

# CITY OF SURREY

## **Engineering Operations Department**

14245 - 56 Avenuc, Surrey, British Columbia, Canada V3X 3A2 Phone: (604) 604- Fax: (604) 604-591-7836

## FACSIMILE TRANSMITTAL FORM

TO:				FR	OM:	(e)	
Name:	Alon			Na	ame:	Chuck Pereira	
Title:				ำ	litle:	Roads & Drainage	North, Manager
Company:	Ministry Wat Protection - E Division		Air tal Protection	File		5225-17 604-502-6336	
Phone No.:				ŗ	Date:	June 9, 2009	
Fax No.:	604-584-975			•			
Total Number (including cov		3	Original to Fol			By Mail:	By Courier:
			*	¥V	o: X	2	
COMMENTS							
Attached p	lease find Floo	d Protection	Inspection Re	port inspe	cted Jun	e 2, 2009.	
			星				
		30					1
	10			6			,
Chuck Pere Manager, R	ira loads & Draina	ge North	¥				
					,		
						ä	
8							a procession and the second se
	Œ		20 20				,
	i.			Ē			The state of the s

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 FROTECTION INSPECTION REPORT

Dik	e Name (From database)	Banview: Mo	GPS No. (dalabase	<b>≥</b> }	29	4
Wa	ter Courses	Bayview: Mo Crescent Beach	Dike Section			
Dat	e Inspected	May 05/09	Signed	S	lengt	Her
in c Gu	letail below or on atta ide" from March 2000	e check the applicable boachments. Please also refer for a detailed guide to dike ca/wsd/public_safety/floo	to "Flood Protection We inspection and reporting	orks Ins g, avail	pection able at:	•
	s there any obstructions, ramps, and gates)	on, deterioration or damage	to dike access? (access	YES	NO	N/A
2. 1	s there any deteriorat	ion or damage to the followi	ng?	YES	NO	N/A
•	Dike Crest and slopes	(ruts, loss of surfacing material, obstr	ructions, slumping, cracking)			
			· .			
•	Bank Protection (loss	of rock, settlement, slumping)			/_	
•	racks, debris, erosion	ations (inlet/outlet channels, ga , corrosion, structure, mechan s?(access routes, ramps, and	ical components) or			
	Were any of the follow ach photo or sketch)	ving serious problems obser	ved? (if yes, please	YES	NO	N/A
•	Seepage (and/or evide	ence of piping)				
•	Erosion				-	
				1		-
•	Slumping, cracking, si	ink holes				
•	Animal Damage (beave	ers, animal burrows, cattle, etc.)				
•	Unauthorized construc	ction (excavations, utilities, structure	5)			
	Channel infilling and	aggregation				
•	Significant flood levels	s (within free board) within the	last 12 months	over free named as a first		

MAY.08.2009 08:49 6045917836

## FLOOD PROTECTION INSPECTION REPORT

4. Vegetation Management		į	YES	NO	N/A
Hampers or prevents access?					
Reduces visibility to each toe?		***************************************	·		
Trees in or near dike (within 2m from toe) with pol	ential for uprooting	)?			
<ul> <li>Multi-year vegetation management plan in place?</li> </ul>			1		
5. Describe maintenance work (including vegetati months:	on management) (	completed	in the	past 12	
6. Describe the work required in the next 12 month	hs and the estima	ted sched	ule for	comple	tion:
Item		Propose	ed Cor	npletio	n Date
7. Please list inspection report attachments (phot	os, sketches etc.)				

- 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
- 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

## FACSIMILE TRANSMITITAL FORM

TO:		FROM:	
Name:	Alon	Name:	Chuck Pereira
Title:		Title:	Roads & Drainage North, Manager
Company:	Ministry Water, Land & Air Protection - Environmental Protection Division	File No.:	5225-17 604-502-6336
Phone No.:	•	Date:	June 9, 2009
Fax No.:	604-584-9751		
Total Number (including cov		low: Yes: No: X	By Mail: By Courier:
COMMENTS	•		
	: lease find Flood Protection Inspection Re	port inspected Ju	tne 2, 2009.
Attached p Chuck Perc	lease find Flood Protection Inspection Re	port inspected Ju	tne 2, 2009.

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.

 $\mathcal{D}$ 

## FLOOD PROTECTION INSPECTION REPORT

Dike Name (From database)	toract " Wickson	GPS No. (database	<del>;</del> )	790	1
Water Courses	Boundary Bay	Dike Section			1
Date Inspected	May 05 /09	Signed .	De	rs/	Ma
in detail below or on atta Guide" from March 2000	se check the applicable box. If yachments. Please also refer to "Fo for a detailed guide to dike inspectors/wsd/public_safety/flood/po	lood Protection Wo ection and reporting	orks Ins Ig, avail	pection able at:	plain
1. Is there any obstruction routes, ramps, and gates)	on, deterioration or damage to dik	e access? (access	YES	NO	N/A
	- · · · · · · · · · · · · · · · · · · ·				
2. Is there any deterioral	tion or damage to the following?		YES	МО	N/A
Dike Crest and slopes	(ruts, loss of surfacing material, obstructions	, slumping, cracking)			
Bank Protection (loss	of rock, settlement, slumping)		-		
racks, debris, erosion	ations (inlet/outlet channels, gate op n, corrosion, structure, mechanical co ss?(access routes, ramps, and gates	omponents) or			
3. Were any of the follow attach photo or sketch)	ving serious problems observed?	(if yes, please	YES	NO/	N/A
Seepage (and/or evid	ence of piping)		]	-	
• Erosion				/	
Slumping, cracking, s	ink holes				
Animal Damage (beave	ers, animal burrows, cattle, etc.)				
Unauthorized constru-	ction (excavations, utilities, structures)				· · · · · · · · · · · · · · · · · · ·
Channel infilling and	aggregation				
Significant flood level	s (within free board) within the last 1	2 months		-	

Hampers or prevents access?		-	YES	NO	N/A
Reduces visibility to each toe?					
Trees in or near dike (within 2m from toe) with potential.	ential for uprooting?			1	<u> </u>
Multi-year vegetation management plan in place?			—		·
,					
5. Describe maintenance work (including vegetatio months:	n management) co	mpleted	in the	past 12	
			·		
6. Describe the work required in the next 12 month	s and the estimate	d schedu	ile for	comple	tion:
		d schedu Propose			
6. Describe the work required in the next 12 month					

- 1. Please use a separate inspection form for each dike, or section of dike.
- 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.
- 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 IRA	NSVILLA	LFURM
TO:	REFAXED	3:00 ps	n may 8/09
Name:	Alon	Name:	Jeff Welch
Title:		Title:	Manager, Roads & Drainage South Operations
Company:	Ministry Water, Land & Air Protection - Environmental Protection Division	File No.:	5225-17
Phone No.:		Date:	May 8, 2009
Fax No.:	604-584-9751		
Total Number		No: X	By Mail: By Courier:
COMMENTS	:	554	· · · ·
Attached p	lease find Flood Protection Inspection Re	eports, inspected l	May 5, 2009.
Jeff Welch Manager, F	Roads & Drainage South Operations		JUL 2 & 2009 (1)
	, ; ;		

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.

GPS No. (database)

Dike Name (From database)

# FLOOD . ROTECTION INSPECTION REPORT

Water Courses	Bounds G. Dike Section	· -	a cha	Sha
Date Inspected	Boundary Bay Dike Section May 05 2009 Signed	d.	AK	Shor
in detail below or on al Guide" from March 200	ase check the applicable box. If you check the ttachments. Please also refer to "Flood Protection 00 for a detailed guide to dike inspection and repoc.ca/wsd/public_safety/flood/pdfs_word/fld_r	n Works Instorting, avail	pection able at:	•
1. Is there any obstruct routes, ramps, and gates)	tion, deterioration or damage to dike access? (acc	ess YES	NO	N/A
				L
2. Is there any deterior	ation or damage to the following?	YES	NO	N/A
Dike Crest and slope	9\$ (ruts, loss of surfacing material, obstructions, slumping, cracking	)		
Bank Protection (los	s of rock, settlement, slumping)			<u> </u>
racks, debris, erosio	stations (inlet/outlet channels, gate operation, trash on, corrosion, structure, mechanical components) or ess?(access routes, ramps, and gates)			
3. Were any of the folloattach photo or sketch	owing serious problems observed? (if yes, please	YES	NO	N/A
Seepage (and/or ev				
• Erosion			/	
Slumping, cracking,	sink holes	·		
, , , , , , , , , , , , , , , , , , , ,				
Animal Damage (bea	avers, animal burrows, cattle, etc.)			
			· 	
Unauthorized consti	ruction (excavations, utilities, structures)			1
Channel infilling and	d aggregation			
Significant flood level	els (within free board) within the last 12 months			
N N				

MAY.08.2009 15:00 6045917836

#### FLOOD PROTECTION INSPECTION REPORT

4. Vegetation Management		YES	NU	N/A
Hampers or prevents access?			IZ	
Reduces visibility to each toe?				
<ul> <li>Trees in or near dike (within 2m from toe) with potential for</li> </ul>	or uprooting?	71		
Multi-year vegetation management plan in place?		1/		
5. Describe maintenance work (Including vegetation man months:	nagement) comple	ted in the	past 12	
		*		
6. Describe the work required in the next 12 months and	the estimated sch	edule for	comple	tion:
Item	Propo	osed Cor	npletio	n Date
7. Please list inspection report attachments (photos, ske	tches etc.)			*

- 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
- 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.

Dike Name (From database)	Ban lieu : Manle	GPS No. (database	<b>)</b>		
Water Courses	Crescent Boach	Dike Section			
Date Inspected	Bay view: Maple Crescent Beach May 05/09	Signed	d	engl	He
n detail below or on atta Guide" from March 2000	e check the applicable box. If y achments. Please also refer to "Floor a detailed guide to dike inspector/wsd/public_safety/flood/pd	ood Protection We ection and reporting	orks Insp ng, availa	pection able at:	
1. Is there any obstructio outes, ramps, and gates)	on, deterioration or damage to dike	access? (access	YES	NO /	N/A
	ion 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	of rock, settlement, slumping)			/_	
racks, debris, erosion,	ations (inlet/outlet channels, gate ope, , corrosion, structure, mechanical cor s?(access routes, ramps, and gates)	mponents) or	7, 19		
3. Were any of the follow attach photo or sketch)	ring serious problems observed? (	if yes, please	YES	NO	N/A
<ul> <li>Seepage (and/or evide</li> </ul>	ence of piping)				
• Erosion				1	
Slumping, cracking, sin	nk holes				
Animal Damage (beave	rs, animal burrows, cattle, etc.)				
<ul> <li>Unauthorized construct</li> </ul>	ction (excavations, utilities, structures)				
<ul> <li>Channel infilling and a</li> </ul>	aggregation			1	
Significant flood levels	(within free board) within the last 12	months		1	

MAY.08.2009 15:00 6045917836

#### FLOOD PROTECTION INSPECTION REPORT

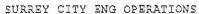
4. V	egetation Management		YES	NO	N/A
•	Hampers or prevents access?				
•	Reduces visibility to each toe?				
•	Trees in or near dike (within 2m from toe) with potential for uprooting	?			
•	Multi-year vegetation management plan in place?		/	<u> </u>	
	Describe maintenance work (including vegetation management) c nths:	ompleted	in the	past 12	
<u> </u>	The standard working division and 42 maps the and the assignate	nd oak ad		o o m nia	Alexa I
ftei	Describe the work required in the next 12 months and the estimatem	Propose			
				***************************************	
7. F	Please list inspection report attachments (photos, sketches etc.)				

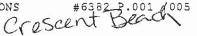
- 1. Please use a separate inspection form for each dike, or section of dike.
- 2. When completing the inspection report, please use the dike name and GPS Number on the provincial database (on web page or as shown on green sheet enclosed with mail out). If you believe there are any errors or omissions in the database, please submit them with the inspection
- 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.

Dike Namé (From database)	Target " Wickson	GPS No. (database	e)		,
Water Courses	Boundary Bay	Dike Section			
Date Inspected	may 05 /09	Signed	Che.	rs/	Wa
in detail below or on atta Guide" from March 2000	se check the applicable box. If achments. Please also refer to "I for a detailed guide to dike inspectors.ca/wsd/public_safety/flood/p	Flood Protection Wo pection and reporting	orks Ins g. avail	pection able at:	•
1. Is there any obstruction routes, ramps, and gates)	on, deterioration or damage to di	ke access? (access	YES	NO	N/A
2. Is there any deteriorat	ion or damage to the following?		YES	NO	N/A
Dike Crest and slopes	(ruts, loss of surfacing material, obstruction	ns, slumping, cracking)			
Bank Protection (loss)	of rock, settlement, slumping)			/	
racks, debris, erosion	ations (inlet/outlet channels, gate of , corrosion, structure, mechanical of s?(access routes, ramps, and gate	components) or			
3. Were any of the follow attach photo or sketch)	ving serious problems observed?	? (if yes, please	YES	NO	N/A
Seepage (and/or evidence)	ence of piping)				
• Erosion					
Slumping, cracking, si	ink holes				
Animal Damage (beave	ers, animal burrows, cattle, etc.)			1	
Unauthorized construct	ction (excavations, utilities, structures)				
Channel infilling and a	aggregation				]
Significant flood levels	s (within free board) within the last	12 months			
		·			

educes visibility to each toe?  ees in or near dike (within 2m from toe) with potential for uprootically an each toe.	ing?			
ees in or near dike (within 2m from toe) with potential for uproot	ing?			
	ing?			
	ing?			
ulti-year vegetation management plan in place?				
		7		
•		<u> </u>		
cribe maintenance work (including vegetation managemen is:	t) complete	ed in the	past 12	
				~
scribe the work required in the next 12 months and the estin	nated sche	dule for	completi	on:
	Ргоро	sed Cor	npletion	Date
ase list inspection report attachments (photos, sketches et	c.)			

- 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
- 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)

Fax: (604) 604-591-7836

## **FACSIMILE TRANSMITTAL FORM**

TO:			6	85	FROM:		÷
Name:	Alon				Name:	Jeff Welch	
Title:					Title:	Manager, Roads & Operations	& Drainage South
Company:	Ministry Wa Protection - Division		& Air ental Protectio	n	File No.:	5225-17	
Phone No.:	2	111111		•	Date:	July 24, 2008	
Fax No.:	604-584-97	51					1000
Total Number		5	Original to	Follow:	Yes: No: X	By Mail:	By Courier:
COMMENTS		-					
Attached pl	lease find Flo	od Protecti	ion Inspection	Reports	inspected J	une 26, 2008.	,
		N N	19.			,	e
v	8			v	e s		
Jeff Welch Manager, R	loads & Drair	age South	Operations				
filword/correspondence 2008\ V 7/24/08 9:03 AM	07240003.doc		2			ets.	
89						6	
	÷			×			· ·
e 2			o <sup>r</sup>				·.

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.

INTERED

Dike Name (From database) CRESCENT BEACH SEA \ GPS No. (database)	se) (	19	4					
Water Courses Dike Section								
Date Inspected April 25/2007 Signed	Der	Me	· · · · · · · · · · · · · · · · · · ·					
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: <a href="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</a> 1. Is there any obstruction, deterioration or damage to dike access? (access YES NO N/A routes, ramps, and gates)								
	7							
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)								
		<b>———</b>						
Bank Protection (loss of rock, settlement, slumping)								
<ul> <li>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)</li> </ul>		/						
			<u></u>					
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)	<u> </u>							
			,					
• Erosion		/						
Slumping, cracking, sink holes								
Animal Damage (beavers, animal burrows, cattle, etc.)	1/							
Beguer Dam Dunamired & Gilley St								
Unauthorized construction (excavations, utilities, structures)								
Channel infilling and aggregation	1	/						
	1		L					
Significant flood levels (within free board) within the last 12 months		<del>-</del> -						

	YES	NO	N/A
, , , , , , , , , , , , , , , , , , , ,		_	
ooting?			
		·	
			1
nent) completed	in the	past 12 	
stimated schedu	ile for	comple	tion:
stimated schedu			
-	roofing?		rooting?

- 1. Please use a separate inspection form for each dike, or section of dike.
- 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.
- 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.

NT			RE	
When you	2	1	2007	

Dike Wal	e Name (From database)	SCONT BOARD SA	Dike Section	20	74	
Date	Inspected in	<u>ucean</u>	Signod			***************************************
Dan	A	on 25/2007	— Jighed -	Lon	al_	Van
For in di Gui	etail below or on attachmede" from March 2000 for a o://www.env.gov.bc.ca/was there any obstruction, dees, ramps, and gates)	eck the applicable boo ents. Please also refer to detailed guide to dike rsd/public_safety/floo	c. If you check the Yes to "Flood Protection Woinspection and reportin d/pdfs word/fld_prot	box, ple orks Insp g, availa	pection able at:	•
2, 1	s there any deterioration or	damage to the followin	g?	YES	NO	N/A
•	Dike Crest and slopes (ruts, lo	oss of surfacing material, obstru	ctions, slumping, cracking)			,
-						
•	Bank Protection (loss of rock	k, settlement, slumping)			7	
			-			
•	Flood Boxes/Pump stations racks, debris, erosion, corro				/	
	damage to dike access?(acc			Ì	/	
		······································			<u>.                                    </u>	
	Vere any of the following s ach photo or sketch)	erious problems observ	ed? (if yes, please	YES	NO	N/A
•	Seepage (and/or evidence of	of piping)			/	
•	Erosion					<u></u>
	Character and had					
•	Slumping, cracking, sink hol	es				
	Animal Damage (beavers, anim	nal humane cattle ote )				
	Tritifical Dollings (centris, am.	nar burrows, caute, etc.)				1
•	Unauthorized construction (	excavations utilities structures				r
_						
•	Channel infilling and aggreg	gation				$\vdash$
ļ				1,		
•	Significant flood levels (with	in free board) within the la	ast 12 months			
				1	<u> </u>	

4.	Vegetation Management		YES	NO	N/A
٠	Hampers or prevents access?	,		7	
		<u>.</u>			
•	Reduces visibility to each toe?		/		
•	Trees in or near dike (within 2m from toe) with potential for uproofing?			/	
•	Multi-year vegetation management plan in place?				/
	•				
			<b></b>		
	Describe maintenance work (including vegetation management) conths:  Lemove Vegetation 9Cong Pyke	ompleted	in the	past 12	
		P-05.5			
		·			
					2
6.	Describe the work required in the next 12 months and the estimate	ed sched	lule for	comple	tion:
Ite	em	Propos	ed Con	npletio	n Date
					•
L					
	n 				
LBSS-oot					_
7.	Please list inspection report attachments (photos, sketches etc.)				
				N	

- 1. Please use a separate inspection form for each dike, or section of dike.
- 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.
- 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.

Dike Name (From database)

## FLOOD PROTECTION INSPECTION REPORT

REP(	DRT	Line	NIE	-// ))
L	JUN	23	2008	
		_		Ī

Water Courses	Osean	Dike Section	j	+21:	2
Date Inspected	April 10/07	Signed	Jern War		
in detail below or on Guide" from March 2 http://www.env.gov	lease check the applicable box. I attachments. Please also refer to 2000 for a detailed guide to dike ins u.bc.ca/wsd/public_safety/flood/	"Flood Protection Waspection and reportion and reportion by the protection word/fld pr	s box, ple orks insi ng, avail:	ease expection able at:	olain
routes, ramps, and gates)	uction, deterioration or damage to d	ine access (access	TES	NO	N/A
2. Is there any deterio	oration or damage to the following:	?	YES	NO	N/A
Dike Crest and slo	OPES (ruts, loss of surfacing material, obstruction	ons, slumping, cracking)			
Bank Protection (kg)	oss of rock, settlement, slumping)				
racks, debris, ero	p stations (inlet/outlet channels, gate o sion, corrosion, structure, mechanical ccess?(access routes, ramps, and gat	components) or		-	
3. Were any of the fo attach photo or sket	ollowing serious problems observed	d? (if yes, please	YES	NO	N/A
Seepage (and/or e	evidence of piping)				
• Erosion					
Slumping, cracking	g, sink holes				
Animal Damage (to a control of the control of	beavers, animal burrows, cattle, etc.)				
Unauthorized con-	Struction (excavations, utilities, structures)				
Channel infilling a	ind aggregation				
Significant flood le	evels (within free board) within the last	t 12 months			
				<u></u>	

JUN.20.2008 14:02 6045917836

#### FLOOD PROTECTION INSPECTION REPORT

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?  Describe maintenance work (including vegetation management) componths:  Describe the work required in the next 12 months and the estimated seem			
Trees in or near dike (within 2m from toe) with potential for uprooting?  Multi-year vegetation management plan in place?  Describe maintenance work (including vegetation management) componths:  Describe the work required in the next 12 months and the estimated section.			
Multi-year vegetation management plan in place?  Describe maintenance work (including vegetation management) componths:  Describe the work required in the next 12 months and the estimated s			
Describe maintenance work (including vegetation management) componths:  Describe the work required in the next 12 months and the estimated s			
Onths:  Describe the work required in the next 12 months and the estimated s			
Onths:  Describe the work required in the next 12 months and the estimated s	oleted in the	past 12	2
em Pro	chedule for	comple	tion:
	oposed Col	mpletic	n Date
Please list inspection report attachments (photos, sketches etc.)			, <del>\</del>

- 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 SURKEY**

# **Engineering Operations Department**

14245 - 56 Avenue, Surrey, British Columbia, Canada V3X 3A2
Phone: (604) Fax: (604) 604-591-7836

# **FACSIMILE TRANSMITTAL FORM**

			EME
TO:		FROM:	ENTERIE
Name:	Alon	Name:	Jeff Welch
Title:		Title:	Manager, Roads & Drainage South Operations
Company:	Ministry Water, Land & Air Protection - Environmental Protection Division	File No.:	5225-17
Phone No.:		Date:	May 1, 2006
Fax No.:	604-584-9751	•	
Total Number (including cov		low: Yes: No: X	By Mail: By Courier:
COMMENTS			
Attached p	lease find Flood Protection Inspection Re	ports inspected M	March 7, 2006.
	~		
		Welch	D
	War	nager, Roads & J	Drainage South Operations
£\ward.comcaponderec 2006\ V 5/1/06 \$:57 AM	05010857.doc		

Sheet No \_\_\_\_\_

	File No.
•	
Flood Protoction Inspection Report	
	Dike Length: 900
DIKE: Maple St/ Blackie Spit	
REACH: BLEckie Spil	
DATE INSPECTED: Mar 01/06 signed cheef Wes	
The condition of the flood protection works is as reported below:	
<ol> <li>DIKES: (access, gates, locks, vegetation growth, gravel surface, height, slopes, erosion, animal berms, relief wells)</li> </ol>	ıl burrows, seepaga, Irash,
Otc.	
No Work Roquired	
2. BANK PROTECTION: (loss of rock, settlement, slumping)	
, , , , , , , , , , , , , , , , , , ,	
OK	
NO Work Roquies	
<ol> <li>FLOODBOXES/PUMP STATIONS: (Inlet and outlet channels, gate operation, trash racks, debri structure, discharge structure, electrical and mechanical components)</li> </ol>	s, erasion, cottosian.
O IC	
NO WOLK Required	
4. WORK REQUIRED:	
5. ADDITIONAL INFORMATION (sketch, photos, etc.)	
B. WORK COMPLETED; Dato: Signed:	
Printed: January 19, 2001	



# **CITY OF SURKEY**

## **Engineering Operations Department**

14245 - 56 Avenue, Surrey, British Columbia, Canada V3X 3A2 Phone: (604) Fax: (604) 604-591-7836

## FACSIMILE TRANSMITTAL FORM

TO:		FROM:	ENTERE,
Name:	Alon	Name:	Jeff Welch
Title:		Title:	Manager, Roads & Drainage South Operations
Company:	Ministry Water, Land & Air Protection - Environmental Protection Division	File No.:	5225-17
Phone No.:		Date:	May 1, 2006
Fax No.:	604-584-9751		
Total Number		llow: Yes: No: X	By Mail: By Courier:
COMMENTS	•		
Attached pl	lease find Flood Protection Inspection Re	ports inspected M	farch 7, 2006.
f:lwardcarrespondence 2006W V 5/1/06 8:57 AM	Mar	Weich nager, Roads & D	rainage South Operations

	Sheet No
Flood Protection Inspection Report	
	Dike Length: 900
A. ) G. ( G. )	Dike Length; [DO
DIKE: Maple St/ Blackie Spit  REACH: Blackie Spit	
REACH: Blackie Spil	
DATE INSPECTED: Mar 01/06 signed cheen Wes	
The condition of the flood protection works is as reported below:	
<ol> <li>DIKES: (access, gales, locks, vegetallon growth, gravel surface, height, slopes, erosion, a berms, relief wells)</li> </ol>	nimal burrows, seepage, trash,
Ok	
No Work Roquird	
·	
BANK PROTECTION: (loss of rock, settlement, slumping)	
OIE /	<u></u>
NO Work Rounised	
FLOODBOXES/PUMP STATIONS: (injet and outlet channels, gate operation, trash racks, d structure, discharge structure, electrical and mechanical components)	labris, erosion, cottosion,
OK	
· NO WOLK Required	
WORK REQUIRED:	
ADDITIONAL INFORMATION (sketch, photos, etc.)	
WORK COMPLETED: Date: Stoned	
HONG COMF LETED, Dato: Signed	

Printed: January 19, 2001

4.

5.

5.

Sheet No.

	Flood Prolection Inspection Report
	Dike Length: _3a3
1	DIKE: Bayviewst To Maple St  REACH: Bayviewst  DATE INSPECTED: Mar D7/06 Signed Chary Wass  The condition of the flood protection works is as reported below:  DIKES: (accèss, gales, locks, vegetation growth, gravel surface, height, slopes, erosion, animal burrows, seepage, trash,
	peting' telist mails)  TMC3: Jecong' denot forces' Addermot drough draugh stated with annual annual partous' applications' appli
	No Work Required
2.	BANK PROTECTION: (loss of rock, seitlement, slumping)
	No Work Required
3.	FLOODBOXES/PUMP STATIONS: (Injet and outlet channels, gate operation, trash racks, debris, prosion, corrosion, structure, discharge structure, electrical and mechanical components)
	No Work Required
4.	WORK REQUIRED:
	NO Work Require
5,	ADDITIONAL INFORMATION (sketch, photos, etc.)
8.	WORK COMPLETED: Date: Signed:
Prin	led: January 19, 2001



# **CITY OF SURKEY**

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

## **FACSIMILE TRANSMITTAL FORM**

TO:		FROM:	Left Welch
Name:	Alon	Name:	Jeff Welch
Title:		Title:	Manager, Roads & Drainage South Operations
Company:	Ministry Water, Land & Air Protection - Environmental Protection Division	File No.:	5225-17
Phone No.:		Date:	May 1, 2006
Fax No.:	604-584-9751	_	
Total Number		No: X	By Mail: By Courier:
COMMENTS			
Attached pl		f Welch	
	Ma	nager, Roads & D	rainage South Operations
f:twonteamespondence 200616 V 5/1/06 8:57 AM			

Sheet No \_\_\_\_\_

Flood Protection Inspection Report	5
	Dike Length; 900
DIKE: Made St/ Blackie Soit	1000 0.200010000000000000000000000000000
DIKE: Maple St/ Blackie Spit  REACH: BLECKIE Spit  DATE INSPECTED: Mar 01/06 SIGNED Light West	
DATE MODERATED MOVE ON LOS STANDARDOS OF AUG.	
and the second s	
The condition of the flood protection works is as reported below:	
DIKES: (access, gales, locks, vegetation growth, gravel surface, height, slopes, erosion, anim berms, relief wells)	
0/4	
No Work Roquied	
2. BANK PROTECTION: (loss of rock, selflement, slumping)	
DIE 1	
NO Work Rounice	
	* *
<ol> <li>FLOODBOXES/FUMP STATIONS: (Inlet and outlet channels, gate operation, trash racks, debistricture, discharge structure, electrical and mechanical components)</li> </ol>	ris, erasion, cottasian.
annum at transling and drive of amonitoris due independent constitutionistics.	
014	
· NO Work Required	
×	
WORK REQUIRED:	
ADDITIONAL INFORMATION (sketch, photos, etc.)	
WORK COMPLETED; Dalo: Signed:	
inled: Jenuary 19, 2001	

Sheet No.

	Flood Prolection Inspection Report
	Dike Length: 300  IKE: Bayvieust To Maple St  EACH: Bayvieust To Maple St  ATE INSPECTED: Mar D7/06 signed Chary Wess  We condition of the flood protection works is as reported below:  DIKES: (access, gales, locks, vegetation growth, gravel surface, height, slopes, erosion, animal burrows, seepage, trash, berms, relief wells)
	1000 Maria 100
	No Work Rogard
2.	BANK PROTECTION: (loss of rock, selflement, slumping)
	NO WOLF COMICE
	No Work Required
3.	FLOODBOXES/PUMP STATIONS: (Intel and outlet channels, gate operation, trash racks, debris, prosion, corrosion, studium, decharge structure, electrical and mechanical components)
	No Wak Required
4.	WORK REQUIRED:
	NO Work Require
-	
5,	ADDITIONAL INFORMATION (sketch, photos, etc.)
8.	WORK COMPLETED: Date: Signed:
Printe	d: January 19, 2001

Sheet No. \_\_ File No. \_\_

60

#1024 P.003/003 5225-17

1	3
1	7
	4.

Printed: January 19, 2001

Flood Protection Inspection Report

	Dike Length: 833~
D	IKE: Maple St Pump. Blackie Spit
В	MATE INSPECTED: Mar 16/04 Signed Charles Mar
n.	PATE INSPECTED: MOC 16/04 Should Charles Idea
_	Oct. 07/04  he condition of the Rood projection works is as reported below:
1,	DIKES: (accèss, gates, locks, vegetation growth, gravel surface, height, slopes, erosion, animal burrows, seepage, trash, berms, relief wells)
	· · · · · · · · · · · · · · · · · · ·
2,	BANK PROTECTION: (loss of tock, seltlement, slumping)
3,	FLOODBOXES/PUMP STATIONS: (Inlet and outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, electrical and mechanical components)
	Control Mark Professor - The Control Mark Professor - Control Mark Prof
4.	WORK REQUIRED:
	TOTAL SEGURES,
	NO Work Required
5.	ADDITIONAL INFORMATION (sketch, photos, etc.)
6,	WORK COMPLETED: Date: Signed:

#### Please Mail or Fax This Form

#### CONFIRMATION OF ANNUAL DIKE INSPECTION

Please complete and return this form.

- 3	•	`	_
	4	- 1	۰
Æ	•	,	•

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

1.	Is your Annual Dike Inspection Complete?		YES	S	NO	
2.	Date of Inspection:	YY 01	MM/	144 DD	09	
	Inspected by: CHUCK PEREIRA		PAPA		vV v Provins	
3.	Has there been any recent changes to your a phone, email and/or fax numbers?	address, conta	ct names, Yl	ES	NO V	
	If YES, please provide details below:					
		·			<del></del>	
4.	If you have any additional comments or sug	ggestions plea	se indicate t	hem below:		
	WE HAVE MULTIPLE DIKES WHICH AG	RE INSPECTE	DAT THE	SAME TIME	OF YEAR.	THIS
	INSPECTION IS FOR THE DNLY DIKE THE ALL DIKES HAVE BEEN INSPECTION E	9T WOULD BE BY THE APPI	EFFECTED ROPRIATE	BY THE FE AREAS.	PESHETTE.	HOWEVER
	Submitted by: <u>VEFF WELCH</u>	Pl	none:60	04-536-	2757	
	Date: <u>MAY 11, 200 /</u>					

#### 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/SURRAY / CRESCEPT BEACH

Page 30 FNR-2012-00052

\_\_\_\_\_

No 🔾

35050 - 20/ SURREY / CRAIGHT BEACH SAD DINA / IMPERTION

Follow-up Action Complete:

(COID at happen filmdus)

Signed:\_\_

CRESCELT B.

She	et No	
File	No	

## FLOOD PROTECTION INSPECTION REPORT

CITY /SURREY

	•	Dyke Length:	MK
Y	(E: MARLE ST		<del></del>
E	ICH: MARLE ST		
Αĩ	TE INSPECTED: PRA 25/00	Signed AS	De,
he	condition of the flood protection works is	as reported below:	_
•	DYKES: (access, gates, locks, vegetall emaion, animal burrows, seepage, trash シャルシ マルップ	on growth, gravel surface, heigh , berms, relief wells) - CRAVEL SUFACE	nt. slopes.
	HEIGHT M Scolze	OL NO VILAGLE S	
	Allina buckows, May	BE SOME SEELAC	E FR.
	THE OLD DYNE ALSO "	NAY HAVE COME BACK	[who get
	FLOOR CATE		·
	0.4	Chip of Manager and Chip of the Chip of th	
		•	
	FLOODBOXES/PUMP STATIONS: (I alion, trash racks, debris, erosion, corros electrical and mechanical components)	inn einichte discharge einicht	
	OUTFLOW FLOODBOY ON OR	DYKE HAS 2 LAG	2c,6I
	SINK HOLE THE BACK	OF JUTE BAG WAS	<u>-e.,                                     </u>
	IN DANGEL OF CHUINE	IN ALSO OR	AT PLON
_	PIPE IN DANGER OF CO	LaConic	
-		, , , , , , , , , , , , , , , , , , ,	
ļ	マスズボ いしっぱ ふかかり りょう	TI DG TO MAKE	AUY
	ANIMAL BURROWS VISAB	<u> </u>	
_			
_			-
ļ	ADDITIONAL INFORMATION (500 0V)	) (skálch, pholos, elc.)	
y	VORK COMPLETED; Date:	Signed;	



RECEIVED WATER MANAGEMENT

JAN 1 3 1997

- CRESCENT BROCH SEA

January 9, 1997

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

Attention: Jeff Welch, Operations - South Surrey

Dear Mr. Welch:

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/

P. J. Woods, Inspector of Dykes

Enclosure

Mh fan 14/97 In Funler.

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

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.





JAN 1 3 1997

TLE: 035050-20/ Samey at - NICOMETL - SERVINTER

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

Jon Finley - the

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.





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:

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

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

MINISTRY OF ENVIRONMENT PLANNING SECTION HAN 3 : 1995

Page 37

FNR-2012-00052

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

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

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

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

<u>Crescent Beach:</u> 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. <u>Floodboxes</u>: (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. <u>Pumpstations</u>: (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 JUN

14245 - 56 Avenue, Surrey, British Columbia, Canada, V3X 3A2 Fax: (604) 591-7836 AUTLAND N.G. Phone: (604) 590-7283

FILE NO.

# **FACSIMILE TRANSMITTAL FORM**

TO:		FROM:		
Name:	Fred Wodtke	Name:	Tim Arlt	
Company:	Ministry of Environment, Lands &	Title:	Project Supervisor	
	Parks			
Fax No.:	(604) 930-7119 (area code)	File No.:	4856-001	
Phone No.:	(604) 582-5212 (area code)	Date:	June 1, 2000	
Total Numbe	r of Pages: 5 Original to Follow	v: Yes: No: X	By Mail:	By Courier:
COMMENTS	*			
Attached fl	lood 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.

> Page 39 FNR-2012-00052

(0)(1)	To Authority: Succey.	Tel;	Fax;	
		_Tel:	Fax:	
olke	Name: MARIE ST	14/		
AND AND AND AND	Manual:	Yes 📮 👙	No 🗅	
1. 13.08		Yes 📮	No □	
	Records: Design Reports		_ Plans	
	Files Nos.			
2	Alghta-of-way;	Yes 🗅	No 🗅	
<b>.</b>	Annual Budget/Taxes:	Yes U	No 🖸	
100	Follow-up Last Inspection:	Ву:		
	Annual Inspection (submit report to DIOD):		No 🔾	
<b>3</b>	Approvals/Changes:	Yes 🖸	No 🗆	1
	Maintenance: Access: gates dike crest Damages/Repairs: dike bank protection floodboxes pumps drainage Vegetation Control: animal activity debris	Required		,
	Flood Response Plan; Flow Forecasting Contact list Materials Equipment Communications Flood Patrol Warning/Evacuation Plan	0000000	000000	
	Follow-up Action Complete: (automit report to DICD)	Yes 🖸	No 🖸	
ale:		Signed:		

604-588 123

CRESCOLITB.

She	el No
File	No.

# FLOOD PROTECTION INSPECTION REPORT

	7	
ME	L& 57	
ACH: MASLE	ST	
TE INSPECTE	D: 42 25/00 Sign	ned ASDe
e condition of the	flood protection works to as reported	below:
DYKES: (acc	ess, gates, locks, vegetation growth, g liburrows, seepage, trash, berms, reli でなるすれっこ Cとのブイ・CRA	ravel surface, height, slopes at wells) VC. Surface 2007
HEIGHT	_ • •	0 VIRAS-8 SIGNS
ANTHA		ME SEEPAGE FO
THE 020	DANG , MTOO WHA KINN	COME BACK THAN
FLOOR CAT		
	1	
- Ork		
- Orl		
electrical and r	3/PUMP STATIONS: (Inlet and out its, debrie, erosion, corrosion, structure nechanical components)	, discharge structure,
alion, trash rac	ks, debris, erosion, corresion, structure nechanical components).	et channels, gate oper- , discharge structure,
electrical and r	ks, debris, erosion, corrosion, structure nechanical components	discharge structure,
alion, trash race electrical and r	es, debris, erosion, corrosion, structure nechanical components)  STN 6	CE GAS 2 LARGE
Blion, trash race electrical and reference for fore	es, debris, erosion, corrosion, structure nechanical components)  STN components  STN componen	CE GAS 2 LARGE
alion, trash race electrical and reference for fore fore fore fore fore fore fore	es, debris, erosion, corrosion, structure nechanical components.  STN 6  LOSD BOY 0N OLD DY 0  LOSD BOY 0N OLD DY 0  LOSD BOY 0N OLD DY 0	(E GAS 2 LARGE TE BAG WALL.
alion, trash race electrical and records for the control of the co	LODO DOV ON OLD DYONE THE THE BACK OF JULY	(E GAS 2 LARGE TE BAG WALL.
alion, trash race electrical and records for the control of the co	LODO DOV ON OLD DYONE THE THE BACK OF JULY	(E GAS 2 LARGE TE BAG WALL.
Blion, trash race electrical and reference for fore the second fore the second fore the second fore the second fore second for the second fore second foreign fore	HED: NEED CLITT. 29	Heso Jate
Blion, trash race electrical and reference for fore the second fore the second fore the second fore the second fore second for the second fore second foreign fore	EL OF CAULING IN	Heso Jate
Blion, trash race electrical and reference for fore the second fore the second fore the second fore the second fore second for the second fore second foreign fore	HED: NEED CLITT. 29	Heso Jate
Blion, trash race electrical and reference for fore the second fore the second fore the second fore the second fore second for the second fore second foreign fore	HED: NEED CLITT. 29	Heso Jate
Blion, trash the electrical and records for the same of the same o	HED: NEED CLITT. 29	TO MAKE ANY

OTAN GUETAVEORE	=	<b>=</b> ₹	
	Tel:		
Manual Too	Tel:	Pine sta	
The state of the s			
OMM Minuals	Yes 🔾		
त्रा तर्दिनि Management Bylaw:	Yes D		
Records: Design Report	5	_ Plans	
Files Nos		olain Maps	
Rights-of-way;			
Annual Budget/Taxes:	Yes Cl	No 🗆	
Rollow-up Lest Inspection	n: By:		
Annual Inspection (submit rep	en to DIOD): Yes 🔾	No 🖸	
Approyale/Changes:	Yes 🖸	No 🗅	
Maintenance:	PenlupeR D	Okay	
gales cike crest			
Damages/Repairs:		9	
bank protection		<b>(4)</b>	
floodboxes pumps		ं ख ख	
drainage		Ø	
Vegetation Control:	<b>0</b> · .	<b>0</b>	
debria	3	ō	
Flood Response Plan:	F*		
Flow Forecasting Contact liet	· ()	0	
Málenala a Equipment	. 0		ů.
Communications	. 0		
Warring/Evacuation Plan	0		8)
Eollow:up Action Complete	e: Yes 🔾	No 🖸	
(submit report to DIOD)	10		
	Signed:	75 / L	

BRIDGE VIEW

She	el N	lo.	
File	No.		

# FLOOD PROTECTION INSPECTION REPORT

Signed Signed Signed Sondition of the flood protection works is as reported below:  DYKES: (access, gales, locks, vegetation growth, grave) surface, height, slopes, arosion, animal burrows, seepage, trash, berms, relief wells)  Inca 1235 Cate Locked Surface Dock 12057  Some Vegetation Growth Surface Caneer Cook Scoled 1x No Sign of Seefage  BANK PROTECTION: (loss of rock, settlement, slumping)  Ox  LOODBOXES/PUMP STATIONS: (Inlet and outlet channels, gate operation, trash racks, dabris, proglon, corrollon, structure, discharge structure, leading and mechanical components)  NEW Gates Fitted Orthand Control Pushted  LOND CRILL AT LORE 102 OK FLOODSTEEL	VE. CN THORNTON TO	· · · · · · · · · · · · · · · · · · ·
Signed Signed Signed Signed Signed Signed Soundition of the flood protection works is as reported below:  DYKES: (access, gates, locks, vegetation growth, grave) surface, height, slopes, arosion, snimal burrows, seepage, trash, berms, relief wells)  ACC 1335 CATE LOCKED Sulley Dock 1305.  SOME VEGETATION GROWTH STATE CODE SCALES IX NO SIGN OF SEELAGE  BANK PROTECTION: (less of rock, settlement, slumping)  OX  LOODBOXES/PUMP STATIONS: (intel and outlet channels, gate opportion, trash racks, dabris, srosion, corrosion, structure, discharge structure, eachical and mechanical components)  NEW SATES FITTED ORT MAN CONTROL NEW STATED ORT MAN CONTROL NEW SEELAGE GREE AT MAND FITTED ORT MAND CONTROL NEW SEELAGE GREE AT MAND FITTED ORT MAND FITTED ORTHORY SEELAGE GREE AT MAND FITTED ORTHORY SEELA	NH. 30 10	MANSON Punt s
DYKES: (access, galés, locks, vegetation growth, gravel surface, height, slopes, arosion, animal burrows, acepage, trash, berms, relief wells)  I ACC 1335 GATE LOCKED SURRY DOCK 1305.  SOME VEGETATION GROWTH STREE GRAVEL GOOD SCALES, 1X NO SIGN OF SERFACE  BANK PROTECTION: (loss of rock, settlement, slumping)  OK  LOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate pper- lion, trash racks, debris, projon, corrosion, structure, discharge structure, accident and mechanical components)  OK  LOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate pper- lion, trash racks, debris, projon, corrosion, structure, discharge structure, accident and mechanical components)  OK  LOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate pper- lion, trash racks, debris, projon, corrosion, structure, discharge structure, accident and mechanical components)  OK  LOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate pper- lion, trash racks, debris, projon, corrosion, structure, discharge structure, accident and mechanical components)  OK  LOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate pper- lion, trash racks, debris, projon, corrosion, structure, discharge structure, accident and mechanical components)  OK  LOODBOXES/PUMP STATIONS: (inlet and outlet channels, gate pper- lion, trash racks, debris, projon, corrosion, structure, discharge structure, declined and pper- lion, trash racks, debris, projon, corrosion, structure, discharge structure, declined and pper- lion, trash racks, debris, projon, corrosion, structure, discharge structure, declined and pper- lion, trash racks, debris, projon, corrosion, structure, discharge structure, declined and corrosion, structure, discharge structure, declined and corrosion, structure, discharge structure, declined and corrosion, structure, declined and corrosion, structure, declined a	ACH:	
DYKES: (access, gatés, locks, vegetation growth, grave) surface, height, slopes, erosion, animal burrows, seepage, trash, berms, relief wells)    Acc 325 Gate Locked Sulley Dock 12055   Some Vegetation Quoistin Surface Gener Good   Scales 1x No Sign of Seefage   SANK PROTECTION: (less of rock, settlement, slumping)   Ox	E INSPECTED: 1824 ST	Signed A.C.
ANK PROTECTION: (less of rock, settlement, slumping)  OK  LOODBOXES/PUMP STATIONS: (Intel and outlet channels, gate operation tracks, debris, proglon, corrosion, structure, discharge structure, eactical and mechanical components)  ON CATES FITTED ORT HAND OUTTERN, MINNER CRITED ORT HAND COTTON RICHED ORT STATED ORTHOUSE CRITED ORTHO	condition of the flood protection works is as	reported below:
SOME VECTATION GROWTH STATE CAME CAME  SCAFE IX NO SIGN OF SERFACE  BANK PROTECTION: (lass of rock, settlement, slumping)  OX  LOODBOXES/PUMP STATIONS: (Inlet and outlet channels, gate opportion, trash racks, debris, broslon, corrosion, structure, discharge structure, lactifical and mechanical components)  NEW GATES FITTED ORT YAND OUTFOUN  INNER CRILL AT PORT MANN COTTOM RIGHTED  UNIT STO TRASH ROCKS OK FLOODCATES  ORK REQUIRED:  NORK REQUIRED:  DORK REQUIRED:  DORK COMPLETED: Date:  Signed:	DYKES: (access, gatés, locks, vegetátlon eroslon, animal burrows, scepage, trash, b	growth, grave) surface, height, slop terms, relief wells)
SOME VECTATION GROWTH STATE CAME CAME  SCAFE IX NO SIGN OF SERFACE  BANK PROTECTION: (lass of rock, settlement, slumping)  OX  LOODBOXES/PUMP STATIONS: (Inlet and outlet channels, gate opportion, trash racks, debris, broslon, corrosion, structure, discharge structure, lactifical and mechanical components)  NEW GATES FITTED ORT YAND OUTFOUN  INNER CRILL AT PORT MANN COTTOM RIGHTED  UNIT STO TRASH ROCKS OK FLOODCATES  ORK REQUIRED:  NORK REQUIRED:  DORK REQUIRED:  DORK COMPLETED: Date:  Signed:	TACO 1395 GATE LOCKED S	willer Dock 13057
SANK PROTECTION: (less of rock, settlement, slumping)  OX  LOODBOXES/PUMP STATIONS: (Inter and outlet channels, gate operion, trash racks, debris, prospon, corrosion, structure, discharge structure, descripted and mechanical components)  ORT LAND OUT FLOW  JAMES CRILL AT PORT MANN BOTTOM PUSHED  UNIT STONE CRILL AT PORT MANN BOTTOM PUSHED  UNIT STONE CRILL AT PORT MANN BOTTOM PUSHED  ORK REQUIRED:  NORK REQUIRED:  NORK REQUIRED:  DELIAN SELENCE CRILL AT MANN PALS  ORK COMPLETED: Date:  Signed:  Signed:		
LOODBOXES/PUMP STATIONS: (Iniet and outlet channels, gate oper- lion, trash racks, debris, proglon, corrobion, structure, discharge structure, locatical and mechanical components)  NEW GATES FITTED ORT HAND OUTTON , INNER CRILL AT PORT MANN COTTON PUSHED  UMP STO TORS ROCK FLOOGATED  UMP STO TORS ROCK AT MANNE FLOOGATED  ORK REQUIRED: NORMAT SEGMAN BOUGHT SEGMAN  DELAN SEGMAN BOUGHT SEGMAN  DITIONAL INFORMATION (see over) (sketch, photos, etc.)  DRK COMPLETED: Date:  Signed:		
LOODBOXES/PUMP STATIONS: (Iniet and outlet channels, gate oper- lion, trash racks, debris, proglon, corrobion, structure, discharge structure, locatical and mechanical components)  NEW GATES FITTED ORT HAND OUTTON , INNER CRILL AT PORT MANN COTTON PUSHED  UMP STO TORS ROCK FLOOGATED  UMP STO TORS ROCK AT MANNE FLOOGATED  ORK REQUIRED: NORMAT SEGMAN BOUGHT SEGMAN  DELAN SEGMAN BOUGHT SEGMAN  DITIONAL INFORMATION (see over) (sketch, photos, etc.)  DRK COMPLETED: Date:  Signed:		
LOODBOXES/PUMP STATIONS: (Iniet and outlet channels, gate oper- lion, trash racks, debris, proglon, corrobion, structure, discharge structure, locatical and mechanical components)  NEW GATES FITTED ORT HAND OUTTON , INNER CRILL AT PORT MANN COTTON PUSHED  UMP STO TORS ROCK FLOOGATED  UMP STO TORS ROCK AT MANNE FLOOGATED  ORK REQUIRED: NORMAT SEGMAN BOUGHT SEGMAN  DELAN SEGMAN BOUGHT SEGMAN  DITIONAL INFORMATION (see over) (sketch, photos, etc.)  DRK COMPLETED: Date:  Signed:	*	
LOODBOXES/PUMP STATIONS: (Iniet and outlet channels, gate oper- lion, trash racks, debris, proglon, corrobion, structure, discharge structure, locatical and mechanical components)  NEW GATES FITTED ORT HAND OUTTON , INNER CRILL AT PORT MANN COTTON PUSHED  UMP STO TORS ROCK FLOOGATED  UMP STO TORS ROCK AT MANNE FLOOGATED  ORK REQUIRED: NORMAT SEGMAN BOUGHT SEGMAN  DELAN SEGMAN BOUGHT SEGMAN  DITIONAL INFORMATION (see over) (sketch, photos, etc.)  DRK COMPLETED: Date:  Signed:	•	
LOODBOXES/PUMP STATIONS: (Inlet and outlet channels, gate operlien, trash racks, dabris, prosion, corrosion, structure, discharge structure, lectrical and mechanical components)  SEL GATES FITTED ORT HALL OUTFLOW,  INLOSE CRILL AT FORT MALL COTTOM PUSHED  UNI STO TRASH ROCK FLOOGATED  IN SCIONT SEEPAGE BACK AT MALLS FLOOGATED  ORK REQUIRED:  NORMATION (see ever) (sketch, photos, etc.)  DRK COMPLETED: Date:  Signed:	BANK PROTECTION: (less of rock, settle	ement, slumping)
LOODBOXES/PUMP STATIONS: (Inlet and outlet channels, gate operlien, trash racks, dabris, prosion, corrosion, structure, discharge structure, lectrical and mechanical components)  SEL GATES FITTED ORT HALL OUTFLOW,  INLOSE CRILL AT FORT MALL COTTOM PUSHED  UNI STO TRASH ROCK FLOOGATED  IN SCIONT SEEPAGE BACK AT MALLS FLOOGATED  ORK REQUIRED:  NORMATION (see ever) (sketch, photos, etc.)  DRK COMPLETED: Date:  Signed:		(
DRK REQUIRED: Summer Brush Signed:  DRK COMPLETED: Date:  DRK COMP		
DRK REQUIRED: Summer Brush Signed:  DRK COMPLETED: Date:  DRK COMP		,
ORK REQUIRED:  DETTONAL INFORMATION (see over) (sketch, photos, sic.)  DETTONAL INFORMATION (see over) (sketch, photos, sic.)  DETTONAL INFORMATION (see over) (sketch, photos, sic.)		
ORK REQUIRED:  SECTIONAL INFORMATION (see ever) (sketch, photos, slc.)  DRK COMPLETED: Date:  Signed:	Blion, trash racks, dabris, prosion, corrosion	. structure, discharge structure,
ORK REQUIRED: SUMMED BRUSHING REQUIRED: ALS DEGLIS REMAINS DITIONAL INFORMATION (see over) (sketch, photos, sic.)  ORK COMPLETED: Date: Signed:	alion, trash racks, debris, erosion, corrosion, electrical and mechanical components)	, structure, discharge structure, でて ヒューン ひょっていい
ORK REQUIRED: SCIENCE BRUSHING REQUIRED: SCIENCE BRUSHING REQUIRED DESLIS RECOVER) (sketch, photos, slc.)  DRK COMPLETED: Date: Signed:	alion, trash racks, dabris, brosion, corrosion, electrical and mechanical components)  NEW GATES FITTED OF	, structure, discharge structure, et hald outflow bottom Pushiei
DDITIONAL INFORMATION (see ever) (sketch, photos, etc.)  DRK COMPLETED: Date: Signed:	ation, trash racks, dabris, broglon, corrosion, electrical and mechanical components)  NELS GATES FITTED OF JUNIOSE CRILL AT PORT MARKET PROPERTY AT PORT MARKET MA	Structure, discharge structure,  RT HAYN OUTFLOW  LIN BOTTOM PUSHLES  K3 OK FLOOGATE
DDITIONAL INFORMATION (see ever) (sketch, photos, etc.)  DRK COMPLETED: Date: Signed:	alian, trash racks, dabris, brosion, corrosion, electrical and mechanical components)  NEL SATES FITTED COR  LINNER CRILL AT PORT MA  RUMP STN TRASH ROS	ALL AT MANN FLOODS
DDITIONAL INFORMATION (see ever) (sketch, photos, etc.)  DRK COMPLETED: Date: Signed:	ation, trash racks, dabris, brosion, corrosion, piectrical and mechanical components)  NEW SATES FITTED OF TANKE PURCHES CRIM AT PORT MARKET M	ALL AT MANN FLOODS
DDITIONAL INFORMATION (see ever) (sketch, photos, etc.)  DRK COMPLETED: Date: Signed:	alian, trash racks, dabris, brosion, corrosion, electrical and mechanical components)  NEL SATES FITTED COR  LINNER CRILL AT PORT MA  RUMP STN TRASH ROS	ALL AT MANN FLOODS
DDITIONAL INFORMATION (see ever) (sketch, photos, etc.)  DRK COMPLETED: Date: Signed:	ation, trash racks, dabria, brogion, corrobion, corrobi	AT MAND FLOOD  AT MAND OUTFLOW  READ BOTTOM PLENKER  AT MANDON FLOOD  OZA YALK
DITIONAL INFORMATION (see ever) (sketch, photos, etc.)  DRK COMPLETED: Date: Signed;	ation, trash racks, dabria, brogion, corrosion, electrical and mechanical components)  NEW GATES FITTED OF LINNER CRIME AT PORT MARKET MARKET MARKET MARKET STORE ROLL  OLL SLIGHT SEEPAGE C	AT MAND FLOOD  AT MAND OUTFLOW  READ BOTTOM PLENKER  AT MANDON FLOOD  OZA YALK
DRK COMPLETED: Date: Signed;	PORK REQUIRED: Summer 60	Structure, discharge structure,  RT MANN OUTFLOW  LIN BOTTOM PUSHIES  WAS PLOODED  OZA YALE  LUSHING REQ
DRK COMPLETED: Date: Signed;	Blion, trash racks, dabris, broglon, corrosion, bleckrical and mechanical components)  NEW SATES FITTED OF LINES CRIME AT PORT MA  PUMP STO TRASH ROCK  OX SCIGNT SEEPAGE B  VORK REQUIRED:  NORMAN SCIENCES BOX	Structure, discharge structure,  RT MANN OUTFLOW  LIN BOTTOM PUSHIES  WAS PLOODED  OZA YALE  LUSHING REQ
	Blion, trash racks, dabris, broglon, corrosion, bleckrical and mechanical components)  NEW SATES FITTED OF LINES CRIME AT PORT MA  PUMP STO TRASH ROCK  OX SCIGNT SEEPAGE B  VORK REQUIRED:  NORMAN SCIENCES BOX	Structure, discharge structure,  RT MANN OUTFLOW  LIN BOTTOM PUSHIES  WAS PLOODED  OZA YALE  LUSHING REQ
	ALGO DEBLIS LEMONICAL SUMMER BO	ASTRICTURE, discharge structure,  RT MANN OUTFLOW  ROTTOM PLOW FLOW  RS OK FLOOD SATE  ALL AT MANN FLOODS  OZA YALK  LUSHING REQ
	DDITIONAL INFORMATION (See ever) (I	Structure, discharge structure,  RT MAJO OUTFLOW  ROTTOM PLOW  REST MAJO GATE  ALL AT MAJO FLOOD  OZA YALK  Skétch, photos, elc.)

Page 43 FNR-2012-00052



January 9, 1997

Our File: S8 - R - 1

46

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.





.0334 — 152 A Street Surrey British Columbia V3R 7P8 Telephone: (604) 582-5200 Facsimile: (604) 660-8926

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

RAH6

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. <u>Dykes</u>: (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. <u>Pumpstations</u>: (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

# Environment

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

Page 49 FNR-2012-00952

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

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

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

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

<u>Crescent Beach:</u> 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. <u>Floodboxes</u>: (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. <u>Pumpstations</u>: (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

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:
. <u>DYKES</u> : (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
I. 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.

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. <u>DYKES</u> : (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 Colum 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

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:  1. 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. <u>FLOODBOXES</u> : (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 Mansor 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.
2 THINITY THINING AND ALL



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



JAN 8 1990

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

INSPECTOR OF DYKES

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

- 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.
- 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.

# 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 trub

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

ove

DH/hmf/4565x

c.c. - Ass't. Municipal Engineer - Operations

- Public Works Superintendent - Dale Hadden



#### Province of British Columbia

Phone:

Ministry of Environment

INSPECTOR OF DYKES

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

January 3, 1990

FAX #: 852-5419

852-5404

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

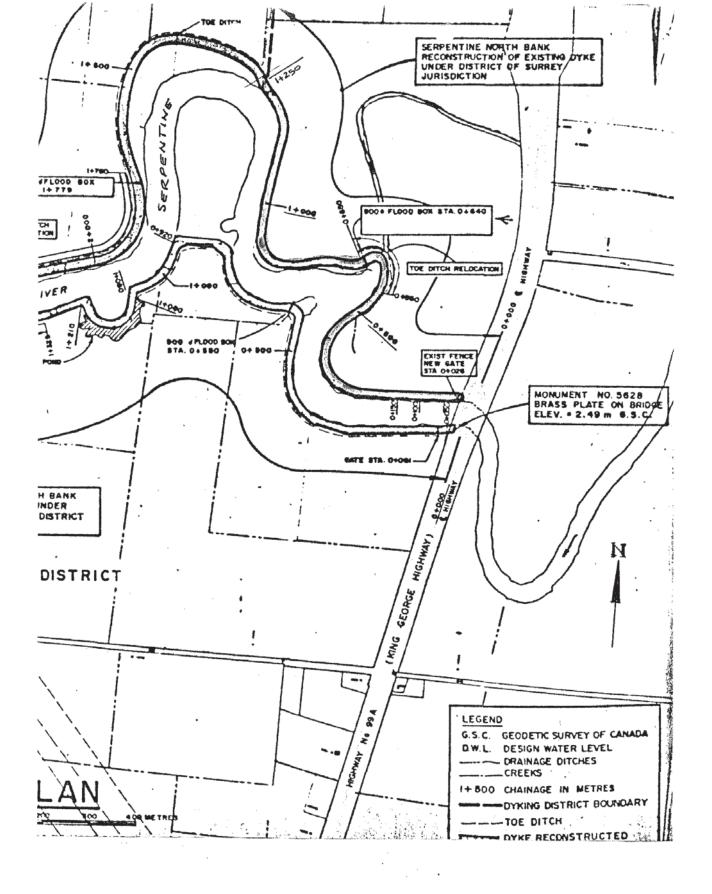
R. J. Henry, P. Eng. Acting Inspector of Dykes

RJH:mr

Enclosure

Region	llo.	_2
File	llo.	S8-R-1

DIST	RICT: MUNICIPALITY OF SURREY
SECT	'ION: SERPENTINE RIVER DYKE - NORTH SIDE - 1.25 KM
DATE	INSPECTED: December 13, 1989 by F.A. Wodtke
The	condition of the flood protection works is as reported below:
Ι.	<u>Dykes</u> : (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.
	<u> </u>
ı.	Floodboxes: (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)
	COULD NOT FIND INLET OF 900 mm Ø FLOODBOX, STA. 0+640.
	· ·
٧.	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 BE
	HELPFUL FOR OUICK MAINTENANCE AND INSPECTION.
	Page 59 FNR-2012-00052





Province of British Columbia

Phone: 852-5404 FAX #: 852-5419 Ministry of Environment

Inspector of Dykes

Water Management Branch 345 Vye Road obotsford British Columbia V2S 4N2

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.

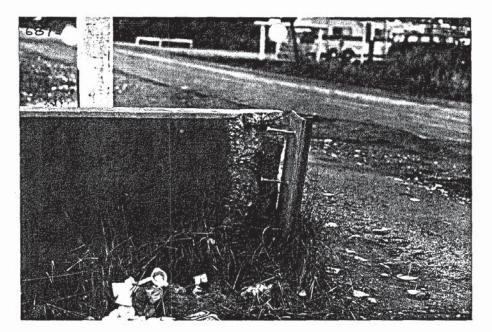
Acting Inspector of Dykes

RJH:mr

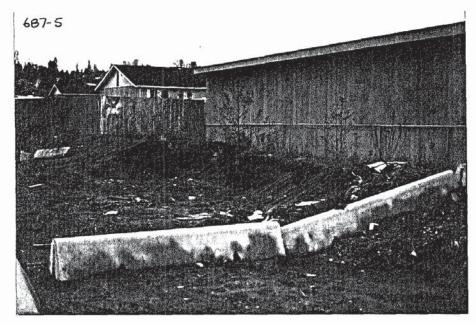
Enclosure

Sheet	No.	1 of 1	
File	No.	S8-R-1	

IST	RICT: MUNICIPALITY OF SURREY
ECT.	ION: SOUTH WESTMINSTER/BRIDGEVIEW-FRASER RIVER
ندكم	INSPECTED: F.A. WODTKE November 28 and 29, 1989
he o	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)
-	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.
	Bank Protection: (Loss of Rock, Settlement, Slumping)
-	N/A
	,
-	
-	
-	
I. j	Floodboxes: (Inlet & Outlet Channel, Gate Operation, Trash Racks & Debris Removal, Erosion, Corrosion)
	Inflow observed at 128th Street floodbox at high water.
	Other floodboxes okay.
v. <u>j</u>	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.
•	Work Required:
	Replace 'stolen' dyke fill at Bolivar Creek and Industrial Avenue. (Suggestion: Make f
	unattractive to potential 'borrowers'; i.e.: asphalt, etc.).
	Check gate at 128th Street floodbox when tide is low.
	Check gate at 128th Street floodbox when tide is low.  Repair concrete end of floodwall at Old Yale and re-attach metal slot.



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'.

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

Fax

File: 4862-0694) 591-4527

November 17, 1989



Ministry of Environment, Water Management Branch, 34345 Vye Road, Abbotsford, B.C. V25 4N2

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

INSPECTION OF DYKES

MOV 2 9 1989

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. 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

Phone:

**FAX #:** 

852-5404

852-5419

Ministry of Environment

INSPECTOR OF DYKES

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

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

Sheet No	),
File No.	S8-R-1

DIST	TRICT: MUNICIPALITY OF SURREY
SEC	TION: CRESCENT BEACH SEA DYKE
DmI	E INSPECTED: NOVEMBER 2nd, 1989
The	condition of the flood protection works is as reported below:
.1	<u>Dykes</u> : (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 $\pm$ 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.
II.	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.
٧.	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.
	Page 67
	FNR-2012-00052

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.

INSPECTOR OF DYKES

Dear Sir:

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

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

 THE DISTRICT

FILE REGISTRY COPY

# INTER-OFFICE MEMO

TO:

MUNICIPAL ENGINEER

FROM:

ASS'T. MUNICIPAL ENGINEER
- OPERATIONS -

DATE:

NOVEMBER 20, 1986

	ENGINEERING DEPT.			
FILE	DATE NOV 25 1986		25 1986 D	
	ŤO	BY	DATE	-
	RWE	DW		_
	fele	like	2/11/2/2	
	<u>/}</u>		1/20	٦

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

# I. <u>Dykes</u>

- 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.
- 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

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

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,

R. J. Henry, P. Eng.

Ron Henry

Assistant Inspector of Dykes

RJH/rc

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

Enclosure

DIST	RICT: Surrey - South Westminster
SECT	ION: Pattullo Bridge to Weldwood Mill
DATE	INSPECTED: October 6, 1986
The	condition of the flood protection works is as reported below:
I.	<u>Dykes</u> : (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.
	0.K.
٧.	Work Required:
	1. Repair cracked floodwall.
	2. Grade top surface of access road.
	3. Mow long grass on slopes of dyke.

Sheet No.	1 of 2
File No.	3-1-4

DIST	RICT: Surrey - Bridgeview & South Westminster
SECT	ION:133rd to Pattullo Bridge
DATE	INSPECTED: October 6, 1986
The	condition of the flood protection works is as reported below:
1.	<u>Dykes</u> : (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)
	0.K.
t.	
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.
	О.К.
٧.	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.

# - SUBBEQUENTLY REPAIRED BY SURREY.







Page 75 FNR-2012-00052