping project that is funded by the Flood Hazard Information Mapping Program (FHIMP).
- Staff released a Watershed Conditions Statement—Flood Outlook on February 22, 2023, in advance of potential spring freshet conditions.
- Staff released a Watershed Conditions Statement—Water Safety on March 10, 2023 for March Break.
- Sorting, identification, and enumeration of benthic samples.
- Collected snow survey data in February and March and submitted to the MNR Surface Water Monitoring Centre for flood forecasting and modelling. Conducted weekly ice monitoring throughout the watershed.
- Reviewed municipal drain maintenance notifications, new drainage works proposals and attended site visits as necessary (ongoing).

Stewardship and Outreach

- Prepared the 2022 Elgin Clean Water Program Annual Report
- Promoted the Elgin Clean Water Program at the Innovative Farmers Association of Ontario conference
- Development and distribution of a 4-part mailout to all farm properties in Elgin County promoting the Elgin Clean Water Program and project funding available for wetland creation, tallgrass prairie establishment and erosion control.
- Completed the first progress report for COA funding received from the Ontario Ministry of Agriculture, Food and Rural Affairs
- Prepared KCCA's April 1 Progress Report as required by the *Conservation Authorities Act*
- Site visits completed with contractors/funders for 2023 wetland creation and tallgrass prairie planting projects in the watershed
- Proposal developed and submitted to the Greening Lane Community Trust Fund in support of the Elgin Clean Water Program
- Attended meetings for the London-Middlesex Children Water Festival, Elgin Stewardship Council and ALUS Elgin

Forestry

- Large stock trees ordered for spring 2023 volunteer and community events
- Site visits being conducted and soil samples completed for 2023 planting sites
- Communications with landowners and processing over the counter and Greening Communities seedling orders
- Received a donation of \$500 from the St. Thomas Rotary Club in support of the invasive species removal work at Lake Margaret
- Final report completed and submitted to the Invasive Species Centre on the project "Dalewood Reservoir Woody Invasive Species Management"
- Final report completed and submitted to the Invasive Species Centre on the project "Management of Invasive Phragmites in the Kettle Creek Watershed"
- Staff coordinated the Southwestern Conservation Authorities/Forests Ontario booth at the London Farm Show from March 8-10.
- Organized and led a volunteer event for invasive species removal at Lake Margaret on March 11 with the St. Thomas Rotary Club
- Submitted information to Forest Ontario's database for 8 sites – all have been approved for 50 Million Tree program funding
- Hazard tree removal completed at Dalewood, Deer Ridge, Dan Patterson and Kirk Cousins Conservation Areas
- Development of an invasive species brochure to be distributed at public events or to interested landowners
- Staff completed homeless encampment training

Conservation Areas and Maintenance

- Secured quotes for purchase of new vehicle
- Obtained RFQ's for beam work in Bucke Barn
- Assisted in removing trees of concern from all KCCA trails
- Set up first aid training for KCCA staff
- Updating seasonal staff Health & Safety training
- On-line reservations started March 1; reservation are up 10% compared to the same timeframe last year
- Almost all 30 amp sites are already booked at Lake Whittaker for the long weekends

TO: Board of Directors
FROM: Jennifer Dow
Date: March 22, 2023
Subject: March 2023 Watershed Conditions Report
Recommendation: For information



PURPOSE

To inform the Board of Directors of the current and seasonal watershed conditions.

REPORT SUMMARY

- Water levels throughout the watershed and in Lake Erie are currently higher than normal and are fluctuating with thaw and rain events.
- Watershed Conditions Statement—Flood Outlook issued on February 22, 2023, in advance of forecasted spring freshet conditions.
- Watershed Conditions Statement—Water Safety issued on March 10 for March Break.

BACKGROUND

Lake Erie's maximum ice cover of 40.18% occurred on February 5, 2023, compared to 96.8% last year. Since February 12, Lake Erie has been relatively ice-free. As of March 6, 2023, Lake Erie's static water level daily mean was 174.52m. This water level is 45cm above average, 3cm higher than what was recorded at the same time last year, and 40cm lower than the 2020 record high. This level does not account for any increase in water levels due to storm surge or wind driven waves. Lake Erie rose 3cm over the month of February, which is the 12th largest rise over the period of record.

The KCCA watershed historically receives 65mm of rain during the month of February. The watershed received 95% of the average total rain for the month of February, which is about 61.73mm for the area. The three-month precipitation levels were slightly below normal for December to February. The Environment Canada outlook for March to May indicates normal temperatures and below normal precipitation for the region.

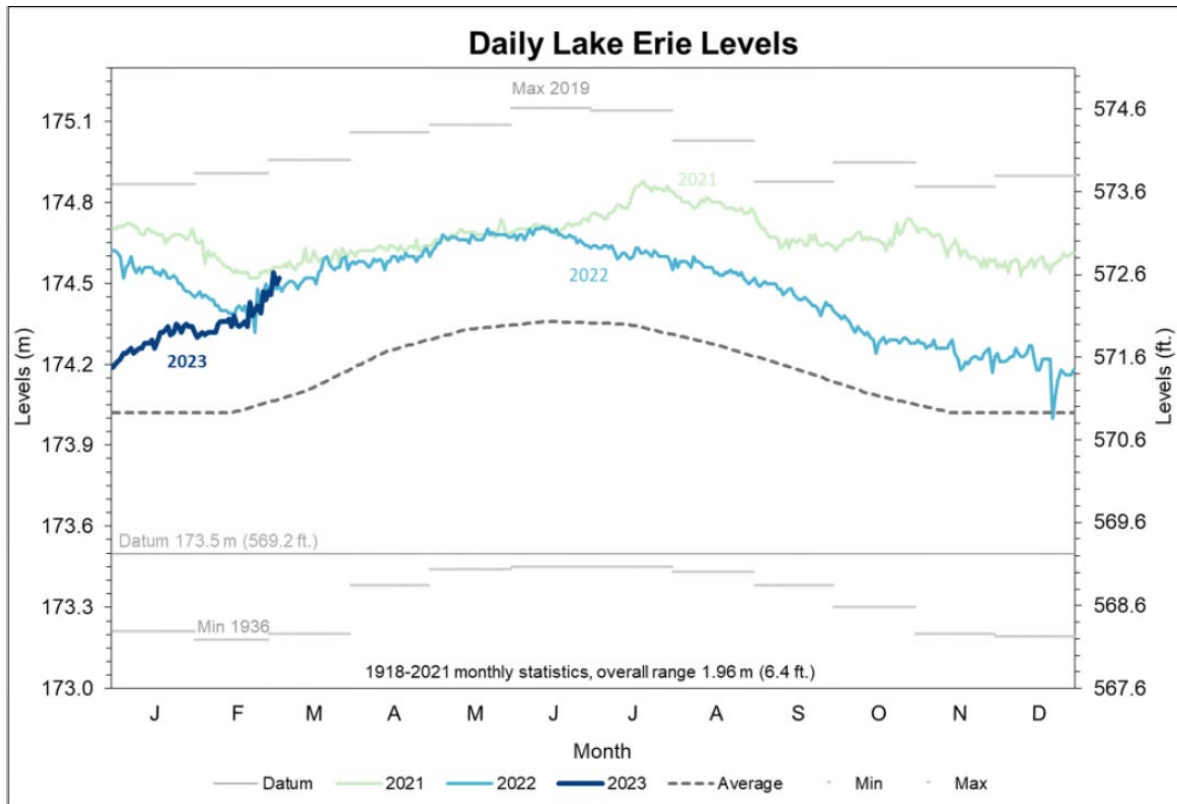
As of March 6, 2023, there are two Conservation Authorities (CAs) in a confirmed Level 1 Low Water Condition (Lower Thames Valley CA and the Grand River CA), and one in a confirmed Level 2 Low Water Condition (Hamilton Region CA) in the Southern Region.

An increase in temperature mid-February combined with forecast precipitation created the potential for spring freshet conditions. A watershed tour and snow survey completed on February 15, 2023, revealed open water throughout the system out to an ice-free Lake Erie. However, frozen ground conditions, significant rain in the forecast and lack of significant snow cover was a good setup for a high water event throughout the watershed. Staff issued a Watershed Conditions Statement—Flood Outlook on February 22, 2023. This runoff event did not result in any significant flooding.

Staff completed final reports for the two 2022-2023 WECI projects: Safety Grate installation at Dalewood Dam and Concrete Repairs and Monitoring at Dalewood Dam. The final project total was \$35,700 with \$17,850 in funding provided by WECI.

RECOMMENDATION

For information.



Lake Erie, March 7, 2023, MODIS Imagery - True Color, 250 m Resolution from NOAA.

TO: Board of Directors
FROM: Marianne Levogiannis
Date: March 22, 2023
Subject: Diversity, Equity, and Inclusion Report
Recommendation: For information.



PURPOSE:

To update Members on KCCA's commitment to becoming a more inclusive and diverse organization and the Authority's response to the Truth and Reconciliation Commission (TRC) of Canada Calls to Action.

SUMMARY:

- Staff are working to identify gaps and increase opportunities for Diversity, Equity, Inclusion within the organization and advance reconciliation.
- Staff have identified the need for increased training/consultation and are taking the time to build meaningful relationships with local Indigenous groups to inform the development of land acknowledgements and call to actions.
- Staff are consulting Cambium Indigenous Professional Services for further guidance and educational support to be built into the next four-year budget cycle.
- Staff will also be researching other training/educational opportunities for staff related to people with physical or cognitive disability, the 2SLGBTQIA+ community, socio economic disadvantages, people of color, and newcomers.

BACKGROUND:

KCCA supports the TRC Calls to Action and is actively working to advance our own reconciliation. To address the long history of harms inflicted on Indigenous peoples, staff have worked to develop a meaningful land acknowledgement. The acknowledgement is drafted; however, staff feel it is important to receive feedback from Indigenous communities before its public adoption. Staff are working to make and build relationships with local Indigenous communities. Staff intend to verify the acknowledgement is factually accurate and authentic to the watershed before presenting it for Board approval.

A land acknowledgement is just one way for KCCA to demonstrate a commitment to the TRC Calls to Action, however it is not the end of our responsibility. Cambium Indigenous Professional Services has been contacted to assist in bringing Indigenous training and education to the Authority.

Staff area also drafting a Diversity, Equity, and Inclusion Statement to demonstrate KCCA's commitment to building an inclusive organization welcoming people of all backgrounds. As part of the development of a draft statement, staff identified the desire to learn and receive additional training related to diversity and inclusion before finalizing the statement. The intention of the training is to identify a list of actionable items that KCCA can undertake to put meaning to the words.

In 2022, a new module was added to KCCA's training database. All fulltime and seasonal staff now complete Gender and Sexual Diversity Training through HR Downloads. This course provides strategies for creating a more inclusive workplace for staff of all gender identities and sexual orientations.

The work to respond to the TRC Calls to Action and KCCA's commitment to reconciliation and building a more diverse and inclusive workplace is ongoing. Staff are working to build actions into the next four-year budget cycle and will bring regular reports back to the Board for further input.

RECOMMENDATION:

For Information.



Kettle Creek
Conservation Authority

PROGRESS REPORT

APRIL 1, 2023

TRANSITION PLAN

- The Transition Plan was approved by KCCA's Board of Directors at the November 24, 2021 Full Authority meeting.
- The Transition plan was circulated to member municipalities on November 26, 2021.
- The Transition plan was circulated to the Minister on December 2, 2021.
- The Transition plan is posted to KCCA's website:
<https://www.kettlecreekconservation.on.ca/governance/>

INVENTORY OF PROGRAMS AND SERVICES

- The draft Inventory of Programs and Services was approved for circulation to member municipalities for comment by KCCA's Board of Directors at the January 19, 2022 Full Authority meeting.
- The Inventory of Programs and Services was approved by KCCA's Board of Directors at the February 9, 2022 Full Authority meeting.
- The Inventory was circulated to member municipalities on February 16, 2022.
- The Inventory was circulated to the Minister on February 16, 2022.
- The Inventory is posted to KCCA's website:
<https://www.kettlecreekconservation.on.ca/governance/>
- Based on feedback from MECP, minor edits were made to the Inventory of Programs and Services for the July 1, 2022 Progress Report. No further changes have been made to the Inventory since that date.

CONSULTATION WITH MEMBER MUNICIPALITIES

- Staff provided a presentation to municipal staff from St. Thomas, Thames Centre, Malahide, Southwold and Central Elgin on January 11, 2022 to review the *Conservation Authorities Act* amendments and initial categorization of KCCA's programs and services.
- Feedback received to date on KCCA's Inventory of Programs and Services:
 - Middlesex Centre (January 26, 2022)
No concerns. Observed a shift in funding allocation from provincial to municipal levy in category 1 programming relative to flood forecasting. Clarification was provided that this shift was a result of the provincial transfer payment being cut from \$119,652 to \$61,770 in 2019.
 - Central Elgin (January 31, 2022)
No concerns with the categorization of KCCA programs and services.
 - Southwold (January 31, 2022)
No concerns with the categorization of KCCA programs and services. Seeking consistency where possible amongst its CAs for MOU terms and fee structure. Interested in discussions on additional services KCCA could provide.
 - Thames Centre (February 3, 2022)
No concerns with the categorization of KCCA programs and services.

- Malahide (February 3, 2022)
No concerns with the categorization of KCCA programs and services. Suggested expanded detail to note where specific monitoring stations are located. Requested information was provided to the municipality.
- St. Thomas (February 3, 2022)
No concerns with the categorization of KCCA programs and services. Staff indicated support for the two Category 3 programs requiring an agreement (tree planting and watershed monitoring).
- City of London (April 29, 2022)
Clarification sought on costs for new mandatory programs/services, whether the costs provided reflect total gross costs or London's apportioned share, and if costs include depreciation.
- Staff distributed the July 1, 2022 Progress Report and the updated Inventory of Programs and Services to all member municipalities on June 23, 2022. No concerns or questions were submitted by member municipalities.
- Staff distributed the October 1, 2022 Progress Report to all member municipalities on September 22, 2022. No concerns or questions were submitted by member municipalities.
- Staff distributed the January 1, 2023 Progress Report to all member municipalities on December 19, 2022. No concerns or questions were submitted by member municipalities.

AGREEMENTS

- Existing Category 2 agreements are posted to KCCA's website under the Governance section.
- The October 2022 municipal election stalled progress on the development of cost apportioning agreements/MOUs. KCCA's Board of Directors had a very high turnover with 80% of the membership being newly appointed members. The first meeting with the new membership was not until January 2023. As of March 17, 2023 KCCA is still awaiting the appointment of two out of three City of London representatives. The City has requested an exception from the Minister to allow two citizen appointees.
- In addition, some of KCCA's member municipality Councils have a large proportion of new members. Agreements/MOUs will be developed with new Councils and KCCA's Board of Directors in 2023.
- KCCA staff continue to attend various training sessions offered by Conservation Ontario on various aspects of the CA Act requirements to inform and provide consistency between CAs.
- At this time, KCCA does not foresee the need to request an extension to the January 1, 2024 deadline for having MOUs in place with member municipalities. However, staff will continue to re-assess whether an extension request may be required.

OTHER ACTIVITIES

- Attended Conservation Ontario sessions related to changes to the *Conservation Authorities Act* and Phase 1 and 2 regulations.
- Attended MECP sessions on the *Conservation Authorities Act* and the Inventory of Programs and Services.

- Meeting held with MECP staff on May 12, 2022 to solicit feedback on KCCA's Inventory of Programs and Services.
- Fee Policy and Fee Schedules approved at the May 18, 2022 KCCA Full Authority meeting as per requirements of the *Conservation Authorities Act*.
- KCCA's website updated to include Governance Section as per Phase 2 Regulations.
- Attended a Conservation Ontario session related to Conservation Areas Strategy and Lands Inventory on June 15, 2022.
- Land Acquisition and Disposition Policy approved at the August 18, 2022 KCCA Full Authority meeting as per requirements of *Conservation Authorities Act*.
- Attended Phase 1 and Phase 2 Refresher sessions held by MNRF in October 2022
- Attended a Conservation Ontario session related to Ice Management Plans on October 13, 2022
- Review of and dissemination of information regarding the *More Homes Built Faster Act* to KCCA's Board and member municipalities.
- Development of orientation materials for new members of municipal Councils and KCCA's Board of Directors following the municipal election.
- Attended a Conservation Ontario session related to Cost Apportioning Agreements on March 6, 2023.



Constituency Office

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February 15, 2023

Minister David Piccini
Ministry of Environment, Conservation and Parks
5th Floor
777 Bay St.
Toronto, On
M5B 2H7

Minister Piccini,

I met with the board of Kettle Creek Conservation Authority last week. Please find enclosed the briefing notes from our February 9th meeting.

Please note the following considerations that require attention:

1. City of London representation – Flexibility is required to name/appoint directors outside the London City Council.
2. Lack of local flexibility in Bill 23 – Many of my small municipalities without in-house resources rely on conservation authority expertise. Restrictions in Bill 23 are forcing them to hire outside consultants.

I believe Elizabeth Van Hooren, GM of Kettle Creek Conservation Authority has outlined their concerns effectively. Please let me know when I can meet with you and your staff to make progress on their opportunities for better governance and community service.

Sincerely,

A handwritten signature in black ink that reads 'Rob'.

Rob Flack

Briefing Notes from February 9, 2023 Meeting

Take Aways

- KCCA helps the provincial objective to streamline approval processes saving money and time while protecting people from natural hazards.
- Municipalities should have the option to enter into agreements with CAs if in their opinion CA services and programs are cost effective and streamline approval processes.
- Administrative processes are impeding good governance practices and delaying short and long-term planning to meet CA Act requirements.

City of London Representation

- As of February 2, 2021 the CA Act now requires participating municipalities to ensure that at least 70 per cent of its appointees to the CA are selected from among members of its council (Section. 14 (1.1)).
- City of London has traditionally named 1 council appointee and 2 citizen appointees to the KCCA's Board of Directors
- City of London has three CAs (Kettle, Upper and Lower Thames) – all requiring appointments – there is not enough councilor interest/time to appoint councilors to each CA Board. The City supports citizen representation on the KCCA Board.
- City of London requested an exception from Minister Piccini on December 15, 2022 (see attached) but has not heard back. Request was forward to MNRF.
- As it awaits an administrative review, KCCA's largest municipality does not have full representation on the board leading to issues with quorum. It is impeding short and long-term planning as the Board awaits full membership before finalizing CA Act requirements such as apportionment agreements that are required to be in place by January 1, 2024.

Lack of Local Flexibility in Bill 23

- Under Section 21.1.1 of the CA Act, at the request of a municipality, a CA can undertake programs and services outside of its core mandate provided an agreement outlining the service to be undertaken is established, publicly available and regularly reviewed.
- Locally, several small municipalities were negotiating agreements for CAs to undertake natural heritage services on their behalf.
- Following Bill 23, O.Reg.596/22 was enacted effective January 1, 2023. CAs are no longer able to provide municipal or other programs and services beyond their mandatory programs related to a list of Prescribed Acts – including the Environmental Protection Act and the Planning Act - regardless of whether a municipality is requesting it or an agreement is in place.
- Small municipalities can no longer rely upon CA expertise and without in-house staff/expertise will have to hire consultants to undertake these services – possibly delaying approvals and driving up costs.

December 15, 2022

Hon. David Piccini
Minister of Environment, Conservation and Parks
Minister.mecp@ontario.ca
College Park 5th Floor,
777 Bay St.,
Toronto, ON
M7A 2J3

Good Day –

Re: Municipal Appointments to Conservation Authorities

Please find attached the required completed templates (2), under subsection 14 (1.2) of the *Conservation Authorities Act (CAA)* for City of London appointments to the Lower Thames Valley Conservation Authority and the Kettle Creek Conservation Authority.

In addition, municipal council of the City of London passed the following motion at their regular meeting of November 22, 2022:

That the following actions be taken with respect to appointments to the Kettle Creek Conservation Authority and the Lower Thames Valley Conservation Authority:

- a) Councillor S. Trosow BE APPOINTED to the Kettle Creek Conservation Authority for the term ending November 14, 2026;
- b) pursuant to subsection 14 (1.2) of the Conservation Authorities Act, the Civic Administration BE DIRECTED to make application to the Minister of environment Conservation and Parks (MECP) for a Minister's Exception in order to appoint individuals other than Members of Municipal Council to the Kettle Creek and Lower Thames Valley Conservation Authorities for the following reasons;
 - i. current members of the Municipal Council are unable to fulfill the positions;
 - ii. Council of the City of London supports and recognizes the importance of citizen involvement in these important committees;
- c) subject to the approval of the Minister, requested in part a), above, the Civic Administration BE DIRECTED to advertise in the usual manner, including the City's social media channels, for applications from members of the public for appointment; and,
- d) the applications BE INCLUDED on a future agenda of the Strategic Priorities and Policy Committee, for consideration and recommendation of appointment. (4.31/1/SPPC) (AS AMENDED)

Should you require any additional information, please contact me.

Kind Regards,



B. Westlake-Power
Deputy City Clerk,
City of London

cc. Lower Thames Valley Conservation Authority
Kettle Creek Conservation Authority

**Template: Subsection 14(1.2) of the *Conservation Authorities Act (CAA)*
Application for Minister's Exception
(less than 70% municipal council members appointed to an authority)**

Please complete the following table and submit to the Minister at minister.mecp@ontario.ca, along with:

- a covering letter, and
- clear statement of the request from the council of the participating municipality through a council resolution.
- meeting minutes and details of a recorded vote on that resolution.

Item	Details from Applicant
Name of participating municipality submitting application	City of London
Composition of Authority: Kettle Creek Conservation Authority	
Total number of the authority membership	10 (ten) members
Number of participating municipalities in the authority	7 (seven) participating municipalities
Proposal details:	
The number of members the participating municipality is proposing to appoint who are not members of municipal council, and the total number of members the participating municipality appoints to the authority.	2 (two) members of the public 1 (one) member of Municipal Council
Change in the number of non-elected members the participating municipality is proposing to appoint as compared to previous appointees by the municipality.	In the previous Council term, there were 2 (two) members of the public, and 1 (one) municipal councillor. There is not a change proposed.
Proposed length of term for each proposed appointment of a non-elected member.	Appointments will co-incide with the council term.
Detailed rationale, including local circumstances, for Minister to consider as to why an exception is needed.	Please see attached Council resolution.

Appendix: Relevant wording in the *Conservation Authorities Act*

Members of authority

14 (1) Subject to subsection (3), members of an authority shall be appointed by the respective councils of the participating municipalities in the numbers set out in subsection 2 (2) for the appointment of representatives. 2017, c. 23, Sched. 4, s. 12 (1); 2020, c. 36, Sched. 6, s. 2 (1).

Members of council appointed

(1.1) When appointing members of an authority, the council of a participating municipality shall ensure that at least 70 per cent of its appointees are selected from among the members of the municipal council, subject to subsection (1.2). 2020, c. 36, Sched. 6, s. 2 (2).

Exception

(1.2) Upon application by a participating municipality, the Minister may grant permission to the municipality to select less than 70 per cent of its appointees to an authority from among the members of the municipal council, subject to such conditions or restrictions as the Minister considers appropriate. 2020, c. 36, Sched. 6, s. 2 (2).

**Template: Subsection 14(1.2) of the *Conservation Authorities Act (CAA)*
Application for Minister's Exception
(less than 70% municipal council members appointed to an authority)**

Please complete the following table and submit to the Minister at minister.mecp@ontario.ca, along with:

- a covering letter, and
- clear statement of the request from the council of the participating municipality through a council resolution.
- meeting minutes and details of a recorded vote on that resolution.

Item	Details from Applicant
Name of participating municipality submitting application	City of London
Composition of Authority: Lower Thames Valley Conservation Authority	
Total number of the authority membership	12 members
Number of participating municipalities in the authority	10 participating municipalities
Proposal details:	
The number of members the participating municipality is proposing to appoint who are not members of municipal council, and the total number of members the participating municipality appoints to the authority.	1 (one) member of the public 0 (zero) members of Municipal Council
Change in the number of non-elected members the participating municipality is proposing to appoint as compared to previous appointees by the municipality.	In the previous Council term, there was 1 (one) member of the public, and 0 (zero) municipal councillors. There is not a change proposed.
Proposed length of term for each proposed appointment of a non-elected member.	Appointments will co-incide with the council term.
Detailed rationale, including local circumstances, for Minister to consider as to why an exception is needed.	Please see attached Council resolution.

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TO: Board of Directors
FROM: Jessica Kirschner
Date: March 22, 2023
Subject: Automated Payments



Recommendation: That staff proceed to establish automatic bank withdrawals for the identified corporate vendors outlined in the staff report.

PURPOSE

To update the Board on KCCA's current accounts payables practices and to seek board approval on establishing automatic bank withdrawals for corporate vendors with static monthly payments and municipal government agencies that do not currently accept electronic fund transfers.

REPORT SUMMARY

- In an effort to move to a paperless accounting department KCCA adopted the use of RBC PayEdge to process payment electronically and move all vendors to electronic invoices and payments by electronic fund transfer (EFT)
- Cheques are only issued if another means of electronic payment can not be arranged; this has improved efficiencies and reduced processing costs.
- Some vendors do not allow for EFT payments but will allow for automatic bank withdrawals. Staff are proposing to establish automatic bank withdrawals for vendors that have a recurring static monthly payment and municipal/government agencies that do not allow for EFT.

BACKGROUND

Since 2020, KCCA has shifted to an almost completely paperless accounting department, with the majority of KCCA's vendors sending electronic invoices and receiving Electronic Funds Transfer (EFT) as payments.

To facilitate additional efficiencies staff have identified the following vendors to establish automated electronic fund transfers. These vendors have a monthly standard invoice (MNP for accounting services) or are municipal partners who currently do not accept electronic fund transfers but do accept automatic fund transfers. All invoices and payments would still be reviewed and approved by the required signing authorities.

Vendor	Payment Frequency
Bell Canada	Monthly
Bell Mobility	Monthly
City of St. Thomas	Tax bills (quarterly)
City of London	Tax bills (monthly)
MNP LLP	Monthly

RECOMMENDATION

That staff proceed to establish automatic bank withdrawals for the identified corporate vendors outlined in the staff report.

TO: Board of Directors
FROM: Joe Gordon
Date: March 22, 2023
Subject: 2023 Conservation Area Fees Update



Recommendation: That the KCCA Board of Directors approve the updates to the 2023 Conservation Area Fees as presented.

PURPOSE:

To seek approval of the Board of Directors to update the 2023 Conservation Area fees as a result of impacts of a new automated gate control.

SUMMARY:

- KCCA’s 2023 Conservation Area Fees were approved in October of 2022 prior to the approval of acquiring automated gate controls for both campgrounds using 2022 surplus funds.
- Seasonal Camping Permits and Day-Use Permits will be issued Proxy Cards for access into the campgrounds with the new automated system.
- The cost of the Proxy Cards was not considered when the 2023 Fees were approved.
- Staff recommend updates to the 2023 Conservation Area Fees in consideration of the additional Proxy Card expenses.

BACKGROUND:

The attached KCCA 2023 Conservation Area Fees were approved in October of 2022. Staff recommended increases to all categories of Camping Fees but no increases were applied for Day Use and Campground Fees.

At the January 18, 2023 Full Authority meeting the Board of Directors approved staff’s recommendation to acquire new automated gate control systems for both campgrounds using 2022 surplus funds.

With the new automated control system, Seasonal Camping Permits and Seasonal Day-Use Permits will be issued a Proxy Card for access to the campgrounds. KCCA’s cost per Proxy Card is \$5.00 based on a quantity of a 1000 card order. The service provider advised that their clients typically charge \$10 per proxy card which includes consideration of staff time for programming. The costs associated with the purchase of Proxy Cards were not considered when the 2023 Fees for seasonal camping and seasonal day-use were approved.

All other camping and day-use permits will be issued a barcode applied to their printed permit for access into the campground where the associated expense is minimal.

Staff are recommending the following changes to the 2023 Conservation Area Fees considering KCCA’s expenses associated with issuance of Proxy Cards for seasonal use:

Category	Existing 2023 Fee	New 2023 Fee
Seasonal Day Use (April 1 – December 31)	\$90	\$100
Seasonal (May 1 – September 30) Additional Vehicle Pass	\$90	\$100
Replacement of lost or damaged Proxy Card (Seasonal)	n/a	\$20

In addition, staff are recommending that the two seasonal vehicle passes included with the Seasonal Camping Permit Application will include the issuance of two Proxy Cards for no additional cost in 2023.

RECOMMENDATION:

That the KCCA Board of Directors approve the changes to the 2023 Conservation Area Fees as presented.

SCHEDULE 2
Conservation Areas
2023 Fees

Category	Fee
Day Use Fees	
Day Use Permit (per vehicle)	\$10
Seasonal Day Use (April 1-December 1)	\$90 UPDATE = \$100
Buses (per bus)	\$90
Watercraft Rentals	\$16/hr, \$40/half day (<i>\$75 refundable deposit required</i>)
Picnic Shelter Rentals (Day use fee applies at DW & LW)	\$80 half day, \$160 all day
Campground Fees	
Reservation Fee by Telephone	\$15
Online Reservation Fee	\$12
Reservation Change Fee	\$10
Reservation Cancellation Fee	\$15
LW Watercraft Shore Storage Fee	\$100 season/ \$5 daily
Daily Additional Vehicle Pass	\$10
Seasonal (May 1-September 30) Additional Vehicle Pass	\$90 UPDATE = \$100
Camping Fees	
Nightly Unserviced Campsite	\$46
Nightly 15 amp Campsite	\$52
Nightly 30 amp Campsite	\$59
Weekly Unserviced Campsite	\$290
Weekly 15 amp Campsite	\$315
Weekly 30 amp Campsite	\$350
Monthly Unserviced Campsite	\$850
Monthly 15 amp Campsite	\$975
Monthly 30 amp Campsite	\$1,060
Seasonal Unserviced Campsite	\$2,400
Seasonal 15 amp Campsite at Dalewood	\$2,600 + hydro deposit of \$150
Seasonal 30 amp Campsite at Dalewood	\$2,600 + hydro deposit of \$300
Seasonal 15 amp Campsite at Lake Whittaker	\$2,700
Seasonal 30 amp Campsite at Lake Whittaker	\$2,900
Group Camping	Un-serviced: \$50/night + \$5/person/night Serviced: \$70/night + \$5/person/night

All rates include taxes.

Hydro rates for seasonal sites at Dalewood are billed at a per kilowatt-hour rate for the entire camping season and will be deducted from the hydro deposit. Note: the rate per kilowatt-hour will change on an annual basis on the total average cost per kilowatt-hour charged to the Authority plus costs associated with annual licensing.

***UPDATE = Replacement of lost or Damaged Proxy Card (Seasonal) \$20**

TO: Board of Directors
FROM: Jennifer Dow
Date: March 22, 2023
Subject: Update on the KCCA Enhanced Riverine Floodplain Mapping Project



Recommendation: That the contract for the KCCA Enhanced Riverine Floodplain Mapping Project be awarded to Aquafor Beech with an upset limit of \$117,125 including applicable taxes to allow for final determination of project scope and contingencies.

PURPOSE:

To update members on the KCCA Enhanced Riverine Floodplain Mapping Project.

SUMMARY:

- KCCA’s proposal to the Flood Hazard Identification and Mapping Program (FHIMP) was successful obtaining \$56,000 to match KCCA’s budgeted contribution of \$65,125 for a total project cost of \$117,125
- The project will update the riverine and flood hazard mapping for a 24km² study area located in the Dodd Creek subwatershed and included a provisional item to update a portion of the St. Thomas flood damage centre.
- Staff released a RFP on February 6, 2023 with four firms submitting a bid by the closing date on February 27, 2023
- Staff are recommending the Authority proceed with the proposal from Aquafor Beech which offered the best value and the best technical proposal.
- Maintaining an upset limit of \$117,125 for the project will ensure that any contingencies can be addressed and a refinement of the final scope of work negotiated.

BACKGROUND:

The Flood Hazard Identification and Mapping Program (FHIMP) is lead by Natural Resources Canada (NRCan) in partnership with Environment Canada and Climate Change and Public Safety Canada. A call for FHIMP project proposals was released in 2022. Eligible activities included data acquisition, flood hazard modelling and mapping, and dissemination of flood hazard information.

KCCA submitted two project proposals and received notification on November 3, 2022, that the KCCA Watershed Enhanced Riverine Floodplain Mapping project was successful in obtaining funding. This project will update the riverine flood hazard mapping for a 24km² study area located for the most part in

the Dodd Creek subwatershed that includes parts of the City of St. Thomas, Southwold Township and the Municipality of Central Elgin. The study area includes a section of the St. Thomas Flood Damage Centre and the flood vulnerable communities of Paynes Mills, Talbotville and areas slated for future development.

The proposed floodplain mapping project was submitted with a total cost of \$117,125 – with \$65,125 being committed from KCCA in the 2023 budget and \$52,000 committed from FHIMP. The project must be completed by February 15, 2024.

In keeping with KCCA’s Purchasing Policy, staff released an RFP to obtain a qualified engineering consultant to undertake the proposed work. The RFP was posted to MERX and Biddingo for the period of February 6, 2023, to February 27, 2023. Two addendums/clarifications were released via email answering questions from potential bidders.

The RFP posting closed at 4 p.m. (EST) on Monday, February 27, 2023. A total of four submissions were received. Each proposal was evaluated based on the evaluation criteria set out in the RFP.

Firm	Submitted Price	TOTAL SCORE (100 points)
Aquafor Beech	Full Scope \$75,880 +HST	92
D.M. Wills Associates Ltd.	Full Scope \$84,720 +HST	84
TRUE Consulting	Full Scope \$89,994 +HST	89
Water’s Edge	Full Scope \$88,341 +HST	90

All submitted bids were under KCCA’s estimated budget. Aquafor Beech offered the best value and the best technical proposal. This firm has the knowledge and staffing to get the project completed in the required timeline, using the appropriate guidelines at a cost savings to the authority.

Even though the total project costs are under budget, staff are asking to maintain the upset limit at \$117,125 to cover any contingencies that may be required as the project progresses and a final determination of the scope of work to ensure it meets the requirements of the funder.

Field survey work is anticipated to take place in late spring/early summer during times of normal flow and the project will be completed by February 15, 2024.

RECOMMENDATION:

That the contract for the KCCA Enhanced Riverine Floodplain Mapping Project be awarded to Aquafor Beech with an upset limit of \$117,125 including applicable taxes to allow for final determination of project scope and contingencies.

TO: Board of Directors

FROM: Jennifer Dow

Date: March 22, 2023

Subject: 2023 Watershed Report Card and Background Report



Recommendation: That the 2023 Watershed Report Card and the 2023 Watershed Report Card Background Report be approved as presented.

PURPOSE

To inform the Board of Directors of the 2023 Watershed Report Card and Supplemental Background Report.

REPORT SUMMARY

- The 2023 Watershed Report Card reports on watershed health using four resource categories and data collected over the last five years (2018-2022) in the Kettle Creek watershed.
- The KCCA Watershed Report Card uses a template designed by Conservation Ontario to provide consistency throughout the province.
- The Watershed Report Card Background Report provides details on the methods of evaluation used to determine the letter grades, results, and additional information on the four resource categories and indicators.
- The overall watershed grade – considering all reported factors (surface water quality, groundwater quality, forest conditions) remains a C.
- Official launch of the Watershed Report Card is March 22, 2023, on World Water Day

BACKGROUND

Watershed Report Cards (WRCs) are used by Conservation Authorities in Ontario as a means of reporting watershed health using environmental indicators. The report cards allow Conservation Authorities and partners to better target programs and measure environmental change. They also provide an opportunity to summarize existing monitoring programs and provide information about the current state of the watershed.

The 2023 Watershed Report Card (WRC) is made up of two parts:

1. The Watershed Report Card (Conservation Ontario template)
2. The Watershed Report Card Background Report

The Watershed Report Card Template was designed by Conservation Ontario so that all CAs could summarize their watershed report card information in a consistent manner. Standardizing the report cards enabled the CAs to provide a province-wide picture of conditions across Ontario's watersheds. The WRC Template will be available in digital and print formats for distribution to the public. The WRC

Background Report provides all of the background information on the WRC process and detailed information on the methodology and results of the 2023 WRC.

Forestry

The KCCA watershed has 14.15% forest cover, or less than half of what is recommended by Environment and Climate Change Canada (2004). This value highlights how important KCCA's tree planting program is to offsetting forest loss due to agricultural practices, development, natural die-off, impacts of invasive species, and erosion.

Surface Water

Over the last 5 years, 99.1% of the phosphorus samples collected across the Kettle Creek watershed exceeded the Provincial Water Quality Objective. Phosphorus loading is the number one issue facing surface water quality in the Kettle Creek watershed. It is a defining characteristic in the watershed that can be linked to other watershed issues, such as sedimentation and erosion, surface water runoff and gully erosion, low wetland cover, low riparian zone cover and low oxygen conditions.

Ground Water

Regardless of the excellent grades (A grades across all subwatersheds), groundwater quality still has the potential to be negatively impacted by human actions. Optimizing fertilizer application, regular maintenance of septic systems and the reduction in use of ion exchange water softeners could help to reduce the potential of degrading water quality resources in the future.

Wetlands

Finally, the KCCA watershed has 2.49% wetland habitat (ranging from an F grade (very poor) in the Dodd and Upper Kettle Creek subwatersheds, to a D grade (poor) in the Lower Kettle Creek subwatershed. This low percentage denotes a serious lack of wetland habitat, even after incorporating all available wetland habitat (evaluated, unevaluated and created/restored) into the dataset. KCCA will continue to create new wetlands and protect existing wetland habitat over the next 5 years.

SUMMARY

The information in the Watershed Report Card is intended to help watershed residents, partners and municipalities understand the current state of KCCA's surface water quality, forests, groundwater quality and wetlands. It is hoped that the information will be used to direct future stewardship and watershed management planning activities within the watershed to hopefully improve grades over time.

RECOMMENDATION

That the 2023 Watershed Report Card and 2023 Watershed Report Card Background Report be approved as presented.

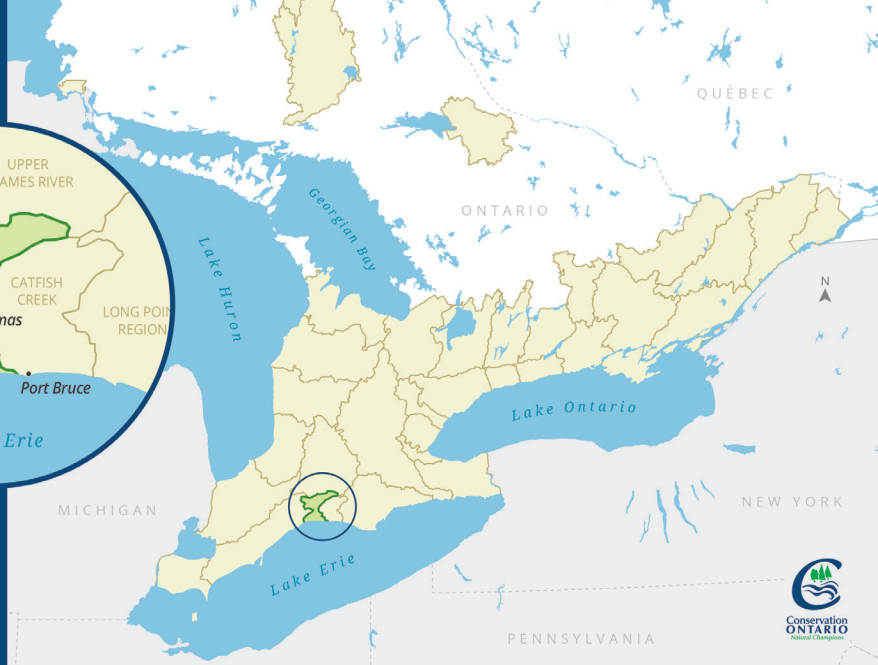
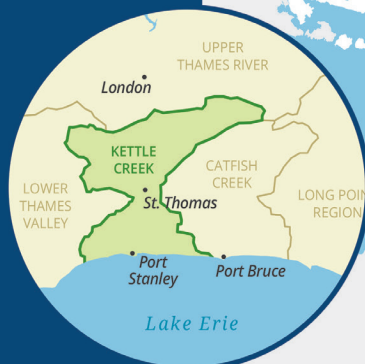
Kettle Creek Conservation Authority Watershed Report Card 2023



Kettle Creek Conservation Authority (KCCA) prepared this report card as a summary of the state of your forests, wetlands, and water resources using data collected from 2018 to 2022.



WHERE ARE WE?



What is a Watershed?

A watershed is an area of land drained by a creek or stream into a river which then drains into a body of water such as a lake or pond. Everything in a watershed is connected. Our actions upstream can affect conditions downstream.

Why Measure?

Measuring helps us better understand our watershed. We can target our work where it is needed and track progress. We measured:



Groundwater Quality



Surface Water Quality



Forest Conditions



Wetland Conditions

GRADING

A	Excellent
B	Good
C	Fair
D	Poor
F	Very Poor
	Insufficient Data

What is a watershed report card?

Ontario's Conservation Authorities report on watershed conditions every five years. The watershed report cards use Conservation Ontario guidelines and standards developed by Conservation Authorities and their partners.



Kettle Creek

SURFACE WATER QUALITY

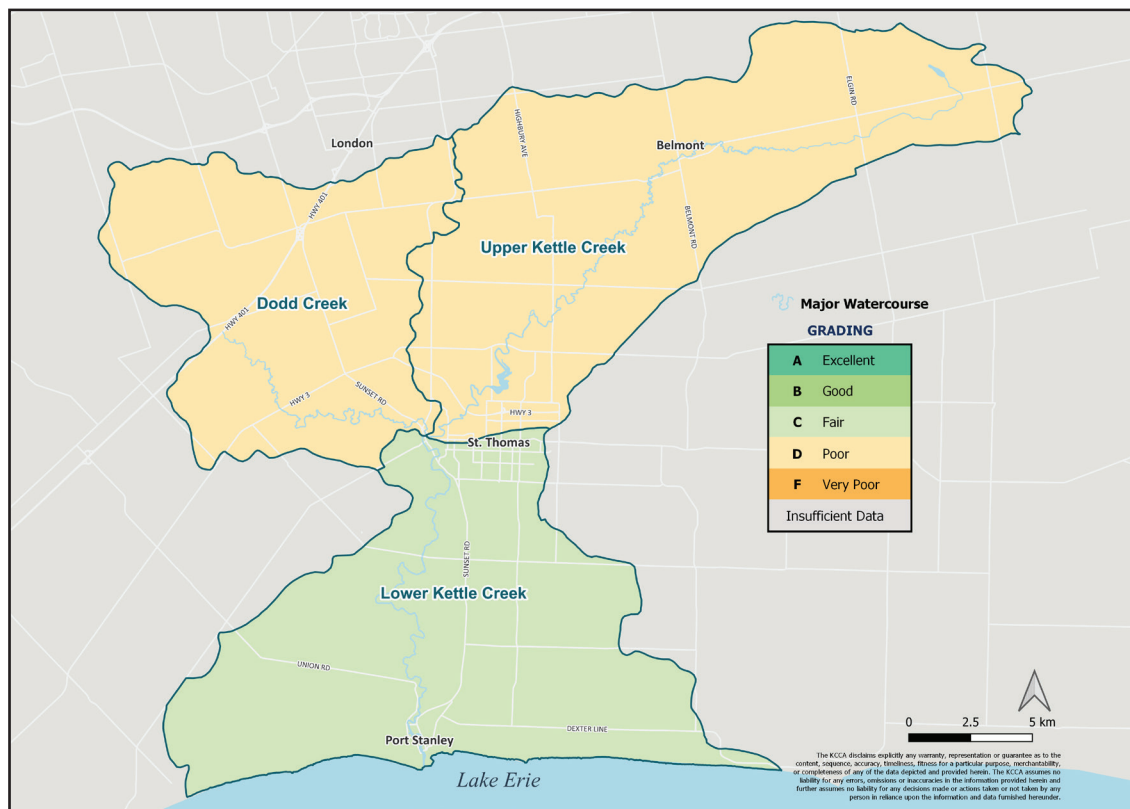


Phosphorus loading continues to be the biggest issue impacting surface water quality in the Kettle Creek watershed. In the last five years, 99.1% of the phosphorus samples collected exceeded the Provincial Water Quality Objective of 0.02 mg/L.

What Did We Find?

- Surface water quality in the watershed ranges from a D grade (poor) in the Dodd Creek and Upper Kettle Creek subwatersheds, to a C grade (fair) in the Lower Kettle Creek subwatershed.
- Surface water quality in most of the watershed is a D grade. This low grade is due primarily to phosphorus concentrations consistently exceeding the PWQO and poor benthic invertebrate Family Biotic Index Results.
- *E. coli* concentrations throughout the watershed are fair (C grade).

Our actions on the land impact the quality of our water. Surface water moves through the Kettle Creek watershed, outletting to Lake Erie at Port Stanley. Surface water can be impaired by fertilizers, pesticides, sedimentation and erosion, heavy metals, petroleum products and chemicals.





Kettle Creek FOREST CONDITIONS

GRADE

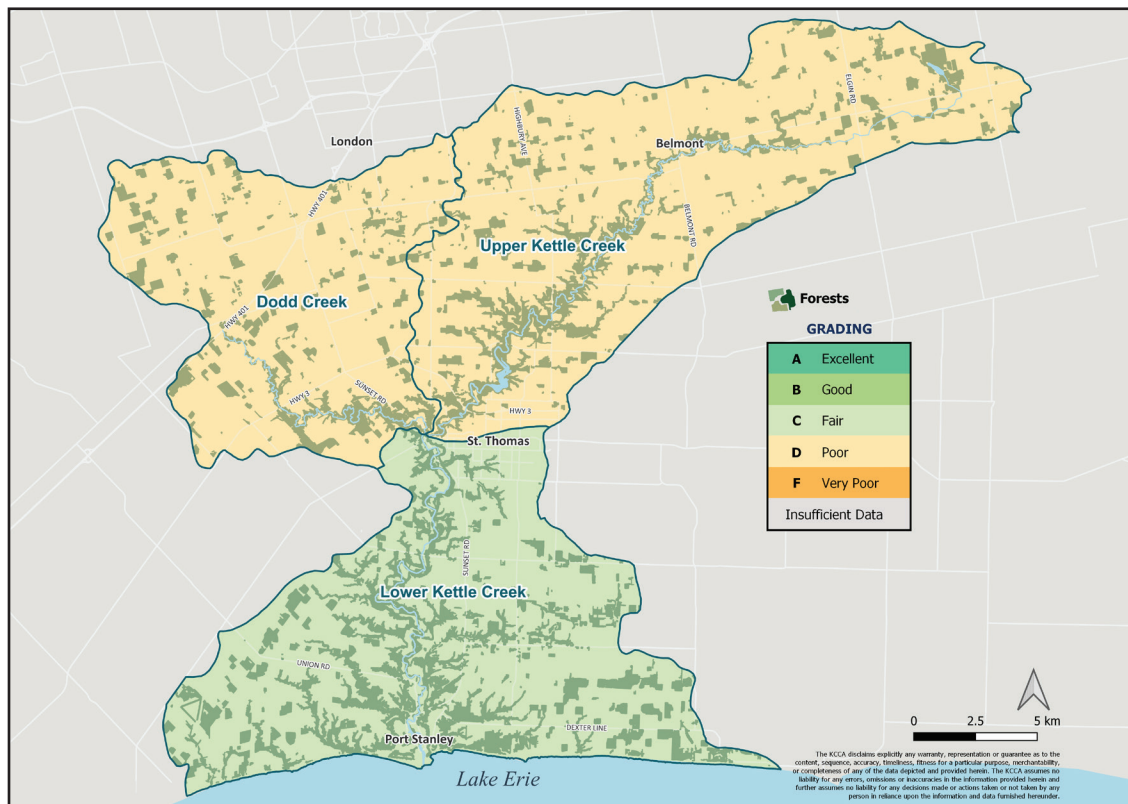
D

Environment and Climate Change Canada recommends 30% forest cover in a watershed to support wildlife species. The current forest cover in the Kettle Creek watershed is 14.15%. Forest loss in the KCCA watershed is due to development pressures, agricultural practices, natural die-off, invasive species and erosion.

What Did We Find?

- Forest Conditions grades range from D (poor) in the Dodd Creek and Upper Kettle Creek subwatersheds to C (fair) in the Lower Kettle Creek subwatershed.
- Restoration and protection of natural habitats, particularly the existing large forest patches, should be encouraged to ensure ecosystem integrity is maintained.
- A small improvement in watershed % Forest Cover from 14.07% to 14.15% was observed between the 2015 and 2020 aerial photography. This change can be attributed to better mapping and analysis, not necessarily net gain – underlying the importance of tree planting efforts and no net loss policies.

Forestry and tree planting programs offered by Kettle Creek Conservation Authority are critical to the watershed’s overall health. Currently, KCCA is planting an average of 50,000 trees per year to offset the forest loss in the watershed.





Kettle Creek GROUNDWATER QUALITY

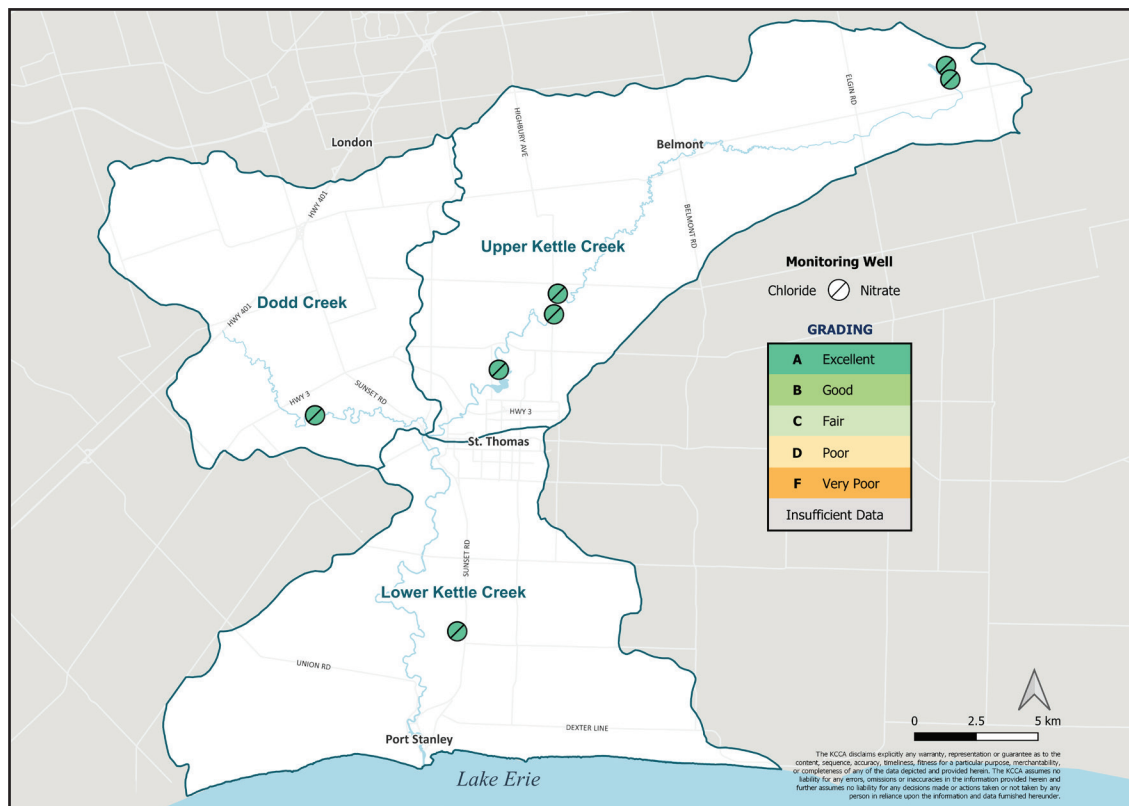


Groundwater is the water found beneath the earth's surface in layers called aquifers. Once an aquifer is contaminated, it is often very difficult to repair, making groundwater a precious resource. Concentrations of nitrate and chloride were measured at seven monitoring wells throughout the watershed.

What Did We Find?

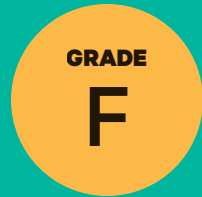
- Nitrate and chloride concentrations are better than the drinking water guidelines in all monitored wells (A grade).
- Groundwater quality results are limited to the aquifer from which the sample was taken. The quality of private well water may vary from that of the monitoring wells.

Regardless of the excellent grades, groundwater quality still has the potential to be negatively impacted by human actions. Optimizing fertilizer application, regular maintenance of septic systems, decommissioning unused wells and the reduction in use of ion exchange water softeners can help to reduce the potential degradation of groundwater resources.





Kettle Creek WETLAND COVER

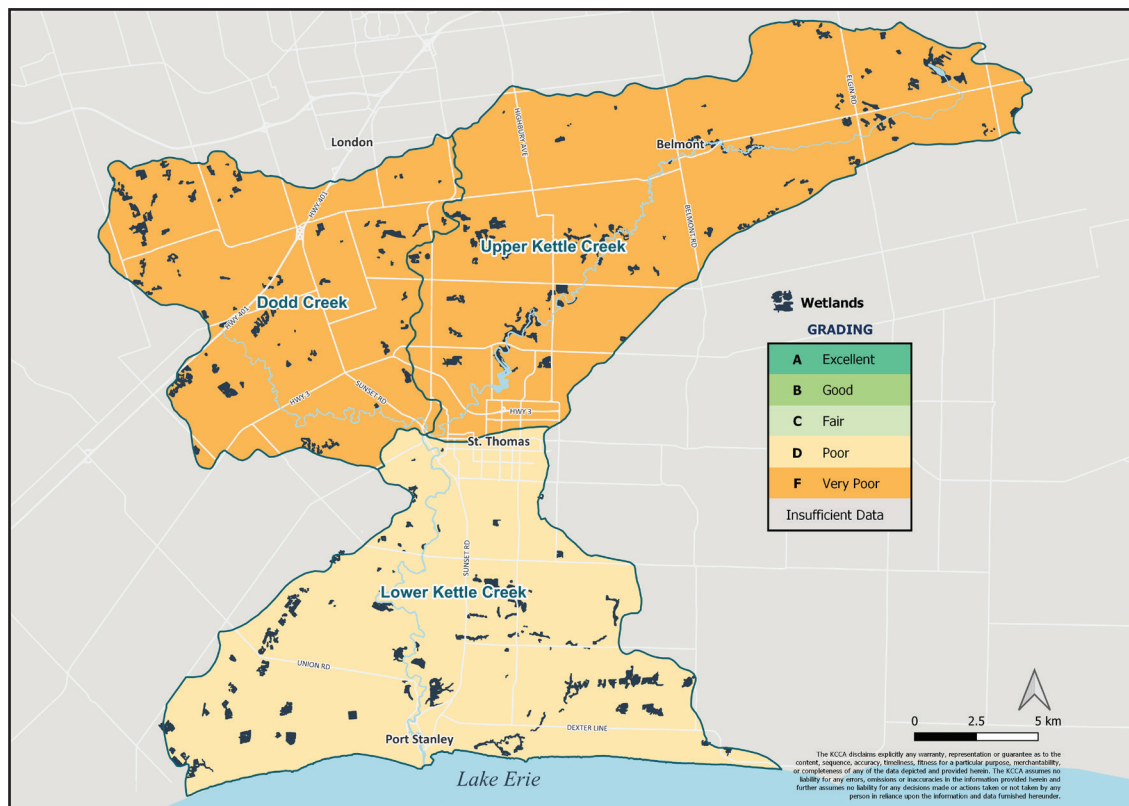


Environment and Climate Change Canada recommends 10% wetland cover in a watershed to support wildlife species. Only 2.49% of the entire Kettle Creek watershed is wetland habitat. The percentage of wetland cover was mapped using Geographic Information Systems (GIS) and included evaluated, unevaluated and created wetland habitat data.

What Did We Find?

- Wetland cover in the watershed ranges from a F grade (very poor) in the Dodd Creek and Upper Kettle Creek subwatersheds, to a D grade (poor) in the Lower Kettle Creek subwatershed.
- With wetland cover percentages low across the watershed, wetland restoration and creation efforts should be a priority.

Percent wetland cover is the percentage of the watershed that is wetland habitat. Wetlands play an important role in the ecological health of a watershed by filtering toxins, controlling flood waters, groundwater recharge and acting as nursery areas for many types of aquatic wildlife. They are often considered to be transitional habitats, which often form the connection between aquatic and terrestrial ecosystems.



OUR ACCOMPLISHMENTS



The Watershed Report Card is available online and in other formats upon request. The Watershed Report Card provides a snapshot of current conditions and helps to identify environmental issues in the Kettle Creek watershed. Over the past five years, Kettle Creek Conservation Authority worked with landowners, municipalities, government agencies and community groups to improve the health of the Kettle Creek watershed.

Water Quality

- Implemented 160 environmental Best Management Practices (BMP) projects across Elgin County through \$404,047 in funding from the Elgin Clean Water Program with total project costs of \$1,763,665.
- Established a new cover crop incentive program in 2018 resulting in 1,546 acres of winter cover crops planted that helped reduce erosion across the County and build soil health.
- Hosted a five-part webinar series in partnership with neighbouring Conservation Authorities for the agricultural community focused on soil health and reducing phosphorus inputs to Lake Erie with support from the Ministry of Agriculture, Food and Rural Affairs.

Forestry

- Partnered with the Ministry of Transportation and the Municipality of Central Elgin to plant over 6,000 trees along Central Elgin roadsides and Highway 3.
- Planted over 219,000 native trees and shrub seedlings across the watershed.
- Facilitated annual community tree planting events partnering with municipalities, school groups, service clubs and community organizations.
- Eradicated over 10 acres of invasive species targeting European Alder, Honeysuckle, Glossy Buckthorn, European Buckthorn, Giant Ragweed and Spotted Knapweed.

OUR ACCOMPLISHMENTS



Wetlands

- Restored 30 acres of wetland and adjacent habitat between 2019 and 2021 at the Port Stanley Sewage Lagoons in partnership with the Municipality of Central Elgin, Elgin Stewardship Council, Ducks Unlimited and the St. Thomas Field Naturalist Club.
- Implemented 22 wetland creation projects from 2018-2022 totalling 144 acres in new wetland habitat including the creation of three wetland cells at Bucke Conservation Area adjacent to KCCA's Administration Centre
- Eradicated over 15 acres of invasive *Phragmites* affecting watershed wetland habitats.

Education and Awareness

- Launched the Kettle Creek Environmental Youth Corps (EYC) in 2018 to provide 35 local high school students meaningful experience in the environmental field through hands-on stewardship projects, such as tree planting, wildflower planting, invasive species removal, trail maintenance and environmental monitoring.
- Partnered with neighbouring Conservation Authorities to host a Western Lake Erie Student Summit for 14 high school classes from across the Western Lake Erie basin. The Summit helped students develop personal connections with Lake Erie and the connecting watersheds.
- Carolinian Forest Festival was held in 2018, 2019 and 2022, providing 2,000 local grade 6 and 7 students annually an opportunity to learn about our local forest ecosystems, biodiversity, and climate change.
- Launched a Virtual Carolinian Forest Festival in partnership with the Thames Valley District School Board in 2020 and 2021. Sixteen educational videos featuring activities from the Festival were filmed, edited, and uploaded to YouTube with over 1,300 views to date.



*Do you have questions not answered by this summary document?
Visit kettlecreekconservation.on.ca for the full report or contact us for
more information:*

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The Watershed Report Card is available online and in other formats upon request.

2023 Watershed Report Card Background Report



Kettle Creek
Conservation Authority

Jennifer Dow

Kettle Creek Conservation Authority

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1.0 Introduction

Watershed Report Cards (WRCs) are used by Conservation Authorities (CAs) in Ontario as a means of reporting on watershed health using environmental indicators. The report cards allow Conservation Authorities and partners to better target programs and measure environmental change. It also provides an opportunity to summarize existing monitoring programs and provides information about the current state of the watershed.

The importance of collecting, analyzing and then communicating local watershed information is critical for informing a wide variety of stakeholders including watershed residents to all levels of government. WRCs can drive environmental action to make on-the-ground changes across the watershed. WRCs also allow CAs to track the impacts of growing environmental challenges such as rapid urbanization and climate change which create significant stressors on natural resources throughout the landscape.

The Kettle Creek Conservation Authority (KCCA) watershed report cards have proven to be a successful means of delivering a vast amount of technical information in an understandable format to residents, municipalities, and partner agencies. The standardized grading system and format developed by Conservation Ontario is particularly beneficial for municipalities that cross two or more watershed boundaries. In addition, other agencies and partners are able to utilize the results of the watershed report card to assist with their programs. Most recently, the WRCs were referenced by the Office of the Auditor General in the 2021 *Value for Money Audit: Reporting on Ontario's Environment* as a key public reporting document on the state of the environment in Ontario.

Ensuring the health of Ontario's watersheds cannot be achieved by any one group alone. The conservation authorities rely on many partnerships with landowners, non-governmental organizations, researchers, and all levels of government to provide funding, monitoring projects and data that contribute to the health of our watersheds and residents.

In addition to using their own data to populate the report cards, conservation authorities rely on information and guidelines from other sources such as Environment and Climate Change Canada (ECCC) and the Ontario Ministries of the Environment, Conservation and Parks (MECP) and Natural Resources and Forestry (MNRF).

The Watershed Report Cards are designed to be an ongoing and evolving product with a schedule of reporting once every five years. Conservation Ontario and the conservation authorities will review these guidelines in order to ensure they align with current best practices so that we can provide the best information available. The three standard resource categories measured in the 2023 report cards are Surface Water Quality, Forest Conditions and Groundwater Quality with a set of indicators for each category. KCCA's Watershed Report Cards incorporate an optional fourth resource category called Wetland Conditions.

The 2023 Watershed Report Card is KCCA's fourth report card and covers the time period from 2018 to 2022 inclusive. Results were calculated using the Conservation Ontario *Guide to Developing 2023*

Conservation Authority Watershed Report Cards (2022) with input from several committees for each indicator.

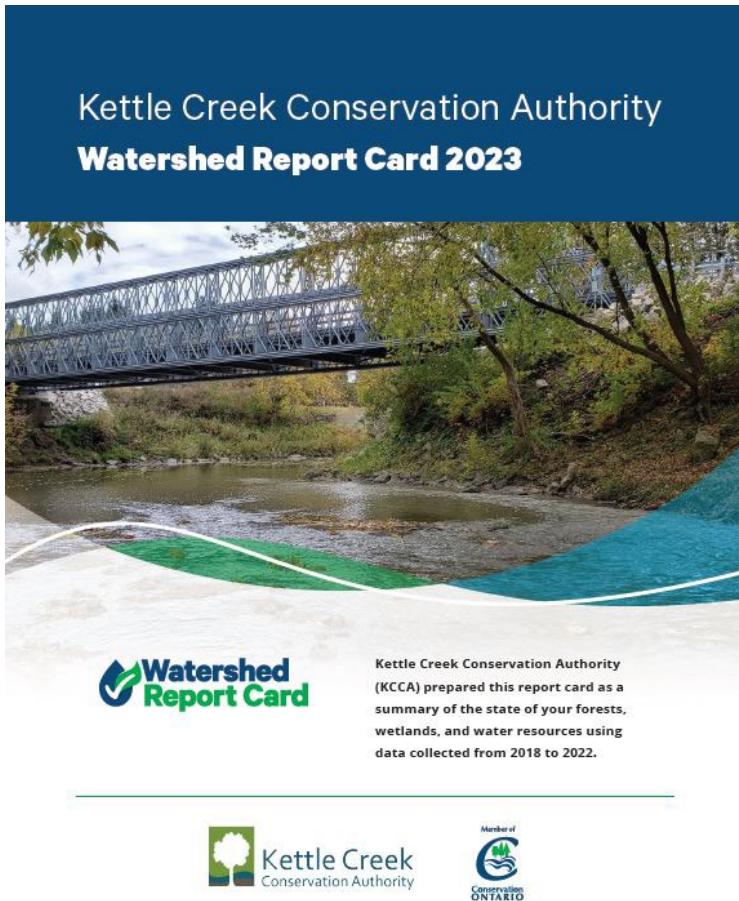
Document Information:

The 2023 Watershed Report Card (WRC) is made up of two parts:

1. The Watershed Report Card (Conservation Ontario Template)
2. The Watershed Report Card Background Report

The Watershed Report Card Template was designed using standards established by Conservation Ontario so that all CAs could summarize their watershed report card information in a consistent manner. Standardizing the report cards enables the CAs to provide a province-wide picture of conditions across Ontario’s watersheds. The WRC will be available in digital and print formats for distribution to the public.

The WRC Background Report (this document) provides all the background information on the WRC process and detailed information on the methodology and results of the 2023 WRC.



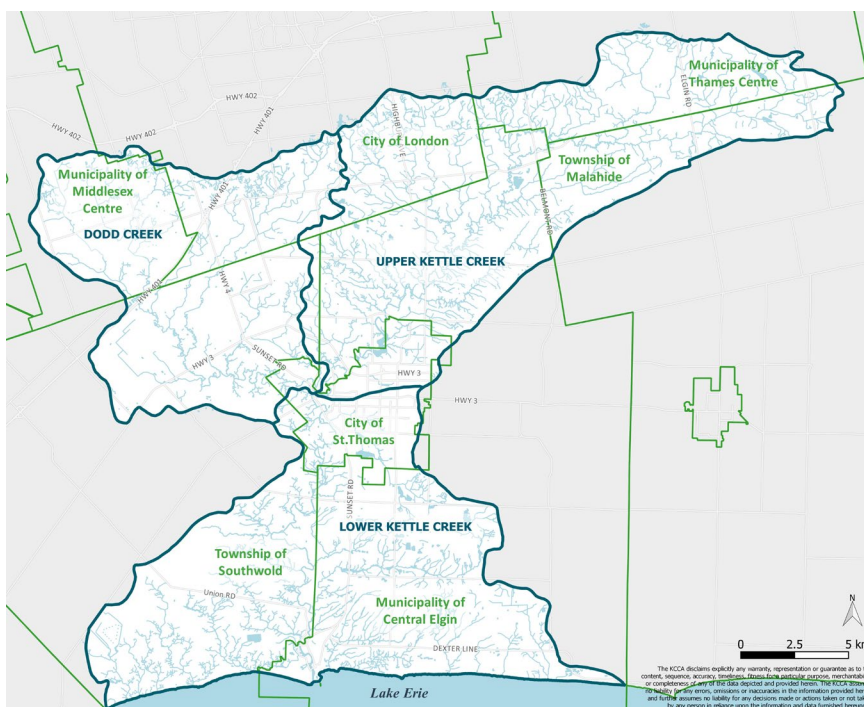
2.0 Background

The Kettle Creek watershed drains 520 square kilometers of agricultural, urban and naturally vegetated lands to the north shore of Lake Erie at Port Stanley. Kettle Creek drops approximately 141 meters over its 80-kilometer length. The steep drop in elevation can cause flooding, fluctuating base flows and a high degree of erosion. The main branch of Kettle Creek originates at Lake Whittaker, an 11-hectare groundwater-fed kettle lake. Dodd Creek, Kettle Creek’s largest tributary joins the main branch of Kettle Creek south of St. Thomas. The physical geography of the Kettle Creek watershed is dominated by clay plain in the north and sand plain in the south.

The watershed is hourglass in shape and is made up of three subwatersheds: Dodd Creek, Upper Kettle Creek, and Lower Kettle Creek (Map 1 below) and outlets to Lake Erie at Port Stanley. The KCCA watershed includes seven member municipalities: Middlesex Centre, London, Thames Centre, Malahide, Central Elgin, Southwold, and St. Thomas (Map 1).

The Kettle Creek watershed is situated entirely within the Carolinian Life Zone. This eco-zone makes up less than one percent of all the eco-regions in Canada and has the highest diversity of species. Stretching from Toronto to Windsor, the Carolinian Life Zone is the most threatened ecological region in Ontario. The biologically diverse region is home to one-third of Canada’s rare and endangered plants and animals. Over 130 species have been declared at risk and more than 500 species and natural communities are considered to be rare. Over 60 species have been lost from the zone (Kanter *et al*, 2004). In addition, these species are struggling for a place to live as the Carolinian Life Zone is home to 25% of Canada’s population. This zone boasts the warmest average annual temperatures and is sometimes called the “Banana Belt” of Ontario.

Map 1: The Kettle Creek Watershed



3.0 Resource Categories, Indicators and Grades

Watershed health indicators fall into three resource categories: surface water quality, forest conditions and groundwater quality. These categories relate to two key Conservation Authority business functions: protecting and enhancing water quality and preserving and managing natural areas. KCCA has also elected to include a fourth resource category: wetland conditions, based on the lack of wetland habitat in the watershed. Protecting and preventing the deterioration of existing wetlands and creating new wetlands has been and will continue to be a major focus of KCCA’s environmental management goals. As a result, KCCA will continue to include the wetland resource category in future report cards.

Watershed indicators are measures that provide specific information on the environmental conditions of a watershed and provide a means to assess progress towards an objective or target.

The following are the indicators for the four resource categories (Conservation Ontario, 2022):

Surface Water Quality	Forest Conditions	Groundwater Quality	Wetland Conditions
Total Phosphorus (mg/L)	% Forest Cover	Nitrate +Nitrite (mg/L)	% Wetland Cover
<i>Escherichia coli</i> (<i>E. coli</i>) Bacteria (CFU/100ml)	% Forest Interior	Chloride (mg/L)	
Benthic Macroinvertebrates Family Biotic Index (FBI)	% Riparian Zone Forested		

Grade definitions are as follows:



Dodd Creek, Dodd Creek subwatershed

4.0 Surface Water Quality

4.1 Methods and Grading

Our actions on the land determine the quality of our water. Surface water moves across our landscape, and eventually out to Lake Erie, a source of drinking water for 125,000 residents. Surface water can be affected by fertilizers, pesticides, erosion, sedimentation, heavy metals, petroleum products and chemicals. Conservation Ontario (2022) selected three indicators to measure the surface water quality in the watershed (Table 1):

- Total Phosphorus (mg/L)
- *Escherichia coli* (*E. coli*) (CFU/100ml)
- Benthic Invertebrates (Modified Family Biotic Index) (FBI)

Total Phosphorus is a nutrient that binds to soil particles and thus is an indicator of sedimentation, erosion and contaminants that are carried to the stream through surface runoff. Phosphorus is crucial to many aquatic life cycles; however, high concentrations of phosphorus can lead to low oxygen levels (anoxia), excessive algae blooms and impaired aesthetics. Domestic and industrial effluents (soaps, cleaning products) and urban and agricultural inputs (fertilizers, pesticides) are the main anthropogenic sources of phosphorus in the KCCA watershed. The Provincial Water Quality Objective (PWQO) for Total Phosphorus for surface water in creeks is 0.02 mg/L (MOECC, 1994). Conservation Ontario (2022) has set an A grade for total phosphorus concentration to be below the PWQO of 0.02 mg/L.

Escherichia coli (*E. coli*) bacteria is a species of fecal coliform bacteria that is specific to fecal material from humans and other warm-blooded animals. Most *E. coli* are harmless and are found in great quantities in the intestines of warm-blooded animals. The presence of *E. coli* in a water sample usually indicates a recent fecal contamination where there might be a risk of intestinal disease-causing bacteria viruses and protozoa. The PWQO for *E. coli* is zero (0) CFU/100 ml for drinking water and 200 CFU/100 ml for recreational activities (MHLTC, 2018). *E. coli* concentrations can be affected by wind, waves, rain events stirring up the watercourse, and high numbers of animals, such as Canada Geese. Conservation Ontario (2022) has set an A grade for *E. coli* bacteria to between 0-30 CFU/100 ml.

Provincial Water Quality Objectives (PWQO) are numerical and narrative criteria which serve as chemical and physical indicators representing a satisfactory level for surface waters (i.e., lakes and rivers) and, where it discharges to the surface, the groundwater of the Province. The PWQO are set at a level of water quality which is protective of all forms of aquatic life and all aspects of the aquatic life cycles during indefinite exposure to the water. The PWQO for protection of recreational water uses are based on public health and aesthetic considerations. Provincial Water Quality Objectives are intended to provide guidance in making water quality management decisions. They are used to assess ambient water quality conditions, infer use impairments, and assist in assessing spills and monitoring the effectiveness of remedial actions.

Benthic invertebrates are excellent indicators of water quality. They consist of small aquatic animals that live in the sediment. Benthic invertebrates are easily collected, are sedentary in nature and live in a variety of aquatic habitats and water quality. These larger invertebrates (>500 microns) live within or on

the bottom substrates of watercourses for at least a portion of their life cycle. For the most part, they include insects (mostly larvae), crustaceans (crayfish, scuds, and isopods), mollusks (snails and clams) and annelids (segmented worms and leeches). The type and number of these animals found in each sample can reflect long term trends in water quality. Conservation Ontario (2022) has set an A grade for benthic invertebrate Family Biotic Index (FBI) score to be between 0.00 and 4.25.

Table 1: 2023 Surface Water Indicators Scoring and Overall Grade Calculation (Conservation Ontario, 2022)

Total Phosphorus (mg/L)	<i>E. coli</i> (CFU/100mL)	Benthic Invertebrates (FBI)*	Point Score	Grade	Overall Surface Water Quality Grade	
					Final Points	Final Grade
<0.020	0-30	0.00-4.25	5	A	>4.4	A
0.020-0.030	31-100	4.26-5.00	4	B	3.5-4.4	B
0.031-0.060	101-300	5.01-5.75	3	C	2.5-3.4	C
0.061-0.180	301-1000	5.76-6.50	2	D	1.5-2.4	D
>0.180	>1000	6.51-10.00	1	F	<1.5	F

*Modified Family Biotic Index—based on New York State tolerance values

Concentrations of phosphorus and *E. coli* were measured at Provincial Water Quality Monitoring Network (PWQMN) and KCCA monitoring stations. Water samples are collected monthly from March to November at 10 locations across the watershed and are analyzed for 37 parameters including general chemistry, metals, nutrients, and bacteria. Currently there is no province-wide program or requirement for conservation authorities to collect water samples for *E. coli*. However, many CAs, including KCCA collect that data through their own monitoring programs or in conjunction with other partner agencies, such as local Public Health Units



Benthic Macroinvertebrates used to calculate the Family Biotic Index (FBI)

The 75th percentile for total phosphorus data over the last five years was calculated for each subwatershed. The 75th percentile (means 75% of the data fall below this value) is used to reflect the tendency for this sampling data to be dry weather biased and, therefore, more accurately reflects pollution levels. The Watershed Report Card surface water quality sub-committee recommends a minimum monthly total phosphorus dataset with 30 or more data points for the five-year reporting period.

The five-year geometric mean was calculated for the *E. coli* data collected in each subwatershed. A geometric mean is used to summarize bacteria data because bacteria can grow at an exponential rate very quickly under the right conditions. The geometric mean value is not overly influenced by large fluctuations between data points; therefore, it will compensate for unusually high and low *E. coli* sample results. A minimum monthly sampling dataset with 40 or more data points is recommended for the five-year reporting period.

Benthic Invertebrate samples were collected yearly in the fall from 10 long term monitoring stations using the Ontario Benthos Biomonitoring Network (OBBN) protocol (Jones *et al*, 2007). Preserved invertebrates were identified to family level and enumerated. The current WRC guidelines adopt the Hilsenhoff (1988) Family Biotic Index (FBI) as modified by New York State (Smith *et al.*, 2009). The Family Biotic Index was calculated using an Excel Spreadsheet macro developed by MECP.

Each of the three indicators is weighted equally in determining the overall surface water quality grade for each subwatershed.



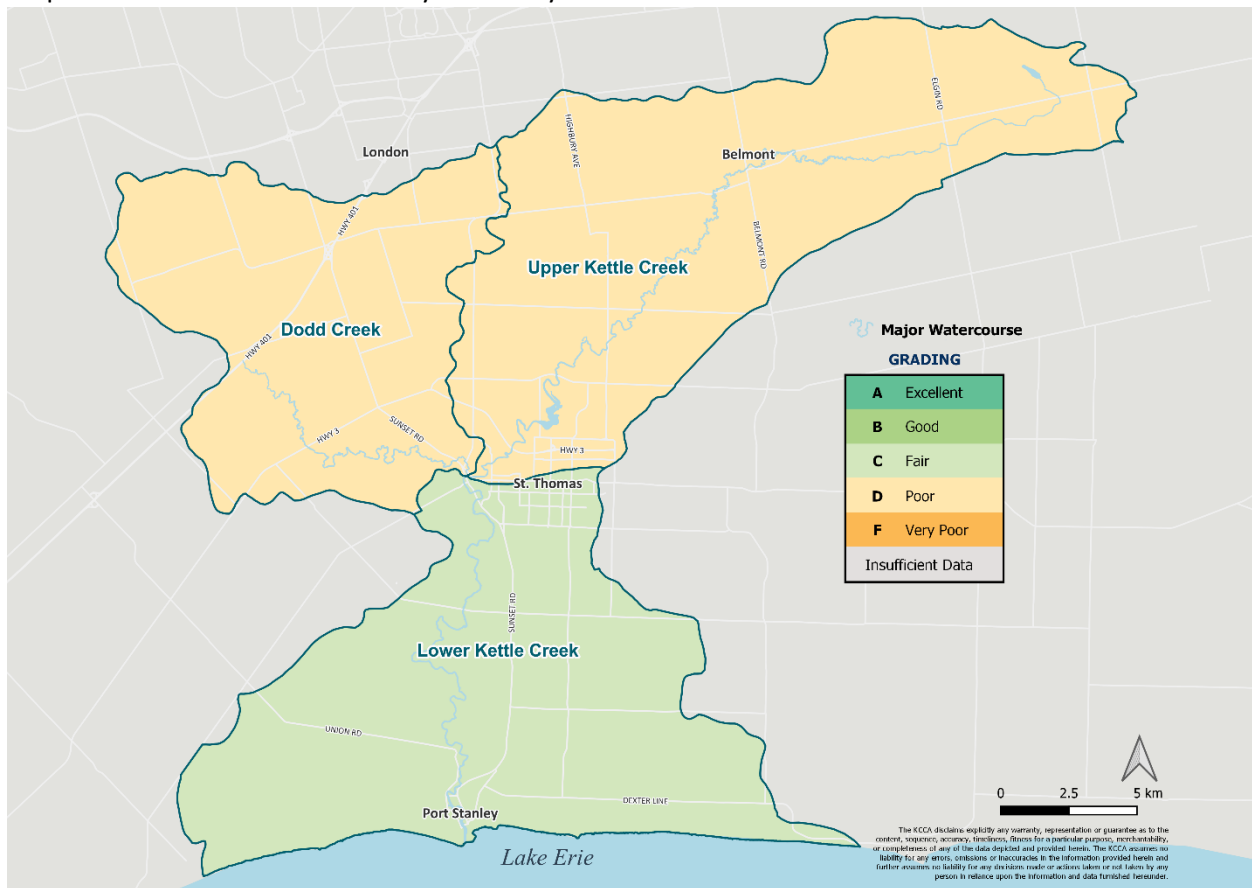
Water Scorpion, (Insect), Dodd Creek



Fatmucket, (Mussel), Dodd Creek

4.2 Results

Map 2: 2023 Surface Water Quality Grades by Subwatershed



The surface water quality scores and grades are summarized in Table 2. Dodd Creek and Upper Kettle Creek subwatersheds scored a D grade (poor), while Lower Kettle Creek subwatershed scored a C grade (fair), for surface water quality.

Table 2: 2023 Surface Water Quality Results by subwatershed (2018-2022)

Watershed	Total Phosphorus (mg/L)			<i>E. coli</i> (CFU/100ml)			Benthic Score (FBI)			Final	
	75 th %ile	Score	Grade	Geo Mean	Score	Grade	Ave. FBI	Score	Grade	Score	Grade
Dodd Creek	0.141	2	D	249	3	C	6.04	2	D	2.3	D
Upper Kettle Creek	0.149	2	D	155	3	C	5.80	2	D	2.3	D
Lower Kettle Creek	0.143	2	D	142	3	C	5.65	3	C	2.7	C

Water quality reflects both the natural features (e.g., soil characteristics, tree cover) and land use. Low forest cover, intensive agricultural activities, and urbanization can result in water quality conditions that need improvement.

Our actions on the land impact the quality of our water. Surface water moves through the Kettle Creek watershed outletting to Lake Erie at Port Stanley. Surface water can be impaired by fertilizers, pesticides, sedimentation and erosion, heavy metals, petroleum products and chemicals.

The Kettle Creek watershed is a contributor of phosphorus to Lake Erie. Over the last 5 years, 99.1% of the phosphorus samples collected across the Kettle Creek watershed exceeded the PWQO. Phosphorus loading is a key issue facing surface water quality in the Kettle Creek watershed.

Water quality typically decreases in areas that have more human activity, such as agriculture. The highest land use in the Kettle Creek watershed is agriculture at 80%. Landowners are encouraged to take advantage of available Conservation Authority programs to implement projects such as tree planting, wetland creation and erosion control to help improve low grades.



Gizzard Shad collected during Municipal Drain Classification monitoring in the Lower Kettle Creek subwatershed.



Kettle Creek, Lower Kettle Creek subwatershed.

5.0 Forest Conditions

5.1 Methods and Grading

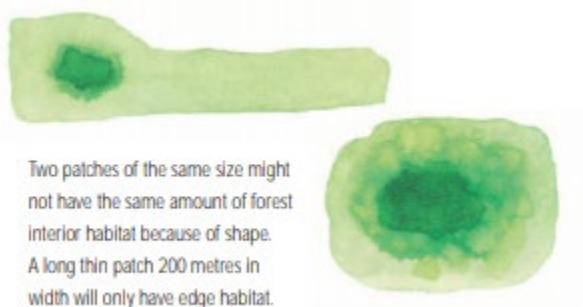
The condition of a forest is determined by many factors including the size and shape of the forest, the type and abundance of species, abundance of invasive or non-native species, the degree of fragmentation, the presence of pathogens and the degree of disturbance. In the KCCA watershed, forest cover is highly fragmented, existing as small woodlots separated by agricultural fields, urban development and other land uses. Conservation Ontario (2022) selected three indicators to measure the condition of a watershed's forest (Table 3):

- Percent Forest Cover
- Percent Forest Interior
- Percent Riparian Zone Forested

Forests and other natural areas fulfill many functions including: protecting and building the soil layer, protecting groundwater, providing habitat for wildlife, producing oxygen, taking up pollutants and moderating the climate.

Percent forest cover is the percentage of the watershed that is forested. Environment and Climate Change Canada (ECCC) (2004) recommends 30% forest cover in a watershed to support wildlife species. Conservation Ontario (2022) set an A grade for Forest Cover at more than 35%. "Forest cover" includes upland forests, swamps, and mature plantations. Windbreaks and street trees do not count as forest cover. Also, shrubland, thicket and early successional woodland do not count as forest cover for the purposes of the watershed report cards. In general, forest habitat describes areas with more than 60% tree cover.

Percent Forest Interior is the protected core area found inside a woodlot which is more than 100 meters from the edge of the forest. The outer 100m perimeter of a woodlot is considered 'edge' habitat and is prone to high predation, sun and wind damage and invasive species. Nest parasites like the brown-headed cowbird thrive in forest edge habitat, which reduces the survival of many bird species. The forest interior is high in biodiversity and supports sensitive plants and animal species that cannot live elsewhere. Ontario songbirds like the wood thrush and scarlet tanager need interior forest to breed successfully. ECCC (2004) recommends a watershed contain at least 10% forest interior habitat to maintain the full range of area sensitive birds. Conservation Ontario (2022) has set an A grade for Forest Interior at over 11.5% of the total forest.



Source: Federation of Ontario Naturalists: Forest Fragmentation

Percent Riparian Zone Forested is a measure of forest cover within a 30m streamside buffer adjacent to all open watercourses on both sides. ECCC (2004) recommends that at least 75% of the riparian zone be forested. Riparian zones that are well forested keep watercourses shaded. This in turn improves dissolved oxygen concentrations and helps to reduce sedimentation during surface water runoff events and improve water quality downstream. Several studies have indicated that riparian areas are regional hot spots that support a disproportionately high number of wildlife species and provide a wide array of ecological functions and values. In addition, the *Nutrient Management Act* (2002) recommends a minimum 3m buffer for water quality protection.

Table 3: 2023 Forest Conditions Scoring and Overall Grade Calculation (Conservation Ontario, 2022)

% Forest Cover	% Forest Interior	%Riparian Zone Forested	Point Score	Grade	Overall Forest Conditions	
					Final Points	Final Grade
>35.0	>11.5	>57.5	5	A	>4.4	A
25.1-35.0	8.6-11.5	42.6-57.5	4	B	3.5-4.4	B
15.1-25.0	5.6-8.5	27.6-42.5	3	C	2.5-3.4	C
5.0-15.0	2.5-5.5	12.5-27.5	2	D	1.5-2.4	D
<5.0	<2.5	<12.5	1	F	<1.5	F

The percentages of forest cover, forest interior, and riparian forest cover were mapped using 2020 Southwestern Ontario Orthoimagery Project (SWOOP) aerial photography that was digitized at 1:500 scale using QGIS. Each of the three indicators is weighted equally in determining the overall forest conditions score for each subwatershed.

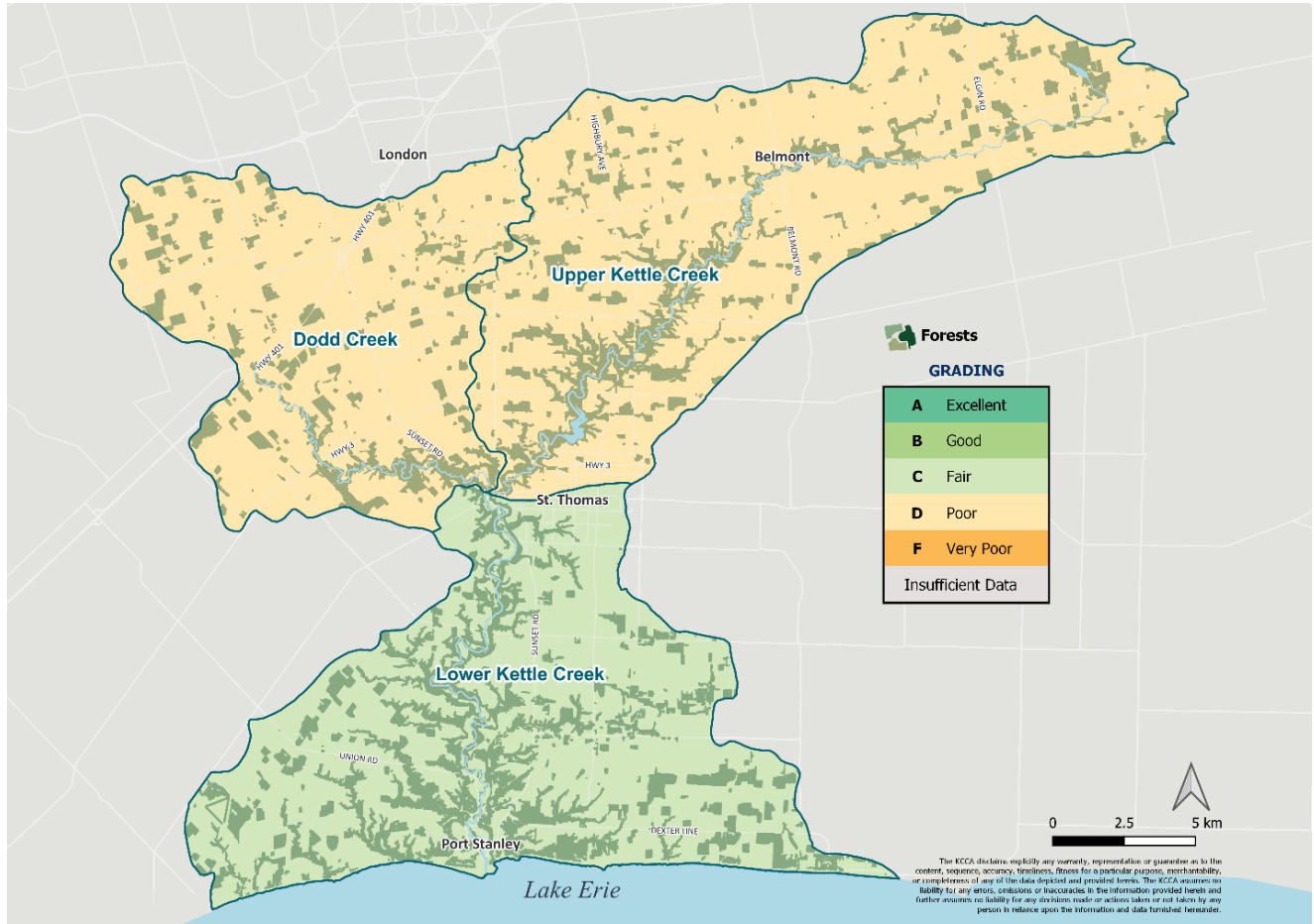
5.2 Results

The forest condition scores and grades are summarized in Table 4. Dodd Creek and Upper Kettle Creek subwatersheds exhibit poor (D grade) forest conditions, while the Lower Kettle Creek subwatershed fares slightly better due to the higher % Riparian Zone Forested score which results in a C, or fair grade.

Table 4: 2023 Kettle Creek watershed Forest Condition Grades by Subwatershed (2018-2022)

Watershed	% Forest Cover			% Forest Interior			% Riparian Zone Forested			Final	
	%	Score	Grade	%	Score	Grade	%	Score	Grade	Score	Grade
Dodd Creek	10.43	2	D	0.72	1	F	32.33	3	C	2.00	D
Upper Kettle Creek	12.31	2	D	0.73	1	F	48.82	4	B	2.33	D
Lower Kettle Creek	18.72	3	C	1.48	1	F	59.61	1	A	3.00	C

Map 3: 2023 Forest Condition Grades by Subwatershed



Overall, the Kettle Creek watershed has 14.15 percent forest cover, or less than half of what is recommended by Environment and Climate Change Canada (2004). The watershed percent forest cover as calculated from the 2020 SWOOP imagery reflects an increase of 0.57 percent when compared to the 2015 SWOOP percent forest cover of 14.07%.

The amount of forest interior is extremely low, indicating that the majority of woodlots are too small and/or narrow to support sensitive species such as Scarlet Tanager and Ovenbird. Small, isolated woodlots tend to have low species diversity and many non-native plants. Overall, the Kettle Creek watershed has 0.98% Forest Interior, which is higher than the 2015 result of 0.80%.

Changes in percent forest cover and percent forest interior can be attributed to improved data collection, mapping accuracy, and measuring techniques. This is a reflection on KCCA's standard operating procedure of using the best available data and techniques to acquire the most up to date natural datasets and GIS layers. For instance, an increase in percent forest cover of 0.57 percent over 2015 can be attributed to manually digitizing woodlot boundaries over high resolution imagery.

Improvements were also made in the mapping of interior forest habitat. In earlier forest GIS layers, forest habitat was dissected around narrow features less than 20m wide. This practice is counter to the

Southern Ontario Land Resources Information System (SLORIS) manual guidelines and often resulted in under-reporting the percent forest cover and interior values. KCCA has the capacity to do in-house mapping which means staff are able to correct those errors.

Calculations on percent forest cover and interior forest habitat are desktop exercises and offer an excellent benchmark for future analysis. However, ground-truthing would need to be completed to confirm changes in forest and woodlots observed on SWOOP imagery.

The watershed's forests continue to be threatened by natural die off and loss due to development and agricultural pressures. The only means to maintain the existing forest cover and interior forest habitat is to maintain KCCA's based tree planting program of ~50,000 trees per year and mitigate forest loss by continuing to develop and promote municipal no net-loss policies.



Tamaracks in the Bucke Conservation Authority tree planting site.

6.0 Groundwater Quality

6.1 Methods and Grading

Groundwater is the water found beneath the earth's surface in layers known as aquifers. Groundwater is difficult if not impossible to clean once contaminated, therefore it is critical to protect areas of groundwater recharge.

The Provincial Groundwater Monitoring Network (PGMN) is a partnership between MECP and conservation authorities. The program was designed to collect ambient groundwater quality (nutrients, metals, and chlorides) and quantity data. Conservation Ontario (2022) selected two indicators to measure the groundwater quality in the watershed (Table 5):

- Nitrate + Nitrite (mg/L)
- Chloride (mg/L)



Groundwater monitoring well in Lake Whittaker Conservation Area

Nitrogen occurs naturally in rocks and groundwater. The forms of nitrogen found in water include nitrite (NO_2) and nitrate (NO_3). The application of fertilizer on lawns and agricultural fields, as well as leaky septic systems can contribute to elevated concentrations of nitrogen in groundwater. Nitrite is unstable in aerated water and is generally considered to be an indicator of pollution through improper disposal of sewage or organic waste. Nitrate can also be an indicator of pollution contamination; however, the contamination may have occurred in the past. The Ontario Drinking Water Quality Guideline for nitrate + nitrite is 10 mg/L.

Chloride is a naturally occurring element that can be found in high concentrations in groundwater due to the type of rock (typically sedimentary) that the groundwater is coming from and from human impacts such as road salt application, landfills and faulty septic systems.

The Canadian Drinking Water Quality Guideline for chloride is an Aesthetic Objective of less than or equal to 250 mg/L. Drinking water and beverages prepared with water containing chloride may have a salty taste at concentrations as low as 100 mg/L. Most people find that water with more than 250 mg/L of chloride is unpleasant to drink. Chloride itself in drinking water is generally not harmful to humans. However, at concentrations higher than 250 mg/L, the sodium associated with chloride may be a concern to people on sodium-restricted diets. It is recommended that those on sodium restricted diets contact their doctor if concentrations of chloride exceed 20 mg/L in their drinking water.

Table 5: 2023 Groundwater Indicators Scoring

Nitrite + Nitrate (mg/L)	Chloride (mg/L)	Point Score	Grade
0-2.5	1-62.5	5	A
2.6-5	62.6-125.0	4	B
5.1-7.5	125.1-187.5	3	C
7.6-10.0	187.6-250	2	D
>10	>250	1	F

Concentrations of nitrate + nitrite and chloride were measured at seven MECP partner monitoring wells. Samples are collected annually and are analyzed for 37 parameters. The 75th percentile for the nitrite-N + nitrate-N data over the 10-year period was calculated. The 75th percentile for the chloride data over the 10-year period was calculated. Each of the indicators is graded separately and delineated as points on the map. To obtain a more significant result, a minimum 10-year sampling period dataset is recommended by the WRC groundwater sub-working group due to the limited number of samples for the indicators (i.e., one data point/sample per year compared to eight per year for the PWQMN).

For the 2023 WRC, new symbology is used to differentiate between the overburden (circle) and bedrock (square) well data. Overburden groundwater means water found below ground surface within aquifers located in the unconsolidated material (clay, sand, gravel) that is overlying the bedrock. Bedrock wells are drilled deeper into aquifers located in consolidated bedrock. The permeable soils associated with overburden aquifers permits a greater rate of infiltration of precipitation and potential sources of pollution. As a result, overburden wells are less protected from contamination than wells drilled into bedrock.

6.2 Results

The groundwater quality scores and grades are summarized in Table 6. All three subwatersheds scored an A grade (excellent) for their groundwater quality. This is a good indication that KCCA's groundwater resources are currently being protected from contaminants and anthropocentric sources. Groundwater is an important supply of water for wetlands, forests, and watercourses.

Table 6: 2023 Kettle Creek Watershed Groundwater Grades for All Subwatersheds (2018-2022)

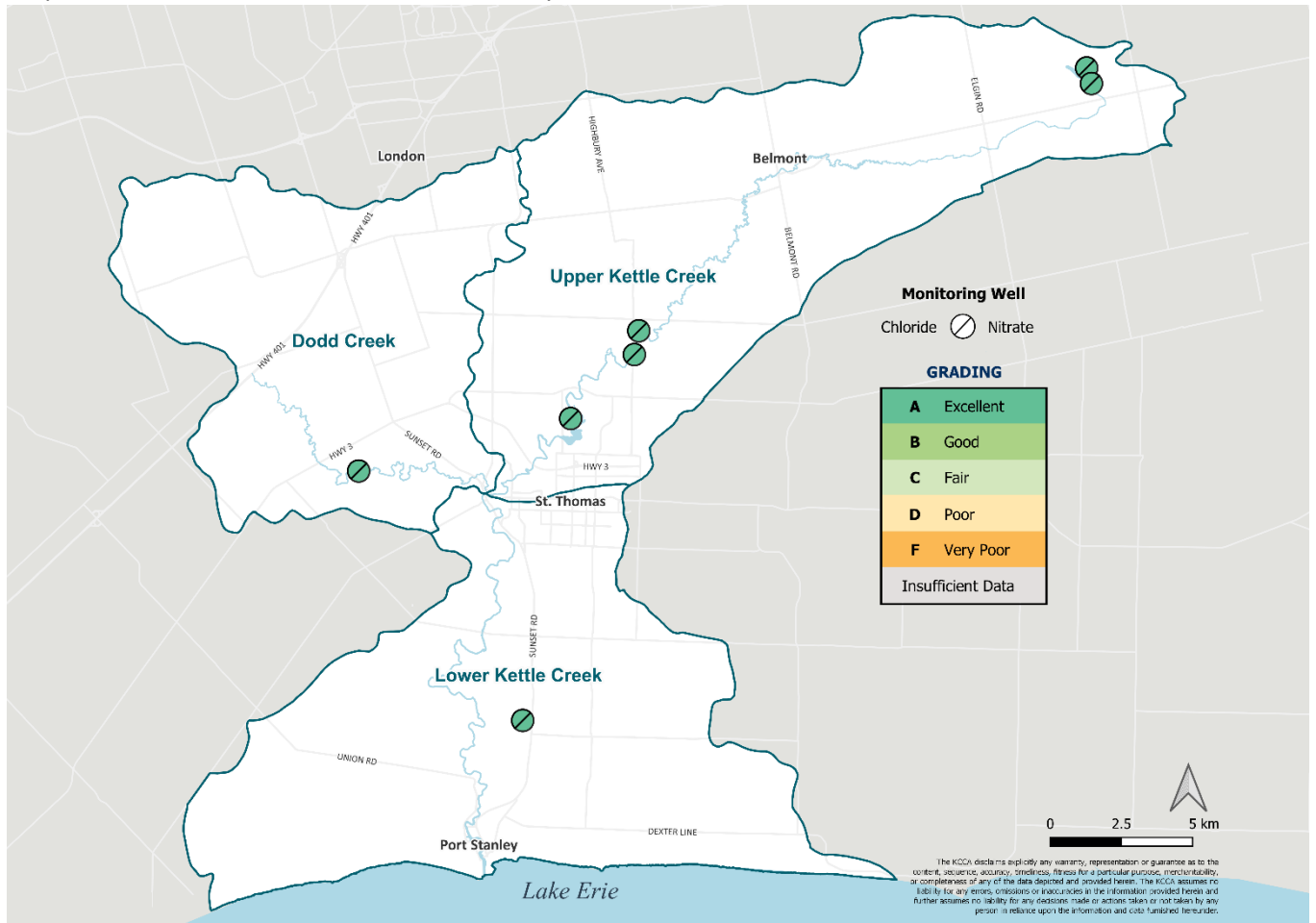
Watershed	Nitrite + Nitrate mg/L			Chloride mg/L			Final	
	75 th %ile	Score	Grade	75 th %ile	Score	Grade	Score	Grade
Dodd Creek	0.05	5	A	46.15	5	A	5	A
Upper Kettle Creek	0.05	5	A	12.33	5	A	5	A
Lower Kettle Creek	0.05	5	A	16.8	5	A	5	A

Groundwater quality results in the area are excellent. Nitrite + Nitrate and chloride concentrations are better than the drinking water guidelines in all monitored wells (A grade) in the watershed. However, groundwater quality results are limited to the aquifer from which the sample was taken. KCCA monitoring wells are not used as sources of drinking water. As a result, the quality of private well water may vary from that of the monitoring wells.



Groundwater sample bottles ready for analysis.

Map 5: 2023 Groundwater Condition Grades by Subwatershed



Note: grades are visualized on the map as point data to show that the results are limited to the aquifer (i.e., well location) from which the sample was taken. The top left half of the circle represents the chloride letter grade and the bottom right of the circle represents nitrate.

7.0 Wetland Conditions

7.1 Methods and Grading

Percent wetland cover is the percentage of the watershed that is wetland habitat. Environment Canada (2004) recommends 10% wetland cover in a watershed to support wildlife species. The 10% wetland cover target is placed in the middle of the B grade (Table 7).

Wetlands play an important role in the ecological health of a watershed by filtering toxins, controlling flood waters, facilitating groundwater recharge, and acting as nursery areas for many types of aquatic wildlife. Wetlands are also essential to many plant and animal species that depend on wetland habitat for all or part of their life processes, such as fish, amphibians, and reptiles. They are often considered to be transitional habitats, which often form the connection between aquatic and terrestrial ecosystems.

Wetlands that are healthy and functioning properly filter contaminants, like phosphorus and prevent those contaminants from flowing downstream and impairing water quality elsewhere.

Table 7: 2023 Wetland Condition Scoring and Grade (Conservation Ontario, 2022)

Grade	% Wetland Cover
A	>11.5
B	8.6-11.5
C	5.6-8.5
D	2.5-5.5
F	<2.5

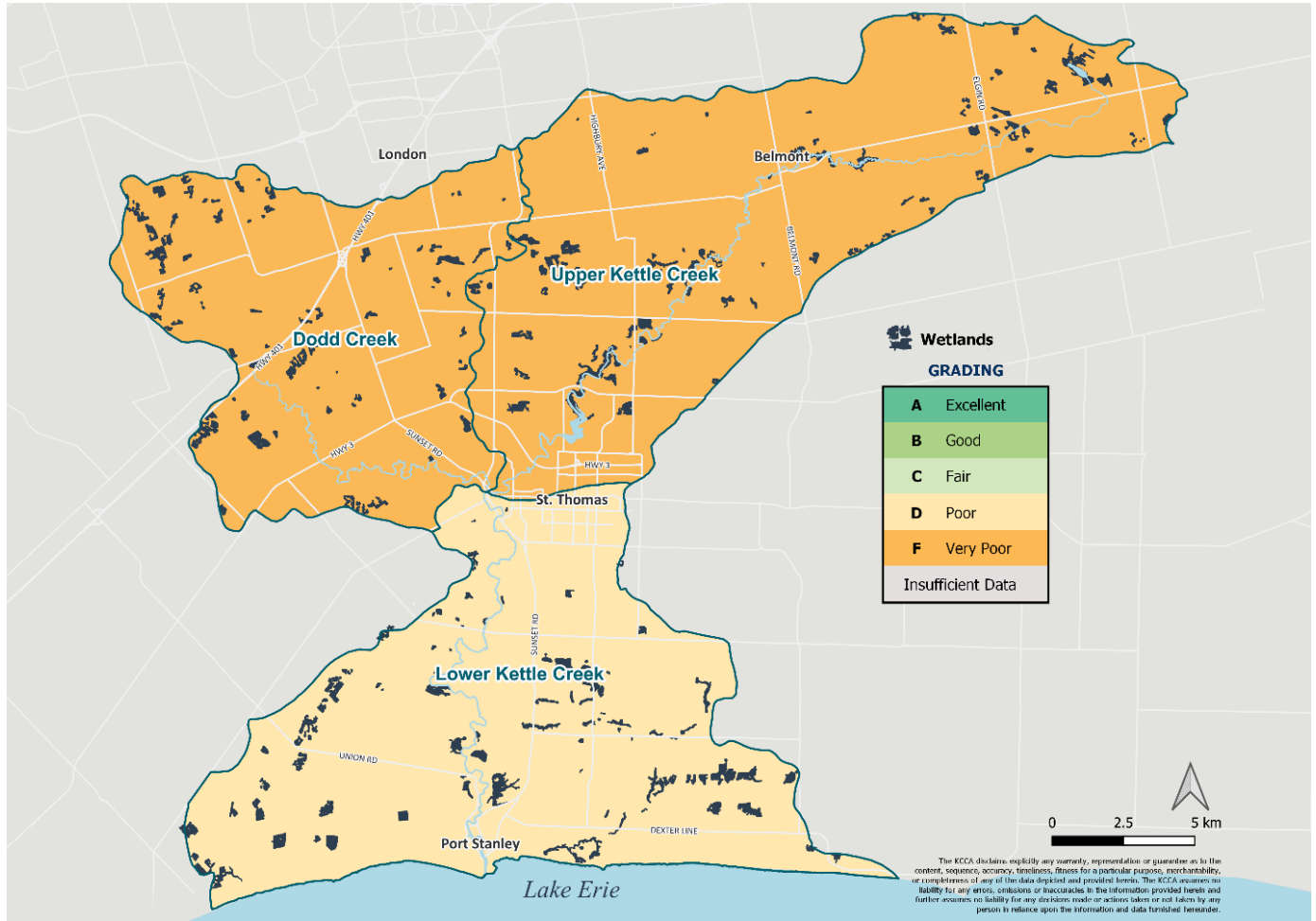


KCCA created wetland in Bucke Conservation Area in the Upper Kettle Creek subwatershed.

The percentage of wetland cover was measured with Geographic Information Systems (GIS) using Ministry of Natural Resources and Forestry (MNRF) data (Provincially evaluated wetlands and locally significant wetlands), unevaluated wetland data that was digitized in-house by KCCA GIS staff using 2015 Infrared SWOOP aerial photography and surveyed KCCA created wetlands.

7.2 Results

Map 6: Kettle Creek Wetland Conditions Grades by Subwatershed



The wetland condition scores and grades are summarized in Table 8. The Dodd Creek and Upper Kettle Creek subwatersheds scored an F grade (very poor) for their wetland conditions and the Lower Kettle Creek scored a D grade (poor).

Table 8: 2023 Kettle Creek Wetland Condition Grades for All Subwatersheds (2018-2022)

Watershed	Wetland Cover		
	%	Score	Grade
Dodd Creek	2.28	1	F
Upper Kettle Creek	2.42	1	F
Lower Kettle Creek	2.71	2	D

Unfortunately, wetland cover in the KCCA watershed ranges from an F grade (very poor) to a D grade (poor) due to agricultural land use which has greatly altered wetland function and or removed wetland habitat all together and development.

Wetland habitat was assessed using criteria outlined in a technical guide developed by the Wetland Rapid Evaluation Technical Working Group in 2013. It was important to include the un-evaluated wetland habitat in the data set as one of the limitations of using only the MNRF evaluated wetlands is that a large portion of the KCCA watershed has not been evaluated by MNRF, nor is there any indication that it will be done in the near future.

Calculations on wetland cover is a desktop exercise and offers an excellent benchmark for future analysis. However, ground-truthing and wetland evaluations would need to be completed to confirm changes in wetland habitat on SWOOP imagery.

The 2018 WRC calculated the percent wetland cover using only MNRF evaluated wetland data, excluding un-evaluated wetlands and wetland creation projects. Using the entire wetland cover dataset resulted in a significant improvement in percent wetland cover for the 2023 WRC. Unfortunately, even after using all available wetland cover data, only 2.49 percent of the entire watershed is wetland habitat, which is well below the Environment and Climate Change Canada (2004) recommended wetland cover of 10%. Using 2015 Infrared SWOOP aerial photography, KCCA staff were able to digitize the un-evaluated wetland habitat and include wetland creation projects completed by KCCA in the period 2018-2022 in the 2023 WRC.

KCCA worked with landowners over the last five years to create and restore wetlands. Between 2018 and 2022, 22 wetland creation projects were implemented within the watershed totaling 144 acres of new wetland habitat. KCCA will continue to survey new wetland creation projects and continue to use remote sensing GIS to map potential wetland habitat in the watershed.

8.0 Summary

The information in the Watershed Report Card is intended to help watershed residents, partners, and municipalities understand the current state of KCCA's surface water quality, forests, groundwater quality and wetlands.

The data in this report card indicates that erosion, sedimentation, and nutrient loading are still significant areas of concern for the Kettle Creek watershed. Phosphorus can enter the watershed from many sources including agricultural, residential, industrial, and commercial sources. Phosphorus loading can occur when rain or snowmelt runs off the fields, streets or backyards and soil particles bind with nutrients and are carried to creeks and streams.

Stewardship programs such as the Elgin Clean Water Program and the Kettle Creek Clean Water Initiative should be continued to provide the technical expertise and funding to landowners for the implementation of environmental BMP projects across the watershed. Projects such as erosion control, and tallgrass prairie establishment contribute to reducing surface water runoff and improving water quality while wetland creation is helping to boost wetland cover percentages.

Older KCCA tree planting sites are now visible in GIS mapping resulting in several sites being incorporated into the forest cover layer for the 2023 watershed report card. However, over the next five years, KCCA's tree planting efforts of 50,000 trees a year should be continued to maintain the current forest cover percentage as the watershed's forests continue to be threatened by natural die off, the impacts of invasive species and loss due to development and agricultural pressures.

In 2022, KCCA was fortunate to receive a donation of 46-acres of land comprising of meadow and forest habitats to be known as the Deer Ridge Conservation Area. The property includes a large intact tract of interior forest and is home to several species at risk. KCCA management of this property will ensure that significant watershed forest interior habitat is protected in perpetuity.

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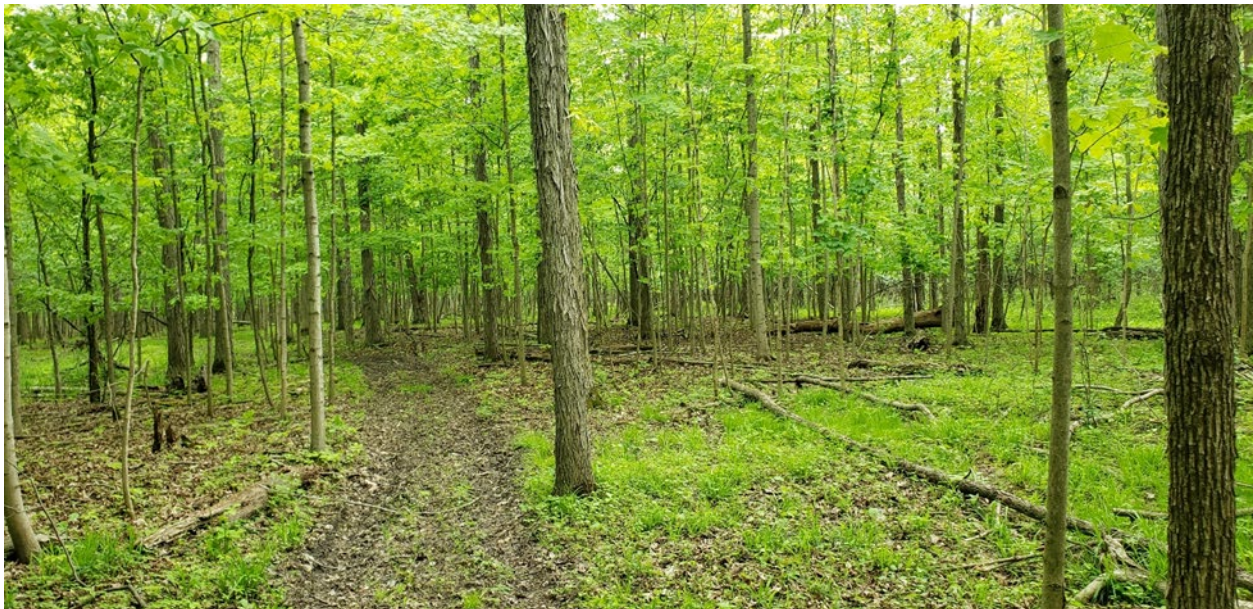
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Deer Ridge Conservation Area

TO: Board of Directors
FROM: Joe Gordon
Date: March 22, 2023
Subject: Section 28 Permit Update (Standard Compliance Requirements)



Recommendation: That the KCCA Board of Directors approve the Standard Compliance Requirement forms of the “Drainage Act and Conservation Authorities Act Protocol (DART)” and the “2021 Memorandum of Understanding between Conservation Ontario and Hydro One networks Inc.” as Section 28 Regulation Permits for associated development or alterations.

PURPOSE:

To seek approval of the Board of Directors to apply the Standard Compliance Requirement forms associated with the DART Protocol and 2021 CO/Hydro One MOU as Section 28 Regulation Permits for associated development or alterations.

SUMMARY:

- The DART Protocol established Standard Compliance Requirement (SCR) forms to be used as a streamlined approach to associated Conservation Authority regulation permits for municipal drain maintenance works.
- KCCA has relied upon the DART Protocol but maintained a practice of issuing “Letters of Advice” which included review and comment to address risks to natural hazards and impacts upon fish and fish habitat.
- Changes to the CA Act from Bill 23 no longer permit CAs from providing review and comment on matters that are not related to risks of natural hazards or source water protection under the Drainage Act.
- As a result, staff recommend using the DART SCRs as designed, for the purposes of issuing permits under CA Act for municipal drain maintenance and no longer provide “Letters of Advice”.
- Building on the success of the DART protocol, an MOU between Conservation Ontario and Hydro One Networks established similar SCRs for streamline approvals for development or alterations within a regulated area for Hydro One works,
- Staff recommend using the Hydro One SCRs for the purposes of issuing permits for associated Hydro One works within regulated areas.

BACKGROUND:

DART Protocol:

The Drainage Act and Conservation Authorities Act (DART) Protocol was developed to streamline required approvals of Conservation Authorities for proposed maintenance works being undertaken under the *Drainage Act*. The DART Protocol includes a series of Standard Compliance Requirement (SCR) forms that provide a list of mitigation requirements that satisfy both the *Drainage Act* and *Conservation Authorities Act*.

The DART SCR forms are designed so that the Conservation Authority could simply fill out a section of the form, sign and return to the applicant or municipality as formal permission under the *Conservation Authorities Act*.

Similar to other Southwestern-Ontario Conservation Authorities, KCCA was primarily reviewing drainage maintenance works with regard to its contractual responsibilities with Fisheries and Oceans (DFO) prior to the adoption of the DART Protocol. Although staff were reviewing applications and issuing “Letters of Advice”, Section 28 Regulation Permits were not being issued for drainage maintenance works.

KCCA decided at the time to maintain status-quo for drainage maintenance works by acting in the spirit of the DART Protocol SCR’s but continued to only provide “Letters of Advice”. The Letters were amended to include comments associated with risks to natural hazards and drainage applications were screened by staff to determine if the Municipality should apply for a Section 28 Permit following the typical application process requirements based on the associated risk. The DART SCR’s have not been used by KCCA as formal section 28 permits to date.

Although prior agreements between CAs and Fisheries and Oceans Canada (DFO) have ended, KCCA staff continued to provide advice to assist our member municipalities in their responsibilities to ensure that their drainage maintenance works complies with the *Fisheries Act*.

Changes to KCCA’s current practices related to maintenance of municipal drains is required as a result of Bill 23 which now prohibits the CA from reviewing and providing advice on matters under the Drainage Act that are not part of its mandatory programs and services (ie. risks to natural hazards and sourcewater protection). As a result, KCCA can no longer provide Letters of Advice on matters related to the Fisheries Act on behalf of the Municipality.

Staff recommend full implementation of the DART Protocol as designed. Approval of the Board of Directors is required to approve the DART SCR’s as Section 28 Permits for associated drainage works requiring approval under the CA Act.

2021 MOU between CO and Hydro One:

The Memorandum of Understanding (MOU) between Conservation Ontario (CO) and Hydro One Networks Inc. was prepared to provide detailed communication protocols to be followed between Hydro One and Conservation Authorities when Hydro One work activities are planned or undertaken on lands regulated under the Conservation Authorities Act.

Previously all of Hydro One’s construction, maintenance and emergency activities were exempt from CA permitting requirements under Section 28 of the CA Act and individual CA regulations. However, Hydro One and its affiliates no longer hold status as crown corporations, so the previous exemption status from CA permitting requirements under Section 28 of the CA Act and the individual CA regulations ceased to apply.

As such, the 2021 MOU was prepared, acknowledging the new requirement for Hydro One and its affiliates to obtain CA permission under Section 28 of the CA Act for required work. The 2021 MOU outlines additional protocols and best practices to continue the positive working relationship between Hydro One and Ontario CAs.

Building off the success of the DART Protocol the MOU developed a set of Standard Compliance Requirements forms that can be completed and returned to the applicant as formal Conservation Authority approval under its regulations for Hydro One works.

Staff recommend approval of the attached Hydro One SCRs as Section 28 Permits for associated Hydro One related development and/or alterations requiring approval under the CA Act.

RECOMMENDATION:

That the KCCA Board of Directors approve the Standard Compliance Requirement forms of the “Drainage Act and Conservation Authorities Act Protocol (DART)” and the “2021 Memorandum of Understanding between Conservation Ontario and Hydro One networks Inc.” as Section 28 Regulation Permits for associated development or alterations.

Drainage Act and Conservation Authorities Act Protocol

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



ontario.ca

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.

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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.

<p>The _____ Conservation Authority grants permission under Section 28 of the <i>Conservation Authorities Act</i> 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.</p>			
File Number: _____		By-Law No.: _____	
Period of Validity: _____ to _____			
Location:	<input type="checkbox"/> 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>*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:	_____	_____	
	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
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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*

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> <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	

**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 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: _____

<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>
------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------

*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)

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>
------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------

*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
-----------------------------------------------	------	-----------

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)*

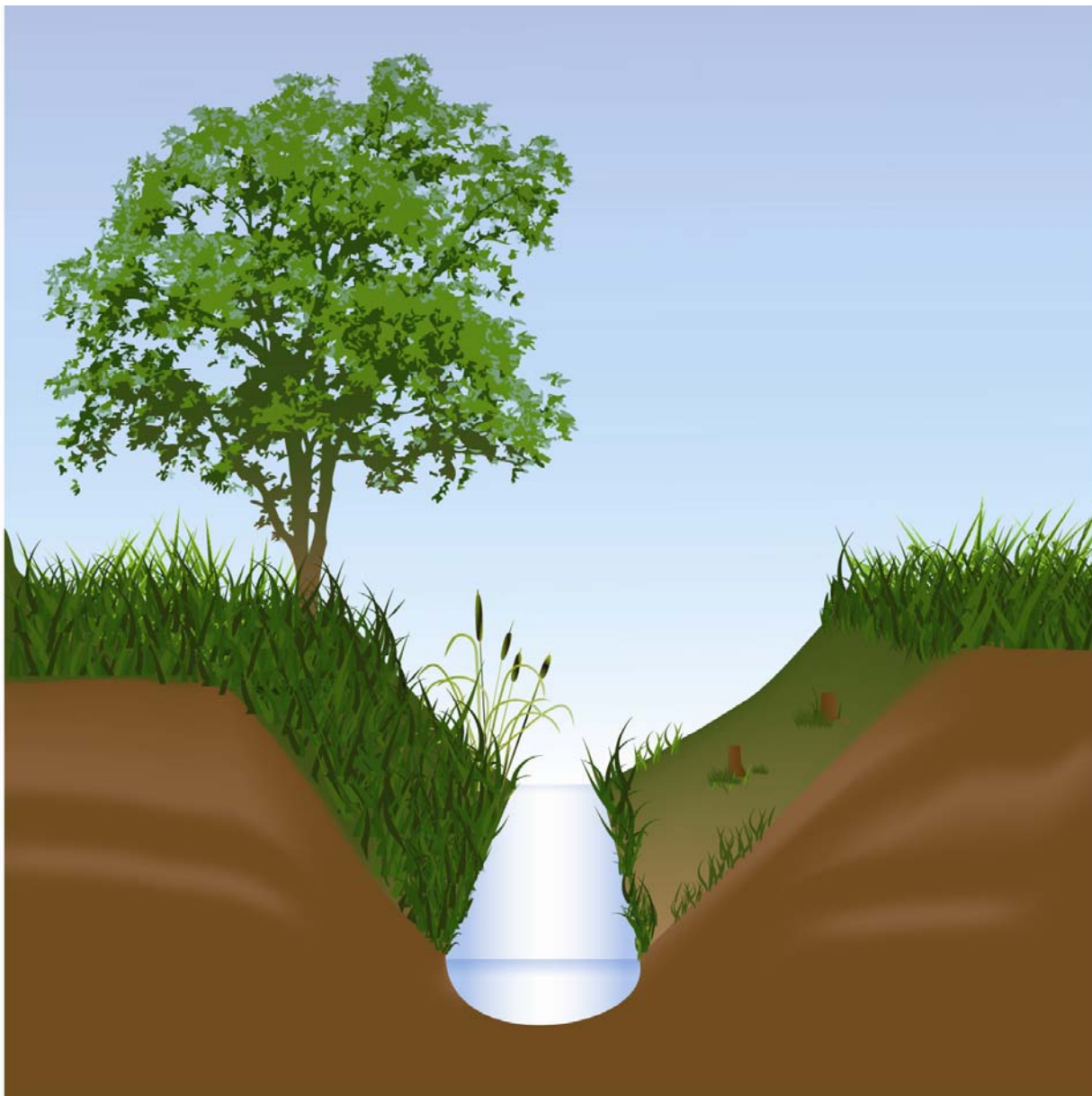


Figure 2: Brushing top of bank (Standard Compliance Requirements Statement B)

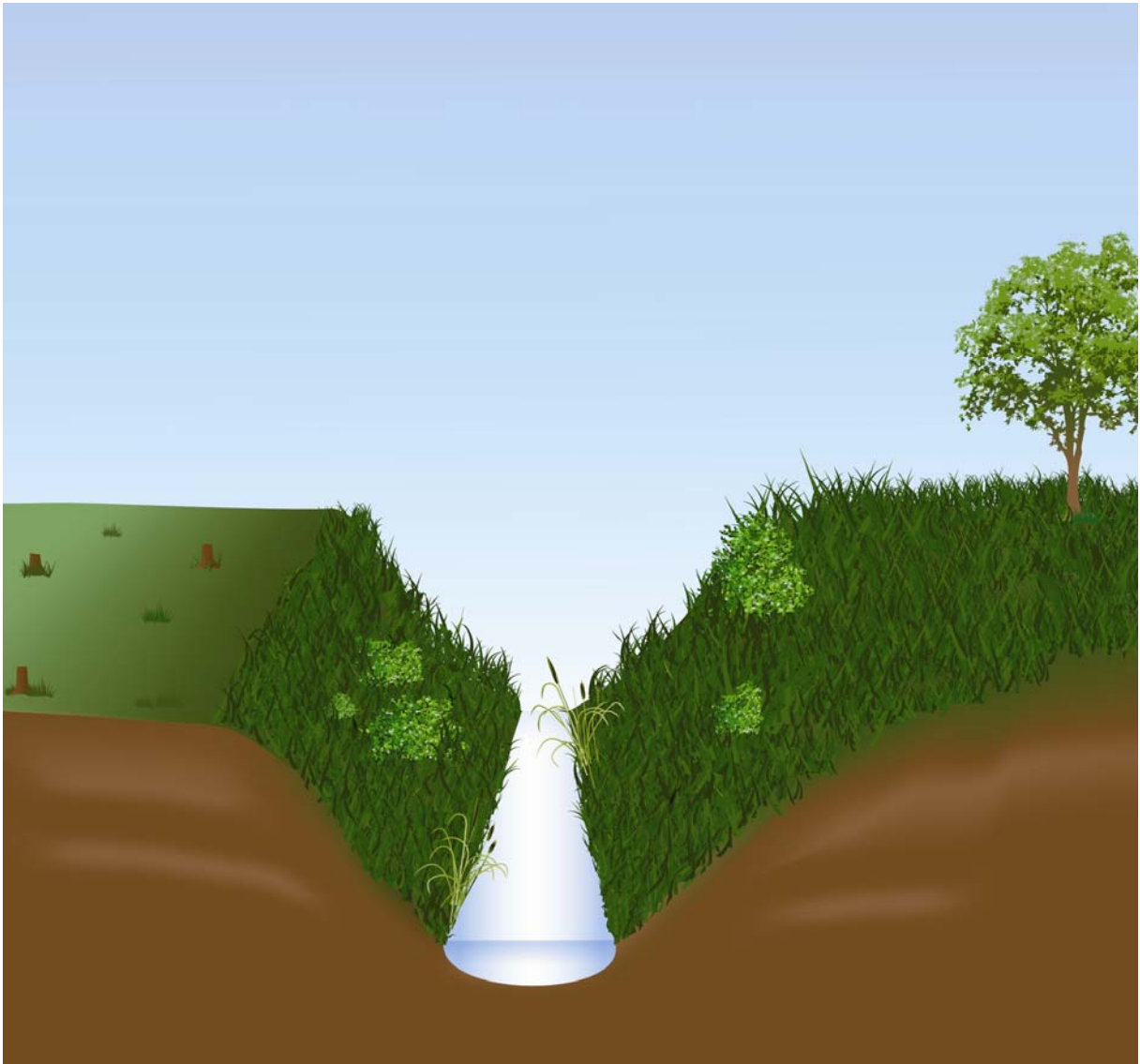


Figure 3: Bottom only cleanout (Standard Compliance Requirements Statements J, M)



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

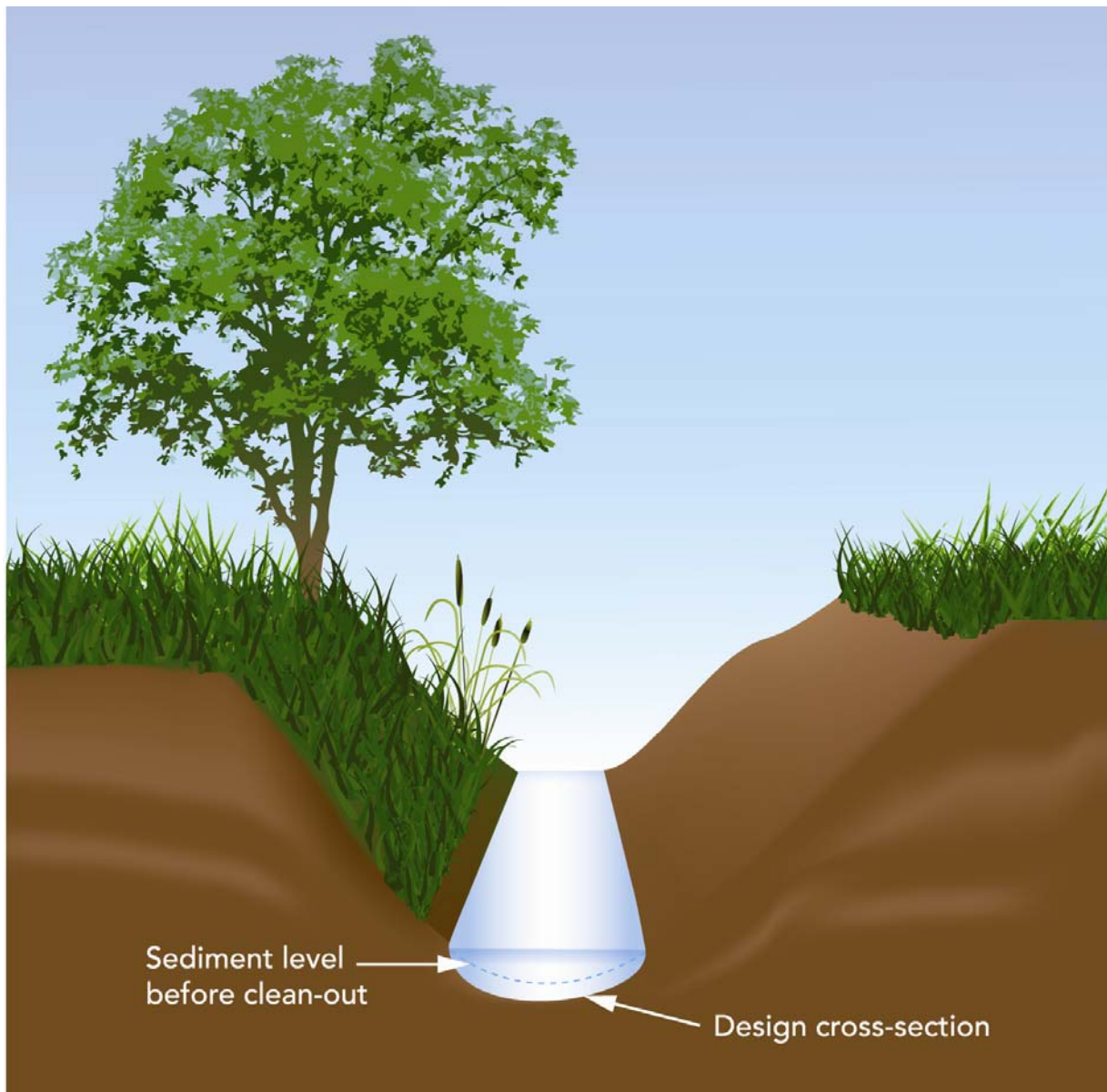


Figure 5: Full cleanout (Standard Compliance Requirements Statements L, O)

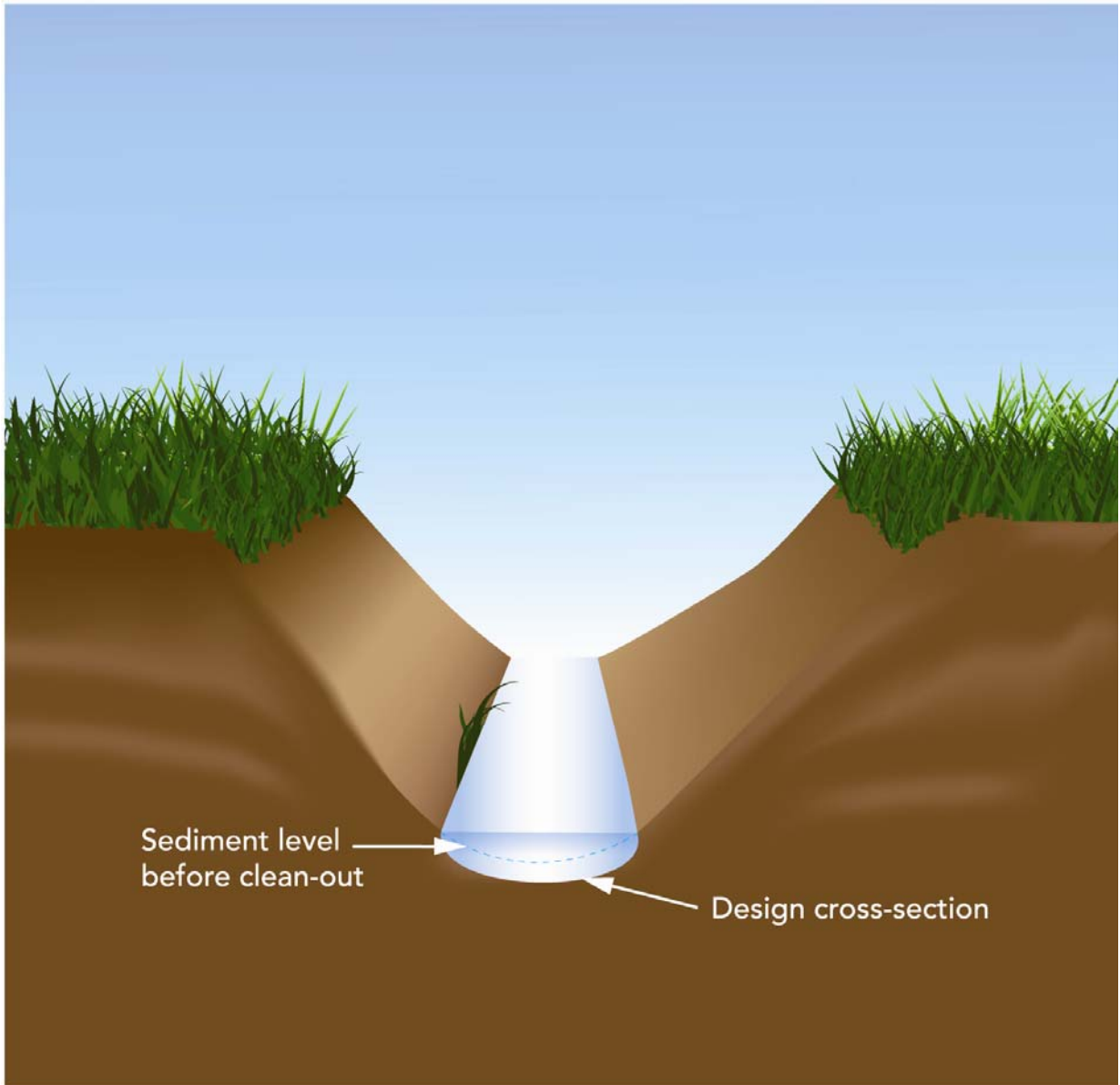
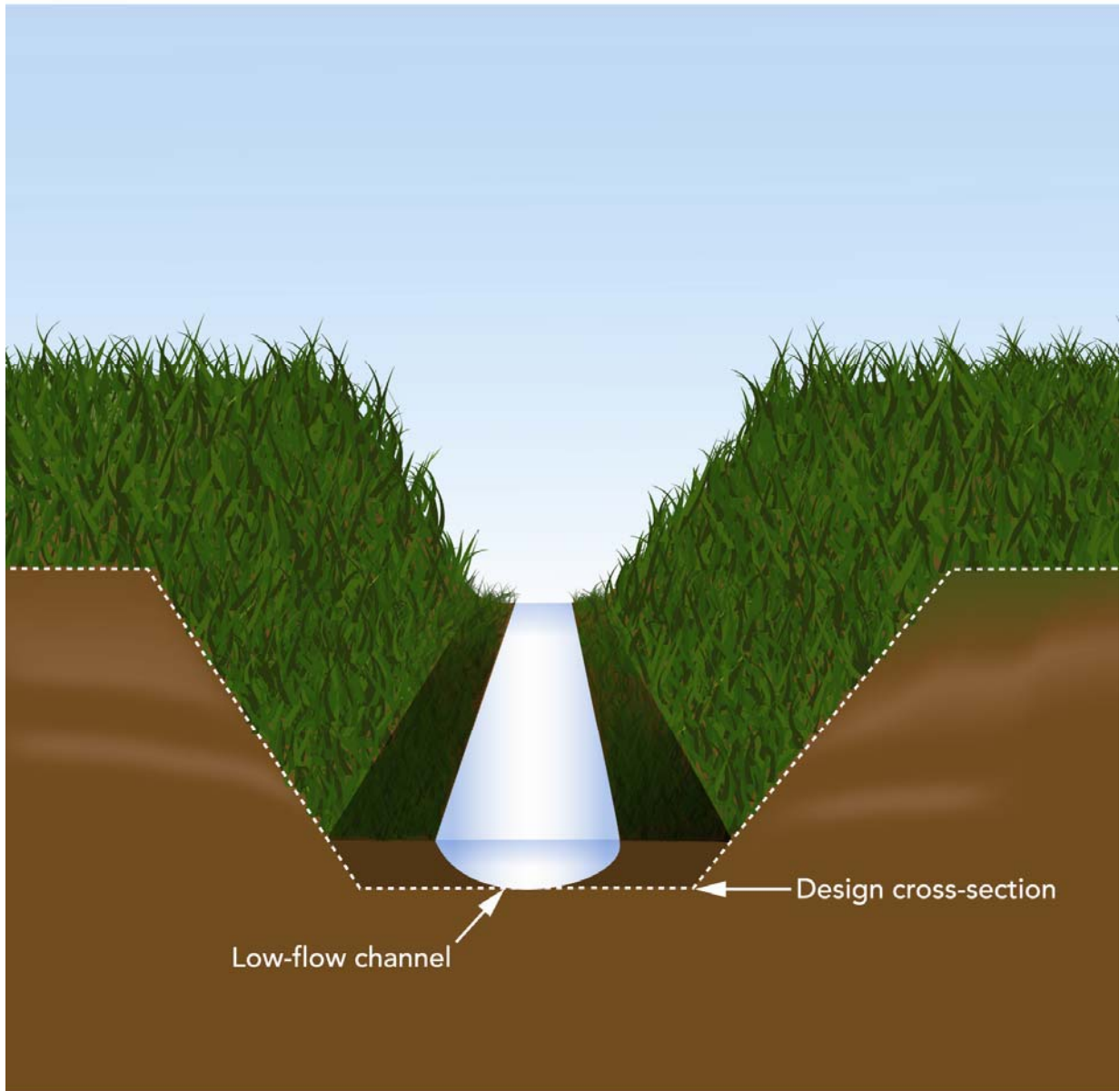


Figure 6: Two-stage/low-flow channel (Sediment and Erosion Control Measures)



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*.

2021 Memorandum of Understanding between Conservation Ontario and Hydro One Networks Inc.



Endorsed by Conservation Ontario Council: June 21, 2021
Endorsed by Hydro One Networks Incorporated: July 19, 2021

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This Memorandum of Understanding (MOU) has been prepared as an update to the 2011 MOU between Hydro One Networks Inc. (“Hydro One”) and Conservation Ontario, which detailed communication protocols to be followed between Hydro One and Conservation Authorities when Hydro One work activities are planned or undertaken on lands regulated under the *Conservation Authorities Act* (“CA Act”), as well as on *CA-owned lands*. The 2011 MOU acknowledged that, at the time, as a Crown Corporation, all of Hydro One’s construction, *maintenance* and emergency activities were exempt from CA permitting requirements under Section 28 of the CA Act and individual CA regulations. However, Hydro One and its *affiliates* no longer hold status as crown corporations, so the previous exemption status from CA permitting requirements under Section 28 of the CA Act and the individual CA regulations ceased to apply. As such, this updated MOU has been prepared, acknowledging the new requirement for Hydro One and its *affiliates* (Hydro One Telecom Inc. and Hydro One Sault Ste. Marie LP) to obtain CA *permission* under Section 28 of the CA Act for their work. This MOU outlines additional protocols and best practices to continue the positive working relationship between Hydro One (and its said *affiliates*) and Ontario’s CAs.

A draft of this updated MOU, as well as a draft application form for use by Hydro One for the new, recommended streamlined compliance approaches outlined in Appendix One of the MOU, was circulated to CA staff and Hydro One staff for simultaneous review. Comments from both the CA and Hydro One reviews are incorporated in this final document.

June 2021

**Memorandum of Understanding between
Conservation Ontario and Hydro One Networks Inc. (“Hydro One”)**

Glossary of Terms

Affiliates:

Hydro One Sault Ste. Marie LP and Hydro One Telecom Inc.

Compensation:

Financial contribution made by Hydro One or an Affiliate to a conservation authority as a result of damages occurred, to the extent that such damages are caused by Hydro One or an Affiliate or Hydro One’s contractors, during the course of Hydro One’s or an Affiliate’s maintenance or construction activities. Compensation may be provided in lieu of undertaking site restoration activities.

Conservation Authority (CA)

Local, watershed management agencies that deliver programs and services to protect and manage impacts on water and other natural resources in partnership with all levels of government, landowners and other organizations. Conservation authorities are established by or under the *Conservation Authorities Act* (“CA Act”). There are 36 conservation authorities across Ontario.

Conservation Authority Authorizations (“Authorizations”):

Written documentation from the conservation authority which provides permission or authority to undertake works within conservation authority-owned lands.

Conservation Authority-Owned Lands (“Conservation Areas”):

Lands owned or managed by the conservation authority. Conservation authority-owned or managed lands are private property, however some may be publicly accessible. Conservation authority-owned or managed lands may include forests, wetlands, areas of natural and scientific interest, recreational lands, natural heritage and cultural sites, as well as lands for flood and erosion control.

Conservation Authority Permissions (“Permissions”):

From O. Reg. 97/04: Content of Conservation Authority Regulations under subsection 28(1) of the *Conservation Authorities Act*. Development, Interference with Wetlands and Alterations to Shorelines and Watercourses:

Refers to a permission for development in or on hazardous lands, wetlands, areas that are adjacent or close to the shoreline of the Great Lakes-St. Lawrence River System or to inland lakes, or rivers and stream valleys, or in other areas where the Minister is of the opinion that the authority’s permission for development should be required, if, in the authority’s opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development

Conservation Authority Regulated Area(s) (“Regulated Areas”):

From the *Conservation Authorities Act*, Section 28 (5):

Areas that are:

- a) adjacent or close to the shoreline of the Great Lakes-St. Lawrence River System or to inland lakes that may be affected by flooding, erosion or dynamic beach hazards;
- b) river or stream valleys;
- c) hazardous lands;
- d) wetlands; or
- e) other areas where, in the opinion of the Minister, development should be prohibited or regulated or should require the permission of the authority.

Conservation Ontario (CO)

A non-profit association that represents Ontario's 36 conservation authorities.

Ecological Restoration:

Activities which are undertaken to assist with the recovery and/or rehabilitation of areas that have been degraded, damaged or destroyed during the course of Hydro One maintenance or construction activities.

Depending on the works undertaken, a range of potential restoration options may be considered, including seeding to stabilize bare/exposed soils, planting of native woody vegetation, repurposing of temporary access roads (e.g., for use as trails), etc.

Emergency Works:

Works required to mitigate emergency situations where prompt coordination of resources is required to address immediate or imminent damages and/or repairs to infrastructure in order for Hydro One to meet its requirements under the *Electricity Act* and the *Ontario Energy Board Act*. These works include assets that are at risk of failure or have already failed, and may or may not yet be out of service. Emergency works typically fall into one of three priority levels: "high risk" (replace or rectify within 30 days), "medium risk" (replace or rectify within 30 – 90 days), and "low risk" (replace or rectify within 90+ days).

Maintenance:

The regular, routine actions, taken to lessen or postpone the natural deterioration of an asset (or fixture and/or equipment) of Hydro One or an Affiliate. These actions, including upkeep (e.g., vegetation management), repair, replacement and/or upgrading, are intended to keep the asset from premature loss due to failure, decline, wear or change attributable to normal use or the effect of the natural environment.

Vegetation Management:

The physical operation of providing specific tree and brush clearances from electrical apparatus and their support structures using arboricultural techniques specific to the electrical utility industry (e.g., tree removal and pruning, herbicides, grubbing, manual and mechanical cutting etc.).

Throughout this document, terms included in this glossary will appear in italics.

1.0 Preamble

Pursuant to the *Electricity Act*, the basic mandate of Hydro One is to ensure a safe, reliable and cost-effective supply of electricity to the people of Ontario. Regular *maintenance* and periodic construction of Hydro One's distribution and transmission infrastructure spanning across Ontario is necessary in order to fulfill this mandate. Guidelines, such as those of the North American Electric Reliability Corporation ("NERC") standardize many Hydro One activities to achieve reliability requirements. Further, standards are imposed on Hydro One by the *Ontario Energy Board Act*, and various codes and licences issued by the Ontario Energy Board pursuant to that statute.

Under the *Conservation Authorities Act* ("CA Act") the objects of *conservation authorities* (CAs) are to provide, in the areas over which they have jurisdiction, programs and services designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals. CAs are mandated under the CA Act to provide programs and services in their areas of jurisdiction, including programs and services related to: the risk of natural hazards, the conservation and management of lands owned or controlled by the authority, the authority's duties, functions and responsibilities as a source protection authority under the *Clean Water Act*, as well as other programs or services prescribed by the regulations or those provided through a municipal Memorandum of Understanding or at the direction of the CA's Board.

In 2011, Hydro One and *Conservation Ontario* entered into a Memorandum of Understanding (MOU). The MOU detailed the protocols that would be followed between CAs and Hydro One when Hydro One work activities are planned or undertaken on lands regulated under the CA Act, as well as on *CA-owned lands*. Through the MOU, *Conservation Ontario* acknowledged and agreed at the time that, as a crown corporation, all of Hydro One's activities (i.e., construction, *maintenance* or emergency activities) were exempt from CA permitting requirements under Section 28 of the CA Act and the individual CA "Development, Interference with Wetlands and Alteration to Shorelines and Watercourses" Regulations. In the absence of the formal permitting process, the 2011 MOU outlined the communication process to be followed between Hydro One and CAs, as well as Best Management Practices which could be implemented by Hydro One when carrying out construction and/or *maintenance* operations on *CA-owned lands*.

As of May 2017, Hydro One and the *Affiliates* no longer held status as crown corporations, and the previous exemption status from CA permitting requirements under Section 28 of the CA Act and the individual CA "Development, Interference with Wetlands and Alteration to Shorelines and Watercourses" regulations ceased to apply. The requirement for Hydro One and *Affiliates* to obtain *authorization* for projects undertaken within *CA-owned lands* is not affected by the change in their status from being crown corporations.

Acknowledging this new requirement for Hydro One and the *Affiliates* to obtain *CA permission* under Section 28 of the CA Act for their works, and the history of positive working relationships, *Conservation Ontario* and the CAs wish to continue to work with Hydro One and the *Affiliates* through this updated MOU. The intent of this MOU is to enhance the communication protocols and promote the use of newly developed standard processes, including recommended streamlined processes for CA Act Section 28 *permissions* and standard best practices for projects undertaken within *CA-regulated areas* and *CA-owned lands*.

Hydro One acknowledges that it and the *Affiliates* are subject to other provincial and federal legislation and are responsible for consulting with other relevant agencies, which may include CAs, as necessary to meet all legislative and regulatory requirements. Participation in this MOU does not relieve Hydro One and the *Affiliates* from the obligation of securing any other necessary approvals; however, where other legislation identifies the need for *authorizations* or *permissions* by CAs as addressed in this MOU, it is recommended that the processes established in this MOU be utilized.

2.0 Purpose

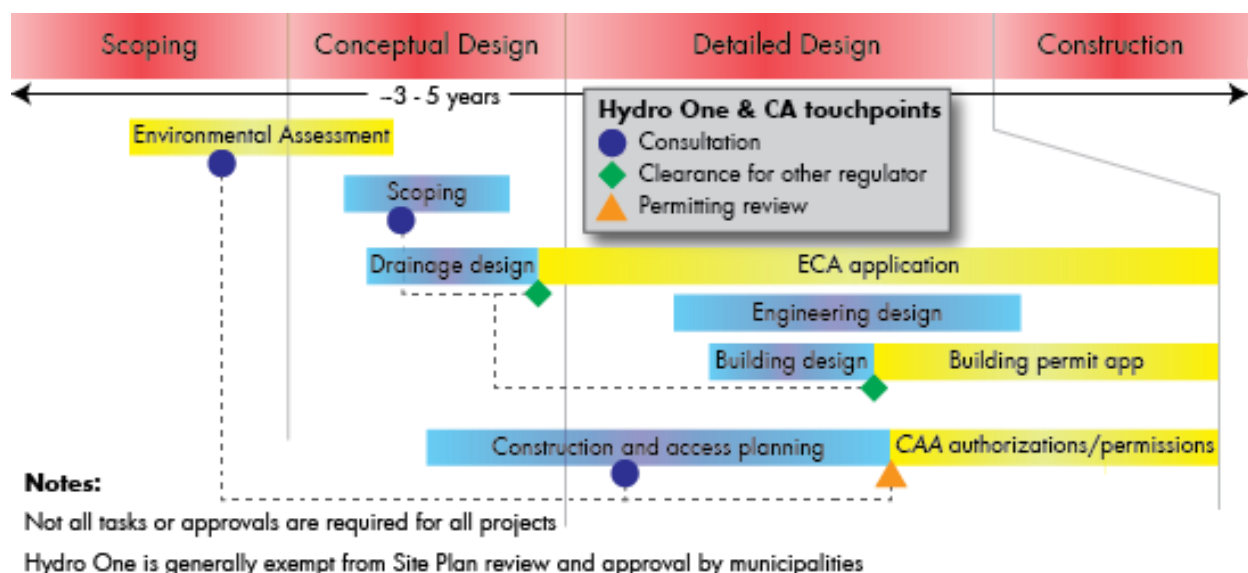
This MOU details the roles and responsibilities of Hydro One, the *Affiliates* and their respective contractors, and CAs for Hydro One's and the *Affiliates*' works taking place in *CA-regulated areas* or *CA-owned lands*. Specifically, this MOU promotes the use of newly developed standard processes, including streamlined compliance approaches and standard best practices to be followed between CAs and Hydro One and the *Affiliates* for:

- (a) Hydro One's and the *Affiliates*' work activities on lands regulated under the CA Act (see Appendix One for further details);
- (b) Hydro One's and the *Affiliates*' work activities on *CA-owned lands* (see Section 7);
- (c) Hydro One's and the *Affiliates*' work activities on lands regulated under the CA Act as *emergency works* (see Section 8);
- (d) *Ecological restoration* activities, including joint *ecological restoration* opportunities, undertaken by CAs and Hydro One and the *Affiliates* (see Section 10); and,
- (e) Undertaking communications between the two agencies (see section 6).

As part of this updated MOU, recommended streamlined compliance (permitting) protocols have been developed which outline standard application and communication processes, and general and activity-specific mitigation measures for Hydro One's and the *Affiliates*' work activities taking place in *CA-regulated areas*. These protocols can be found in Appendix One.

Hydro One acknowledges that CAs may be agencies identified for consultation under various legislation (e.g., *Environmental Assessment Act*, *Environmental Protection Act*, *Clean Water Act*, etc.). Direct consultation with CAs for activities and approvals outside of this MOU remains the responsibility of Hydro One and is not part of this MOU. However, where consultation identifies the need for *authorizations* or *permissions* by CAs as addressed in this MOU, it is recommended that the processes established in this MOU be utilized. An overview of the general interactions between Hydro One and its *Affiliates*, and CAs during a typical new construction project is presented in the figure below.

Figure 1: Overview of Interactions between Hydro One and CAs (New Construction Projects)



3.0 Guiding Principles

- (a) The parties are committed to undertaking positive client service and will work together to fulfil their responsibilities under the *Electricity Act*, the *Ontario Energy Board Act*, and *Conservation Authorities Act*, respectively, without compromising the intent of those statutes.
- (b) Works will be planned to avoid, mitigate, or minimize impacts to the natural environment (in that order), including hazard features (to every extent possible) and will not result in increased risks to public health or safety. Where avoidance is not possible and features are degraded, damaged or destroyed, Hydro One will work collaboratively with the CA to address the impact(s).
- (c) The parties agree to share information which would assist and expedite decision-making and communication, and contribute to best practices for Hydro One and CAs. Such information may include: property details for *CA-owned lands*; applicable and available geospatial data layers for *CA-regulated areas* and *CA-owned lands*; and information on policies and/or procedures which may influence the proposed works.

4.0 Background

Hydro One is Ontario’s largest electricity transmission and distribution provider with approximately 1.4 million customers across Ontario. Its system accounts for approximately 98% of Ontario’s transmission capacity with approximately 30,000 circuit kilometres of high-voltage transmission lines. Additionally, its distribution system is the largest in Ontario, consisting of 123,000 circuit kilometres of primarily low-voltage power lines. Pursuant to the *Electricity Act*, and the *Ontario Energy Board Act*, Hydro One is required to ensure a safe, reliable and cost-effective supply of electricity to the people of Ontario. Construction and *maintenance* of its

electricity system is necessary to fulfill this mandate. Hydro One makes every effort, during the course of all activities, to avoid harm to the natural environment.

Conservation authorities undertake watershed-based programs that further the conservation, restoration, development and management of natural resources in watersheds in Ontario. There are 31 *conservation authorities* operating in southern Ontario and five *conservation authorities* delivering programs and services in northern Ontario. *CAs* are responsible for administering the “Development, Interference and Alteration Regulations” consistent with the “Content Regulation” (Ontario Regulation 97/04) under the *CA Act*. *CAs* have responsibilities to regulate development in or adjacent to river or stream valleys, Great Lakes and inland lakes, shorelines, watercourses, hazardous lands and wetlands or the straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream, watercourse or wetland. Development taking place on or adjacent to these lands may require *permission* from the *CA* to confirm that the control of flooding, erosion, pollution, dynamic beaches and the conservation of land are not affected.

CAs are the second largest landowner in Ontario. *CAs* carry out various land management activities which protect, enhance and restore natural lands contained within conservation areas. Many conservation areas are managed in accordance with a management plan for the area, the best available natural heritage information for that area and/or in accordance with their Board-approved policies.

Hydro One is supportive of the *CA* mandate in general and when undertaking the above-mentioned activities. Hydro One works in cooperation with *CAs* and has for many years.

5.0 Roles and Responsibilities

(a) Hydro One agrees to:

- i. Identify and provide *CAs* with a list of applicable Hydro One contacts on an annual basis to ensure effective communication between both parties. As a best practice, Hydro One will endeavor to provide *CAs* with a list of contacts through discussions regarding the forecast workplans.
- ii. Obtain *permission* from the appropriate local *CA(s)* for planned *maintenance* and construction activities (“development” activities as defined in the *Conservation Authorities Act*) that may take place within *CA-regulated areas* (irrespective of property ownership) early in the planning process.
- iii. Obtain *authorization* from the appropriate local *CA(s)* for all *maintenance* and construction activities which may take place within *CA-owned lands* early in the planning process.
- iv. Provide available forecast workplans for capital projects, as well as any known additional *maintenance* or construction activities to be undertaken in *CA-regulated areas* or *CA-owned lands*, and keep the *CA(s)* apprised of changes, including any new proposed works. Hydro One will provide these workplans directly to the applicable *CAs*.
 - i. Where planned works may traverse multiple *CA* watershed boundaries, Hydro One should endeavour to schedule a meeting with all affected *CAs* to discuss consistent compliance and communication protocols.
- v. Inform the appropriate local *CA(s)* of emergency *maintenance* and/or construction activities that may take place within *CA-regulated areas* or *CA-*

- owned lands*, consistent with the protocols identified in Section 8 of this MOU.
- vi. Undertake approved works in accordance with the general and activity-specific mitigation measures outlined in Appendix One, unless otherwise approved by the appropriate local *CA(s)*.
 - vii. Ensure that staff and contractors are knowledgeable of the terms and conditions of this MOU, including the attached recommended compliance protocols for Hydro One work activities in *CA-regulated areas*.
 - viii. Participate in an annual review of this MOU and attached recommended compliance protocols and assist *Conservation Ontario* with the revision process, as required.

(b) Conservation Authorities agree to:

- i. Identify and provide Hydro One with a list of applicable *CA* contacts on an annual basis to ensure effective communication between the parties.
- ii. Share available and applicable geospatial data to assist Hydro One with pre-screening for proposed works (e.g., regulation limit mapping layers and conservation lands layers). *CAs* may choose to enter into data-sharing agreements prior to providing Hydro One with available data. Hydro One recognizes that *CAs* may charge a fee for data sharing.
- iii. Review, screen and provide initial feedback to Hydro One on planned capital projects, as well as known additional *maintenance* and construction activities submitted through the annual/forecast workplans. This may include identifying potential concerns with proposed works and providing initial feedback on compliance approaches for the proposed works.
- iv. Provide timely review and feedback on *conservation authority permission* applications submitted by Hydro One pursuant to Section 28 of the *CA Act*, consistent with the *CA's* board-approved policies. Details on the recommended procedures related to these reviews can be found in Appendix One.
- v. Provide timely review and feedback on *conservation authority authorizations* for Hydro One work activities on *CA-owned lands* which are outside *CA-regulated areas*, consistent with the *CA's* board-approved policies.

(c) Conservation Ontario agrees to:

- i. Ensure that *CA* staff are knowledgeable of the terms and conditions of this MOU, including the recommended compliance protocols for Hydro One work activities in *CA-regulated areas* outlined in Appendix One.
- ii. Coordinate, compile and communicate information, questions and concerns from either individual *CAs* or Hydro One to the other party, where appropriate.
- iii. Undertake an annual review of this MOU and attached compliance protocols and oversee the revision process, as required.

6.0 Communication Between Parties

All parties identified in this MOU commit to timely, clear, and open communication to ensure that project needs can be met within the desired timeframes, and that Hydro One and *CAs* can fulfil their responsibilities under the *Electricity Act* the *Ontario Energy Board Act* and *Conservation Authorities Act* respectively, without compromising the intent of those statutes.

Early and regular communication allows for adequate time for both Hydro One and individual CAs to review and provide feedback on the annual/forecast workplans, which Hydro One will prepare and submit to CAs for their review. Should the individual CA(s) identify concerns with a project, the CA(s) shall notify Hydro One as soon as possible.

In addition to these general principles for communication between the parties, detailed communication protocols for a number of Hydro One activities are documented in this MOU, as well as additional recommended communication and compliance protocols outlined in Appendix One. For communications protocols related to Hydro One's and the *Affiliates'* works on *CA-owned lands*, see Section 7.0. For communications protocols related to Emergency and Priority Works undertaken by Hydro One and the *Affiliates*, see Section 8.0.

7.0 Works Within Conservation Authority-Owned Lands

The following section summarizes the protocols to be followed by staff of Hydro One and the *Affiliates* and their respective contractors when works are to be undertaken on *CA-owned lands*.

All parties acknowledge that Hydro One's and the *Affiliates'* transmission and distribution staff are granted powers of entry under s. 40 of the *Electricity Act* to lands where their transmission or distribution systems are located. The *Electricity Act* identifies requirements for their staff when utilizing these powers of entry, including providing reasonable notice to the occupier of the property, restoring the property to its original conditions insofar as is practicable, and providing *compensation* for damages caused by the entry. As a best practice, Hydro One will endeavour to provide reasonable notice to CAs for *emergency works* on their properties, when the CA is either the occupier or the owner of the property where access is required. For all other works planned within *CA-owned lands*, Hydro One will endeavour to consult early in the planning process with the affected CA(s) to allow sufficient time for information requirements and timing considerations to be reviewed.

Hydro One recognizes that *CA-owned lands* may be located within or outside of *CA-regulated areas*. Where works are to be undertaken on *CA-owned lands*, Hydro One acknowledges that it will need to follow the protocols outlined in this section, as well as obtain *CA permissions* for any development activities undertaken within areas regulated under Section 28 of the CA Act. Recommended protocols for obtaining *permission* for works in *CA-regulated areas* can be found in Appendix One or by following the established processes of the applicable CA(s). The parties recognize that CAs as landowners do not relinquish any property rights through the application of this section. In addition to the requirements related to powers of entry under the *Electricity Act*, Hydro One commits to the following protocols to be followed when staff and contractors plan to undertake work on *CA-owned lands*:

- (a) Hydro One will obtain advanced *authorization* to undertake works from the CA as per each CA's protocols and will discuss the details, which may include: identifying preferred access routes and conditions of such access prior to commencement of work (details on vehicles and/or equipment accessing the property), proposed start and end dates of works, confirmation of certificate of insurance naming the CA as also insured, archaeological requirements and restoration plans. This will apply to both direct access to CA-owned property (via public roads) and indirect access across CA-owned property to Hydro One rights-of-way (ROWS).
- (b) Prior to commencing works on the property, the CA contact will provide Hydro One with

authorization to undertake the works, site specific information and/or property use requirements in writing. Where closure of footpaths / trails may be required, Hydro One will work with the CA to ensure appropriate public notice and trail closure details are provided.

- (c) Per Section 9.0 of this MOU, Hydro One acknowledges that CAs may charge a fee for *authorizations* on CA-owned lands.

Further details regarding protocols for access to CA-owned lands in emergency and priority situations are set out in Section 8.0 of this MOU.

8.0 Emergency and Priority Works

The parties acknowledge that there are emergency situations which require Hydro One and the *Affiliates* to undertake immediate action to mitigate damages and/or repair infrastructure in order for Hydro One to meet its requirements in the *Electricity Act* and the *Ontario Energy Board Act* to provide safe and reliable power. This MOU does not provide the ability to alter the requirement for Hydro One to obtain a *permission* for development related to *emergency works* under a regulation made under the *Conservation Authorities Act*, nor does it prevent Hydro One from fulfilling its requirements under the *Electricity Act* and the *Ontario Energy Board Act*.

Emergency works include any activity that requires prompt coordination of resources to address an immediate threat to public safety or the environment. This also includes limiting damage to property, equipment and the environment during and after an event, or imminent event, outside the scope of normal operations.

Priority works are typically identified through routine infrastructure inspections. Addressing these repairs is a priority for Hydro One, but this priority level generally does not include works which address immediate threats to public safety or the environment.

Table 1: Summary of Hydro One Priority Level Rankings (Emergency and Priority Works)

Priority Level	Description	Hydro One responsibilities for works in CA regulated areas
High Risk (Emergency) Replace or rectify within 30 days	Infrastructure has failed already or can imminently fail. Emergency response required.	<ul style="list-style-type: none"> • <i>Emergency works</i> executed under <i>Electricity Act</i> and the <i>Ontario Energy Board Act</i>. • Provide notice of works to the applicable CA(s) as soon as reasonably possible • Provide description of works, additional information, applicable fees to CA to review works to ensure compliance under section 28 of the CA Act
Medium Risk (Emergency) Replace or rectify within 30 – 90 days	Infrastructure identified during routine inspections as requiring replacement as soon as reasonably possible.	<ul style="list-style-type: none"> • Provide notice of necessary works to appropriate CA(s) in advance of works taking place. • Provide all necessary information and applicable fees to CA(s) to allow CA to review works and issue written <i>permission</i> under section 28 of the CA Act (where timelines allow). • For expedited works to address

		immediate or escalating threats, provide notice and description of works, additional information and applicable fees to review works to ensure compliance under section 28 of the CA Act.
Low Risk (Non-Emergency, Priority) Replace or rectify within 90+ days	Non-critical component repairs that are identified and are considered low priority.	<ul style="list-style-type: none"> • Provide notice of necessary works to appropriate CA(s) in advance of works taking place. • Provide all necessary information and applicable fees to CA(s) to allow CA to review works and issue written <i>permission</i> under section 28 of the CA Act.

The following summarizes the protocols agreed to between CAs and Hydro One when *emergency works* are required:

8.1 Emergency and Priority Works within CA-Regulated Areas:

Note: These protocols further apply to CA-owned lands, where the area of the CA-owned land is a regulated area.

1. When **emergency works** are required within *CA-regulated areas*, Hydro One will discuss the details of the necessary works with the applicable CA(s). Hydro One will endeavour to contact the applicable CA(s) as soon as reasonably possible. It is recognized that works in the “high risk” and priority level will require prompt coordination of resources, which may result in the CA becoming notified after the onset of the work.
2. For “high risk” **emergency works**, Hydro One will endeavour to notify the appropriate CA(s) at the earliest opportunity to discuss the works which have taken place, and provide any information to the CA(s) to ensure compliance under Section 28 of the CA Act can be achieved for these works. Where the *emergency works* align with one or more of the activities covered by “Standard Compliance Requirements” (see Appendix One), Hydro One will endeavour to undertake the works in compliance with all activity-specific and general mitigation measures listed for the activity(ies).
3. For “medium risk” **emergency works**, Hydro One will endeavour to notify the appropriate CA(s) of the necessary works prior to construction or *maintenance* activities taking place. In notifying the CA, Hydro One will provide the CA(s) with all available information. This may include a summary and location of the proposed works, detailed site maps, description of mitigation measures to be implemented, and any applicable fees. CA staff will work with Hydro One to issue *permission* for the works (if necessary) in accordance with the timelines identified in Table 1. Where the timeline for these works requires prompt coordination of resources to address an immediate or escalating threat, Hydro One will discuss any works undertaken with the appropriate CA(s), and provide information to the CA(s) to ensure compliance under Section 28 of the CA Act.
4. For “low risk” **priority** works, Hydro One will notify the appropriate CA(s) of the necessary works prior to construction or *maintenance* activities taking place. In notifying the CA, Hydro One will provide the CA(s) with all necessary information. This may include a summary and location of the proposed works, detailed site maps, description of mitigation measures to be implemented, and any applicable

- fees. CA staff will work with Hydro One and the *Affiliates* to issue *permission* for the works (if necessary) in accordance with the timelines identified in Table 1.
5. ROW restoration requirements, if necessary, and if permissible under *maintenance* standards, will be discussed. For instance, temporary emergency or priority works (e.g., watercourse crossing culverts, access roads) would typically be removed after work is completed. However, these works may be left in place with the agreement of the CA(s), any affected property owners and any other approval agency(ies). Where development will remain, it should be designed and constructed based on CA policies. Additional studies may be required by the CA(s) to ensure the development will not cause negative impacts.
 6. Any ROW restoration work will be carried out in accordance with a written record of concurrence between Hydro One and the CA. See section 10.0 of this document for more details.

8.2 Emergency and Priority Works within CA-Owned Lands (Outside of Regulated Areas):

It is recognized that CAs as landowners do not relinquish any property rights through the application of this section. As discussed in Section 7.0 of this MOU, all parties acknowledge that Hydro One transmission and distribution staff are granted powers of entry under s. 40 of the *Electricity Act* to lands where their transmission or distribution systems are located. The *Electricity Act* identifies requirements for Hydro One's and the *Affiliates'* staff when utilizing these powers of entry, including providing reasonable notice to the occupier of the property, restoring the property to original conditions insofar as is practicable, and providing *compensation* for any damages caused by the entry. As a best practice, Hydro One will endeavour to provide reasonable notice to CAs for emergency and priority works on their properties, and to accommodate site-specific information and/or property use requirements, such as archaeological requirements, when the CA is either the occupier or the owner of the property where access is required. While it is understood that some high risk *emergency works* will require prompt coordination of resources to address an immediate threat to public safety or the environment, however, Hydro One will endeavor to obtain advanced *authorization* from the applicable CA(s) to undertake the works, where time allows.

9.0 Fees

Hydro One acknowledges that there will be fees associated with regulation applications for works undertaken in *CA-regulated areas*. General information regarding application fees for works undertaken on *CA-regulated areas* can be accessed by contacting the CA. CAs should also have current fee schedules and policies uploaded to their individual websites.

For activities on *CA-owned lands*, it is recognized that there may be circumstances where a fee or security will be required (e.g., fees to access *CA-owned lands*, fees for archaeological investigations); this will be negotiated between Hydro One and the individual CA, unless otherwise set out within the current CA fee schedule or policy.

10.0 Restoration Works or Compensation

During project-specific discussions about *permissions* and/or *authorizations*, Hydro One and the individual *CA(s)* will discuss site restoration options for works in *CA regulated areas* and *CA-owned lands*. Depending on the works undertaken, a range of potential restoration options may be considered, including seeding to stabilize bare/exposed soils, planting of native woody vegetation, repurposing of temporary access roads (e.g., for use as trails), etc. Through discussions regarding restoration works, Hydro One and the *CA* will give consideration for applicable planting seasons and timing windows (e.g., for stream restorations works). Schedules/timelines for completing these works will be discussed between both parties.

It is understood that restoration may be restricted along corridors to ensure compliance with NERC reliability standards and Ontario Energy Board standards and that there may be instances where full restoration works may not be feasible. For example, in some situations, due to clearance restrictions, only ground cover restoration is permitted (i.e., no shrubs or trees). As a best practice, any areas of disturbed or base soil should be seeded with native, non-invasive herbaecious material while the ground is moist and conditions are appropriate for germination.

Where agreed to by both parties, where full restoration works may not be feasible by Hydro One following works on *CA-owned lands*, *CAs* may request *compensation* in lieu of site restoration. For example, *CAs* may opt to request *compensation* in lieu of Hydro One undertaking restoration activities in instances where *CAs* are planning alternative uses for the impacted sites (i.e., future trail development, new facilities, etc.).

It is noted that, while this MOU does not address unique or project-specific restoration works, such as joint restoration projects or natural area enhancement, nothing in this MOU precludes individual *CAs* and Hydro One and the *Affiliates* from entering into agreements to complete such projects. Where such works are proposed and agreed to by both parties, Hydro One and individual *CAs* will develop project-specific details.

11.0 Legal Liability

- (a) This MOU is an expression of the mutual intentions of the parties and is not legally binding or enforceable.
- (b) Nothing in this MOU precludes Hydro One and the *Affiliates* and individual *CAs* from entering into additional agreements (e.g., service level agreements) for services provided to either agency. Additional agreements are outside the scope of this MOU and are to be negotiated and managed between the individual *CA* and Hydro One.
- (c) Both parties agree and acknowledge that any enforcement action under the *Conservation Authorities Act* is at the sole discretion of the *CA*.
- (d) Nothing in this MOU removes the requirement for Hydro One to obtain and follow *permissions* for development, interference with wetlands and alterations to shorelines and watercourses under a regulation made under the *Conservation Authorities Act*. Hydro One acknowledges its responsibility to obtain *permissions* for applicable development or interference activities as identified in section 28 of the *Conservation Authorities Act*.
- (e) If there are any conflicts or inconsistencies between this MOU and any obligations under any applicable provincial or federal legislation, or associated regulations, including but

not limited to the *Electricity Act*, the *Ontario Energy Board Act*, and the *Conservation Authorities Act*, the obligations under the legislation shall prevail.

12.0 Term of the MOU

This MOU will be in force from the date of the later signature hereunder and will remain in effect until cancelled by either Party.

The parties agree to review and amend this MOU as required (e.g. due to regulatory changes, etc.) by mutual written agreement. *Conservation Ontario* will further undertake an annual review of this MOU and attached protocol, focusing on comments and/or concerns submitted by individual CAs or Hydro One each year. This MOU may be cancelled unilaterally by Hydro One or by *Conservation Ontario* by providing six months' written notice of the intention to cancel to the other Party, or by mutual agreement with any agreed period of notice.

13.0 Signatories

The Parties hereto have signed the Agreement, in counterparts, on the dates indicated below:

HYDRO ONE NETWORKS INC.

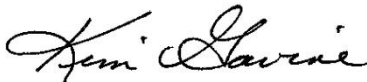


Elise Croll
Director, Environmental Services

July 19, 2021

Date

CONSERVATION ONTARIO



Kim Gavine
General Manager

July 14, 2021

Date

Appendix One

Protocol for Obtaining Permission under Section 28 of the *Conservation Authorities Act* for Common Hydro One Maintenance and Construction Activities

Endorsed by Conservation Ontario Council: June 21, 2021
Endorsed by Hydro One Networks Incorporated: July 19, 2021

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Definitions

Access Road:

A road pre-existing or built to obtain access to a Hydro One asset for the purpose of construction, operation and/or maintenance.

Affiliates:

Hydro One Sault Ste. Marie LP and Hydro One Telecom Inc.

Development:

From the *Conservation Authorities Act*, Section 28 (25):

- 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;

Distribution:

Distribution of electric power utilizing distribution infrastructure where the nominal operating voltage is equal to or less than 115 kV.

Hazardous Lands:

From the *Conservation Authorities Act*, Section 28 (25):

Land that could be unsafe for development because of naturally occurring processes associated with flooding, erosion, dynamic beaches or unstable soil or bedrock.

Mitigation:

Avoiding, eliminating or reducing to an acceptable level the potential effects of a project. It can also include rehabilitation, restoration, or enhancement where feasible, and the means by which projects can be modified to minimize or eliminate potential negative effects.

Pollution:

From the *Conservation Authorities Act*, Section 28 (25):

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 Section 28 (1) (c) of the *Conservation Authorities Act* applies.

Regulated Area(s):

From the *Conservation Authorities Act*, Section 28 (5):

Areas that are:

- f) adjacent or close to the shoreline of the Great Lakes-St. Lawrence River System or to inland lakes that may be affected by flooding, erosion or dynamic beach hazards;
- g) river or stream valleys;
- h) hazardous lands;

- i) *wetlands*; or
- j) other areas where, in the opinion of the Minister, *development* should be prohibited or regulated or should require the permission of the authority.

Right-of-Way (ROW):

A strip of land over which an Ontario Energy Board-licensed transmitter or distributor has occupational rights to occupy and use for the purposes of an electricity transmission line or lines as defined by the *Ontario Energy Board Act*. Synonymous with “Transmission Corridor” or “Distribution Corridor”.

Transmission:

Transmission of electric power utilizing transmission infrastructure where the nominal operating voltage is equal to or greater than 115 kV or equal to or less than 500 kV.

Watercourse:

From the *Conservation Authorities Act*, Section 28 (25):

An identifiable depression in the ground in which a flow of water regularly or continuously occurs

Wetland:

From the *Conservation Authorities Act*, Section 28 (25):

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).

Throughout this document, terms included in this glossary will appear in italics.

List of Acronyms and Abbreviations

CA	Conservation Authority
CA Act	<i>Conservation Authorities Act</i>
ESC	Erosion and Sediment Control
Hydro One	Hydro One Networks Inc.
ROW	Right-of-Way
SBP	Standard Best Practices
SCR	Standard Compliance Requirements

Preface

This document has been prepared by Conservation Ontario and Hydro One Networks Inc. (“Hydro One”) as part of an update to the previous 2011 Memorandum of Understanding (MOU) between Conservation Ontario and Hydro One. The updated MOU has been prepared to reflect that, as of May 2017, Hydro One no longer holds status as a crown corporation and is thereby subject to permitting requirements under Section 28 of the *Conservation Authorities Act* (“CA Act”) and the individual CA "Development, Interference with Wetlands and Alteration to Shorelines and Watercourses" regulations. This document outlines recommended procedures for Hydro One and the *Affiliates*, including any of their respective contractors, and Ontario’s 36 Conservation Authorities (“CAs”) for Hydro One’s and the *Affiliates*’ works taking place in *regulated areas* under Section 28 of the CA Act. The Protocol acknowledges the requirements for the parties to fulfill their responsibilities under the *Electricity Act*, *Ontario Energy Board Act*, and *Conservation Authorities Act*, respectively, without compromising the intent of those statutes, when Hydro One works are planned or undertaken within *CA-regulated areas*. The following Protocol is intended to outline recommended notification, communication, and compliance requirements, as well as best management practices which may be used by Hydro One with CAs.

1.0 Introduction

Pursuant to the *Electricity Act*, the basic mandate of Hydro One is to ensure a safe, reliable and cost-effective supply of electricity to the people of Ontario. Regular maintenance and periodic construction of Hydro One's and the *Affiliates' distribution and transmission* infrastructure is necessary in order to fulfill this mandate. Given that this infrastructure may be located in and on lands regulated by conservation authorities ("CAs") under the CA Act, permissions must be sought from the local CAs to undertake certain works in these *regulated areas*.

Hydro One makes every effort during the course of maintenance and construction activities to avoid any impact to the natural environment. It should be recognized that Hydro One *ROWs*, unlike other linear infrastructure, have been able to preserve and sustain most ecological features and functions of the landscape. A consequence of this positive characteristic of the infrastructure is that crews must traverse natural areas to access Hydro One infrastructure.

Under Section 28 of the CA Act, 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 of Natural Resources and Forestry, *development* should be prohibited or regulated or should require the permission of the authority. A CA 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*. Hydro One's and the *Affiliates' infrastructure*, (e.g., *distribution or transmission* lines and stations, *ROWs*, *access roads*) may be located in *regulated areas* as defined under the CA Act and, as such, construction and maintenance activities associated with this infrastructure may be regulated by CAs.

Comprehensive details of the *Electricity Act*, the *Ontario Energy Board Act*, and the *Conservation Authorities Act* are available online through e-Laws (www.e-laws.gov.on.ca).

This protocol has been developed to provide clear and consistent compliance approaches for Hydro One when completing works within *CA-regulated areas*. Hydro One and Conservation Ontario are supportive of the new recommended streamlined compliance approaches for lower-risk maintenance and construction activities. CAs are encouraged to utilize the streamlined approaches presented in this Protocol to provide consistency in the delivery of the Section 28 regulation process, while ensuring that CAs' regulatory responsibilities are fulfilled. This Protocol is intended to continue to support and enhance the positive working relationship between Hydro One and Ontario's CAs.

2.0 Purpose and Scope

This Protocol addresses anticipated maintenance and construction activities that may be undertaken by Hydro One and its *Affiliates*, or their respective contractors, for work within *CA regulated areas*. Table 1 identifies these activities and the recommended approaches for compliance with CA Section 28 regulations under the CA Act. These compliance approaches include:

1. CA Permission (using Regular Approach)
2. CA Permission (using Standard Compliance Requirements (SCRs))
3. Application of Standard Best Practices (SBPs)

It should be noted that not all scenarios are captured within this document. Each set of works will need to be reviewed by the CA to confirm what compliance approach is applicable. CAs will determine the appropriate compliance approach for projects based on a number of factors, including: the level of risk associated with the hazard feature, project complexity, duration, etc. Consultation with the CA will be required to determine the appropriate approach to achieving permission. Details on the recommended compliance approaches are discussed further in Section 3.

Good communication among all parties remains fundamental for the compliance approaches to be effective. Hydro One and CAs should be in regular communication to understand one another's interests and be aware of changes and developments (including changes to individual CA policies which may impact Hydro One's interests). As discussed in Section 5 of the Conservation Ontario-Hydro One MOU (2021), Hydro One and CAs should at minimum be in contact annually to review and discuss Hydro One's annual/forecast workplan within each individual CA's jurisdiction. These workplan reviews will provide an opportunity for both parties to discuss the necessary compliance approaches for Hydro One work activities early in the planning process and identify any concerns CAs may have with planned maintenance or construction activities. Where individual projects are proposed which were not included in the workplan review, Hydro One should initiate contact with the applicable CA(s) as early in the planning process as possible to discuss compliance requirements and approaches and to address any potential issues before they may become escalated.

3.0 Compliance Approaches

Under this Protocol, written permission under Section 28 of the CA Act can be achieved either by adhering to Standard Compliance Requirements (SCRs) issued by a CA or through the regular process of obtaining a CA Act Section 28 permission. Both approaches represent a form of written permission under Section 28 of the CA Act from the issuing CA. Table 1 at the end of this section provides an overview of the recommended compliance approaches for Hydro One's and the *Affiliates'* maintenance and construction activities. This table is not exhaustive, and CAs may identify additional projects which may require CA permissions through a review of project-specific details.

This section further provides an overview of Standard Best Practices (SBPs) to be followed by Hydro One for activities which are low-risk maintenance and construction activities and/or typically do not have associated regulatory impacts under Section 28 of the CA Act.

The following sections provide details on how and when these compliance approaches may be applied.

3.1 CA Permission (using Regular Approach)

Certain activities or regulated features within *CA-regulated areas* have a higher level of risk associated with *development* activities. Therefore, proponents may be required to obtain

permission under Section 28 of the CA Act to ensure that these activities do not further exacerbate risks associated with these hazard features.

For projects which are required to obtain permission under Section 28 of the CA Act through the regular approach, Hydro One will follow the established procedures of the local CA(s). Refer to Table 1 for more details.

3.2 CA Permission (using Standard Compliance Requirements (SCRs))

Recognizing that many of Hydro One's and the *Affiliates'* construction and maintenance activities are routine in nature and occur regularly across the Province, this Protocol includes a set of Standard Compliance Requirements (SCRs) which could be used locally by CAs as a form of CA Section 28 permission for certain Hydro One undertakings. For greater clarity, Hydro One would apply to the CA for permission to undertake a project by using the SCR Application Form, and the CA would review the application to determine whether the proposed works meet the SCRs.

Forms are provided for each activity covered by the SCR approach (Section 6) which contain both activity-specific *mitigation* requirements, as well as general *mitigation* requirements which are standards that must be maintained on a broad range of Hydro One maintenance and construction projects. Exceptions from the *mitigation* requirements should occur only in situations that demand the immediate actions of Hydro One (e.g., emergency works). CAs are encouraged to utilize the SCRs developed for specific Hydro One construction and/or maintenance activities as a means to provide a streamlined process towards obtaining a CA Act Section 28 permission, where appropriate.

Table 1 outlines the Hydro One construction and maintenance activities for which SCR forms are available for use by CAs to issue as a form of permission to undertake an activity under Section 28 of the CA Act. Refer to Table 1 for more details.

It is noted that through an individual CA review of proposed Hydro One works, the CA may need to apply conditions on approval of an activity consistent with their Board-approved policies and/or management plans, in addition to the activity-specific *mitigation* measures outlined in this Protocol. In these situations it is recognized that the SCR may not adequately address the concerns of the CA and the CA should, as a result, inform Hydro One that the specific activity will need to proceed with the regular approach for obtaining permission under Section 28 of the CA Act.

3.3 Application of Standard Best Practices (SBPs)

This Protocol identifies some activities which are low-risk maintenance and construction activities and/or typically do not have associated regulatory impacts under Section 28 of the CA Act. These activities are summarized in Table 1. As such, when the CA determines that Standard Best Practices (SBPs) apply to the work, Hydro One will not be required to obtain permission from the local CA(s) in order to undertake these activities in those instances. These activities may still occur within *CA-regulated areas*, however, there are no regulatory impacts typically associated with these activities, and they may not meet the definition of *development* under Section 28 of the CA Act.

When applicable, communication protocols outlined in sections 5, 6, 7 and 8 of the attached MOU should be followed to enable Hydro One and the applicable CA(s) to discuss the project and verify that CA permissions or authorizations are not required. For example, while forestry maintenance activities within existing corridors and access routes may not require permission under Section 28 of the CA Act, activities associated with the undertaking, such as access requirements for heavy machinery, modifications to existing grades or slopes, etc., may require CA permissions in order for the forestry maintenance activities to proceed. Communication protocols and procedures for this category of activities are outlined in section 6.1 of this Protocol. Hydro One should endeavour to follow the SBPs identified in Section 6.1 of this Protocol as a matter of good practice while undertaking these works.

3.4 Summary of Compliance Approaches

Section 6 of this document outlines the SCRs and SBPs for the Hydro One and *Affiliates* maintenance and construction activities covered under this Protocol. In total, nine activities are recommended for the SCR approach, and six activities are recommended for the application of SBPs. Table 1 (below) provides an overview of these activities and their recommended compliance approach. For clarity, Table 1 further outlines a number of common Hydro One maintenance and construction activities where the recommended compliance approach is for Hydro One to obtain CA permission following the established procedures of the local CA.

Table 1: Recommended Compliance Approaches for Hydro One Maintenance and Construction Activities

Hydro One Activity	Recommended Compliance Approach: CA Permission (using Regular Approach)	Recommended Compliance Approach: CA Permission (using Standard Compliance Requirements)	Recommended Compliance Approach: Application of Standard Best Practices
<i>Emergency Works</i> (within CA-regulated areas or within CA-owned lands)	Follow procedures outlined in Section 8.0 of the MOU.		
<i>Transmission</i> line works requiring below-grade disturbance/excavation	✓		
Submarine electrical works	✓		
New or extended footprint for <i>transmission</i> corridor or station (includes all activities such as forestry, construction, etc.)	✓		
Modification or installation of station drainage/storm water management works	✓		
New permanent access route or watercourse / wetland crossing installation	✓		
Repair or remediate slope stability and erosion hazard impacting Hydro One Infrastructure	✓		
Installation and removal of temporary <i>watercourse</i> crossing below high water mark	✓		
Removal of beaver dam or other, similar obstructions		✓	
Exposure, cleaning, and coating of below-grade foundations		✓	
All <i>transmission</i> wood pole works (excluding new <i>transmission</i> lines)		✓	
<i>Distribution</i> wood pole works within limits of <i>wetland</i> , <i>watercourse</i> or valleys (steep slopes)		✓	
Station below-grade works, excluding drainage/storm water management works		✓	
Maintenance of existing access route through limits of <i>wetland</i> , <i>watercourse</i> or valleys (steep slopes)		✓	
Installation and removal of temporary access route, including temporary <i>watercourse</i> crossing above high water mark		✓	

Hydro One Activity	Recommended Compliance Approach: CA Permission (using Regular Approach)	Recommended Compliance Approach: CA Permission (using Standard Compliance Requirements)	Recommended Compliance Approach: Application of Standard Best Practices
Forestry maintenance activities in existing corridors or access routes, within limits of <i>wetland</i> , <i>watercourse</i> or valleys (steep slopes)		✓	
Geotechnical and/or intrusive archaeological investigations, within limits of <i>wetland</i> , <i>watercourse</i> or valleys (steep slopes) (applies to lines and stations)		✓	
Geotechnical and/or intrusive archaeological investigations, beyond limits of <i>wetland</i> , <i>watercourse</i> or valleys (steep slopes) (applies to lines and stations)			✓
<i>Distribution</i> wood pole works beyond the limits of <i>wetland</i> , <i>watercourse</i> or valleys (steep slopes)			✓
Forestry maintenance activities in existing corridors or access routes, beyond limits of <i>wetland</i> , <i>watercourse</i> or valleys (steep slopes)			✓
Maintenance of existing access routes beyond limits of <i>wetland</i> or <i>watercourse</i>			✓
Above-grade infrastructure works (applies to existing lines and stations)			✓
Herbicide application			✓

4.0 Procedures

Timely, clear and open communication between all parties is a best practice to ensure Hydro One’s and the *Affiliates*’ projects can proceed within the desired timeframe outlined in the annual/forecast workplans and CA regulatory responsibilities are met. Hydro One should communicate its annual workplan for maintenance and construction activities to the CA(s) as early in the year as possible to allow adequate time for both Hydro One and individual CA(s) to discuss the necessary approach for compliance.

An overview of the compliance process as per this Protocol is summarized in Figure 1.

Section 4.1 of this Protocol outlines the general steps to be taken when it is determined that a SCR approach is appropriate for Hydro One maintenance or construction activities in CA-*regulated areas*. The steps to be undertaken when SBPs apply for work which do not require permission under Section 28 of the CA Act are outlined in Section 4.2. For projects which are required to obtain permission under Section 28 of the CA Act through the regular approach, Hydro One will follow the established procedures of the local CA(s). Where maintenance or

construction activities are planned to be undertaken on CA-owned lands, Hydro One acknowledges the need to obtain authorization from the appropriate CA in addition to required permissions. See section 7.0 of the MOU (*Works Within Conservation Authority-Owned Lands*) for further details.

4.1 Procedures when Standard Compliance Requirements Apply

1. Hydro One will provide annual/forecast workplans for maintenance and construction activities planned to be undertaken in a CA's jurisdiction. Where appropriate, a meeting to discuss the workplan will be held between Hydro One and the local CA.
2. CA staff will review, screen and provide initial feedback on the annual/forecast workplan. This may include: identifying where planned activities are within *CA-regulated areas*; identifying concerns with any of the proposed projects; providing initial feedback on the appropriate compliance approach for individual projects; and providing any additional recommendations such as pre-consultation for specific projects which may be complex in nature.
3. For activities which are not provided as part of the annual/forecast workplans, Hydro One will endeavour to provide the individual CA(s) with as much notice of the proposed activities as possible. This will allow CAs to screen the proposed activities and determine the appropriate compliance requirements.
4. Where applicable, Hydro One will engage in pre-consultation with the individual CA(s) to further discuss the proposed undertaking(s), necessary approval processes, review and approval timelines, and complete application requirements (more details below).
5. Where a CA has determined that the desired approach for compliance is to utilize SCRs, Hydro One will prepare and submit a completed SCR Application Form, appropriate drawings/maps, fee(s) and any other necessary information to the individual CA(s).
6. Upon receipt of a completed SCR Application Form, the CA will review the application to ensure all necessary information has been included. Within 21 days (unless otherwise stated in the CA's Board-approved policies), the CA will notify Hydro One that the application is deemed complete and the CA review of the proposed works will commence.
7. Should the proposed works be able to proceed with permission granted from the local CA, the CA will send a signed copy of the SCR form back to Hydro One within 30 days (unless otherwise stated in the CA's Board-approved policies), following the confirmation of a complete application. By signing the SCR form, the CA is providing a written permission under the appropriate CA Act Section 28 regulation, and acknowledges its awareness of the works taking place. SCR forms shall be signed by a CA staff member with the delegated authority to grant permissions under section 28 of the CA Act.
8. Upon receipt of the signed SCR form, Hydro One will be able to begin undertaking the proposed works in accordance with the general and activity-specific *mitigation* measures for the specified activity. Hydro One acknowledges that the CA may monitor activities for adherence to the SCRs at their discretion. Where monitoring activities such as site visits may be required, Hydro One and associated contractors will ensure CA staff are provided with all necessary personal protective equipment specifications which may be required for entry into some work sites. CA staff are responsible for ensuring that they are in compliance with these specifications prior to entering the site. In the event of non-adherence by Hydro One to the general and activity-specific *mitigation* measures, CAs may follow their Authority's compliance procedures and, if necessary, enter into legal proceedings.

4.2 Procedures when Standard Best Practices Apply

1. Hydro One will provide annual/forecast workplans for maintenance and construction activities planned to be undertaken in a CA's jurisdiction. Where appropriate, a meeting to discuss the workplan will be held between Hydro One and the local CA.
2. CA staff will review, screen and provide initial feedback on the annual/forecast workplan. This may include: identifying where planned activities are within *CA-regulated areas*, identifying concerns with any of the proposed projects, providing initial feedback on the appropriate compliance approach for individual projects, and providing any additional recommendations such as pre-consultation for specific projects which may be complex in nature.
3. For activities which are not provided as part of the annual/forecast workplans, Hydro One will endeavour to provide the individual CA(s) with as much notice of the proposed activities as possible. This will allow CAs to screen the proposed activities to ensure that no additional compliance requirements will apply and that activities may proceed using the SBPs.
4. If the CA determines that no permission is required under Section 28 of the CA Act, the CA will notify Hydro One and Hydro One may proceed with the works, following any SBPs which apply. It is acknowledged that CAs may charge a fee to recover costs associated with the review of such works (e.g., clearance fees).

4.3 Site Visits

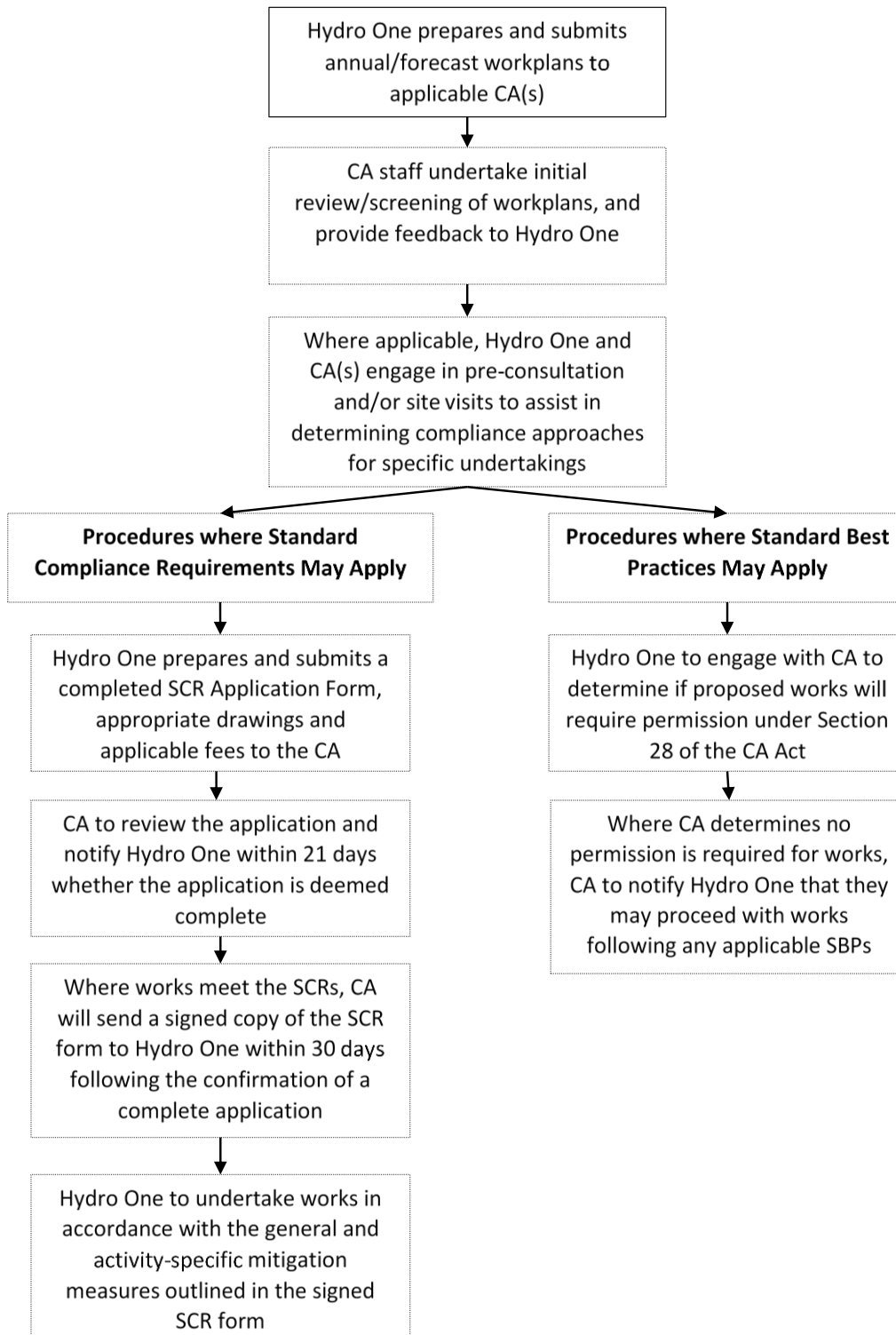
Where a CA determines that a site visit is necessary to determine the appropriate approach for compliance, Hydro One personnel and CA representative(s) should conduct site visits jointly where possible. It is recognized that CA staff may not always be permitted to enter into a Hydro One work site without being accompanied by appropriate Hydro One personnel. As previously stated, where site visits may be required, Hydro One and its contractors will ensure that CA staff are provided with all necessary personal protective equipment specifications which may be required for entry into some work sites. CA staff are responsible for ensuring they are in compliance with these specifications prior to entering the site. If a site visit is not possible, the CA should work with Hydro One to acquire the necessary information about the project.

4.4 Pre-Consultation

For complex undertakings, such as those which should proceed with the regular process for obtaining CA permission under Section 28 of the CA Act, pre-consultation between Hydro One and the applicable CA(s) is a best practice. Pre-consultation provides an opportunity for the CA and the applicant to discuss the proposed works; to confirm complete application requirements for CA review; to proactively discuss at the beginning of the process any fundamental issues that might prevent approval; and to outline the CA review and approval process, including anticipated timelines to process the application. While general compliance approaches for Hydro One work activities may be discussed during the annual workplan meeting between Hydro One and CA staff, pre-consultation meetings offer an opportunity to discuss complex undertakings and provide applicants with a clear route towards the submission requirements for a project.

Pre-consultation meetings may take place in-person, or through electronic means (e.g., videoconferencing/teleconferencing).

Figure 1: Summary of Procedures for Use of Standard Compliance Requirements and Standard Best Practices



5.0 Issue/Dispute Resolution

Generally, the protocols and procedures outlined in this document provide a number of touchpoints between Hydro One personnel and CA staff to ensure that applications for permission (either through the SCR or regular approach) can be designed to meet CA Board-approved policies, allowing Hydro One personnel to proceed with proposed works. Should issues arise between the two parties, there are a number of remedies built into the CA Act and CA policies and procedures. These include:

Administrative Review:

If Hydro One is not satisfied with the CA decision on whether an application for a permission is deemed complete (either through the SCR or regular approach), the applicant can request an administrative review by the CA General Manager or Chief Administrative Officer, and then, if not satisfied, by the CA Board of Directors. This review will be limited to a complete application policy review and will not include review of the technical merits of the application.

Section 28 Hearing Process:

There may be some instances where CA staff may recommend refusal of an application for permission should the proposal not meet the tests of the CA Act, Section 28 regulation or the Board-approved policies. In such cases, Hydro One has the opportunity to request a hearing before the Authority (Board), or, if the Authority so directs, before the Authority's Executive Committee.

If the application is refused by the Authority, Hydro One will be notified of the reasons for refusal in writing. Within 30 days of the notification, the applicant may appeal the decision of the Authority or Executive Committee to the Local Planning Appeal Tribunal (or its successor, see the *Conservation Authorities Act* for details), which may then dismiss the appeal or grant permission following a hearing.

Cancellation of Permission:

The Authority may cancel a permission if it is of the opinion that the conditions of the permission have not been met. In such cases, Hydro One has the opportunity to require a hearing before the Authority (Board), or, if the Authority so directs, before the Authority's Executive Committee.

In order to prevent situations where a CA may recommend refusal of a permit application or cancellation of an existing permission, Hydro One is encouraged to prepare and submit annual workplans to CAs for their review. The preparation of these workplans will allow for early feedback on proposed works outside of the formal application process, and will allow Hydro One to refine workplans to ensure projects may proceed as desired. Further, for complex projects, Hydro One personnel are encouraged to engage in pre-consultation meetings with the applicable CA(s) to proactively discuss project and site-specific considerations and work towards developing a clear understanding of CA requirements for approval of the proposed works.

6.0 Standard Compliance Requirements and Standard Best Practices for Hydro One Maintenance and Construction Activities

6.1 Standard Compliance Requirement Forms

STANDARD COMPLIANCE REQUIREMENTS

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

A. Removal of beaver dams or other, similar obstructions

Description of Typical Works

Removal of log jams, garbage, beaver dams or other similar obstructions within the *wetland* or *watercourse* where there is imminent risk to existing infrastructure.

Activity-Specific Mitigation Requirements

- Brush or debris is placed in a location where it cannot re-enter or block the *wetland* or channel.
- Minimize flooding upstream and downstream by drawing the water down slowly. An appropriate depth and flow should be maintained. Where a series of dams or similar obstructions are to be removed, works should proceed from downstream to upstream in order to avoid flooding impacts.
- Avoid performing work when flow conditions are elevated due to recent rainfall to minimize sediment and debris movement and erosion. Whenever possible, works should be undertaken during dry weather and under low flow conditions, with works scheduled to avoid wet, windy and rainy periods
- Where machinery will be used for debris removal, proponents will operate machinery in a manner than minimizes disturbance to the banks of the *watercourse* or *wetland*.
- Where Hydro One will need to pump and discharge water to undertake these activities, Hydro One will indicate where the water will be pumped and discharged, and take steps to avoid erosion and sedimentation issues.

General Mitigation Requirements

General *mitigation* requirements are standards that must be maintained on all Hydro One infrastructure construction and maintenance projects utilizing the SCR approach.

- Wherever possible, utilize existing trails, roads or access points to minimize disturbance when accessing the site. Where available, Hydro One should endeavour to utilize existing easements or *right-of-ways* to access sites.
- Choose appropriate conditions and equipment to minimize site disturbance (e.g., frozen or dry soil conditions or the use of load distributing machines or mats).
- Limit soil movement and erosion/sedimentation; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Undertake works in such a way as to minimize the entry of brush, debris, sediment or other deleterious substances into a *watercourse* or *wetland*. Brush or debris should be placed in a location where it cannot re-enter or block the *wetland* or *watercourse*.
- Perform work in appropriate flow conditions to minimize debris movement and erosion.

- Restore the disturbed site to stable conditions and similar grades and remediate any areas impacted by the works. Any necessary remediation works will be discussed and planned with the individual conservation authority.
- Vehicular refueling and maintenance will be conducted a minimum of 30-metres from any *wetlands, watercourses, or bodies of water*.
- All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
- Where steep slopes exist, the adequate setback from the toe or top of slope must be maintained to ensure that the slopes are not destabilized as a result of the proposed works. Earthworks and grading in the vicinity of the steep slopes/banks needs to be minimized, and all activities with potential adverse impact to the slopes/banks to be avoided.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted at the location list below in accordance with the notification form, provided maintenance and construction activities are in compliance with the requirements set out above. This permission does not relieve Hydro One of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____

Period of Validity: _____ to _____

Site Location: _____ | Location Map Attached (Y / N)

Signature of Conservation Authority Official:

Name

Signature

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

B. Exposure, cleaning, and coating of below-grade foundations

Description of Typical Works

A common Hydro One maintenance activity on steel structure foundations which includes minor excavation around the footings of structures followed by cleaning of steel and coating with anti-corrosion paint.

Activity-Specific Mitigation Requirements

- Consider the use of wooden construction matting or swamp mats to minimize site disturbance by equipment.
- Minimize work footprint in the *regulated areas* including along channel and bank slopes. Ensure strict adherence to infrastructure locations confirmed with the CA.
- All excavated material must be placed beyond the limits of the *regulated area*. If not practical or feasible, excavated material should be independently surrounded by proper sediment and erosion controls.
- Use spill protection practices during coating (i.e., use of tarps, secondary containment).

Where works are taking place in wetlands or watercourses:

- Use only clear stone or blasted rock (i.e., minimal fines) below the high water mark.
 - Minimize water level fluctuations upstream and downstream by slowly augmenting water levels, when applicable.
 - Perform the work in no/low flow conditions to minimize sediment and debris movement and erosion. Avoid work after recent precipitation or snowmelt.
-

General Mitigation Requirements

General *mitigation* requirements are standards that must be maintained on all Hydro One infrastructure construction and maintenance projects utilizing the SCR approach.

- Wherever possible, utilize existing trails, roads or access points to minimize disturbance when accessing the site. Where available, Hydro One should endeavour to utilize existing easements or *right-of-ways* to access sites.
 - Choose appropriate conditions and equipment to minimize site disturbance (e.g., frozen or dry soil conditions or the use of load distributing machines or mats).
 - Limit soil movement and erosion/sedimentation; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
 - Undertake works in such a way as to minimize the entry of brush, debris, sediment or other deleterious substances into a *watercourse* or *wetland*. Brush or debris should be placed in a location where it cannot re-enter or block the *wetland* or *watercourse*.
 - Perform work in appropriate flow conditions to minimize debris movement and erosion.
 - Restore the disturbed site to stable conditions and similar grades and remediate any areas impacted by the works. Any necessary remediation works will be discussed and planned with the individual conservation authority.
-

- Vehicular refueling and maintenance will be conducted a minimum of 30-metres from any *wetlands, watercourses, or bodies of water.*
- All access to the work site shall be from either side of the *watercourse.* Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
- Where steep slopes exist, the adequate setback from the toe or top of slope must be maintained to ensure that the slopes are not destabilized as a result of the proposed works. Earthworks and grading in the vicinity of the steep slopes/banks needs to be minimized, and all activities with potential adverse impact to the slopes/banks to be avoided.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted at the location list below in accordance with the notification form, provided maintenance and construction activities are in compliance with the requirements set out above. This permission does not relieve Hydro One of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____

Period of Validity: _____ to _____

Site Location: _____ | Location Map Attached (Y / N)

Signature of Conservation Authority Official:

Name

Signature

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

C. All *transmission* wood pole works (excluding new *Transmission* Lines)

Description of Typical Works

A common Hydro One program involving the removal and replacement of wood pole structures for all *transmission* poles (i.e., “like-for-like replacement”). These activities are very localized with small project footprints due to the use of wood poles (instead of steel structures).

Activity-Specific Mitigation Requirements

- Work should be limited to the original footprint of the structure.
- Consider the use of wooden construction matting or swamp mats to minimize site disturbance by equipment.
- All excavated material must be placed beyond the limits of the *regulated area*. If not practical or feasible, excavated material should be independently surrounded by proper sediment and erosion controls.
- Any area of excavation should be isolated from the feature.

General Mitigation Requirements

General *mitigation* requirements are standards that must be maintained on all Hydro One infrastructure construction and maintenance projects utilizing the SCR approach.

- Wherever possible, utilize existing trails, roads or access points to minimize disturbance when accessing the site. Where available, Hydro One should endeavour to utilize existing easements or *right-of-ways* to access sites.
- Choose appropriate conditions and equipment to minimize site disturbance (e.g., frozen or dry soil conditions or the use of load distributing machines or mats).
- Limit soil movement and erosion/sedimentation; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Undertake works in such a way as to minimize the entry of brush, debris, sediment or other deleterious substances into a *watercourse* or *wetland*. Brush or debris should be placed in a location where it cannot re-enter or block the *wetland* or *watercourse*.
- Perform work in appropriate flow conditions to minimize debris movement and erosion.
- Restore the disturbed site to stable conditions and similar grades and remediate any areas impacted by the works. Any necessary remediation works will be discussed and planned with the individual conservation authority.
- Vehicular refueling and maintenance will be conducted a minimum of 30-metres from any *wetlands*, *watercourses*, or bodies of water.
- All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
- Where steep slopes exist, the adequate setback from the toe or top of slope must be maintained to ensure that the slopes are not destabilized as a result of the proposed works. Earthworks and grading in the vicinity of the steep slopes/banks needs to be minimized, and all activities with potential adverse impact to the slopes/banks to be avoided.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted at the location list below in accordance with the notification form, provided maintenance and construction activities are in compliance with the requirements set out above. This permission does not relieve Hydro One of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____

Period of Validity: _____ to _____

Site Location: _____ | Location Map Attached (Y / N)

Signature of Conservation Authority Official:

Name

Signature

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

D. *Distribution* wood pole works within limits of a *wetland*, *watercourse* or valley (steep slopes)

Description of Typical Works

A common Hydro One program involving the removal and replacement of wood pole structures for *distribution* poles (i.e., “like-for-like replacement”). These work activities are very localized, with small project footprints.

Activity-Specific Mitigation Requirements

- Work should be limited to the original footprint of the structure.
- Consider the use of wooden construction matting or swamp mats to minimize site disturbance by equipment.
- All excavated material must be placed beyond the limits of the *regulated area*. If not practical or feasible, excavated material should be independently surrounded by proper sediment and erosion controls.
- Any area of excavation should be isolated from the feature.

General Mitigation Requirements

General *mitigation* requirements are standards that must be maintained on all Hydro One infrastructure construction and maintenance projects utilizing the SCR approach.

- Wherever possible, utilize existing trails, roads or access points to minimize disturbance when accessing the site. Where available, Hydro One should endeavour to utilize existing easements or *right-of-ways* to access sites.
- Choose appropriate conditions and equipment to minimize site disturbance (e.g., frozen or dry soil conditions or the use of load distributing machines or mats).
- Limit soil movement and erosion/sedimentation; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Undertake works in such a way as to minimize the entry of brush, debris, sediment or other deleterious substances into a *watercourse* or *wetland*. Brush or debris should be placed in a location where it cannot re-enter or block the *wetland* or *watercourse*.
- Perform work in appropriate flow conditions to minimize debris movement and erosion.
- Restore the disturbed site to stable conditions and similar grades and remediate any areas impacted by the works. Any necessary remediation works will be discussed and planned with the individual conservation authority.
- Vehicular refueling and maintenance will be conducted a minimum of 30-metres from any *wetlands*, *watercourses*, or bodies of water.
- All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
- Where steep slopes exist, the adequate setback from the toe or top of slope must be maintained to ensure that the slopes are not destabilized as a result of the proposed works. Earthworks and grading in the vicinity of the steep slopes/banks needs to be minimized, and all activities with potential adverse impact to the slopes/banks to be avoided.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted at the location list below in accordance with the notification form, provided maintenance and construction activities are in compliance with the requirements set out above. This permission does not relieve Hydro One of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____

Period of Validity: _____ to _____

Site Location: _____ | Location Map Attached (Y / N)

Signature of Conservation Authority Official:

Name

Signature

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

E. Station below-grade works, excluding drainage/storm water management works

Description of Typical Works

Works related to infrastructure below-grade (foundations, footings, drainage works, fences, firewalls, etc.) that require below-grade disturbance within the existing limits of a station only (does NOT apply to other Hydro One infrastructure).

Activity-Specific Mitigation Requirements

- Ensure strict adherence to infrastructure locations confirmed by the CA.
- All excavated material must be placed beyond the limits of the *regulated area*. If not practical or feasible, excavated material should be independently surrounded by proper sediment and erosion controls.

General Mitigation Requirements

General *mitigation* requirements are standards that must be maintained on all Hydro One infrastructure construction and maintenance projects utilizing the SCR approach.

- Wherever possible, utilize existing trails, roads or access points to minimize disturbance when accessing the site. Where available, Hydro One should endeavour to utilize existing easements or *right-of-ways* to access sites.
- Choose appropriate conditions and equipment to minimize site disturbance (e.g., frozen or dry soil conditions or the use of load distributing machines or mats).
- Limit soil movement and erosion/sedimentation; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Undertake works in such a way as to minimize the entry of brush, debris, sediment or other deleterious substances into a *watercourse* or *wetland*. Brush or debris should be placed in a location where it cannot re-enter or block the *wetland* or *watercourse*.
- Perform work in appropriate flow conditions to minimize debris movement and erosion.
- Restore the disturbed site to stable conditions and similar grades and remediate any areas impacted by the works. Any necessary remediation works will be discussed and planned with the individual conservation authority.
- Vehicular refueling and maintenance will be conducted a minimum of 30-metres from any *wetlands*, *watercourses*, or bodies of water.
- All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
- Where steep slopes exist, the adequate setback from the toe or top of slope must be maintained to ensure that the slopes are not destabilized as a result of the proposed works. Earthworks and grading in the vicinity of the steep slopes/banks needs to be minimized, and all activities with potential adverse impact to the slopes/banks to be avoided.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted at the location list below in accordance with the notification form, provided maintenance and construction activities are in compliance with the requirements set out above. This permission does not relieve Hydro One of the

responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____

Period of Validity: _____ to _____

Site Location: _____ | Location Map Attached (Y / N)

Signature of Conservation Authority Official:

Name

Signature

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

- F. Maintenance of existing access route through limits of *wetland*, *watercourse* or valleys (steep slopes)

Description of Typical Works

Maintenance of an existing corridor or access route, within the same footprint, through *regulated areas* where a *wetland*, *watercourse* or valley (steep slope) is present. Specific maintenance activities may include the addition of aggregate, debris removal, installing beaver baffles and culvert replacement. In most cases, excavation and any soil disturbance is not required.

Activity-Specific Mitigation Requirements

- Maintain the *access road* footprint within the *regulated area* including channel and bank slopes. Efforts should be made to ensure minimal impact to *wetlands*, *watercourse* channels and bank slopes.
- Grade changes to an existing road required due to sinking/slumping must be limited to the original grade to avoid impacts to flooding.
- Placement of any material cannot result in pooling or change in flow direction.
- All excavated material must be placed beyond the limits of the *regulated area*. If not practical or feasible, excavated material should be independently surrounded by proper sediment and erosion controls.
- Use only clear stone or blasted rock (i.e., minimal fines) below the high water mark.
- Avoid performing work when flow conditions are elevated due to recent rainfall to minimize sediment and debris movement and erosion. Whenever possible, works should be undertaken during dry weather and under low flow conditions, with works scheduled to avoid wet, windy and rainy periods
- If work is required to facilitate culvert replacement in dry conditions, a dam and pumping plan must be submitted and followed.
- Culverts are to be embedded at least 10% of the culvert's diameter. Culvert must remain the same size.
- Minimize water level fluctuations / flooding upstream and downstream by slowly augmenting water levels (drawing the water down slowly), when applicable. An appropriate depth and flow should be maintained (to be confirmed by the CA).

General Mitigation Requirements

General *mitigation* requirements are standards that must be maintained on all Hydro One infrastructure construction and maintenance projects utilizing the SCR approach.

- Wherever possible, utilize existing trails, roads or access points to minimize disturbance when accessing the site. Where available, Hydro One should endeavour to utilize existing easements or *right-of-ways* to access sites.
- Choose appropriate conditions and equipment to minimize site disturbance (e.g., frozen or dry soil conditions or the use of load distributing machines or mats).
- Limit soil movement and erosion/sedimentation; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.

- Undertake works in such a way as to minimize the entry of brush, debris, sediment or other deleterious substances into a *watercourse* or *wetland*. Brush or debris should be placed in a location where it cannot re-enter or block the *wetland* or *watercourse*.
- Perform work in appropriate flow conditions to minimize debris movement and erosion.
- Restore the disturbed site to stable conditions and similar grades and remediate any areas impacted by the works. Any necessary remediation works will be discussed and planned with the individual conservation authority.
- Vehicular refueling and maintenance will be conducted a minimum of 30-metres from any *wetlands*, *watercourses*, or bodies of water.
- All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
- Where steep slopes exist, the adequate setback from the toe or top of slope must be maintained to ensure that the slopes are not destabilized as a result of the proposed works. Earthworks and grading in the vicinity of the steep slopes/banks needs to be minimized, and all activities with potential adverse impact to the slopes/banks to be avoided.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted at the location list below in accordance with the notification form, provided maintenance and construction activities are in compliance with the requirements set out above. This permission does not relieve Hydro One of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____

Period of Validity: _____ to _____

Site Location: _____ | Location Map Attached (Y / N)

Signature of Conservation Authority Official:

Name

Signature

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

- G. Installation and removal of temporary access route, including temporary *watercourse* crossing above high water mark

Description of Typical Works

Temporary installation and use of construction aids primarily intended to facilitate access across or through *wetlands* or *watercourses*. This may include the use of aggregates, geotextile, timber mats, swamp mats and clear-span bridges.

Activity-Specific Mitigation Requirements

- Ensure that the exact location for installation of the temporary *access road* is confirmed with the CA staff. Exact locations will be marked in the field.
- Where possible, design and plan installation and removal to avoid or minimize below-grade impacts, including excavation and disturbance to soil and vegetation.
- Minimize footprint of the temporary *access road* within *CA-regulated areas*. Efforts should be made to ensure minimal impact to *wetlands*, *watercourse* channels and bank slopes.
- Use only clear stone or blasted rock (i.e., minimal fines) below the high water mark
- Avoid performing work when flow conditions are elevated due to recent rainfall to minimize sediment and debris movement and erosion. Whenever possible, works should be undertaken during dry weather and under low flow conditions, with works scheduled to avoid wet, windy and rainy periods
- When removing the *access roads*, stabilize the area to limit sedimentation. This could include the seeding of native, non-invasive materials.

General Mitigation Requirements

General *mitigation* requirements are standards that must be maintained on all Hydro One infrastructure construction and maintenance projects utilizing the SCR approach.

- Wherever possible, utilize existing trails, roads or access points to minimize disturbance when accessing the site. Where available, Hydro One should endeavour to utilize existing easements or *right-of-ways* to access sites.
- Choose appropriate conditions and equipment to minimize site disturbance (e.g., frozen or dry soil conditions or the use of load distributing machines or mats).
- Limit soil movement and erosion/sedimentation; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Undertake works in such a way as to minimize the entry of brush, debris, sediment or other deleterious substances into a *watercourse* or *wetland*. Brush or debris should be placed in a location where it cannot re-enter or block the *wetland* or *watercourse*.
- Perform work in appropriate flow conditions to minimize debris movement and erosion.
- Restore the disturbed site to stable conditions and similar grades and remediate any areas impacted by the works. Any necessary remediation works will be discussed and planned with the individual conservation authority.
- Vehicular refueling and maintenance will be conducted a minimum of 30-metres from any *wetlands*, *watercourses*, or bodies of water.

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- All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
 - Where steep slopes exist, the adequate setback from the toe or top of slope must be maintained to ensure that the slopes are not destabilized as a result of the proposed works. Earthworks and grading in the vicinity of the steep slopes/banks needs to be minimized, and all activities with potential adverse impact to the slopes/banks to be avoided.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted at the location list below in accordance with the notification form, provided maintenance and construction activities are in compliance with the requirements set out above. This permission does not relieve Hydro One of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____

Period of Validity: _____ to _____

Site Location: _____ | Location Map Attached (Y / N)

Signature of Conservation Authority Official:

Name

Signature

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

H. Forestry maintenance activities in existing corridors or access routes, within limits of a *wetland, watercourse* or valley (steep slopes)

Description of Typical Works

The removal of trees and other vegetation within *CA-regulated areas* in existing Hydro One corridors or access routes. This may be required for *right-of-way* maintenance and site accessibility. In most cases, soil disturbance is not part of the approved works.

Activity-Specific Mitigation Requirements

- Remove vegetation selectively; compatible vegetation should be preserved where possible.
- Whenever possible, avoid removing roots and disturbing any soil. If soil disturbance is required, appropriate erosion and sedimentation control measures are required.
- Where vegetation removal is required on bank slopes, 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.
- Choose conditions and equipment appropriate to minimize site disturbance by equipment.
- Whenever possible, proponents should endeavour to complete this work during dry weather. Works should be scheduled to avoid wet, windy and rainy periods that may result in high flow volumes and/or increased erosion and sedimentation.
- Should soil disturbance be required the following is required:
 - Grades must be returned to stable conditions. Where possible, excavated soil/debris must be removed from the site.

General Mitigation Requirements

General *mitigation* requirements are standards that must be maintained on all Hydro One infrastructure construction and maintenance projects utilizing the SCR approach.

- Wherever possible, utilize existing trails, roads or access points to minimize disturbance when accessing the site. Where available, Hydro One should endeavour to utilize existing easements or *right-of-ways* to access sites.
- Choose appropriate conditions and equipment to minimize site disturbance (e.g., frozen or dry soil conditions or the use of load distributing machines or mats).
- Limit soil movement and erosion/sedimentation; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Undertake works in such a way as to minimize the entry of brush, debris, sediment or other deleterious substances into a *watercourse* or *wetland*. Brush or debris should be placed in a location where it cannot re-enter or block the *wetland* or *watercourse*.
- Perform work in appropriate flow conditions to minimize debris movement and erosion.
- Restore the disturbed site to stable conditions and similar grades and remediate any areas impacted by the works. Any necessary remediation works will be discussed and planned with the individual conservation authority.
- Vehicular refueling and maintenance will be conducted a minimum of 30-metres from any *wetlands, watercourses, or bodies of water*.

- All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
- Where steep slopes exist, the adequate setback from the toe or top of slope must be maintained to ensure that the slopes are not destabilized as a result of the proposed works. Earthworks and grading in the vicinity of the steep slopes/banks needs to be minimized, and all activities with potential adverse impact to the slopes/banks to be avoided.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted at the location list below in accordance with the notification form, provided maintenance and construction activities are in compliance with the requirements set out above. This permission does not relieve Hydro One of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____

Period of Validity: _____ to _____

Site Location: _____ | Location Map Attached (Y / N)

Signature of Conservation Authority Official:

Name

Signature

Date: _____

STANDARD COMPLIANCE REQUIREMENTS

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

- I. Geotechnical and/or intrusive archaeological investigations, within limits of *wetland*, *watercourse* or valleys (steep slopes) (applies to lines and stations)

Description of Typical Works

In preparation for large construction projects, intrusive geotechnical or archeological (Stage 2 and beyond) investigations may be required to obtain data on the geotechnical conditions of a site. These investigations require the disturbance of soils and other substrate below-grade. This work is generally conducted by external consultants with expertise in the subject area and are monitored by Hydro One.

Activity-Specific Mitigation Requirements

- Works should not result in a change of grade at the site area.
- All excavated material must be placed beyond the limits of the *regulated area*. If not practical or feasible, excavated material should be independently surrounded by proper sediment and erosion controls.
- Whenever possible, proponents should endeavour to complete this work during dry weather. Works should be scheduled to avoid wet, windy and rainy periods that may result in high flow volumes and/or increased erosion and sedimentation.
- Cuttings and drilling fluid from any drilling operations should be contained and removed offsite.

General Mitigation Requirements

General *mitigation* requirements are standards that must be maintained on all Hydro One infrastructure construction and maintenance projects utilizing the SCR approach.

- Wherever possible, utilize existing trails, roads or access points to minimize disturbance when accessing the site. Where available, Hydro One should endeavour to utilize existing easements or *right-of-ways* to access sites.
- Choose appropriate conditions and equipment to minimize site disturbance (e.g., frozen or dry soil conditions or the use of load distributing machines or mats).
- Limit soil movement and erosion/sedimentation; use appropriate control measures before work begins and inspect and maintain those measures regularly until all disturbed areas are stabilized.
- Undertake works in such a way as to minimize the entry of brush, debris, sediment or other deleterious substances into a *watercourse* or *wetland*. Brush or debris should be placed in a location where it cannot re-enter or block the *wetland* or *watercourse*.
- Perform work in appropriate flow conditions to minimize debris movement and erosion.
- Restore the disturbed site to stable conditions and similar grades and remediate any areas impacted by the works. Any necessary remediation works will be discussed and planned with the individual conservation authority.
- Vehicular refueling and maintenance will be conducted a minimum of 30-metres from any *wetlands*, *watercourses*, or bodies of water.
- All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.

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- Where steep slopes exist, the adequate setback from the toe or top of slope must be maintained to ensure that the slopes are not destabilized as a result of the proposed works. Earthworks and grading in the vicinity of the steep slopes/banks needs to be minimized, and all activities with potential adverse impact to the slopes/banks to be avoided.

The _____ Conservation Authority grants permission under Section 28 of the *Conservation Authorities Act* for work to be conducted at the location list below in accordance with the notification form, provided maintenance and construction activities are in compliance with the requirements set out above. This permission does not relieve Hydro One of the responsibility to obtain any other approvals which may be required from municipal, provincial or federal authorities.

File Number: _____

Period of Validity: _____ to _____

Site Location: _____ | Location Map Attached (Y / N)

Signature of Conservation Authority Official:

Name

Signature

Date: _____

6.2 Application of Standard Best Practices

STANDARD BEST PRACTICES

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

- A. Geotechnical and/or intrusive archaeological investigations, beyond limits of *wetland*, *watercourse* or *valleys* (steep slopes) (applies to lines and stations)

Description of Typical Works

In preparation for large construction projects, intrusive geotechnical or archeological (Stage 2 and beyond) investigations may be required to obtain data on the geotechnical conditions of a site. These investigations require the disturbance of soils and other substrate below-grade. This work is generally conducted by external consultants with expertise in the subject area and are monitored by Hydro One.

Standard Best Practices

- Works should not result in a change of grade at the site area.
 - Works should be undertaken in such a way as to minimize the entry of brush, debris, sediment or other deleterious substances into a *watercourse* or *wetland*. Brush or debris should be placed in a location where it cannot re-enter or block the *wetland* or *watercourse*.
 - All excavated material must be placed beyond the limits of the *regulated area*. If not practical or feasible, excavated material should be independently surrounded by proper sediment and erosion controls.
 - Whenever possible, proponents should endeavour to complete this work during dry weather. Works should be scheduled to avoid wet, windy and rainy periods that may result in high flow volumes and/or increased erosion and sedimentation.
 - Minimize disturbance to the proposed work area by utilizing existing trails, *access roads* and access points.
 - Choose conditions and equipment appropriate to minimize site disturbance by equipment, particularly in proximity to the top and toe of hazardous slopes.
 - Vehicular refueling and maintenance will be conducted a minimum of 30 metres from any *wetlands*, *watercourses*, or bodies of water.
 - All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
 - Cuttings and drilling fluid from any drilling operations should be contained and removed offsite.
-

STANDARD BEST PRACTICES

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

- B. *Distribution* wood pole works beyond the limits of *wetland*, *watercourse* or valleys (steep slopes) (applies to lines and stations)

Description of Typical Works

A common Hydro One program involving the removal and replacement of wood pole structures for all *distribution* poles located beyond the limits of a *wetland*, *watercourse*, or valley (steep slopes) (i.e., “like-for-like” replacement). The activities are very localized with small project footprints due to the use of wood poles (instead of steel structures).

Standard Best Practices

- Work should be limited to the original footprint of the structure.
 - Consider the use of wooden construction matting or swamp mats to minimize site disturbance by equipment.
 - All excavated material must be placed beyond the limits of the *regulated area*. If not practical or feasible, excavated material should be independently surrounded by proper sediment and erosion controls.
 - Works should be undertaken in such a way as to minimize the entry of brush, debris, sediment or other deleterious substances into a *watercourse* or *wetland*. Brush or debris should be placed in a location where it cannot re-enter or block the *wetland* or *watercourse*.
 - Any area of excavation should be isolated from the feature.
 - Wherever possible, utilize existing trails, roads or access points to minimize disturbance when accessing the site. Where available, Hydro One should endeavour to utilize existing easements or *right-of-ways* to access sites.
 - 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).
 - Restore the disturbed site to stable conditions and grades and remediate any areas impacted by the works. Any necessary remediation works will be discussed and planned with the individual conservation authority.
 - Vehicular refueling and maintenance will be conducted a minimum of 30 metres from any *wetlands*, *watercourses*, or bodies of water.
 - All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
-

STANDARD BEST PRACTICES

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

- C. Forestry maintenance activities in existing corridors or access routes, beyond limits of *wetland, watercourse* or valleys (steep slopes)

Description of Typical Works

The removal of trees and other vegetation within *CA-regulated areas* in existing Hydro One corridors or access routes. This may be required for *right-of-way* maintenance and site accessibility. In most cases, soil disturbance is not part of the approved works.

Standard Best Practices

- Remove vegetation selectively; compatible vegetation should be preserved where possible.
 - Whenever possible, avoid removing roots and disturbing any soil. If soil disturbance is required, appropriate erosion and sedimentation control measures are required.
 - Choose conditions and equipment appropriate to minimize site disturbance by equipment.
 - Works should be undertaken in such a way as to minimize the entry of brush, debris, sediment or other deleterious substances into a *watercourse* or *wetland*. Brush or debris should be placed in a location where it cannot re-enter or block the *wetland* or *watercourse*.
 - Whenever possible, proponents should endeavour to complete this work during dry weather. Works should be scheduled to avoid wet, windy and rainy periods that may result in high flow volumes and/or increased erosion and sedimentation.
 - Should soil disturbance be required the following is required:
 - Grades must be returned to stable conditions. Where possible, excavated soil/debris must be removed from the site.
 - Vehicular refueling and maintenance will be conducted a minimum of 30 metres from any *wetlands, watercourses, or bodies of water*.
 - All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
-

STANDARD BEST PRACTICES

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

- D. Maintenance of existing access routes beyond limits of *wetland*, *watercourse* or valley (steep slopes)

Description of Typical Works

Maintenance activities associated with existing *access roads* within conservation authority *regulated areas* outside of hazard features but within *regulated area* (i.e., regulatory allowance).

Maintenance activities do not include extending or widening the *access road*, raising or lowering the grade, or changing the bedding material used.

Specific maintenance activities may include the addition of aggregate, debris removal, installing end protection, installing beaver baffles and culvert replacement. In most cases, excavation and any soil disturbance is not required.

Standard Best Practices

- Choose conditions and equipment appropriate to minimize site disturbance by equipment
 - Works should be undertaken in such a way as to minimize the entry of brush, debris, sediment or other deleterious substances into a *watercourse* or *wetland*. Brush or debris should be placed in a location where it cannot re-enter or block the *wetland* or *watercourse*.
 - Perform work in appropriate conditions (e.g., dry weather) to minimize debris movement and erosion
 - Limit soil movement and erosion; use control measures if necessary prior to commencing works.
 - Site access requirements must be shared with the CA prior to commencing works to confirm works will have no regulatory impacts.
 - Vehicular refueling and maintenance will be conducted a minimum of 30 metres from any *wetlands*, *watercourses*, or bodies of water.
 - All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
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STANDARD BEST PRACTICES

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

E. Above-grade infrastructure works (applies to existing lines and stations)

Description of Typical Works

Works related to infrastructure above-grade (conductor, skywire, insulator, hardware, steel-replacement, tower coating, etc.) that does not require any below-grade disturbance. Applicable to activities in stations or along lines.

Standard Best Practices

- Choose conditions and equipment appropriate to minimize site disturbance by equipment, particularly in proximity to the top and toe of hazardous slopes.
 - Minimize footprint to the *regulated areas* including channel and bank slopes.
 - Avoid performing work when flow conditions are elevated due to seasonality or recent rainfall to minimize sediment and debris movement and erosion.
 - Site access requirements must be shared and approved by CA prior to commencing works.
 - Vehicular refueling and maintenance will be conducted a minimum of 30 metres from any *wetlands, watercourses, or bodies of water*.
 - All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
 - Where steep slopes exist, the adequate setback from the toe or top of slope must be maintained to ensure that the slopes are not destabilized as a result of the proposed works.
-

STANDARD BEST PRACTICES

Hydro One Maintenance and Construction Activities Undertaken in Regulated Areas under the *Conservation Authorities Act*

F. Herbicide Application

Description of Typical Works

Herbicide application by a qualified professional

Standard Best Practices

- Application of herbicide is not permitted within *wetlands* or near *watercourses*
 - To minimize spread of herbicide, proponents should endeavour to schedule this work to avoid wet, windy or rainy periods.
 - Any source protection requirements should be confirmed with the local source protection authority
 - Vehicular refueling and maintenance will be conducted a minimum of 30 metres from any *wetlands*, *watercourses*, or bodies of water.
 - All access to the work site shall be from either side of the *watercourse*. Equipment and vehicles are not permitted to cross through the *watercourse* unless otherwise approved by the CA.
 - Where steep slopes exist, the adequate setback from the toe or top of slope must be maintained to ensure that the slopes are not destabilized as a result of the proposed works.
-

TO: Board of Directors
 FROM: Joe Gordon
 Date: March 22, 2023
 Subject: March 2023 Planning and Regulations Activity Report



RECOMMENDATION:

That the March 2023 Planning and Regulations Activity Report be received.

REPORT SUMMARY

The following is a summary of KCCA’s Plan Input and Review responses and Section 28 permits issued by staff during the period of February 4 to March 9, 2023.

Plan Input and Review:

KCCA #	File No.	Municipality	Application Type	Support	Conditions
2316	B01/23 Plan 76, Pt Lots 6,7,8	St.Thomas	Consent	Yes	None
2317	A01/23 21 Fairview Av	St.Thomas	Minor Variance	Yes	None

Section 28 Permit(s):

Permit No.	Address	Municipality	Description
P23-005	292 Colbourne St	Central Elgin	Extension of an existing steel pile retaining wall along the shoreline of Kettle Creek in Port Stanley to connect to a neighbouring seawall closing a small portion of natural shoreline for erosion control purposes. The plan has been designed and certified by professional coastal/shoreline engineer.
P23-006	11539 Highbury Av	Central Elgin	Reconstruction of an existing storage building located within the floodplain of Kettle Creek. The application as submitted is consistent with KCCA’s Permitted Uses and Alterations in the floodplain for reconstruction of existing structures including floodproofing standards certified

			by a professional engineer and not to exceed a 30% increase in footprint.
P23-007	543 West Edith Cavell Blvd	Central Elgin	Redevelopment of two existing cottages located upon a former slope of Lake Erie into a single detached dwelling in a new location upon the slope as determined by a geotechnical evaluation and slope stability assessment. All of the construction drawings and drainage details have been reviewed and supported by the geotechnical engineer.
P23-008	43665 Dexter Line	Central Elgin	Elgin Water Treatment Plant is proposing to install a new PRV chamber, direct buried water air valve, watermain relining and process piping modification within the lift pumping station. The works associated with placement of the excess fill from the new chamber and the watermain lining occurs within the Regulation Limit requiring permission.
P23-009	S/E corner properties of Highbury Av and Ron McNeil Line	St.Thomas	Enbridge Gas proposes to install a new gas main line across properties located south/east of Highbury Line and Ron McNeil Line along the rail way corridor which includes a stream crossing by directional drill.