

**WEST LONDON DYKE**

**Dyke Inspection Sheet**

Dyke: West London Dyke  
Weather: Sunny, 29 °C  
Immediate Action Required •

**Report No.: 1 of 12**

Date: July 12, 2004  
Inspected By: N.Oliveira, S.Jeater  
Further Investigative Work •

General Information	
<p><u>Section Inspected:</u> Complete • Section ✓ Specify: 0+000 to 0+200 m</p>	<p>Overall Condition Rating: 3 (this section only) <b>Comments:</b> Condition rating relates to degree of bulging noted and presence of cracks.</p>
<p><u>Adjacent Property Use:</u> Residential ✓ Parkland • Commercial ✓ Industrial •</p>	<p><b>Comments:</b> Commercial properties from the CN rails (north of Oxford Street) to Oxford Street. Adjacent residential to 0+200 (terminating near the end of Napier Street).</p>
Dyke Facing	
<p><u>Dyke Face Material:</u> Concrete ✓ Gabion •  Earthfill • Other • Specify: <b>Condition Rating:</b> 3 <b>Comments:</b> Dyke face consists of concrete panels. Rough vegetation located north of dyke face on north side of Oxford Street (photo 7913).</p>	<p><u>Structural Condition (Dyke Face):</u> Erosion • Damage (impact, cracks, etc) ✓ Movement (including ✓ Specify type: unevenness, slipping, bulging or slumping) <b>Condition Rating:</b> 2 <b>Comments:</b> Minor cracks and concrete deterioration noted throughout section reviewed. Bulged panel noted near ~St. 0+060 (photo 7923). Approximately 175mm of bulging noted in total. Note additional bulging of panel since placement of joint sealant (likely during repair work). Additional bulged panel noted near top of dyke at St. 0+080 (photo 7927) with noticeable void underneath and signs of granular displacement. <b>Recommendation: Monitoring</b></p>
<p><u>Toe:</u> Toe Protection Material (concrete, gabion, earth or other) Specify: Concrete/dense vegetation Erosion Yes • No ✓ <b>Condition Rating:</b> 4 <b>Comments:</b> Concrete extends to river base. No signs of erosion noted. Thick brush from St. 0+025 to 0+190 blocks concrete apron along toe located at bottom of dyke face (photos 7926 and 7928).</p>	<p><u>Joints:</u> (not applicable to earthfill dykes) Sealant Present Yes ✓ No •  <b>If yes, condition rating: 2</b> Vegetation (in joints) Yes ✓ No • <b>Comments:</b> Partial sealant observed (not in every joint). Sealant observed to be cracked and dry. Sparse to moderate vegetation noted throughout joints of panels to St. 0+200 (photo 7922). Vegetation typically less than 50mm in diameter.</p>
<p><u>Vegetation:</u> None • Full • Partial ✓ Type: Shrubs, bushes, trees, etc. <b>Comments:</b> Vegetation generally well established along toe of dyke from St. 0+025 to 0+190. Moderate vegetation noted along joints, as previously noted.</p>	<p><u>Water Infiltration:</u> (look for where water can leak behind structure) Yes ✓ No • If yes, due to: Joints ✓ Cracks ✓ Liner • Other (specify) • <b>Comments:</b> Water infiltration located beneath Oxford bridge (photo 7916).</p>
<p><u>Additional Information:</u> Access Available Yes ✓ No • <b>Estimated Water Depth:</b> ~1.0m <b>Comments:</b> Access available down the concrete dyke face (approximately 40 degree incline). Concrete retaining wall (toe of dyke) generally allows for access along the bottom of the dyke, however access from St. 0+025 to 0+190 is limited due to dense vegetation present.</p>	
Top of Dyke	
<p><u>Dyke Top Material:</u> Concrete ✓ Asphalt ✓ Earth • Rip Rap •  Other ✓ Specify: Grass <b>Condition Rating:</b> 4 <b>Comments:</b> Generally grass along the top of dyke north of Oxford Street. Concrete sidewalk adjacent to grass from south side of Oxford Street to St. 0+030, then asphalt pathway to 0+200. Minor cracking of asphalt noted near St. 0+040.</p>	<p><u>Structural Condition (Top of Dyke):</u> Erosion (behind wall, etc.) • Damage (vandalism, etc) • Movement (including ✓ Specify type: unevenness, heaving or settlement) <b>Condition Rating:</b> 4 <b>Comments:</b> Some minor cracking of asphalt noted which may be indicative of settlement.</p>
<p><u>Pedestrian Access:</u> Sidewalk • Pathway ✓ None • Other • Specify: If present, width of access way: Approx. 2.0m <b>Condition Rating (if present):</b> 4 <b>Comments:</b> Pathway consists of concrete sidewalk south of Oxford Street to St. 0+030. Asphalt pathway from 0+030 to 0+200. Minor cracking of asphalt noted, as previously discussed.</p>	<p><u>Protective Barrier:</u> Fence • Guard Rail ✓ None • Other • Specify: <b>Condition Rating (if present):</b> 5 <b>Comments:</b> Steel railing north of Oxford Street (rusting noted). Aluminum railing south of Oxford Street to St. 0+200.</p>

Top of Dyke - Continued	
<p><u>Joints</u> : (not applicable to earthfill dykes)            Sealant Present      Yes ✓                      No •  <b>If yes, condition rating:</b> 2            Vegetation (in joints)      Yes •                      No ✓  <b>Comments:</b> Sealant present between edge of top of dyke and incline dyke face (photo 7925). Sealant cracked and separated.</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good ✓    Poor •  <b>Comments:</b> No ponding of water observed along top of dyke.</p>
<p><u>Illumination:</u> (check for lighting present along the top of the dyke)            Yes ✓    No •  <b>Condition Rating:</b> 4  <b>Comments:</b> Light standards located adjacent to asphalt pathway in grassed area.</p>	<p><u>Vegetation:</u>            None •    Full •    Partial ✓            Type: Grass  <b>Comments:</b> Grassed areas observed adjacent to concrete and asphalt pathway.</p>
<p><u>Additional Information:</u>  <b>Comments:</b> Repair areas evident along top of dyke and along pathway (photo 7921).</p>	
Area behind the Dyke (immediately adjacent)	
<p><u>Predominant Material:</u>            Concrete •    Asphalt ✓            Earth •    Grass ✓            Other •    Specify:  <b>Condition Rating:</b> 4  <b>Comments:</b> Predominantly grass located behind pathways. Asphalt (Argyle Street) borders the dyke from St. 0+025 to ~0+100. Primarily grass and vegetation associated with adjacent residential properties from St. 0+100 to 0+200 (near end of St. Patrick Street).</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good ✓    Poor •  <b>Comments:</b>            Are catchbasins present?      Yes ✓    No •  <b>If yes, condition rating:</b> 4  <b>Comments:</b> Catchbasins located along adjacent roadway.</p>
<p><u>Vegetation:</u>            None •    Full •    Partial ✓            Type:  <b>Comments:</b> See above.</p>	<p><u>Accessibility:</u> (check for access areas behind the dyke only)            Sidewalks •      Pathways •      Roads ✓      None ✓  <b>Condition Rating (if present):</b> 5  <b>Comments:</b> Road (Argyle Street) located behind dyke from St. 0+025 to 0+100. Generally no access beyond due to adjacent residential property.</p>
<p><u>Protective Barrier:</u>            Fence ✓      Guard •    None ✓                Rail            Other •    Specify:            If fence, list type and ownership (i.e. private or city): Privacy fencing from St. 0+125 to ~0+175. No railing present elsewhere.  <b>Condition Rating (if present):</b> 4  <b>Comments:</b></p>	<p><u>Illumination:</u> (check for lighting present behind the dyke)            Yes •    No ✓  <b>Condition Rating:</b>  <b>Comments:</b></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: 450mm storm outlet with steel grate at ~St. 0+200 (photo 7933). Apparent sanitary pumping chamber unit in grassed area behind dyke at St. 0+190 (photo 7930). Numerous seepage drains (steel, PVC, etc.) noted along the dyke face (photos 7920 and 7924).  <b>Condition Rating:</b> 4  <b>Comments:</b> No signs of blocks, etc.</p>	<p><u>Outlet:</u> (check for presence of gates or grates at the outlet)            Flap Gate      Yes •    No •            Safety Gate      Yes ✓    No •  <b>Condition Rating:</b> 4  <b>Comments:</b> No damage to steel grating observed.</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 ✓  <b>Comments:</b> No signs of erosion immediately downstream of the outlet structure.</p>	<p><b>General Comments:</b></p>

#### RATING SYSTEM

1	Unsafe Condition	Structure (or element) in very poor or unsafe condition which may pose public safety hazard.
2	Poor Condition	Structure (or element) in poor condition with significant deterioration noted. Significant vegetation growth within element may impact on integrity and may require significant capital cost to bring to fair to poor condition rating. No safety hazard noted.
3	Fair/Poor Condition	Structure (or element) condition varies from fair to poor with some signs of significant deterioration in localized areas. Vegetation growth noted throughout element which, if not controlled, may impact on integrity in the future. Able to perform function, but at reduced capacity.
4	Fair Condition	Structure (or element) in fair condition with no visible signs of significant deterioration. Able to perform intended function with no apparent hindrance.
5	Good Condition	Structure (or element) in good condition with minor deterioration. Able to perform intended function with no apparent hindrance.

**Dyke Inspection Sheet**

Dyke: West London Dyke  
Weather: Sunny, 29 °C  
Immediate Action Required •

**Report No.: 2 of 12**

Date: July 12, 2004  
Inspected By: N.Oliveira, S.Jeater  
Further Investigative Work •

General Information	
<p><u>Section Inspected:</u> Complete • Section ✓ Specify: 0+200 to 0+400 m</p>	<p>Overall Condition Rating: 3 (this section only) <b>Comments:</b> Condition rating relates to degree of bulging noted and presence of cracks.</p>
<p><u>Adjacent Property Use:</u> Residential ✓ Parkland • Commercial • Industrial •</p>	<p><b>Comments:</b> Adjacent properties primarily residential.</p>
Dyke Facing	
<p><u>Dyke Face Material:</u> Concrete ✓ Gabion •  Earthfill • Other • Specify: <b>Condition Rating:</b> 3 <b>Comments:</b> Dyke face consists of concrete panels.</p>	<p><u>Structural Condition (Dyke Face):</u> Erosion • Damage (impact, cracks, etc) ✓ Movement (including unevenness, slipping, bulging or slumping) ✓ Specify type: <b>Condition Rating:</b> 2 <b>Comments:</b> Bulged panel at bottom of dyke with spalled concrete (photo 7935). Second bulged panel at bottom of dyke with approximately 150mm of movement (photo 7939) near St. 0+250. Additional bulging of approximately 4 panels near St. 0+235 (photo 7937). Concrete cracks noted along several panels. Bulged bottom panels near St. 0+270 (photo 7943). Extensive concrete deterioration near St. 0+275 (photo 7944) extending to approximately 25 to 50mm depth. <b>Recommendation: Monitoring</b></p>
<p><u>Toe:</u> Toe Protection Material (concrete, gabion, earth or other) Specify: Concrete Erosion Yes • No ✓ <b>Condition Rating:</b> 4 <b>Comments:</b> Concrete extends to river base. No signs of erosion noted. Large concrete blocks noted along toe from St. 0+220 (photo 7940) onwards.</p>	<p><u>Joints:</u> (not applicable to earthfill dykes) Sealant Present Yes ✓ No • <b>If yes, condition rating:</b> 2 Vegetation (in joints) Yes ✓ No • <b>Comments:</b> Partial sealant observed (not in every joint). Sealant observed to be cracked and dry. Sparse vegetation noted throughout joints of panels (photo 7936). Vegetation typically less than 50mm in diameter.</p>
<p><u>Vegetation:</u> None • Full • Partial ✓ Type: Shrubs, bushes, trees, etc. <b>Comments:</b> Vegetation generally sparse along toe of dyke from St. 0+200 to ~0+265. No substantial vegetation noted along toe of dyke to St. 0+400.</p>	<p><u>Water Infiltration:</u> (look for where water can leak behind structure) Yes ✓ No • If yes, due to: Joints ✓ Cracks • Liner • Other (specify) • <b>Comments:</b> Water infiltration and possible algae growth noted near St. 0+350 (photo 7945). Note the presence of apparent tissue paper in area and leaching of concrete immediately adjacent. Possible cross connection present.</p>
<p><u>Additional Information:</u> Access Available Yes ✓ No • Estimated Water Depth: ~1.0m <b>Comments:</b> Access available down the concrete dyke face (approximately 40 degree incline). Concrete retaining wall (toe of dyke) allows for access along the bottom of the dyke. Repair areas noted along several areas of the dyke face (photo 7937).</p>	
Top of Dyke	
<p><u>Dyke Top Material:</u> Concrete • Asphalt ✓ Earth • Rip Rap •  Other ✓ Specify: Grass <b>Condition Rating:</b> 4 <b>Comments:</b> Asphalt pathway along top of dyke adjacent to grass area.</p>	<p><u>Structural Condition (Top of Dyke):</u> Erosion (behind wall, etc.) • Damage (vandalism, etc) • Movement (including unevenness, heaving or settlement) • Specify type: <b>Condition Rating:</b> 4 <b>Comments:</b> No noticeable signs of structural damage.</p>
<p><u>Pedestrian Access:</u> Sidewalk • Pathway ✓ None • Other • Specify: If present, width of access way: Approx. 1.5m <b>Condition Rating (if present):</b> 4 <b>Comments:</b> Pathway consists of asphalt pathway over section reviewed.</p>	<p><u>Protective Barrier:</u> Fence • Guard Rail ✓ None • Other • Specify: <b>Condition Rating (if present):</b> 4 <b>Comments:</b> Aluminum railing along top of dyke.</p>

Top of Dyke - Continued	
<p><u>Joints</u> : (not applicable to earthfill dykes)            Sealant Present      Yes ✓                      No •  <b>If yes, condition rating:</b> 2            Vegetation (in joints)      Yes •                      No ✓  <b>Comments:</b> Sealant generally present between edge of top of dyke and incline dyke face.</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good ✓    Poor •  <b>Comments:</b> No ponding of water observed along top of dyke.</p>
<p><u>Illumination:</u> (check for lighting present along the top of the dyke)            Yes ✓    No •  <b>Condition Rating:</b> 4  <b>Comments:</b> Light standards located adjacent to asphalt pathway in grassed area.</p>	<p><u>Vegetation:</u>            None •    Full •    Partial ✓            Type: Grass  <b>Comments:</b> Grassed areas observed adjacent to asphalt pathway.</p>
<p><u>Additional Information:</u>  <b>Comments:</b></p>	
Area behind the Dyke (immediately adjacent)	
<p><u>Predominant Material:</u>            Concrete •    Asphalt ✓            Earth •    Grass ✓            Other ✓    Specify: Trees  <b>Condition Rating:</b> 4  <b>Comments:</b> Primarily grass and trees located behind dyke from St. 0+200 to 0+375. Grass and asphalt (Napier Street) borders the dyke from St. 0+375 to the end of the section reviewed.</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good ✓    Poor •  <b>Comments:</b>            Are catchbasins present?      Yes ✓    No •  <b>If yes, condition rating:</b> 4  <b>Comments:</b> Catchbasins located along adjacent roadway.</p>
<p><u>Vegetation:</u>            None •    Full •    Partial ✓            Type:  <b>Comments:</b> See above.</p>	<p><u>Accessibility:</u> (check for access areas behind the dyke only)            Sidewalks •      Pathways •      Roads ✓      None ✓  <b>Condition Rating (if present):</b> 4  <b>Comments:</b> Access via grassed area behind dyke from St. 0+200 to 0+225. Generally no access until St. 0+375 due to adjacent residential properties. Road (Napier Street) located behind dyke from St. 0+375 to 0+400.</p>
<p><u>Protective Barrier:</u>            Fence ✓    Guard •    None ✓                Rail            Other •    Specify:            If fence, list type and ownership (i.e. private or city): Privacy fencing from St. 0+225 to ~0+325. No railing present elsewhere.  <b>Condition Rating (if present):</b> 4  <b>Comments:</b></p>	<p><u>Illumination:</u> (check for lighting present behind the dyke)            Yes •    No ✓  <b>Condition Rating:</b>  <b>Comments:</b></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: Numerous seepage drains noted along the dyke face (photos 7934 and 7946). No outlet structures observed.  <b>Condition Rating:</b> 4  <b>Comments:</b> No signs of blocks, etc.</p>	<p><u>Outlet:</u> (check for presence of gates or grates at the outlet)            Flap Gate      Yes •    No •            Safety Grate      Yes •    No •  <b>Condition Rating:</b>  <b>Comments:</b></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 ✓  <b>Comments:</b> No signs of erosion or concrete damage below outlet.</p>	<p><b>General Comments:</b></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. Significant vegetation growth within element 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. Vegetation growth noted throughout element which, if not controlled, may impact on integrity in the future. 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.  |

## Dyke Inspection Sheet

Dyke: West London Dyke  
Weather: Sunny, 29 °C  
Immediate Action Required •

Report No.: 3 of 12

Date: July 12, 2004  
Inspected By: N.Oliveira, S.Jeater  
Further Investigative Work •

General Information	
<u>Section Inspected:</u> Complete • Section ✓ Specify: <u>0+400</u> to <u>0+600</u> m	Overall Condition Rating: 2 (this section only) <b>Comments:</b> Condition rating relates to degree of bulging noted, presence of extensive areas of concrete delamination and spalling and presence of cracks.
<u>Adjacent Property Use:</u> Residential ✓ Parkland • Commercial • Industrial •	<b>Comments:</b> Adjacent properties consist primarily of residential development.
Dyke Facing	
<u>Dyke Face Material:</u> Concrete ✓ Gabion •  Earthfill • Other • Specify: <b>Condition Rating:</b> 3 <b>Comments:</b> Dyke face consists of concrete panels.	<u>Structural Condition (Dyke Face):</u> Erosion • Damage (impact, cracks, etc) ✓ Movement (including unevenness, slipping, bulging or slumping) ✓ Specify type: <b>Condition Rating:</b> 2 <b>Comments:</b> Bulged panels along top of dyke face near St. 0+450 to 0+470 (photos 7949, 7950 and 7951) with approximately 100 to 150mm of movement and signs of leaching. Approximate 0.6m by 0.6m area of extensive concrete deterioration near bottom of dyke face to a depth of 100mm (photo 7948). Approximate 0.3m by 0.6m area of deteriorated concrete near bottom of dyke face at ~St. 0+485 (photo 7953) extending to a depth of 125mm. Deteriorated and delaminated concrete noted under Blackfriars bridge at St. 0+520 (photo 7954) with exposed rebar. Area of deteriorated concrete measuring 0.9m by 0.9m at St. 0+560 near bottom of dyke face (photo 7958). Spalled and delaminated concrete at St. 0+570 (photo 7956) with exposed rebar (black steel). <b>Recommendation: Monitoring of bulged panels. Additional investigation (i.e. chain drag survey) of deteriorated sections to determine limit of damage.</b>
<u>Toe:</u> Toe Protection Material (concrete, gabion, earth or other) Specify: Concrete/dense vegetation Erosion Yes • No ✓ <b>Condition Rating:</b> 4 <b>Comments:</b> Concrete extends to river base. No signs of erosion noted. Large concrete blocks noted along sections of dyke toe prior to Blackfriars bridge. Rip-rap observed in area of Blackfriars bridge at St. 0+550 to ~0+560. Vegetation becoming dense at toe near St. 0+575 (photo 7959), prohibiting access along bottom of structure.	<u>Joints:</u> (not applicable to earthfill dykes) Sealant Present Yes ✓ No •  <b>If yes, condition rating:</b> 2 Vegetation (in joints) Yes ✓ No • <b>Comments:</b> Partial sealant observed (not in every joint). Sealant observed to be cracked and dry. Sparse vegetation noted throughout joints of panels (photo 7950). Vegetation typically less than 50mm in diameter.
<u>Vegetation:</u> None • Full • Partial ✓ Type: Shrubs, bushes, trees, etc. <b>Comments:</b> Vegetation becoming dense near St. 0+575. No substantial vegetation noted along toe of dyke prior to this station.	<u>Water Infiltration:</u> (look for where water can leak behind structure) Yes • No ✓ If yes, due to: Joints • Cracks • Liner • Other (specify) • <b>Comments:</b> Large gaps noted due to deterioration and uncaulked joints may allow for water infiltration (i.e. rain water, flood levels, etc.).
<u>Additional Information:</u> Access Available Yes ✓ No • <b>Comments:</b> Access available down the concrete dyke face (approximately 40 degree incline), however becoming limited near St. 0+575 due to vegetation present. Different concrete panel style observed starting at Blackfriars bridge. In general, condition of dyke face appeared to be poor, with increased areas of concrete deterioration and bulging noted.	Estimated Water Depth: ~1.0m
Top of Dyke	
<u>Dyke Top Material:</u> Concrete • Asphalt ✓ Earth • Rip Rap •  Other ✓ Specify: Grass <b>Condition Rating:</b> 4 <b>Comments:</b> Asphalt pathway along top of dyke with adjacent grass area.	<u>Structural Condition (Top of Dyke):</u> Erosion (behind wall, etc.) • Damage (vandalism, etc) • Movement (including unevenness, heaving or settlement) • Specify type: <b>Condition Rating:</b> 4 <b>Comments:</b> No noticeable signs of structural damage.
<u>Pedestrian Access:</u> Sidewalk • Pathway ✓ None • Other • Specify: If present, width of access way: Approx. 2.0m <b>Condition Rating (if present):</b> 4 <b>Comments:</b> Pedestrian access consists of asphalt pathway over section reviewed, with exception of Blackfriars Street which is located along the top of dyke from ~St. 0+540 to 0+550.	<u>Protective Barrier:</u> Fence • Guard Rail ✓ None • Other • Specify: <b>Condition Rating (if present):</b> 3 <b>Comments:</b> Aluminum railing along top of dyke from St. 0+400 to Blackfriars bridge near St. 0+540. Steel railing present from St. 0+550 to 0+600. Average rating reflects deficiencies noted along steel railing, primarily rust and cracked paint.

Top of Dyke - Continued	
<p><u>Joints</u> : (not applicable to earthfill dykes)            Sealant Present      Yes ✓                      No •  <b>If yes, condition rating:</b> 2            Vegetation (in joints)      Yes •                      No ✓  <b>Comments:</b> Sealant generally present between edge of top of dyke and incline dyke face from St. 0+400 to 0+540. No sealant present beyond Blackfriars bridge along edge (different style of panel present).</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good ✓                                      Poor •  <b>Comments:</b> No ponding of water observed along top of dyke.</p>
<p><u>Illumination:</u> (check for lighting present along the top of the dyke)            Yes ✓                                      No •  <b>Condition Rating:</b> 4  <b>Comments:</b> Light standards located adjacent to asphalt pathway in grassed area.</p>	<p><u>Vegetation:</u>            None •                                      Full •                                      Partial ✓            Type: Grass  <b>Comments:</b> Grassed areas observed adjacent to asphalt pathway.</p>
<p><u>Additional Information:</u>  <b>Comments:</b></p>	
Area behind the Dyke (immediately adjacent)	
<p><u>Predominant Material:</u>            Concrete •                      Asphalt ✓            Earth •                              Grass ✓            Other ✓                              Specify: Trees  <b>Condition Rating:</b> 4  <b>Comments:</b> Grass and asphalt (Napier Street) borders the dyke from St. 0+400 to ~0+425. Primarily grass adjacent to top of dyke from St. 0+425 to Blackfriars bridge at St. 0+540. Grass and vegetation (trees, shrubs, etc.) from St. 0+550 to 0+600.</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good ✓                                      Poor •  <b>Comments:</b>            Are catchbasins present?      Yes •                                      No ✓  <b>If yes, condition rating:</b>  <b>Comments:</b></p>
<p><u>Vegetation:</u>            None •                                      Full •                                      Partial ✓            Type:  <b>Comments:</b> See above.</p>	<p><u>Accessibility:</u> (check for access areas behind the dyke only)            Sidewalks •      Pathways •      Roads ✓      None ✓  <b>Condition Rating (if present):</b> 4  <b>Comments:</b> Road (Napier Street) located behind dyke from St. 0+400 to 0+425. Access via grassed area behind dyke from St. 0+425 to 0+540. Limited access due to adjacent residential properties from St. 0+550 to 0+600.</p>
<p><u>Protective Barrier:</u>            Fence ✓      Guard Rail •                      None ✓            Other •      Specify:            If fence, list type and ownership (i.e. private or city): Privacy fencing from St. 0+550 to 0+600. No railing present behind the dyke elsewhere.  <b>Condition Rating (if present):</b> 4  <b>Comments:</b></p>	<p><u>Illumination:</u> (check for lighting present behind the dyke)            Yes •                                      No ✓  <b>Condition Rating:</b>  <b>Comments:</b></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: No outlet structures observed.  <b>Condition Rating:</b>  <b>Comments:</b></p>	<p><u>Outlet:</u> (check for presence of gates or grates at the outlet)            Flap Gate      Yes •                                      No •            Safety Gate      Yes •                                      No •  <b>Condition Rating:</b>  <b>Comments:</b></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 •  <b>Comments:</b> Not applicable.</p>	<p><b>General Comments:</b></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. Significant vegetation growth within element 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. Vegetation growth noted throughout element which, if not controlled, may impact on integrity in the future. 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.  |

**Dyke Inspection Sheet**

Dyke: West London Dyke  
Weather: Sunny, 29 °C  
Immediate Action Required •

**Report No.: 4 of 12**

Date: July 12, 2004  
Inspected By: N.Oliveira, S.Jeater  
Further Investigative Work •

General Information	
<p><u>Section Inspected:</u> Complete • Section ✓ Specify: 0+600 to 0+800 m</p>	<p><u>Overall Condition Rating:</u> 2 (this section only) <b>Comments:</b> Poor rating reflects inability to properly assess dyke face and toe due to vegetation overgrowth.</p>
<p><u>Adjacent Property Use:</u> Residential ✓ Parkland • Commercial • Industrial •</p>	<p><b>Comments:</b> Adjacent properties consist primarily of residential development.</p>
Dyke Facing	
<p><u>Dyke Face Material:</u> Concrete ✓ Gabion •  Earthfill • Other ✓ Specify: Rough vegetation (trees, shrubs, etc.)/rip-rap <b>Condition Rating:</b> 3 <b>Comments:</b> Dyke face consists of concrete panels with extensive rough vegetation growth along the bottom of the dyke face and rip-rap (photo 7960).</p>	<p><u>Structural Condition (Dyke Face):</u> Erosion • Damage (impact, cracks, etc) ✓ Movement (including unevenness, slipping, bulging or slumping) ✓ Specify type: <b>Condition Rating:</b> 3 <b>Comments:</b> Earthfill appears to cover bottom portion of dyke face. Fair/poor rating reflects difficulty in visually assessing dyke face due to dense vegetation present (photo 7963). Larger diameter vegetation noted in joints. <b>Recommendation: Remove vegetation along dyke face in order to assess general condition</b></p>
<p><u>Toe:</u> Toe Protection Material (concrete, gabion, earth or other) Specify: Concrete/dense vegetation/rip-rap/earth Erosion Yes • No ✓ <b>Condition Rating:</b> 3 <b>Comments:</b> Combination of concrete and earthfill with dense vegetation over section reviewed. Bottom edge of concrete panel buried by earth/vegetation. No erosion noted.</p>	<p><u>Joints:</u> (not applicable to earthfill dykes) Sealant Present Yes ✓ No • <b>If yes, condition rating:</b> 2 Vegetation (in joints) Yes ✓ No • <b>Comments:</b> Partial sealant observed (not in every joint). Sealant observed to be cracked and dry. Sparse to moderate vegetation noted throughout joints.</p>
<p><u>Vegetation:</u> None • Full ✓ Partial • Type: Shrubs, bushes, trees, etc. <b>Comments:</b> Dense vegetation noted along toe of dyke (photo 7964).</p>	<p><u>Water Infiltration:</u> (look for where water can leak behind structure) Yes • No ✓ If yes, due to: Joints • Cracks • Liner • Other (specify) • <b>Comments:</b> Cracks/deterioration and uncaulked joints may allow for water infiltration.</p>
<p><u>Additional Information:</u> Access Available Yes ✓ No • <u>Estimated Water Depth:</u> ~1.0m <b>Comments:</b> Limited access along dyke face and toe due to excessive vegetation growth.</p>	
Top of Dyke	
<p><u>Dyke Top Material:</u> Concrete • Asphalt ✓ Earth • Rip Rap •  Other ✓ Specify: Grass <b>Condition Rating:</b> 4 <b>Comments:</b> Asphalt pathway along top of dyke with adjacent grass area.</p>	<p><u>Structural Condition (Top of Dyke):</u> Erosion (behind wall, etc.) • Damage (vandalism, etc) • Movement (including unevenness, heaving or settlement) • Specify type: <b>Condition Rating:</b> 4 <b>Comments:</b> No noticeable signs of structural damage.</p>
<p><u>Pedestrian Access:</u> Sidewalk • Pathway ✓ None • Other • Specify: If present, width of access way: Approx. 2.0m <b>Condition Rating (if present):</b> 4 <b>Comments:</b> Pedestrian access consists of asphalt pathway.</p>	<p><u>Protective Barrier:</u> Fence • Guard Rail ✓ None • Other • Specify: <b>Condition Rating (if present):</b> 3 <b>Comments:</b> Steel railing present along top of dyke. Fair/poor rating reflects deficiencies noted along steel railing, primarily damage rails, rust and cracked paint.</p>



Top of Dyke - Continued	
<p><u>Joints</u> : (not applicable to earthfill dykes)            Sealant Present    Yes   •                      No   ✓  <b>If yes, condition rating:</b>            Vegetation (in joints)    Yes   •                      No   ✓  <b>Comments:</b> No sealant present beyond Blackfriars bridge along edge (different style of panel present).</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good   ✓    Poor   •  <b>Comments:</b> No ponding of water observed along top of dyke.</p>
<p><u>Illumination:</u> (check for lighting present along the top of the dyke)            Yes   ✓    No   •  <b>Condition Rating:</b> 4  <b>Comments:</b> Light standards located adjacent to asphalt pathway in grassed area.</p>	<p><u>Vegetation:</u>            None   •    Full   •    Partial   ✓            Type: Grass  <b>Comments:</b> Grassed areas observed adjacent to asphalt pathway.</p>
<p><u>Additional Information:</u>  <b>Comments:</b></p>	
Area behind the Dyke (immediately adjacent)	
<p><u>Predominant Material:</u>            Concrete   •    Asphalt   ✓            Earth   •    Grass   ✓            Other   ✓    Specify:   Trees  <b>Condition Rating:</b> 4  <b>Comments:</b> Grass and asphalt (Napier Street) borders the dyke from St. 0+400 to ~0+425. Primarily grass adjacent to top of dyke from St. 0+425 to Blackfriars bridge at St. 0+540. Grass and vegetation (trees, shrubs, etc.) from St. 0+550 to 0+600.</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good   ✓    Poor   •  <b>Comments:</b>            Are catchbasins present?    Yes   •    No   ✓  <b>If yes, condition rating:</b>  <b>Comments:</b></p>
<p><u>Vegetation:</u>            None   •    Full   •    Partial   ✓            Type:  <b>Comments:</b> See above.</p>	<p><u>Accessibility:</u> (check for access areas behind the dyke only)            Sidewalks   •    Pathways   •    Roads   ✓    None   ✓  <b>Condition Rating (if present):</b> 4  <b>Comments:</b> Limited access due to adjacent residential properties.</p>
<p><u>Protective Barrier:</u>            Fence   ✓    Guard   •    None   ✓                Rail            Other   •    Specify:            If fence, list type and ownership (i.e. private or city): Privacy fencing for adjacent residential properties located intermittently.  <b>Condition Rating (if present):</b> 4  <b>Comments:</b></p>	<p><u>Illumination:</u> (check for lighting present behind the dyke)            Yes   •    No   ✓  <b>Condition Rating:</b>  <b>Comments:</b></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: No outlet structures observed.  <b>Condition Rating:</b>  <b>Comments:</b></p>	<p><u>Outlet:</u> (check for presence of gates or grates at the outlet)            Flap Gate    Yes   •    No   •            Safety Grate    Yes   •    No   •  <b>Condition Rating:</b>  <b>Comments:</b></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   •  <b>Comments:</b> Not applicable.</p>	<p><b>General Comments:</b></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. Significant vegetation growth within element 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. Vegetation growth noted throughout element which, if not controlled, may impact on integrity in the future. 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.  |

## Dyke Inspection Sheet

Dyke: West London Dyke  
Weather: Sunny, 29 °C  
Immediate Action Required •

Report No.: 5 of 12

Date: July 12, 2004  
Inspected By: N.Oliveira, S.Jeater  
Further Investigative Work •

General Information	
<p><u>Section Inspected:</u> Complete • Section ✓ Specify: 0+800 to 1+000 m</p>	<p>Overall Condition Rating: 2 (this section only) <b>Comments:</b> Condition rating relates to sections of bulging noted and areas of concrete deterioration.</p>
<p><u>Adjacent Property Use:</u> Residential ✓ Parkland • Commercial • Industrial •</p>	<p><b>Comments:</b> Adjacent properties consist primarily of residential development.</p>
Dyke Facing	
<p><u>Dyke Face Material:</u> Concrete ✓ Gabion •  Earthfill • Other ✓ Specify: Rough vegetation (trees, shrubs, etc./rip-rap) <b>Condition Rating:</b> 3 <b>Comments:</b> Dyke face consists of concrete panels with extensive rough vegetation growth along the bottom of the dyke face ending near St. 0+875 (photo 7967).</p>	<p><u>Structural Condition (Dyke Face):</u> Erosion • Damage (impact, cracks, etc) ✓ Movement (including unevenness, slipping, bulging or slumping) ✓ Specify type: <b>Condition Rating:</b> 2 <b>Comments:</b> Moderate bulging of top panel near St. 0+820 (photo 7966). Bulging noted near bottom panel at St. 0+850 with extensive concrete deterioration and spalling (photo 7969). Earthfill appears to cover bottom portion of dyke face. Average rating reflects difficulty in visually assessing dyke face due to dense vegetation present (photo 7963). Larger diameter vegetation noted in joints. <b>Recommendation: Monitoring of bulged panels. Additional investigation (i.e. chain drag survey) of deteriorated sections to determine limit of damage.</b></p>
<p><u>Toe:</u> Toe Protection Material (concrete, gabion, earth or other) Specify: Concrete/dense vegetation/earth Erosion Yes • No ✓ <b>Condition Rating:</b> 3 <b>Comments:</b> Combination of concrete and earthfill with dense vegetation up to St. 0+875. Beyond St. 0+875, concrete observed to extend to base of river. No erosion noted.</p>	<p><u>Joints:</u> (not applicable to earthfill dykes) Sealant Present Yes ✓ No • <b>If yes, condition rating:</b> 2 Vegetation (in joints) Yes ✓ No • <b>Comments:</b> Partial sealant observed (not in every joint). Sealant observed to be cracked and dry. Sparse to moderate vegetation noted throughout joints.</p>
<p><u>Vegetation:</u> None • Full ✓ Partial • Type: Shrubs, bushes, trees, etc. <b>Comments:</b> Dense vegetation noted along toe of dyke (photo 7964).</p>	<p><u>Water Infiltration:</u> (look for where water can leak behind structure) Yes • No ✓ <b>If yes, due to:</b> Joints • Cracks • Liner • Other (specify) • <b>Comments:</b> Cracks/deterioration and uncaulked joints may allow for water infiltration.</p>
<p><u>Additional Information:</u> Access Available Yes ✓ No • Estimated Water Depth: ~1.0m <b>Comments:</b> Limited access along dyke face and toe due to excessive vegetation growth.</p>	
Top of Dyke	
<p><u>Dyke Top Material:</u> Concrete • Asphalt ✓ Earth • Rip Rap •  Other ✓ Specify: Grass <b>Condition Rating:</b> 4 <b>Comments:</b> Asphalt pathway along top of dyke with adjacent grass area.</p>	<p><u>Structural Condition (Top of Dyke):</u> Erosion (behind wall, etc.) • Damage (vandalism, etc) • Movement (including unevenness, heaving or settlement) • Specify type: <b>Condition Rating:</b> 4 <b>Comments:</b> No noticeable signs of structural damage.</p>
<p><u>Pedestrian Access:</u> Sidewalk • Pathway ✓ None • Other • Specify: If present, width of access way: Approx. 2.0m <b>Condition Rating (if present):</b> 4 <b>Comments:</b> Pedestrian access consists of asphalt pathway.</p>	<p><u>Protective Barrier:</u> Fence • Guard Rail ✓ None • Other • Specify: <b>Condition Rating (if present):</b> 3 <b>Comments:</b> Steel railing present along top of dyke. Fair/poor rating reflects deficiencies noted along steel railing, primarily damage rails, rust and cracked paint.</p>

Top of Dyke - Continued	
<p><u>Joints</u> : (not applicable to earthfill dykes)            Sealant Present      Yes   •                      No   ✓  <b>If yes, condition rating:</b>            Vegetation (in joints)      Yes   •                      No   ✓  <b>Comments:</b> No sealant evident along top of dyke</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good   ✓    Poor   •  <b>Comments:</b> No ponding of water observed along top of dyke.</p>
<p><u>Illumination:</u> (check for lighting present along the top of the dyke)            Yes   ✓    No   •  <b>Condition Rating:</b> 4  <b>Comments:</b> Light standards located adjacent to asphalt pathway in grassed area.</p>	<p><u>Vegetation:</u>            None   •    Full   •    Partial   ✓            Type: Grass  <b>Comments:</b> Grassed areas observed adjacent to asphalt pathway.</p>
<p><u>Additional Information:</u>  <b>Comments:</b></p>	
Area behind the Dyke (immediately adjacent)	
<p><u>Predominant Material:</u>            Concrete   •    Asphalt   ✓            Earth   •    Grass   ✓            Other   ✓    Specify:   Trees  <b>Condition Rating:</b> 4  <b>Comments:</b> Primarily grass adjacent to top of dyke with intermittent trees.</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good   ✓    Poor   •  <b>Comments:</b>            Are catchbasins present?      Yes   •    No   ✓  <b>If yes, condition rating:</b>  <b>Comments:</b></p>
<p><u>Vegetation:</u>            None   •    Full   •    Partial   ✓            Type:  <b>Comments:</b> See above.</p>	<p><u>Accessibility:</u> (check for access areas behind the dyke only)            Sidewalks   •      Pathways   •      Roads   ✓      None   ✓  <b>Condition Rating (if present):</b> 4  <b>Comments:</b> Limited access due to adjacent residential properties.</p>
<p><u>Protective Barrier:</u>            Fence   ✓      Guard   •    None   ✓                                Rail            Other   •      Specify:            If fence, list type and ownership (i.e. private or city): Privacy fencing for adjacent residential properties located intermittently.  <b>Condition Rating (if present):</b> 4  <b>Comments:</b></p>	<p><u>Illumination:</u> (check for lighting present behind the dyke)            Yes   •    No   ✓  <b>Condition Rating:</b>  <b>Comments:</b></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: Small cast iron discharge drainage pipe observed near St. 0+845 (photo 7968) along the dyke face.  <b>Condition Rating:</b> 3  <b>Comments:</b> No storm or sanitary sewer outlets observed.</p>	<p><u>Outlet:</u> (check for presence of gates or grates at the outlet)            Flap Gate      Yes   •    No   •            Safety Grate      Yes   •    No   •  <b>Condition Rating:</b>  <b>Comments:</b> Not applicable</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   ✓  <b>Comments:</b> Cast iron pipe observed to be plugged.</p>	<p><b>General Comments:</b></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. Significant vegetation growth within element 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. Vegetation growth noted throughout element which, if not controlled, may impact on integrity in the future. 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.  |

## Dyke Inspection Sheet

Dyke: West London Dyke  
Weather: Sunny, 29 °C  
Immediate Action Required •

Report No.: 6 of 12

Date: July 12, 2004  
Inspected By: N.Oliveira, S.Jeater  
Further Investigative Work •

General Information	
<u>Section Inspected:</u> Complete • Section ✓ Specify: 1+000 to 1+200 m	Overall Condition Rating: 3 (this section only) <b>Comments:</b> Condition rating relates to sections of bulging noted and areas of concrete deterioration.
<u>Adjacent Property Use:</u> Residential ✓ Parkland ✓ Commercial • Industrial •	<b>Comments:</b> Adjacent properties consist primarily of residential development to St. 1+050. Labatt Park borders the dyke to St. 1+200.
Dyke Facing	
<u>Dyke Face Material:</u> Concrete ✓ Gabion •  Earthfill • Other • Specify: <b>Condition Rating:</b> 3 <b>Comments:</b> Dyke face consists of concrete panels.	<u>Structural Condition (Dyke Face):</u> Erosion • Damage (impact, cracks, etc) ✓ Movement (including unevenness, slipping, bulging or slumping) ✓ Specify type: <b>Condition Rating:</b> 3 <b>Comments:</b> Longitudinal cracking along bottom four panels of dyke face starting near St. 1+010 (photo 7972). Typical area of deteriorated concrete at St. 1+020 (photo 7973) with void beneath to approximately 150mm. Bulging and cracks noted around steel hatch at St. 1+025 (photo 7975). Approximately 100mm of bulging of middle panels at St. 1+040 (photo 7978). 0.3m by 0.6m area of deterioration along bottom of dyke face at St. 1+120 (photo 7985). Leaching through concrete observed (photo 7981). Spalled concrete observed near St. 1+140 measuring approximately 0.9m by 0.6m in size (approximately 75mm in depth, see photo 7983). Additional deteriorated sections of panel located near toe from ~St. 1+190 to 1+200 (photos 7986 and 7987). Evidence of approximately 400mm of slipping along top panel near St. 1+190 (photo 7999) with exposed rebar and deteriorated concrete. <b>Recommendation: Monitoring of bulged panels. Additional investigation (i.e. chain drag survey) of deteriorated sections to determine limit of damage.</b>
<u>Toe:</u> Toe Protection Material (concrete, gabion, earth or other) Specify: Concrete Erosion Yes • No ✓ <b>Condition Rating:</b> 3 <b>Comments:</b> Concrete observed to extend to base of river. No erosion noted.	<u>Joints:</u> (not applicable to earthfill dykes) Sealant Present Yes ✓ No •  <b>If yes, condition rating:</b> 2 Vegetation (in joints) Yes ✓ No • <b>Comments:</b> Partial sealant observed (not in every joint). Sealant observed to be cracked and dry. Sparse to moderate vegetation noted throughout joints (photo 7977). Vegetation typically less than 50mm in diameter.
<u>Vegetation:</u> None ✓ Full • Partial • Type: <b>Comments:</b> No significant vegetation noted along toe of dyke.	<u>Water Infiltration:</u> (look for where water can leak behind structure) Yes • No ✓ If yes, due to: Joints • Cracks • Liner • Other (specify) • <b>Comments:</b> Cracks/deterioration and uncaulked joints may allow for water infiltration.
<u>Additional Information:</u> Access Available Yes ✓ No • <b>Comments:</b> Access generally available along face and toe of dyke.	Estimated Water Depth: ~1.0m
Top of Dyke	
<u>Dyke Top Material:</u> Concrete • Asphalt ✓ Earth • Rip Rap •  Other ✓ Specify: Grass <b>Condition Rating:</b> 4 <b>Comments:</b> Asphalt pathway along top of dyke with adjacent grass area.	<u>Structural Condition (Top of Dyke):</u> Erosion (behind wall, etc.) • Damage (vandalism, etc) • Movement (including unevenness, heaving or settlement) • Specify type: <b>Condition Rating:</b> 4 <b>Comments:</b> No noticeable signs of structural damage.
<u>Pedestrian Access:</u> Sidewalk • Pathway ✓ None • Other • Specify: If present, width of access way: Approx. 2.0m <b>Condition Rating (if present):</b> 4 <b>Comments:</b> Pedestrian access consists of asphalt pathway.	<u>Protective Barrier:</u> Fence • Guard Rail ✓ None • Other • Specify: <b>Condition Rating (if present):</b> 2 <b>Comments:</b> Steel railing present along top of dyke. Poor rating reflects deficiencies noted along steel railing, primarily damage and broken rails and posts (photos 8000, 8002 and 8003), rust and cracked paint.

Top of Dyke - Continued	
<p><u>Joints</u> : (not applicable to earthfill dykes)            Sealant Present    Yes    •    No    ✓  <b>If yes, condition rating:</b>            Vegetation (in joints)    Yes    •    No    ✓  <b>Comments:</b> No sealant evident along top of dyke</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good    ✓    Poor    •  <b>Comments:</b> No ponding of water observed along top of dyke.</p>
<p><u>Illumination:</u> (check for lighting present along the top of the dyke)            Yes    ✓    No    •  <b>Condition Rating:</b> 4  <b>Comments:</b> Light standards located adjacent to asphalt pathway in grassed area.</p>	<p><u>Vegetation:</u>            None    •    Full    •    Partial    ✓            Type: Grass  <b>Comments:</b> Grassed areas observed adjacent to asphalt pathway.</p>
<p><u>Additional Information:</u>  <b>Comments:</b></p>	
Area behind the Dyke (immediately adjacent)	
<p><u>Predominant Material:</u>            Concrete    •    Asphalt    ✓            Earth    •    Grass    ✓            Other    ✓    Specify:    Trees  <b>Condition Rating:</b> 4  <b>Comments:</b> Primarily grass adjacent to top of dyke with intermittent trees.</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good    ✓    Poor    •  <b>Comments:</b>            Are catchbasins present?    Yes    •    No    ✓  <b>If yes, condition rating:</b>  <b>Comments:</b></p>
<p><u>Vegetation:</u>            None    •    Full    •    Partial    ✓            Type:  <b>Comments:</b> See above.</p>	<p><u>Accessibility:</u> (check for access areas behind the dyke only)            Sidewalks    •    Pathways    •    Roads    ✓    None    ✓  <b>Condition Rating (if present):</b> 4  <b>Comments:</b> Limited access due to adjacent residential properties.</p>
<p><u>Protective Barrier:</u>            Fence    ✓    Guard    •    None    ✓                                             Rail            Other    •    Specify:            If fence, list type and ownership (i.e. private or city): Privacy fencing for adjacent residential properties located intermittently.  <b>Condition Rating (if present):</b> 4  <b>Comments:</b></p>	<p><u>Illumination:</u> (check for lighting present behind the dyke)            Yes    •    No    ✓  <b>Condition Rating:</b>  <b>Comments:</b></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: 600mm storm outlet with steel grate at ~St. 1+020 (photo 7974). 300mm PVC storm outlet with flap gate at St. 1+110 (photos 7979 and 7980).  <b>Condition Rating:</b> 3  <b>Comments:</b> Steel access hatch located above 600mm storm outlet structure near top of dyke face (photo 7975).</p>	<p><u>Outlet:</u> (check for presence of gates or grates at the outlet)            Flap Gate    Yes    ✓    No    •            Safety Gate    Yes    ✓    No    •  <b>Condition Rating:</b> 3  <b>Comments:</b> Average rating reflects damaged gasket noted along flap gate structure (photo 7979) which may prevent proper sealing.</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    ✓  <b>Comments:</b></p>	<p><b>General Comments:</b></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. Significant vegetation growth within element 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. Vegetation growth noted throughout element which, if not controlled, may impact on integrity in the future. 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.  |

**Dyke Inspection Sheet**

Dyke: West London Dyke  
Weather: Sunny, 29 °C  
Immediate Action Required •

**Report No.: 7 of 12**

Date: July 12 and August 17, 2004  
Inspected By: N.Oliveira, S.Jeater  
Further Investigative Work •

General Information	
<p><u>Section Inspected:</u> Complete • Section ✓ Specify: <u>1+200</u> to <u>1+400</u> m</p>	<p><u>Overall Condition Rating:</u> 1 (this section only) <b>Comments:</b> Condition rating relates primarily to potential safety hazard due to rebar exposure and extensive areas of deterioration and granular loss.</p>
<p><u>Adjacent Property Use:</u> Residential • Parkland ✓ Commercial • Industrial •</p>	<p><b>Comments:</b> Labatt Park borders the dyke from St. 1+200 to 1+300. The Queens Avenue bridge and Riverside bridge are located adjacent to the dyke from St. 1+300 to 1+350. City of London parkland is located from 1+350 to 1+400.</p>
Dyke Facing	
<p><u>Dyke Face Material:</u> Concrete ✓ Gabion ✓  Earthfill ✓ Other ✓ Specify: Rough vegetation (trees, shrubs, etc.)/concrete rubble/granular</p> <p><b>Condition Rating:</b> 2 <b>Comments:</b> Dyke face consists of concrete panels from St. 1+200 to ~1+325 (onset of Riverside bridge). Granular and concrete rubble typical under Riverside bridge (photos 8529 and 8530) extending to St. 1+360. Primarily heavy vegetated dyke face with gabion basket flood wall starting at St. 1+360 (photo 8533)</p>	<p><u>Structural Condition (Dyke Face):</u> Erosion • Damage (impact, cracks, etc) ✓ Movement (including unevenness, slipping, bulging or slumping) ✓ Specify type: <b>Condition Rating:</b> 1 <b>Comments:</b> Approximate 0.6m by 1.2m area of deteriorated concrete with 675mm void underneath at St. 1+225 (photos 7988, 7989 and 7990). Additional 1.2m by 4.5m area of delaminated concrete with exposed rebar at St. 1+300 (photos 7994 and 7995) with void areas varying between 675 to 800mm below concrete. Delaminated concrete with exposed rebar mesh near St. 1+290, adjacent to embankment (photos 7992 and 7993). Sections of rebar observed to be extended from dyke face near St. 1+290. No noticeable signs of erosion or movement along earthfill dyke face, nor damage noted along gabion basket. <b>Recommendations:</b> Make safe the exposed rebar (i.e. cut or bend and cover, etc.). Monitor bulged panels and cracks. Investigate possible impacts on bridge due to deterioration along embankment. Additional investigation (i.e. chain drag survey) of deteriorated sections to determine limit of damage.</p>
<p><u>Toe:</u> Toe Protection Material (concrete, gabion, earth or other) Specify: Concrete/concrete rubble and granular/gabion basket Erosion Yes • No ✓ <b>Condition Rating:</b> 3 <b>Comments:</b> Concrete observed to extend to base of river to St. 1+325. Concrete rubble and granular material along toe to St. 1+360. Gabion basket extends to the toe of the dyke from St. 1+360 onwards. No erosion noted.</p>	<p><u>Joints:</u> (not applicable to earthfill dykes) Sealant Present Yes ✓ No • <b>If yes, condition rating:</b> 2 Vegetation (in joints) Yes ✓ No • <b>Comments:</b> Relates to concrete panel section only (St. 1+200 to 1+325). Partial sealant observed (not in every joint). Sealant observed to be cracked and dry. Sparse to moderate vegetation noted throughout joints.</p>
<p><u>Vegetation:</u> None ✓ Full • Partial • Type: <b>Comments:</b> No significant vegetation noted along toe of dyke.</p>	<p><u>Water Infiltration:</u> (look for where water can leak behind structure) Yes • No ✓ <b>If yes, due to:</b> Joints • Cracks • Liner • Other (specify) • <b>Comments:</b> Cracks/deterioration and uncaulked joints may allow for water infiltration along concrete section of dyke.</p>
<p><u>Additional Information:</u> Access Available Yes ✓ No • <b>Estimated Water Depth:</b> ~0.9m <b>Comments:</b> Access generally available along face and toe of dyke to St. 1+340. Accessibility varies onwards due to presence of vegetation.</p>	
Top of Dyke	
<p><u>Dyke Top Material:</u> Concrete • Asphalt ✓ Earth • Rip Rap •  Other ✓ Specify: Grass/rough vegetation</p> <p><b>Condition Rating:</b> 4 <b>Comments:</b> Asphalt pathway along top of dyke with adjacent grass area to St. 1+300. Primarily grass from St. 1+315 to 1+330. Becoming manicured grass with asphalt (pathway) from St. 1+350 onwards.</p>	<p><u>Structural Condition (Top of Dyke):</u> Erosion (behind wall, etc.) • Damage (vandalism, etc) • Movement (including unevenness, heaving or settlement) • Specify type: <b>Condition Rating:</b> 4 <b>Comments:</b> No noticeable signs of structural damage.</p>
<p><u>Pedestrian Access:</u> Sidewalk • Pathway ✓ None • Other • Specify: <b>If present, width of access way:</b> Approx. 2.0 to 3.0m <b>Condition Rating (if present):</b> 4 <b>Comments:</b> Pedestrian access consists of asphalt pathway over the majority of the section reviewed.</p>	<p><u>Protective Barrier:</u> Fence • Guard Rail ✓ None ✓ Other • Specify: <b>Condition Rating (if present):</b> 2 <b>Comments:</b> Steel railing present along top of dyke up to St. 1+300. Poor rating reflects deficiencies noted along steel railing, primarily damage and broken rails and posts (photo 8527), rust and cracked paint. No other protective barrier observed.</p>

Top of Dyke - Continued	
<p><u>Joints</u> : (not applicable to earthfill dykes)            Sealant Present      Yes   •                      No   ✓  <b>If yes, condition rating:</b>            Vegetation (in joints)      Yes   •                      No   ✓  <b>Comments:</b> No sealant evident along top of dyke (concrete section only).</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good   ✓    Poor   •  <b>Comments:</b> No ponding of water observed along top of dyke.</p>
<p><u>Illumination:</u> (check for lighting present along the top of the dyke)            Yes   ✓    No   •  <b>Condition Rating:</b> 4  <b>Comments:</b> Light standards located adjacent to asphalt pathway in grassed area.</p>	<p><u>Vegetation:</u>            None   •    Full   •    Partial   ✓            Type: Grass  <b>Comments:</b> Grassed areas observed adjacent to asphalt pathway.</p>
<p><u>Additional Information:</u>  <b>Comments:</b></p>	
Area behind the Dyke (immediately adjacent)	
<p><u>Predominant Material:</u>            Concrete   •    Asphalt   •            Earth   •    Grass   ✓            Other   ✓    Specify:   Trees  <b>Condition Rating:</b> 4  <b>Comments:</b> Primarily grass adjacent to top of dyke with intermittent trees.</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good   ✓    Poor   •  <b>Comments:</b>            Are catchbasins present?      Yes   •    No   ✓  <b>If yes, condition rating:</b>  <b>Comments:</b></p>
<p><u>Vegetation:</u>            None   •    Full   •    Partial   ✓            Type:  <b>Comments:</b> See above.</p>	<p><u>Accessibility:</u> (check for access areas behind the dyke only)            Sidewalks   •      Pathways   •      Roads   •      None   ✓  <b>Condition Rating (if present):</b> 4  <b>Comments:</b> No constructed pathways are present in the general area behind the dyke, however areas are generally accessible (with exception of area of dyke intersected by Queens Avenue and Riverside Drive).</p>
<p><u>Protective Barrier:</u>            Fence   ✓    Guard   •    None   ✓                Rail            Other   •    Specify:            If fence, list type and ownership (i.e. private or city): Fence (City owned) located from St. 1+200 to 1+275 separating park area from Labatt Park. No protective barrier present over remainder of section reviewed.  <b>Condition Rating (if present):</b> 4  <b>Comments:</b></p>	<p><u>Illumination:</u> (check for lighting present behind the dyke)            Yes   •    No   ✓  <b>Condition Rating:</b>  <b>Comments:</b></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: Sanitary manhole structure observed near toe of dyke at St. 1+370 (photo 8534).  <b>Condition Rating:</b> 4  <b>Comments:</b> No outlets observed over the section reviewed.</p>	<p><u>Outlet:</u> (check for presence of gates or grates at the outlet)            Flap Gate      Yes   •    No   •            Safety Gate      Yes   •    No   •  <b>Condition Rating:</b>  <b>Comments:</b> Not applicable</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   •  <b>Comments:</b> Not applicable.</p>	<p><b>General Comments:</b></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. Significant vegetation growth within element (applicable to concrete structure only) 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. Vegetation growth noted throughout element which (applicable to concrete structure only), if not controlled, may impact on integrity in the future. 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.  |

## Dyke Inspection Sheet

Dyke: West London Dyke  
Weather: Sunny, 25 °C  
Immediate Action Required •

Report No.: 8 of 12

Date: August 17, 2004  
Inspected By: N.Oliveira  
Further Investigative Work •

General Information	
<u>Section Inspected:</u> Complete • Section ✓ Specify: 1+400 to 1+600 m	Overall Condition Rating: 4 (this section only) <b>Comments:</b> Well established vegetation noted. Gabion basket appears to be in good condition.
<u>Adjacent Property Use:</u> Residential • Parkland ✓ Commercial • Industrial •	<b>Comments:</b> Parkland borders the dyke over the section reviewed.
Dyke Facing	
<u>Dyke Face Material:</u> Concrete • Gabion ✓  Earthfill ✓ Other ✓ Specify: Rough vegetation (trees, shrubs, etc.)  <b>Condition Rating:</b> 4 <b>Comments:</b> Dyke face consists primarily of moderate to dense vegetation on gabion basket flood wall.	<u>Structural Condition (Dyke Face):</u> Erosion • Damage (impact, cracks, etc) • Movement (including unevenness, slipping, bulging or slumping) • Specify type: <b>Condition Rating:</b> 4 <b>Comments:</b> No signs of structural damage noted, however a few areas could not be accessed due to dense vegetation present.
<u>Toe:</u> Toe Protection Material (concrete, gabion, earth or other) Specify: Gabion basket Erosion Yes • No ✓ <b>Condition Rating:</b> 3 <b>Comments:</b> Gabion basket extends to the toe of the dyke.	<u>Joints:</u> (not applicable to earthfill dykes) Sealant Present Yes • No •  <b>If yes, condition rating:</b> Vegetation (in joints) Yes • No • <b>Comments:</b> Not applicable.
<u>Vegetation:</u> None • Full ✓ Partial • Type: Trees, shrubs, wild grass, etc. <b>Comments:</b> Vegetation well established.	<u>Water Infiltration:</u> (look for where water can leak behind structure) Yes • No ✓ If yes, due to: Joints • Cracks • Liner • Other (specify) • <b>Comments:</b>
<u>Additional Information:</u> Access Available Yes ✓ No • <b>Comments:</b> Access generally available along face and toe of dyke. Accessibility limited in some areas due to presence of vegetation.	Estimated Water Depth: ~0.9m
Top of Dyke	
<u>Dyke Top Material:</u> Concrete • Asphalt ✓ Earth • Rip Rap •  Other ✓ Specify: Grass/rough vegetation  <b>Condition Rating:</b> 4 <b>Comments:</b> Asphalt pathway along top of dyke with adjacent grass area.	<u>Structural Condition (Top of Dyke):</u> Erosion (behind wall, etc.) • Damage (vandalism, etc) • Movement (including unevenness, heaving or settlement) • Specify type:  <b>Condition Rating:</b> 4 <b>Comments:</b> No noticeable signs of structural damage.
<u>Pedestrian Access:</u> Sidewalk • Pathway ✓ None • Other • Specify: If present, width of access way: Approx. 2.0 to 3.0m <b>Condition Rating (if present):</b> 4 <b>Comments:</b> Pedestrian access consists of asphalt pathway over the section reviewed (photo 8538).	<u>Protective Barrier:</u> Fence • Guard Rail • None ✓ Other • Specify: <b>Condition Rating (if present):</b> <b>Comments:</b> No protective barrier observed.



Top of Dyke - Continued	
<u>Joints</u> : (not applicable to earthfill dykes) Sealant Present      Yes •                      No • <b>If yes, condition rating:</b> Vegetation (in joints)      Yes •                      No • <b>Comments:</b> Not applicable.	<u>Drainage Conditions:</u> (ponding or low areas present) Good      ✓                      Poor • <b>Comments:</b> No ponding of water observed along top of dyke.
<u>Illumination:</u> (check for lighting present along the top of the dyke) Yes      ✓                      No • <b>Condition Rating:</b> 4 <b>Comments:</b> Light standards located adjacent to asphalt pathway in grassed area.	<u>Vegetation:</u> None •                      Full •                      Partial      ✓ Type: Grass <b>Comments:</b> Grassed areas observed adjacent to asphalt pathway.
<u>Additional Information:</u> <b>Comments:</b> Generally manicured grass adjacent to an asphalt pedestrian pathway along entire length of dyke reviewed.	
Area behind the Dyke (immediately adjacent)	
<u>Predominant Material:</u> Concrete •                      Asphalt • Earth •                      Grass      ✓ Other      ✓                      Specify:      Trees, bushes, etc. <b>Condition Rating:</b> 4 <b>Comments:</b> Primarily grass adjacent to top of dyke with intermittent trees. Heavier vegetation noted near St. 1+525 to 1+550.	<u>Drainage Conditions:</u> (ponding or low areas present) Good                      ✓                      Poor • <b>Comments:</b> Are catchbasins present?      Yes •                      No      ✓ <b>If yes, condition rating:</b> <b>Comments:</b>
<u>Vegetation:</u> None •                      Full •                      Partial      ✓ Type: <b>Comments:</b> See above.	<u>Accessibility:</u> (check for access areas behind the dyke only) Sidewalks •      Pathways •      Roads •      None      ✓ <b>Condition Rating (if present):</b> 4 <b>Comments:</b> No constructed pathways are present in the general area behind the dyke, however areas are generally accessible via manicured grass sections.
<u>Protective Barrier:</u> Fence •                      Guard •                      Rail                      None      ✓ Other •                      Specify: If fence, list type and ownership (i.e. private or city): <b>Condition Rating (if present):</b> <b>Comments:</b>	<u>Illumination:</u> (check for lighting present behind the dyke) Yes •                      No      ✓ <b>Condition Rating:</b> <b>Comments:</b>
Storm Sewers/Sanitary Sewers/Outlet Structures	
Yes      ✓                      No •      (if no, proceed to next section) If yes, type of structure (i.e. outlet, headwall, drainage pipe, channel or flush): Specify: Sanitary manhole structure observed near toe of dyke at St. 1+525 (photo 8539). <b>Condition Rating:</b> 4 <b>Comments:</b> No outlets observed over the section reviewed.	<u>Outlet:</u> (check for presence of gates or grates at the outlet) Flap Gate      Yes •                      No • Safety Grate      Yes •                      No • <b>Condition Rating:</b> <b>Comments:</b> Not applicable
<u>Outlet Flow:</u> (check for condition of channel downstream from pipe, obstructions within pipe, etc.) Obstructions                      Yes •                      No • Downstream Erosion      Yes •                      No • <b>Comments:</b> Not applicable.	<b>General Comments:</b>

**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.  |

## Dyke Inspection Sheet

Dyke: West London Dyke  
Weather: Sunny, 25 °C  
Immediate Action Required •

Report No.: 9 of 12

Date: August 17, 2004  
Inspected By: N.Oliveira  
Further Investigative Work •

General Information	
<u>Section Inspected:</u> Complete • Section ✓ Specify: <u>1+600</u> to <u>1+800</u> m	Overall Condition Rating: 1 (this section only) <b>Comments:</b> Well established vegetation noted. Unsafe rating relates to proximity of steep side slopes to pedestrian pathways. Damaged gabion basket observed near St. 1+615.
<u>Adjacent Property Use:</u> Residential • Parkland ✓ Commercial ✓ Industrial •	<b>Comments:</b> Commercial properties border the dyke from St. 1+600 to 1+725 with parkland beyond.
Dyke Facing	
<u>Dyke Face Material:</u> Concrete • Gabion ✓  Earthfill ✓ Other ✓ Specify: Rough vegetation (trees, shrubs, etc.)  <b>Condition Rating:</b> 4 <b>Comments:</b> Dyke face consists primarily of moderate to dense vegetation on gabion basket flood wall.	<u>Structural Condition (Dyke Face):</u> Erosion • Damage (impact, cracks, etc) ✓ Movement (including unevenness, slipping, bulging or slumping) • Specify type: <b>Condition Rating:</b> 3 <b>Comments:</b> Damaged gabion basket (wire mesh) and loss of stones into river bed at St. 1+615 (photo 8544). Damaged area measuring approximately 1.2m by 0.6m. <b>Recommendation: Repair gabion basket.</b>
<u>Toe:</u> Toe Protection Material (concrete, gabion, earth or other) Specify: Gabion basket Erosion Yes • No ✓ <b>Condition Rating:</b> 3 <b>Comments:</b> Gabion basket extends to the toe of the dyke.	<u>Joints:</u> (not applicable to earthfill dykes) Sealant Present Yes • No •  <b>If yes, condition rating:</b> Vegetation (in joints) Yes • No • <b>Comments:</b> Not applicable.
<u>Vegetation:</u> None • Full ✓ Partial • Type: Trees, shrubs, wild grass, etc. <b>Comments:</b> Vegetation well established.	<u>Water Infiltration:</u> (look for where water can leak behind structure) Yes • No ✓ If yes, due to: Joints • Cracks • Liner • Other (specify) • <b>Comments:</b>
<u>Additional Information:</u> Access Available Yes ✓ No • <b>Estimated Water Depth:</b> ~0.9m <b>Comments:</b> Access generally available along face and toe of dyke. Accessibility limited in some areas due to presence of vegetation. Steep slopes along dyke face from ~St. 1+625 onwards (becoming flat towards toe with wild grass and sparse vegetation, see photo 8545 and 8549).	
Top of Dyke	
<u>Dyke Top Material:</u> Concrete • Asphalt ✓ Earth • Rip Rap •  Other ✓ Specify: Grass <b>Condition Rating:</b> 4 <b>Comments:</b> Asphalt pathway along top of dyke with adjacent grass area.	<u>Structural Condition (Top of Dyke):</u> Erosion (behind wall, etc.) • Damage (vandalism, etc) • Movement (including unevenness, heaving or settlement) • Specify type: <b>Condition Rating:</b> 4 <b>Comments:</b> No noticeable signs of structural damage.
<u>Pedestrian Access:</u> Sidewalk • Pathway ✓ None • Other • Specify: If present, width of access way: Approx. 2.0 to 4.0m <b>Condition Rating (if present):</b> 1 <b>Comments:</b> Pedestrian access consists of asphalt pathway over the section reviewed (photo 8550). Note that asphalt pathway noted is immediately adjacent to steep side slopes along the dyke face (photo 8551). Poor rating denotes potential safety hazard due to steep slopes.	<u>Protective Barrier:</u> Fence • Guard Rail • None ✓ Other • Specify: <b>Condition Rating (if present):</b> <b>Comments:</b> No protective barrier observed. Edge of pathway in close proximity to steep side slopes of dyke face.

Top of Dyke - Continued	
<u>Joints</u> : (not applicable to earthfill dykes) Sealant Present      Yes   •      No   • <b>If yes, condition rating:</b> Vegetation (in joints)      Yes   •      No   • <b>Comments:</b> Not applicable.	<u>Drainage Conditions:</u> (ponding or low areas present) Good      ✓      Poor   • <b>Comments:</b> No ponding of water observed along top of dyke.
<u>Illumination:</u> (check for lighting present along the top of the dyke) Yes   ✓      No   • <b>Condition Rating:</b> 4 <b>Comments:</b> Light standards located adjacent to asphalt pathway in grassed area.	<u>Vegetation:</u> None   •      Full   •      Partial   ✓ Type: Grass <b>Comments:</b> Grassed areas observed adjacent to asphalt pathway.
<u>Additional Information:</u> <b>Comments:</b> Generally manicured grass adjacent to an asphalt pedestrian pathway along entire length of dyke reviewed.	
Area behind the Dyke (immediately adjacent)	
<u>Predominant Material:</u> Concrete   •      Asphalt   ✓ Earth   •      Grass   ✓ Other   ✓      Specify:   Trees	<u>Drainage Conditions:</u> (ponding or low areas present) Good      ✓      Poor   • <b>Comments:</b> Are catchbasins present?      Yes   •      No   ✓ <b>If yes, condition rating:</b> <b>Comments:</b>
<u>Condition Rating:</u> 4 <b>Comments:</b> Primarily grass adjacent to top of dyke with intermittent trees. Asphalt parking area located behind dyke from St. 1+650 to 1+725.	<u>Vegetation:</u> None   •      Full   •      Partial   ✓ Type: <b>Comments:</b> See above.
<u>Accessibility:</u> (check for access areas behind the dyke only) Sidewalks   •      Pathways   •      Roads   •      None   ✓ <b>Condition Rating (if present):</b> 4 <b>Comments:</b> No constructed pathways are present in the general area behind the dyke, however areas are generally accessible via manicured grass sections.	<u>Protective Barrier:</u> Fence   •      Guard   •      None   ✓ Rail Other   •      Specify: If fence, list type and ownership (i.e. private or city): <b>Condition Rating (if present):</b> <b>Comments:</b>
<u>Illumination:</u> (check for lighting present behind the dyke) Yes   •      No   ✓ <b>Condition Rating:</b> <b>Comments:</b>	<b>Storm Sewers/Sanitary Sewers/Outlet Structures</b>
Yes   ✓      No   • (if no, proceed to next section) If yes, type of structure (i.e. outlet, headwall, drainage pipe, channel or flush): Specify: Sanitary manhole structure observed near toe of dyke at St. 1+525 (photo 8547). <b>Condition Rating:</b> 4 <b>Comments:</b> No outlets observed over the section reviewed.	<u>Outlet:</u> (check for presence of gates or grates at the outlet) Flap Gate      Yes   •      No   • Safety Grate      Yes   •      No   • <b>Condition Rating:</b> <b>Comments:</b> Not applicable
<u>Outlet Flow:</u> (check for condition of channel downstream from pipe, obstructions within pipe, etc.) Obstructions      Yes   •      No   • Downstream Erosion      Yes   •      No   • <b>Comments:</b> Not applicable.	<b>General Comments:</b>

**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.  |

## Dyke Inspection Sheet

Dyke: West London Dyke  
Weather: Sunny, 29 °C  
Immediate Action Required •

Report No.: 10 of 12

Date: August 17, 2004  
Inspected By: N.Oliveira  
Further Investigative Work •

General Information	
<u>Section Inspected:</u> Complete • Section ✓ Specify: <u>1+800</u> to <u>2+000</u> m	Overall Condition Rating: 3 (this section only) <b>Comments:</b> Condition rating relates to sections of extensive concrete deterioration noted and heavy vegetation along panel joints and through cracks.
<u>Adjacent Property Use:</u> Residential ✓ Parkland • Commercial • Industrial •	<b>Comments:</b> With exception of Wharncliffe Road bridge between St. 1+815 to 1+830, adjacent properties are primarily residential.
Dyke Facing	
<u>Dyke Face Material:</u> Concrete ✓ Gabion •  Earthfill • Other ✓ Specify: Rough vegetation (shrubs, etc.)  <b>Condition Rating:</b> 3 <b>Comments:</b> Dyke face consists primarily of moderate to dense vegetation to St. 1+815. Concrete panels along dyke face from St. 1+815 onwards (see photo 8564).	<u>Structural Condition (Dyke Face):</u> Erosion • Damage (impact, cracks, etc) ✓ Movement (including unevenness, slipping, bulging or slumping) ✓ Specify type: <b>Condition Rating:</b> 3 <b>Comments:</b> Deteriorated section along concrete panel observed near St. 1+830 (photo 8561) with additional signs of leaching in general area (photo 8563). Bulging of panel also noted, measuring approximately 50mm in movement (photo 8562). Additional areas of concrete deterioration measuring ~2.4m by 0.6m (photo 8570) along bottom panel of dyke face. Delaminated concrete with exposed rebar mesh at St. 1+860 (photo 8559) along spillway of storm outlet. Several longitudinal and transverse cracks noted along dyke face with vegetation throughout (photo 8571). Large crack along middle panel near end of concrete dyke section at St. 2+000 (photo 8582). <b>Recommendation: Monitoring of bulged panels and cracks. Additional investigation (i.e. chain drag survey) of deteriorated sections to determine limit of damage.</b>
<u>Toe:</u> Toe Protection Material (concrete, gabion, earth or other) Specify: Concrete, soil and concrete rubble Erosion Yes • No ✓ <b>Condition Rating:</b> 3 <b>Comments:</b> Predominately soil with concrete rubble to St. 1+830. Concrete extends to toe over remainder of section reviewed.	<u>Joints:</u> (not applicable to earthfill dykes) Sealant Present Yes ✓ No •  <b>If yes, condition rating:</b> 2 Vegetation (in joints) Yes ✓ No • <b>Comments:</b> Partial sealant observed (not in every joint). Sealant observed to be cracked and dry. Sparse to moderate vegetation noted throughout joints.
<u>Vegetation:</u> None ✓ Full • Partial • Type: <b>Comments:</b> No significant vegetation noted along toe of dyke.	<u>Water Infiltration:</u> (look for where water can leak behind structure) Yes • No ✓ If yes, due to: Joints • Cracks • Liner • Other (specify) • <b>Comments:</b> Cracks/deterioration and uncaulked joints may allow for water infiltration.
<u>Additional Information:</u> Access Available Yes ✓ No • <b>Comments:</b> Access generally available along face and toe of dyke.	<b>Estimated Water Depth:</b> ~1.0m
Top of Dyke	
<u>Dyke Top Material:</u> Concrete • Asphalt ✓ Earth • Rip Rap •  Other ✓ Specify: Grass <b>Condition Rating:</b> 4 <b>Comments:</b> Asphalt along top of dyke from St. 1+815 to 1+830 (Wharncliffe Road). Primarily a mix of grass and rough vegetation along top of dyke from St. 1+830 onwards (photo 8556).	<u>Structural Condition (Top of Dyke):</u> Erosion (behind wall, etc.) • Damage (vandalism, etc) • Movement (including unevenness, heaving or settlement) • Specify type: <b>Condition Rating:</b> 4 <b>Comments:</b> No noticeable signs of structural damage.
<u>Pedestrian Access:</u> Sidewalk • Pathway ✓ None • Other • Specify: If present, width of access way: varies <b>Condition Rating (if present):</b> 3 <b>Comments:</b> Traveled earth pathway along top of dyke.	<u>Protective Barrier:</u> Fence • Guard Rail ✓ None • Other • Specify: <b>Condition Rating (if present):</b> 2 <b>Comments:</b> Steel railing present along top of dyke from St. 1+800 to 1+815 and again from St. 1+830 onwards. Poor rating reflects deficiencies noted along steel railing.

Top of Dyke - Continued	
<p><u>Joints</u> : (not applicable to earthfill dykes)            Sealant Present      Yes   •                      No   ✓  <b>If yes, condition rating:</b>            Vegetation (in joints)      Yes   •                      No   ✓  <b>Comments:</b> No sealant along top of dyke.</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good   ✓    Poor   •  <b>Comments:</b> No ponding of water observed along top of dyke.</p>
<p><u>Illumination:</u> (check for lighting present along the top of the dyke)            Yes   •    No   ✓  <b>Condition Rating:</b>  <b>Comments:</b> Only limited lighting available along top of dyke from St. 1+800 to 1+815. No lighting available along top of dyke for remainder of section reviewed.</p>	<p><u>Vegetation:</u>            None   •    Full   ✓    Partial   •            Type: Grass, rough vegetation.  <b>Comments:</b> Grassed areas with rough vegetation observed along the top of dyke.</p>
<p><u>Additional Information:</u>  <b>Comments:</b></p>	
Area behind the Dyke (immediately adjacent)	
<p><u>Predominant Material:</u>            Concrete   •    Asphalt   ✓            Earth   •    Grass   ✓            Other   ✓    Specify:   Trees  <b>Condition Rating:</b> 4  <b>Comments:</b> Primarily grass adjacent to top of dyke with rough vegetation</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good   ✓    Poor   •  <b>Comments:</b>            Are catchbasins present?      Yes   •    No   ✓  <b>If yes, condition rating:</b>  <b>Comments:</b></p>
<p><u>Vegetation:</u>            None   •    Full   •    Partial   ✓            Type:  <b>Comments:</b> See above.</p>	<p><u>Accessibility:</u> (check for access areas behind the dyke only)            Sidewalks   •      Pathways   •      Roads   •      None   ✓  <b>Condition Rating (if present):</b>  <b>Comments:</b></p>
<p><u>Protective Barrier:</u>            Fence   ✓    Guard   •    None   ✓                Rail            Other   •    Specify:            If fence, list type and ownership (i.e. private or city): Privacy fencing for adjacent residential properties located intermittently.  <b>Condition Rating (if present):</b> 3  <b>Comments:</b></p>	<p><u>Illumination:</u> (check for lighting present behind the dyke)            Yes   •    No   ✓  <b>Condition Rating:</b>  <b>Comments:</b></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: 1050mm storm outlet with steel grate at ~St. 1+860 (photo 8557). Manhole structure located near toe of dyke along secondary concrete pathway near St. 1+855 (photo 8555). Additional manhole structures located along top of dyke near St. 1+855 (photo 8554). Drainage pipe observed along dyke face (photo 8580).  <b>Condition Rating:</b> 3  <b>Comments:</b> Steel hatch located near St. 1+960 (not known if associated with sanitary or storm outlets, however no discharge structures observed in immediate vicinity).</p>	<p><u>Outlet:</u> (check for presence of gates or grates at the outlet)            Flap Gate      Yes   •    No   ✓            Safety Grate      Yes   ✓    No   •  <b>Condition Rating:</b> 3  <b>Comments:</b> Safety grate observed at discharge of 1050mm storm outlet (photo 8558).</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   ✓  <b>Comments:</b> Partial debris obstruction at 1050mm storm discharge.</p>	<p><b>General Comments:</b></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. Significant vegetation growth within element 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. Vegetation growth noted throughout element which, if not controlled, may impact on integrity in the future. 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.  |

## Dyke Inspection Sheet

Dyke: West London Dyke  
Weather: Sunny, 25 °C  
Immediate Action Required •

Report No.: 11 of 12

Date: August 17, 2004  
Inspected By: N.Oliveira  
Further Investigative Work •

General Information	
<u>Section Inspected:</u> Complete • Section ✓ Specify: 2+000 to 2+200 m	Overall Condition Rating: 4 (this section only) <b>Comments:</b> Well established vegetation noted.
<u>Adjacent Property Use:</u> Residential ✓ Parkland • Commercial • Industrial •	<b>Comments:</b> Residential properties border the dyke over the section reviewed.
Dyke Facing	
<u>Dyke Face Material:</u> Concrete • Gabion •  Earthfill ✓ Other ✓ Specify: Rough vegetation (trees, shrubs, etc.)/rip-rap  <b>Condition Rating:</b> 4 <b>Comments:</b> Dyke face consists primarily of moderate to dense vegetation with areas of rip-rap noted primarily near St. 2+000 (photo 8581).	<u>Structural Condition (Dyke Face):</u> Erosion • Damage (impact, cracks, etc) • Movement (including unevenness, slipping, bulging or slumping) • Specify type: <b>Condition Rating:</b> 4 <b>Comments:</b> No signs of structural damage noted, however a few areas could not be accessed due to dense vegetation present (photo 8588).
<u>Toe:</u> Toe Protection Material (concrete, gabion, earth or other) Specify: earth/rip-rap Erosion Yes • No ✓ <b>Condition Rating:</b> 3 <b>Comments:</b> General rating reflects difficulty in assessing toe conditions due to dense vegetation present.	<u>Joints:</u> (not applicable to earthfill dykes) Sealant Present Yes • No •  <b>If yes, condition rating:</b> Vegetation (in joints) Yes • No • <b>Comments:</b> Not applicable.
<u>Vegetation:</u> None • Full ✓ Partial • Type: Trees, shrubs, wild grass, etc. <b>Comments:</b> Vegetation well established.	<u>Water Infiltration:</u> (look for where water can leak behind structure) Yes • No ✓ If yes, due to: Joints • Cracks • Liner • Other (specify) • <b>Comments:</b>
<u>Additional Information:</u> Access Available Yes ✓ No • Estimated Water Depth: ~0.9m <b>Comments:</b> Limited access over dyke face due to dense vegetation present. From St. 2+075 onwards, toe of dyke extends to moderately sloped area prior to waters edge.	
Top of Dyke	
<u>Dyke Top Material:</u> Concrete • Asphalt • Earth ✓ Rip Rap •  Other ✓ Specify: Grass/rough vegetation  <b>Condition Rating:</b> 3 <b>Comments:</b> Generally earth pathway along top of dyke (photo 8584) with rough vegetation.	<u>Structural Condition (Top of Dyke):</u> Erosion (behind wall, etc.) • Damage (vandalism, etc) • Movement (including unevenness, heaving or settlement) • Specify type:  <b>Condition Rating:</b> 4 <b>Comments:</b> No noticeable signs of structural damage.
<u>Pedestrian Access:</u> Sidewalk • Pathway ✓ None • Other • Specify: If present, width of access way: Approx. 1.0 to 2.0m <b>Condition Rating (if present):</b> 3 <b>Comments:</b> Primarily earth (dirt) pathway from St. 2+050 onwards.	<u>Protective Barrier:</u> Fence • Guard Rail • None ✓ Other • Specify: <b>Condition Rating (if present):</b> <b>Comments:</b> No protective barrier observed.

Top of Dyke - Continued	
<u>Joints</u> : (not applicable to earthfill dykes) Sealant Present      Yes •                      No • <b>If yes, condition rating:</b> Vegetation (in joints)      Yes •                      No • <b>Comments:</b> Not applicable.	<u>Drainage Conditions:</u> (ponding or low areas present) Good      ✓                      Poor • <b>Comments:</b> No ponding of water observed along top of dyke.
<u>Illumination:</u> (check for lighting present along the top of the dyke) Yes •                      No ✓ <b>Condition Rating:</b> <b>Comments:</b>	<u>Vegetation:</u> None •                      Full ✓                      Partial • Type: Grass, trees, shrubs, etc. <b>Comments:</b> A mix of trees, grass and shrubs are located adjacent to the earth pathway (photo 8585).
<u>Additional Information:</u> <b>Comments:</b>	
Area behind the Dyke (immediately adjacent)	
<u>Predominant Material:</u> Concrete •                      Asphalt • Earth •                      Grass ✓ Other ✓                      Specify: Trees, bushes, etc. <b>Condition Rating:</b> 4 <b>Comments:</b> Primarily wild grass, bushes, etc. adjacent to top of dyke with intermittent trees and residential backyards beyond.	<u>Drainage Conditions:</u> (ponding or low areas present) Good                      ✓                      Poor • <b>Comments:</b> Are catchbasins present?      Yes •                      No ✓ <b>If yes, condition rating:</b> <b>Comments:</b>
<u>Vegetation:</u> None •                      Full ✓                      Partial • Type: <b>Comments:</b> See above.	<u>Accessibility:</u> (check for access areas behind the dyke only) Sidewalks •      Pathways •      Roads •      None ✓ <b>Condition Rating (if present):</b> 4 <b>Comments:</b> No constructed pathways are present in the general area behind the dyke.
<u>Protective Barrier:</u> Fence •                      Guard •                      None ✓ Rail Other •                      Specify: If fence, list type and ownership (i.e. private or city): <b>Condition Rating (if present):</b> <b>Comments:</b>	<u>Illumination:</u> (check for lighting present behind the dyke) Yes •                      No ✓ <b>Condition Rating:</b> <b>Comments:</b>
Storm Sewers/Sanitary Sewers/Outlet Structures	
Yes ✓                      No • (if no, proceed to next section) If yes, type of structure (i.e. outlet, headwall, drainage pipe, channel or flush): Specify: Various sanitary manhole structures located along the dyke face, top of dyke and adjacent to dyke at ~St. 2+050 (photo 8587), 2+125 (photo 8590), 2+150 (photo 8592) and 2+180 (photo 8595). <b>Condition Rating:</b> 4 <b>Comments:</b> No outlets observed over the section reviewed.	<u>Outlet:</u> (check for presence of gates or grates at the outlet) Flap Gate      Yes •                      No • Safety Grate      Yes •                      No • <b>Condition Rating:</b> <b>Comments:</b> Not applicable
<u>Outlet Flow:</u> (check for condition of channel downstream from pipe, obstructions within pipe, etc.) Obstructions                      Yes •                      No • Downstream Erosion                      Yes •                      No • <b>Comments:</b> Not applicable.	<b>General Comments:</b>

**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.  |

## Dyke Inspection Sheet

Dyke: West London Dyke  
Weather: Sunny, 25 °C  
Immediate Action Required •

Report No.: 12 of 12

Date: August 17, 2004  
Inspected By: N.Oliveira  
Further Investigative Work •

General Information	
<u>Section Inspected:</u> Complete • Section ✓ Specify: 2+200 to 2+374 m	Overall Condition Rating: 4 (this section only) <b>Comments:</b> Well established vegetation noted.
<u>Adjacent Property Use:</u> Residential • Parkland ✓ Commercial • Industrial ✓	<b>Comments:</b> City of London yard borders the dyke from ~St. 2+200 to 2+350 with Cavendish Park beyond.
Dyke Facing	
<u>Dyke Face Material:</u> Concrete • Gabion •  Earthfill ✓ Other ✓ Specify: Rough vegetation (trees, shrubs, etc.)/rip-rap  <b>Condition Rating:</b> 4 <b>Comments:</b> Dyke face consists primarily of moderate to dense vegetation.	<u>Structural Condition (Dyke Face):</u> Erosion • Damage (impact, cracks, etc) • Movement (including unevenness, slipping, bulging or slumping) • Specify type: <b>Condition Rating:</b> 4 <b>Comments:</b> No signs of structural damage noted.
<u>Toe:</u> Toe Protection Material (concrete, gabion, earth or other) Specify: earth/vegetation Erosion Yes • No ✓ <b>Condition Rating:</b> 3 <b>Comments:</b> Fair/poor rating reflects difficulty in assessing toe conditions due to dense vegetation present.	<u>Joints:</u> (not applicable to earthfill dykes) Sealant Present Yes • No •  <b>If yes, condition rating:</b> Vegetation (in joints) Yes • No • <b>Comments:</b> Not applicable.
<u>Vegetation:</u> None • Full ✓ Partial • Type: Trees, shrubs, wild grass, etc. <b>Comments:</b> Vegetation well established.	<u>Water Infiltration:</u> (look for where water can leak behind structure) Yes • No ✓ If yes, due to: Joints • Cracks • Liner • Other (specify) • <b>Comments:</b>
<u>Additional Information:</u> Access Available Yes ✓ No • Estimated Water Depth: ~0.9m <b>Comments:</b> Limited access over dyke face due to dense vegetation present. From St. 2+200 to 2+290, toe of dyke extends to moderately sloped area prior to waters edge.	
Top of Dyke	
<u>Dyke Top Material:</u> Concrete • Asphalt • Earth ✓ Rip Rap •  Other ✓ Specify: Grass/rough vegetation  <b>Condition Rating:</b> 4 <b>Comments:</b> Generally earth pathway along top of dyke (photo 8602) with rough vegetation.	<u>Structural Condition (Top of Dyke):</u> Erosion (behind wall, etc.) • Damage (vandalism, etc) • Movement (including unevenness, heaving or settlement) • Specify type:  <b>Condition Rating:</b> 4 <b>Comments:</b> No noticeable signs of structural damage.
<u>Pedestrian Access:</u> Sidewalk • Pathway ✓ None • Other • Specify: If present, width of access way: Approx. 1.0 to 2.0m <b>Condition Rating (if present):</b> 3 <b>Comments:</b> Primarily earth (dirt) pathway from St. 2+200 onwards.	<u>Protective Barrier:</u> Fence • Guard Rail • None ✓ Other • Specify: <b>Condition Rating (if present):</b> <b>Comments:</b> No protective barrier observed.



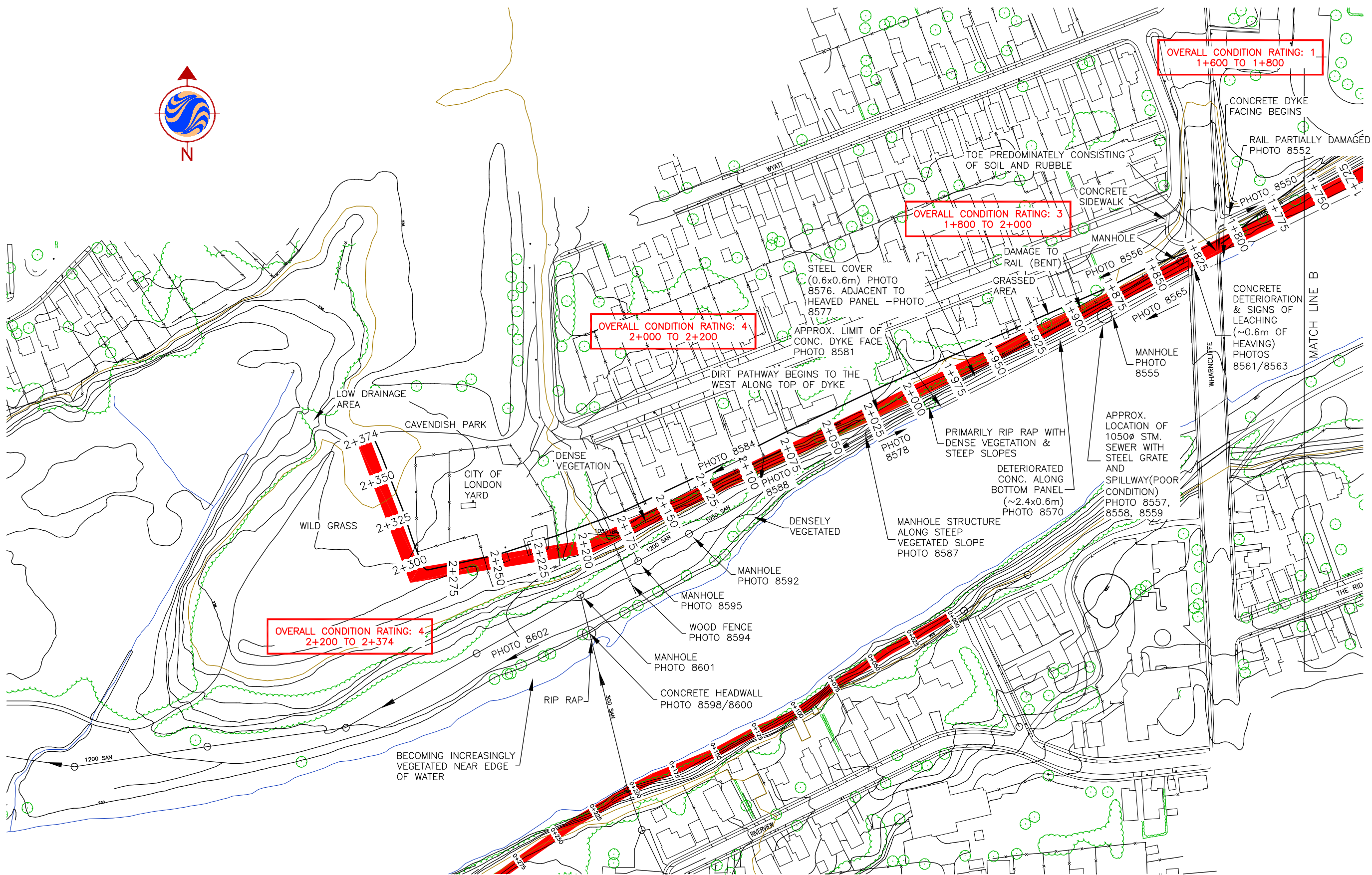
Top of Dyke - Continued	
<p><u>Joints</u> : (not applicable to earthfill dykes)            Sealant Present      Yes   •      No   •  <b>If yes, condition rating:</b>            Vegetation (in joints)      Yes   •      No   •  <b>Comments:</b> Not applicable.</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good      ✓      Poor   •  <b>Comments:</b> No ponding of water observed along top of dyke.</p>
<p><u>Illumination:</u> (check for lighting present along the top of the dyke)            Yes   •      No   ✓  <b>Condition Rating:</b>  <b>Comments:</b></p>	<p><u>Vegetation:</u>            None   •      Full   ✓      Partial   •            Type: Grass, trees, shrubs, etc.  <b>Comments:</b> A mix of trees, wild grass and shrubs are located adjacent to the earth pathway (photo 8605).</p>
<p><u>Additional Information:</u>  <b>Comments:</b></p>	
Area behind the Dyke (immediately adjacent)	
<p><u>Predominant Material:</u>            Concrete   •      Asphalt   •            Earth   •      Grass   ✓            Other   ✓      Specify: Trees, bushes, etc.  <b>Condition Rating:</b> 4  <b>Comments:</b> Primarily wild grass, bushes, etc. adjacent to top of dyke with intermittent trees and City of London yard beyond.</p>	<p><u>Drainage Conditions:</u> (ponding or low areas present)            Good      ✓      Poor   •  <b>Comments:</b>            Are catchbasins present?      Yes   •      No   ✓  <b>If yes, condition rating:</b>  <b>Comments:</b></p>
<p><u>Vegetation:</u>            None   •      Full   ✓      Partial   •            Type:  <b>Comments:</b> See above.</p>	<p><u>Accessibility:</u> (check for access areas behind the dyke only)            Sidewalks   •      Pathways   •      Roads   •      None   ✓  <b>Condition Rating (if present):</b> 4  <b>Comments:</b> No constructed pathways are present in the general area behind the dyke, however accessibility is available through moderate to dense vegetation present.</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 fence (City of London yard) behind dyke from St. 2+225 to 2+260. No protective barrier beyond.  <b>Condition Rating (if present):</b>  <b>Comments:</b></p>	<p><u>Illumination:</u> (check for lighting present behind the dyke)            Yes   •      No   ✓  <b>Condition Rating:</b>  <b>Comments:</b></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 (assumed storm outlet) with partially submerged outlet (photo 8598) at St. 2+215. Sanitary manhole structure located near the toe of the dyke at ~St. 2+220 (photo 8601).  <b>Condition Rating:</b> 4  <b>Comments:</b> No outlets observed over the section reviewed.</p>	<p><u>Outlet:</u> (check for presence of gates or grates at the outlet)            Flap Gate      Yes   •      No   ✓            Safety Grate      Yes   •      No   ✓  <b>Condition Rating:</b>  <b>Comments:</b> Not applicable</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   ✓  <b>Comments:</b></p>	<p><b>General Comments:</b></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: 1  
1+600 TO 1+800

OVERALL CONDITION RATING: 3  
1+800 TO 2+000

OVERALL CONDITION RATING: 4  
2+000 TO 2+200

OVERALL CONDITION RATING: 4  
2+200 TO 2+374

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. 04	S.J.	Stantec Consulting Ltd. 171 Queens Avenue London ON Canada N6A 5J7 Tel. 519.645.2007 Fax. 519.645.6575 www.stantec.com		1:1000	UPPER THAMES RIVER CONSERVATION AUTHORITY FLOOD CONTROL STRUCTURES WEST LONDON DYKE	2C