

SURREY
CITY OF PARKS

CITY OF SURREY

Engineering Operations Department

14245 - 56 Avenue, Surrey, British Columbia, Canada V3X 3A2

Phone: (604) 604-

Fax: (604) 604-591-7836

JB

FACSIMILE TRANSMITTAL FORM

TO:

Name: Alon

Title:

Company: Ministry Water, Land & Air
Protection - Environmental Protection
Division

Phone No.:

Fax No.: 604-584-9751

FROM:

Name: Chuck Pereira

Title: Roads & Drainage North, Manager

File No.: 5225-17

604-502-6336

Date: June 9, 2009

Total Number of Pages: 3
(including cover page)

Original to Follow:

Yes: ☐By Mail: ☐By Courier: ☐No: ☒

COMMENTS:

Attached please find Flood Protection Inspection Report inspected June 2, 2009.

Chuck Pereira
Manager, Roads & Drainage North

This message is intended only for the use of the addressee and may contain information that is privileged and confidential. If you are not the intended recipient, you are hereby notified that any dissemination of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone. Thank you.

FLOOD PROTECTION INSPECTION REPORT

Dike Name (From database)

Bayview - Maple

GPS No. (database)

294

Water Courses

Crescent Beach

Dike Section

Date Inspected

May 05/09

Signed

Cheryl Huan

For sections 1-4, please check the applicable box. If you check the Yes box, please explain in detail below or on attachments. Please also refer to "Flood Protection Works Inspection Guide" from March 2000 for a detailed guide to dike inspection and reporting, available at: http://www.env.gov.bc.ca/wsd/public_safety/flood/pdfs_word/fld_prot_insp_gd.pdf

1. Is there any obstruction, deterioration or damage to dike access? (access routes, ramps, and gates) YES NO N/A

		/	
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2. Is there any deterioration or damage to the following?

	YES	NO	N/A
• Dike Crest and slopes (ruts, loss of surfacing material, obstructions, slumping, cracking)		/	
• Bank Protection (loss of rock, settlement, slumping)		/	
• Flood Boxes/Pump stations (inlet/outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, mechanical components) or damage to dike access? (access routes, ramps, and gates)		/	

3. Were any of the following serious problems observed? (if yes, please attach photo or sketch)

	YES	NO	N/A
• Seepage (and/or evidence of piping)		/	
• Erosion		/	
• Slumping, cracking, sink holes		/	
• Animal Damage (beavers, animal burrows, cattle, etc.)		/	
• Unauthorized construction (excavations, utilities, structures)		/	
• Channel infilling and aggregation		/	
• Significant flood levels (within free board) within the last 12 months		/	

FLOOD PROTECTION INSPECTION REPORT

4. Vegetation Management

	YES	NO	N/A
• Hampers or prevents access?		/	
• Reduces visibility to each toe?		/	
• Trees in or near dike (within 2m from toe) with potential for uprooting?		/	
• Multi-year vegetation management plan in place?		/	

5. Describe maintenance work (including vegetation management) completed in the past 12 months:

--

6. Describe the work required in the next 12 months and the estimated schedule for completion:

Item	Proposed Completion Date

7. Please list inspection report attachments (photos, sketches etc.)

--

Notes on completing this Flood Protection Inspection Report form:

1. Please use a separate inspection form for each dike, or section of dike.
2. When completing the inspection report, please use the dike name and GPS Number on the provincial database (on web page or as shown on green sheet enclosed with mail out). If you believe there are any errors or omissions in the database, please submit them with the inspection report.
3. If you use more than one form for each dike, please indicate the dike section using chainage and/or major landmarks (roads, bridges etc). **Please do not use local property names in the inspection report.**

**CITY OF SURREY****Engineering Operations Department**

14245 - 56 Avenue, Surrey, British Columbia, Canada V3X 3A2

Phone: (604) 604-

Fax: (604) 604-591-7836

JB

FACSIMILE TRANSMITTAL FORM**TO:**Name: Alon

Title: _____

Company: Ministry Water, Land & Air
Protection - Environmental Protection
Division

Phone No.: _____

Fax No.: 604-584-9751**FROM:**Name: Chuck PereiraTitle: Roads & Drainage North, ManagerFile No.: 5225-17604-502-6336Date: June 9, 2009Total Number of Pages: 3
(including cover page)Original to Follow: Yes: ☐By Mail: ☐By Courier: ☐No: ☒**COMMENTS:**

Attached please find Flood Protection Inspection Report inspected June 2, 2009.

Chuck Pereira
Manager, Roads & Drainage North

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FLOOD PROTECTION INSPECTION REPORT

Dike Name (From database) Target " Wickson
 Water Courses Boundary Bay
 Date Inspected May 05 / 09

GPS No. (database) 294
 Dike Section
 Signed Cheryl Khan

For sections 1-4, please check the applicable box. If you check the Yes box, please explain in detail below or on attachments. Please also refer to "Flood Protection Works Inspection Guide" from March 2000 for a detailed guide to dike inspection and reporting, available at: http://www.env.gov.bc.ca/wsd/public_safety/flood/pdfs_word/fld_prot_insp_gd.pdf

1. Is there any obstruction, deterioration or damage to dike access? (access routes, ramps, and gates) YES NO N/A

		/	
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2. Is there any deterioration or damage to the following?

	YES	NO	N/A
• Dike Crest and slopes (ruts, loss of surfacing material, obstructions, slumping, cracking)		/	
• Bank Protection (loss of rock, settlement, slumping)		/	
• Flood Boxes/Pump stations (inlet/outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, mechanical components) or damage to dike access?(access routes, ramps, and gates)		/	

3. Were any of the following serious problems observed? (if yes, please attach photo or sketch)

	YES	NO	N/A
• Seepage (and/or evidence of piping)		/	
• Erosion		/	
• Slumping, cracking, sink holes		/	
• Animal Damage (beavers, animal burrows, cattle, etc.)		/	
• Unauthorized construction (excavations, utilities, structures)		/	
• Channel infilling and aggregation		/	
• Significant flood levels (within free board) within the last 12 months		/	

FLOOD PROTECTION INSPECTION REPORT

4. Vegetation Management

	YES	NO	N/A
• Hampers or prevents access?		/	
• Reduces visibility to each toe?		/	
• Trees in or near dike (within 2m from toe) with potential for uprooting?		/	
• Multi-year vegetation management plan in place?	/		

5. Describe maintenance work (including vegetation management) completed in the past 12 months:

--

6. Describe the work required in the next 12 months and the estimated schedule for completion:

Item	Proposed Completion Date

7. Please list inspection report attachments (photos, sketches etc.)

--

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3. If you use more than one form for each dike, please indicate the dike section using chainage and/or major landmarks (roads, bridges etc). **Please do not use local property names in the inspection report.**

**CITY OF SURREY****Engineering Operations Department**

14245 - 56 Avenue, Surrey, British Columbia, Canada V3X 3A2

Phone: (604) 604-501-6050

Fax: (604) 604-591-7836

FACSIMILE TRANSMITTAL FORM*RE FAXED 3:00 pm May 8/09***TO:****FROM:**Name: AlonName: Jeff Welch

Title: _____

Title: Manager, Roads & Drainage South OperationsCompany: Ministry Water, Land & Air
Protection - Environmental Protection
DivisionFile No.: 5225-17

Phone No.: _____

Date: May 8, 2009Fax No.: 604-584-9751Total Number of Pages: 2
(including cover page)Original to Follow: Yes: ☐By Mail: ☐By Courier: ☐No: ☒**COMMENTS:**

Attached please find Flood Protection Inspection Reports, inspected May 5, 2009.

Jeff Welch
Manager, Roads & Drainage South Operations**ENTERED**
JUL 28 2009
JB

This message is intended only for the use of the addressee and may contain information that is privileged and confidential. If you are not the intended recipient, you are hereby notified that any dissemination of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone. Thank you.

FLOOD . ROTECTION INSPECTION REPORT

ENTERED
JUL 28 2009

Dike Name (From database) Crescent Beach
 Water Courses Boundary Bay
 Date Inspected May 05 2009

GPS No. (database) 294
 Dike Section Coastal Shore
 Signed Cheryl Ke

For sections 1-4, please check the applicable box. If you check the Yes box, please explain in detail below or on attachments. Please also refer to "Flood Protection Works Inspection Guide" from March 2000 for a detailed guide to dike inspection and reporting, available at: http://www.env.gov.bc.ca/wsd/public_safety/flood/pdfs_word/flid_prot_insp_gd.pdf

1. Is there any obstruction, deterioration or damage to dike access? (access routes, ramps, and gates) YES NO N/A

	/	
--	---	--

2. Is there any deterioration or damage to the following?

YES NO N/A

- Dike Crest and slopes (ruts, loss of surfacing material, obstructions, slumping, cracking)

	/	
--	---	--

- Bank Protection (loss of rock, settlement, slumping)

	/	
--	---	--

- Flood Boxes/Pump stations (inlet/outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, mechanical components) or damage to dike access?(access routes, ramps, and gates)

	/	
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3. Were any of the following serious problems observed? (if yes, please attach photo or sketch)

YES NO N/A

- Seepage (and/or evidence of piping)

	/	
--	---	--

- Erosion

	/	
--	---	--

- Slumping, cracking, sink holes

	/	
--	---	--

- Animal Damage (beavers, animal burrows, cattle, etc.)

	/	
--	---	--

- Unauthorized construction (excavations, utilities, structures)

	/	
--	---	--

- Channel infilling and aggregation

	/	
--	---	--

- Significant flood levels (within free board) within the last 12 months

	/	
--	---	--

FLOOD PROTECTION INSPECTION REPORT

4. Vegetation Management

	YES	NO	N/A
• Hampers or prevents access?		/	
• Reduces visibility to each toe?		/	
• Trees in or near dike (within 2m from toe) with potential for uprooting?		/	
• Multi-year vegetation management plan in place?	/		

5. Describe maintenance work (including vegetation management) completed in the past 12 months:

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6. Describe the work required in the next 12 months and the estimated schedule for completion:

Item	Proposed Completion Date

7. Please list inspection report attachments (photos, sketches etc.)

--

Notes on completing this Flood Protection Inspection Report form:

1. Please use a separate inspection form for each dike, or section of dike.
2. When completing the inspection report, please use the dike name and GPS Number on the provincial database (on web page or as shown on green sheet enclosed with mail out). If you believe there are any errors or omissions in the database, please submit them with the inspection report.
3. If you use more than one form for each dike, please indicate the dike section using chainage and/or major landmarks (roads, bridges etc). **Please do not use local property names in the inspection report.**

FLOOD PROTECTION INSPECTION REPORT

Dike Name (From database)

Bayview - Maple

GPS No. (database)

Water Courses

Crescent Beach

Dike Section

Date Inspected

May 05/09

Signed

Cheryl Mann

For sections 1-4, please check the applicable box. If you check the Yes box, please explain in detail below or on attachments. Please also refer to "Flood Protection Works Inspection Guide" from March 2000 for a detailed guide to dike inspection and reporting, available at: http://www.env.gov.bc.ca/wsd/public_safety/flood/pdfs_word/fld_prot_insp_qd.pdf

1. Is there any obstruction, deterioration or damage to dike access? (access routes, ramps, and gates) YES NO N/A

		/	
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2. Is there any deterioration or damage to the following?

	YES	NO	N/A
• Dike Crest and slopes (ruts, loss of surfacing material, obstructions, slumping, cracking)		/	
• Bank Protection (loss of rock, settlement, slumping)		/	
• Flood Boxes/Pump stations (inlet/outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, mechanical components) or damage to dike access?(access routes, ramps, and gates)		/	

3. Were any of the following serious problems observed? (if yes, please attach photo or sketch)

	YES	NO	N/A
• Seepage (and/or evidence of piping)		/	
• Erosion		/	
• Slumping, cracking, sink holes		/	
• Animal Damage (beavers, animal burrows, cattle, etc.)		/	
• Unauthorized construction (excavations, utilities, structures)		/	
• Channel infilling and aggregation		/	
• Significant flood levels (within free board) within the last 12 months		/	

FLOOD PROTECTION INSPECTION REPORT

4. Vegetation Management

	YES	NO	N/A
• Hampers or prevents access?		/	
• Reduces visibility to each toe?		/	
• Trees in or near dike (within 2m from toe) with potential for uprooting?		/	
• Multi-year vegetation management plan in place?	/		

5. Describe maintenance work (including vegetation management) completed in the past 12 months:

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6. Describe the work required in the next 12 months and the estimated schedule for completion:

Item	Proposed Completion Date

7. Please list inspection report attachments (photos, sketches etc.)

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3. If you use more than one form for each dike, please indicate the dike section using chainage and/or major landmarks (roads, bridges etc). **Please do not use local property names in the inspection report.**

FLOOD PROTECTION INSPECTION REPORT

Dike Name (From database) Target " Wickson
 Water Courses Boundary Bay
 Date Inspected May 05 / 09

GPS No. (database) _____
 Dike Section _____
 Signed Cheryl Wan

For sections 1-4, please check the applicable box. If you check the Yes box, please explain in detail below or on attachments. Please also refer to "Flood Protection Works Inspection Guide" from March 2000 for a detailed guide to dike inspection and reporting, available at: http://www.env.gov.bc.ca/wsd/public_safety/flood/pdfs_word/fld_prot_insp_gd.pdf

1. Is there any obstruction, deterioration or damage to dike access? (access routes, ramps, and gates) YES NO N/A

		<input checked="" type="checkbox"/>	
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2. Is there any deterioration or damage to the following?

	YES	NO	N/A
• Dike Crest and slopes (ruts, loss of surfacing material, obstructions, slumping, cracking)		<input checked="" type="checkbox"/>	
• Bank Protection (loss of rock, settlement, slumping)		<input checked="" type="checkbox"/>	
• Flood Boxes/Pump stations (inlet/outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, mechanical components) or damage to dike access?(access routes, ramps, and gates)		<input checked="" type="checkbox"/>	

3. Were any of the following serious problems observed? (if yes, please attach photo or sketch)

	YES	NO	N/A
• Seepage (and/or evidence of piping)		<input checked="" type="checkbox"/>	
• Erosion		<input checked="" type="checkbox"/>	
• Slumping, cracking, sink holes		<input checked="" type="checkbox"/>	
• Animal Damage (beavers, animal burrows, cattle, etc.)		<input checked="" type="checkbox"/>	
• Unauthorized construction (excavations, utilities, structures)		<input checked="" type="checkbox"/>	
• Channel infilling and aggregation		<input checked="" type="checkbox"/>	
• Significant flood levels (within free board) within the last 12 months		<input checked="" type="checkbox"/>	

FLOOD PROTECTION INSPECTION REPORT

4. Vegetation Management

	YES	NO	N/A
• Hampers or prevents access?		/	
• Reduces visibility to each toe?		/	
• Trees in or near dike (within 2m from toe) with potential for uprooting?		/	
• Multi-year vegetation management plan in place?		/	

5. Describe maintenance work (including vegetation management) completed in the past 12 months:

--

6. Describe the work required in the next 12 months and the estimated schedule for completion:

Item	Proposed Completion Date

7. Please list inspection report attachments (photos, sketches etc.)

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Crescent Beach



CITY OF SURREY

Engineering Operations Department

14245 - 56 Avenue, Surrey, British Columbia, Canada V3X 3A2

Phone: (604)

Fax: (604) 604-591-7836

FACSIMILE TRANSMITTAL FORM

TO:

Name: Alon

Title: _____

Company: Ministry Water, Land & Air
Protection - Environmental Protection
Division

Phone No.: _____

Fax No.: 604-584-9751

FROM:

Name: Jeff Welch

Title: Manager, Roads & Drainage South
Operations

File No.: 5225-17

Date: July 24, 2008

Total Number of Pages: 5
(including cover page)

Original to Follow:

Yes: ☐

By Mail: ☐

By Courier: ☐

No: ☒

COMMENTS:

Attached please find Flood Protection Inspection Reports inspected June 26, 2008.

Jeff Welch
Manager, Roads & Drainage South Operations

fileword\correspondence 2008\0724\0003.doc
V 7/24/08 9:03 AM

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FLOOD PROTECTION INSPECTION REPORT

ENTERED
JUN 24 2007

Dike Name (From database) CRESCENT BEACH SEA DIKE GPS No. (database) 294
 Water Courses Canal Dike Section _____
 Date Inspected April 25/2007 Signed [Signature]

For sections 1-4, please check the applicable box. If you check the Yes box, please explain in detail below or on attachments. Please also refer to "Flood Protection Works Inspection Guide" from March 2000 for a detailed guide to dike inspection and reporting, available at: http://www.env.gov.bc.ca/wsd/public_safety/flood/pdfs_word/fld_prot_insp_gd.pdf

1. Is there any obstruction, deterioration or damage to dike access? (access routes, ramps, and gates) YES NO N/A

		/	
--	--	---	--

2. Is there any deterioration or damage to the following?

	YES	NO	N/A
• Dike Crest and slopes (ruts, loss of surfacing material, obstructions, slumping, cracking)		/	
• Bank Protection (loss of rock, settlement, slumping)		/	
• Flood Boxes/Pump stations (inlet/outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, mechanical components) or damage to dike access?(access routes, ramps, and gates)		/	

3. Were any of the following serious problems observed? (if yes, please attach photo or sketch)

	YES	NO	N/A
• Seepage (and/or evidence of piping)		/	
• Erosion		/	
• Slumping, cracking, sink holes		/	
• Animal Damage (beavers, animal burrows, cattle, etc.)	/		
<u>Beaver Dam Dunsmead + Gilley St</u>		/	
• Unauthorized construction (excavations, utilities, structures)		/	
• Channel infilling and aggregation		/	
• Significant flood levels (within free board) within the last 12 months			/

FLOOD PROTECTION INSPECTION REPORT

4. Vegetation Management

	YES	NO	N/A
• Hampers or prevents access?		/	
• Reduces visibility to each toe?		/	
• Trees in or near dike (within 2m from toe) with potential for uprooting?		/	
• Multi-year vegetation management plan in place?			/

5. Describe maintenance work (including vegetation management) completed in the past 12 months:

--

6. Describe the work required in the next 12 months and the estimated schedule for completion:

Item	Proposed Completion Date

7. Please list inspection report attachments (photos, sketches etc.)

--

Notes on completing this Flood Protection Inspection Report form:

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3. If you use more than one form for each dike, please indicate the dike section using chainage and/or major landmarks (roads, bridges etc). **Please do not use local property names in the inspection report.**

FLOOD PROTECTION INSPECTION REPORT

ENTERED
JUN 24 2007

Dike Name (From database) CRESCENT BEACH SAND DKE GPS No. (database) 294
 Water Courses Ocean Dike Section _____
 Date Inspected April 25/2007 Signed David Van

For sections 1-4, please check the applicable box. If you check the Yes box, please explain in detail below or on attachments. Please also refer to "Flood Protection Works Inspection Guide" from March 2000 for a detailed guide to dike inspection and reporting, available at: http://www.env.gov.bc.ca/wsd/public_safety/flood/pdfs_word/fld_prot_insp_qd.pdf

1. Is there any obstruction, deterioration or damage to dike access? (access routes, ramps, and gates) YES NO N/A

		/	
--	--	---	--

2. Is there any deterioration or damage to the following?

	YES	NO	N/A
• Dike Crest and slopes (ruts, loss of surfacing material, obstructions, slumping, cracking)		/	
• Bank Protection (loss of rock, settlement, slumping)		/	
• Flood Boxes/Pump stations (inlet/outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, mechanical components) or damage to dike access?(access routes, ramps, and gates)		/	

3. Were any of the following serious problems observed? (if yes, please attach photo or sketch)

	YES	NO	N/A
• Seepage (and/or evidence of piping)		/	
• Erosion		/	
• Slumping, cracking, sink holes		/	
• Animal Damage (beavers, animal burrows, cattle, etc.)		/	
• Unauthorized construction (excavations, utilities, structures)		/	
• Channel infilling and aggregation		/	
• Significant flood levels (within free board) within the last 12 months			/

FLOOD PROTECTION INSPECTION REPORT

4. Vegetation Management	YES	NO	N/A
• Hampers or prevents access?		/	
• Reduces visibility to each toe?	/		
• Trees in or near dike (within 2m from toe) with potential for uprooting?		/	
• Multi-year vegetation management plan in place?			/

5. Describe maintenance work (including vegetation management) completed in the past 12 months: Remove Vegetation along Dike
--

6. Describe the work required in the next 12 months and the estimated schedule for completion:	
Item	Proposed Completion Date

7. Please list inspection report attachments (photos, sketches etc.)

Notes on completing this Flood Protection Inspection Report form:

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FLOOD PROTECTION INSPECTION REPORT

ENTERED
JUN 23 2008

Dike Name (From database)

Crescent Beach Sd Dike
Target Wickson

GPS No. (database)

294

Water Courses

Ocean

Dike Section

1+212

Date Inspected

April 10/07

Signed

[Signature]

For sections 1-4, please check the applicable box. If you check the Yes box, please explain in detail below or on attachments. Please also refer to "Flood Protection Works Inspection Guide" from March 2000 for a detailed guide to dike inspection and reporting, available at: http://www.env.gov.bc.ca/wsd/public_safety/flood/pdfs_word/fld_prot_insp_gd.pdf

1. Is there any obstruction, deterioration or damage to dike access? (access routes, ramps, and gates) YES NO N/A

		<input checked="" type="checkbox"/>	
--	--	-------------------------------------	--

2. Is there any deterioration or damage to the following?

YES NO N/A

• Dike Crest and slopes (ruts, loss of surfacing material, obstructions, slumping, cracking)		<input checked="" type="checkbox"/>	
• Bank Protection (loss of rock, settlement, slumping)			
• Flood Boxes/Pump stations (inlet/outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, mechanical components) or damage to dike access?(access routes, ramps, and gates)			

3. Were any of the following serious problems observed? (if yes, please attach photo or sketch)

YES NO N/A

• Seepage (and/or evidence of piping)		<input checked="" type="checkbox"/>	
• Erosion			
• Slumping, cracking, sink holes			
• Animal Damage (beavers, animal burrows, cattle, etc.)			
• Unauthorized construction (excavations, utilities, structures)			
• Channel infilling and aggregation			
• Significant flood levels (within free board) within the last 12 months			

FLOOD PROTECTION INSPECTION REPORT

4. Vegetation Management	YES	NO	N/A
• Hampers or prevents access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Reduces visibility to each toe?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Trees in or near dike (within 2m from toe) with potential for uprooting?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Multi-year vegetation management plan in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Describe maintenance work (including vegetation management) completed in the past 12 months:

6. Describe the work required in the next 12 months and the estimated schedule for completion:	
Item	Proposed Completion Date

7. Please list inspection report attachments (photos, sketches etc.)

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2. When completing the inspection report, please use the dike name and GPS Number on the provincial database (on web page or as shown on green sheet enclosed with mail out). If you believe there are any errors or omissions in the database, please submit them with the inspection report.
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CITY OF SURREY
Engineering Operations Department
 14245 - 56 Avenue, Surrey, British Columbia, Canada V3X 3A2
 Phone: (604) Fax: (604) 604-591-7836

FACSIMILE TRANSMITTAL FORM

ENTERED

TO:

Name: Alon

Title: _____

Company: Ministry Water, Land & Air
Protection - Environmental Protection
Division

Phone No.: _____

Fax No.: 604-584-9751

FROM:

Name: Jeff Welch

Title: Manager, Roads & Drainage South
Operations

File No.: 5225-17

Date: May 1, 2006

Total Number of Pages: 4
(including cover page)

Original to Follow: Yes: ☐ By Mail: ☐ By Courier: ☐

No: ☒

COMMENTS:

Attached please find Flood Protection Inspection Reports inspected March 7, 2006.

Jeff Welch
Manager, Roads & Drainage South Operations

f:\ward\correspondence\2006\05010857.doc
V 5/1/06 8:57 AM

Sheet No. _____
File No. _____

Flood Protection Inspection Report

Dike Length: 900DIKE: Maple St / Blackie SpitREACH: Blackie SpitDATE INSPECTED: Mar 01/06 Signed: Luigi Khan

The condition of the flood protection works is as reported below:

1. DIKES: (access, gates, locks, vegetation growth, gravel surface, height, slopes, erosion, animal burrows, seepage, trash, bays, relief wells)

OK
NO Work Required

2. BANK PROTECTION: (loss of rock, settlement, slumping)

OK
NO Work Required

3. FLOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, discharge structure, electrical and mechanical components)

OK
NO Work Required

4. WORK REQUIRED:

5. ADDITIONAL INFORMATION (sketch, photos, etc.)

6. WORK COMPLETED: Date: _____ Signed: _____

Printed: January 19, 2001



CITY OF SURREY

Engineering Operations Department

14245 - 56 Avenue, Surrey, British Columbia, Canada V3X 3A2

Phone: (604)

Fax: (604) 604-591-7836

FACSIMILE TRANSMITTAL FORM

TO:

Name: Alon

Title: _____

Company: Ministry Water, Land & Air
Protection - Environmental Protection
Division

Phone No.: _____

Fax No.: 604-584-9751

FROM:

Name: Jeff Welch

Title: Manager, Roads & Drainage South
Operations

File No.: 5225-17

Date: May 1, 2006

Total Number of Pages: 4
(including cover page)

Original to Follow:

Yes: ☐

By Mail: ☐

By Courier: ☐

No: ☒

COMMENTS:

Attached please find Flood Protection Inspection Reports inspected March 7, 2006.

Jeff Welch
Manager, Roads & Drainage South Operations

ForwardCorrespondence 2006105010857.doc
V 5/1/06 8:57 AM

Sheet No. _____
File No. _____

Flood Protection Inspection Report

Dike Length: 900DIKE: Maple St / Blackie SpitREACH: Blackie SpitDATE INSPECTED: Mar 01/06 Signed: Jeff Voss

The condition of the flood protection works is as reported below:

1. DIKES: (access, gates, locks, vegetation growth, gravel surface, height, slopes, erosion, animal burrows, seepage, trash, berms, relief wells)

OKNO Work Required

2. BANK PROTECTION: (loss of rock, settlement, slumping)

OKNO Work Required

3. FLOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, discharge structure, electrical and mechanical components)

OKNO Work Required

4. WORK REQUIRED:

5. ADDITIONAL INFORMATION (sketch, photos, etc.)

6. WORK COMPLETED: Date: _____ Signed: _____

Printed: January 19, 2001

Sheet No. _____
File No. _____

Flood Protection Inspection Report

Dike Length: 300DIKE: Bayview St To Maple StREACH: Bayview StDATE INSPECTED: Mar 07/06 Signed: Cheryl Bless

The condition of the flood protection works is as reported below:

1. DIKES: (access, gates, locks, vegetation growth, gravel surface, height, slopes, erosion, animal burrows, seepage, trash, berms, relief wells)

No Work Required

2. BANK PROTECTION: (loss of rock, settlement, slumping)

No Work Required

3. FLOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, discharge structure, electrical and mechanical components)

No Work Required

4. WORK REQUIRED:

No Work Required

5. ADDITIONAL INFORMATION (sketch, photos, etc.)

6. WORK COMPLETED: Date: _____ Signed: _____

Printed: January 19, 2001



CITY OF SURREY
Engineering Operations Department
14245 - 56 Avenue, Surrey, British Columbia, Canada V3X 3A2
Phone: (604) Fax: (604) 604-591-7836

FACSIMILE TRANSMITTAL FORM

TO:Name: Alon

Title: _____

Company: Ministry Water, Land & Air
Protection - Environmental Protection
Division

Phone No.: _____

Fax No.: 604-584-9751**FROM:**Name: Jeff WelchTitle: Manager, Roads & Drainage South
OperationsFile No.: 5225-17Date: May 1, 2006Total Number of Pages: 4
(including cover page)Original to Follow: Yes: ☐ By Mail: ☐ By Courier: ☐No: ☒**ENTERED****COMMENTS:**

Attached please find Flood Protection Inspection Reports inspected March 7, 2006.

Jeff Welch
Manager, Roads & Drainage South Operations

Sheet No. _____
File No. _____

Flood Protection Inspection Report

Dike Length: 900DIKE: Maple St / Blackie SpitREACH: Blackie SpitDATE INSPECTED: Mar 01/06 Signed: Cheryl Wen

The condition of the flood protection works is as reported below:

1. DIKES: (access, gates, locks, vegetation growth, gravel surface, height, slopes, erosion, animal burrows, seepage, trash, berms, relief wells)

OK
NO Work Required

2. BANK PROTECTION: (loss of rock, settlement, slumping)

OK
NO Work Required

3. FLOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, discharge structure, electrical and mechanical components)

OK
NO Work Required

4. WORK REQUIRED:

5. ADDITIONAL INFORMATION (sketch, photos, etc.)

6. WORK COMPLETED: Date: _____ Signed: _____

Printed: January 19, 2001

Sheet No. _____
File No. _____

Flood Protection Inspection Report

Dike Length: 300DIKE: Bayview St To Maple StREACH: Bayview StDATE INSPECTED: Mar 07/06 signed Cheryl Weiss

The condition of the flood protection works is as reported below:

1. DIKES: (access, gates, locks, vegetation growth, gravel surface, height, slopes, erosion, animal burrows, seepage, trash, berms, relief wells)

No Work Required

2. BANK PROTECTION: (loss of rock, settlement, slumping)

No Work Required

3. FLOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, discharge structure, electrical and mechanical components)

No Work Required

4. WORK REQUIRED:

No Work Required

5. ADDITIONAL INFORMATION (sketch, photos, etc.)

6. WORK COMPLETED: Date: _____ Signed: _____

Printed: January 19, 2001

ENTERED
OCT 12, 2004

5225-11

Sheet No. _____
File No. _____

Flood Protection Inspection Report

Dike Length: 833mDIKE: Maple St Pump. Blackie SpitREACH: Blackie SpitDATE INSPECTED: Mar 16/04 Signed: Cheryl W...
Oct. 07/04

The condition of the flood protection works is as reported below:

1. DIKES: (access, gates, locks, vegetation growth, gravel surface, height, slopes, erosion, animal burrows, seepage, trash, berms, relief walls)

2. BANK PROTECTION: (loss of rock, settlement, slumping)

3. FLOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, discharge structure, electrical and mechanical components)

4. WORK REQUIRED:

NO Work Required

5. ADDITIONAL INFORMATION (sketch, photos, etc.)

6. WORK COMPLETED: Date: _____ Signed: _____

Printed: January 19, 2001

Please Mail or Fax This Form

CONFIRMATION OF ANNUAL DIKE INSPECTION

Please complete and return this form.

TO:

FROM:

Office of Inspector of Dikes
Ministry of Environment, Lands
and Parks
Water Management Branch
PO Box 9340, Stn Prov Govt
Victoria BC V8W 9M1
Fax: (250) 952-6792

Jeff Welch
Surrey, City of
14245 - 56th Ave
Surrey BC V3X 3A2
Phone: 604-590-7200
Fax: 604-591-7836

WATER MANAG. BRANCH	
PUBLIC SAFETY SECTION	
MAY 16 2001	
FILE:	DF [Signature] MAY 16 2001

1. Is your Annual Dike Inspection Complete? YES ☒ NO ☐

2. Date of Inspection: YY 01 MM MAY DD 09

Inspected by: CHUCK PEREIRA

3. Has there been any recent changes to your address, contact names, phone, email and/or fax numbers? YES ☐ NO ☒

If YES, please provide details below:

4. If you have any additional comments or suggestions please indicate them below:

WE HAVE MULTIPLE DIKES WHICH ARE INSPECTED AT THE SAME TIME OF YEAR. THIS
INSPECTION IS FOR THE ONLY DIKE THAT WOULD BE EFFECTED BY THE FRESHETTE. HOWEVER
ALL DIKES HAVE BEEN INSPECTED BY THE APPROPRIATE AREAS.

Submitted by: JEFF WELCH Phone: 604-536-2757

Date: MAY 11, 2001

REMINDER

The Flood Protection Works Inspection Report should be written and recorded each year to:

- demonstrate due diligence and eligibility for disaster assistance
- provide information for flood planning
- ensure safe operation and proper maintenance.

Providing a copy of the Annual Flood Protection Works Inspection Report to the Deputy Inspector of Dikes helps to assist in provincial flood planning and provides a basis for the Office of the Inspector of Dike's auditing and monitoring procedure. Refer to the publication "Flood Protection Works - Inspection Guide" (March, 2000) for details.

Remember: Inspection is the Key to a Safe Dike

35050-20 / SURREY / CRESCENT BRANCH

CITY OF SURREY

FLOOD PROTECTION WORKS MANAGEMENT CHECKLIST

DIO/D Authority: Surrey City of

O&M Supervisor: _____ Tel: _____ Fax: _____

DIO/D: _____ Tel: _____ Fax: _____

Dike Name: Malice STO&M Manual: Yes ☐ No ☐Floodplain Management Bylaw: Yes ☐ No ☐

Records: Design Reports _____ Plans _____

Files Nos. _____ Floodplain Maps _____

2 Rights-of-way: Yes ☐ No ☐3 Annual Budget/Taxes: Yes ☐ No ☐

4 Follow-up Last Inspection: By: _____

Annual Inspection (submit report to DIO/D): Yes ☐ No ☐5 Approvals/Changes: Yes ☐ No ☐

6 Maintenance: Required Okay

Access:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
gates	<input type="checkbox"/>	<input checked="" type="checkbox"/>
dike crest	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Damages/Repairs:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
dike	<input type="checkbox"/>	<input checked="" type="checkbox"/>
bank protection	<input type="checkbox"/>	<input checked="" type="checkbox"/>
floodboxes	<input type="checkbox"/>	<input checked="" type="checkbox"/>
pumps	<input type="checkbox"/>	<input checked="" type="checkbox"/>
drainage	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vegetation Control:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
animal activity	<input type="checkbox"/>	<input checked="" type="checkbox"/>
debris	<input type="checkbox"/>	<input checked="" type="checkbox"/>

7 Flood Response Plan:

Flow Forecasting	<input type="checkbox"/>	<input type="checkbox"/>
Contact list	<input type="checkbox"/>	<input type="checkbox"/>
Materials	<input type="checkbox"/>	<input type="checkbox"/>
Equipment	<input type="checkbox"/>	<input type="checkbox"/>
Communications	<input type="checkbox"/>	<input type="checkbox"/>
Flood Patrol	<input type="checkbox"/>	<input type="checkbox"/>
Warning/Evacuation Plan	<input type="checkbox"/>	<input type="checkbox"/>

8 Follow-up Action Complete: Yes ☐ No ☐
(submit report to DIO/D)

Date: _____

Signed: _____

10/7/88

Surrey Provided
Detailed Survey
of Fraser Dike
incl. unprotected
Areas

3555-20/SURREY/CURRENT BEACH SHIP DIKE / Inspection

CRESCENT B.

Sheet No. _____
File No. _____

FLOOD PROTECTION INSPECTION REPORT

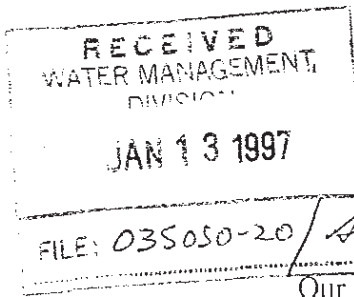
Dyke Length: NKDYKE: MAPLE STREACH: MAPLE STDATE INSPECTED: Apr 25/00Signed: JR De

The condition of the flood protection works is as reported below:

1. DYKES: (access, gates, locks, vegetation growth, gravel surface, height, slopes, erosion, animal burrows, seepage, trash, berms, relief wells)
SOME VEGETATION GROWTH, GRAVEL SURFACE GOOD
HEIGHT OK SLOPES OK NO VISIBLE SIGNS OF
ANIMAL BURROWS, MAY BE SOME SEEPAGE FROM
THE OLD DYKE ALSO MAY HAVE COME BACK THROUGH
FLOOD GATE
2. BANK PROTECTION: (loss of rock, settlement, slumping)
OK
3. FLOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, discharge structure, electrical and mechanical components)
FLOOD BOX OK PUMP STN OK
OUTFLOW FLOODBOX ON OLD DYKE HAS 2 LARGE
SINK HOLE THE BACK OF JUTE BAG WALL
IN DANGER OF COLLAPING IN. ALSO OUTFLOW
PIPE IN DANGER OF COLLAPING
4. WORK REQUIRED:
DYKE SLOPE NEED CUTTING TO MAKE ANY
ANIMAL BURROWS VISIBLE
5. ADDITIONAL INFORMATION (see over) (sketch, photos, etc.)

6. WORK COMPLETED: Date: _____ Signed: _____

September 12, 1996



FILE: 03S050-20 / *Surrey City* - CRESCENT BEACH SEA DYKE

Our File: S8 - R - 1

January 9, 1997

City of Surrey
14245 - 56th Avenue
Surrey BC V3X 3A2

Attention: Jeff Welch, Operations - South Surrey

Dear Mr. Welch:

Re: 1996 Dyke Inspection - Crescent Beach and Serpentine

Enclosed are my inspection reports, for your records and work action, the Crescent Beach Sea dyke and the short dyke section west of King George Hwy. at the Serpentine river. Please disregard any work item that has been completed in the interim since inspection / monitoring last July.

In the event the City wishes to address the erosion problem at groynes, I would appreciate being contacted for further input and suggestions. My telephone is 582-5212, fax 660-8926.

Yours truly,

F. A. Wodtke
Deputy Inspector of Dykes

FAW/

cc: P. J. Woods, Inspector of Dykes

Enclosure

Don Finley Jan 14/97
*file

Region No. 2
File No. S8 - R - 1 /Cr.B.

INSPECTION REPORT

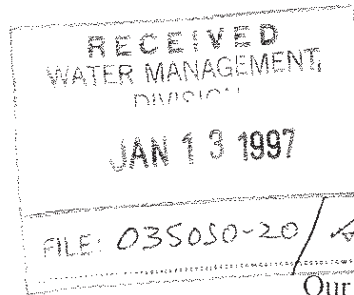
DISTRICT: City of Surrey

SECTION: Crescent Beach Sea Dyke = 2.5 km

DATE INSPECTED: July 12, 1996

The condition of the flood protection works is as reported below:

- I. Dykes:** (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)
Tall annual grass from Maple Street floodbox to parking lot at Blackie Spit. Remainder of dyke well maintained.
- II. Bank Protection:** (Loss of Rock, Settlement, Slumping)
Minor dislocation of riprap at Wickson Floodwall, mostly at SW half of new dyke work (human activity). Some B.P. deficiencies from dock to 200 m south, also at toe -caused by wave action and public mis-use. Bank protection at south tie-in (1+300) disturbed. Rocks scattered in particular at centre third of B.P. section. Beach erosion now encroaching on dyke slope at two wooden groynes (which were extended with riprap on a trial basis a few years ago), #4 and #5 from south end.
- III. Floodboxes:** (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)
Okay
- IV. Pumpstations:** (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion)
Note: Electrical & Mechanical Components not inspected.
Pump outlet needs servicing. Barnacles impede gate function!
- V. Work Required:** Collect displaced riprap and re-dress bank protected slopes south of dock and at south end (1+300). Import more material where slope is deficient. Monitor wave activity and rock loss from human activity at Wickson point where rock protection is critical for safety of flood wall. Monitor for additional beach erosion at wooden groynes. Service pump outlet at Maple street.



January 9, 1997

Our File: S8 - R - 1

City of Surrey
14245 - 56th Avenue
Surrey BC V3X 3A2

Attention: Jeff Welch, Operations - South Surrey

Dear Mr. Welch:

Re: 1996 Dyke Inspection - Crescent Beach and Serpentine

Enclosed are my inspection reports, for your records and work action, the Crescent Beach Sea dyke and the short dyke section west of King George Hwy. at the Serpentine river. Please disregard any work item that has been completed in the interim since inspection / monitoring last July.

In the event the City wishes to address the erosion problem at groynes, I would appreciate being contacted for further input and suggestions. My telephone is 582-5212, fax 660-8926.

Yours truly,

F. A. Wodtke
Deputy Inspector of Dykes

FAW/

cc: P. J. Woods, Inspector of Dykes

Enclosure

FAW Jan 14/97
Don Finley
**file*

Ministry of
Environment,
Lands and Parks

BC Environment
Lower Mainland Region

Mailing/Location Address:
10334 152A Street
Surrey BC V3R 7P8

Telephone: (604) 582-5200
Facsimile: (604) 660-8926

Region No. 2
File No. S8 - R - 1

INSPECTION REPORT

DISTRICT: City of Surrey

SECTION: Serpentine River - right bank = 1.2 km

DATE INSPECTED: July 12, 1996

The condition of the flood protection works is as reported below:

- I. Dykes:** (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)
Dyke embankment in good condition.
- II. Bank Protection:** (Loss of Rock, Settlement, Slumping)
localized B.P. (15 m) losses, upper slope at start of bend 0+280, and mid-bend 0+350. Some B.P. deficiencies, upper slope 0+700. More substantial B.P. loss at park bench location, sta. 0+850.
- III. Floodboxes:** (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)
N.A.
- IV. Pumpstations:** (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion)
Note: Electrical & Mechanical Components not inspected.
N.A.
- V. Work Required:** Replace missing bank protection at noted locations.



Province of
British Columbia

MINISTRY OF
ENVIRONMENT,
LANDS AND PARKS

BC
Environment
LOWER MAINLAND REGION

10334 - 152 A Street
Surrey
British Columbia
V3R 7P8
Telephone: (604) 582-5200
Facsimile: (604) 660-8926

Our File: S8-R-1

January 24, 1995

City of Surrey
14245 - 56th Street
Surrey BC V3X 3A2

Attention: Bill Hardie

Dear Mr. Hardie:

Re: 1994 Dyke Inspection - Crescent Beach and Serpentine North

Enclosed is a short inspection report for the Crescent Beach dyke and a section of the north bank Serpentine dyke for your records. The inspection/monitoring was made in July 1994 with comments reflecting to field conditions at that time. I apologize for the delay in forwarding the report to you. For future reference and other information, please call me at 582-5212.

Yours truly,

F.A. Wodtke
Deputy Inspector of Dykes
Water Management

FAW/ss

c.c. H. Nesbitt-Porter
Inspector of Dykes

MINISTRY OF ENVIRONMENT PLANNING SECTION		
JAN 31 1995		
FILE NO:		
HP	HP	
DF		
RW		

info/file
info

INSPECTION REPORT

DISTRICT: City of Surrey

SECTION: Serpentine N.B. Dyke ; Crescent Beach -1.2 and 2.5 Km

DATE INSPECTED: July 7, 1994

The condition of the flood protection works is as reported below:

- I. Dykes: (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)

Serpentine North Dyke - Off King George Highway: Dyke is well maintained- crescent access blocked with concrete No-Post-Rail off Highway; enter via dam gate.

Crescent Beach Dyke: Dyke OK, except annual grass and brush on slopes N.E. of Wickson/Dunsmuir roads.

- II. Bank Protection: (Loss of Rock, Settlement, Slumping)

Crescent Beach: Placement of rock to extend wood groyne has slowed foreshore erosion. B.P. disturbed with larger rock off slope - 50m south of Gov't dock. B.P. at Wickson subdivision OK.

- III. Floodboxes: (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)

F.B. at Maple Street: rocks in front of gate blocking gate partially.

- IV. Pumpstations: (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion)
Note: Electrical & Mechanical Components not inspected.

O.K.

- V. Work Required:

Repair pockets of disturbed bank protection, 50m south of Crescent Beach dock.

Check functioning of F.B. gate at Maple Street



CITY OF SURREY

Engineering Operations Department

14245 - 56 Avenue, Surrey, British Columbia, Canada V3X 3A2

Phone: (604) 590-7283

Fax: (604) 591-7836

RECEIVED
JUN 1 2000

FILE NO.

FACSIMILE TRANSMITTAL FORM

TO:

Name: Fred Wodtke

Company: Ministry of Environment, Lands & Parks

Fax No.: (604) 930-7119
(area code)

Phone No.: (604) 582-5212
(area code)

FROM:

Name: Tim Arlt

Title: Project Supervisor

File No.: 4856-001

Date: June 1, 2000

Total Number of Pages: 5
(including cover page)

Original to Follow: Yes: ☐

No: ☒

By Mail: ☐

By Courier: ☐

COMMENTS:

Attached flood protection works management checklist.

This message is intended only for the use of the addressee and may contain information that is privileged and confidential. If you are not the intended recipient, you are hereby notified that any dissemination of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone. Thank you.

CITY OF SURREY

FLOOD PROTECTION WORKS MANAGEMENT CHECKLIST

Diking Authority: Surrey City of

O&M Supervisor: _____ Tel: _____ Fax: _____

DIOD: _____ Tel: _____ Fax: _____

Dike Name: MALE ST

O&M Manual: Yes ☐ No ☐

Floodplain Management Bylaw: Yes ☐ No ☐

1. Records: Design Reports _____ Plans _____

Files Nos. _____ Floodplain Maps _____

2. Rights-of-way: Yes ☐ No ☐

3. Annual Budget/Taxes: Yes ☐ No ☐

4. Follow-up Last Inspection: By: _____

Annual Inspection (submit report to DIOD): Yes ☐ No ☐

5. Approvals/Changes: Yes ☐ No ☐

6. Maintenance: Required Okay

Access:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
gates	<input type="checkbox"/>	<input checked="" type="checkbox"/>
dike crest	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Damages/Repairs:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
dike	<input type="checkbox"/>	<input checked="" type="checkbox"/>
bank protection	<input type="checkbox"/>	<input checked="" type="checkbox"/>
floodboxes	<input checked="" type="checkbox"/> OLD DYKE	<input checked="" type="checkbox"/>
pumps	<input type="checkbox"/>	<input checked="" type="checkbox"/>
drainage	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vegetation Control:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
animal activity	<input type="checkbox"/>	<input checked="" type="checkbox"/>
debris	<input type="checkbox"/>	<input checked="" type="checkbox"/>

7. Flood Response Plan:

Flow Forecasting	<input type="checkbox"/>	<input type="checkbox"/>
Contact list	<input type="checkbox"/>	<input type="checkbox"/>
Materials	<input type="checkbox"/>	<input type="checkbox"/>
Equipment	<input type="checkbox"/>	<input type="checkbox"/>
Communications	<input type="checkbox"/>	<input type="checkbox"/>
Flood Patrol	<input type="checkbox"/>	<input type="checkbox"/>
Warning/Evacuation Plan	<input type="checkbox"/>	<input type="checkbox"/>

8. Follow-up Action Complete: Yes ☐ No ☐
(submit report to DIOD)

Date: _____

Signed: _____

10/7/98

PRESUB B.

Sheet No. _____

File No. _____

FLOOD PROTECTION INSPECTION REPORT

Dyke Length: NKDYKE: MAPLE STREACH: MAPLE STDATE INSPECTED: APR 25/00 Signed: [Signature]

The condition of the flood protection works is as reported below:

1. DYKES: (access, gates, locks, vegetation growth, gravel surface, height, slopes, erosion, animal burrows, seepage, trash, berms, relief wells)
SOME VEGETATION GROWTH, GRAVEL SURFACE GOOD
HEIGHT OK SLOPES OK NO VISIBLE SIGNS OF
ANIMAL BURROWS, MAY BE SOME SEEPAGE FROM
THE OLD DYKE ALSO MAY HAVE COME BACK THROUGH
FLOODGATE
2. BANK PROTECTION: (loss of rock, settlement, slumping)
OK
3. FLOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, discharge structure, electrical and mechanical components)
FLOOD BOX OK PUMP STN OK
OUTFLOW FLOODBOX ON OLD DYKE HAS 2 LARGE
SINK HOLE THE BACK OF FINE BAG WALL.
IN DANGER OF COLLAPING IN. ALSO OUTFLOW
PIPE IN DANGER OF COLLAPING
4. WORK REQUIRED:
DYKE SLOPE NEED CUTTING TO MAKE ANY
ANIMAL BURROWS VISIBLE
5. ADDITIONAL INFORMATION (see over) (sketch, photos, etc.)

6. WORK COMPLETED: Date: _____ Signed: _____

September 12, 1996

FLOOD PROTECTION WORKS MANAGEMENT CHECKLIST

Diking Authority: SURREY CITY of

O&M Supervisor: _____ Tel: _____ Fax: _____

DIOD: _____ Tel: _____ Fax: _____

Dike Name: THURSTON to MANSION PUMP STNO&M Manual: Yes ☐ No ☐Floodplain Management Bylaw: Yes ☐ No ☐

1. Records: Design Reports _____ Plans _____

Files Nos. _____ Floodplain Maps _____

2. Rights-of-way: Yes ☐ No ☐3. Annual Budget/Taxes: Yes ☐ No ☐

4. Follow-up Last Inspection: By: _____

Annual Inspection (submit report to DIOD): Yes ☐ No ☐6. Approvals/Changes: Yes ☐ No ☐

8. Maintenance: Required Okay

Access: ☐ ☒gates ☐ ☒dike crest ☐ ☒Damages/Repairs: ☐ ☒dike ☐ ☒bank protection ☐ ☒floodboxes ☐ ☒pumps ☐ ☒drainage ☐ ☒Vegetation Control: ☐ ☒animal activity ☐ ☒debris ☒ ☐

7. Flood Response Plan:

Flow Forecasting ☐ ☐Contact list ☐ ☐Materials ☐ ☐Equipment ☐ ☐Communications ☐ ☐Flood Patrol ☐ ☐Warning/Evacuation Plan ☐ ☐8. Follow-up Action Complete: Yes ☐ No ☐

(submit report to DIOD)

Date: _____

Signed: [Signature]

10/7/98

BRIDGE VIEW

Sheet No. _____

File No. _____

FLOOD PROTECTION INSPECTION REPORT

Dyke Length: NKDYKE: CN THORNTON TO HANSON PUMP STN

REACH: _____

DATE INSPECTED: 12/2/00Signed: [Signature]

The condition of the flood protection works is as reported below:

1. DYKES: (access, gates, locks, vegetation growth, gravel surface, height, slopes, erosion, animal burrows, seepage, trash, berms, relief wells)

THORNTON GATE LOCKED SURREY DUCK 130ST
SOME VEGETATION GROWTH SURFACE GRAVEL GOOD
SEEPAGE OK NO SIGN OF SEEPAGE

2. BANK PROTECTION: (loss of rock, settlement, slumping)

OK

3. FLOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, discharge structure, electrical and mechanical components)

NEW GATES FITTED PORT HANSON OUTFLOW
INNER GRILL AT PORT HANSON BOTTOM PUSHED IN
PUMP STN TRASH RACKS OK FLOODGATES
OK SLIGHT SEEPAGE BACK AT HANSON FLOODGATE
OLD YALE FLOODGATE

4. WORK REQUIRED:

NORMAL SUMMER BRUSHING REQ
ALSO DEBRIS REMOVAL

5. ADDITIONAL INFORMATION (see over) (sketch, photos, etc.)

6. WORK COMPLETED: Date: _____

Signed: _____

September 12, 1998



January 9, 1997

Our File: S8 - R - 1

City of Surrey
14245 - 56th Avenue
Surrey BC V3X 3A2

Attention: Jeff Welch, Operations - South Surrey

Dear Mr. Welch:

Re: 1996 Dyke Inspection - Crescent Beach and Serpentine

Enclosed are my inspection reports, for your records and work action, the Crescent Beach Sea dyke and the short dyke section west of King George Hwy. at the Serpentine river. Please disregard any work item that has been completed in the interim since inspection / monitoring last July.

In the event the City wishes to address the erosion problem at groynes, I would appreciate being contacted for further input and suggestions. My telephone is 582-5212, fax 660-8926.

Yours truly,

F. A. Wodtke
Deputy Inspector of Dykes

FAW/

cc: P. J. Woods, Inspector of Dykes

Enclosure

Region No. 2
File No. S8 - R - 1 /Cr.B.

INSPECTION REPORT

DISTRICT: City of Surrey

SECTION: Crescent Beach Sea Dyke = 2.5 km

DATE INSPECTED: July 12, 1996

The condition of the flood protection works is as reported below:

- I. Dykes:** (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)
Tall annual grass from Maple Street floodbox to parking lot at Blackie Spit. Remainder of dyke well maintained.
- II. Bank Protection:** (Loss of Rock, Settlement, Slumping)
Minor dislocation of riprap at Wickson Floodwall, mostly at SW half of new dyke work (human activity). Some B.P. deficiencies from dock to 200 m south, also at toe - caused by wave action and public mis-use. Bank protection at south tie-in (1+300) disturbed. Rocks scattered in particular at centre third of B.P. section. Beach erosion now encroaching on dyke slope at two wooden groynes (which were extended with riprap on a trial basis a few years ago), #4 and #5 from south end.
- III. Floodboxes:** (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)
Okay
- IV. Pumpstations:** (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion)
Note: Electrical & Mechanical Components not inspected. Pump outlet needs servicing. Barnacles impede gate function!
- V. Work Required:** Collect displaced riprap and re-dress bank protected slopes south of dock and at south end (1+300). Import more material where slope is deficient. Monitor wave activity and rock loss from human activity at Wickson point where rock protection is critical for safety of flood wall. Monitor for additional beach erosion at wooden groynes. Service pump outlet at Maple street.

Region No. 2
File No. S8 - R - 1

INSPECTION REPORT

DISTRICT: City of Surrey

SECTION: Serpentine River - right bank = 1.2 km

DATE INSPECTED: July 12, 1996

The condition of the flood protection works is as reported below:

- I. Dykes:** (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)
Dyke embankment in good condition.
- II. Bank Protection:** (Loss of Rock, Settlement, Slumping)
localized B.P. (15 m) losses, upper slope at start of bend 0+280, and mid-bend 0+350. Some B.P. deficiencies, upper slope 0+700. More substantial B.P. loss at park bench location, sta. 0+850.
- III. Floodboxes:** (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)
N.A.
- IV. Pumpstations:** (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion)
Note: Electrical & Mechanical Components not inspected.
N.A.
- V. Work Required:** Replace missing bank protection at noted locations.



Our File: S8-R-1

February 7, 1995

City of Surrey
14245 - 56th Avenue
Surrey BC V3X 3A2

Attention: Mr. Ernie Cherkas

Dear Mr. Cherkas:

Re: **Dyke Inspection - Fraser River Dyke**

Enclosed is a dyke inspection report for the Bridgeview and South Westminster Fraser dyke and floodwall. The inspection was made in November, 1994 and noted comments relate to field conditions at that time. Most of the work items refer to vegetation control, which, as in the past, has been completed under your annual maintenance program.

I would appreciate obtaining a set of drawings for the new pump station at 126-A Street for our records. Please call me at 582-5212 for more information or to discuss any other dyke issue.

Yours truly,

F.A. Wodtke
Deputy Inspector of Dykes

FAW./sh

cc: H. Nesbitt-Porter
Inspector of Dykes

INSPECTION REPORT

DISTRICT: City of Surrey

SECTION: Bridge View and South Westminster Area - Fraser River

DATE INSPECTED: November 10, 1994 - 4.7 km
Contracts # 1 & # 2

The condition of the flood protection works is as reported below:

I. Dykes: (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)

Contract # 1 : Tree growth maturing on dyke stub 114 to 116th Ave. Minor excavation made on slope - 50 m south of 116th Ave. Groups of smaller cottonwood saplings along W/S side of floodwall - 130St. to 126A Street. Larger L/S cottonwood clump between 130th and 128th Street. Access ramp at Sta 52+00: stop log guides damaged. Cottonwood saplings along floodwall 89+00 to 103+00.

Contract # 2: Tree saplings along wall Sta 1+00 to 10+00. Saplings on dyke slopes 21+00 to 28+00, including larger clump in dyke crest, 28+00. L/S slope sapling growth, 50 m. U/S of Manson Pump Station.

II. Bank Protection: (Loss of Rock, Settlement, Slumping)

N/A

III. Floodboxes: (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)

Contract # 1: Wooden debris near inlet of 128 St. Flood box

IV. Pumpstations: (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion)
Note: Electrical & Mechanical Components not inspected.

Contract # 1: New pumpstation near completion at 126-A Street.

V. Work Required:

Remove sapling growth where noted at contract # 1 and # 2 at time of annual maintenance. Remove larger tree clumps, between 130 & 128th St. and at crest, 28+00 U/S of Tannery Road. Monitor slope growth along dyke stub, south of 116th Avenue and remove trees at later date to prevent maturing. Repair stop log guides Sta 52+00, D/S of 128 St. Clean out inlet channel at 128 St. Floodbox.



Province of
British Columbia

MINISTRY OF
ENVIRONMENT,
LANDS AND PARKS

BC
Environment
LOWER MAINLAND REGION

10334 - 152 A Street
Surrey
British Columbia
V3R 7P8
Telephone: (604) 582-5200
Facsimile: (604) 660-8926

Our File: S8-R-1

January 24, 1995

City of Surrey
14245 - 56th Street
Surrey BC V3X 3A2

Attention: Bill Hardie

Dear Mr. Hardie:

Re: 1994 Dyke Inspection - Crescent Beach and Serpentine North

Enclosed is a short inspection report for the Crescent Beach dyke and a section of the north bank Serpentine dyke for your records. The inspection/monitoring was made in July 1994 with comments reflecting to field conditions at that time. I apologize for the delay in forwarding the report to you. For future reference and other information, please call me at 582-5212.

Yours truly,

F.A. Wodtke
Deputy Inspector of Dykes
Water Management

FAW/ss

c.c. H. Nesbitt-Porter
Inspector of Dykes

INSPECTION REPORT

DISTRICT: City of Surrey

SECTION: Serpentine N.B. Dyke ; Crescent Beach -1.2 and 2.5 Km

DATE INSPECTED: July 7, 1994

The condition of the flood protection works is as reported below:

- I. Dykes: (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)

Serpentine North Dyke - Off King George Highway: Dyke is well maintained-crescent access blocked with concrete No-Post-Rail off Highway; enter via dam gate.

Crescent Beach Dyke: Dyke OK, except annual grass and brush on slopes N.E. of Wickson/Dunsmuir roads.

- II. Bank Protection: (Loss of Rock, Settlement, Slumping)

Crescent Beach: Placement of rock to extend wood groyne has slowed foreshore erosion. B.P. disturbed with larger rock off slope - 50m south of Gov't dock. B.P. at Wickson subdivision OK.

- III. Floodboxes: (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)

F.B. at Maple Street: rocks in front of gate blocking gate partially.

- IV. Pumpstations: (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion)
Note: Electrical & Mechanical Components not inspected.

O.K.

- V. Work Required:

Repair pockets of disturbed bank protection, 50m south of Crescent Beach dock.

Check functioning of F.B. gate at Maple Street



Province of
British Columbia

Ministry of
Environment
Lands & Parks

Water Management Branch
34345 Vye Road
Abbotsford
British Columbia
V2S 4N2

B.C. Environment

Phone: (604) 852-5404 FAX: (604) 852-5419

June 8, 1992

File: S8-R-1

Corporation of the
District of Surrey
14245 - 56th Avenue
Surrey, B. C.
V3W 1J2

**Attention: Mr. Bill Hardie
Public Works**

Dear Sirs:

Re: Dyke Inspection Report

Enclosed is a copy of a dyke inspection report prepared by Mr. Fred Wodtke of this office. The dyke east of King George Highway on the Serpentine River is in good condition. However, I do recall a problem with the floodbox leaking which was mentioned at the Colebrook annual general meeting. Has it been repaired?

In the Crescent Beach area, a large number of animal burrows in the dyke west of the Maple Road pump station were discovered. These burrows could pose a threat to the dyke stability. Please investigate and advise us of your proposed repair.

Yours truly

R. J. Henry, P. Eng.
Inspector of Dykes

RJH:mr
Enclosures

INSPECTION REPORT

DISTRICT: MUNICIPALITY OF SURREY

SECTION: CRESCENT BEACH SEA DYKE

DATE INSPECTED: June 2, 1992, by F.A. Wodtke

The condition of the flood protection works is as reported below:

- I. **DYKES:** (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)

Small circular holes appearing along landside slope, most numerous 30m to 70m and 170m to 200m west of Maple Road Pump Station. See Photo

- II. **BANK PROTECTION:** (Loss of Rock, Settlement, Slumping)

As noted in 1989, riprap loose and disturbed south end of Government dock and Sta. 1+370. Slope relatively stable but check again when subjected by strong wave action.

- III. **FLOODBOXES:** (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)

Okay.

- IV. **PUMPSTATIONS:** (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion) Note: Electrical and Mechanical Components not inspected.

Discharge pipe at outlet rusted out at bottom of pipe, leaving hole when gate is closed.

- V. **WORK REQUIRED:**

Inspect landside slope west of Maple Road Pump Station for small numerous burrows after grass trimming and advise Inspector of Dykes' office of remedy. Check riprap at noted locations after storm (wave) event. Repair outlet pipe of pump discharge.

INSPECTION REPORT

DISTRICT: MUNICIPALITY OF SURREY

SECTION: SERPENTINE RIVER-NORTH SIDE DYKE - 1.25 km

DATE INSPECTED: June 1, 1992, by F.A. Wodtke

The condition of the flood protection works is as reported below:

- I. DYKES:** (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)

Well maintained.

- II. BANK PROTECTION:** (Loss of Rock, Settlement, Slumping)

Okay.

- III. FLOODBOXES:** (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)

Inlet and outlet clear.

- IV. PUMPSTATIONS:** (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion) Note: Electrical and Mechanical Components not inspected.

N/A.

- V. WORK REQUIRED:**

Not required.



Province of
British Columbia

Ministry of
Environment
Lands & Parks

Water Management Branch
34345 Vye Road
Abbotsford
British Columbia
V2S 4N2

B.C. Environment

Phone: (604) 852-5404

FAX: (604) 852-5419

April 23, 1992

File: S8-R-1

The Corporation of the
District of Surrey
14245 - 56th Avenue
Surrey, B. C.
V3W 1J2

**Attention: Mr. Dale Hadden
Public Works Superintendent**

Dear Sirs:

Re: South Westminster Dyke

Enclosed is a copy of an inspection report prepared by Mr. Fred Wodtke of this office. The report identifies some items of work required.

As the District of Surrey is responsible for maintaining this dyke, please arrange to have the work done and advise our office upon completion.

Yours truly

R. J. Henry, P. Eng.
Inspector of Dykes

RJH:mr
Enclosure

INSPECTION REPORT

DISTRICT: DISTRICT OF SURREY

SECTION: SOUTH WESTMINSTER DYKE (FRASER RIVER)

DATE INSPECTED: April 14, 1992

The condition of the flood protection works is as reported below:

- I. **DYKES:** (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)

Dyke and floodwalls generally in good condition, except where noted as follows: Lateral dyke tie 114th to 116th Avenue - fill slopes are loose and disturbed. Similar for L/S dyke slope: C.N. Parking lot, just inside of 116th Ave. fence (16+00). Cottonwood sapling growing against floodwall, C.N. Yard (22+00). Concrete chip broken out of floodwall 106+00, U/S of Pattullo Bridge. Alder saplings growing for 80 lin. m. on L/S slope and along toe, Sta. 18+00, D/S of Old Yale Road. Cottonwood saplings, for 50 lin. m., L/S slope, just U/S of Manson Pump Station.

- II. **BANK PROTECTION:** (Loss of Rock, Settlement, Slumping)
N/A

- III. **FLOODBOXES:** (Inlet & Outlet Channel, Gate Operation, Trash Rocks & Debris Removal, Erosion, Corrosion)

Some inlet debris at inlet trash rack, 128th St. floodbox.
Floodgate at 124th St. floodbox appears sagging to one side.
D/S floodgate (SW side) at Pattullo F.B. appears to sag to one side.
Manson Rd. floodbox: 3 pieces of large debris at inlet; also, cottonwood saplings growing against concrete headwall - outlet.

- IV. **PUMPSTATIONS:** (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion) Note: Electrical and Mechanical Components not inspected.

Inlets, outlets and gate clear and working.

- V. **WORK REQUIRED:**

Consider slope stabilization for sand fills U/S of 116th Ave. & C.N.R. parking lot. Remove cottonwood next to floodwall, 22+00, and Manson Floodbox outlet, while small. Remove young tree growth off dyke slope and past toe, Sta. 18+00, D/S of Old Yale Road and just U/S of Manson. Remove inlet debris, 128th St. and Manson Floodboxes. Check sagging gates, 124th & Pattullo, lower hinge support.



DISTRICT OF SURREY
Engineering Department

14245 - 56th Avenue, Surrey
British Columbia, Canada V3W 1J2

Telephone
(604) 591-4340

R.W. KYLE, B.Sc., P.Eng., Municipal Engineer

Fax
(604) 591-4527

File: 4861-006

December 27, 1989

RECEIVED

JAN 8 1990

INSPECTOR OF DYKES

Per S8-R-1 ←

Ministry of Environment,
Water Management Branch,
34345 Vye Road,
Abbotsford, B.C.
V2S 4N2

ATTENTION: Mr. R.J. Henry, P. Eng.,
Acting Inspector of Dykes

Dear Sir:

In response to your letter of December 5, 1989 regarding your Inspection Report outlining maintenance work required on the dykes located in the South Westminster/Bridgeview area, I wish to report the following.

Public Works Superintendent - Dale Hadden reported that the following deficiencies will be completed by December 29, 1989:

1) DYKES

- o The missing portion of dyke located at Industrial Avenue and Bolivar Creek will be reinstated with sand then the area will be covered with pieces of broken sidewalk panels to deter 'borrowers'. The access to this area will again be secured with the use of no-post guardrail.
- o The metal stop log slot located at the foot of Old Yale Road has been repaired. We were aware of this damage due to our own regular inspections but because of construction in the area at the time, repairs were scheduled for a later date.
- o Growth along the base of the floodwall will be cut.

RAH

2) FLOOD BOXES

- o The gate on the flood box located at 128 Street has been inspected and the debris has been removed.

If you require additional assistance, please contact the Public Works Superintendent - Dale Hadden at 583-1374.

Yours truly,

R. W. Kyle P. Eng.,
Municipal Engineer

over
DH/hmf/4565x

c.c. - Ass't. Municipal Engineer - Operations
- Public Works Superintendent - Dale Hadden



Province of
British Columbia

Ministry of
Environment

Water Management Branch
34345 Vye Road
Abbotsford
British Columbia
V2S 4N2

Phone: 852-5404
FAX #: 852-5419

INSPECTOR OF DYKES

January 3, 1990

File: S8-R-1

District of Surrey
14245 - 56th Avenue
Surrey, B. C.
V3W 1J2

Attention: Mr. Bill Hardie
Public Works Department

Dear Sirs:

Re: Serpentine River Dyke

Enclosed is a copy of our dyke inspection report for the above
dyke.

Indications are that this dyke is being well maintained.

Thank you for your co-operation.

Yours truly

R. J. Henry, P. Eng.
Acting Inspector of Dykes

RJH:mr

Enclosure

INSPECTION REPORTDISTRICT: MUNICIPALITY OF SURREYSECTION: SERPENTINE RIVER DYKE - NORTH SIDE - 1.25 KMDATE INSPECTED: December 13, 1989 by F.A. Wodtke

The condition of the flood protection works is as reported below:

- I. Dykes: (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)

WELL MAINTAINED.

- II. Bank Protection: (Loss of Rock, Settlement, Slumping)

IN GOOD CONDITION.

- I. Floodboxes: (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)

COULD NOT FIND INLET OF 900 mm Ø FLOODBOX, STA. 0+640.

- V. Pumpstations: (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion) Note: Electrical & Mechanical Components not inspected.

N/A.

Work Required:

NONE.PERHAPS, INSTALLATION OF A MARKER POST AT FLOODBOX INLET WOULD BEHELPFUL FOR QUICK MAINTENANCE AND INSPECTION.



Province of
British Columbia

Ministry of
Environment

Water Management Branch
1345 Vye Road
Abbotsford
British Columbia
V2S 4N2

Phone: 852-5404
FAX #: 852-5419

Inspector of Dykes

December 5, 1989

File: S8-R-1

District of Surrey
14245 - 56th Avenue
Surrey, B. C.
V3W 1J2

ATTENTION: Mr. R.W. Kyle, P. Eng.
Municipal Engineer

Dear Sirs:

Re: Dyke Inspection Report
Bridgeview and South Westminster

Attached is a copy of a dyke inspection report prepared by Mr. Fred Wodtke of this office. The dykes in Bridgeview and South Westminster are important for flood protection from high water levels in the Fraser River during the freshet which occurs during May, June and July. The Snow Bulletin, published six times in the Spring by the Water Management Branch gives predictions on runoff volumes. These bulletins should be consulted by your Public Works staff each Spring.

Please have your Public Works Department review the enclosed report and undertake the necessary repairs. Thank you for your prompt attention to the earlier report on the Crescent Beach sea dykes.

Yours truly

R. J. Henry, P. Eng.
Acting Inspector of Dykes

RJH:mr

Enclosure

INSPECTION REPORTDISTRICT: MUNICIPALITY OF SURREYSECTION: SOUTH WESTMINSTER/BRIDGEVIEW-FRASER RIVERDATE INSPECTED: F.A. WODTKE November 28 and 29, 1989

The condition of the flood protection works is as reported below:

- I. Dykes: (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)

Portion of dyke embankment removed, south side of Industrial Avenue next to Bolivar Creek
(See photo 687-5).

Old Yale Road at floodwall, upstream side of opening: Metal stop log slot is broken
off concrete, with damage to concrete at end of wall. (See photo 687-2). Some of
gates between floodwall and CNR have been vandalized.

- II. Bank Protection: (Loss of Rock, Settlement, Slumping)

N/A

- III. Floodboxes: (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)

Inflow observed at 128th Street floodbox at high water.

Other floodboxes okay.

- IV. Pumpstations: (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion) Note: Electrical & Mechanical Components not inspected.

Intake and outlets inspected only. Okay.

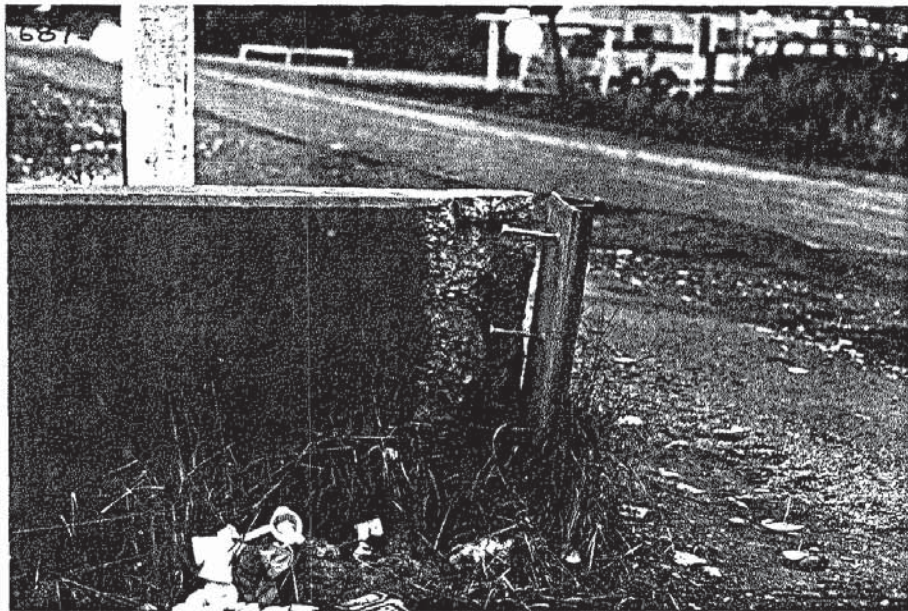
- V. Work Required:

Replace 'stolen' dyke fill at Bolivar Creek and Industrial Avenue. (Suggestion: Make fill
unattractive to potential 'borrowers'; i.e.: asphalt, etc.).

Check gate at 128th Street floodbox when tide is low.

Repair concrete end of floodwall at Old Yale and re-attach metal slot.

Remove cottonwood seedlings scattered close to floodwall (Contract #1) at some time in future.



Nov. 28, 1989. At foot of Old Yale Road. Metal stop log slot broken out of concrete floodwall. Surrey-South Westminster-Bridgeview.



Nov. 28, 1989. Surrey-South Westminster-Bridgeview. Dyke stub at south side of Industrial Avenue at Bolivar Creek is an easy material source for 'midnight borrowers'.



DISTRICT OF SURREY
Engineering Department

14245 - 56th Avenue, Surrey
British Columbia, Canada V3W 1J2

Telephone
(604) 591-4340

R.W. KYLE, B.Sc., P.Eng., Municipal Engineer

File: 4862-001 ^{Fax (604) 591-4527}

November 17, 1989

Ministry of Environment,
Water Management Branch,
34345 Vye Road,
Abbotsford, B.C.
V2S 4N2

RECEIVED

NOV 29 1989

INSPECTOR OF DYKES

Per S8-R-1

ATTENTION: Mr. Ron J. Henry, P. Eng.
Acting Inspector of Dykes

Dear Sir:

RE: DYKE INSPECTION REPORT
- CRESCENT BEACH -

In response to your letter of November 7, 1989 attached with the Inspection Report outlining maintenance work required at the Crescent Beach Sea Dyke, I wish to report the following.

Public Works Superintendent - Bill Hardie reported that the following will be completed by November 30, 1989 or sooner if possible:

- I. Dykes
Fissures appearing on the landside slope will be packed-in and resurfaced with a clay material.
- II. Bank Protection
Rip rap on both sides of the Government dock will be pulled back in place and more rip rap added.

Ron Henry is arranging for his Inspector to meet Bill Hardie to show him the location of his concern at the south foot of Maple Street.
- III. Floodboxes
Flapgate on the floodbox has been cleaned and the small leak is on the seating which we will try to seal.

We had been aware of the maintenance work needed earlier this year. Due to other priorities and our belief that they were not critical, we were leaving this work for when we could get to it which we have now done.

RAH.

If you require additional information, please advise.

Yours truly,



R. W. Kyle, P. Eng.,
Municipal Engineer



WH/hmf/4463x

c.c. - Ass't. Municipal Engineer - Operations
- Public Works Superintendent - Bill Hardie



Province of
British Columbia

Ministry of
Environment

Water Management Branch
34345 Vye Road
Abbotsford
British Columbia
V2S 4N2

Phone: 852-5404
FAX #: 852-5419

INSPECTOR OF DYKES

November 7, 1989

File: S8-R-1

District of Surrey
14245 - 56th Avenue
Surrey, B. C.
V3W 1J2

Attention: Mr. R.W. Kyle, P. Eng.
Municipal Engineer

Dear Sirs:

Re: Dyke Inspection Report - Crescent Beach

Enclosed is a copy of a dyke inspection report prepared by Mr. Fred Wodtke of this office. The report is specifically on the Crescent Beach Flood Control Works which were constructed under the terms of an agreement dated April 28, 1983, between your Municipality and the Ministry of Environment. Under this agreement, the District of Surrey accepted responsibility for maintenance of the completed works.

The report identifies some required maintenance work. Please have your Public Works Department review this report and undertake the necessary repairs. If there are any questions regarding the report, please do not hesitate to call.

An inspection of the Bridgeview and South Westminster dyking system will be conducted in the near future.

Yours truly

R. J. Henry, P. Eng.
Acting Inspector of Dykes

RJH:mr
Enclosure

INSPECTION REPORT

DISTRICT: MUNICIPALITY OF SURREY

SECTION: CRESCENT BEACH SEA DYKE

DATE INSPECTED: NOVEMBER 2nd, 1989

The condition of the flood protection works is as reported below:

- I. Dykes: (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)

Fissures appearing on patches of bare landside slope + Sta. 0+180 and 0+340, suggesting poor compaction of silt/clay lumps placed during construction.

- II. Bank Protection: (Loss of Rock, Settlement, Slumping)

Riprap disturbed, immediately south of Government Dock and toe erosion evident, Sta. 1+370 at south foot of Maple Street.

- III. Floodboxes: (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)

Small leak audible; check flapgate seating.

- IV. Pumpstations: (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion) Note: Electrical & Mechanical Components not inspected.

O.K.

- V. Work Required:

1. Fill and compact fissures on landside of dyke 0+180 and 0+340.

2. Riprap stable so far, but additional rock loss would require repairs.

3. Check floodbox gate for seating and/or debris during low tide.



DISTRICT OF SURREY
Engineering Department

14245 - 56th Avenue, Surrey
British Columbia, Canada V3W 1J2

Telephone
(604) 591-4340

R.W. KYLE, B.Sc., P.Eng., Municipal Engineer

File: 4861-006

November 20, 1986

Ministry of Environment,
Water Management Branch,
34345 Vye Road,
Abbotsford, B.C. V2S 4N2

ATTENTION: Mr. R. J. Henry, P. Eng.,
Assistant Inspector of Dykes.

Dear Sir:

RE: DISTRICT OF SURREY
BRIDGVIEW & SOUTH WESTMINSTER DYKE INSPECTION REPORT

RECEIVED

INSPECTOR OF DYKES

Per: S8-R-1

Further to your dyke inspection report and letter of October 7, 1986 covering the Flood Protection Systems for Bridgeview and South Westminster, we wish to report the following:

As of November 14, 1986 we actioned all items contained in your letter and inspection report except for the final repair to the cracked floodwall at the foot of Old Yale Road. As noted in the Operations Engineer's report, this crack has been temporarily sealed with expanding grout and will be permanently repaired next summer.

If you require additional information, please advise.

Yours truly,

R. W. Kyle, P. Eng.,
Municipal Engineer

CFG/hmf/34032

- c.c. - Ass't. Municipal Engineer - Operations
- Public Works Superintendent - Dale Hadden

RAH

**INTER-OFFICE MEMO**

TO: MUNICIPAL ENGINEER

FROM: ASS'T. MUNICIPAL ENGINEER
- OPERATIONS -

DATE: NOVEMBER 20, 1986

FILE: 4861-006

DATE NOV 25 1986

ENGINEERING DEPT.		
TO	BY	DATE
RWK	DW	
file	Wk	20/11/86

RE: DISTRICT OF SURREY
BRIDGEVIEW & SOUTH WESTMINSTER DYKE INSPECTION REPORT

Further to the dyke inspection report of October 7, 1986 covering the Flood Protection System for Bridgeview and South Westminster, we wish to report the following.

We have dealt with all items in the letter and report as follows:

REPORT Surrey - Bridgeview & South Westminster
Page 1 - 133 Street to Pattullo Bridge

I. Dykes

- 1) Missing sand from dyke along Bolivar Creek has now been replaced.
- 2) All gates and hinges have been inspected - all have either been repaired or replaced.
- 3) Small cottonwood trees growing along the flood wall have now been removed.
- 4) Portion of dyke disturbed by Canadian National Railway cable installation will be monitored on a regular basis. Surrey will ensure the cable installation contractor reinstate the dyke slopes properly.

III. Floodboxes

- 1) Logs and debris have been removed from inlet channel of 128 Street floodbox.
- 2) Repairs were completed to Pattullo Bridge floodbox to decrease the amount of gravel washed away.

V. Work Required

All work in items 1 through 5 of the report have now been completed or are underway as indicated above.

REPORT Surrey - South Westminster
Page 2 - Pattullo Bridge to Weldwood Mill

I. Dykes

- 1) The flood wall at the foot of Old Yale Road has been inspected and sealed with expanding grout for this year. In the summer of 1987 we will extensively route the cracks and regrout them with epoxy compound bonding agents and high strength expanding grout.
- 2) The surface access road has been graded and the ruts have been eliminated.

V. Work Required

All work requirements have now been actioned.



C.F. (Kip) Gaudry, P. Eng.,
Ass't. Municipal Engineer
- Operations

CFG/hmf/34016

c.c. - Public Works Superintendent - Dale Hadden

DS



October 7, 1986

File: ~~3-1-4~~ S8-R-1

District of Surrey
14245 - 56th Avenue
Surrey, B. C.
V3W 1J2

Attention: Mr. R.W. Kyle, P. Eng. - Municipal Engineer

Dear Sir:

Re: Dyke Inspection Report

A flood protection system protecting Bridgeview and South Westminster has been constructed by the Fraser River Flood Control Program. Under the agreement between Surrey and the Flood Control Program, the District of Surrey is responsible to operate and maintain the completed works. The purpose of my office is to ensure the flood protection system is being maintained adequately.

On October 6, 1986 I conducted an inspection of the Flood Protection System in Bridgeview and South Westminster with Dave McCarthy of the Whalley Depot. Enclosed is a copy of my report. In the report I have noted a few items of work to be done. Most of the items are routine maintenance, except for the damaged floodwall at the foot of Old Yale Road and the excavation of the dyke along Bolivar Creek.

The reinforced concrete floodwall at Old Yale Road has been cracked and damaged by someone backing into it. This should be investigated and the wall either repaired and/or the cracks sealed. I suspect the dyke at Bolivar Creek has been excavated and removed for about 30 metres south of 116th Avenue. This area should be surveyed to determine if the ground elevation is less than the dyke design elevation of 15.0 feet GSC. If so, the area should be raised and the dyke restored.

There has been operation and maintenance manuals prepared and sent to the District of Surrey. Apparently these manuals have not been obtained by the Whalley Depot personnel. The manuals are useful in understanding the flood protection system and should be available to

...2...

the works crews. As noted in the manuals, all changes to the dykes and floodwalls must be reviewed and approved by this office.

Should you or your staff have any questions regarding the flood protection system, please feel free to call me at 852-5404.

Yours truly,

A handwritten signature in cursive script, appearing to read "R. J. Henry".

R. J. Henry, P. Eng.
Assistant Inspector of Dykes

RJH/rc

c.c. Mr. Dale Haddon, District of Surrey

Enclosure

INSPECTION REPORT

DISTRICT: Surrey - South Westminster
SECTION: Pattullo Bridge to Weldwood Mill
DATE INSPECTED: October 6, 1986

The condition of the flood protection works is as reported below:

I. Dykes: (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)

1. Floodwall at foot of Old Yale Road has been cracked & damaged.
2. Top surface of access road along floodwall from Old Yale to Pattullo is badly rutted.

II. Bank Protection: (Loss of Rock, Settlement, Slumping)

O.K.

III. Floodboxes: (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)

O.K.

IV. Pumpstations: (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion) Note: Electrical & Mechanical Components not inspected.

O.K.

V. Work Required:

1. Repair cracked floodwall.
2. Grade top surface of access road.
3. Mow long grass on slopes of dyke.

INSPECTION REPORT

DISTRICT: Surrey - Bridgeview & South Westminster
SECTION: 133rd to Pattullo Bridge
DATE INSPECTED: October 6, 1986

The condition of the flood protection works is as reported below:

I. Dykes: (Access, Gates, Locks, Vegetation growth, Gravel surface, Height, Slopes, Erosion, Animal Burrows, Seepage, Trash, Berms, Relief Wells)

1. Portions of dyke along Bolivar Creek have been removed.
2. Most of the gates have been damaged & hinges broken.
3. Small cottonwood trees growing along floodwall.
4. There has been some disturbance of the dyke slopes due to underground cable installation along the CN yard.

II. Bank Protection: (Loss of Rock, Settlement, Slumping)

O.K.

III. Floodboxes: (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)

- inlet channel of 128th St. floodbox is full of logs & debris.
- some gravel being washed away along landside slope around Pattullo floodbox, repairs underway.

IV. Pumpstations: (Inlet & Outlet Channels, Structure, Trash Racks & Debris Removal, Discharge Structure & Flap Gate, Erosion) Note: Electrical & Mechanical Components not inspected.

O.K.

V. Work Required:

1. Replace dyke along Bolivar Creek.
2. Repair gates.
3. Remove cottonwood trees.
4. Make sure dyke slopes are reinstated after cable installation is complete.
5. Remove logs at inlet of 128th St. floodbox.

DAMAGE TO LIKE ALONG BOQUIAR CR.
- SUBSEQUENTLY REPAIRED BY SURREY.

OCT 6/86

