

BYRON DYKE

Dyke Inspection Sheet

Dyke: Byron Dyke
Weather: Sunny, 27 °C
Immediate Action Required •

Report No.: 1 of 1

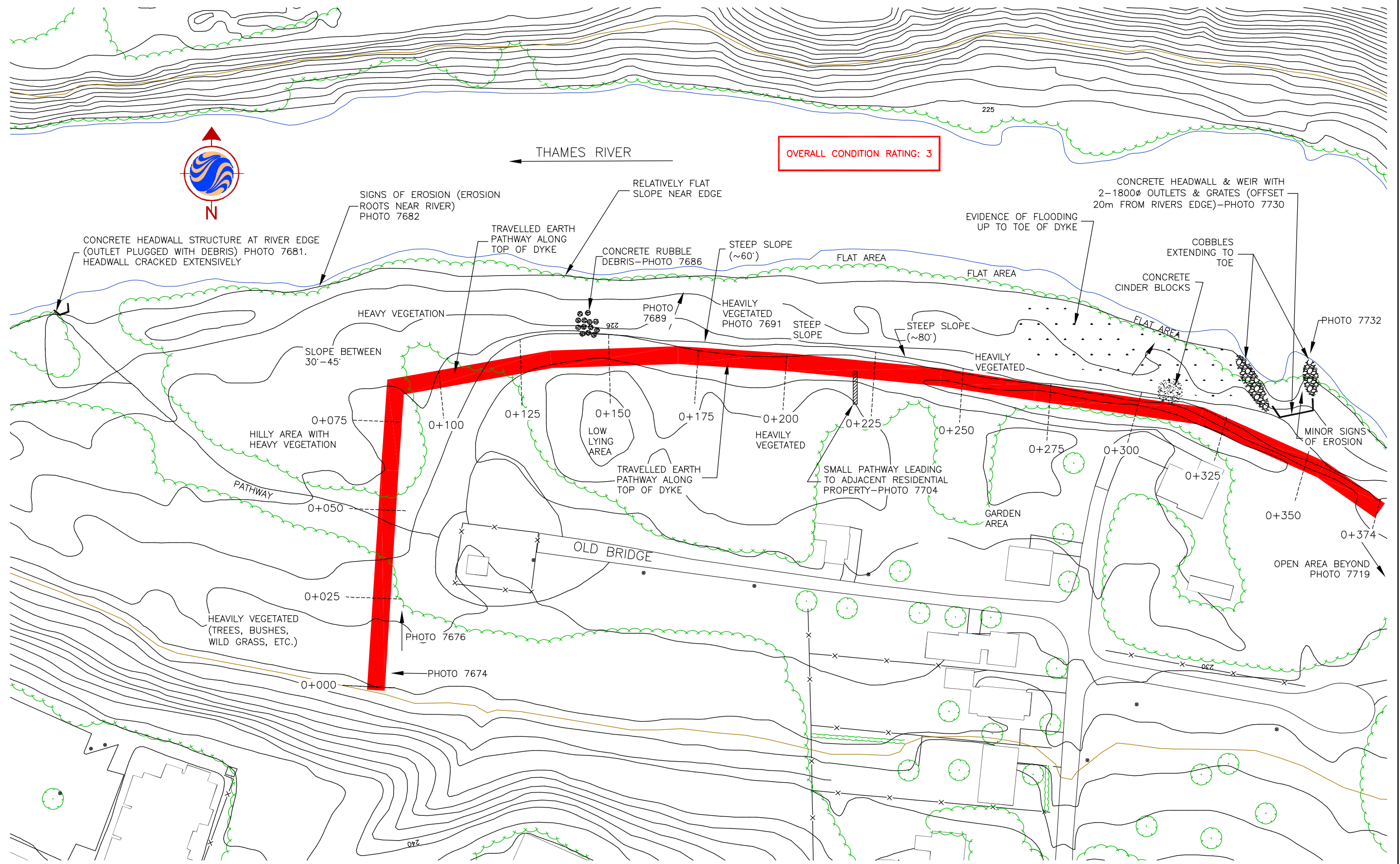
Date: June 21, 2004
Inspected By: N.Oliveira, S.Jeater
Further Investigative Work •

General Information	
<u>Section Inspected:</u> Complete <input checked="" type="checkbox"/> Section <input type="checkbox"/> Specify: _____ to _____ m	Overall Condition Rating: 3 (this section only) Comments: Condition rating relates to difficulty in assessing dyke due to dense vegetation present, noticeable signs of erosion adjacent to the toe and damaged concrete headwall and plugged storm outlet.
<u>Adjacent Property Use:</u> Residential <input checked="" type="checkbox"/> Parkland <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input checked="" type="checkbox"/>	Comments: Adjacent pumping station near St. 0+030. Primarily heavily wooded land from St. 0+050 to 0+200. Residential properties border the dyke from St. 0+200 to the end of the dyke.
Dyke Facing	
<u>Dyke Face Material:</u> Concrete <input type="checkbox"/> Gabion <input type="checkbox"/> Earthfill <input checked="" type="checkbox"/> Other <input checked="" type="checkbox"/> Specify: Trees, bushes, shrubs, wild grass (photo 7674) and cobbles Condition Rating: 3 Comments: Dyke face consists primarily of dense vegetation (trees, bushes, shrubs, wild grass). Cobbles along the dyke face extending to toe at St. 0+330 to 0+360 (adjacent to concrete headwall structure, see photo 7732).	<u>Structural Condition (Dyke Face):</u> Erosion <input type="checkbox"/> Damage (impact, cracks, etc) <input type="checkbox"/> Movement (including unevenness, slipping, bulging or slumping) <input checked="" type="checkbox"/> Specify type: Condition Rating: 3 Comments: Various steep sections noted along the dyke face, primarily from St. 0+180 to 0+260 with toppled vegetation (photo 7688).
<u>Toe:</u> Toe Protection Material (concrete, gabion, earth or other) Specify: Primarily earth (soil) with overlying dense vegetation. Erosion Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Condition Rating: 3 Comments: Signs of erosion noted at and near the toe in several areas (photo 7682), causing exposure of roots.	<u>Joints:</u> (not applicable to earthfill dykes) Sealant Present Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, condition rating: Vegetation (in joints) Yes <input type="checkbox"/> No <input type="checkbox"/> Comments: Not applicable.
<u>Vegetation:</u> None <input type="checkbox"/> Full <input checked="" type="checkbox"/> Partial <input type="checkbox"/> Type: Primarily trees with shrubs, bushes, wild grass, etc. Comments: Vegetation generally well established along side slopes of dyke (photo 7691), however some loss has occurred likely due to the steep slope conditions encountered in several areas. Vegetation along toe of dyke showed evidence of recent flooding in the area.	<u>Water Infiltration:</u> (look for where water can leak behind structure) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, due to: Joints <input type="checkbox"/> Cracks <input type="checkbox"/> Liner <input type="checkbox"/> Other (specify) <input type="checkbox"/> Comments:
<u>Additional Information:</u> Access Available Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Estimated Water Depth: 0.2 to 0.3m from edge. Comments: Access generally available via traveled earth pathway along the top of dyke. A large flooded area was observed near the toe of the dyke at St. 0+275. Stockpiles of concrete rubble and cinder blocks observed along dyke face (photos 7686 and 7717).	
Top of Dyke	
<u>Dyke Top Material:</u> Concrete <input type="checkbox"/> Asphalt <input type="checkbox"/> Earth <input checked="" type="checkbox"/> Rip Rap <input type="checkbox"/> Other <input type="checkbox"/> Specify:	<u>Structural Condition (Top of Dyke):</u> Erosion (behind wall, etc.) <input type="checkbox"/> Damage (vandalism, etc) <input type="checkbox"/> Movement (including unevenness, heaving or settlement) <input type="checkbox"/> Specify type:
Condition Rating: 4 Comments: Generally traveled earth pathway along top of dyke. Several areas blocked by fallen or overgrown vegetation.	Condition Rating: 4 Comments: No noticeable signs of erosion.
<u>Pedestrian Access:</u> Sidewalk <input type="checkbox"/> Pathway <input checked="" type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Specify: If present, width of access way: Condition Rating (if present): 3 Comments: Pathway consisting primarily of traveled earth. Becoming increasingly restricted from due to fallen and overgrown vegetation.	<u>Protective Barrier:</u> Fence <input type="checkbox"/> Guard Rail <input type="checkbox"/> None <input checked="" type="checkbox"/> Other <input type="checkbox"/> Specify: Condition Rating (if present): Comments: No protective barrier present.

Top of Dyke - Continued	
<p><u>Joints</u> : (not applicable to earthfill dykes) Sealant Present Yes • No • If yes, condition rating: Vegetation (in joints) Yes • No • Comments: Not applicable.</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present) Good ✓ Poor • Comments: No ponding of water observed along top of dyke, although various low lying areas were noted.</p>
<p><u>Illumination:</u> (check for lighting present along the top of the dyke) Yes • No ✓ Condition Rating: Comments:</p>	<p><u>Vegetation:</u> None • Full ✓ Partial • Type: Wild grass, bushes, etc. Comments: Vegetation bordering traveled pathway.</p>
<p><u>Additional Information:</u> Comments: Land generally becoming flat between toe of dyke and water. As previously noted, several eroded areas were observed causing the roots of vegetation to become exposed.</p>	
Area behind the Dyke (immediately adjacent)	
<p><u>Predominant Material:</u> Concrete • Asphalt • Earth ✓ Grass ✓ Other ✓ Specify: Rough vegetation</p> <p>Condition Rating: 4 Comments: A mix of rough vegetation consisting of trees, bushes, shrubs, etc borders the dyke from St. 0+000 to 0+210. A mix of grass and garden areas are located behind the dyke from St. 0+200 to 0+371.5 (end of dyke).</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present) Good ✓ Poor • Comments: Although ponded water was not observed during the site visit (dry conditions), low lying areas were noted behind the dyke, in several areas. Are catchbasins present? Yes • No ✓ If yes, condition rating: Comments:</p>
<p><u>Vegetation:</u> None • Full ✓ Partial • Type: Comments: See above.</p>	<p><u>Accessibility:</u> (check for access areas behind the dyke only) Sidewalks • Pathways • Roads • None ✓ Condition Rating (if present): 4 Comments: No constructed access paths are available. Limited access to back of dyke from St. 0+000 to 0+200 due to dense vegetation. Area behind the dyke generally accessed via private backyards from St. 0+200 to the end of the dyke.</p>
<p><u>Protective Barrier:</u> Fence ✓ Guard • None ✓ Rail Other • Specify: If fence, list type and ownership (i.e. private or city): Chain link and wood fencing from ~St. 0+290 to 0+325 (privately owned). No protective barrier present elsewhere. Condition Rating (if present): 4 Comments: Fencing in fair condition.</p>	<p><u>Illumination:</u> (check for lighting present behind the dyke) Yes • No ✓ Condition Rating: Comments:</p>
Storm Sewers/Sanitary Sewers/Outlet Structures	
<p>Yes ✓ No • (if no, proceed to next section) If yes, type of structure (i.e. outlet, headwall, drainage pipe, channel or flush): Specify: Concrete headwall structure with unknown discharge pipe (possible sanitary line) at ~St. 0+050 (photo 7681). Concrete headwall structure with two 1800mm (approx.) storm sewer outlets (photos 7724 and 7726) at St. 0+340. Condition Rating: 2 Comments: Poor rating relates to headwall structure located at St. 0+050. Structure badly cracked and pipe ~80 percent plugged at discharge.</p>	<p><u>Outlet:</u> (check for presence of gates or grates at the outlet) Flap Gate Yes • No • Safety Grate Yes • No ✓ Condition Rating: 4 Comments: No apparent damage to safety grate on storm discharge pipes located at St. 0+340. No safety grates or flap gates located on storm outlet at St. 0+050.</p>
<p><u>Outlet Flow:</u> (check for condition of channel downstream from pipe, obstructions within pipe, etc.) Obstructions Yes ✓ No ✓ Downstream Erosion Yes • No ✓ Comments: Obstruction noted relates to concrete headwall structure located at St. 0+050. No obstructions or erosion noted for the headwall structure at 0+340.</p>	<p>General Comments:</p>

RATING SYSTEM

- | | | |
|---|----------------------------|---|
| 1 | <i>Unsafe Condition</i> | Structure (or element) in very poor or unsafe condition which may pose public safety hazard. |
| 2 | <i>Poor Condition</i> | Structure (or element) in poor condition with significant deterioration noted. Deteriorations noted may impact on integrity and may require significant capital cost to bring to fair to poor condition rating. No safety hazard noted. |
| 3 | <i>Fair/Poor Condition</i> | Structure (or element) condition varies from fair to poor with some signs of significant deterioration in localized areas. Able to perform function, but at reduced capacity. |
| 4 | <i>Fair Condition</i> | Structure (or element) in fair condition with no visible signs of significant deterioration. Able to perform intended function with no apparent hindrance. |
| 5 | <i>Good Condition</i> | Structure (or element) in good condition with minor deterioration. Able to perform intended function with no apparent hindrance. |



OVERALL CONDITION RATING: 3



THAMES RIVER

CONCRETE HEADWALL STRUCTURE AT RIVER EDGE (OUTLET PLUGGED WITH DEBRIS) PHOTO 7681. HEADWALL CRACKED EXTENSIVELY

SIGNS OF EROSION (EROSION ROOTS NEAR RIVER) PHOTO 7682

TRAVELLED EARTH PATHWAY ALONG TOP OF DYKE

RELATIVELY FLAT SLOPE NEAR EDGE

CONCRETE RUBBLE DEBRIS—PHOTO 7686

STEEP SLOPE (~60')

FLAT AREA

EVIDENCE OF FLOODING UP TO TOE OF DYKE

FLAT AREA

CONCRETE HEADWALL & WEIR WITH 2-1800Ø OUTLETS & GRATES (OFFSET 20m FROM RIVERS EDGE)—PHOTO 7730

COBBLES EXTENDING TO TOE

CONCRETE CINDER BLOCKS

PHOTO 7732

HEAVY VEGETATION

SLOPE BETWEEN 30'-45'

0+075 HILLY AREA WITH HEAVY VEGETATION

0+100

0+125

0+150 LOW LYING AREA

0+175

0+200 HEAVILY VEGETATED

0+225

0+250

0+275

0+300

0+325

0+350

0+374

PATHWAY

0+050

TRAVELLED EARTH PATHWAY ALONG TOP OF DYKE

SMALL PATHWAY LEADING TO ADJACENT RESIDENTIAL PROPERTY—PHOTO 7704

GARDEN AREA

OPEN AREA BEYOND PHOTO 7719

OLD BRIDGE

HEAVILY VEGETATED (TREES, BUSHES, WILD GRASS, ETC.)

0+025

PHOTO 7676

PHOTO 7674

0+000

AS CONSTRUCTED NOTES	AS CONSTRUCTED SERVICES	COMPLETION	No.	REVISIONS	DATE	BY	CONSULTANT OR DIVISION	ENGINEER'S STAMP	SCALE	TITLE	PROJECT No.
			1	SITE REVIEW	SEPT 2004	S.J.	Stantec Consulting Ltd. 171 Queens Avenue London ON Canada N6A 5J7 Tel. 519.645.2007 Fax. 519.645.6575 www.stantec.com	UPPER THAMES RIVER CONSERVATION AUTHORITY	1:500	UPPER THAMES RIVER CONSERVATION AUTHORITY FLOOD CONTROL STRUCTURES	SHEET No. 6
										BYRON DYKE	PLAN FILE No.