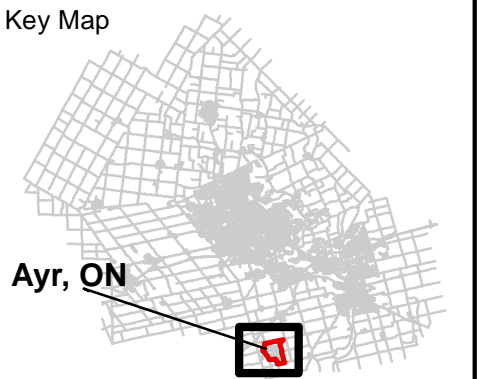
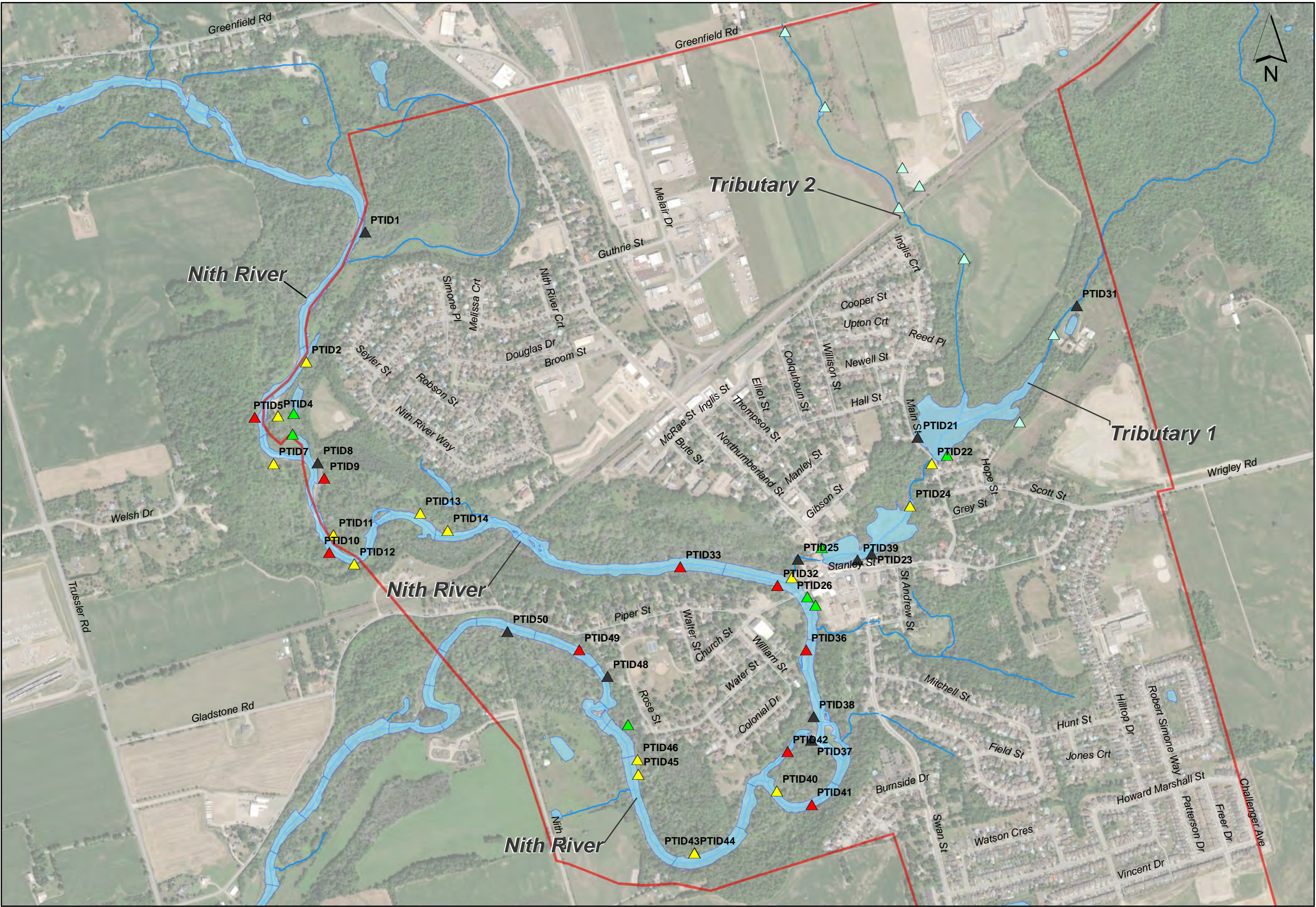


APPENDIX H

Erosion Inventory and Assessment Information

Ayr, ON - Watercourse Erosion Inventory and Assessment



Legend

- Ayr_Boundary
- Waterbody
- Watercourse
- Roads

Observed Erosion Severity Rating

- 1-Minor
- 2-Moderate
- 3-Major
- 4-Safety Hazard
- NA-General Observation

Note: For increased map clarity, only instances of erosion with a rating of 2 -Moderate or greater are labelled.

Watercourse Erosion Inventory and Assessment
Ayr, ON
County of North Dumfries



Project No.: 131788	Date: July 2021
------------------------	--------------------

PTID	Section	Severity Rating	Erosion Type	North	East	Elev
1	NITH 1-1	4 - Safety Hazard	Bank undercutting	4793696.068	543169.087	284.412
2	NITH 1-1	2 - Moderate	Bank undercutting	4793309.132	542993.555	281.755
3	NITH 1-1	1 - Minor	Surface scouring	4793154.787	542955.818	281.599
4	NITH 1-1	2 - Moderate	Lateral bank erosion	4793147.792	542908.792	282.540
5	NITH 1-1	3 - Major	Bank scour, Bank undercutting, Bank slumping	4793143.567	542839.583	281.677
6	NITH 1-2	1 - Minor	bank scour	4793093.277	542951.890	281.572
7	NITH 1-2	2 - Moderate	Bank undercutting	4793004.580	542895.976	280.824
8	NITH 2-1	4 - Safety Hazard	Bank undercutting	4793006.950	543027.407	282.014
9	NITH 2-1	3 - Major	Bank undercutting	4792961.691	543047.495	282.233
10	NITH 2-2	3 - Major	Bank undercutting	4792739.979	543062.418	280.622
11	NITH 2-2	2 - Moderate	Lateral bank erosion	4792791.977	543074.925	281.495
12	NITH 2-2	2 - Moderate	Bank undercutting	4792705.420	543136.643	279.887
13	NITH 2-2	2 - Moderate	Bank undercutting	4792856.950	543333.723	279.792
14	NITH 2-3	2 - Moderate	Bank undercutting, Log debris jam	4792805.523	543415.927	281.997
15	TRIB 2-1	NA	General Observation	4794295.254	544422.644	293.145
16	TRIB 2-1	NA	General Observation	4794070.835	544542.478	292.015
17	TRIB 2-1	NA	General Observation	4793889.915	544773.200	297.782
18	TRIB 2-1	NA	General Observation	4793834.873	544824.406	294.503
19	TRIB 2-1	NA	General Observation	4793770.842	544763.188	289.774
20	TRIB 2-2	NA	General Observation	4793617.356	544957.542	288.635
21	TRIB 2-2	4 - Safety Hazard	Active erosion	4793083.084	544818.674	287.175
22	TRIB1-1	2 - Moderate	Perched culvert	4793005.492	544861.117	286.636
23	TRIB1-2	4 - Safety Hazard	Bank undercutting	4792734.464	544681.583	282.356
24	TRIB1-2	2 - Moderate	Log debris jam	4792878.592	544795.895	282.750
25	TRIB1-2	4 - Safety Hazard	Bank undercutting	4792718.808	544461.634	279.964
26	TRIB1-2	2 - Moderate	Headcutting	4792664.681	544442.511	281.138
27	TRIB1-2	1 - Minor	Bank undercutting	4792753.349	544532.126	283.145
28	TRIB1-1	1 - Minor	Log debris jam	4793030.882	544906.303	287.661
29	TRIB1-1	NA	No erosion - photo documentation	4793130.766	545123.145	291.866
30	TRIB1-1	NA	No erosion - erosion control	4793392.109	545224.842	288.133
31	TRIB1-1	4 - Safety Hazard	Structural damage-bridge	4793476.175	545293.981	287.849
32	NITH 3-1	3 - Major	Bank undercutting	4792640.906	544400.594	283.382
33	NITH 3-1	3 - Major	Bank undercutting	4792696.636	544110.074	281.028
34	NITH 3-2	1 - Minor	Active erosion	4792607.176	544489.251	279.877
35	NITH 3-2	1 - Minor	Log debris jam	4792582.758	544513.978	279.541
36	NITH 3-2	3 - Major	Bank undercutting	4792448.324	544485.574	279.112
37	NITH 4-1	4 - Safety Hazard	Bank undercutting, Log debris jam	4792178.583	544501.532	278.906
38	NITH 4-1	4 - Safety Hazard	Bank undercutting, Log debris jam	4792248.911	544508.290	278.879
39	TRIB 1-2	4 - Safety Hazard	Bank undercutting	4792717.157	544638.685	283.670
40	NITH 4-2	2 - Moderate	Log debris jam	4792027.812	544398.568	278.557
41	NITH 4-2	3 - Major	Bank undercutting	4791987.413	544502.610	278.359
42	NITH 4-2	3 - Major	Bank undercutting	4792144.963	544430.192	277.642
43	NITH 4-3	2 - Moderate	Bank undercutting	4791842.340	544152.765	280.713
44	NITH 4-3	2 - Moderate	Bank undercutting	4791842.379	544152.654	280.700
45	NITH 4-3	2 - Moderate	Bank undercutting	4792077.749	543984.567	278.794
46	NITH 4-3	2 - Moderate	Lateral bank erosion	4792121.773	543982.589	278.221
47	NITH 4-3	1 - Minor	Ponding / pooling	4792225.318	543954.320	n/a*
48	NITH 5-1	4 - Safety Hazard	Active bank erosion	4792369.472	543892.977	n/a*
49	NITH 5-1	3 - Major	Log debris jam, Active bank erosion	4792449.496	543808.214	n/a*
50	NITH 5-1	4 - Safety Hazard	Structural damage-bridge	4792503.588	543594.352	n/a*

Nith River 4-2_____
Erosion Inventory & Assessment

Township of North Dumfries

Ayr, Ontario

2021-05-19



Submission Date:
Form Name:
Form Version:
Reference Number:
Location:

May 19, 2021 11:36:57 AM EDT
EROSION INVENTORY & ASSESSMENT
4
20210519-18187799857
20 Colonial Dr, Ayr, ON N0B 1E0, Canada
May 19, 2021 11:36:53 AM EDT [[View Map](#)]

Photo Set Title

Nith River 4-2



Nith River 4-2_ Log_Debris Jam _PS(1)_1.jpeg



Nith River 4-2_ Log_Debris Jam _PS(1)_2.jpeg



Nith River 4-2_ Log_Debris Jam _PS(1)_3.jpeg

Additional information

Significant build up on both banks- at certain parts, logs jam up ~1/4 of river

width.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Log/Debris Jam	2- Moderate	4792027.81	544398.57	278.557	40



Nith River 4-2_Bank Undercutting_PS(2)_1.jpeg



Nith River 4-2_Bank Undercutting_PS(2)_2.jpeg

Additional information

undercutting occurs on the south side of the river. river very shallow at this area, ~1/2 foot at deepest.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	3 - Major	4791987.41	544502.61	278.359	41

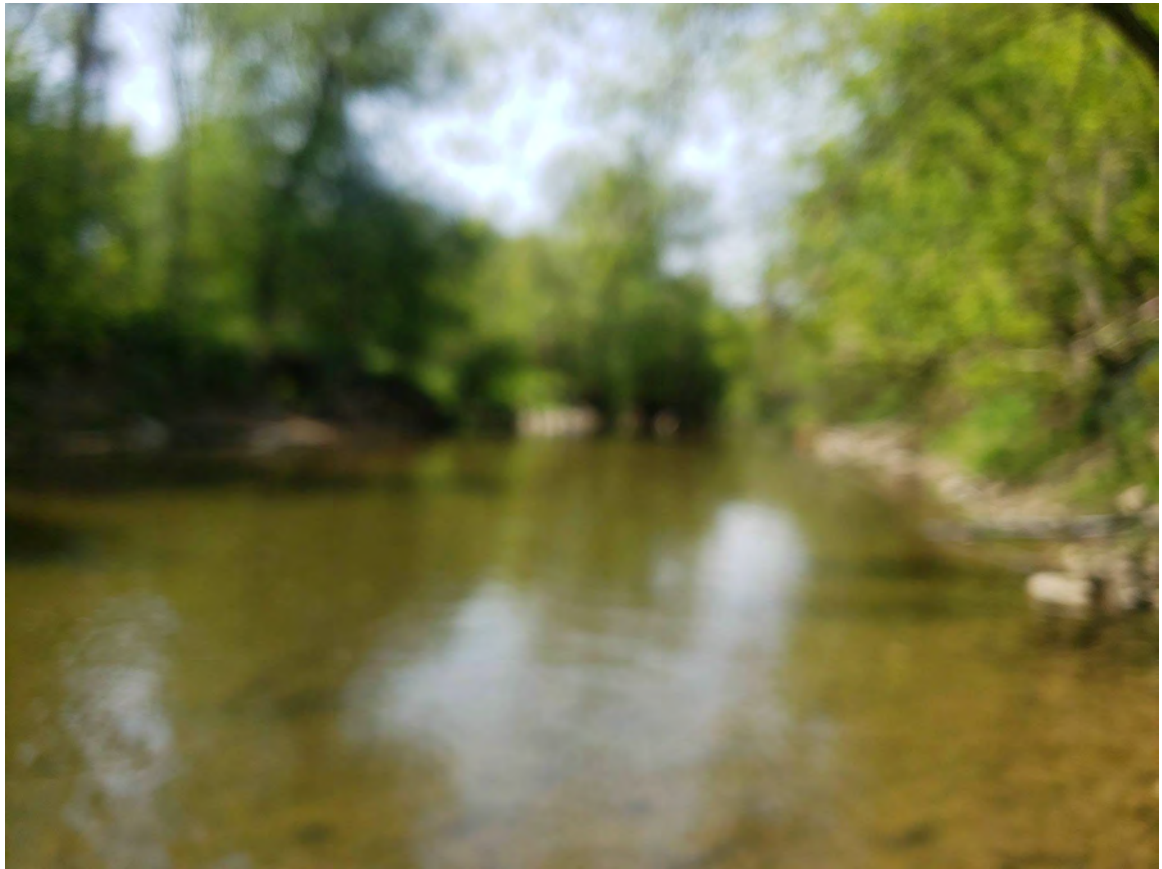
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Nith River 4-2_Bank Undercutting_PS(3)_1.jpeg



Nith River 4-2_Bank Undercutting_PS(3)_2.jpeg



Nith River 4-2_Bank Undercutting_PS(3)_3.jpeg

Additional information

bank undercutting occurs on both sides of the bank. Northside is connected to homeowner's backyard.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	3-Major	4792144.96	544430.19	277.642	42

Nith River 5-1
Erosion Inventory & Assessment

Township of North Dumfries

Ayr, Ontario

2021-05-19



Submission Date:
Form Name:
Form Version:
Reference Number:
Location:

May 19, 2021 2:47:43 PM EDT
EROSION INVENTORY & ASSESSMENT
4
20210519-18187839132
286 Piper St, Ayr, ON N0B 1E0, Canada
May 19, 2021 2:47:41 PM EDT [[View Map](#)]

Photo Set Title

Nith River 5-1



Nith River 4-4_slumping_PS(1)_1.jpeg

Additional information

Active erosion, signs of slope instability near backyard of private residence-close to house.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Active Bank Erosion	4- Safety Hazard	4792369.47183	543892.977405		48



Nift River 4-4_ Log_Debris Jam _PS(2)_1.jpeg



Nift River 4-4_ Log_Debris Jam _PS(2)_2.jpeg



Nift River 4-4_ Log_Debris Jam _PS(2)_3.jpeg



Nift River 4-4_ Log_Debris Jam _PS(2)_4.jpeg

Additional information

log debris take up approximately 1/3 of the width of the river. Some bank undercutting /active bank erosion also beginning in this location with signs of bank instability.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Log/Debris Jam	3- Major	4792449.49557	543808.213585		49



Nift River 4-4_concrete falling apart, tree debris on gabion wall_PS(3)_1.jpeg



Nift River 4-4_concrete falling apart, tree debris on gabion wall_PS(3)_2.jpeg



Nift River 4-4_concrete falling apart, tree debris on gabion wall_PS(3)_3.jpeg



Nift River 4-4_concrete falling apart, tree debris on gabion wall_PS(3)_4.jpeg



5-1_concrete eroding_PS(3)_5.jpeg



5-1_concrete eroding_PS(3)_6.jpeg



5-1_concrete eroding_PS(3)_7.jpeg

Additional information

Bridge in state of disrepair – structural damage to concrete footings. Tree debris and vegetation taking root on gabion wall on south side of bridge.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Structural damage - bridge	4- Safety Hazard	4792503.58827	543594.352237		50

Nith River Section 1-1

Erosion Inventory & Assessment

Township of North Dumfries

Ayr, Ontario

2021-05-07



Submission Date:

Form Name:

Form Version:

Reference Number:

Location:

May 7, 2021 12:25:40 PM EDT

EROSION INVENTORY & ASSESSMENT

2

20210507-18186234690

82 Nith River Wy, Ayr, ON N0B 1E0, Canada

May 7, 2021 12:25:34 PM EDT [[View Map](#)]

Photo Set Title

Ayr Section 1-1



Ayr Section 1-2_Bank Undercutting_PS(1)_1.jpeg



Ayr Section 1-2_Bank Undercutting_PS(1)_2.jpeg

Additional information

Bank undercutting occurring very close to footpath

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	4- Safety Hazard	4793696.07	543169.09	284.412	1



Ayr Section 1-2_Bank Undercutting_PS(2)_1.jpeg



Ayr Section 1-2_Bank Undercutting_PS(2)_2.jpeg



Ayr Section 1-2_Bank Undercutting_PS(2)_3.jpeg

Additional information

Undercutting of bank and dead vegetation / debris falling into main channel. Evidence of river overtopping bank and flowing overland during high water levels, forms seasonal pond at PTID3.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	2- Moderate	4793309.13	542993.56	281.755	2



Ayr Section 1-2_Surface Scouring_PS(3)_1.jpeg



Ayr Section 1-2_Surface Scouring_PS(1)_2.jpeg

**Additional
information**

First photo facing north depicting inland surface scouring. Second photo facing south- dead vegetation likely resulting from seasonal flooding / high water levels.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Surface Scouring	1- Minor	4793154.79	542955.82	281.599	3



Ayr Section 1-1_Lateral Bank Erosion_PS(4)_1.jpeg



Ayr Section 1-1_Lateral Bank Erosion_PS(4)_2.jpeg



Ayr Section 1-1_Lateral Bank Erosion_PS(4)_3.jpeg

**Additional
information**

1st picture facing north depicts main lateral erosion site dead vegetation suggests during high water levels, water flowing overland (south) bypassing main channelized area. See the difference in log colours in photo 1. Dead vegetation unnaturally wraps around trees. Beginning of an outlet may be seen at PTID 6. 2nd and 3rd pictures are facing south.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Lateral Bank Erosion	2- Moderate	4793147.79	542908.79	282.54	4



Ayr Section 1-1_bank undercut, bank slumping, log debris_PS(5)_1.jpeg



Ayr Section 1-1_bank undercut, bank slumping, log debris_PS(5)_2.jpeg

Additional information First picture facing south- bank undercut beginning to show. Second photo

facing NE, opposite bank slumping with fallen log debris collecting within channel. Large trees at top of high bluff getting close to undercutting.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
bank undercut, bank slumping, bank scour, log debris	3 - Major	4793110.23	542872.52	281.677	5

Ayr Section 1-2_____
Erosion Inventory & Assessment

Township of North Dumfries

Ayr, Ontario

2021-05-07



Submission Date:
Form Name:
Form Version:
Reference Number:
Location:

May 7, 2021 1:09:21 PM EDT
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2
20210507-18186241070
30 Simone Pl, Ayr, ON N0B 1E0, Canada
May 7, 2021 1:09:12 PM EDT [[View Map](#)]

Photo Set Title

Ayr Section 1-2



Ayr Section 1-1_Bank Scour_PS(1)_1.jpeg



Ayr Section 1-1_Bank Scour_PS(1)_2.jpeg

Additional information

Evidence of bank / surface scouring from footpath and sediment deposits in low flow pool (separate from main river). Photos facing south.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Scour	1- Minor	4793093.28	542951.89	281.572	6



Ayr Section 1-1_bank undercut, and log_debris jam_PS(2)_1.jpeg

Additional information Erosion found on south bank of river. Minor log debris fallen into main channel from bank.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercut	2- Moderate	4793022.84	542903.52	280.824	7

Nith River Section 2-1
Erosion Inventory & Assessment
Township of North Dumfries
Ayr, Ontario
2021-05-11



Submission Date:	May 11, 2021 10:49:47 AM EDT
Form Name:	EROSION INVENTORY & ASSESSMENT
Form Version:	3
Reference Number:	20210511-18186579755
Location:	426 Piper St, Ayr, ON N0B 1E0, Canada May 11, 2021 10:49:41 AM EDT [View Map]

Photo Set Title

Nith River Section 2-1



Nith River Section 2-1_Bank Undercutting_PS(1)_1.jpeg



Nith River Section 2-1_Bank Undercutting_PS(1)_2.jpeg



Nith River Section 2-1_Bank Undercutting_PS(1)_3.jpeg

Additional information

Some erosion near and affecting some parts of established pedestrian trail during period of high flow / water level. Unstable ground could be potential safety hazard for trail users.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	4- Safety Hazard	4793006.95	543027.41	282.01	8



Nith River Section 2_Bank Undercutting_PS(2)_1.jpeg



Nith River Section 2-1 East Side_ Bank Undercutting _PS(2)_2.jpeg



Nith River Section 2-1_ Bank Undercutting _PS(2)_3.jpeg

Additional information

Banks and vegetation are collapsing into the channel. If erosion continues to cut back bank - may affect the established walking trail.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	3 - Major	4792961.69	543047.49	282.23	9



Nith River Section 2-1_Bank Undercutting_PS(3)_1.jpeg



Nith River Section 2-1_Bank Undercutting_PS(3)_2.jpeg

Additional information Heavy erosion observed on south side of river eroding due to high flow volume

and flow velocities during wet weather undercutting banks.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	3 - Major	4792764.19	543075.14	280.62	10

Nith River Section 2-2

Erosion Inventory & Assessment

Township of North Dumfries

Ayr, Ontario

2021-05-11



Submission Date:

May 11, 2021 11:54:22 AM EDT

Form Name:

EROSION INVENTORY & ASSESSMENT

Form Version:

3

Reference Number:

20210511-18186591198

Location:

128 Nith River Wy, Ayr, ON N0B 1E0, Canada

May 11, 2021 11:53:57 AM EDT [[View Map](#)]

Photo Set Title

Nith River Section 2-2



Nith River Section 2-2_Lateral Bank Erosion_PS(1)_1.jpeg



Nith River Section 2-2_Lateral Bank Erosion_PS(1)_2.jpeg



Nith River Section 2-2_Lateral Bank Erosion_PS(1)_3.jpeg

Additional information

Inland lateral bank erosion and surface scouring -likely seasonal flood plain with ponding. Possible over land flow bypassing main channel during period of flooding / high flow due to meandering river.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Lateral Bank Erosion	2- Moderate	4792791.98	543074.92	281.5	11



Nith River Section 2-2_Bank Undercutting_PS(2)_1.jpeg



Nith River Section 2-2_Bank Undercutting_PS(2)_2.jpeg



Nith River Section 2-2_Bank Undercutting_PS(2)_3.jpeg

Additional information

Bank undercutting due to high flow volume and velocity at tight meander. Log debris in main channel.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	2- Moderate	4792723.28	543137.04	279.89	12



Nith River Section 2-2_Bank Undercutting_PS(3)_1.jpeg



Nith River Section 2-2_Bank Undercutting_PS(3)_2.jpeg



Nith River Section 2-2_Bank Undercutting_PS(3)_3.jpeg



Nith River Section 2-2_Bank Undercutting_PS(3)_4.jpeg

Additional information

Bank undercutting due to high flow volume and velocity at tight meander. Log debris in main channel. Established pedestrian train on top of bank being impacted by erosion.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	4- Safety Hazard	4792838.43	543322.48	279.79	13

Nith River Section 2-3_____
Erosion Inventory & Assessment
Township of North Dumfries
Ayr, Ontario
2021-07-13



Submission Date:	Jul 13, 2021 9:24:42 AM EDT
Form Name:	EROSION INVENTORY & ASSESSMENT
Form Version:	3
Reference Number:	20210713-18195584100
Location:	23 Henry Moody Dr, Brampton, ON L7A 0C3, Canada Jul 13, 2021 9:24:40 AM EDT [View Map]

Photo Set Title

Nith River Section 2-3 North Side



Nith River Section 2-3 North Side_ Log_Debris Jam _PS(1)_1.jpeg



Nith River Section 2-3 North Side_ Log_Debris Jam _PS(1)_2.jpeg



Nith River Section 2-3 North Side_ Log_Debris Jam _PS(1)_3.jpeg

Additional information

Trees falling over on north and south side of river will eventually fall in river causing severe blockages. Photos taken on north side. Debris on north side is more severe than south side. Fallen trees on north side are near the public path.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Log/Debris Jam	2 - Moderate	4792805.52	543415.93	281.99	14

Nith River Section 3-1_____

Erosion Inventory & Assessment

Township of North Dumfries

Ayr, Ontario

2021-05-18



Submission Date:

Form Name:

Form Version:

Reference Number:

Location:

May 18, 2021 11:56:20 AM EDT

EROSION INVENTORY & ASSESSMENT

4

20210518-18187620241

16 Northumberland St, Ayr, ON N0B 1E0, Canada

May 18, 2021 11:56:15 AM EDT [[View Map](#)]

Photo Set Title

Nith River Section 3-1



Nith River Section 3-1_Bank Undercutting_PS(1)_1.jpeg



Nith River Section 3-1_Bank Undercutting_PS(1)_2.jpeg



Nith River Section 3-1_Bank Undercutting_PS(1)_3.jpeg



Nith River Section 3-1_Bank Undercutting_PS(1)_4.jpeg

Additional information

Significant bank undercutting. Loose sediment on banks erode with high flows leaving tree roots exposed. Photos taken of trees on south side of river. Man made path on north side of river is also eroding. Doesn't seem to be a public path but there is evidence of pedestrian traffic.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	3 - Major	4792666.79	544428.1	283.38	32

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Nith River Section 3-1_ Bank Undercutting_LogDebris _PS(2)_1.jpeg



Nith River Section 3-1_Bank Undercutting_LogDebris_PS(2)_2.jpeg



Nith River Section 3-1_ Bank Undercutting_LogDebris _PS(2)_3.jpeg



Nith River Section 3-1_ Bank Undercutting_LogDebris _PS(2)_4.jpeg

Additional information Significant bank undercutting causing tree roots to be exposed. Banks are

undercut throughout this entire section (see PTID32 to the east). North side has fallen trees that have caused some log/debris in river.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting_LogDebris	3 - Major	4792724.41	544108.75	281.03	33



Nith River Section 3-1__PS(3)_1.jpeg

Additional information

Log debris on north side of river channel.

Nith River Section 3-2

Erosion Inventory & Assessment

Township of North Dumfries

Ayr, Ontario

2021-05-18



Submission Date:
Form Name:
Form Version:
Reference Number:
Location:

May 18, 2021 12:45:47 PM EDT
EROSION INVENTORY & ASSESSMENT
4
20210518-18187629112
32 William St, Ayr, ON N0B 1E0, Canada
May 18, 2021 12:45:41 PM EDT [[View Map](#)]

Photo Set Title

Nith River Section 3-2



Nith River Section 3-2_Active Erosion_PS(1)_1.jpeg



Nith River Section 3-2_Active Erosion_PS(1)_2.jpeg



Nith River Section 3-2_Active Erosion_PS(1)_3.jpeg

Additional information

Stones moved out of place likely due to high flows. Tree trunk debris under bridge. Tree growing out of the side of the bridge is growing close to power lines on bridge.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Active Erosion	1- Minor	4792607.17	544489.25	279.88	34



Nith River Section 3-2_ Log_Debris Jam _PS(2)_1.jpeg



Nith River Section 3-2_ Log_Debris Jam _PS(2)_2.jpeg



Nith River Section 3-2_ Log_Debris Jam _PS(2)_3.jpeg

Additional information

Some debris from banks falling in blocking culvert. Area is adjacent to a parking lot.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Log/Debris Jam	1- Minor	4792582.76	544513.98	279.54	35



Nith River Section 3-2_Bank Undercutting_PS(3)_1.jpeg



Nith River Section 3-2_Bank Undercutting_PS(3)_2.jpeg

Additional information

High flow eroding and scouring bank on east side of river. Water levels increase

during wet weather and seasonal periods of high water levels on west side of river. Homeowners have seemingly implemented some erosion control measures which may need to be upgraded / improved.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	3 - Major	4792448.32	544485.57	279.11	36

Nith River Section 4-1 _____
Erosion Inventory & Assessment
Township of North Dumfries
Ayr, Ontario
2021-05-18



Submission Date:	May 18, 2021 2:30:25 PM EDT
Form Name:	EROSION INVENTORY & ASSESSMENT
Form Version:	4
Reference Number:	20210518-18187642065
Location:	50 Stanley St, Ayr, ON N0B 1E0, Canada May 18, 2021 2:30:23 PM EDT [View Map]

Photo Set Title

Nith River Section 4-1



Nith River Section 4-1_Bank Undercutting and Log Jam _PS(1)_1.jpeg



Nith River Section 4-1_Bank Undercutting and Log Jam _PS(1)_2.jpeg

Additional information

High spring flows cause flooding of backyards at properties on Colonial Dr. High flows cause undercutting of bank and have created additional flow paths at meander. Significant flows caused trees to fall into river. Island (where tree debris found) may contribute to river backup into residential backyards.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting and Log Jam	4- Safety Hazard	4792178.58	544501.53	278.9	37



Nith River Section 4-1_Bank Undercutting_PS(2)_1.jpeg



Nith River Section 4-1_Bank Undercutting_PS(2)_2.jpeg

Additional information High flows cause bank erosion. Tree roots exposed. Spoke to one of the

homeowners on Colonial Drive and they indicate that they see ice and debris flow in during high velocity wet weather events (mainly during spring melting season). During these events the flow overtops the bank and floods their backyards. Residents also believe the island-like feature just downstream contributes to flooding of their backyards.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	4- Safety Hazard	4792215.83	544546.65	278.88	38

Nith River Section 4-3
Erosion Inventory & Assessment
Township of North Dumfries
Ayr, Ontario
2021-05-19



Submission Date:
Form Name:
Form Version:
Reference Number:
Location:

May 19, 2021 1:53:13 PM EDT
EROSION INVENTORY & ASSESSMENT
4
20210519-18187831242
72 Water St, Ayr, ON N0B 1E0, Canada
May 19, 2021 1:53:07 PM EDT [[View Map](#)]

Photo Set Title

Nith River Section 4-3



Nith River Section 4-3_Bank Undercutting_PS(1)_1.jpeg



Nith River Section 4-3_Bank Undercutting_PS(1)_2.jpeg



Nith River Section 4-3_Bank Undercutting_PS(1)_3.jpeg

Additional information Erosion is near an ATV trail (possible private trail)

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	2 - Moderate	4791842.38	544152.65	280.7	34 & 44



Nith River Section 4-3_Bank Undercutting_PS(2)_1.jpeg



Nith River Section 4-3_Bank Undercutting_PS(2)_2.jpeg

Additional information

bank undercutting on opposite side of river.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	2- Moderate	4792077.75	543984.57	278.794	45



Nith River Section 4-3_Lateral Bank Erosion_PS(3)_1.jpeg

Additional information possibly causes flow inland.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Lateral Bank Erosion	2- Moderate	4792121.77	543982.59	278.221	46



Nith River Section 4-3_pooling of water occuring_PS(4)_1.jpeg



Nith River Section 4-3_pooling of water occuring_PS(4)_2.jpeg

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Pooling /Ponding	1- Minor	43.2814471	80.4580911	NA	47

Tributary 1-1_____
Erosion Inventory & Assessment

Township of North Dumfries

Ayr, Ontario

2021-05-13



Submission Date:
Form Name:
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May 13, 2021 1:45:33 PM EDT
EROSION INVENTORY & ASSESSMENT
4
20210513-18186890932
30 Scott St, Ayr, ON N0B 1E0, Canada
May 13, 2021 1:45:18 PM EDT [[View Map](#)]

Photo Set Title

Tributary 1-1



Tributary 1-1_Perched Culvert_PS(1)_1.jpeg



Tributary 1-1_Perched Culvert_PS(1)_2.jpeg

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Perched Culvert	2 - Moderate	4793005.49	544861.12	286.636	22



Tributary 1-1__PS(2)_1.jpeg



Tributary 1-1__PS(2)_2.jpeg

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
No Erosion – just photo documentation	NA	4793130.77	545123.14	291.866	29



Tributary 1-1_ Log_Debris Jam _PS(3)_1.jpeg



Tributary 1-1_ Log_Debris Jam _PS(3)_2.jpeg

Additional information

Large tree has fallen in water may be contributing to small localized band erosion.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Log/Debris Jam	1 - Minor	4793033	544912.39	287.661	28



Tributary 1-1__PS(4)_1.jpeg



Tributary 1-1__PS(4)_2.jpeg

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Erosion Control	NA	4793392.11	545224.84	288.133	30



Tributary 1-1_Bank Undercutting_structural damage-bridge_PS(5)_1.jpeg



Tributary 1-1_Bank Undercutting_structural damage__PS(5)_2.jpeg



Tributary 1-1_ Bank Undercutting_structural damage-bridge__PS(5)_3.jpeg

Additional information

Slight undercutting on north side of river. bridge experiencing a slight lean, in poor condition - may be private property / privately owned bridge.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	4 – Safety Hazard	4793476.17	545293.98	287.479	31

Tributary 1-2_____
Erosion Inventory & Assessment

Township of North Dumfries

Ayr, Ontario

2021-05-13



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EROSION INVENTORY & ASSESSMENT

4

20210513-18186874987

36 Northumberland St, Ayr, ON N0B 1E0, Canada

May 13, 2021 11:12:38 AM EDT [[View Map](#)]

Photo Set Title

Tributary 1-2



Tributary 1-2_Bank Undercutting_PS(1)_1.jpeg



Tributary 1-2_Bank Undercutting_PS(1)_2.jpeg



Tributary 1-2_Bank Undercutting_PS(1)_3.jpeg

Additional information

Evidence of active erosion, some bank undercutting beginning to infringe on

back yard of private residences. some trees have fallen over – potential safety hazard

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	4- Safety Hazard	4792760.94	544672.16	282.356	23



Tributary 1-2_ Log_Debris Jam _PS(2)_1.jpeg



Tributary 1-2_ Log_Debris Jam _PS(2)_2.jpeg

Additional information

many trees in creek that feeds into Watson pond. Evidence of tree buildup from further upstream.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Log/Debris Jam	2- Moderate	4792900.02	544754.36	282.75	24



Tributary 1-2_Bank Undercutting_PS(3)_1.jpeg



Tributary 1-2_Bank Undercutting_PS(3)_2.jpeg



Tributary 1-2_Bank Undercutting_PS(3)_3.jpeg

Additional information

Evidence of active erosion, some bank undercutting beginning to infringe on back yard of private residences. some trees have fallen over – potential safety hazard

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	4- Safety Hazard	4792718.81	544461.63	279.964	25



Tributary 1-2_Headcutting_PS(4)_1.jpeg



Tributary 1-2_Headcutting_PS(4)_2.jpeg



Tributary 1-2_Headcutting_PS(4)_3.jpeg

Additional information

Riffle formation causing greater erosion near / on one side of the bank.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Headcutting	2 - Moderate	4792664.1	54453.91	218.13	26



Tributary 1-2_Headcutting_PS(5)_1.jpeg

Additional information

Some bank undercutting beginning north shore, close to private residences/walking path.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	1 - Minor	4792753.349	544532.1257	283.1448	27



Tributary 1-2_ Bank Undercutting _PS(6)_1.jpeg



Tributary 1-2_ Bank Undercutting _PS(6)_2.jpeg

Additional information

Some bank undercutting beginning south shore, close to private residences/property along
This stretch of bank. Bench is not level and deemed safety hazard as it is sloped towards water – likely result of erosion.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Bank Undercutting	4 – Safety Hazard	4792717.157	544638.6852	283.6701	39

Tributary 2-1 _____
Erosion Inventory & Assessment

Township of North Dumfries

Ayr, Ontario

2021-05-12



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EROSION INVENTORY & ASSESSMENT

4

20210512-18186735400

250 Inglis St, Ayr, ON N0B 1E0, Canada

May 12, 2021 11:30:10 AM EDT [[View Map](#)]

Photo Set Title

Tributary 2-1 No Erosion



Tributary 2-1 No Erosion_No Erosion_PS(1)_1.jpeg



Tributary 2-1 No Erosion_No Erosion_PS(1)_2.jpeg

Additional information No erosion found

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
No Erosion	NA	4794295.25	544422.64	293.15	15

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Tributary 2-1 No Erosion_No evidence of erosion_PS(2)_1.jpeg



Tributary 2-1 No Erosion_No evidence of erosion_PS(2)_2.jpeg



Tributary 2-1 No Erosion_No evidence of erosion_PS(2)_3.jpeg

Additional information Some evidence of lateral erosion likely only occurring during wet weather but the erosion -very minor.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
No evidence of erosion	NA	4794070.84	544542.48	292.01	16



Tributary 2-1 No Erosion_No evidence of erosion _PS(3)_1.jpeg



Tributary 2-1 No Erosion_No evidence of erosion _PS(3)_2.jpeg

Additional information No erosion found

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
No evidence of erosion	NA	4793889.92	544773.2	297.78	17



Tributary 2-1 No Erosion_No evidence of erosion _PS(1)_1.jpeg



Tributary 2-1 No Erosion_No evidence of erosion _PS(1)_2.jpeg

Additional information No erosion found. No evidence of erosion near train tracks.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
No evidence of erosion	NA	4793834.87	544824.41	294.5	18



Tributary 2-1 No Erosion_No evidence of erosion _PS(2)_1.jpeg



Tributary 2-1 No Erosion_No evidence of erosion _PS(2)_2.jpeg



Tributary 2-1 No Erosion_No evidence of erosion _PS(2)_3.jpeg

Additional information No erosion found. Some debris/twigs/branches blocking culvert but no significant erosion of field or area around train tracks.

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
No evidence of erosion	NA	4793770.84	544763.19	289.77	19

Tributary 2-2 _____
Erosion Inventory & Assessment

Township of North Dumfries

Ayr, Ontario

2021-05-13



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May 13, 2021 7:11:30 AM EDT
EROSION INVENTORY & ASSESSMENT
4
20210513-18186851036
Frontenac Dr Stop # 3218, Markham, ON L3R 6H2,
Canada
May 13, 2021 7:11:27 AM EDT [[View Map](#)]

Photo Set Title

Tributary 2-2



Tributary 2-2 _No evidence of erosion _PS(1)_1.jpeg



Tributary 2-2 _No evidence of erosion _PS(1)_2.jpeg

Additional information

some ponding in tributary but no evidence of erosion

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
No evidence of erosion	NA	4793617.36	544957.54	288.64	20

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Tributary 2-2 _Active Erosion_PS(2)_1.jpeg



Tributary 2-2 _Active Erosion_PS(2)_2.jpeg



Tributary 2-2 _Active Erosion_PS(2)_3.jpeg

Additional information

Stones bordering public pond look out are collapsing

EROSION TYPE(S)	SEVERITY	N	E	Z	PTID
Active Erosion	4- Safety Hazard	4793083.08	544818.67	287.17	21



Tributary 2-2 _No evidence of erosion _PS(3)_1.jpeg



Tributary 2-2 _No evidence of erosion _PS(3)_2.jpeg

Additional information

No signs of erosion