

Kent

Excel PB ✓  
Access PB ✓  
D100

**Please mail, e-mail or fax this form to the Inspector of Dikes  
by May 31, 2011**

**CONFIRMATION OF ANNUAL DIKE INSPECTION 2011**

**TO:**

Office of Inspector of Dikes  
Ministry of Forests, Lands and

Natural Resource Operations

10470 - 152nd St., 2<sup>nd</sup> Fl.  
Surrey, BC V3R 0Y3

**TEL:** 604 582-5200

**FAX:** 604 582-5235

**E-MAIL:** [judy.becker@gov.bc.ca](mailto:judy.becker@gov.bc.ca)

**FROM:**

District of Kent  
Mr. Matthew Connolly  
Mr. Mick Thiessen  
P.O. Box 70  
7170 Cheam Ave.  
Agassiz, BC V0M 1A0

**TEL:** 604 796-2235

**FAX:**

**CELL:** 604 819-1956

**E-MAIL:** [m.thiessen@district.kent.bc.ca](mailto:m.thiessen@district.kent.bc.ca)  
[connolly@district.kent.bc.ca](mailto:connolly@district.kent.bc.ca)

**RECEIVED**  
MAY 5 2011

**SOUTH COAST REGION**

1. Is your Annual (2011) Dike Inspection Complete?

YES ☒ NO ☐

If NO, please indicate expected completion date: \_\_\_\_\_

If YES, please provide date of inspection: \_\_\_\_\_

YY 2011 MM 04 DD 04 27

and attach the completed checklist and inspection report.

2. According to the Provincial Flood Protection Works Database, you are the diking authority contact person. Is all the information on the above label correct?

YES ☒ NO ☐

If NO, please provide updated details below - (this information also assists provincial agencies in case of flood emergencies):

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3. Is all the dike information for your dike(s) in the provincial database correct? (review green sheet(s) enclosed with mail out, or see the Dike Safety web page). YES ☒ NO ☐ If NO, please provide updated details below:

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

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Submitted by: Matthew Connolly

Date: April 29/2011

April 29, 2011

File No. 5225-04

Office of the Inspector of Dikes  
Ministry of Forests, Lands and Natural Resource Operations  
10470 152 Street, 2<sup>nd</sup> Floor  
Surrey, BC  
V3R 0Y3

**RE: District of Kent – 2011 Dike Inspection Report**

This report is intended to fulfill the requirements of the District of Kent's (District) Annual Dike Inspection Report. The District's dikes are officially known as *Kent Dykes, GPS No. 108* within the provincial database, sections referred to in this report were obtained from the Lower Mainland Dike Inventory Maps<sup>1</sup>. The official inspection took place on April 4 and April 27, 2011. Photographs are included in Appendix A.

**2011 Inspection**

Deficiencies

The District's dikes and pump stations are generally in good overall condition with a few exceptions including:

- minor damage to a gate post at the access to Appel Road (Dike Section A);
- unauthorized excavation and minor plantings along the toe of the dike at the west end of Cutler Road (Dike Section B) (Photographs 1, 2 and 3);
- gravel stockpiling and heavy machine damage at the south end of Hamilton Road (Dike Section C) (Photographs 4, 5 and 6); and
- downed trees are lying against the side slopes of the dike (Dike Section D).

A letter (Appendix B) has been sent to the land-owner at 5908 Cutler Road requesting that they remove the recently planted trees and re-instate the slope to its previous state by May 31, 2011.

There has been gravel stockpiling along the dike slope at the south end of Hamilton Road (Dike Section C). The company did obtain a Temporary Land-use Permit from the District for the stockpiled material. The permit specifies that "stockpiling and screening operations cannot take place on any portion of the dyke structure". Currently, large piles of stockpiled gravel material are pressed against the dike side slope; scarring from heavy machinery exists on the river-side

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<sup>1</sup> Integrated Land Management Bureau. October 2009. Kent 28. Available online at [http://www.env.gov.bc.ca/wsd/public\\_safety/flood/maps.html](http://www.env.gov.bc.ca/wsd/public_safety/flood/maps.html). Accessed April 27, 2011

(south) dike slope. The District has been pursuing the matter with the company responsible in order to remedy the situation. The large amount of material is too large to remove before the spring freshet; therefore, the District shall perform extensive monitoring of the section in order to mitigate any issues should they occur.

### **Maintenance Work Completed**

The gate post at the access to Appel Road has been repaired by the District's public works crew.

Additionally, the District undertakes annual surface and vegetation management strategies, which includes grading the top surface of the dike and adding three quarter inch crush material as needed. The side slopes are mowed twice annually to ensure sight lines are maintained which also assists in locating areas of concern such as slumping, seepage, erosion, loss of rock and beaver damage etc.

During the freshet all pump stations and flood gates are checked daily to ensure the flood prevention infrastructure is working as intended. Additionally, water levels are continually monitored and debris is removed from trash racks.

### **Maintenance Works Proposed**

The District plans to continue with its annual surface and vegetation management strategies as well as regular monitoring of equipment and pump stations into the coming year. The vegetation maintenance occurs in May and July of each year. Monitoring of equipment begins as the water begins to rise.

Additionally, the District has applied for funding to replace the aging Hammersley pump station. If funding is approved the District will begin the process of re-designing the pump station and constructing an additional flood box which will increase capacity of the pump station during high flow events.

There have not been any surveys performed on the dike within the last 12 months.

If you have further questions please do not hesitate to contact me at 604-796-2235.

Sincerely,



Matthew Connolly  
Environmental and Engineering Services Coordinator  
District of Kent

pc: Mick Thiessen, Director of Engineering

## Becker, Judy S ENV:EX

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**From:** Matthew Connolly [MConnolly@district.kent.bc.ca]  
**Sent:** Wednesday, April 27, 2011 11:47 AM  
**To:** Becker, Judy S ENV:EX  
**Subject:** RE: Dike Inspection Forms

Thanks Judy

*Regards,*

*Matthew Connolly  
Environmental and Engineering Services Coordinator  
District of Kent*

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**From:** Becker, Judy S ENV:EX [<mailto:Judy.Becker@gov.bc.ca>]  
**Sent:** Wednesday, April 27, 2011 11:32 AM  
**To:** Matthew Connolly  
**Subject:** RE: Dike Inspection Forms

Hi Matthew,

Yes of course, here are the forms for the Annual Dike Inspection Reporting and the 2011 Spring Freshet.

sincerely,

*Judy Becker  
Program Support  
for Ministry of Forests, Lands and Natural Resource Operations  
Website: [www.gov.bc.ca/nro](http://www.gov.bc.ca/nro)*

*Phone: 604 582-5294  
Fax: 604*

*Water for BC Safe, Sustainable and Valued by all.*





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**From:** Matthew Connolly [<mailto:MConnolly@district.kent.bc.ca>]

**Sent:** Wednesday, April 27, 2011 11:06 AM

**To:** Becker, Judy S ENV:EX

**Subject:** Dike Inspection Forms

Hi Judy,

I received a letter and the accompanying forms for the 2011 Annual Dike Inspection. I was wondering if I could get copies of the Confirmation Form and the Dike Inspection Checklist in an electronic format (e.g. Word, PDF, etc)

*Regards,*

*Matthew Connolly  
Environmental and Engineering Services Coordinator  
District of Kent*

**Appendix B**  
**Letter to Resident**



7170 Cheam Avenue  
P.O. Box 70  
Agassiz, British Columbia  
Canada V0M 1A0

Tel: (604) 796-2235  
Fax: (604) 796-9854  
Web: www.district.kent.bc.ca

COPY

April 28, 2011

File No. 5225-04

Registered Mail

s.22

RE: s.22

Dike Excavation

The District of Kent is the acting Diking Authority for the section of dike adjacent to your property at s.22. During a recent dike inspection it was revealed that the toe-of-slope along the riverside portion of the dike had been excavated and small trees had been planted in areas along the toe of slope.

Excavations and trees can have detrimental effects on the integrity of the diking system should water levels rise to flood heights. The dike is a safety feature constructed to protect against the possibility of flooding. Any excavation on the dike structure or within the dike right-of-way is strictly prohibited under the Dike Maintenance Act unless prior written approval has been obtained from the Inspector of Dikes.

The District requests that the toe-of-slope adjacent to your property be reinstated to its previous, unaltered state and any trees planted be removed by **May 31, 2011**. When the dike slope has been reinstated please contact the District to perform a follow-up inspection. Failure to correct this issue may result in fines, incarceration or both. Penalties for contravention of the Dike Maintenance Act are as follows:

*Section 6 (2) A person or diking authority who commits an offence under this section is liable on conviction to a fine of not more than \$200 000, and (b) if the offence is a continuing one, to a fine of not more than \$200 000 for each day the offence is continued or to imprisonment not exceeding 12 months, or to both a fine and imprisonment.*

April 28, 2011

Page 2 of 2

If you have any questions please do not hesitate to contact me at 604-796-2235.

Sincerely,

A handwritten signature in black ink, appearing to read 'Matthew Connolly', with a long horizontal flourish extending to the right.

Matthew Connolly  
Environmental and Engineering Services Coordinator  
District of Kent

pc: Mick Thiessen, Director of Engineering  
Scott Cosman, Deputy Inspector of Dikes

108 Kent

ENV. CAN.  
FLOOD CONTROL

## DIKE INSPECTION CHECKLIST

Dike Name (From database)

Kent Dykes

GPS No. (database)

108

Water Courses

Fraser, Harrison Rivers

Dike Section

All

Date Inspected

April 4 & 27, 2011

Signed

[Signature]

**For sections 1-4, please check the applicable box. If you check the Yes box, please explain in detail in your attached inspection report.** 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](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
X		

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

YES	NO	N/A
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- 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)

	X	
	X	
	X	

**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

	X	
	X	
	X	
	X	
X		
		X
	X	

#### 4. Vegetation Management

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

5. Report describes upgrading, repair and/or maintenance work (including vegetation management) completed in the past 12 months:

☒ Check complete

6. Report describes and encloses copies of any dike crest surveys and/or engineering studies/investigations completed in the past 12 months:

☒ Check complete

7. Report describes the work required in the next 12 months and the estimated schedule for completion:

☒ Check complete

8. Report includes photos, sketches, maps etc.

☒ Check complete

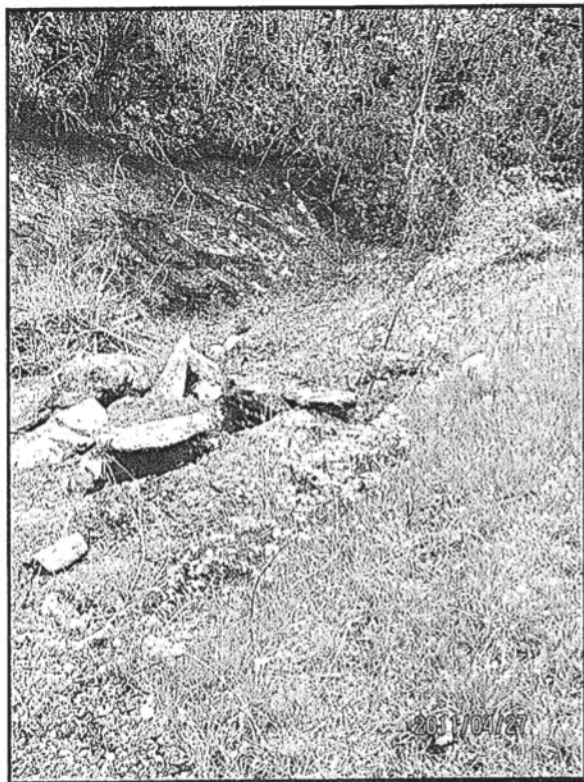
#### Notes on using this Check List:

1. This check list can be used as an outline for your comprehensive report.
2. Use the dike names and GPS Numbers on the provincial database (on web page or as shown on green sheet enclosed with mail out).
3. When referring to specific locations use chainages from the O&M manual drawings and/or major landmarks (roads, bridges etc). **Please do not use local property names.**

**APPENDIX A**  
**Inspection Photographs**



Photograph 1. Looking east at excavation along the toe-of-slope of dike section B (April 27, 2011)



Photograph 2. Looking west towards the dike's termination at Hopyard Mountain (April 27, 2011).





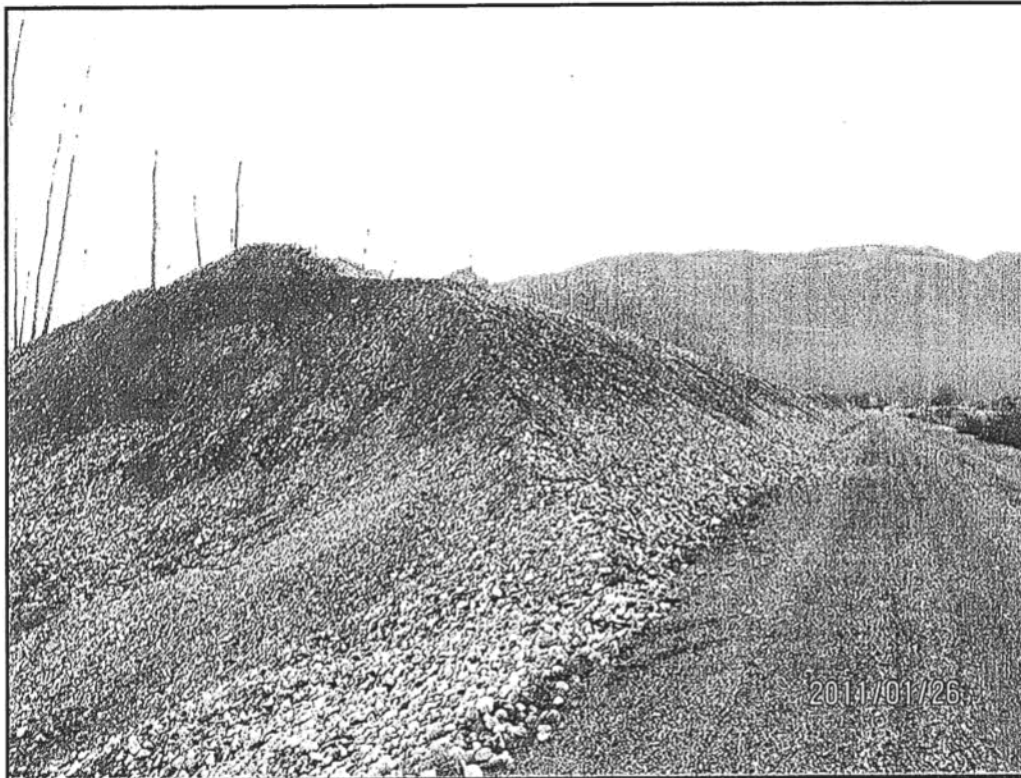
Photograph 3. Looking west at recent excavation along the toe of the dike and at recently planted conifers (April 27, 2011)



Photograph 4. West view of gravel stockpiled against the dike (April 27, 2011)



Photograph 5. Looking west at gravel pile adjacent to dike (January 26, 2011)



Photograph 6. West view of main gravel pile against dike (January 26, 2011)

**From:** Matthew Connolly [MConnolly@district.kent.bc.ca]  
**Sent:** Friday, June 1, 2012 1:06 PM  
**To:** Becker, Judy S ENV:EX  
**Cc:** Mick Thiessen  
**Subject:** District of Kent 2012 Dike Inspection Report  
**Attachments:** Confirmation of Annual Dike Inspection.pdf; District of Kent Dike Maintenance Report 2012.pdf

Hi Judy,

I've attached the District's diking report. Please let me know if you have any questions.

*Regards,*

*Matthew Connolly, EP  
Environmental and Engineering Services Coordinator  
Office: 604-796-2235  
Fax: 604-796-9854  
District of Kent*

**Please mail or e-mail this form to the Inspector of Dikes  
by May 31, 2012**

**CONFIRMATION OF ANNUAL DIKE INSPECTION 2012**

**TO:**

**FROM:**

Office of Inspector of Dikes  
Ministry of Forests, Lands and  
Natural Resource Operations  
10470 - 152nd St  
Surrey, BC V3R 0Y3  
E-mail: [judy.becker@gov.bc.ca](mailto:judy.becker@gov.bc.ca)

1. Is your Annual (2012) Dike Inspection Complete?

YES ☒ NO ☐

If NO, please indicate expected completion date:

If YES, please provide date of inspection: YY 2012 MM 05 DD 11

Please fill out and submit this form by e-mail to: [Judy.Becker@gov.bc.ca](mailto:Judy.Becker@gov.bc.ca) in PDF format by **May 31, 2012**. Enclose PDF copies of the Dike Inspection Check List and your comprehensive inspection report, if completed. If you have not completed the report, please forward it to this office no later than **October 31, 2012**.

If you are using mail, please send three hard copies of the confirmation form, the checklist and the inspection report to the attention of Judy Becker.

2. According to the Provincial Flood Protection Works Database, you are the diking authority contact person. Is all the information on the above label correct? YES ☒ NO ☐

If NO, please provide updated details below - (this information also assists provincial agencies in case of flood emergencies):

\_\_\_\_\_  
\_\_\_\_\_

3. Is all the dike information for your dike(s) in the provincial database correct? (review green sheet(s) enclosed with mail out, or see the Dike Safety web page). YES ☐ NO ☐

If NO, please provide updated details below:

\_\_\_\_\_  
\_\_\_\_\_

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

\_\_\_\_\_  
\_\_\_\_\_

Submitted by: 

Date: May 30/2012

## DIKE INSPECTION CHECK LIST

Dike Name (From database)

Kent Dykes

GPS No. (database)

108

Water Courses

Fraser, Harrison Rivers

Dike Section

Date Inspected

Signed

**For sections 1-4, please check the applicable box. If you check the Yes box, please explain in detail in your attached inspection report.** 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](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 <u>fixed</u> →	<input checked="" type="checkbox"/>		
• Slumping, cracking, sink holes		<input checked="" type="checkbox"/>	
• Animal Damage (beavers, animal burrows, <u>cattle</u> , etc.)	<input checked="" type="checkbox"/>	<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"/>	

## DIKE INSPECTION CHECK LIST

<b>4. Vegetation Management</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>
• 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. Report describes upgrading, repair and/or maintenance work (including vegetation management) completed in the past 12 months:**

☒ Check  
complete

**6. Report describes and encloses copies of any dike crest surveys and/or engineering studies/investigations completed in the past 12 months:**

☒ Check  
complete

**7. Report describes the work required in the next 12 months and the estimated schedule for completion:**

☒ Check  
complete

**8. Report includes photos, sketches, maps etc.**

☒ Check  
complete

**Notes on using this Check List:**

1. This check list can be used as an outline for your comprehensive report.
2. Use the dike names and GPS Numbers on the provincial database (on web page or as shown on green sheet enclosed with mail out).
3. When referring to specific locations use chainages from the O&M manual drawings and/or major landmarks (roads, bridges etc). **Please do not use local property names.**



7170 Cheam Avenue  
P.O. Box 70  
Agassiz, British Columbia  
Canada V0M 1A0

Tel: (604) 796-2235  
Fax: (604) 796-9854  
Web: [www.district.kent.bc.ca](http://www.district.kent.bc.ca)

May 31, 2012

File No. 5225-04

Via Email: [judy.becker@gov.bc.ca](mailto:judy.becker@gov.bc.ca)

Ms. Judy Becker,  
Office of the Inspector of Dikes  
Ministry of Forests, Lands and Natural Resource Operations  
10470 152 Street, 2<sup>nd</sup> Floor  
Surrey, BC  
V3R 0Y3

Dear Ms. Becker:

**RE: District of Kent – 2012 Dike Inspection Report**

This report is intended to fulfill the requirements of the District of Kent's (District) Annual Dike Inspection Report. The District's dikes are officially known as *Kent Dykes*, GPS No. 108 within the provincial database, sections referred to in this report were obtained from the Lower Mainland Dike Inventory Maps<sup>1</sup>. The official inspections took place on. Photographs are included in Appendix A.

The District's dikes and pump stations are generally in good overall condition. Vegetation and surface management practices are ongoing.

**2012 Maintenance Work Completed**

The District of Kent undertook a variety of maintenance activities over the past year including placing bank armor protection near station 118+80 on Dike D in the Harrison Mills-Kilby area (Photographs 1 and 2). An approval under the auspices of the *Dike Maintenance Act* was granted by the Inspector of Dikes (Appendix B). All works were monitored by a qualified engineer (P. Eng). The sealed as-built will be forthcoming within the coming months.

Gravel stockpiling adjacent to Dike C at the end of Hamilton Road mentioned in the 2011 Dike Inspection report has been removed and the bank restored (Photograph 3).

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<sup>1</sup> **Intergrated Land Management Bureau. October 2009.** Kent 28. Available online at [http://www.env.gov.bc.ca/wsd/public\\_safety/flood/maps.html](http://www.env.gov.bc.ca/wsd/public_safety/flood/maps.html). Accessed April 27, 2011



On April 29, 2012 District staff were notified of unusually high water levels in drainages that flow into the Mountain Slough. It was determined that the 125 HP pump at the Hammersley Pump Station had malfunctioned as the Fraser River was rising. Emergency pumps (Photographs 4 and 5) were brought in while the existing pump was removed and sent to be repaired (Photograph 6). Localized high water levels occurred (Photograph 7) but no infrastructure or homes were impacted. The pump has been repaired and re-installed. An alarm is being installed on the pump that will alert the District of unusually high water levels and of any future pump malfunctions.

Additionally, a situation arose where a local landowner erected a gate on the dike preventing access to the District (Photograph 8). The issue has been rectified and the Diking Inspector's office has been notified of the gate.

The District's Public Works staff undertook a variety of annual dike maintenance activities depicted in Table 1.

<b>Table 1. District of Kent Dike Maintenance Activities</b>	
<b>Date(s)</b>	<b>Activity</b>
January 18, 2011	Removal of Garbage from Dike
February 3, 2011	Fallen Tree Removal and Clean-up
February 15, 2011	Hammersley Flood Gates were repaired
February 16, 2011	Tree Removal and Clean-up
March 24 – 28, 2011	Dike surfaces were graded
May 10 – 31, 2011	Dike banks were mowed
June 1 – 2, 2011	Dike banks were mowed
September 9, 2011	Repaired Dike Gates on Dike D
September 13, 2011	Dike Banks Mowed
September 26, 2011	Tree Removal on Dike D
October 4, 2011	Garbage Removed from Dike A
October 26 – 31, 2011	Dike D Banks Mowed
November 1-10, 2011	Dike A, B and C Banks Mowed
November 16, 2011	Dike Gate Maintenance
May 1-31, 2012	Dikes A, B and C banks mowed
May 22-May 31, 2012	Dikes A, B and C Graded

### **Maintenance Works Proposed**

The District plans to continue with its annual surface and vegetation management strategies as well as regular monitoring of equipment and pump stations into the coming year. The vegetation maintenance occurs mainly in May and July of each year with some work being performed in the autumn.

Additionally, the District has received funding to upgrade and enhance the Hammersley Pump Station. A Request for Proposals was recently closed and the District is now in the process of selecting a consultant to provide detailed design for a new fish friendly pump station and the

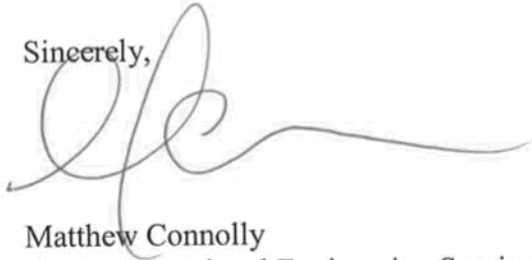


design and construction of an additional flood box which should increase capacity of the pump station during summer high flow events.

There have not been any surveys performed on the dike within the last 12 months.

If you have further questions please do not hesitate to contact me at 604-796-2235.

Sincerely,

A handwritten signature in black ink, appearing to read 'Matthew Connolly', with a long horizontal flourish extending to the right.

Matthew Connolly  
Environmental and Engineering Services Coordinator  
District of Kent

pc: Mick Thiessen, Director of Engineering

## **APPENDIX A**

### **Photographs**



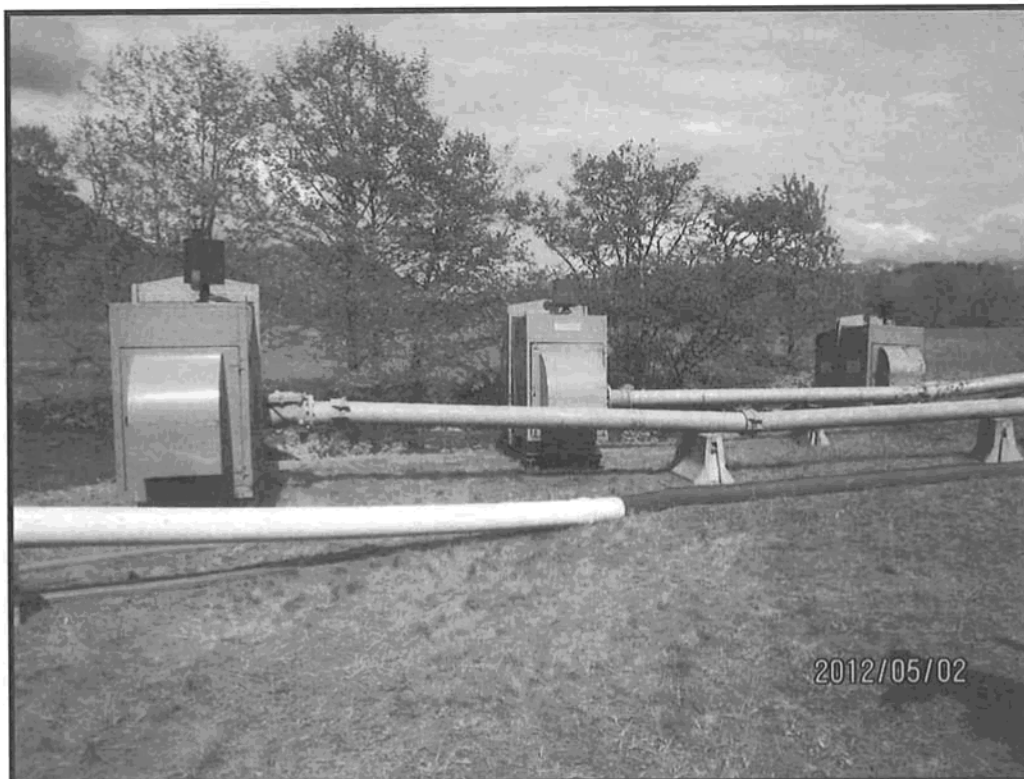
**Photograph 1. Looking south at Dike D in the area of heavy erosion (November 7, 2011)**



**Photograph 2. South view of rip rap work performed on Dike D to combat erosion (March 19, 2012)**



**Photograph 3. Looking west at Dike A at the end of Hamilton Road after bank stabilization was undertaken (April 16, 2012)**



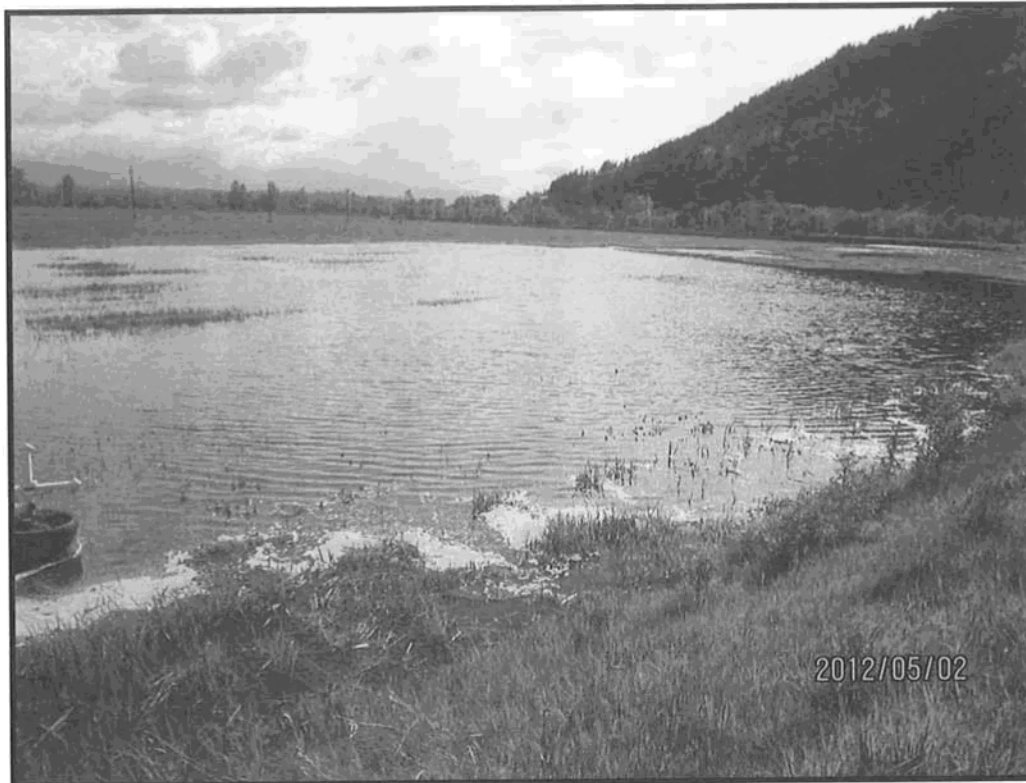
**Photograph 4. Emergency pumps used during Hammersley Pump Failure (May 2, 2012)**



**Photograph 5. Emergency Pumps Discharging downstream of the Hammersley Pump Station (May 2, 2012)**



**Photograph 6. Looking inside Hammersley Pump Station with 125 hp pump removed; 50 hp pump is still in operation (May 2, 2012)a**



**Photograph 7. Looking southwest at localized high water in a farmers field (May 2, 2012)**



**Photograph 8. Looking east at Dike recently installed by a local land owner (June 6, 2012)**

**APPENDIX B**  
**Dike Maintenance Act Approval**



February 8, 2012

Our File: 35050-20/DIOD/12Kentdist01

District of Kent  
PO Box 70  
7170 Cheam Avenue  
Agassiz BC

Attention: Matthew Connolly

**Re: Application for Placement of Erosion Protection – Kent Dike – District of Kent – Deputy Inspector of Dikes Review**

This is in regards to an application dated January 31, 2012 submitted to our office by you on behalf of the District of Kent requesting approval under Section 2 (4) of the *Dike Maintenance Act* (DMA) to place rip rap along approximately 60 metres of the dike. The works are to be located in the area of an eroded section of the water side of the Dike located roughly 150 meters downstream of the flood box at Sta. 74+70<sup>1</sup>.

The repairs works will be based on a drawing prepared by the District of Kent dated Feb 7, 2012 entitled "Kent D Dike Erosion Plot".

**This letter constitutes approval under the *Dike Maintenance Act* for the above noted works subject to the terms and conditions set forth below:**

**General**

1. The approval shall remain valid until Jan 1, 2013.

**Design and Construction**

2. The design and construction standards for the works should conform, where possible, to the 'Dike Design and Construction Guide – Best Management Practices for British Columbia July 2003'<sup>2</sup>,
3. The work shall be carried out under the direct supervision and guidance<sup>3</sup> of a Professional Engineer.

<sup>1</sup> Refer to our Dike Inventory Map for Kent for dike stationing  
[http://www.env.gov.bc.ca/wsd/public\\_safety/flood/maps/kent\\_28.pdf](http://www.env.gov.bc.ca/wsd/public_safety/flood/maps/kent_28.pdf)

<sup>2</sup> A downloadable copy is available from the Flood Hazard Management webpage  
<http://www.env.gov.bc.ca/wat/flood/structural.html>.



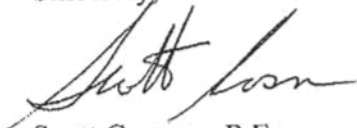
4. Construction shall be scheduled to avoid elevated water levels that occur during the annual freshet or fall/early winter rainy season to ensure public safety is not compromised.
5. Any damage to the dike (ancillary or otherwise) caused by the construction shall be restored to equal to or better than its former or original state. The repair of damages that could affect the structural integrity of the dike must be approved under section 2(4) of the Dike Maintenance Act. Provided the P.Eng confirms that damages do not affect the structural integrity of the dike then approval of the repairs would not be required.
6. As-Built Drawings: At the completion of the project 'As-Built' drawings of the works, (one full size set, and one 1/2 size set and digital copies in .pdf format) sealed by a Professional Engineer shall be provided to the Diking Authority as well as the Inspector of Dikes office for record purposes.

*Note: The Inspector of Dikes office shall receive written notification of a proposed schedule to complete the works if the works are not substantially complete by the approval expiry date. The Inspector of Dikes office, at its discretion, may grant a time extension and/or may initiate a further review of the project. This may result in amendments to approval requirements or require a new application and approval.*

Please note that the above approval pertains only to the *Dike Maintenance Act* and does not apply to any approvals, licenses or authorizations that may be required by our ministry or other approving agencies.

If you require further information, please contact me at 604.582.5220.

Sincerely,



Scott Cosman, P.Eng.  
Deputy Inspector of Dikes  
SBC/sbc

cc: Neil J. Peters, P.Eng., Inspector of Dikes

---

<sup>3</sup> As defined in Section 1(1) of the *Engineers and Geoscientist Act of BC*

**Please mail or e-mail this form to the Inspector of Dikes  
by May 31, 2013**

**CONFIRMATION OF ANNUAL DIKE INSPECTION 2013**

**TO:**

Office of Inspector of Dikes  
Ministry of Forests, Lands and  
Natural Resource Operations  
200 - 10428 - 153 Street  
Surrey, BC V3R 1E1

**TEL:** 604 586-4400

**FAX:** 604 586-2900

**E-MAIL:** [Diana.Ha@gov.bc.ca](mailto:Diana.Ha@gov.bc.ca)

**FROM:**

Mr. Matthew Connolly  
Mr. Mick Thiessen  
District of Kent  
PO Box 70, 7170 Cheam Avenue  
Agassiz, BC V0M 1A0

**TEL:** 604-796-2235

**FAX:** 604-796-9854

**CELL:**

**E-MAIL:** [mconnolly@district.kent.bc.ca](mailto:mconnolly@district.kent.bc.ca)

1. Is your Annual (2013) Dike Inspection Complete? YES ☒ NO ☐

If NO, please indicate expected completion date: \_\_\_\_\_

If YES, please provide date of inspection: YY 2013 MM 04 DD 09

Please fill out and submit this form by e-mail to: [Diana.Ha@gov.bc.ca](mailto:Diana.Ha@gov.bc.ca) in PDF format by **May 31, 2013**. Enclose PDF copies of the Dike Inspection Check List and your comprehensive inspection report, if completed. If you have not completed the report, please forward it to this office no later than **October 31, 2013**.

If you are using mail, please send two hard copies of the confirmation form, the checklist and the inspection report to the attention of Diana Ha.

2. According to the Provincial Flood Protection Works Database, you are the diking authority contact person. Is all the information on the above label correct? YES ☒ NO ☐

If NO, please provide updated details below - (this information also assists provincial agencies in case of flood emergencies):

\_\_\_\_\_  
\_\_\_\_\_

3. Is all the dike information for your dike(s) in the provincial database correct? (review green sheet(s) enclosed with mail out, or see the Dike Safety web page). YES ☐ NO ☒

If NO, please provide updated details below:

Also protects industrial and two federal prisons  
\_\_\_\_\_  
\_\_\_\_\_

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

\_\_\_\_\_  
\_\_\_\_\_

Submitted by: 

Date: May 10/2013

May 31, 2013

File No. 5225-04

Via Email: [Veronica.Russell@gov.bc.ca](mailto:Veronica.Russell@gov.bc.ca)

Ms. Veronica Russell  
Office of the Inspector of Dikes  
Ministry of Forests, Lands and Natural Resource Operations  
10470 152 Street, 2<sup>nd</sup> Floor  
Surrey, BC  
V3R 0Y3

Dear Ms. Russell:

**RE: District of Kent – 2013 Dike Inspection Report**

This report is intended to fulfill the requirements of the District of Kent's (District) Annual Dike Inspection Report. The District's dikes are officially known as *Kent Dykes*, GPS No. 108 within the provincial database, sections referred to in this report were obtained from the Lower Mainland Dike Inventory Maps<sup>1</sup>. The official inspections took place between April 5, 2013 and April 9, 2013. The Dike Inspection Checklist is included in Appendix A. Photographs are included in Appendix B.

The District's dikes and pump stations are generally in good overall condition. Vegetation and surface management practices are ongoing.

**2012 – 2013 Maintenance Work Completed**

During 2012-2013 the District repaired and maintained three pumps as depicted in Table 1.

**Table 1. District of Kent Pump Maintenance Completed**

Pump Station	Dike Location	Work Performed
Kilby Pump Station	Dike D	<ul style="list-style-type: none"> <li>• Serviced and Re-sealed</li> <li>• Wear Ring Replaced</li> <li>• Motor Rewound</li> <li>• Replaced Electrical Capacitors and Main Fuse</li> </ul>
Duncan-Bateson Pump Station	Dike D	<ul style="list-style-type: none"> <li>• Replaced a circuit board</li> <li>• Replaced two multi rangers</li> <li>• Replaced remote control</li> </ul>
Hammersley Pump Station	Dike C	<ul style="list-style-type: none"> <li>• 125 hp pump removed and rewound</li> </ul>

<sup>1</sup> **Intergrated Land Management Bureau. October 2009. Kent 28.** Available online at [http://www.env.gov.bc.ca/wsd/public\\_safety/flood/maps.html](http://www.env.gov.bc.ca/wsd/public_safety/flood/maps.html). Accessed April 27, 2011

The District's Public Works staff undertook a variety of annual dike maintenance activities between June 2012 to May 2013. Maintenance activities are depicted in Table 2.

<b>Table 1. District of Kent Dike Maintenance Activities</b>	
<b>Date(s)</b>	<b>Activity</b>
June 2012	Dikes Graded
	Dikes Mowed
	Tree Removal
	High water (Freshet) Inspections
July 2012	Tree Removal
November 2012	Dikes Mowed
	Dikes Graded
	Tree Removal
December 2012	Dikes Mowed
	Tree Removal
February 2013	Tree Removal
	Dike Surfacing
	Dikes Graded
	Dike Gate Repairs
March 1, 2013	Dike Gate Repairs
	Dike Surfacing
April 2013	Dike Inspections
	Dike Graded
	Dikes Mowed
	Dike Fence Repair

### Maintenance Works Proposed

The District plans to continue with its annual surface and vegetation management strategies as well as regular monitoring of equipment and pump stations into the coming year. The vegetation maintenance occurs mainly in May and July of each year with some work being performed in the autumn.

Additionally, the District has received funding to construct an additional third flood box at the Hammersley Pump Station. A detailed design to expand the pumping capacity has also been completed by the consulting engineer Opus DaytonKnight. The District is in the process of selecting a contractor to install a third flood box approximately 30 cm lower than the existing two flood boxes to enhance the discharge rate of the District's internal drainage system during heavy rains that are outside of the Fraser River freshet window. The District's existing Hammersley Pump Station has been identified by third party consultants including Northwest Hydraulics and Opus DaytonKnight as requiring upgrading to meet the flow requirements of a 50 year storm event.

If you have further questions please do not hesitate to contact me at 604-796-2235.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Connolly', with a long, sweeping horizontal stroke extending to the right.


Matthew Connolly  
Environmental and Engineering Services Coordinator  
District of Kent

pc: Mick Thiessen, Director of Engineering

## **Appendix A**

### **Dike Inspection Checklist**

## 2013 DIKE INSPECTION CHECK LIST

Dike Name (From database)	Kent Dykes	GPS No. (database)	108
Water Courses	Fraser River	Dike Section	All
Date Inspected	April 5 – April 9, 2013	Inspected	
		Signed	

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](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
X		

Location(s):

Dike D at Kilby Campground

Dike A at Scott Road to Cuthbert Road

Dike A at Tranmer Road to Appel Road

Dike D – School Road to Kilby Campground

Summary of Issues:

Gates need adjustment on Dike D

Gates need locks and adjustment on Dike A at Scott Road

Gate needs to be re-hung on Dike A between Tranmer and Appel Roads

Gate needs adjustment

Maintenance Recommendations:

Re-hang gates, add locks to gates without locks

When will Recommendations be Completed:

☐ Supplemental Photos & Descriptions Attached – Section 1

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

YES	NO	N/A
X		

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

Location(s):

Dike C at Limbert Road

Dike C at Hamilton to Limbert

Dike D at Kilby Campground

Dike D Train Tracks to Scowlitz

Summary of Issues:

Dike edge damaged by tree removal on Dike C

Erosion from Harrison River causing loss of dike material on dike D

Unauthorized use of off road vehicles causing side slope and surface damage

Maintenance Recommendations:

Tree Removal and Rip Rap on Dike D

When will Recommendations be Completed: Post Freshet 2013

## 2013 DIKE INSPECTION CHECK LIST

	YES	NO	N/A
<ul style="list-style-type: none"> <li>Bank Protection (loss of rock, settlement, slumping)</li> </ul>		X	
<p>Location(s):</p> <p>Summary of Issues:</p> <p>Maintenance Recommendations:</p> <p>When will Recommendations be Completed:</p>			
<ul style="list-style-type: none"> <li>Flood Boxes/Pump stations (inlet/outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, mechanical components)</li> </ul>	X		
<p>Location(s):</p> <p>Kilby Pumps, Duncan Bateson and Hammersley Pumps maintained and repaired in 2012 and 2013</p> <p>Summary of Issues:</p> <p>Maintenance Recommendations:</p> <p>All complete. Pumps are being maintained regularly</p> <p>When will Recommendations be Completed: n/a</p>			
<ul style="list-style-type: none"> <li>Culverts/Discharge Pipes (breaks, holes, cracks, corrosion, deterioration)</li> </ul>		X	
<p>Location(s):</p> <p>Summary of Issues:</p> <p>Maintenance Recommendations:</p> <p>When will Recommendations be Completed:</p>			

☐ Supplemental Photos & Descriptions Attached – Section 2



## 2013 DIKE INSPECTION CHECK LIST

3. Were any of the following serious problems observed? (if yes, please attach a photo or a sketch)	YES	NO	N/A
<ul style="list-style-type: none"> <li>Seepage (and/or evidence of piping)</li> </ul>	X		
<p>Location(s):</p> <p>Dike D</p> <p>Summary of Issues:</p> <p>Seepage occurred in a number of areas in Harrison Mills from the Harrison River during 2012 freshet. Water levels were significantly high and sustained in 2012. Seepage was more prevalent in 2012; however, it does occur throughout the District each year during the freshet.</p> <p>Maintenance Recommendations:</p> <p>Continued monitoring of seepage</p> <p>Ensure the availability of backup pumps</p> <p>When will Recommendations be Completed: During the next annual freshet</p>			
<ul style="list-style-type: none"> <li>Erosion</li> </ul>	X		
<p>Location(s):</p> <p>Dike D</p> <p>Summary of Issues:</p> <p>Erosion and loss of material occurred on Dike D near Kilby Campground and through Scowlitz Reserve due to high sustained flows during the 2012 freshet</p> <p>Maintenance Recommendations:</p> <p>Tree removal and rip rap placement at Kilby adjacent to Kilby provincial Park</p> <p>Monitoring at Scowlitz</p> <p>When will Recommendations be Completed: Post Freshet</p>			
<ul style="list-style-type: none"> <li>Slumping, cracking, sink holes</li> </ul>		X	
<p>Location(s):</p> <p>Summary of Issues:</p> <p>Maintenance Recommendations:</p> <p>When will Recommendations be Completed:</p>			

## 2013 DIKE INSPECTION CHECK LIST

	YES	NO	N/A
<ul style="list-style-type: none"> <li>Animal Damage (beavers, animal burrows, cattle, etc.)</li> </ul>		X	
<p>Location(s):</p> <p>Summary of Issues:</p> <p>Maintenance Recommendations:</p> <p>When will Recommendations be Completed:</p>			
<ul style="list-style-type: none"> <li>Unauthorized construction (excavations, utilities, structures)</li> </ul>		X	
<p>Location(s):</p> <p>Summary of Issues:</p> <p>Maintenance Recommendations:</p> <p>When will Recommendations be Completed:</p>			
<ul style="list-style-type: none"> <li>Channel infilling and aggregation</li> </ul>	X		
<p>Location(s):</p> <p>Fraser River, Harrison River (especially prevalent at the confluence)</p> <p>Summary of Issues:</p> <p>Higher flows, increased seepage due to the addition of sand and gravel deposits in the river.</p> <p>Maintenance Recommendations:</p> <p>Remove gravel and sand in effected areas.</p> <p>When will Recommendations be Completed: Provincial jurisdiction</p>			

## 2013 DIKE INSPECTION CHECK LIST

	YES	NO	N/A
<ul style="list-style-type: none"> <li>Significant flood levels (within free board) within the last 12 months</li> </ul>		X	
<p>Location(s):</p> <p>Summary of Issues:</p> <p>Maintenance Recommendations:</p> <p>When will Recommendations be Completed:</p>			
<input type="checkbox"/> Supplemental Photos & Descriptions Attached – Section 3			

### 4. Vegetation Management

<ul style="list-style-type: none"> <li>Hampers or prevents access?</li> </ul>		X	
<p>Location(s):</p> <p>Summary of Issues:</p> <p>Maintenance Recommendations:</p> <p>When will Recommendations be Completed:</p>			
<ul style="list-style-type: none"> <li>Reduces visibility to each toe?</li> </ul>		X	
<p>Location(s):</p> <p>East end of Dike D from last gate to mountain</p> <p>Dike D - Kilby Campground area</p> <p>Dike A and Dike B</p> <p>Summary of Issues:</p> <p>Portions of all dikes listed have trees and/or shrubs restricting visibility</p> <p>Maintenance Recommendations: remove trees and shrubs</p> <p>When will Recommendations be Completed: Vegetation management is ongoing with sections of Dike D completed in 2012.</p>			

## 2013 DIKE INSPECTION CHECK LIST

	YES	NO	N/A
• Trees in or near dike (within 2m from toe) with potential for uprooting?	X		
<p>Location(s):</p> <p>3 large trees near north end just outside dike bank between Cuthbert and McDonald Roads (Photograph 2)</p> <p>Maintenance Recommendations: Tree and root removal; dike rehabilitation necessary due to large root systems</p> <p>When will Recommendations be Completed: When additional funding is in place</p>			
• Multi-year vegetation management plan in place?	X		
<p>If not, please discuss how one will be put into place:</p>    			

☐ Supplemental Photos & Descriptions Attached – Appendix B

### Notes on using this Check List:

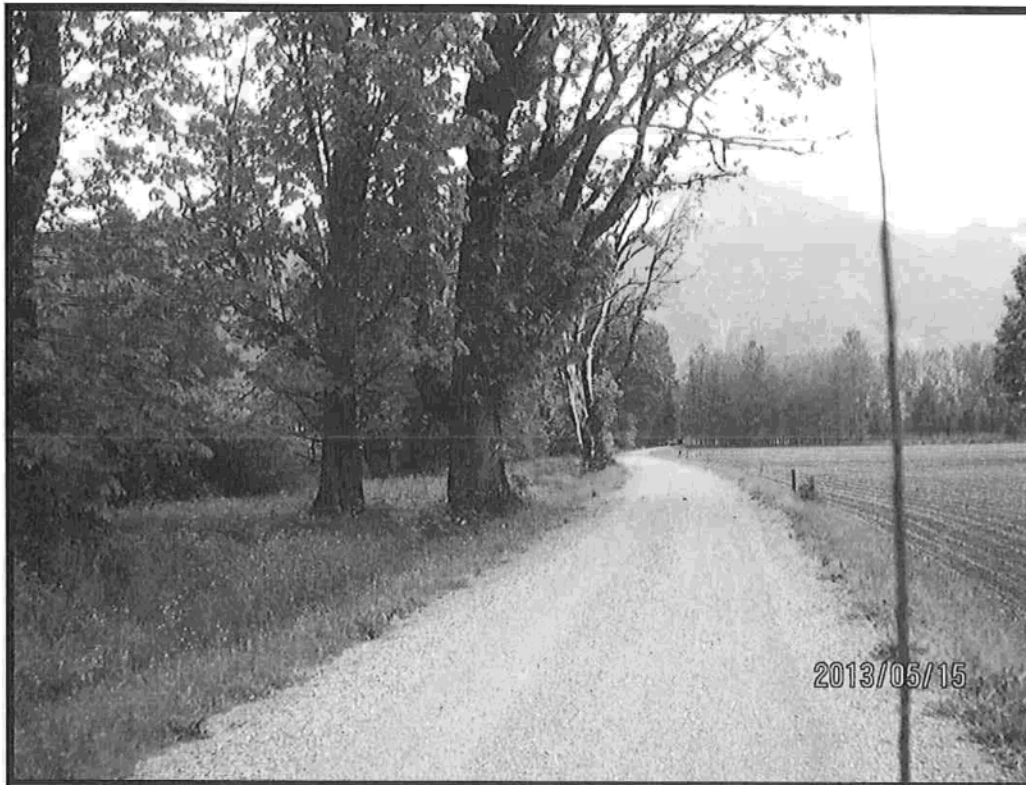
1. This check list can be used as an outline for your comprehensive report.
2. Use the dike names and GPS Numbers on the provincial database (on web page or as shown on green sheet enclosed with mail out).
3. When referring to specific locations use:
  - Chainages from the O&M manual drawings,
  - Major landmarks (roads, bridges, etc.),
  - And if possible, GPS coordinates.
  - **Please do not use local property names.**

## **Appendix B**

### **Photographs**



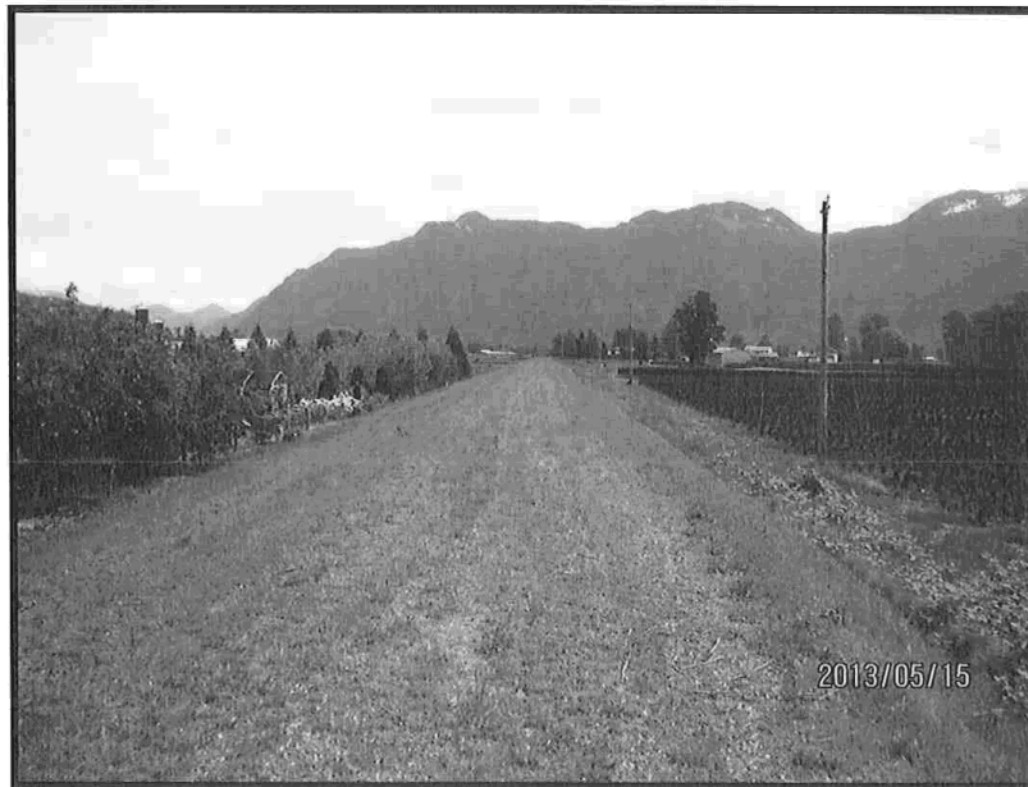
Photograph 1. Looking south on Dike D at the approximate location of Station 0+00 (May 8, 2013)



Photograph 2. South view of Dike A where three large trees are growing in the dike between Stations 20+00 and 73+20. (May 15, 2013)



**Photograph 3. Southwest view of Dike A near Station 73+20 (May 15, 2013)**



**Photograph 4. East view of Dike A from Whelpton Road crossing (May 15, 2013)**

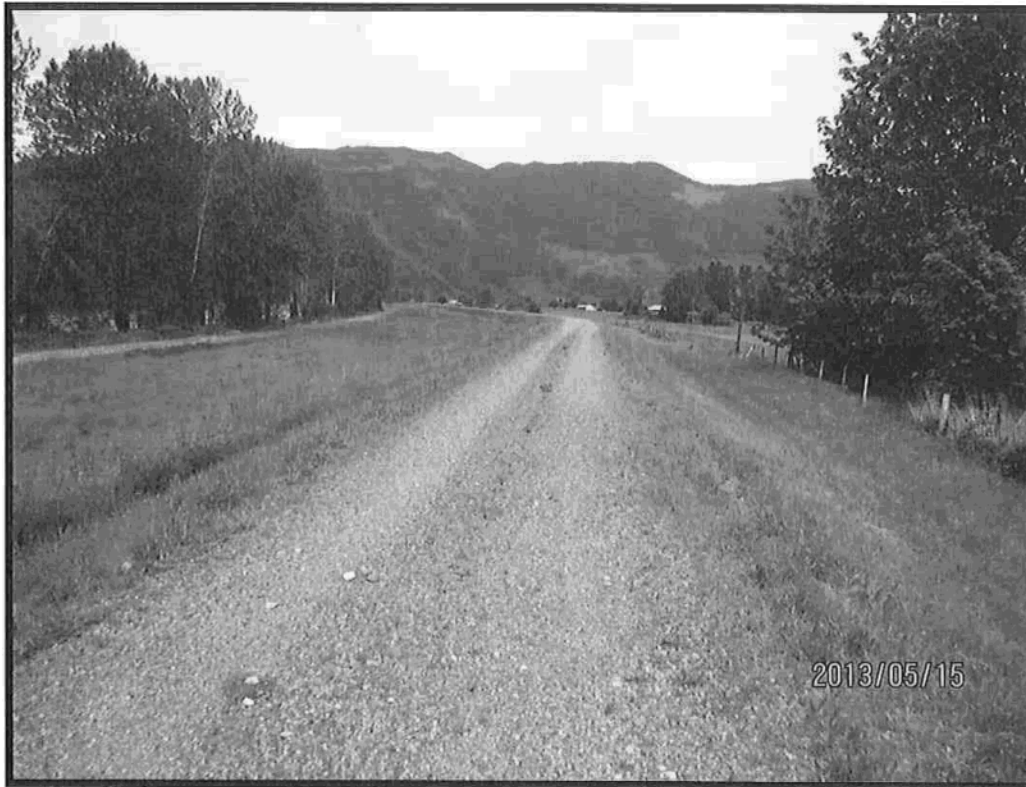


**Photograph 5. Looking east at Dike A towards Station 193+23 (May 15, 2013)**



**Photograph 6. West view of Dike B near the dike and Tuytens Road crossing (May 15, 2013)**





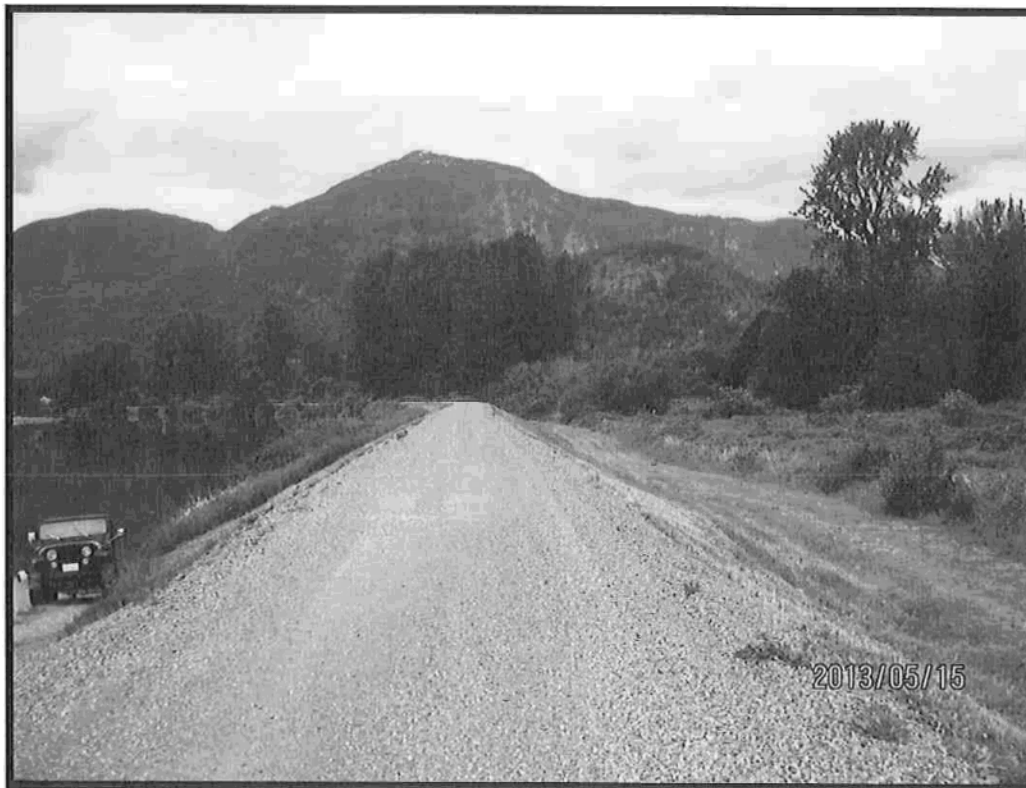
Photograph 7. Looking west at Dike C from the Hamilton Road crossing (May 15, 2013)



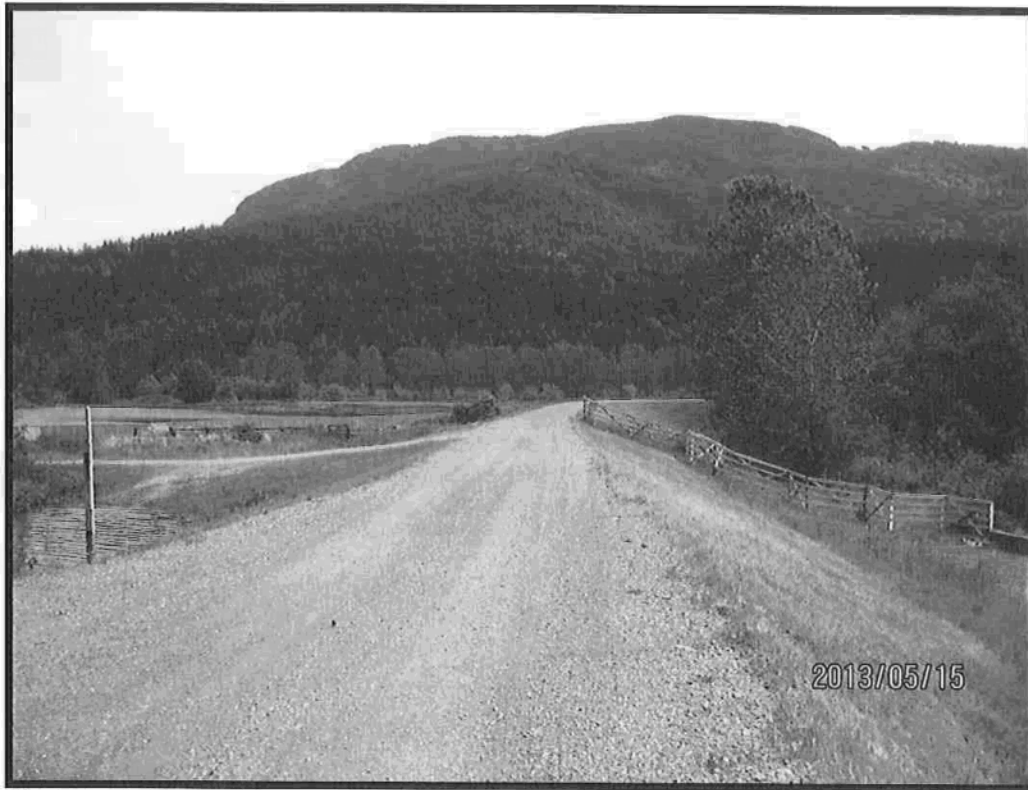
Photograph 8. Looking northwest at Dike C from Station 53+00 (Limbert Road). (May 15, 2013)



Photograph 9. Looking west at Dike D between Stations 0+00 and 74+00 (May 15, 2013)




Photograph 10. Northwest view of Dike D north of Station 74+00 (May 15, 2013)



**Photograph 11. Looking northeast at Dike D from the Duncan-Bateson Pump Station (Pump Station 19) May 15, 2013.**

## DIKE MAINTENANCE ACT APPROVAL - APPLICATION FORM

PART 1. CONTACT INFORMATION		
Name of Applicant: District of Kent		Applicant File Number (if applicable):
Name of Applicant Contact or Agent: Matthew Connolly		
E-mail Address of Contact: mconnolly@district.kent.bc.ca		
Home Phone: ( )	Business Phone: (604) 798 2235	Fax Number: ( )
Mailing Address for Correspondence from Ministry of Environment: 7170 Cheam Avenue P.O. Box 70 Agassiz, BC, V0M 1M0		
		Postal Code: V0M 1M0
Applicant or Agent's Signature(s): 		Date: June 10/2010
<b>NOTE:</b> The purpose of this form is to highlight this application's major points to allow Ministry staff to both understand the key aspects of the project and to prioritize the application accordingly. For more information on the processing of this application, please read the preceding <b>Approval Process</b> .		

PART 2. EXISTING CONDITIONS
Name of Dike and responsible Diking Authority (from Provincial Database at <a href="http://wlapwww.gov.bc.ca/wat/flood/pdfs_word/dikesriver.pdf">wlapwww.gov.bc.ca/wat/flood/pdfs_word/dikesriver.pdf</a> ) Dike C, Kent 28, District of Kent
Exact Location of Proposed Works (Chainage specified on dyke maps at <a href="http://wlapwww.gov.bc.ca/wat/flood/maps.html#lmd_dikemaps">wlapwww.gov.bc.ca/wat/flood/maps.html#lmd_dikemaps</a> or UTM Coordinates from <a href="http://srmapps.gov.bc.ca/apps/wlap_wrbc/">srmapps.gov.bc.ca/apps/wlap_wrbc/</a> : 591418 , 5453087
Adjacent Water Body(source of flooding): Fraser River

PLEASE RETAIN A COPY OF THIS APPLICATION FOR YOUR RECORDS

FOR OFFICE USE ONLY	
Date Ministry Received Application:	Diking Authority File Number:
	Priority/Deadline:
Preliminary Review and the Initial Applicant Consultation Complete on: - _____(date)	
Comments:	

## DIKE MAINTENANCE ACT APPROVAL - Application Form

### PART 3. PROPOSED WORKS

Briefly describe your proposed works:

Installation of security gate

Provide a proposed construction schedule & note any constraints/milestones if important:

asap → waiting on approval

Briefly describe your approach to ensure the integrity of existing flood protection system(s) is not compromised by the installation of the works:

will be on existing asphalt

Have you referred to the 'Provincial Design and Construction Guide' in your design? Yes or No (circle one)

Are there any exceptions to this guide? Yes or No (circle one)

If yes, how and why have you deviated?

### PART 4. REQUIRED ATTACHMENTS

Check off attachments to this application form:

- ☐ General Location Plan
- ☐ Detailed Site Plan
- ☒ Preliminary Design Drawings and Specifications
- ☐ Design Brief
- ☐ Previous correspondence regarding this site from the Ministry

If any required attachments are not included, please explain why.

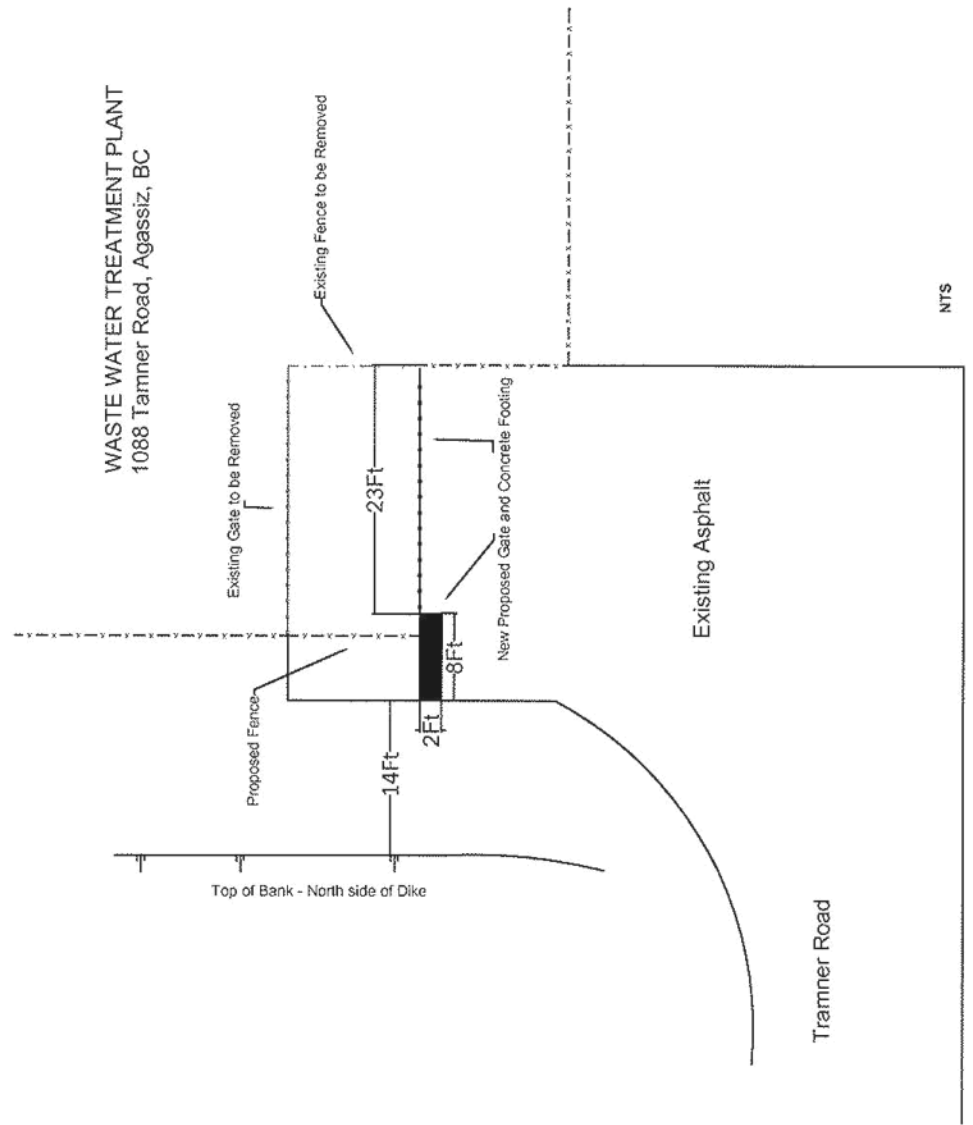
Only building a gate!

Have you included attachments not listed above? Please list them below.

Photographs of area

**Note:** Please forward a copy of this application to the appropriate Deputy Inspector of Dikes office as specified at [wapwww.gov.bc.ca/wat/flood/dykeinsp.html](http://wapwww.gov.bc.ca/wat/flood/dykeinsp.html) and to the Diking Authority responsible for the dike's operation and maintenance (see database: [wapwww.gov.bc.ca/wat/flood/pdfs\\_word/dikesauthority.pdf](http://wapwww.gov.bc.ca/wat/flood/pdfs_word/dikesauthority.pdf).)

- ☐ Please confirm that a copy of this application has been forwarded to the Diking Authority





The Best Place on Earth

June 17, 2010

Our File: 35050-20/DIOD/10KENTDIST01

District of Kent  
7170 Cheam Avenue  
P.O. Box 70  
Agassiz BC V0M 1M0

Attention: Matthew Connolly

**Re: Application for the Installation of a Security Gate and Concrete Footing on the Kent 'A' Dike, District of Kent, BC – Deputy Inspector of Dikes Review.**

### 1.0 Introduction

This is in regards to an application submitted to our office June 14, 2010 by you on behalf of the District of Kent requesting approval under Section 2 (4) of the *Dike Maintenance Act* (DMA) to install a gate and a concrete footing on the Kent 'A' Dike, in the vicinity of dike station 95+00<sup>1</sup>.

### 2.0 Reference Materials

We have reviewed your correspondence including the following:

- A completed Dike Maintenance Act application form accompanied by a sketch of the proposed work and photographs of the site.

As well, reference has been made to the following Fraser River Flood Control Program As-built drawing for Project No. 1 – District of Kent prepared by Willis Cunliffe Tait & Company Ltd.:

Drawing No.	Sheets	Title	Rev	Rev. Date
4758-2-3-IN	3 of 16	Contract No.2 Dyke Reconstruction Section A	As-Constructed	February 1975

### 3.0 Summary of the Proposed Works

The proposed works include the construction of a new security gate and a concrete footing (8 feet long by 2 feet wide) at the Waste Water Treatment Plant, 1088 Tamner Road, Agassiz, BC. The concrete footing will require the excavation of a 2 feet deep trench. A section of the existing gate will also be removed as indicated in the referenced sketch.

<sup>1</sup> Refer to the following link to dike inventory map for Kent #28 for dike stationing;  
[http://www.env.gov.bc.ca/wsd/public\\_safety/flood/maps/kent\\_28.pdf](http://www.env.gov.bc.ca/wsd/public_safety/flood/maps/kent_28.pdf)

#### 4.0 Approval

This letter constitutes approval under the *Dike Maintenance Act* for the above noted works subject to the terms and conditions set forth below:

##### General

1. The approval shall remain valid until December 1, 2010.

##### Design and Construction

2. The design and construction standards for the works should conform, where possible, to the 'Dike Design and Construction Guide – Best Management Practices for British Columbia July 2003'<sup>2</sup>
3. Construction shall be scheduled to avoid elevated water levels that occur during the annual freshet to ensure public safety is not compromised.
4. The works shall not result in any long term obstruction to equipment access along the dike.

##### Quality Control and Assurance

5. Any damage to the dike (ancillary or otherwise) caused by the construction shall be restored to equal to or better than its former or original state.

*Note: The Inspector of Dikes office shall receive written notification of a proposed schedule to complete the works if the works are not substantially complete by the approval expiry date. The Inspector of Dikes office, at its discretion, may grant a time extension and/or may initiate a further review of the project. This may result in amendments to approval requirements or require a new application and approval.*

Please note that the above approval pertains only to the Dike Maintenance Act and does not apply to any approvals, licenses or authorizations that may be required by our ministry or other approving agencies.

If you require further information, please contact me at 604.582.5220.

Sincerely,



Scott Cosman, P.Eng.  
Deputy Inspector of Dikes  
AS/-

cc: Neil J. Peters, P.Eng., Inspector of Dikes

---

<sup>2</sup> A downloadable copy is available from the Flood Hazard Management webpage  
[http://www.env.gov.bc.ca/wsd/public\\_safety/flood/structural.html](http://www.env.gov.bc.ca/wsd/public_safety/flood/structural.html)





1: 2,838

0.1 Miles

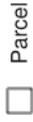


This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

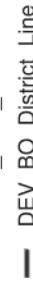
NAD\_1983\_UTM\_Zone\_10N  
© Latitude Geographics Group Ltd.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

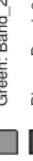
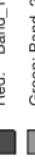
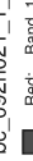
Legend



BASE\_DRA\_Oct2013



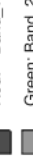
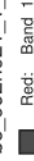
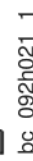
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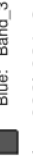
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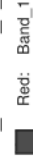
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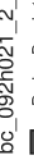
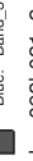
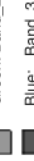
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bc\_092h021\_2\_2\_xc200mm\_l



bc\_092h021\_2\_3\_xc200mm\_l



Notes

## **Mahon, Claudia FLNR:EX**

---

**From:** Matthew Connolly <MConnolly@district.kent.bc.ca>  
**Sent:** Monday, April 25, 2016 9:34 AM  
**To:** Bristol, Mike FLNR:EX  
**Cc:** Mick Thiessen; Matthew Connolly  
**Subject:** RE: Unauthorized Dike Works

Hi Mike,

In follow-up to our telephone conversation, I spoke with s.22  
s.22 told me he went over the dike with an excavator but didn't do any actual excavation in or around the dike. The caps we see in the pictures are new caps but they are connected to an existing line.

As there was no actual excavation or damage to the dike it looks like it was a false alarm and there is nothing more needed to be done.

Any questions please let me know.

Regards,

Matthew Connolly  
Environmental and Engineering Services Coordinator District of Kent PO Box 70 - 7170 Cheam Ave Agassiz, BC  
Office: 604-796-2235  
Fax: 604-796-9854

-----Original Message-----

From: Bristol, Mike FLNR:EX [<mailto:Mike.Bristol@gov.bc.ca>]  
Sent: Thursday, April 21, 2016 4:11 PM  
To: Matthew Connolly <MConnolly@district.kent.bc.ca>  
Subject: RE: Unauthorized Dike Works

Hi Matt,

We'd like to understand more about this situation. I know you're trying to get more info....

Just to let you know, I will be away tomorrow and back on Monday (and you were away today).

Regards  
Mike

Mike Bristol  
Deputy Inspector of Dikes  
Flood Safety Section  
South Coast Region  
Ministry of Forests, Lands and Natural Resource Operations Surrey

Tel 604 586-5642

-----Original Message-----

From: Matthew Connolly [<mailto:MConnolly@district.kent.bc.ca>]

Sent: Tuesday, April 19, 2016 3:30 PM

To: Bristol, Mike FLNR:EX

Cc: Pattle, John R FLNR:EX; Mick Thiessen; Matthew Connolly

Subject: Unauthorized Dike Works

Hi Mike,

We've uncovered some additional work on the dike that I'm assuming your office wasn't aware of. I've left a message for the owner trying to find out what was done but it looks like they've put pipes through the dike.

I've attached some photos and a location map. I'll follow up when I get additional information.

Regards,

Matthew Connolly

Environmental and Engineering Services Coordinator District of Kent PO Box 70 - 7170 Cheam Ave Agassiz, BC

Office: 604-796-2235

Fax: 604-796-9854

-----Original Message-----

From: Chris Hardy

Sent: Tuesday, April 19, 2016 1:19 PM

To: Matthew Connolly <[MConnolly@district.kent.bc.ca](mailto:MConnolly@district.kent.bc.ca)>

Subject:



**THURBER ENGINEERING LTD.**

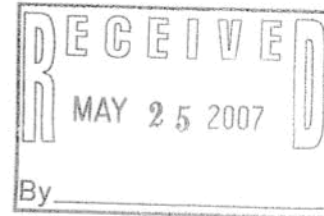
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS

May 22, 2007

File: 14-123-6

District of Kent  
P.O. Box 70  
Agassiz, BC  
V0M 1A0

Attention: Mr. Mick Thiessen, A.Sc.T.  
Operations Manager



### **FRASER RIVER DYKES - GEOTECHNICAL ASSESSMENT**

Dear Sirs:

This letter hereby summarizes the results of the inspection carried out on May 4 with you and (part-time) Mr. Larry Burke to assess the condition of the dykes and the improvements being carried out. Our comments are as follows:

1. Dykes A, B, C and D shown on the Ministry of Environment's 1:25,000 scale maps were inspected. All Dykes were inspected by vehicle except for a 1.5 km section east of the Hammersley Pump Station, which was traversed on foot to observe the tie-in of the dyke and the CPR embankment, and intermittent stops to inspect particular dyke locations.
2. Dykes A, B and C were in generally good condition and, according to the profiles provided, had a crest elevation above the design flood elevation. In the case of Dyke C, the dyke crest generally provided the 0.6 m freeboard required above flood level.
3. Dyke D was in the process of being raised to provide freeboard using pit-run gravel from the District's pit overlain by a running surface of crushed gravel. The Dyke crest was not widened except for spilling of the crushed gravel over the upper slope. The additional fill was being compacted by a vibratory roller on the crest and by a hoe-pac on the slope. This procedure will provide a satisfactory dyke except in the event that the flood level rises to allow the recently placed gravel to be attacked by the current. Depending on the velocity, the gravel may be eroded and the crest width reduced. Emergency repairs using larger crushed material (minus 150 mm, or even riprap) may be necessary



THURBER ENGINEERING LTD.

We trust this is sufficient for your present needs. If we can be of further assistance, please do not hesitate to contact us.

Yours very truly,  
Thurber Engineering Ltd.

A handwritten signature in dark ink, appearing to read 'D. Smith', is positioned to the left of the professional engineer's stamp.



D. Smith, P.Eng.  
Principal

DS/cw

35A50-20/D10A/Kent dist/Gen

**Cosman, Scott B FLNR:EX**

---

**From:** Cosman, Scott B FLNR:EX  
**Sent:** Tuesday, May 15, 2012 1:22 PM  
**To:** 'Matthew Connolly'  
**Subject:** RE: Dike Gates

Hi Matthew

There is no way to approve an existing installation after the fact. The Dike Maintenance Act only allows for "prior written approval". That said, based on the sketches and photos our office would not have any objections to the gate provided District of Kent has a key for emergency response and provided that the District of Kent is prepared to accept the gate. I would also suggest that you communicate to the land owner that he should have gotten approval under the Act prior to installing the works as this was a legal requirement.

Scott Cosman, P.Eng.  
Dike Safety Specialist  
Ministry of Forests, Lands, and Natural Resource Operations  
Ph (604) 582-5220  
Fax (604) 582-5235  
[Scott.Cosman@gov.bc.ca](mailto:Scott.Cosman@gov.bc.ca)  
[http://www.env.gov.bc.ca/wsd/public\\_safety/flood/fhm-2012/safety\\_index.html](http://www.env.gov.bc.ca/wsd/public_safety/flood/fhm-2012/safety_index.html)  
10470-152 Street, Surrey B.C.  
V3R 0Y3

---

**From:** Matthew Connolly [<mailto:MConnolly@district.kent.bc.ca>]  
**Sent:** Tuesday, May 15, 2012 12:23 PM  
**To:** Cosman, Scott B FLNR:EX  
**Subject:** RE: Dike Gates

Yes they were. We've done our dike inspection through the area already.

---

**From:** Cosman, Scott B FLNR:EX [<mailto:Scott.Cosman@gov.bc.ca>]  
**Sent:** Tuesday, May 15, 2012 12:15 PM  
**To:** Matthew Connolly  
**Subject:** RE: Dike Gates

Hi Matthew.... the lock blocks shown in the picture; were they removed after the concrete was cured?

Scott Cosman, P.Eng.  
Dike Safety Specialist  
Ministry of Forests, Lands, and Natural Resource Operations  
Ph (604) 582-5220  
Fax (604) 582-5235  
[Scott.Cosman@gov.bc.ca](mailto:Scott.Cosman@gov.bc.ca)  
[http://www.env.gov.bc.ca/wsd/public\\_safety/flood/fhm-2012/safety\\_index.html](http://www.env.gov.bc.ca/wsd/public_safety/flood/fhm-2012/safety_index.html)  
10470-152 Street, Surrey B.C.  
V3R 0Y3

---

**From:** Matthew Connolly [<mailto:MConnolly@district.kent.bc.ca>]  
**Sent:** Tuesday, May 15, 2012 11:50 AM  
**To:** Cosman, Scott B FLNR:EX  
**Subject:** Dike Gates

Hi Scott,

s.22

s.22

We've resolved some land-use/ownership issues and now I need to know how I can get approval for the gates post-installation from your office. I've attached some information with pictures and measurements provided by our public works foreman.

Can you let me know what else, if anything you'd need?

*Regards,*

*Matthew Connolly, EP  
Environmental and Engineering Services Coordinator  
Office: 604-796-2235  
Fax: 604-796-9854  
District of Kent*



## Dike Maintenance Application

Applicants Name: s.22  
Applicants Address:  
Applicants Phone number:

1. The date the gates were installed:

FEBRUARY 14<sup>TH</sup>, 2012

2. The approval process that you undertook for installing the gates:

IN MAY 2008, s.22 CHOSE NOT TO HAVE  
THE GATES INSTALLED AND NO FORMAL APPLICATION WAS  
COMPLETED.

3. The reasons for installing the gates:

TO REDUCE AND CONTROL UNAUTHORIZED ACCESS, DUMPING,  
GARBAGE DISPOSAL, DAMAGE TO DIKES AND ADJACENT PRIVATE  
PROPERTY.

4. The material used in constructing the gates (be specific as possible and include a sketch  
outlining dimensions and depth of concrete):

SQUARE & ROUND PAINTED METAL TUBING INCLUDING  
POSTS, LATCHES, HINGES, ALL ASSOCIATED HARDWARE AND  
CONCRETE BASES. (SEE ATTACHED SKETCH)

5. Confirmation that ~~you are allowing public access, and the width of public access you are~~  
~~agreeing to provide~~ <sup>A PEDESTALIAN OF ADEQUATE IS BEING</sup>

By signing below s.22 and his affiliated agents and family agrees that the above noted  
information is true:

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

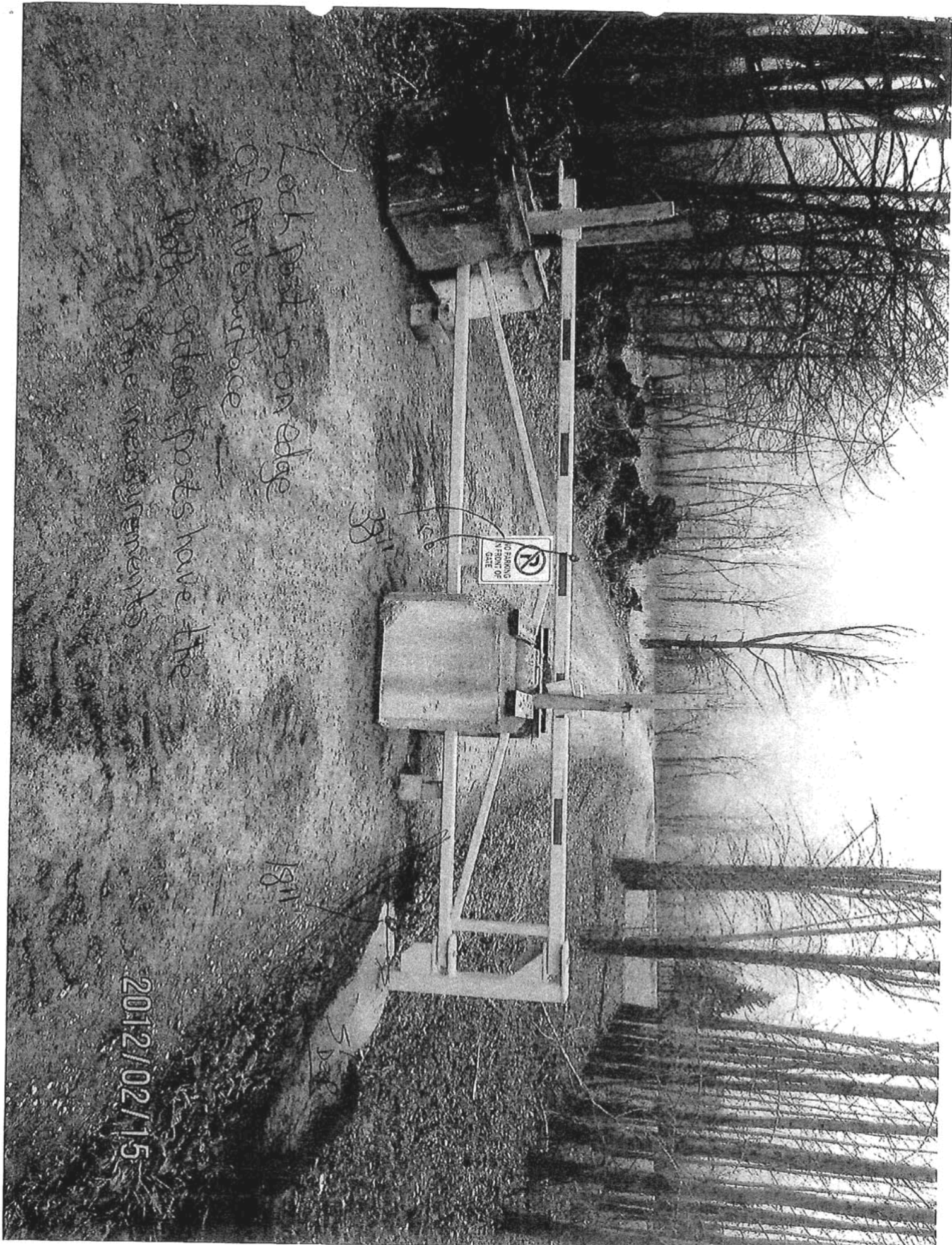
Print Name: \_\_\_\_\_

Witness \_\_\_\_\_

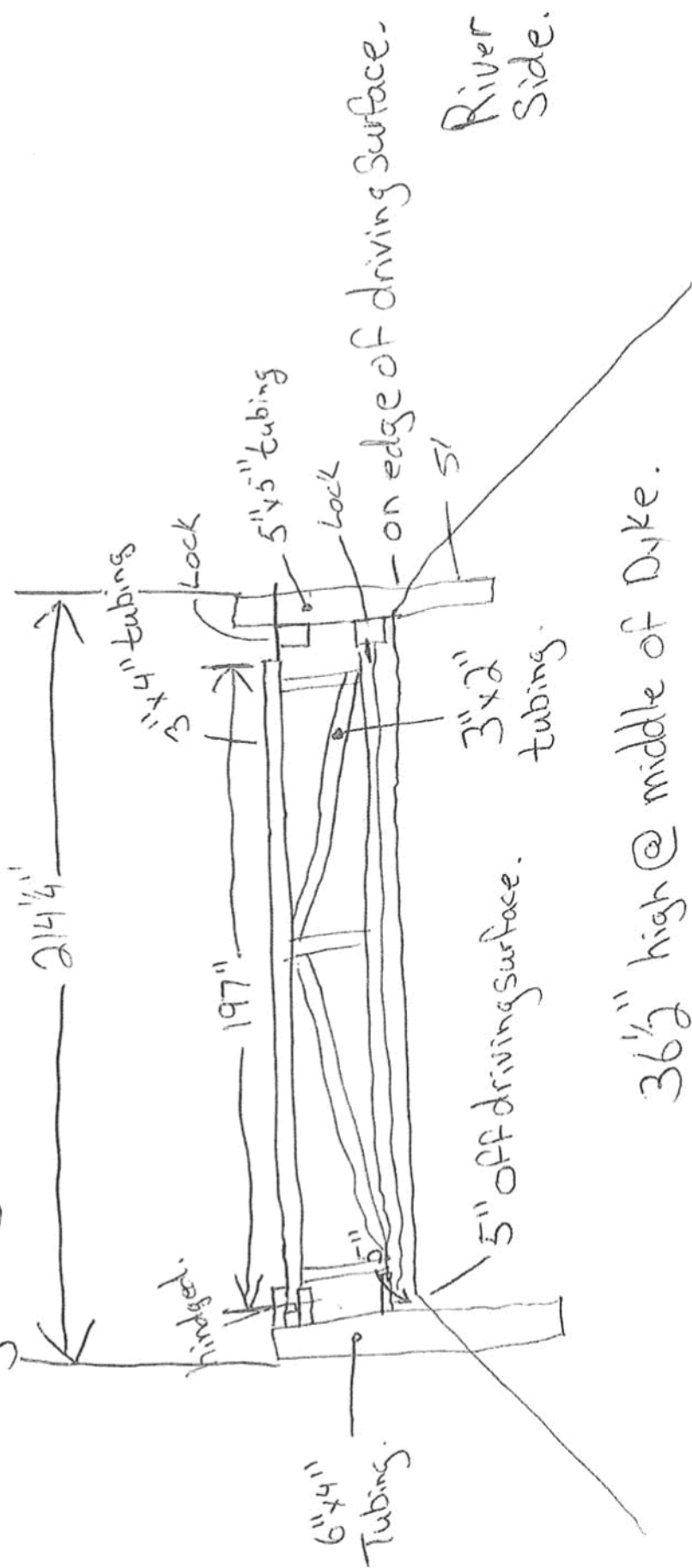
Signature: \_\_\_\_\_

Please return the completed form to: Mr. Kerry Hilts, District of Kent at 7170 Cheam Avenue, Agassiz,  
BC, V0M 1A0

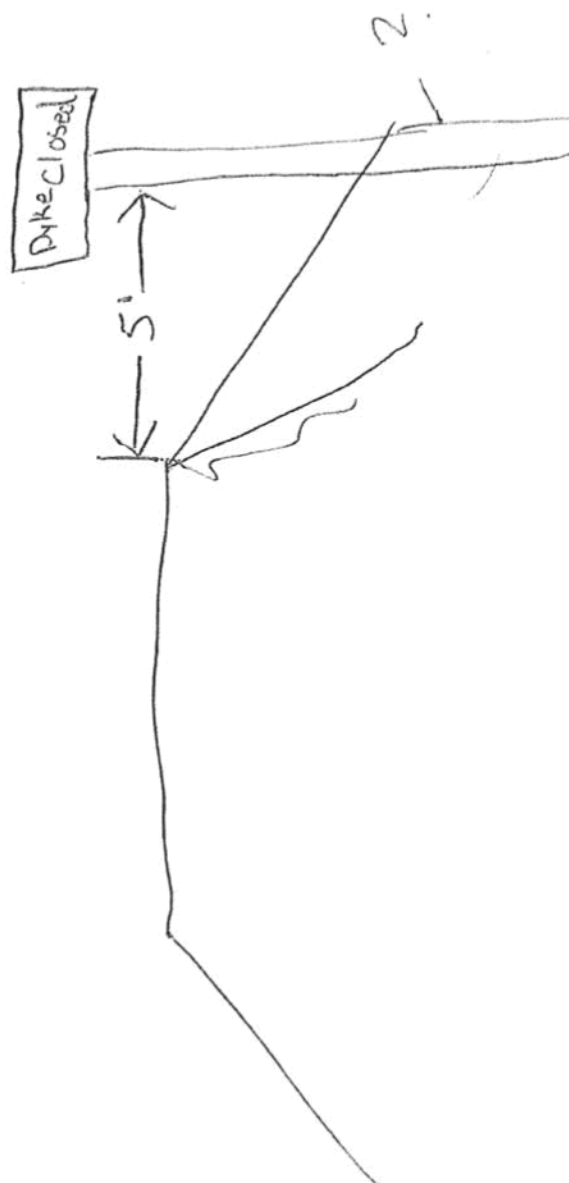




Fishing Lodge End. (~~at~~ South).



36 1/2" high @ middle of Dyke.



Page 63 to/à Page 64

Withheld pursuant to/removed as

DUPLICATE

RECEIVED

MAY 11 2009

Please mail or fax this form to the Inspector of Dikes by  
May 31, 2008

LOWER MAINLAND REGION

ENTERED  
JUL 28 2009  
JB

# CONFIRMATION OF ANNUAL DIKE INSPECTION 2008

TO:

Office of Inspector of Dikes  
Lower Mainland Regional Office  
Water Stewardship Division  
Ministry of Environment  
10470 - 152nd St  
Surrey, BC V3R 0Y3  
FAX: (604) 582-5235

FROM:

Matthew Connolly ✓  
District of Kent  
P.O. Box 70  
7170 Cheam Avenue  
Agassiz, B.C.

1. Is your Annual (2008) Dike Inspection Complete?

YES ☒ NO ☐

If NO, please indicate expected completion date:

If YES, please provide date of inspection: YY 09 MM 04 DD 07  
and attach the complete inspection report.

2. According to the Provincial Flood Protection Works Database, you are the diking authority contact person. Is all the information on the above label correct? YES ☒ NO ☐

If NO, please provide updated details below - (this information assists provincial agencies in case of flood emergencies):

Mick Thiessen, Director of Engineering ✓  
7170 Cheam Avenue, Agassiz BC  
Mobile: 604-819-1956 ✓

3. If you have any additional comments or suggestions about your diking authority and/or structure, please indicate them below:

---

---

---

---

Submitted by: \_\_\_\_\_

Date: \_\_\_\_\_

# FLOOD PROTECTION INSPECTION REPORT

ENTERED  
JUL 28 2009

JB

Dike Name (From database)

Kent Dykes

GPS No. (database)

108

Water Courses

Fraser River, Harrison River

Dike Section

Harrison Mills (Dike)

Date Inspected

April 9/09

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](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)		<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"/>	<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

Dike Name (From database)

Kent Dykes

GPS No. (database)

108

Water Courses

Fraser River, Harrison River

Dike Section

A and B Dike

Date Inspected

April 7/09

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](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

	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)		<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

Dike Name (From database)

Water Courses

Date Inspected

Kent Dukes

Froese River, Harrison

April 8/09

GPS No. (database)

Dike Section

Signed

108

Dike A

[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](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

	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		/	

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MAY 11 2009

LOWER MAINLAND REGION

# Dyke Inspection

2009/04/07

Scott Rd to Cuthbert Rd.

All ok.

Cuthbert Rd to McDonald Rd

✓ Outer slope of dyke at Jakes gate, vegetation removed from outer slope for 15 meters. Gravel and sand piled against outer slope upstream of McDonald Rd.

McDonald Rd to Tranmer Rd

✓ No access through this section. All appears ok in fishing lodge property. Some inner slope damages from horses at Tranmer Rd end.

Tranmer Rd to <sup>Appel</sup> ~~Bridge~~ Rd

Electric fence along inner crest below Tranmer Gate at Appel Rd, east side needs repair  
Dyke o.k. Gate repaired

Appel Rd to Bridge Rd

All o.k.

Bridge Rd to Whelpton

All o.k. with dyke, Gate repair needed at Whelpton. Gate repaired

Whelpton Rd to Hwy 9

All o.k.

Hwy #9 to Bantels Mtn

Gate repair needed at Hwy #9 Gate repaired  
Flood boxes and flood gates o.k., dyke o.k.



2009/04/08

Bartels Mtn to Hopyard Mtn.

Dyke o.k. Flood box and gate o.k.

Hopyard Mtn to Hamilton Rd

Needs surfacing and grading. Surfaced & graded

Hamilton Rd to Limbert Rd

Minor damage to ~~left~~<sup>river</sup> side slope from vehicles in two locations. Surface grading needed.

Grading completed

Limbert Rd to CPR track

Blow down cottonwood at c.r. end. Small hole in dyke to repair. Slope damage near CP track to be reseeded by farmer.

Need to replace gate posts and lock gate at limbert Rd  
Gate posts replaced, gate locked

CPR track to Woodside Mtn

Dyke o.k. Flood boxes and flappers o.k.

2009/04/09

Woodside Mtn to CPR (Harrison Mills)

All o.k.

CPR track to Scowlitz

Debris on dyke

All o.k.

Scowlitz to CPR

Dyke o.k. flood boxes & gates o.k.

CPR to Kilby Rd

All o.k.

Tree removed  
Hole repaired

Kilby Rd to Longheed Hwy  
Flood boxes and flappers o.k.

Dyke erosion on outside toe at Kilby pump  
station repaired. Need to seed with grass.  
Rip rap o.k., Dyke o.k.

Longheed Hwy to Mt Woodside

Gate repair needed east end Lotond property.

Dyke o.k. Not inspected east of  
Bateson pump station due to construction  
on dyke.

Gate repaired



BRITISH  
COLUMBIA

The Best Place on Earth

RECEIVED  
MAY 12 2009

LOWER MAINLAND REGION  
FILE NO. ....

April 30, 2009

BC Diking Authorities  
District of Kent  
Larry Burk  
P.O. Box 70  
Agassiz, BC V0M 1A0

Change to  
Mick  
Thiessen

File: 35050-20/Mailout  
35050-20/IOD Dike Files

Call to update

Re: Annual Dike Inspection Reportin

ig Freshet

As Inspector of Dikes, I am writing to provide information and advise you of important requirements that must be met to comply with the *Dike Maintenance Act* and to reduce risks from flooding. The requirements in this letter apply to **all diking authorities**, including those that may not be concerned with freshet flooding (i.e. diking authorities that have flood control works that protect primarily against flooding caused by heavy rainfall, high tides and storm surge, debris flow and/or other causes).

According to our most recent information, the above addressee is the diking authority contact person. If this is incorrect, please ensure that this letter is forwarded to the appropriate person in your organization.

#### 1. 2009 Snowpack and Freshet Flood Potential

The 2009 spring freshet has already arrived in some areas of the province and will continue over the next several weeks. The River Forecast Centre's (RFC) April 1<sup>st</sup> Snow Survey Bulletin noted: "Snow conditions across British Columbia at April 1<sup>st</sup> vary from below normal across the South Coast and South Interior (including the Okanagan, Similkameen, Kettle, Nicola, Kootenay), to near normal in the central interior (North Thompson, Nechako), and to above normal in the north (Upper Fraser, Peace, Skeena, Nass, Liard, Stikine).

The above normal snowpacks in portions of northern B.C., such as the Skeena/Nass, Stikine, Liard and Upper Fraser are likely to result in higher than normal stream flows during the freshet snowmelt period in late May and June. There is potential for higher than normal peak flows on some northern rivers, including the Upper Fraser River (McBride, Prince George, Quesnel); the Skeena River (Terrace); the Nass River; and in the Liard (Lower Post F.N.) and Stikine basins.

For the Fraser River through the Lower Mainland, current snow conditions suggest a lower than normal peak flow (in late May or early June), with a peak flow of the Fraser River at Hope potentially in the 8,000-9,000 cubic metres per second (m<sup>3</sup>/s) range. As comparison, the peak 2007 peak flow at Hope was 11,000 m<sup>3</sup>/s, and the 2008 peak flow was 10,500 m<sup>3</sup>/s. The North and South Thompson rivers and the Thompson River at Kamloops are most likely to experience near or slightly below normal peak discharge and water levels in late May or early June.

Ministry of Environment

Flood Safety Section  
Management and Standards  
Branch

Mailing/Location Address:  
10470 152 Street  
SURREY BC V3R 0Y3

Telephone: (604) 582-5200  
Facsimile: (604) 582-5235  
<http://www.gov.bc.ca/>  
<http://www.env.gov.bc.ca/wsd>

RECEIVED BY:  
MAY 7 2009  
KENT

☐ CAO  
☐ Corp. S.  
☐ Dev. S.  
☐ Dir. Fin.  
☐ Dep. Fin.  
☐ GIS/HK  
☐ Building  
☐ Bylaw  
☒ PEP  
☐ RCMP  
☐ FIRE  
☐ Agenda Date  
☐ In Camera Date  
☐ Agenda Place

LM

Please mail or fax this form to the Inspector of Dikes by  
May 31, 2010

ENTERED

19

CONFIRMATION OF ANNUAL DIKE INSPECTION 2010

TO:

Office of Inspector of Dikes  
South Coast Sub-Region  
Water Stewardship Division  
Ministry of Environment  
2<sup>nd</sup> Floor, 10470 - 152nd Street  
Surrey, BC V3R 0Y3

FROM:

District of Kent  
Mr. Matthew Connolly  
Mr. Mick Thiessen  
P.O. Box 70  
7170 Cheam Ave.  
Agassiz, BC V0M 1A0

RECEIVED  
MAY 05 2010

TEL: 604 582-5200  
FAX: 604 582-5235

TEL: 604 819-1956  
CELL:  
FAX:

E-MAIL: m.thiessen@district.kent.bc.ca

mconnolly@district.kent.bc.ca

1. Is your Annual (2010) Dike Inspection Complete? YES ☒ NO ☐  
If NO, please indicate expected completion date:  
If YES, please provide date of inspection: YY 2010 MM 04 DD 07  
and attach the complete inspection report.

2. According to the Provincial Flood Protection Works Database, you are the diking authority contact person. Is all the information on the above label correct? YES ☒ NO ☐  
If NO, please provide updated details below - (this information assists provincial agencies in case of flood emergencies):

Tel: 604-796-2235  
Cell: 604-819-1956 (Mick Thiessen)  
add: mconnolly@district.kent.bc.ca

3. If you have any additional comments or suggestions about your diking authority and/or structure, please indicate them below:

More funding for dyke and pump station  
upgrades

Submitted by:

elc

Date:

April 30/2010

# FLOOD PROTECTION INSPECTION REPORT

Dike Name (From database)

Kent Dylces

GPS No. (database)

108

Water Courses

Fraser, Harrison Rivers

Dike Section

All

Date Inspected

20/04/07

Signed

M

**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](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

	<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)		<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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Reduces visibility to each toe?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Trees in or near dike (within 2m from toe) with potential for uprooting?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Multi-year vegetation management plan in place?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>5. Describe maintenance work (including vegetation management) completed in the past 12 months:</b> <div style="font-family: cursive; font-size: 1.2em; padding: 5px;">             Dyke mowing, removal of fill placed by farmer, minor grading           </div>
---

6. Describe the work required in the next 12 months and the estimated schedule for completion:	
Item	Proposed Completion Date
Mowing, minor maintenance, grading	Ongoing

<b>7. Please list inspection report attachments (photos, sketches etc.)</b> <div style="font-family: cursive; font-size: 1.2em; padding: 5px;">             Notes from Public Works foreman           </div>
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**Notes on using this Flood Protection Inspection Report form:**

1. This form is an outline for your comprehensive report. Please include detailed descriptions of maintenance issues and attach supplemental information such as photos and sketches of critical repair sites.
2. Use a separate inspection form for each dike, or section of dike.
3. 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.
4. 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.**

2010/04/07

## Dyke Inspection

Scott Rd to Cuthbert Rd.

Wood debris lying on outer slope across  
dyke from barn

Surface, slopes, gates all o.k.

Cuthbert Rd to McDonald Rd

Gravel removed from dyke right of way that was  
stored by Jakes contracting. Need to reseed  
outer dyke slope

McDonald to Tranmer

Minor damage to top of slope at crest  
where horses crossing dyke just upstream  
of S.T.P.

Tranmer to Appel

All o.k.

Appel to Bridge Rd

Need lock at Appel

Dyke o.k.

Bridge Rd to Whelpton Rd

All o.k.

Whelpton Rd to Agassiz Bridge

need to remove fill off inner dyke slope

Agassiz bridge to Little Mtn

Farm gate at farm by hwy difficult to pass

Need to cut black berries at flapper



gate on W. Vanderwyk farm (previous owner)  
Need to cut blackberries at flapper on  
flood box at Agassiz sl.  
No issues with dyke

Little Mtn to Hopyard Mtn (Cutler Rd)  
Potholes near Hopyard Mtn, need grading  
Flood box and gate o.k.  
Dyke o.k.

Hopyard Mtn to Hamilton Rd  
All o.k.

Hamilton Rd to Limbert Rd  
All o.k.

Limbert Rd to CPR  
Gate at Limbert should be replaced  
Dyke o.k.

CPR to Hammersly  
All o.k.

2010/04/15-

Mt Woodside to CPR (Duncans)  
All o.k.

Old Scowlitz Rd to CPR swing bridge  
flood gate and box o.k.  
dyke o.k.

CPR Bridge to Kilby Fork  
Dyke o.k. Gate post at boat launch needs replacing



## Kilby Park to School Rd

Dyke ok.

Blow downs at 4 locations on outer slope

Flood boxes & flood gates ok.

Rip rap ok. About 50 meters at  
down stream end of rip rap should  
have replacement maint next winter.

Gate at School Rd needs adjusting

Need new gate post at Kilby camp ground

## Lougheed Hwy to Bateson Channel

Dyke ok.

Gates ok.

## Bateson Channel to Mt Woodside

Flood box and gate ok.

Dyke ok.

2010/04/16

## CPR track to old Scowlitz Rd (Hackels + Scowlitz)

Hackels dyke ok.

Scowlitz dyke ok

Flood gate ok.

Upstream end of flood box needs cleaning  
(backhoe job)

## **Mahon, Claudia FLNR:EX**

---

**From:** Matthew Connolly <MConnolly@district.kent.bc.ca>  
**Sent:** Tuesday, April 19, 2016 3:30 PM  
**To:** Bristol, Mike FLNR:EX  
**Cc:** Pattle, John R FLNR:EX; Mick Thiessen; Matthew Connolly  
**Subject:** Unauthorized Dike Works  
**Attachments:** IMG\_0391.JPG; IMG\_0392.JPG; IMG\_0393.JPG; Location.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi Mike,

We've uncovered some additional work on the dike that I'm assuming your office wasn't aware of. I've left a message for the owner trying to find out what was done but it looks like they've put pipes through the dike.

I've attached some photos and a location map. I'll follow up when I get additional information.

Regards,

Matthew Connolly  
Environmental and Engineering Services Coordinator District of Kent PO Box 70 - 7170 Cheam Ave Agassiz, BC  
Office: 604-796-2235  
Fax: 604-796-9854

-----Original Message-----

**From:** Chris Hardy  
**Sent:** Tuesday, April 19, 2016 1:19 PM  
**To:** Matthew Connolly <MConnolly@district.kent.bc.ca>  
**Subject:**

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Withheld pursuant to/removed as

DUPLICATE