APPENDIX - A Morgan Brook Watershed Management Plan Bacteria Sampling Results - Morgan Brook Watershed

Sample	Sample	Accilia	Concentration
Location	Date	Analyte	cfu/100 mL
MB-1	4/15/09	Fecal Coliform via membrane filtration	7
MB-1	4/15/09	E. coli via MI agar	11
MB-1	5/13/09	Fecal Coliform via membrane filtration	28
MB-1	5/13/09	E. coli via MI agar	48
MB-1	6/10/09	MF_FC	80
MB-1	6/10/09	MF_MI	72
MB-1	7/8/09	Fecal Coliform via membrane filtration	48
MB-1	7/8/09	E. coli via MI agar	34
MB-1	9/14/09	Total coliform	697
MB-1	9/14/09	E.coli	31
MB-1 MB-1	9/21/09 9/21/09	Total coliform	1,046
MB-1 MB-1	9/21/09 9/28/09	E.coli Total coliform	12 3,968
MB-1 MB-1	9/28/09	E.coli	231
MB-1	10/5/09	Total coliform	1,483
MB-1	10/5/09	E.coli	10
MB-1	10/7/09	Fecal Coliform via membrane filtration	110
MB-1	10/7/09	E. coli via MI agar	190
MB-1	4/28/10	Fecal Coliform via membrane filtration	48
MB-1	4/28/10	E. coli via MI agar	58
MB-1	7/7/10	Fecal Coliform via membrane filtration	40
MB-1	7/7/10	E. coli via MI agar	100
MB-1	11/3/10	Fecal Coliform via membrane filtration	60
MB-1	11/3/10	E. coli via MI agar	80
MB-1.1	9/21/09	Total coliform	727
MB-1.1 MB-1.1	9/21/09	E.coli	33
MB-1.1	9/28/09	Total coliform	5,172
MB-1.1	9/28/09	E.coli	199
MB-1.1	10/5/09	Total coliform	1,483
MB-1.1	10/5/09	E.coli	52
MB-1.1	10/5/09	Total coliform	9,804
MB-1.1	10/5/09	E.coli	41
MB-2	4/15/09	Fecal Coliform via membrane filtration	4
MB-2	4/15/09	E. coli via MI agar	4
MB-2	5/13/09	Fecal Coliform via membrane filtration	80
MB-2	5/13/09	E. coli via MI agar	74
MB-2	6/10/09	MF_FC	265
MB-2	6/10/09	MF_MI	400
MB-2	7/8/09	Fecal Coliform via membrane filtration	27
MB-2	7/8/09	E. coli via MI agar	21
MB-2	9/14/09	Total coliform	1,918
MB-2	9/14/09	E.coli	110
MB-2	9/21/09	Total coliform	2,420
MB-2	9/21/09	E.coli	28
MB-2 MB-2	9/28/09 9/28/09	Total coliform E.coli	11,199 691
MB-2	10/5/09	Total coliform	2,105
MB-2	10/5/09	E.coli	41
MB-2	10/7/09	Fecal Coliform via membrane filtration	200
MB-2	10/7/09	E. coli via MI agar	200
MB-2	4/28/10	Fecal Coliform via membrane filtration	76
MB-2	4/28/10	E. coli via MI agar	100
MB-2	7/7/10	Fecal Coliform via membrane filtration	50
MB-2	7/7/10	E. coli via MI agar	150
MB-2	11/3/10	Fecal Coliform via membrane filtration	14
MB-2	11/3/10	E. coli via MI agar	28

Morgan Brook Watershed Management Plan Bacteria Sampling Results - Morgan Brook Watershed

Sample Location	Sample Date	Analyte	Concentration cfu/100 mL
MB-3	4/15/09	Fecal Coliform via membrane filtration	8
MB-3	4/15/09	E. coli via MI agar	6
MB-3		ĕ	90
MB-3	5/13/09	Fecal Coliform via membrane filtration E. coli via MI agar	80
MB-3	5/13/09 6/10/09	E. COII VIA MI Agai MF_FC	38
MB-3	6/10/09	MF MI	34
MB-3	7/8/09	Fecal Coliform via membrane filtration	21
MB-3	7/8/09	E. coli via MI agar	15
MB-3	9/14/09	Total coliform	1,354
MB-3	9/14/09	E.coli	30
MB-3	9/21/09	Total coliform	866
MB-3	9/21/09	E.coli	7
MB-3	9/28/09	Total coliform	12,997
MB-3	9/28/09	E.coli	448
MB-3	10/5/09	Total coliform	1,374
MB-3	10/5/09	E.coli	31
MB-3	10/7/09	Fecal Coliform via membrane filtration	225
MB-3	10/7/09	E. coli via MI agar	110
MB-3	4/28/10	Fecal Coliform via membrane filtration	36
MB-3	4/28/10	E. coli via MI agar	40
MB-3	7/7/10	Fecal Coliform via membrane filtration	30
MB-3	7/7/10	E. coli via MI agar	20
MB-3	11/3/10	Fecal Coliform via membrane filtration	12
MB-3	11/3/10	E. coli via MI agar	8
ML-1	9/14/09	Total coliform	6,488
ML-1	9/14/09	E.coli	41
ML-1	9/21/09	Total coliform	1,300
ML-1	9/21/09	E.coli	17
ML-1	9/28/09	Total coliform	2,909
ML-1	9/28/09	E.coli	86
ML-1	10/5/09	Total coliform	958
ML-1	10/5/09	E.coli	20
ML-1.9	9/21/09	Total coliform	2,420
ML-1.9	9/21/09	E.coli	162
ML-1.9	9/28/09	Total coliform	19,863
ML-1.9	9/28/09	E.coli	305
ML-1.9	10/5/09	Total coliform	2,755
ML-1.9	10/5/09	E.coli	98
ML-2	9/14/09	Total coliform	4,106
ML-2	9/14/09	E.coli	52
ML-2	9/21/09	Total coliform	2,420
ML-2	9/21/09	E.coli	104
ML-2	9/28/09	Total coliform	11,199
ML-2	9/28/09	E.coli	432
ML-2	10/5/09	Total coliform	3,654
ML-2	10/5/09	E.coli	85
ML-3	9/14/09	Total coliform	10,462
ML-3	9/14/09	E.coli	86
ML-3	9/21/09	Total coliform	2,420
ML-3	9/21/09	E.coli	81
ML-3	9/28/09	Total coliform	4,907
ML-3	9/28/09	E.coli	262
ML-3	10/5/09	Total coliform	1,989
ML-3	10/5/09	E.coli	31

Morgan Brook Watershed Management Plan Bacteria Sampling Results - Morgan Brook Watershed

Sample Location	Sample Date	Analyte	Concentration cfu/100 mL
Mltrib-4	9/14/09	Total coliform	4,884
Mltrib-4	9/14/09	E.coli	31
Mltrib-4	9/21/09	Total coliform	2,420
Mltrib-4	9/21/09	E.coli	73
Mltrib-4	9/28/09	Total coliform	5,172
Mltrib-4	9/28/09	E.coli	85
Mltrib-4	10/5/09	Total coliform	15,531
Mltrib-4	10/5/09	E.coli	51
ML-5	10/5/09	Total coliform	4,106
ML-5	10/5/09	E.coli	241
WHP-1	6/10/2008	E.coli	<10
WHP-1	6/26/2008	E.coli	10
WHP-1	7/15/2008	E.coli	<10
WHP-1	7/29/2008	E.coli	10
WHP-1	8/14/2008	E.coli	10
WHP-1	8/26/2008	E.coli	<10
WHP-1	6/18/2009	E.coli	10
WHP-1	6/29/2009	E.coli	10
WHP-1	7/14/2009	E.coli	<10
WHP-1	8/4/2009	E.coli	10
WHP-1	8/11/2009	E.coli	41
WHP-1	8/18/2009	E.coli	10
	9/1/2009	E.coli	<10
WHP-1			
WHP-1	6/8/2010	E.coli	<10
WHP-1	6/24/2010	E.coli	10
WHP-1	7/8/2010	E.coli	<10
WHP-1	7/27/2010	E.coli	<10
WHP-1	8/17/2010	E.coli	<10
WHP-1	8/31/2010	E.coli	10
WHP-1	6/20/2011	E.coli	31
WHP-1	7/7/2011	E.coli	<10
WHP-2	6/10/2008	E.coli	42
WHP-2	6/26/2008	E.coli	<10
WHP-2	7/17/2008	E.coli	<10
WHP-2	7/29/2008	E.coli	10
WHP-2	8/14/2008	E.coli	10
WHP-2	8/26/2008	E.coli	<10
WHP-2	6/18/2009	E.coli	<10
WHP-2	6/29/2009	E.coli	10
WHP-2	7/14/2009	E.coli	<10
WHP-2	8/19/2009	E.coli	31
WHP-2	6/3/2010	E.coli	20
WHP-2	6/24/2010	E.coli	10
WHP-2	7/8/2010	E.coli	<10 <10
WHP-2	7/27/2010	E.coli	10
WHP-2	8/17/2010	E.coli	<10
WHP-2	9/2/2010	E.coli	10
WHP-2	6/7/2011	E.coli	<10
WHP-2	7/7/2011	E.coli	10

Appendix - B Morgan Brook Watershed

Section 319 Nonpoint Source Management Progam Track Down Survey Summary Table

	Site ID ⁽¹⁾	Site ID		
Map ID	Survey Form #	Local Basin #	Latidude	Longitude
1	4305-00-1_SCa	4305-00-1	41º53'29.2"N	73º2'9.89"W
2	4305-00-1_SCb	4305-00-1	41º53'30.35"N	73º2'5.22''W
3	4305-00-1_SCc	4305-00-1	41º53'43.97"N	73º1'51.99"W
4	4305-00-1_SCd	4305-00-1	41º54'9.06"N	73º2'3.14"W
5	4305-00-1-L1_OTa	4305-00-1-L1	41º52'22.34"N	73º2'38.38"W
6	4305-00-1-L1_SCa	4305-00-1-L1	41º53'26.45"N	73º2'12.01"W
7	4305-00-1-L1_SCb	4305-00-1-L1	41º53'2.18"N	73º2'42.91"W
8	4305-00-1-L1_SCc	4305-00-1-L1	41º52'21.1"N	73º2'20.05"W
9	4305-00-1-L1_SCd	4305-00-1-L1	41º52'21.93"N	73º2'37.23"W
10	4305-00-3-R1_OTa	4305-00-3-R1	41º54'23.72"N	72º59'54.52"W
11	4305-00-3-R1_SCa	4305-00-3-R1	41º54'30.51"N	73º0'2.04"W
12	4305-00-3-R1_SCb	4305-00-3-R1	41º54'41.39"N	73º0'29.62"W
13	4305-00-3-R1_SCc	4305-00-3-R1	41º54'44.51"N	73º1'3.97"W
14	4305-00-3-R1_SCd	4305-00-3-R1	41º54'31.63"N	72º59'56.64"W
15	4305-00-3-R2_OTa	4305-00-3-R2	41º54'16.69"N	72º59'46.77"W
16	4305-00-3-R2_SCa	4305-00-3-R2	41º54'6.01"N	72º59'21.87"W
17	4305-00-3-R2_SCb	4305-00-3-R2	41º54'8.25"N	72º59'33.16"W
18	4305-01-1_OTa	4305-01-1	41º53'17.72"N	73º1'13.9"W
19	4305-01-1_SCa	4305-01-1	41º53'53.03"N	73º1'30.56"W
20	4305-02-1_OTa	4305-02-1	41º54'42.9"N	73º3'6.93"W
21	4305-02-1_OTb	4305-02-1	41º54'38.1"N	73º3'2.05"W
22	4305-02-1_OTc	4305-02-1	41º54'34.57"N	73º2'36.06"W
23	4305-02-1_OTd	4305-02-1	41º54'33.08"N	73º2'54.6"W
24	4305-02-1_SCa	4305-02-1	41º54'38.79"N	73º2'28.73"W
25	4305-02-1_SCb	4305-02-1	41º54'35.54"N	73º2'57.35"W
26	4305-02-1_SCc	4305-02-1	41º54'41.87"N	73º3'3.54"W
27	4305-02-1_SCd	4305-02-1	41º54'41.99"N	73º3'4.33"W
28	4305-02-1_SCe	4305-02-1	41º54'35.16"N	73º2'36.28"W
29	4305-02-1_SCf	4305-02-1	41º54'32.98"N	73º2'53.5"W
30	4305-02-1_SCg	4305-02-1	41º54'48.78"N	73º3'5.93"W
31	4305-02-1_SCh	4305-02-1	41º54'48.07"N	73º3'6.23"W
32	4305-02-2-R1_SCa	4305-02-2-R1	41º54'43.35"N	73º1'37"W
33	4305-02-2-R1_SCb	4305-02-2-R1	41º54'42.22"N	73º2'19.02"W
34	4305-03-1_SCa	4305-03-1	41º54'46.75"N	73º2'27.17"W
35	4305-04-1_SCa	4305-04-1	41º54'18.77"N	72º59'52.66"W
36	4305-04-1_SCb	4305-04-1	41º53'53.24"N	73º1'22.22"W
37	4305-04-1_SCc	4305-04-1	41º54'0.93"N	73º1'1.03"W
38	4305-04-1_SCd	4305-04-1	41º54'4.37"N	73º0'24.11"W
39	4305-04-1_SCe	4305-04-1	41º53'49.49"N	73º1'7.41"W
40	4305-04-1_SCf	4305-04-1	41º53'21.63"N	73º0'53"W
			•	



WATERSH	ED/SUBSHE	D: 4305-00-1	1		DA	TE: 11	<u>/ 19 / 201</u> 0	ASSESS	SED BY: SH, MM		
SURVEY R			TIME: 9	: 10 AM/PM			: (Camera-Pic #	<i>‡</i>)	/# 00-1-SC-a,jpg		
SITE ID: (C	Condition-#)	SCA L	AT 41 ° 53	29.20 " LON	-73 o	02 •0)9.89 '' LM	K	GPS (Unit ID) R1		
TYPE: X	Road Crossin	g 🔲 Railroad Cr	ossing D	am Footbridge	Geol	ogical Fo	ormation (+/- 2ft c	hange)	Other:		
ROAD OR RAILROAD CROSSING	CROSSING Arch Box Bottom Elliptic	Circular Other: flared ends	#BARRELS: MATERIAL: Single Concrete Metal (smooth) Triple Metal (corrugated) Other: Other:			☐ Flow	Flow-aligned Not flow-aligned toward LT bank		IONS: (if varies sketch) ameter: 3 (ft) Height: 3 (ft) ength: 45 (ft) Width: 4 (ft)		
ONLY	☐ Crackir☐ Sedime	ON: (Evidence of) ng/chipping/corros nt deposition ed organic debris	on Downstream scour hole Failing embankment Other:			$\Box \text{ Flat}$ $\Box \text{ Slight } (2^{\circ} - 5^{\circ})$		UNDERS	Roadway elevation: 6 (ft) UNDERSIZED? ☑ No ☐ Yes ☐ Unsure		
DAMS	Түре:	☐ Manmade	r	MATERIAL: Concrete (poured) Mortared stone MATERIAL:					Height: (ft) Height: (ft)		
		Old/Abandon	ed Beaver	Large woody del	ris 🗌	Small we	oody debris		Tieight. (it)		
no											
ISSC ACT				☐ Yes ☐	JIIKIIOW		AGE SEVERITY	• (-:1- 4)			
If yes for fish barrier (> 6 in drop or flow < ½ inch)	☐ Total ☐ Tempor CAUSE: ☐ Culvert ☐ Drop to	A structure such as a dam or culvert on a 3rd order or greater stream blocking the upstream movement of anadromous fish passage device present.			or road reater am fish; no A total fish blockage tributary that would is significant reach of st partial blockage that interfere with the min		on a solate a stream, or may	A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.			
inchi	Other:	v now, water depti	i(iii)	5		4	3	2	1		



WATERSH	ED/SUBSHE	D: 4305-00-1	1		<u>/ 19 / 201</u> 0		SED BY: SH, MM				
SURVEY R	EACH ID:		TIME: 9	: ²⁰ (AM/PM	PH	ото ID:	: (Camera-Pic #	#)	/# 00-1-SC-b.jpg		
SITE ID: (C	Condition-#)	SC-B	LAT 41 ° 53	3 ' 30.35 " LONG	-73 o	02 • 0	05.22 '' LM	K	GPS (Unit ID) R1		
TYPE: 🔀 F	Road Crossin	g 🔲 Railroad (Crossing D	Dam Footbridge	Geol	ogical Fo	rmation (+/- 2ft c	change)	Other:		
ROAD OR RAILROAD CROSSING	CROSSING ☐ Arch ☐ Box ☐ Bottom ☐ Elliptic	Circular Other:	# BARREL Single Double Triple Other:	✓ Concrete✓ Metal (smooth	Concrete Metal (smooth) Metal (corrugated) Other:		MENT: w-aligned flow-aligned oward LT bank oward RT bank not know	Barrel dia	IONS: (if varies sketch) ameter: 3 (ft) Height: 3 (ft) ength: 50 (ft) Width: 4 (ft)		
ONLY	☐ Crackin☐ Sedime	ON: (Evidence of ng/chipping/corre nt deposition ed organic debris	sion Down			☐ Flat ☑ Slig	ERT SLOPE: tht $(2^{\circ} - 5^{\circ})$ throus $(>5^{\circ})$	UNDERS	elevation: 6 (ft) IZED? Yes Unsure		
DAMS	Түре:	☐ Manmade		MATERIAL: Concrete (poured Mortared stone MATERIAL:					Height: (ft)		
		Height: (ft)									
DOTENTIA	DECTORA	TION CANDIDA	TE DEal	barrier removal Fi	ah maaa		I Instrument stores	a ratrafit	Ctroom ronoir		
no	L KESTOKA	ATION CANDIDA		vert repair/replacement	•	_			Stream repair		
IS SC ACTI	NG AS GRA	DE CONTROL	🔀 No	Yes U	nknow	vn					
	EXTENT (OF PHYSICAL B	LOCKAGE:			BLOCK	AGE SEVERITY	: (circle #)			
If yes for fish barrier (> 6 in drop or flow < ½ inch)	☐ Drop to	rary Part rary Unk raised, above str o high, water dro v flow, water dep	nown eam (in) pp: (in)	culvert on a 3rd orde stream blocking the movement of anadro fish passage device	A structure such as a dam or road culvert on a 3rd order or greater stream blocking the upstream movement of anadromous fish; no fish passage device present. A total fish blockage on a tributary that would isolate a significant reach of stream, or partial blockage that may interfere with the migration of anadromous fish.			isolate a stream, or t may	A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.		
inch)	Other:	mow, water dep	un (m)	5		4	3	2	1		
	Other: Other: 3 4 3 2 1										

WATERSH	ED/SUBSHE	D: 4305-00-1					D	ATE: 11	/ 19 / 2010	ASSESS	SED BY: SH, MM	
SURVEY R	EACH ID:					AM/PM): (Camera-Pic #	f)	/ #00-1-SC-c2.jpg	
SITE ID: (Condition-#)	SCC	LA	T 41	o 53	' 43.97 " LON	G -73 G	01	51.99 " LM	K	GPS (Unit ID)R1	
		•										
TYPE: X	Road Crossin	g 🗌 Railroad	Cro	ssing	☐ Dam	Footbridge	☐ Geo	logical F	ormation (+/- 2ft c	hange) 🗌	Other:	
ROAD OR RAILROAD	CROSSING Arch Box Bottom Elliptic		# BAH ☐ Sir ☑ Do ☐ Tri ☐ Oti	ouble iple	MATERIAL: Concrete Metal (smooth) Metal (corrugated) Other:		No No	□ Flow aligned		AIONS: (if varies sketch) ameter: 3 (ft) Height: 3 (ft) ength: (ft) Width: 6 (ft)		
ONLY	ONLY CONDITION: (Evidence of)							+	VERT SLOPE:	Roadway	elevation: 8 (ft)	
	☐ Cracking/chipping/corrosion ☐ Downst☐ Sediment deposition ☐ Failing ☐ Collected organic debris ☐ Other:							Sli	☐ Flat ☐ Slight (2° – 5°) ☐ Un		NDERSIZED? No □ Yes □ Unsure	
					M	ATERIAL:						
DAMS	Type:	Manmade	;			Concrete (poure Mortared stone					Height: (ft)	
		☐ Active Bea			I —	ATERIAL: Large woody de	bris 🗌	Small v	voody debris		Height: (ft)	
					<u> </u>							
POTENTIA no	POTENTIAL RESTORATION CANDIDATE ☐ Fish barrier removal ☐ Fish passage ☐ Upstream storage retrofit ☐ Stream repair ☐ no ☐ Culvert repair/replacement ☐ Beaver deceiver/removal ☐ Other:											
	ING AS GRA	DE CONTROL			No	<u> </u>	Unknov					
1550 Act							CIIKIIO		KAGE SEVERITY	• (circle #)		
If yes for fish barrier (> 6 in drop or flow < ½	☐ Total ☐ Tempor CAUSE: ☐ Culvert ☐ Drop to	raised, above s	rtial iknov strear rop:	wn m	_ (in) _ (in)	A structure such as a dam or road culvert on a 3rd order or greater stream blocking the upstream movement of anadromous fish; no fish passage device present.			A total fish blockage tributary that would is significant reach of s partial blockage that interfere with the mig anadromous fish.	on a solate a stream, or may	A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.	
inch)	☐ Other:		eptn:		_ (1n)	5		4	3	2	1	
Shallow flow, water depth:(in)												

WATERSH	ED/SUBSHE	D: 4305-00-1									ED BY: SH, MM
SURVEY R	EACH ID:								: (Camera-Pic #)	/# ^{00-1-SC-d2.jpg}
SITE ID: (Condition-#)	SCD	LAT _	41 • 54	• (09.06 " LONG -7	'3 o	02	03.14 " LMI	K	GPS (Unit ID) R1
TYPE: 🄀 F	Road Crossin	g 🗌 Railroad	Crossin	ng 🗌 Dar	m [☐ Footbridge ☐ (Geol	ogical Fo	ormation (+/- 2ft cl	hange)	Other:
ROAD OR RAILROAD	CROSSING Arch Box Bottom Elliptic	RRELS: MATERIAL: Ingle Concrete Duble Metal (smooth) Inple Metal (corrugate ther: Other:			□ No	ow-aligned by the flow-aligned toward LT bank toward RT bank toward RT bank		Height: $\frac{3}{}$ (ft) ength: $\frac{40}{}$ (ft)			
CROSSING ONLY CONDITION: (Evidence of)						mortared stone		CULV	not know ERT SLOPE:		Width: <u>3</u> (ft) elevation: <u>10</u> (ft)
	☐ Cracking/chipping/corrosion ☐ Downst☐ Sediment deposition ☐ Failing ☐ Collected organic debris ☐ Other:									Unders:	IZED?
DAMS	Түре:	☐ Manmade			□С	TERIAL: Concrete (poured of Mortared stone			-		Height: (ft)
		☐ Active Bea		_		rerial: arge woody debris		Small w	oody debris		Height: (ft)
POTENTIA	L RESTORA	TION CANDID	ATE	☐ Fish ba	arrie	er removal Fish	pass	age [Upstream storage	e retrofit	Stream repair
🗖 no						pair/replacement	^	-	-		_ 1
IS SC ACTI	ING AS GRA	DE CONTROL	,	No	Г	Yes Unl	cnow	n			
	EXTENT (OF PHYSICAL 1				_		BLOCK	KAGE SEVERITY:	(circle #)	
If yes for fish barrier (> 6 in drop or flow < ½	☐ Total ☐ Tempor CAUSE: ☐ Culvert ☐ Drop to	Pai	rtial known tream _ rop: _	(in) (in)	:	A structure such as a dam or road culvert on a 3rd order or greater stream blocking the upstream movement of anadromous fish; no fish passage device present.			A total fish blockage tributary that would is significant reach of s partial blockage that interfere with the mig anadromous fish.	on a solate a tream, or may	A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.
inch)	Other:	mow, water de	epun:	(in)		5		4	3	2	1
NOTES/SK.									Reported to	O AUTHORI	TTIES: YES NO

WATERSHED	SUBSHEI	4305-00)-1-L1			D ATE: 4 / 19 / 11 A SSESSED BY: SH,MM							
SURVEY REA	сн ID:		TII	ME: 10:00 (AM)PN	M	Рното ID:	(Camera-Pio	:#)	/# 00	-1-L1-OT-a.jpg			
SITE ID (Cond	dition-#): O	TA	LA	T 41 ° 52 ' 22.3	4_"Lo	NG-73 ° 02	1 38.38 11	LMK_		GPS: (Unit ID)R1			
BANK: LT RT FLOW: None Trickle Moderate	Head	TYPE: Pipe Leak C	Off	MATERIAL: Concrete PVC/Plastic Corrugated Vitrified Tile		SHAPE: Circular Elliptical Other:	NUMBER: Single Double Triple	DIMENS Diameter FLARED Yes HEADW YES	END? No	SUBMERGED: No Partially Fully			
	Substantial			Concrete R Vegetated F Other:		☐ Trapezoid ☐ Parabolic rect ☐ Other: 3' x		12 (in) 36 (in) 36 (in)	Channel slope: 5 (degrees)				
PIPE CONDIT	ced	ODOR: No Gas Sewag		DEPOSITS/STAINS None □ Oily	S:	VEGGIE DE BELOW OU' None	NSITY	☐ Sewage	e Fungus e	H IN PIPE: None Brown Grey Other:			
Peeling Pai	int	☐ Flow Line ☐ Paint ☐ Other:	☐ Inhibited ☐ G ☐ G ☐ C ☐ C ☐ C ☐ C ☐ C ☐ C ☐ C ☐ C			Clear □ □Colors □ Floatab	☐ No pool Poor (see below) ☐ Oils ☐ Suds les ☐ Settled Solids ☐ Outlet Protection diment						
For	Color:	D	Clea	r Brown C	Grey	Yellow [Green	Orange	Red 🔲 (Other:			
FLOWING	TURBIDIT		Non			Cloudy [Opaque						
ONLY	FLOATIN SUSPEND		None None			llet Paper 🔲 🛚		troleum (oil her:	sheen)	Other:			
OTHER CONCERNS:	☐ Exces		er/plas	stic bags) 🔲 Dumpi	ng (bulk		ive Sedimenta		Headcut				
no		TION CAND	IDATI	E Discharge inve	-	n Stream da							
If yes for day	0 0	ar from outfo	.11.	ft Type	of evicti	ng vegetation:			Slone:	%			
	<i>mwater:</i> I l Use descr	s stormwate	r curre	ntly controlled (qualit	ty and/o		No No	ot investigat					
OUTFALL SEVERITY: (circle #)	stro com stre	ng smell. The a	mount of appears		discharç discharç	ischarge; flow mo ge has a color and ge is very small co d any impact appe	l/or odor, the am impared to the si	ount of tream's base l'localized.	discharge; of causing	s not have dry weather staining; or appearance any erosion problems.			
			5		4	3	3	(2	1			
SKETCH/NO							R	EPORTED TO	O AUTHORI	TIES: □ YES □ NO			

SC

WATERSH	ED/SUBSHE	D: 4305-00-					_		/ 19 /2010	ASSESS	ED BY: SH, MM
SURVEY R	EACH ID:		7	Гіме: <u>8</u>	<u>:</u> 57	AM/PM	Рн	ото ID)	/# ^{00-1-L1-SC-a2.jpg}	
SITE ID: (Condition-#)	SCA	LAT	r <u>41 ° 5</u>	3	AM/PM ' 26.45 '' LONG	73 o	02 •	12.01 '' LMI	K	GPS (Unit ID) R1
TVPE: X	Poad Crossin	g 🔲 Railroad	1 Cross	eina 🗖 F)am	☐ Footbridge ☐	Geol	ogical Fo	ormation (+/- 2ft cl	hange) \square	Other:
1111.				BARREI		MATERIAL:	GCOI		NMENT:		ONS: (if varies sketch)
ROAD OR	CROSSING Arch Box Bottom Elliptic	Single Double Triple Other:		Concrete Metal (smooth) Metal (corrugat		Flow-aligned Not flow-aligned Description:			meter: $\frac{3}{3}$ (ft) Height: $\frac{3}{3}$ (ft) width: $\frac{30}{3}$ (ft)		
RAILROAD CROSSING	Ешрис	aı	'	Other.		mortar & stone		_	not know		Width:3(ft)
ONLY	CONDITIO	ON: (Evidence o	f)						ERT SLOPE:		elevation: 10 (ft)
		g/chipping/cor	rosion					Fla		¥7	0
		nt deposition			-	bankment			ght $(2^{\circ} - 5^{\circ})$	UNDERSI	IZED? Yes □ Unsure
	☐ Collect	ed organic debi	ris	Other					vious (>5°)	No [res 🔲 Unsule
DAMS	Түре:	Manmade	e 		D S	ATERIAL: Concrete (poured Mortared stone	or <u>bl</u>] Gab	ock) [Dry stone Other:		Height: 10 (ft)
		Active Be		_		ATERIAL:		C 11	1 11:		Height: (ft)
		Old/Aban	doned	Beaver	Ш	Large woody debris	<u></u>	Small w	roody debris		
	POTENTIAL RESTORATION CANDIDATE										
no						epair/replacement	Be	aver dec	eiver/removal	Other:	
IS SC ACTI	NG AS GRA	DE CONTROI	L	☐ No	J	Yes Un					
If yes for fish barrier (> 6 in drop or flow < ½ inch)	☐ Total ☐ Tempor CAUSE: ☐ Culvert ☐ Drop to	PHYSICAL Parary Un raised, above so high, water do	nrtial nknow stream lrop:	vn 1(in (in	1)	A structure such as a dam or road culvert on a 3rd order or greater stream blocking the upstream movement of anadromous fish; no fish passage device present			A total fish blockage tributary that would is significant reach of s partial blockage that interfere with the mig anadromous fish.	h blockage on a hat would isolate a t reach of stream, or ockage that may with the migration of	
inchi	Other:	inow, water a	срии.	(m	,	3		4	3	2	1
OTHER SURVEY FOR											

SC

WATERSHI	ED/SUBSHE	D: 4305-00-1-L:	1				DA	TE: <u>11</u>	<u>/ 19 / 201</u> 0	ASSESS		
SURVEY R	EACH ID:		Т	'IME: 11	: 34	(AM)PM	Рн	ото ID	7)	/# ^{00-1-L1-SC-b2.jpg}		
SITE ID: (C	Condition-#)	SCB	LAT	<u>41</u> • 53		' 2.18 " LONG -	73 •	02 •	42.91 '' LMI	K	GPS (Unit ID) R1	
TYPE: X		g 🗌 Railroad					Geol	ogical Fo	ormation (+/- 2ft cl			
	CROSSING			BARRELS	S:	MATERIAL:		I I		DIMENSI	ONS: (if varies sketch)	
		Circular		Single		Concrete Metal (smooth)			ow-aligned	Barrel dia	()	
	☐ Box ☐ Bottom	Other:		Double Triple		☐ Metal (corrugate	Not flow-aligned toward LT bank			Height:(ft)		
ROAD OR RAILROAD	☐ Elliptic			☐ Triple ☐ Other:		Other:	cu)		oward RT bank	Culvert le	ngth: $\frac{25}{5}$ (ft) Width: $\frac{5}{5}$ (ft)	
CROSSING	Виприи	***	five		_			not know				
ONLY	CONDITIO	ON: (Evidence of					CULV	ERT SLOPE:	Roadway	elevation: 2 (ft)		
		g/chipping/cor		☐ Down	strea	am scour hole		☐ Fla			_	
	Sedime	☐ Failing	g em	bankment			ght $(2^{\circ} - 5^{\circ})$	UNDERS				
	Collecte	ed organic debr	is	Other:				∐Ob	vious (>5°)	[X] No ∐	Yes Unsure	
						ATERIAL:			1 _		II.: 16 (0)	
		☐ Manmade	;			Concrete (<u>poured</u> of Mortared stone			-		Height: (ft)	
DAMS	TYPE:					ATERIAL:	J Gao	1011] Other.			
		☐ Active Be		Reaver			П	Small w	oody debris		Height: (ft)	
Old/Abandoned Beaver Large woody debris Small woody debris												
POTENTIAL	POTENTIAL RESTORATION CANDIDATE											
no												
-	NG AS GRA	DE CONTROL		No		<u> </u>						
IS SC ACTING AS GRADE CONTROL No Yes Unknown EXTENT OF PHYSICAL BLOCKAGE: BLOCKAGE SEVERITY: (circle #)												
If yes	Total	Pa		KAGE.				22001			A temporary barrier such	
for fish	☐ Tempor	ary Ur	ıknown						A total fish blockage on a tributary that would isolate a significant reach of stream, or nartial blockage that may		as a beaver dam or a blockage at the very head of a stream with very little	
barrier (> 6 in	CAUSE:				culvert on a 3rd order o stream blocking the ups							
drop or		raised, above s	stream	(in)		movement of anadrom	ous fish; no		partial blockage that may interfere with the migration of		viable fish habitat above it; natural barriers such as	
$flow < \frac{1}{2}$		o high, water d				fish passage device pr	eseni.		anadromous fish.		waterfalls.	
inch)		v flow, water de	epth:	(in)		5		4	3	2	1	
Notes/SE	Other:										•	
NOTES/SKETCH: Other Survey Forms Completed for Same Area: Reported to authorities: yes no												

SC

WATERSHI	ED/SUBSHE	D: 4305-00-1-					DA	TE: 4	/ 19 / 2011	ASSESS	SED BY: SH, MN	
SURVEY R	EACH ID:					_ M/PM			: (Camera-Pic #	f)	/# 00-1-L1-S0	
SITE ID: (C	Condition-#)	SC	LAT 4	1 <u>° 52</u>	2	' 21.1 " LONG	-73 o	02 •	20.05 " LM	K	GPS (Unit II) R1
							~ .					
TYPE:		g Railroad		g ∐ D SARREL		Footbridge MATERIAL:	Geol	Ī	ì			
ROAD OR RAILROAD CROSSING	Arch Circular Single Box Other: Double Bottomless flared ends CROSSING CROSSING) ted)	Flo	ALIGNMENT: Flow-aligned Not flow-aligned toward LT bank toward RT bank Do not know		IONS: (if varies s ameter: 1 Height: 1 ength: 25 Width: 3.0	(ft)(ft)(ft)(ft)
ONLY	CONDITION: (Evidence of)					om googr holo		CULV	ERT SLOPE:	Roadway	elevation: 3.5	(ft)
	☐ Cracking/chipping/corrosion ☐ Downstr ☐ Sediment deposition ☐ Failing e ☐ Collected organic debris ☐ Other:							\bowtie Slight (2° − 5°) \bowtie Obvious (>5°)		UNDERSIZED? ✓ No ☐ Yes ☐ Unsure		
						TERIAL:						
DAMS	Type:	☐ Manmade	•			Concrete (<u>poured</u> Mortared stone					Height:	(ft)
DAWS	TIEE.	☐ Active Be		eaver	MA	ATERIAL: Large woody debri					Height:	(ft)
	Controlled Beaver E 2mge 11000, debts Small 11000, debts											
POTENTIAL RESTORATION CANDIDATE ☐ Fish barrier removal ☐ Fish passage ☐ Upstream storage retrofit ☐ Stream repair ☐ Other:												
In S.C. A CONT	NG AG CDA	DE COMPON							zerver/removar	Other.		
IS SC ACTING AS GRADE CONTROL No Yes Unknown EXTENT OF PHYSICAL BLOCKAGE: BLOCKAGE SEVERITY: (circle #)												
If yes for fish barrier (> 6 in drop or flow < ½ inch)	☐ Total ☐ Tempor CAUSE: ☐ Culvert ☐ Drop to	PHYSICAL Parary Ur raised, above so high, water do	rtial nknown stream rop:	(in])	A structure such as a dam or road culvert on a 3rd order or greater stream blocking the upstream movement of anadromous fish; no fish passage device present. A total fish bloc tributary that w significant reac partial blockage interfere with the anadromous fish.				A temporary barri as a beaver dam blockage at the vof a stream with at may viable fish habitat natural barriers si		or a ery head ery little above it;
inch)	Other:	v now, water u	-рип. <u> </u>	(III)	,	5		4	3	2	1	
NOTES/SKI	ETCH:											

WATERSHI	ED/SUBSHE	D: 4305-00-1-I				DA	TE: 4	/ 19 / 2011	ASSESSI	ED BY: SH, MM
SURVEY R	EACH ID:		Tı	IME: 9 : 5	7 (AM/PM	Рн	ото ID): (Camera-Pic #	t)	/# 00-1-L1-SC-d.jpg
SITE ID: (C	Condition-#)	SC-D	LAT	41 • 52	' 21.93 " LONG	-73 o	02	37.23 " LM	K	GPS (Unit ID) R1
TYPE: 🔼 F	l				Footbridge	Geol				
ROAD OR RAILROAD CROSSING	Box	Circular Other:		BARRELS: Single Double Triple Other:	MATERIAL: Concrete Metal (smooth Metal (corrugation) Other:	*	Flo	ow-aligned ot flow-aligned toward LT bank toward RT bank o not know	Barrel dian	Height: $\frac{1}{}$ (ft) ngth: $\frac{350}{}$ (ft) Width: $\frac{3}{}$ (ft)
ONLY	☐ Crackir ☐ Sedime	ON: (Evidence of ng/chipping/corent deposition	rosion	☐ Failing e			☐ Fla	ght $(2^{\circ} - 5^{\circ})$	Undersi	
	▼ Collect	ed organic debr	is	Other:			∐ Ob	ovious (>5°)	X No □	Yes Unsure
DAMS	Түре:	Manmade			ATERIAL: Concrete (poured Mortared stone [Height: (ft)
		☐ Active Be ☐ Old/Aban			[ATERIAL:] Large woody debr	is 🗌	Small w	voody debris		Height: (ft)
	•	•		•						
POTENTIAL no	L RESTORA	ATION CANDII	DATE		rrier removal Fi repair/replacement	-	-	-		Stream repair
IS SC ACTI	ING AS GRA	DE CONTROI	,	⋈ No	☐ Yes ☐ U	nknow	/n			
	EXTENT (OF PHYSICAL	Вьосн	KAGE:			BLOCE	KAGE SEVERITY	: (circle #)	
If yes for fish barrier (> 6 in drop or flow < ½ inch)	☐ Total ☐ Tempor CAUSE: ☐ Culvert ☐ Drop to	☐ Pa	rtial nknown stream _ rop: _	(in) (in)	A structure such as a culvert on a 3rd orde stream blocking the u movement of anadro fish passage device	or grea pstrean nous fis	ater n sh; no	A total fish blockage tributary that would i significant reach of s partial blockage that interfere with the mig anadromous fish.	solate a stream, or may	A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.
inch)	Other:	v now, water ut	.pui	(III)	5		4	3	2	1
	West Hill Pond	COMPLETED FO	DD SAMO	E A DE A				Purparten		THES: YES NO



WATERSHEI)/SUBSHE	E D: 4305	5-00-3-R1			D ATE: <u>11</u>	/ 18 / 2010	ASSES	SSED BY: S	H, MM	
SURVEY REA	ACH ID:		TI	ME: 9 : 45 A	У РМ	Рното ID:	(Camera-Pic	#)	/# 00-3-F	R1-OT-a.jpg	
SITE ID (Cond	dition-#):	OTA	LA	T 41 ° 54	^{23.72} " Lo	ONG -73 • 59	54.52 "	LMK_	G	SPS: (<i>Unit ID</i>) ^{R1}	
BANK:	Head	TYPE:		MATERIAL: Concrete	□Metal	SHAPE:	Number:	DIMENS Diameter	IONS: :(in)	SUBMERGED:	
FLOW:		Pip	e	☐ PVC/Plastic		Circular	Single	FLARED		No	
None		☐ Lea	k Off	Corrugated		Elliptical		Yes		Partially	
Trickle Moderate				☐ Vitrified Ti	le	Other:	☐ Triple	HEADWA YES		Fully	
Substantia	1			☐ Concrete	Riprap	☐ Trapezoid	l Dei	oth: _	(in)		
Other:	1	Cha	annel	☐ Vegetated		☐ Parabolic	- 1	dth (Top):		Channel slope:	
U Other.				Other:		Other:	** 1	(Bottom):_		(degrees)	
PIPE CONDIT	ΓΙΟΝ:	ODOR		DEPOSITS/ST	'AINS:	VEGGIE DE	ENSITY	BENTHIC GROWTH IN PIPE: None			
⊠ Good		ズ No		None		BELOW OU	TFALL:	☐ Sewage Fungus ☐ Brown ☐ Grey			
☐ Chip/Cracl	ced	☐ Gas	3	Oily		None		Orange Green Other:			
Peeling Pa	int	☐ Sev	vage	☐ Flow Line		☐ Normal		S 4	ALITY:		
☐ Corrosion		□Ran	cid/Sour	☐ Paint		☐ Inhibited				oor (see below)	
Squashed		☐ Sul				☐ Excessive	;	☐ Odors ☐ Colors ☐ Oils ☐ Suds ☐ Algae ☐ Floatables ☐ Settled Solids			
Other:		Oth				Other:		_		Outlet Protection	
								Other:			
For	Color	•	Clean		Grey		Green 🔲	Orange 🗌	Red 🗌 Oth	er:	
FLOWING	TURBID		None				Opaque	1 (/ 1	.1	41	
ONLY	FLOATI SUSPEN		None None			oilet Paper 🔲 🗆	sheen) 🗌 O	ther:			
OTHER CONCERNS:	☐ Exce	ess Trash (ds Regular	paper/plas Maintena	tic bags) Du	ımping (bul Erosion	k)		tion 🔲 H	Ieadcut		
POTENTIAL 1	RESTOR	ATION CA	NDIDATE	E Discharge	investigatio	on Stream da	aylighting [Outfall st	abilization		
no				☐ Storm wate	r retrofit	☐ Channel	stabilization	Other:			
If yes for day	0								~-	2.4	
Length of veg	etative co	ver from o	utfall:	ft T	ype of exist	ing vegetation:			Slope:	%	
			ater curre	ntly controlled (q	uality and/o				ed		
Yes Land		eription:				Stormwater B	MP description	on:			
Retrofit Area a					<u> </u>				T		
OUTFALL SEVERITY:				tinct color and/or a f discharge is signific	ant Small	discharge; flow mo	stly clear and odd	orless. If the	Outfall does r	not have dry weather	
(circle #)	CC	ompared to th	e amount of	normal flow in receiv	ing UISCHA	discharge; staining; or a discharge; staining; or a discharge; staining; or a					
(energy)		ream; discha gnificant impa		to be having a am.		flow and any impact appears to be minor / localized. of causing any erosion problems.					
			5		4	3	3		2	X	
SKETCH/NO	TES:	1	XIV								
		人这	Telegia I								
			Prid A								
	1 S	No.									
		A Alexander									
	J. J.		学 格当								
OTHER SURVE	ey Fo						Ri	EPORTED TO	O AUTHORITI	ES: YES NO	

SC

WATERSHI	ED/SUBSHE	D: 4305-00-3-R2	1				_	DA	TE: 11	/ 18 / 2010	ASSESS	ED BY: SH, MM
SURVEY R					9 : 5					: (Camera-Pic #	⁽¹⁾	/# 00-3-R1-SC-a.jpg
SITE ID: (C	Condition-#)	SCA	LA	T 41	o 54	• 30	0.51 " LONG -	73 o	0.0	02.04 '' LM	K	GPS (Unit ID) ^{R1}
TYPE: X		g 🗌 Railroad						Geol	Ī	ormation (+/- 2ft c		
	CROSSING				RRELS:		MATERIAL:			NMENT:	DIMENS	IONS: (if varies sketch)
	☐ Arch	☐ Circular		X Sir	-		Concrete Metal (smooth)			w-aligned t flow-aligned	Barrel dia	meter:(ft)
	Box Bottom	Other:		Do			Metal (corrugate	-d)		oward LT bank		Height:(ft)
ROAD OR RAILROAD	Elliptica			☐ Tr	~		Other:	cu)	_	oward RT bank	Culvert le	ength: <u>30</u> (ft)
CROSSING	Еттрио	w1				-			_	not know		Width: <u>20</u> (ft)
ONLY	CONDITIO	ON: (Evidence of	r)			-			CULV	ERT SLOPE:	Roadway	elevation: 10 (ft)
		g/chipping/cor		n 🔲 1	Downstr	ream	scour hole		☐ Fla	t		
		nt deposition			Failing e	emba	inkment			ght $(2^{\circ} - 5^{\circ})$	UNDERS	
	Collecte	ed organic debr	is		Other:				☐ Ob	vious (>5°)	X No □	Yes Unsure
							ERIAL:			1 _		II.:.t (0)
		☐ Manmade	;				oncrete (poured o			-		Height: (ft)
DAMS	TYPE:						ortared stone ERIAL:	J Gao	01011			
		☐ Active Bea		d Ranz			rge woody debris	П	Small w	voody debris		Height: (ft)
			uonec	u Deav	/CI		inge woody debits		Sinair w	Today debiis		
POTENTIA	L RESTORA	TION CANDID	OATE	<u> </u>	Fish ba	rrier	removal \square Fish	n pass	sage	Upstream storage	e retrofit	Stream repair
⊠no								•	_	ceiver/removal		
	NG AS GRA	DE CONTROL			No		Yes Uni					
100011011		OF PHYSICAL								KAGE SEVERITY:	(circle #)	
If yes	Total	Pai		CKAG	IL.				22001			A temporary barrier such
for fish	☐ Tempor	ary 🔲 Un	ıknov	wn			structure such as a d			A total fish blockage tributary that would is		as a beaver dam or a
barrier (> 6 in	CAUSE:						ulvert on a 3rd order of tream blocking the up			significant reach of s	tream, or	blockage at the very head of a stream with very little
drop or		raised, above s	strean	n	_ (in)		novement of anadromesh passage device pro		h; no	partial blockage that interfere with the mig		viable fish habitat above it; natural barriers such as
$flow < \frac{1}{2}$		o high, water d				III	sii passage device pii	eseni.		anadromous fish.		waterfalls.
inch)		v flow, water de	epth:		_ (in)		5		4	3	2	1
NOTES/SK	Other:			4.44/			Designation of the state of the	W A	FA # TEAT			•
NOTES/SK	ETCH:			W		1	/ 		Y.	19		
		YZJA		V	1	A Jan	V.					
		AL IN		S. W	W X	1	A MILES					
			M			1						
		A WILL	循			1			1			
									() 工芸			
		经证证							-			
	125		-			()		j				
			100		SPRING.			-	-			
OTHER SUR	VEV FORM		34		No.	2	A Y		De	REPORTED T	O AUTHOPI	TIES: YES NO
OTHERBUR	VEL L'UKWI	COMPLETED TO	/11 //11	SIVEL LA	TEAT .					KETUKIED I	OAUINUKI	TIES LIES LINU

WATERSHI	ED/SUBSHE	D: 4305-00-3-R2	1				DA	TE: 11	<u>/ 18 / 201</u> 0	ASSESS	ED BY: SH, MM
SURVEY R						AM/I)M			: (Camera-Pic #	f)	/# ^{00-3-R1-SC-b.jpg}
SITE ID: (C	Condition-#)	SC-B	LAT 4	o 54		141.39 " LONG	73 o	0.0	29.62 " LM	K	GPS (Unit ID) R1
TYPE: F		g 🗌 Railroad					Geol	T	`		
	CROSSING			BARREL	s:	MATERIAL:			NMENT:	DIMENSI	IONS: (if varies sketch)
	Arch	Circular		Single		Concrete Metal (smooth)			w-aligned t flow-aligned	Barrel dia	meter:(ft)
	☐ Box ☐ Bottom	Other:		Double Triple		☐ Metal (corrugat			oward LT bank		Height:(ft)
ROAD OR RAILROAD	☐ Elliptic			Other:		Other:)	_	oward RT bank	Culvert le	-
CROSSING	_ `							☐ Do	not know		Width: <u>15</u> (ft)
ONLY	CONDITIO	N: (Evidence of	f)					CULV	ERT SLOPE:	Roadway	elevation: 15 (ft)
		g/chipping/cor	rosion	_ Dowr	istre	am scour hole		Fla		**	
		nt deposition			_	nbankment			ght $(2^{\circ} - 5^{\circ})$	UNDERS	
	☐ Collecte	ed organic debi	is	Other					vious (>5°)	IXI NO [Yes Unsure
		□ M1.				ATERIAL:	an 1a1	logle) [l Dwy stone		Height: (ft)
		☐ Manmade	;			Concrete (poured Mortared stone			-		Tieight. (it)
DAMS	TYPE:	☐ Active Be	over			ATERIAL:	_ Out	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- Curer.		
				eaver		Large woody debris	; 🔲	Small w	oody debris		Height: (ft)
POTENTIAL	L RESTORA	TION CANDII	DATE	Fish	barr	rier removal Fisl	ı pass	sage [] Upstream storage	e retrofit	Stream repair
no				Culv	ert r	repair/replacement [Ве	eaver dec	ceiver/removal	Other:	
IS SC ACTI	NG AS GRA	DE CONTROI		No No		☐ Yes ☐ Un	know	'n			
	EXTENT (OF PHYSICAL	BLOCK	AGE:				BLOCK	KAGE SEVERITY	: (circle #)	
If yes	☐ Total	☐ Pa	rtial						A total fish blockage	on a	A temporary barrier such
for fish barrier	☐ Tempor	ary Ur	nknown			A structure such as a culvert on a 3rd order			tributary that would i	solate a	as a beaver dam or a blockage at the very head
(> 6 in	CAUSE:					stream blocking the up	stream	ı	significant reach of s partial blockage that		of a stream with very little
drop or		raised, above s				movement of anadrom fish passage device pr			interfere with the mig		viable fish habitat above it; natural barriers such as
$flow < \frac{1}{2}$	-	o high, water d	-						anadromous fish.		waterfalls.
inch)	Other:	flow, water de	epun: _	(in)	5		4	3	2	1
NOTES/SK	ETCH:	MA							36.		
	The state of the s		1/1/	1				X	1/3		
			11/	ACCEPT THE			U				
		XX/	I/								
									30		
		NEX						a-			
	S			15							
			41								
			Digit al			A	1	- Vois	多 类		
							1/a				
		-		4	E STATE OF THE PARTY OF THE PAR				The second secon		
	4100								-		
		-			100	And the state of	100	ALL .			
	No.		7								
OTHER SUR	VEY FOR		1						REPORTED T	O AUTHORI	TTIES: YES NO

SC

WATERSH	ED/SUBSHE	D: 4305-00-3-F				DA	TE: <u>11</u>	<u>/ 18 / 201</u> 0	ASSESS	SED BY: SH, MM
SURVEY R	EACH ID:		TIME	10 : 30	<u></u>	PH	ото ID	: (Camera-Pic #	f)	/# ^{00-3-R1-SC-c2.jpg}
SITE ID: (Condition-#)	SC- <u></u>	LAT <u>41</u>	o 54	'44.51 '' LONG	-73 o	1.0 '	03.97 '' LM	K	GPS (Unit ID) R1
TYPE: 🗖 I	Road Crossin	g 🗌 Railroad	Crossing	Dam	☐ Footbridge ☐	Geol	ogical Fo	ormation (+/- 2ft c	hange)	Other:
ROAD OR RAILROAD CROSSING	CROSSING Arch Box Bottom Elliptica	G SHAPE: Circular Other:		RELS: gle uble ple	MATERIAL: Concrete Metal (smooth) Metal (corrugate Other:		ALIGN Flo No t	w-aligned t flow-aligned oward LT bank oward RT bank not know	DIMENS: Barrel dia x2 Culvert le x1	IONS: (if varies sketch) ameter: 6 (ft) Height: 6 (ft) ength: 20 (ft) Width: 10 (ft)
ONLY	Crackin	ON: (Evidence of ag/chipping/cornt deposition debrased organic debr	rosion 🔲 I		am scour hole nbankment		∏ Fla □ Sli	ERT SLOPE: t ght $(2^{\circ} - 5^{\circ})$ vious (>5°)	UNDERS	elevation:(ft) IZED? Yes Unsure
DAMS	Түре:	☐ Manmade			ATERIAL: Concrete (poured of Mortared stone					Height: (ft)
		☐ Active Bea		l —	ATERIAL: Large woody debris		Small w	roody debris		Height: (ft)
no		TION CANDIE		Culvert r	rier removal	Ве	aver dec			Stream repair
If yes for fish barrier (> 6 in drop or flow < ½	☐ Total ☐ Tempor CAUSE: ☐ Culvert ☐ Drop to	or PHYSICAL Parary Unraised, above so high, water d	rtial known tream rop:	_ (in) _ (in)	A structure such as a diculvert on a 3rd order of stream blocking the up movement of anadromish passage device pro	dam or or grea ostream ous fis	road ter	A total fish blockage tributary that would is significant reach of spartial blockage that interfere with the miganadromous fish.	on a solate a stream, or may	A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.
inch)	Other:	flow, water de	epun:	_(m)	5		4	3	2	1
NOTES/SK OTHER SUR	ETCH:							REPORTED T	О АПЛИОР	ITIES: □ YES □ NO

SC

WATERSHI	ED/SUBSHE	D: 4305-00-3-F	R1			DA	TE: 04	<u>/ 19 / 2011</u>	ASSESS	ED BY: SH, M	М
SURVEY R	EACH ID:		TIME:	8 : 55	<u>AM</u> /PM	Рн	ото ID	: (Camera-Pic #	/)	/# 00-3-R1-S	C-d2.jpg
SITE ID: (C	Condition-#)	SC-D	LAT 41	54	' 31.63 " LONG	73 o	59 •	56.64 " LM	K	GPS (Unit I	D) R1
TYPE: K	Road Crossin	g 🗌 Railroad				Geol		· ·			
ROAD OR RAILROAD CROSSING	CROSSING Arch Box Bottom Elliptic	Circular Other:	# BARI Sing Dou Trip Othe	de ble le	MATERIAL: Concrete Metal (smooth) Metal (corrugat) Other: mortared stor	ed)	Flo	ow-aligned t flow-aligned toward LT bank toward RT bank not know	Barrel dia	Mons: (if varies) meter: 3 Height: 3 ngth: 40 Width: 10	(ft)(ft)(ft)
ONLY	☐ Crackin☐ Sedime	ON: (Evidence of ng/chipping/cornt deposition ed organic debr	rosion D	iling en			CULV Fla	ERT SLOPE:	Roadway UNDERS	elevation: 7	(ft)
	Conect	eu organic ucor	із 🔲 О		ATERIAL:			vious (* 3)			-
DAMS	Түре:	☐ Manmade			Concrete (poured of Mortared stone					Height:	(ft)
		Old/Aban		l	Large woody debris	П	Small w	voody debris		Height:	(ft)
no no		TION CANDIE		Culvert r	rier removal Fish	Ве	aver dec			Stream repa	ir
IS SC ACTI	ING AS GRA	DE CONTROL	, (1)	No	Yes Un						
If yes for fish barrier (> 6 in drop or flow < ½	☐ Total ☐ Tempo: CAUSE: ☐ Culvert ☐ Drop to	raised, above so high, water d	rtial known tream rop:	(in) (in)	A structure such as a c culvert on a 3rd order of stream blocking the up movement of anadrom fish passage device pro	lam or or grea stream ous fis	road ter	A total fish blockage tributary that would i significant reach of spartial blockage that interfere with the miganadromous fish.	on a isolate a stream, or t may	A temporary barr as a beaver dam blockage at the v of a stream with v viable fish habital natural barriers s waterfalls.	or a ery head very little t above it;
inch)	Other:	v flow, water de	epun:	(III)	5		4	3	2	1	
NOTES/SK	ETCH:										



WATERSHED/SUBSHED: 4305-00-3-R2 DATE: 11 / 18 / 2010 ASSESSED BY: SH, MM SURVEY REACH ID: TIME: 9 : 00 AM/PM PHOTO ID: (Camera-Pic #) /# 00-3-R2-OT-a2.jpg										
SURVEY REA	сн ID:		TIN	1E: 9 : 00 AM/PM	Л	Рното ID:	(Camera-Pic	#) /# ⁰	0-3-R2-OT-a2.jpg	
SITE ID (Cond	lition-#): O	T^	LA	Γ 41 • 54 • 16.69	9_''Lo	ONG -72 • 59	46.77 "	LMK	GPS: (Unit ID) ^{R1}	
									1	
BANK: LT RT FLOW: None Trickle Moderate	Head	TYPE: ☑ Pipe ☐ Leak O		MATERIAL: Concrete PVC/Plastic Corrugated Vitrified Tile		SHAPE: Circular Elliptical Other:	NUMBER: Single Double Triple	DIMENSIONS: Diameter: 6 (FLARED END? Yes No HEADWALL? YES NO	SUBMERGED: No Partially Fully	
Substantial Other:		☐ Channe	1	Concrete R Vegetated E Other:		☐ Trapezoid☐ Parabolic☐ Other:	Wie	oth: (in dth (Top): (in (Bottom): (in	Channel slope:	
PIPE CONDIT		ODOR: No Gas		DEPOSITS/STAINS None Oily	S:	VEGGIE DE BELOW OU None Normal	TFALL:	Sewage Fungus Orange Gree		
☐ Corrosion ☐ Squashed ☐ Sulfide ☐ Other: ☐ Oth										
For	Color:		Clear		-	Yellow [Green 🔲	Orange Red E	Other:	
FLOWING	TURBIDIT		None			Cloudy	P			
ONLY	FLOATIN SUSPEND		None None				Γrash ☐ Oth Γrash	roleum (oil sheen) [Other:	
OTHER CONCERNS:	Exces	s Trash (pap	er/plas	tic bags) Dumpince Bank Eros	ng (bulk		ive Sedimenta			
no		FION CAND	IDATE	Discharge inve		n Stream da			on	
If yes for dayl	lighting:	er from outfa	11.	20 ft Type of	of evicti	ing vegetation:	tree/shrub	Slope	: 10 %	
	<i>mwater:</i> I Use descr	s stormwater	currer	ntly controlled (qualit	ty and/o		¶No □ No	t investigated		
OUTFALL SEVERITY: (circle #)	stro com stre	ng smell. The ai	nount of ount of ppears t	ım.	dischar dischar	lischarge; flow mo ge has a color and ge is very small co d any impact appe	l/or odor, the ampared to the ars to be mino		y weather opearance roblems.	
SKETCH/NOT	Pipe		pipe, vithin do	esignated TROUT MGM					SS □ NO	

SC

WATERSHI	ED/SUBSHE	D: 4305-00-3-F					DA	TE: <u>11</u>	/ 18 / 2010	ASSESS	ED BY: SH, MM
SURVEY R						AM/PM			: (Camera-Pic #	f)	/# ^{00-3-R2-Sc-a.jpg}
SITE ID: (C	Condition-#)	SCA	LAT	41 • 54	1	06.01 " LONG	72 o	59 •	21.87 " LM	K	GPS (Unit ID) R1
TYPE: K		g Railroad					Geol	Ī	·		
	CROSSING			BARREL	s:	MATERIAL:			NMENT:	DIMENSI	IONS: (if varies sketch)
	Arch	☐ Circular		Single		Concrete Metal (smooth)			w-aligned t flow-aligned	Barrel dia	
	Box Bottom	Other:		☐ Double ☐ Triple		Metal (corrugate	ed)		oward LT bank		Height:(ft)
ROAD OR RAILROAD	☐ Elliptic			Other:		Other:)		oward RT bank	Culvert le	-
CROSSING			-					☐ Do	not know		Width:(ft)
ONLY	CONDITIO	N: (Evidence of	f)					CULV	ERT SLOPE:	Roadway	elevation: 12 (ft)
		g/chipping/cor	rosion					Fla		The same of	
		nt deposition			-	bankment			ght $(2^{\circ} - 5^{\circ})$ vious $(>5^{\circ})$	UNDERS	Yes Unsure
	Collecte	ed organic debr	1S	Other					vious (>3)	NO L	Tes Offsure
		☐ Manmade				ATERIAL: Concrete (poured)	or bl	lock)	Dry stone		Height: (ft)
Dane	Type:	iviaiiiiauc	,			Mortared stone					(-1)
DAMS	I YPE:	☐ Active Be	aver			ATERIAL:		 .			TI : 1. (0)
		Old/Aban		Beaver		Large woody debris		Small w	oody debris		Height: (ft)
	L RESTORA	TION CANDII	DATE	☐ Fish	barr	ier removal 🔲 Fish	pass	sage [] Upstream storage	e retrofit	Stream repair
no				Culv	ert r	epair/replacement [Ве	aver dec	ceiver/removal	Other:	
IS SC ACTI	NG AS GRA	DE CONTROL	_	🔀 No		Yes Uni	know	'n			
	EXTENT (OF PHYSICAL	BLOG	CKAGE:				BLOCK	AGE SEVERITY	(circle #)	
If yes for fish	☐ Total ☐ Tempor	rary	rtial						A total fish blockage	on a	A temporary barrier such
barrier	геніроі	ary 🗀 Or	IKHOW	П		A structure such as a d culvert on a 3rd order of			tributary that would is	solate a	as a beaver dam or a blockage at the very head
(> 6 in	CAUSE:					stream blocking the up movement of anadrome			significant reach of s partial blockage that	may	of a stream with very little viable fish habitat above it:
drop or		raised, above s				fish passage device pro		11, 110	interfere with the mig anadromous fish.	gration of	natural barriers such as
$flow < \frac{1}{2}$ $inch)$		o high, water do flow, water do							anduromous rish.		waterfalls.
inch)	Other:	now, water at	opui.	(III,	,	5		4	3	2	1
Notes/Ski		11		Charles A	XX		Y	Z W			
		AL.		AK MA	8	The Age of the					
		11		711			1	200			
		11-		ST N			1				
	1			1 2				4/			
	1/2		ALX.	A And	S DECEMBER 1			77			
		MA	TRA L	A VI			T				
		* Next				H T T	西市	The second			
	i			- 選進							
			-						The state of the s		
	-	-	1						TW		
	1										
	-						-0				
	- Colon	- 105		-			6				
OTHER SUR	VEY FOR		N. S.		the same	7 2 6	1.5		REPORTED T	O AUTHORI	TIES: YES NO

WATERSHI	ED/SUBSHE	D: 4305-00-3-F				DA	TE: <u>11</u>	/ 18 / 2010	ASSESS	SED BY: SH, MM	
SURVEY RI	EACH ID:				AM/PM			: (Camera-Pic #	7)	/# ^{00-3-R2-SC-l}	b.jpg
SITE ID: (C	ondition-#)	SC-B	LAT 41	o 54	<u>'08.25</u> " LONG	-72 o	59 •	33.16 '' LM	K	GPS (Unit ID)	R1
TYPE: R		g Railroad				Geol	Ī				
	CROSSING			RRELS:	MATERIAL:			NMENT:	DIMENS	IONS: (if varies ske	etch)
	Arch	☐ Circular	Si		Concrete Metal (smooth)			w-aligned t flow-aligned	Barrel dia		(ft)
	Box Bottom	Other:	☐ De		☐ Metal (corrugat			oward LT bank		Height: 10	(ft)
ROAD OR RAILROAD	☐ Elliptic				Other:	cu)	_	oward RT bank	Culvert le	ength: 30	(ft)
CROSSING					I-beam		☐ Do	not know		width:	(ft)
ONLY	CONDITIO	N: (Evidence of)		1		CULV	ERT SLOPE:	Roadway	elevation: 12	(ft)
	☐ Crackin	g/chipping/corr	rosion 🗌	Downstre	am scour hole		☐ Fla				
		nt deposition		-	nbankment			ght $(2^{\circ} - 5^{\circ})$	UNDERS		
	Collecte	ed organic debr	is \square	Other:			∐ Ob	vious (>5°)	No L	Yes Unsure	
					ATERIAL:	1.1	1 1	ln (Height:	(ft)
	_	☐ Manmade			Concrete (<u>poured</u> Mortared stone			-		Height.	(11)
DAMS	TYPE:	☐ Active Bea			ATERIAL:	J Gao	,1011				
				l	Large woody debris	з П	Small w	voody debris		Height:	(ft)
POTENTIAI	RESTORA	TION CANDID	ATE] Fish barı	rier removal Fisl	n pass	sage [Upstream storage	e retrofit	Stream repair	
🔀 no				Culvert 1	repair/replacement	Be	aver dec	ceiver/removal	Other:		
IS SC ACTI	NG AS GRA	DE CONTROL	×	No	☐ Yes ☐ Un	know	'n				
	EXTENT (F PHYSICAL 1			<u> </u>		BLOCE	KAGE SEVERITY:	(circle #)		
If yes	☐ Total	Pai	tial	,_,				A total fish blooks as		A temporary barrier	such
for fish barrier	☐ Tempor	ary 🔲 Un	known		A structure such as a culvert on a 3rd order			A total fish blockage tributary that would is	solate a	as a beaver dam or blockage at the very	
(> 6 in	CAUSE:				stream blocking the up	stream	1	significant reach of s partial blockage that		of a stream with ver	ry little
drop or		raised, above s		_ ` ′	movement of anadrom fish passage device pr		h; no	interfere with the mig		viable fish habitat at natural barriers such	
$flow < \frac{1}{2}$		o high, water d			non passage device pi	osoni.		anadromous fish.		waterfalls.	Tus
inch)	☐ Shallow ☐ Other:	flow, water de	pth:	(ın)	5		4	3	2	1	
Notes/Ski		I LIGHT SOME B					DLP				
		COMPLETED FO					A COLOR	REPORTED TO		TTIES: \(\text{YES} \(\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tiliex{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\texi}}\\ \tittt{\text{\text{\text{\text{\text{\texi}\text{\text{\texi}\text{\text{\texi}\text{\texi}\texitt{\text{\texi}\tint{\text{\texit{\text{\texi}\text{\texit{\texi{\texi}\text{\texi}\	No

WATERSHED/SUBSHED: 4305-01-1 DATE: 04 / 19 / 2011 ASSESSED BY: SH, MM SURVEY REACH ID: TIME: 09 : 40 AM/PM PHOTO ID: (Camera-Pic #) /# 01-1-OT-a.jpg											
SITE ID (Cond	dition-#): C	TA	LA	T 41 ° 53 ' 17.72 '' L	ONG -73 ° 01 ' 13.90 ''	LMK_	GPS: (<i>Unit ID</i>) ^{R1}				
							'				
BANK:	Head	TYPE:		MATERIAL: Concrete Metal	SHAPE: NUMBER:		18 (in) SUBMERGED:				
FLOW:		I ipe		PVC/Plastic Brick	Circular Single	FLARED F	END? No				
None		Leak	Off	Corrugated Other	☐ Elliptical ☐ Double ☐ Other: ☐ Triple	Yes HEADWAI					
Trickle Moderate				☐ Vitrified Tile		YES [
Substantial	ı			☐ Concrete ☐ Riprap	☐ Trapezoid Do	epth:					
Other:	l	☐ Chan	nel	☐ Vegetated ☐ Earth		idth (Top):	(in) Channel slope:				
outer.				Other:		(Bottom):	(degrees)				
PIPE CONDIT	TION:	ODOR:		DEPOSITS/STAINS:	VEGGIE DENSITY	BENTHIC C	GROWTH IN PIPE: None				
⊠ Good		⊠ No		None	BELOW OUTFALL: Sewage Fungus ☐ Brown None ✓ Orange ☐ Green ☐ Othe						
☐ Chip/Crack		Gas		Oily	The state of the s						
Peeling Pai	int	☐ Sewa		☐ Flow Line	☐ Inhibited	POOL QUALITY: ☐ No pool ☐ Good/Clear ☐ Poor (see below)					
Corrosion		Ranci		Paint	Excessive		Colors Oils Suds				
Squashed		Sulfie		Other:		Algae Floatables Settled Solids					
Other:		Other	r:		Other:		Inadeq. Outlet Protection				
Other:											
For	COLOR: TURBIDI		Clear		☐ Yellow ☐ Green ☐ ☐ Cloudy ☐ Opaque	Orange L R	Red Uther:				
FLOWING ONLY	FLOATIN		None		oilet Paper Trash Pe	troleum (oil sl	heen) Other:				
ONLI	SUSPENI	DED:	None	e Sewage Solids T	oilet Paper 🗌 Trash 🔲 Ot	her:					
OTHER CONCERNS:	☐ Exce ☐ Need	ss Trash (pa s Regular N	aper/plas ⁄/aintena	tic bags) Dumping (bunce Bank Erosion	lk)	ation He	adcut				
POTENTIAL I	RESTORA	TION CAN	DIDATE	☐ Discharge investigati	on Stream daylighting Channel stabilization		bilization				
If yes for day	lighting:										
Length of vege	etative cov	er from out	fall:	ft Type of exis	sting vegetation:		_ Slope:%				
If yes for stor	mwater:	Is stormwat	er curre	ntly controlled (quality and/	or quantity)? No No No	ot investigated	1				
Yes Land		ription:			_ Stormwater BMP descript	ion:					
Retrofit Area a			21 12 1								
OUTFALL SEVERITY:	stro	ong smell. The	amount o	i discriarye is significant	discharge; flow mostly clear and or arge has a color and/or odor, the am	ount of	Outfall does not have dry weather				
(circle #)	circle #) compared to the amount of normal flow in receiving discharge is very small compared to the stream's base discharge; staining; or appearance discharge is very small compared to the stream's base										
		nificant impact			nd any impact appears to be minor	/ localized.	or causing any crosion problems.				
			5	4	3	2	1				
SKETCH/NO	TES:										
	7	Willey.									
			1								
			-	THE THE							
OTHER SURVE	HER SURVEY FOR REPORTED TO AUTHORITIES: YES NO										

SC

WATERSH	ED/SUBSHE	4305-01-1					DA	TE: <u>04</u>	/ 19 / 2011	ASSESS	ED BY: SH, MM	
SURVEY R	EACH ID:					0 AM/PM			: (Camera-Pic #	f)	/# 01-1-SC-a3.j	pg
SITE ID: (C	Condition-#)	SCA	LAT	41 o	53	<u>' 53.03</u> " LONG	-73 o	01 '	30.56 " LM	K	GPS (Unit ID)	R1
TYPE: X	Road Crossin	g 🗌 Railroad					Geol	ogical Fo	ormation (+/- 2ft c	hange)	Other:	
ROAD OR	CROSSING Arch Box Bottom	Circular Other:		BARRE Single Double Triple		MATERIAL: Concrete Metal (smoot Metal (corrug		Flo	NMENT: ow-aligned t flow-aligned oward LT bank	Barrel dia	ONS: (if varies skeemeter: $\frac{2}{4}$ Height: $\frac{60}{4}$	
RAILROAD CROSSING	☐ Elliptic	al		Other:		Other: stone		_	oward RT bank not know		Width: 10	(ft)
ONLY	☐ Crackin	ON: (Evidence of ag/chipping/cornt deposition	rosion			am scour hole		☐ Fla ☑Sli	ght $(2^{\circ} - 5^{\circ})$	Undersi		(ft)
	Collecte	ed organic debr	ris	Othe	r:			☐ Ob	vious (>5°)	No 🗆	Yes Unsure	
DAMS	Түре:	☐ Manmade				ATERIAL: Concrete (poured Mortared stone					Height:	(ft)
		☐ Active Be☐ Old/Aban		Beaver		ATERIAL: Large woody deb	ris 🗌	Small w	oody debris		Height:	(ft)
POTENTIA:	L RESTORA	TION CANDII	DATE				-	-	Upstream storag ceiver/removal		Stream repair	
IS SC ACTI	NG AS GRA	DE CONTROI		No No		☐ Yes ☐ U	nknow	n				
If yes for fish barrier (> 6 in drop or flow < 1/2	☐ Total ☐ Tempor CAUSE: ☐ Culvert ☐ Drop to	or PHYSICAL Parary Ur raised, above so high, water do	rtial nknowr stream lrop:	n (ii (ii	1)	A structure such as culvert on a 3rd orde stream blocking the movement of anadro fish passage device	a dam or r or grea upstream mous fis	road ter n h; no	A total fish blockage tributary that would i significant reach of spartial blockage that interfere with the miganadromous fish.	on a solate a stream, or may	A temporary barrier as a beaver dam or blockage at the very of a stream with very viable fish habitat at natural barriers such waterfalls.	a head y little oove it;
inch)	Other:	now, water ut	spui.	(11	1)	5		4	3	2	1	
NOTES/SK												
					では、これに							
OTHER SUR	VEY FORMS	COMPLETED FO	OR SAM	IE AREA:					REPORTED T	O AUTHORI	TIES: YES 1	NO



WATERSHEI)/SUBSHE	4305-02-	1			DATE: 11 /	19 / 2010	ASSES	SSED BY:	SH, MM
SURVEY REA	ACH ID:		TI	ME: 12 : 30 AM PM	Ŋ	Рното ID:	(Camera-Pio	c#)	/# ⁰²	-1-OT-a.jpg
SITE ID (Cond	dition-#): (OT^		T 41 • 51 • 42.90		ONG -73 ° 03	, 06.93	LMK		GPS: (Unit ID) R1
		1								
BANK:	Head	TYPE:		MATERIAL: Concrete	Metal	SHAPE:	Number:		SIONS: (ir	SUBMERGED:
FLOW:		LATIPE		☐ PVC/Plastic ☐ E	Brick	☐ Circular	Single	FLARED		□ No
None		Leak (Off	☐ Corrugated ☐ C	Other	☐ Elliptical☐ Other:	☐ Double ☐ Triple	Yes HEADW		Partially Fully
Trickle				☐ Vitrified Tile		other.	тпрте	YES		runy
Moderate Substantia	1			☐ Concrete 💢 R	inran	☐ Trapezoid	D ₆		6 (in)	
Substantia Other:	1	Chanr	nel	☐ Vegetated ☐ Ea		☐ Parabolic		idth (Top):_		Channel slope:
Outer.		7		Other:		Other:		(Bottom):_		(degrees)
PIPE CONDIT	ΓΙΟΝ:	Opor:		DEPOSITS/STAINS	S:	VEGGIE DE				H IN PIPE: None
Good	22011	ĭ No		None		BELOW OU				☐ Brown ☐ Grey
☐ Chip/Crack	ked	Gas		Oily		☐ None	e 🗌 Green	Other:		
Peeling Pa	int	☐ Sewag	ge	☐ Flow Line		☐ Normal		☐ No pool		
☐ Corrosion		Rancic	l/Sour	☐ Paint		☐ Inhibited				Poor (see below)
Squashed		☐ Sulfid	e	Other:		Excessive	;			oles Settled Solids
Other:		Other	:			Other:				q. Outlet Protection
						invasive veget	tation	Other:	_	•
For	Color:	j.	🔀 Clea	r Brown G	rey	Yellow [Green	Orange [Red 🔲	Other:
FLOWING	TURBIDI		Non				Opaque	4 1	.1	1 04
ONLY	FLOATIN SUSPENI		Non Non					troleum (oil her:	sneen)	Other:
OTHER CONCERNS:		ess Trash (pa ds Regular M		stic bags)		() Excessi		ation 🔲 I	Headcut	
POTENTIAL 1	RESTORA	ATION CAN	DIDAT	E Discharge inves	stigatio	n 🗌 Stream da	ylighting [Outfall s	tabilizatio	1
no				Storm water retr	ofit	Channel	stabilization	Other:		
If yes for day	0	6	. 11	0		. , , .			C1	0/
Length of vego	etative cov	er from outf	all:	ft Type o	of existi	ing vegetation:			Slope:	%
				ntly controlled (quality					ed	
☐ Yes Land Retrofit Area a		ription:				Stormwater B	MP descripti	ion:		
		ayyy discharge y	with a dis	tinct color and/or a					1	
OUTFALL SEVERITY:	str	ong smell. The	amount o	of discharge is significant	Small d	lischarge; flow morge has a color and	stly clear and or	dorless. If the	Outfall do	es not have dry weather
(circle #)	T compared to the amount of normal flow in receiving T									
		nificant impact	downstre		flow and	<u> </u>		/ localized.		, · , · · · · · · · · · · · · · · · · ·
Б			5	4	1	3	W. Soreid		2	1
SKETCH/NO' Green Ridge Co	TES: indo comple	ex			Williams	100				
No stormwater	renovation				276	344	N ***			
							TVALES V			
					1					
OTHER SURVE	v Forms	Complete	FOR	AME ADEA.	1		D	EDODTED T	O AUTHOR	ITIES: YES NO
OTHER SURVE	LITOKWIS	COMPLETEL	FUK 3.	ANIE AREA:	X III III			ETUKIED I	O AUTHUK	IIIES. 🗀 IES 🗀 NO



WATERSHED/SUBSHED	4305-02-1		D ATE: 11 / 19 / 201	O ASSESSED BY: SH, MM						
SURVEY REACH ID:	TI	ME: 1 : 00 AM/PM	Рното ID: (Camera-Pi	c#) /# 02-1-OT-b.jpg						
SITE ID (Condition-#): O'	T-B LA	T 41 • 54 '38.10 "L	ONG -73 • 03 • 02.05	LMK GPS: (<i>Unit ID</i>)R1						
	Ι_									
BANK: Head	TYPE:	MATERIAL: Concrete Metal	SHAPE: NUMBER: Single	▽						
FLOW: None	Leak Off	PVC/Plastic Brick Corrugated Other	☐ Elliptical ☐ Double	TLAKED END.						
Trickle Moderate	Leak Oil	☐ Vitrified Tile	Other: Triple	HEADWALL?						
Substantial Other:	☐ Channel	☐ Concrete ☐ Riprap☐ Vegetated ☐ Earth☐ Other:	Parabolic W	repth:(in)						
PIPE CONDITION:	ODOR:	DEPOSITS/STAINS: None	VEGGIE DENSITY BELOW OUTFALL:	BENTHIC GROWTH IN PIPE: None Sewage Fungus Brown Grey						
☐ Chip/Cracked	Gas	Oily	None	Orange Green Other:						
Peeling Paint	Sewage	☐ Flow Line	☑ Normal	POOL QUALITY: 🖄 No pool						
☐ Corrosion	☐Rancid/Sour	☐ Paint	☐ Inhibited	☐ Good/Clear ☐ Poor (see below) ☐ Odors ☐ Colors ☐ Oils ☐ Suds						
Squashed	Sulfide	Other:	Excessive	Algae Floatables Settled Solids						
Other:	Other:		Other:	Scour Inadeq. Outlet Protection Other:						
FOR COLOR:	Clea	•		Orange Red Other:						
FLOWING TURBIDIT			☐ Cloudy ☐ Opaque Toilet Paper ☐ Trash ☐ Petroleum (oil sheen) ☐ Other:							
ONLY SUSPENDI				ther:						
			lk)	ation Headcut						
POTENTIAL RESTORAT	FION CANDIDATI		on Stream daylighting Channel stabilization							
If yes for daylighting:		-								
Length of vegetative cove	er from outfall:	ft Type of exis	ting vegetation:	%						
If yes for stormwater: Is Yes Land Use described Retrofit Area available:		ntly controlled (quality and/	or quantity)? No							
	vv discharge with a dis	tinct color and/or a								
OUTFALL SEVERITY: (circle #) Heavy discharge with a distinct color and/or a strong smell. The amount of discharge is significant compared to the amount of normal flow in receiving stream; discharge appears to be having a significant impact downstream. Small discharge; flow mostly clear and odorless. If the discharge has a color and/or odor, the amount of discharge; staining; or appearance of causing any erosion problems.										
	5	4	3	2 1						
SKETCH/NOTES: KFC site Other Survey Forms Completed for Same Area: Reported to authorities: yes no										



WATERSHED	/SUBSHI	E D: 4305-0	2-1		DATE: 11 / 19	9 / 2010	ASSESSED BY	SH, MM			
SURVEY REA	CH ID:			ME: 2 : 30 AM PM	Р ното ID : (Са		/# ^C	2-1-OT-c.jpg			
SITE ID (Cond	dition-#):	OTC	LA	T 41 • 54 34.57	LONG -73 ° 02	36.06 ,,	LMK	GPS: (<i>Unit ID</i>) R1			
BANK:		Түре:	•			1	DIMENSIONS:				
LT RT	Head			MATERIAL: ☐ Concrete ☐ Met	al SHAPE: N	UMBER:	Diameter: 24 (i	n) SUBMERGED:			
FLOW:		Pipe		☐ PVC/Plastic ☐ Bric	k Circular	Single	FLARED END?	□ No			
None		☐ Leak	Off	Corrugated Other	Elliptical Cother:		☐ Yes ☑ No HEADWALL?	Partially Fully			
Trickle Moderate				☐ Vitrified Tile			YES No	runy			
Substantial	1			☐ Concrete ☐ Ripr	ap 🗌 Trapezoid	Deptl	n: <u>(in</u>				
Other:		☐ Char	nnel	☐ Vegetated ☐ Earth		-	h (Top): (in)	Channel slope:			
				Other:	Other:		Bottom): (in)				
PIPE CONDIT	TION:	ODOR:		DEPOSITS/STAINS: None	VEGGIE DENSI BELOW OUTFA		BENTHIC GROWTH IN PIPE: ☐ None ☐ Sewage Fungus ☐ Brown ☐ Grey				
Chip/Crack	ced	Gas		Oily	□ None	-	☐ Orange ☐ Gree	•			
Peeling Pai		☐ Sewa	age	☐ Flow Line	☐ Normal	☐ No pool					
Corrosion		Ranc	_	Paint	☑ Inhibited	☐ Inhibited ☐ Good/Clear ☐ P					
Squashed		Sulfi	de	Other:	Excessive			rs Oils Suds ibles Settled Solids			
Other:		Othe	er:		Other:		-	eq. Outlet Protection			
							Other:				
For	COLOR		Clean	<u>·</u>			ange Red	Other:			
FLOWING ONLY	TURBIE		None None			Opaque sh Petro	leum (oil sheen)	Other:			
UNLY	SUSPEN		None		Toilet Paper Tras						
OTHER CONCERNS:		ess Trash (p ds Regular I		tic bags) Dumping (nce Bank Erosion	bulk)		n Headcut				
POTENTIAL 1	RESTOR	ATION CAN	NDIDATI	E Discharge investig	ation Stream dayli	ighting 🔲	Outfall stabilization	on			
no				X Storm water retrofi	t Channel stal	bilization [Other:				
If yes for day Length of vege			tfall:	ft Type of e	xisting vegetation:		Slope	:%			
If yes for stor	mwater.	Is stormwa	ter curre	ntly controlled (quality a	nd/or quantity)? 🔲 N	lo 🗌 Not ii	nvestigated				
Yes Land					Stormwater BMP	P description:	·				
Retrofit Area a			with a dict	tingt color and/or a							
OUTFALL SEVERITY:	S	trong smell. The	e amount o	i discriarge is significant	nall discharge; flow mostly (scharge has a color and/or o		t of Uuliali u	oes not have dry weather			
(circle #)	S	tream; discharg	je appears	to be having a	scharge is very small compa w and any impact appears t	ared to the strea	m's base discharg	e; staining; or appearance ng any erosion problems.			
	Si	ignificant impac		dIII.		to be millor / loc		1			
SKETCH/NOT	res.		5	4	3		2	1			
Lombard Ford,											
no stormwater i	treatment	before enter									
					X						
		G	~		X	-					
OTHER SURVE	Y FORMS	COMPLETE	ED FOR SA	AME AREA:	10世	REPO	ORTED TO AUTHO	RITIES: YES NO			



WATERSHED/SUBSHED: 4305-02-1 SURVEY REACH ID: TIME: 8 · 48 (AMV)						DATE: <u>04</u>	19 / 201	1 ASSESS	SED BY:	SH, MM			
SURVEY REA	SURVEY REACH ID: TIME: 8 : 48 AM/1						(Camera-Pio	c#)	/# ⁰²	-1-OT-d.jpg			
SITE ID (Cond	SITE ID (Condition-#): OT LAT 41 0 54 133.					ONG ⁻⁷³ o 02	1 54.60 11	LMK_		GPS: (Unit ID) R1			
BANK:		Түре:	•					DIMENSIO	ONS:				
LT KRT	Head			MATERIAL: ☑ Concrete □ N	Metal	SHAPE:	Number:	Diameter:		SUBMERGED:			
FLOW:		Pipe		☐ PVC/Plastic ☐ E		Circular Elliptical	☐ Single	FLARED 1	END?	No Dominallar			
None		Leak	Off	Corrugated C	Other	Other:	☐ Double	Yes [Partially Fully			
Trickle Moderate				☐ Vitrified Tile		flared	_ 1	YES		Пину			
Substantial				☐ Concrete 🔼 R	iprap	☐ Trapezoid							
Other:		∕ ⊠ Char	nnel	☐ Vegetated ☐ Ea	arth	Parabolic Width (Top): (in) Channel 40							
				Other:		Other:	"	(in)	40 (degrees)				
PIPE CONDIT	TION:	ODOR:		DEPOSITS/STAINS	S:	VEGGIE DE		H IN PIPE: None					
☐ Chip/Crack	ed	Gas		None □ Oily		BELOW OU'	IFALL:	☐ Sewage ☐ Orange 〕	-	☐ Brown ☐ Grey ☐ Other:			
Peeling Pai		Sewa	age.	Flow Line		✓ Normal				No pool			
Corrosion		Ranc	_	☐ Paint		☐ Inhibited		☐ Good/Cl	lear 🗌	Poor (see below)			
Squashed		Sulfi		Other:		☐ Excessive	:			Oils Suds			
Other:		Othe	r:			Other:		_		les Settled Solids Outlet Protection			
								Other:		,			
FOR	Color		Clea			<u> </u>							
FLOWING	TURBII FLOAT		None None	<u> </u>] Opaque Frash □ Pe	troleum (oil s	heen) \square	Other:			
ONLY	SUSPEN		None					her:	ысен <i>)</i> <u></u>	Other.			
OTHER CONCERNS:		ess Trash (p eds Regular l		stic bags)		k)		ation	eadcut				
POTENTIAL I	RESTOR	ATION CAN	NDIDATI	E Discharge inves	stigatio	on Stream da	ylighting [Outfall sta	bilization	I.			
no				Storm water retr	ofit	☐ Channel	stabilization	Other:					
If yes for day	0 0								~.				
Length of vege	etative co	over from ou	tfall:	ft Type o	of exist	ing vegetation:			_ Slope:				
				ntly controlled (quality									
Retrofit Area a						Stormwater B	MP descripti	ion:					
OUTFALL	H	leavy discharge	with a dis	tinct color and/or a	Cmall o	discharge, flow mo	ethy clear and a	darlace If the					
SEVERITY:	S	strong smell. The compared to the	e amount of amount of	of discharge is significant normal flow in receiving	dischar	discharge; flow mor rge has a color and	/or odor, the am	ount of	Outfall doe	s not have dry weather staining; or appearance			
(circle #)	S	tream; discharg	je appears	to be having a	dischar flow an	rge is very small co nd any impact appe	mpared to the s ars to be minor <i>i</i>	tream's base / localized.	of causing	any erosion problems.			
	3	ignincant impac	5	4	1	3	}	2	,	1			
SKETCH/NOT	TES:				Aug S			NOW BE	1				
					War .			(1) (1) (1)					
						1.5	1		9				
									1				
						a minute di sa							
OTHER SURVE	y Forms	S COMPLETE	ED FOR SA	AME AREA:						No □			



WATERSH	ED/SUBSHE	D: 4305-02-1						/ 18 / 2010		ED BY: SH, IVIIV	
SURVEY R	EACH ID:				_AM\PM			D: (Camera-Pic	#)	/# 02-1-S0	:-a.jpg
SITE ID: (C	Condition-#)	SC- A	LAT 41 °	54	38.79 "	LONG -73 o	02	28.73 " LM	IK	GPS (Unit I	D) R1
	, , , , , ,			-			·			1	
TYPE: X F	Road Crossin	g 🗌 Railroad	Crossing	Dam	☐ Footbri	dge 🗌 Geol	ogical F	ormation (+/- 2ft	change)	Other: parking	ot entranc
ROAD OR RAILROAD CROSSING	CROSSING Arch Box Bottom Elliptic	Circular Other:	# BARRE Single Doubl Triple Other:	e	MATERIA Concre Metal	ete (smooth) (corrugated)	Flo	ow-aligned ot flow-aligned toward LT bank toward RT bank o not know	Barrel dia	-	
ONLY	☐ Crackin☐ Sedime	ON: (Evidence of ag/chipping/corrent deposition ed organic debri	osion Dow	ng em er:	bankment	le	⊠ Fla	VERT SLOPE: at ight $(2^{\circ} - 5^{\circ})$ ovious $(>5^{\circ})$	UNDERS	elevation:	
DAMS	Түре:	☐ Manmade		MATERIAL: Concrete (poured or block) Dry stone Mortared stone Gabion Other: MATERIAL:						Height:	(ft)
		Old/Aband			Large wood	lv debris 🔲	Small v	woody debris		Height:	(ft)
POTENTIA:	L RESTORA	ATION CANDID	☐ Cu	lvert r		-	-	Upstream storaş	-	Stream repa	ir
IS SC ACTI	ING AS GRA	DE CONTROL	🔀 No	[Yes	☐ Unknov	vn				
	EXTENT (OF PHYSICAL 1	RLOCKAGE:				BLOC	KAGE SEVERITY	(circle #)		
If yes for fish barrier (> 6 in drop or flow < ½	☐ Total ☐ Tempo: CAUSE: ☐ Culvert ☐ Drop to	rary Par	tial known tream(i rop:(i	n)	culvert on a stream block movement or	such as a dam or 3rd order or greating the upstrear f anadromous fist device present.	road ater n sh; no	A total fish blockag tributary that would significant reach of partial blockage tha interfere with the m anadromous fish.	e on a isolate a stream, or at may	A temporary barr as a beaver dam blockage at the v of a stream with v viable fish habita natural barriers s waterfalls.	or a very head very little t above it;
inch)	Other:	v flow, water de	ptn:(11	1)		5	4	3	2	1	
NOTES/SK Mallory Broo	k Plaza	COMPLETED FO	R SAME AKEA					REPORTED	TO AUTHORI	TIES: □ YES □	NO

WATERSH	ED/SUBSHE	D: 4305-02-1						TE: 11			ED BY: SH, MM		
SURVEY R	EACH ID:		Т	Гіме	2 . 2	4_AM/PM)	PH	ото ID	: (Camera-Pic 7	//)	/# ^{02-1-SC-b} .	jpg	
SITE ID: (C	Condition-#)	SCB	LAT	Γ <u>41</u>	o 54	4_AM/PM 1_35.54 " LONG	-73 o	02	^{57.35} " LM	K	GPS (Unit ID) R1	
TYPE: X		g 🗌 Railroad				1	Geol		ormation (+/- 2ft o				
Road or	☐ Box ☐ Bottom	Circular Other:		X Sin ☐ Do ☐ Tri	uble ple	MATERIAL: Concrete Metal (smoo		Flo	NMENT: ow-aligned t flow-aligned oward LT bank	Barrel dia	IONS: (if varies shameter: Height: 3 3	(ft) (ft)	
RAILROAD	☐ Elliptic	al	[Oth	ner:	Other:		_	oward RT bank	Culvert le	width:	(ft) (ft)	
CROSSING ONLY	CONDITIO	ON: (Evidence of	`)					 	not know ERT SLOPE:		adway elevation: 12 (ft)		
		g/chipping/cor		ı 🗌 I	Downstre	eam scour hole		Fla			Liverence 2		
		nt deposition			_	nbankment			ght $(2^{\circ} - 5^{\circ})$	UNDERS			
	Collecte	ed organic debr	is		Other:			☐ Ob	vious (>5°)	IX No L	Yes Unsure		
DAMS	Түре:	☐ Manmade					d or <u>block</u>) Dry stone Gabion Other:				Height:	(ft)	
DAMS	TILE.	☐ Active Bea		Beav		ATERIAL: Large woody deb	ris 🗌	Small w	oody debris		Height:	(ft)	
Domeston	Duaman				D: 1 1				7				
no POTENTIA	L K ESTORA	TION CANDIE	DATE			rier removal	-	-	-		Stream repair	r	
-	ING AS GRA	DE CONTROL	,	X			_ Jnknow			<u>-</u>			
255011011		OF PHYSICAL		$\overline{}$					XAGE SEVERITY	: (circle #)			
If yes for fish barrier (> 6 in drop or flow < ½	☐ Total ☐ Tempor CAUSE: ☐ Culvert ☐ Drop to	☐ Par	rtial known tream rop:	/n n	_ (in) _ (in)	A structure such as culvert on a 3rd ord stream blocking the movement of anadr fish passage device	er or grea upstrear omous fis	road ater n sh; no	A total fish blockage tributary that would significant reach of partial blockage tha interfere with the mi anadromous fish.	e on a isolate a stream, or t may	A temporary barrie as a beaver dam of blockage at the ve of a stream with ve viable fish habitat a natural barriers sur waterfalls.	or a ry head ery little above it;	
inch)	Other:	r now, water ut	pui.		_ (111)	5		4	3	2	1		
NOTES/SK Stop & Shop Basin-in-Stre	Plaza am hybrid	COMPLETED FO	DR SAN						REPORTED	O AUTHOR	TTIES: \(\text{ YES } \(NO	

WATERSHI	ED/SUBSHE	D: 4305-02-1					DA	TE: 11	/ 19 / 2010	ASSESS	SED BY: SH, MM		
SURVEY R	EACH ID:			TIME	2 .08	AM/PM	PH	ото II): (Camera-Pic #	f)	/# 02-1-SC-c.jpg		
SITE ID: (C	Condition-#)	SC	LA	T 41	o 54	' 41.87 " LON	G -73 o	03	03.54 " LM	K	GPS (Unit ID) R1		
TYPE: X	Road Crossin	g 🗌 Railroad					Geol	ogical F	ormation (+/- 2ft c	hange)	Other:		
	CROSSING Arch	SHAPE: Circular		# BAR	RELS:	MATERIAL: Concrete			NMENT: ow-aligned		IONS: (if varies sketch)		
	Box	Other:			-	Metal (smoo	th)		ot flow-aligned	Barrel dia	meter: $\frac{5}{(ft)}$ Height: $\frac{5}{(ft)}$		
ROAD OR	Bottom	less		Tri		☐ Metal (corru	gated)	_	toward LT bank				
RAILROAD	☐ Elliptic	al		Otl	ier:	Other:		_	toward RT bank	Culvert le			
CROSSING ONLY								<u> </u>	not know		Width:(ft)		
ONLY		ON: (Evidence of			☐ Downstream scour hole			CULVERT SLOPE: Flat			oadway elevation: 10 (ft)		
		ig/chipping/cori nt deposition	TOS10			eam scour hole mbankment			ght $(2^{\circ} - 5^{\circ})$	UNDERS	IZED?		
		nt deposition ed organic debr	is		aning e	шоанктен		1	ovious (>5°)		Yes Unsure		
	Сопесс	ed organic deor	.15			ATERIAL:			, ,				
		☐ Manmade	;			Concrete (poured	l or <u>b</u>	lock)	Dry stone		Height: (ft)		
DAMS	TYPE:					Mortared stone	☐ Gal	oion [Other:				
		Active Be	aver			ATERIAL:					Height: (ft)		
		Old/Aband	done	d Beav	er 🗆	Large woody del	oris 🗌	Small v	voody debris		Tieight. (it)		
_	L RESTORA	TION CANDID	DATE	_			-	-	Upstream storage		Stream repair		
no							t L B	eaver de	ceiver/removal	Other:			
IS SC ACTI	NG AS GRA	DE CONTROL		X	No	☐ Yes ☐	Unknov						
If yas		OF PHYSICAL		CKAG	E:			BLOCI	KAGE SEVERITY:	: (circle #)			
If yes for fish	☐ Total ☐ Tempor	rary 🔲 Pai		wn		A structure such as	a dam oi	road	A total fish blockage		A temporary barrier such as a beaver dam or a		
barrier	_ ^	, <u> </u>				culvert on a 3rd ord	ler or grea	ater	tributary that would is significant reach of s	solate a stream, or	blockage at the very head		
(> 6 in	CAUSE:	raigad above a	troon	n	(in)	stream blocking the movement of anad			partial blockage that	may	of a stream with very little viable fish habitat above it;		
$drop \ or$ $flow < \frac{1}{2}$		o high, water d			(in) movement of anadror fish passage device p				interfere with the mig anadromous fish.	gration of	natural barriers such as waterfalls.		
inch)		v flow, water de											
·	Other:					5		4	3	2	1		
NOTES/SKI	ЕТСН:				17 1	1. 对国际	M	对证	10.47				
					7.787	THE RESERVE OF THE PERSON OF T							
							1	W. Francisco	200				
							一种	To a long					
						In the Late							
						West of the state							
					\$ 1	0/5/1	ie ie						
									1-08				
						17			77				
		G	~				100	Part of	, n				
OTHER SUR	VEY FORMS	COMPLETED FO	OR SA	ME AR	EA		AVA.		KEPORTED T	O AUTHOR	ITIES: YES NO		

WATERSH	WATERSHED/SUBSHED: 4305-02-1 SURVEY REACH ID: TIME: 2 : 12 AM PM					DA	TE: 11	<u>/ 19 / 201</u> 0	ASSESS	ED BY: SH, MM
SURVEY R	EACH ID:		TIME: 2	: 12	AM(PM	Рн	ото ID	: (Camera-Pic #)	/# ^{02-1-SC-d.jpg}
SITE ID: (C	Condition-#)	SCD	LAT 41 ° 5	4	' 41.99 " LONG	73 o	03 •	04.33 " LMI	K	GPS (Unit ID) R1
		•								
TYPE: X	Road Crossin	g 🗌 Railroad	Crossing I	Dam	☐ Footbridge ☐	Geol	ogical Fo	ormation (+/- 2ft cl	hange) 🔀	Other: parking entrance
ROAD OR RAILROAD CROSSING	CROSSING Arch Box Bottom Elliptic	Circular Other:	#BARREI Single Double Triple Other:		MATERIAL: Concrete Metal (smooth) Metal (corrugate Other: plastic corrugated pi		Flo	w-aligned t flow-aligned oward LT bank oward RT bank not know	Barrel dia	Height: 2 (ft) ength: 40 (ft) Width: (ft)
ONLY		ON: (Evidence of.			CULVERT SLOPE:			Roadway	elevation:(ft)	
	☐ Sedime	g/chipping/corr nt deposition ed organic debri	🔀 Failii	ng en	am scour hole nbankment rugated pipe is broker	l	⊠ Slig	t ght $(2^{\circ} - 5^{\circ})$ vious $(>5^{\circ})$	Unders No [IZED? Yes
					ATERIAL:				•	II ai alidi. (A)
		☐ Manmade			Concrete (<u>poured</u> of Mortared stone					Height: (ft)
DAMS	Түре:	☐ Active Bea		M	ATERIAL: Large woody debris					Height: (ft)
Domesimi	I DECTORA	TION CANDID	A rose D Ei-1	. 1				7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		Ctusani manain
no	L KESTOKA	TION CANDID	_		rier removal Fish repair/replacement [_	-	-		☐ Stream repair
	DIG AG CDA	DE CONTROL	∑ Cui ☑ No		<u> </u>			cerver/removar	Other.	
18 SC ACII					Yes Uni			A CE CEVEDIEV	. (-:1- 4)	
If yes for fish barrier (> 6 in drop or flow < ½	☐ Total ☐ Tempor CAUSE: ☐ Culvert ☐ Drop to	raised, above st	tial known ream (ir op: (ir	1)	A structure such as a disculvert on a 3rd order of stream blocking the up movement of anadrom fish passage device pro	am or or grea stream ous fis	road Iter	A total fish blockage tributary that would is significant reach of s partial blockage that interfere with the mig anadromous fish.	on a solate a tream, or may	A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.
inch)	Other:	v flow, water de	oui(iii	1)	5		4	3	2	1
NOTES/SK						のは一十七十二日本のでは、		REPORTED TO	O AUTHORI	ITIES: □ YES □ NO

WATERSH	VATERSHED/SUBSHED: 4305-02-1 TIME: 02 : 20 AM/PM							TE: 11	<u>/ 19 / 201</u> 0	ASSESS	SED BY: SH, MM
SURVEY R	VEY REACH ID: TIME: 02 : 20 AM P							ото ID	: (Camera-Pic #	f)	/# 02-1-SC-e.jpg
SITE ID: (C	Condition-#)	AT 41 ° 5	4	'_35.16 '' LONG -	73 •	02 '	36.28 " LM	K	GPS (Unit ID) R1		
TYPE: K	Road Crossin	g 🗌 Railroad	Cro	ssing 🔲 🗆	am	☐ Footbridge ☐	Geol	ogical Fo	ormation (+/- 2ft c	hange)	Other:
ROAD OR RAILROAD	CROSSING ☐ Arch ☐ Box ☐ Bottom ☐ Elliptic		# BARREI Single Double Triple Other:		MATERIAL: Concrete Metal (smooth) Metal (corrugate Other:	ed)	☐ Flo ☑ No ☑ t ☐ t	w-aligned t flow-aligned oward LT bank oward RT bank	Barrel dia	Height:(ft)	
CROSSING ONLY	COMPLETO	NIA (E : 1	. \						not know ERT SLOPE:		elevation: 8 (ft)
CONDITION: (Evidence of) Cracking/chipping/corrosion Downstre Sediment deposition Failing en Collected organic debris Other:						0 0 1					
					MA	ATERIAL:		l	l		
DAMS TYPE:						Concrete (<u>poured</u> of Mortared stone					Height: (ft)
DAMS TYPE: Active Beaver Old/Abandoned Beaver						ATERIAL: Large woody debris		Small w	oody debris		Height: (ft)
		~							.		
no POTENTIA	L RESTORA	TION CANDIE	OATI			ier removal	_	-			Stream repair
IS SC ACTI	ING AS GRA	DE CONTROL	,	☑ No		Yes Unl	know	'n			
	EXTENT (OF PHYSICAL	BLC	CKAGE:				BLOCK	KAGE SEVERITY:	(circle #)	
If yes for fish barrier (> 6 in drop or flow < ½	☐ Total ☐ Tempor CAUSE: ☐ Culvert ☐ Drop to	raised, above s	rtial iknov streai rop:	wn m (in (in)	A structure such as a d culvert on a 3rd order of stream blocking the up movement of anadrom fish passage device pre	am or or grea stream ous fis	road Iter	A total fish blockage tributary that would is significant reach of s partial blockage that interfere with the mig anadromous fish.	on a solate a tream, or may	A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.
inch)	Other:	flow, water de	epun:	(III)	5		4	3	2	1
NOTES/SK Near Lombar	ETCH: d Ford								REPORTED TO	O AUTHORI	ITIES: □ YES □ NO

WATERSHI	ED/SUBSHE	D: 4305-02-1					DA	TE: 04	<u>/ 19 / 20</u> 11	ASSESS	ED BY: SH, MM	
SURVEY R	EACH ID:			TIME: 08	: 50	(AM/PM	· · · · · · · · · · · · · · · · · · ·					
SITE ID: (C	Condition-#)	SCF	LA	AT 41 ° 54	1	'_32.98 '' LONG _	73 •	02 '	53.50 " LM	K	GPS (Unit ID) R1	
. /												
TYPE: X			Cro				Geolo		· ·		Other: parking exit area	
	CROSSING Arch Box	☐ Circular ☐ Other:		# BARREL	S:	MATERIAL: Concrete Metal (smooth)		☐ No	NMENT: ow-aligned t flow-aligned	Barrel dia	ONS: (if varies sketch) meter:(ft) Height:(ft)	
ROAD OR RAILROAD CROSSING	☐ Bottom	less grated drop al structure		☐ Triple ☐ Other:		Metal (corrugate	ed)	t Do	oward LT bank toward RT bank not know		Width: <u>10</u> (ft)	
ONLY	☐ Crackir	ON: (Evidence of ng/chipping/corent deposition				am scour hole abankment	CULVERT SLOPE: \square Flat \square Slight $(2^{\circ} - 5^{\circ})$			Roadway elevation: 20 (fit		
	Collect	ed organic debr	is	Other	:		Obvious (>5°)			☐ No ☐	Yes Unsure	
DAMS	Түре:	☐ Manmade				ATERIAL: Concrete (poured of Mortared stone					Height: (ft)	
		☐ Active Be ☐ Old/Aban				ATERIAL: Large woody debris		Small w	voody debris		Height: (ft)	
POTENTIAL	L RESTORA	TION CANDII	ATI	E	harr	ier removal Fish	nass	age [Unstream storage	e retrofit	Stream renair	
no no	LILBION					epair/replacement [-	-			Stream repair	
	NG AS GRA	DE CONTROL		No		Yes Unl						
		OF PHYSICAL							KAGE SEVERITY	: (circle #)		
If yes for fish barrier (> 6 in drop or flow < ½ inch)	☐ Total ☐ Tempor CAUSE: ☐ Culvert ☐ Drop to	☐ Pa	rtial iknov treai rop:	wn m (in) (in))	A structure such as a d culvert on a 3rd order of stream blocking the up movement of anadrom fish passage device pre	am or or grea stream	road ter	A total fish blockage tributary that would i significant reach of s partial blockage that interfere with the mig anadromous fish.	on a solate a stream, or may	A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.	
inch)	Other:	v now, water de	pui.	(III)		5		4	3	2	1	
NOTES/SKI									REPORTED T	O AUTHORI	TIES: □ YES □ NO	

SC

WATERSHI	ED/SUBSHED: 4305-02-1			DA	TE: 04	/ 19 / 2011	ASSESS	SED BY: SH, MM
SURVEY R	EACH ID:	TIME: 08 : 40	AM/PM			: (Camera-Pic #	f)	/# 02-1-SC-g2.jpg
SITE ID: (C	Condition-#) SCG	LAT 41 ° 54	' 48.78 " LONG -7	73 0	03 '	05.93 '' LM	K	GPS (Unit ID) R1
TYPE: X	Road Crossing Railroad	Crossing Dam	☐ Footbridge ☐	Geolo			hange) 🔀	Other: driveway private
ROAD OR RAILROAD CROSSING	CROSSING SHAPE: Arch Circular Box Other: Bottomless Elliptical	#BARRELS: Single Double Triple Other:	MATERIAL: Concrete Metal (smooth) Metal (corrugate Other:	ed)	Flo	NMENT: ow-aligned t flow-aligned toward LT bank toward RT bank	Barrel dia	IONS: (if varies sketch) ameter: 2 (ft) Height: 2 (ft) ength: 30 (ft) Width: 2 (ft)
ONLY	CONDITION: (Evidence of	osion Downstrea			☐ Fla		Roadway	elevation: 3.5 (ft)
	Sediment deposition	Failing em	nbankment			ght $(2^{\circ} - 5^{\circ})$ vious $(>5^{\circ})$		Yes Unsure
	Collected organic debri	1			ДО	vious (>3)	LX INO L	Tes Offishie
DAMS	☐ Manmade		ATERIAL: Concrete (poured of Mortared stone			•		Height: (ft)
	☐ Active Bea		ATERIAL: Large woody debris		Small w	voody debris		Height: (ft)
POTENTIAL	L RESTORATION CANDID	ATE Fish borr	rier removal Fish	nacc	200	T Unstraam storag	a ratrofit	Ctraam ranair
no no	L RESTORATION CANDID		epair/replacement	-	-			Sueam repair
	ING AS GRADE CONTROL					cervei/removar	Other.	
18 SC ACII			Yes Unl			ZA GE CEVERYE	. (. 1 #)	
If yes for fish barrier (> 6 in drop or flow < ½ inch)	EXTENT OF PHYSICAL Date of Total Par Drop too high, water de Shallow flow, water de	tream (in)	A structure such as a d culvert on a 3rd order of stream blocking the ups movement of anadrome fish passage device pre	am or i or great stream ous fist	road er	A total fish blockage tributary that would is significant reach of spartial blockage that interfere with the miganadromous fish.	on a solate a tream, or may	A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.
inch)	Other:	ptii(iii)	5		4	3	2	1
NOTES/SK								

SC

WATERSHI	ED/SUBSHED: 4305-	02-1				DA	TE: 04	<u>/ 19 / 2011</u>	ASSESS	SED BY: SH, MM	
SURVEY R	EACH ID:		TIME:_	:	AM/PM	Рн	ото ID): (Camera-Pic #	t)	/# ^{02-1-SC-h.jp}	3
SITE ID: (C	Condition-#) SC-H	L	AT 41 °	54	' 48.07 " LONG	-73 °	03 '	06.23 " LM	K	GPS (Unit ID)	R1
TYPE: T	Road Crossing Ra	ilroad Cr				Geol	ogical Fo	ormation (+/- 2ft c	hange)	Other:	
	CROSSING SHAPE		#BARR		MATERIAL:			NMENT:	DIMENS	IONS: (if varies sket	tch)
	☐ Arch ☐ Circ ☐ Box ☐ Oth		Singl		Concrete Metal (smooth)	,		ow-aligned of flow-aligned	Barrel dia		(ft)
D	☐ Box ☐ Oth		Tripl		☐ Metal (corruga			toward LT bank		Height: 5	(ft)
ROAD OR RAILROAD	☐ Elliptical	ea ena	Othe		Other:			toward RT bank	Culvert le	-	_(ft)
CROSSING							☐ Do	not know		Width: 15	(ft)
ONLY	CONDITION: (Evid							ERT SLOPE:	Roadway	elevation: 7	(ft)
	Cracking/chippin	-					☐ Fla	at $ght (2^{o} - 5^{0})$	UNDERS	97509	
	☐ Sediment deposi☐ Collected organi		☐ Ot	-	nbankment			$gnt (2 - 3)$ $vious (>5^{\circ})$	4	Yes Unsure	
	Conected organi	c debiis			ATERIAL:			(1000)		, <u> </u>	
	☐ Mai	nmade			Concrete (poured	or bl	lock)	Dry stone		Height:	(ft)
DAMS	Туре:				Mortared stone			_ ,			
2.11,125	F	ve Beave	r	M	ATERIAL:					Height:	(ft)
	☐ Old	Abandon	ed Beaver		Large woody debri	s \square	Small w	voody debris		Height.	(11)
	L RESTORATION CA	ANDIDAT	_		rier removal Fis	•	_	_ ,		Stream repair	
💢 no					repair/replacement	Be	eaver dec	ceiver/removal	Other:		
IS SC ACTI	NG AS GRADE CON	TROL	✓N	lo	Yes U	ıknow					
10	EXTENT OF PHYS			:			BLOCE	KAGE SEVERITY	: (circle #)	1	
If yes for fish		☐ Partial ☐ Unkno			A structure such as a	dam or	road	A total fish blockage		A temporary barrier s	
barrier					culvert on a 3rd order	or grea	ter	tributary that would i significant reach of s		blockage at the very	head
(> 6 in	CAUSE: Culvert raised, a	hove stres	m	(in)	stream blocking the u movement of anadron	ostream nous fis	า h; no	partial blockage that	may	of a stream with very viable fish habitat ab	
$drop \ or$ $flow < \frac{1}{2}$	Drop too high, w				fish passage device p	resent.		interfere with the mig anadromous fish.	gration of	natural barriers such waterfalls.	as
inch)	☐ Shallow flow, w										
	Other:				5		4	3	2	1	
Notes/Ski	ЕТСН:										
	TO THE WAR		LOR.		1	1	II.W	A STATE OF THE	L WI		
		THE PERSON NAMED IN	0		新		1/2	The same of the same			制度
				33 30-8					ALC:	300	列尼
A am						T A	The state of the s			集/给我。	THE WAY
						j.					
	1 1 3	NAME OF THE PERSON OF THE PERS					V			TAE TAE	
					The state of the s			B Share	1		=/
	THE PLANT		360					I B		A COLOR	The state of
		p - 10	15.0								
			***						253		
	A. St. a. No.	No Marie						1		4	
				60 -			A CONTRACTOR			a de la companya de l	The state of the s

WATERSHI	ED/SUBSHE	D: 4305-02-2-R1					DA	TE: <u>11</u>	<u>/ 18 / 2010</u>	ASSESS	ED BY: SH, MM	
SURVEY R	EACH ID:		T	IME: 12	: 00	AM/PM			: (Camera-Pic #	f)	/# ^{02-2-R1-Sc}	-a.jpg
SITE ID: (C	Condition-#)	SC-A	LAT	41 • 54		'43.35 " LONG -7	73 o	01 •	37.00 '' LM	K	GPS (Unit ID) R1
TYPE: T	Road Crossin	g 🗌 Railroad					Geol	ogical Fo	ormation (+/- 2ft c			
	CROSSING			BARREL	S:	MATERIAL:			NMENT:	DIMENSI	IONS: (if varies sh	ketch)
	☐ Arch	☐ Circular		Single		Concrete			w-aligned	Barrel dia	meter:	(ft)
	Box Bottom	Other:		Double Triple		☐ Metal (smooth) ☐ Metal (corrugate	ed)		t flow-aligned oward LT bank		Height:	(ft)
ROAD OR	☐ Elliptic			Other:		Other:	cu)		oward RT bank	Culvert le		(ft)
RAILROAD CROSSING	Еттрего	w1		J Other.					not know		Width: 8	(ft)
ONLY	CONDITIO	N: (Evidence of	f)					CULV	ERT SLOPE:	Roadway	elevation: 12	(ft)
		g/chipping/cor		☐ Down	strea	am scour hole		☐ Fla	t			
		nt deposition				embankment \square Slight $(2^{\circ} - 5^{\circ})$				UNDERS		
	Collecte	ed organic debr	is	Other				Ob	vious (>5°)	No 🗌	Yes Unsure	
						ATERIAL:		_				(0)
		☐ Manmade	2			Concrete (poured o			•		Height:	(ft)
DAMS	TYPE:					Mortared stone] Gab	oion	Other:			
		Active Be		D		ATERIAL: Large woody debris		Cmall 11	roody dobris		Height:	(ft)
		Old/Aban	doned i	Beaver		Large woody debris		Siliali w	oody debiis			
POTENTIAL	. RESTORA	TION CANDII)ATE	Fish	harr	ier removal Fish	nass	age [l Unstream storage	e retrofit	Stream renai	r
⊠ no						epair/replacement [_	-			Stream repair	·
	NC AS CDA	DE CONTROL		✓ No		Yes Unl			orver/removar	other.		
155C ACII									AGE SEVERITY:	• (aivala #)		
If yes	Total □	OF PHYSICAL Pa		KAGE:				DLUCE	AGE SEVERITI	• (Circle #)	A temporary barrie	ır cuch
for fish	Tempor		nknown	ı		A structure such as a d			A total fish blockage tributary that would is		as a beaver dam o	r a
barrier	CAUSE:					culvert on a 3rd order of stream blocking the up:			significant reach of s	tream, or	blockage at the ve of a stream with ve	
(> 6 in drop or		raised, above s	stream	(in)		movement of anadrome	ous fis		partial blockage that interfere with the mig		viable fish habitat a	above it;
$flow < \frac{1}{2}$		o high, water d				fish passage device pro	esent.		anadromous fish.	,	natural barriers su waterfalls.	ch as
inch)		flow, water de	epth: _	(in)		<i>E</i>		4	2	2	1	
27 10	Other:					5		4	3	2	1	
NOTES/SKI	ETCH:	K B TH										
			/	1.	A	40			*			
						- TOUR						
	1/6		17/4		Ten				发 节			
	100		1						4			
	100		1	1								
								1				
		1000										
	S/L					27	1					
		ACL.			-				1 Page 1			
	13					- 1. Take			*			
			-						1			
											_	
OTHER SUR	VEY FOL	1223		7					REPORTED T	O AUTHORI	TIES: YES	NO

WATERSHED/SUBSHED: 4305-02-2-R1 DATE: 11 / 18 / 2010 ASSESSED BY: SH, MM												
SURVEY R	EACH ID:		7	TIME: 12	30	AM/PM	Рн	ото ID	: (Camera-Pic #)	/# 02-2-R1-SC-b.jpg	
SITE ID: (C	Condition-#)	SC-B	LAT	Γ <u>41</u> ° 54		42.22 " LONG -7	'3 o	02 '	19.02 '' LMI	K	GPS (Unit ID) R1	
		•										
TYPE: K	Road Crossin	g 🗌 Railroad	Cross	sing 🗌 Da	ım	☐ Footbridge ☐	Geol	ogical Fo	ormation (+/- 2ft cl	hange) 🗌	Other:	
ROAD OR RAILROAD CROSSING	CROSSING ☐ Arch ☐ Box ☐ Bottom ☐ Elliptica	Circular Other:	[# BARRELS Single Double Triple Other:	S:	MATERIAL: Concrete Metal (smooth) Metal (corrugate Other:	ed)	Flo	ow-aligned t flow-aligned coward LT bank oward RT bank not know	Barrel dia	Height:(ft) ength:(ft) Width:(ft)	
ONLY CONDITION: (Evidence of)									ERT SLOPE:	Roadway	elevation: 10 (ft)	
	☐ Cracking/chipping/corrosion ☐ Downstr ☐ Sediment deposition ☐ Failing e ☐ Collected organic debris ☐ Other:			g em			Flat $ \square \text{ Slight } (2^{\circ} - 5^{\circ}) $ $ \square \text{ Obvious } (>5^{\circ}) $		UNDERSIZED? No Yes Unsure			
					MA	ATERIAL:						
DAMS						Concrete (<u>poured</u> of Mortared stone					Height: (ft)	
		☐ Active Bea			ATERIAL: Large woody debris		Small w	oody debris		Height: (ft)		
POTENTIAL RESTORATION CANDIDATE ☐ Fish barrier removal ☐ Fish passage ☐ Upstream storage retrofit ☐ Stream repair ☐ no ☐ Culvert repair/replacement ☐ Beaver deceiver/removal ☐ Other:												
Is SC ACTING AS GRADE CONTROL No Yes Unknown												
EXTENT OF PHYSICAL BLOCKAGE: BLOCKAGE SEVERITY: (circle #)												
If yes for fish barrier (> 6 in drop or flow < ½	☐ Total ☐ Tempor CAUSE: ☐ Culvert ☐ Drop to	raised, above s	rtial know tream rop:	A structure such as a d culvert on a 3rd order o stream blocking the ups movement of anadrom fish passage device pre			or greater stributary that would significant reach of partial blockage the interfere with the management of the stributary that would significant reach of partial blockage the interfere with the management of the stributary that would significant reach of partial blockage the interfere with the management of the stributary that would significant reach of partial blockage the stributary that would significant reach of partial blockage the stributary that would significant reach of partial blockage the stributary that would significant reach of partial blockage the stributary that would significant reach of partial blockage the stributary that would significant reach of partial blockage the stributary that would significant reach of partial blockage the stributary that would significant reach of partial blockage the stributary that would significant reach of partial blockage the stributary that would significant reach of partial blockage the stributary that would significant reach of partial blockage the stributary that would significant reach of partial blockage the stributary that would significant reach of partial blockage the stributary that would significant reach of partial blockage the stributary that would significant reach of the stributary that we would significant reach of the s		A total fish blockage tributary that would is significant reach of s partial blockage that interfere with the mig	on a solate a tream, or may	A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.	
inch)	☐ Shallow ☐ Other:	flow, water de	epth:	(in)	•	5		4	3	2	1	
NOTES/SKETCH: NOTES/SKETCH: REPORTED TO AUTHORITIES: YES NO												

WATERSH	WATERSHED/SUBSHED: 4305-03-1											
SURVEY R	EACH ID:		1	Гіме: <u>12</u>	: 45	_AM(PM)	Рн	ото ID	: (Camera-Pic #	/# 03-1-SC-a.jpg		
SITE ID: (C	Condition-#)	SCA	LAT	41 • 5	4	'_46.75 '' LONG	73 •	02 '	27.17 '' LMI	K	GPS (Unit ID) R1
TYPE: X F	Road Crossin	g 🗌 Railroad	l Cross	sing 🔲 🗅	am	☐ Footbridge ☐	Geolo	ogical Fo	ormation (+/- 2ft cl	hange)	Other:	
ROAD OR RAILROAD	CROSSING Arch Box Bottom Elliptic	G SHAPE: Circular Other:	# <u>/</u> 2 [BARREI Single Double Triple Other:	s:	MATERIAL: Concrete Metal (smooth) Metal (corrugate		ALIGN Flo No	w-aligned t flow-aligned oward LT bank oward RT bank not know	DIMENSIONS: (if varies sketch) Barrel diameter:		
CROSSING ONLY	CONDITION: (Evidence of) Cracking/chipping/corrosion Downstr Sediment deposition Failing e			ig em			CULV Fla ☐ Slig	ERT SLOPE: t ght $(2^{\circ} - 5^{\circ})$	Roadway elevation: 6 (ft) UNDERSIZED?			
	Collecte	ed organic debi	ris	Other				∐ Ob	vious (>5°)	X No ∐	Yes Unsure	
DAMS	TYPE:					ATERIAL: Concrete (poured of Mortared stone					Height:	(ft)
	I leave Beaver					ATERIAL: Large woody debris		Small w	roody debris		Height:	(ft)
POTENTIAL RESTORATION CANDIDATE												
no Culvert repair/replacement Beaver deceiver/removal Other:												
IS SC ACTING AS GRADE CONTROL No Yes Unknown												
If yes for fish barrier (> 6 in drop or flow < ½	EXTENT OF PHYSICAL BLOCKAGE: If yes					A structure such as a diculvert on a 3rd order of stream blocking the ups movement of anadromofish passage device pre			A total fish blockage tributary that would is significant reach of s partial blockage that interfere with the mig anadromous fish.	on a solate a tream, or may	A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little visble fish babitat above it.	
inch)	Other:	v flow, water do	epui.	(III	,	5 4			3	2	1	
NOTES/SKETCH: Other Survey Folkow Company Reported to Authorities: yes No												

WATERSH	ED/SUBSHE	D: 4305-04-1					DA	TE: <u>11</u>	/ 19 / 2010	ASSESS	ED BY: SH, MM	
SURVEY R	EACH ID:			TIME: 9	: 30	<u>AM</u> /PM	PH	ото ID	: (Camera-Pic #	/# ^{04-1-SC-} a.jpg		
SITE ID: (C	Condition-#)	SCA	LA	AT 41 ° 54	1	' 18.77 " LONG -7	72 0	59 '	52.66 " LM	K	GPS (Unit ID) R1	
TVPE: MI	Poad Crossin	g 🗌 Railroad	l Cro	esina 🗆 F	lam	☐ Footbridge ☐ (Geolo	ogical Fo	ormation (+/- 2ft c	hange) \square	Other:	
TILL	CROSSING		1 010	#BARREL		MATERIAL:	GCOIC		NMENT:		ONS: (if varies sketch)	
ROAD OR	☐ Arch ☐ Box ☐ Bottom	Circular Other:		⊠ Single ☐ Double ☐ Triple	Double			☐ No ☐ t	w-aligned t flow-aligned oward LT bank	Barrel dia	meter:(f Height:(f	ft) ft)
RAILROAD CROSSING	☐ Elliptic	al		Other:		U Otner:		☐ toward RT bank ☐ Do not know		Curvertie	Width: $\frac{6}{}$ (f	
ONLY	CONDITION: (Evidence of)							ERT SLOPE:		elevation: 8 (f	ft)	
	☐ Crackin	g/chipping/cor						Fla		T	0	_
	☐ Sediment deposition ☐ Failing en☐ Collected organic debris ☐ Other:				-				ght $(2^{\circ} - 5^{\circ})$ vious $(>5^{\circ})$	UNDERS	IZED? Yes ☐ Unsure	
	Collect	ed organic debi	ris	Other		ATERIAL:			vious (>3)	ا ۱۰۰ پکر	Tes Onsure	
DAMS	TYPE: Manmade					Concrete (poured of Mortared stone					Height: (ft	t)
					ATERIAL:							
	Old/Abandoned Beaver Large v						rge woody debris					
POTENTIAL RESTORATION CANDIDATE												
☐ Culvert repair/replacement ☐ Beaver deceiver/removal ☐ Other:												
IS SC ACTING AS GRADE CONTROL No Yes Unknown												
EXTENT OF PHYSICAL BLOCKAGE: BLOCKAGE SEVERITY: (circle #)												
If yes for fish barrier (> 6 in drop or flow < ½ inch)	☐ Drop to	rary Pa raised, above so high, water do	nkno stread lrop:	m (in	n) lish passage device present.			eater am significant reach of stream, or partial blockage that may interfere with the migration of			A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.	
,	Other:	inow, water de	cptii.	(m,	,	5		4	3	2	1	
NOTES/SKETCH: Other Survey Fo Reported to authorities: yes No												

SC

WATERSHI	ED/SUBSHE	D: 4305-04-1					DA	TE: 04	/ 19 / 2011	ASSESSI	ED BY: SH, MM	
SURVEY R				TIME: 9					: (Camera-Pic #	f)	/# 04-1-SC-b.jpg	
SITE ID: (C	Condition-#)	SC-B	LA	T 41 ° 5	3	' 53.24 " LONG _	-73 o	01 •	22.22 '' LM	K	GPS (Unit ID) R1	
TYPE: X	l		Cro			☐ Footbridge ☐	Geol					
ROAD OR RAILROAD CROSSING	ROAD OR RAILROAD CROSSING Arch Circular Box Other: Double Triple CROSSING ONLY			☐ Double ☐ Metal (smooth) ☐ Triple ☐ Metal (corrugate						Barrel dia	Height: $\frac{1}{}$ (ft)	
_			n Downstream scour hole Failing embankment Other:				\square Flat \square Slight $(2^{\circ} - 5^{\circ})$ UND			way elevation: 3 (ft) ERSIZED? D Yes Unsure		
			10			ATERIAL:						
DAMS	DAMS TYPE:				Concrete (poured of Mortared stone					Height: (ft)		
	☐ Active Beaver MATERIA							Small w	oody debris		Height: (ft)	
POTENTIAL RESTORATION CANDIDATE												
☐ Culvert repair/replacement ☐ Beaver deceiver/removal ☐ Other:												
Is SC ACTING AS GRADE CONTROL No Yes Unknown												
If yes for fish barrier (> 6 in drop or flow < ½ inch)	for fish)	A structure such as a c culvert on a 3rd order of stream blocking the up movement of anadrom fish passage device pr	lam or or grea stream ous fis	greater significant reach of stream, o partial blockage that may interfere with the migration of			A temporary barrier such as a beaver dam or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.	
inch)	Other:	v flow, water de	ърш.	(III)	,	5		4	3	2	1	
NOTES/SKETCH: OTHER SURVEY FORMS COMPLETED FOR SAME AREA: REPORTED TO AUTHORITIES: VES NO												

SC

WATERSH	ED/SUBSHE	D: 4305-04-1				DA	TE: 11	/ 18 / 2010	ASSESSI	ED BY: SH, MI	M	
SURVEY R			TIM	E: 2 : 20	AM(PM)	Рн	ото ID	: (Camera-Pic #	<i>t</i>)	/# 04-1-SC-0	jpg	
SITE ID: (C	Condition-#)	SCC	LAT 41	o 54	' 0.93 '' LONG	-73 o	01 '	01.03 " LM	K	GPS (Unit II) R1	
TYPE: X	Road Crossir	g 🗌 Railroad			☐ Footbridge ☐	Geol	ogical F	ormation (+/- 2ft c	hange)	Other:		
	CROSSING			RRELS:	MATERIAL:		ALIGNMENT:		DIMENSI	ONS: (if varies s	ketch)	
	☐ Arch ☐ Box	Circular Other:		•	Concrete Metal (smooth)			ow-aligned of flow-aligned				
	Box Bottom	_		☐ Double ☐ Metal (smooth) ☐ Triple ☐ Metal (corrugate			_		Height: 3		(ft)	
ROAD OR RAILROAD	☐ Elliptic			ther:	Other:		-	toward RT bank	Culvert length: 55		_ ,	
CROSSING	•						☐ Do	not know		Width:	. ,	
ONLY	CONDITION: (Evidence of)						ERT SLOPE:	Roadway	elevation: 5	(ft)		
		ng/chipping/cor					Fla		UNDERSI	gen9		
		nt deposition			nbankment			ght $(2^{\circ} - 5^{\circ})$ evious (>5°)		Yes 🗌 Unsure		
	Collect	ed organic debr	IS 🔲	Other:	ATERIAL:			vious (>3)		Tes onsure		
		☐ Manmade			Concrete (poured	or bl	lock)	Dry stone		Height:	(ft)	
DAMS					Mortared stone					Č	()	
DAMS	* * * *				ATERIAL:					Height:	(ft)	
							oody debris Small woody debris					
POTENTIAL RESTORATION CANDIDATE Fish barrier removal Fish passage Upstream storage retrofit Stream repair												
□ no □ Culvert repair/replacement □ Beaver deceiver/removal ☑ Other: health & safety issues												
IS SC ACTING AS GRADE CONTROL No Yes Unknown												
T.C.		OF PHYSICAL		GE:	Г		BLOCE	KAGE SEVERITY	: (circle #)			
If yes for fish	☐ Total ☐ Tempo	□ Pa:	rtıal ıknown	A structure such as a d			road	A total fish blockage		A temporary barrie as a beaver dam of		
barrier	гетро	,	iniio wii		culvert on a 3rd order	or greater tributary that would significant reach of		tributary that would i		blockage at the ve	ry head	
(> 6 in	CAUSE:			(i)	stream blocking the up			partial blockage that	may viable fish habita			
$drop\ or$ $flow < \frac{1}{2}$				o: (in) fish passage device pro			resent. Interfere with the manadromous fish.		gration of	natural barriers su	ch as	
inch)		v flow, water de							waterfalls.			
	Other:				5		4	3	2	1		
NOTES/SK	ETCH:		Constitute to the		The state of the s	APP TO THE	Transact L WOLW	MARK SUPPLIES SAIN SAIN SAIN	TELL STREET	to establish the second	453	
		E William		198		43						
	仙水莲		2.2								Ř	
		LO MA	E .		经	1000						
				1				A TOP A TO			e e	
		Carlot Harris					PR					
数便位		* 1						The state of the s				
											·	
		Man 1										
CA AS			1			Wife,	*** *********************************		XXX			
	11/1/3		H.	A								
OTHER SUP	VEY FORMS	COMPLETED FO	OR SAME A	REA:				REPORTED T	O AUTHORY	TIES: TYES	l No	

SC

WATERSHI	ED/SUBSHE	D: 4305-04-1					DA	TE: 11	/ 18 / 2010	ASSESSED BY: SH, MM			
SURVEY R	EACH ID:			TIME:	2 : 45	AM(PM)	PH	ото II): (Camera-Pic #	t)	/# 04-1-SC-d.jpg		
SITE ID: (C	Condition-#)	SCD	LA	T 41	<u>54</u>	<u>' 04.37</u> '' LON	G <u>-73</u> o	00 •	24.11 " LM	K	GPS (Unit ID) R	1	
TYPE: X	Road Crossin	g 🗌 Railroad					Geol	ogical F	ormation (+/- 2ft c				
ROAD OR RAILROAD	CROSSING ☐ Arch ☐ Box ☐ Bottom ☐ Elliptic	Circular Other:	,	#BARRELS: MATERIAL: Single Concrete Double Metal (smooth) Triple Metal (corrugate) Other: Other:			-	Flow-aligned Not flow-aligned ted) toward LT bank			Barrel diameter:(f Height:(f		
CROSSING								Do	not know		Width: 8	<u>(ft)</u>	
ONLY CONDITION: (Evidence of) Cracking/chipping/corrosion I			n 🗌 D	ownstre	am scour hole		☐ Fla				<u>(ft)</u>		
		nt deposition			_	nbankment		1	ght $(2^{\circ} - 5^{\circ})$ evious $(>5^{\circ})$	Undersized? ✓ No ☐ Yes ☐ Unsure			
	Collected organic debris Other								ovious (>3)	INO L	i es 🔲 Olisule		
DAMS	☐ Manmade				ATERIAL: Concrete (pouree Mortared stone			-		Height: ((ft)		
	☐ Active Beaver ☐ Old/Abandoned Beaver					ATERIAL: Large woody de		Height: ((ft)				
DOTENTIA	POTENTIAL RESTORATION CANDIDATE												
no Culvert repair/replacement Beaver deceiver/removal Other: no street treatment													
IS SC ACTING AS GRADE CONTROL No Yes Unknown EXTENT OF PHYSICAL BLOCKAGE: BLOCKAGE SEVERITY: (circle #)													
If yes for fish barrier (> 6 in drop or flow < ½	r n CAUSE: Cause: Culvert raised, above stream(in)			A structure such as a culvert on a 3rd order of stream blocking the up movement of anadrom fish passage device process.			ler or grea upstrean romous fis	dam or road or greater pstream nous fish; no		on a solate a stream, or may	A temporary barrier suc as a beaver dam or a blockage at the very he of a stream with very lit viable fish habitat above natural barriers such as waterfalls.	ead ttle 'e it;	
inch)	Other:	v flow, water de	eptn:		(1n)	5		4	3	2	1		
into river wit	ETCH: along road dr h any treatme	op directly ent consideration		AME ÅR	EA:						NO.		

WATERSH	ED/SUBSHE	D: 4305-04-1				DA	TE: 11	/ 18 / 2010	ASSESSI	ED BY: SH, MM	
SURVEY R			TIME: 3	3 : 1	2_AM/PM	1		<u> </u>		/# 04-1-SC-e2.j	jpg
SITE ID: (C		SC- E	LAT 41 °	53	1 49.49 " LONG					GPS (Unit ID)	R1
										/	
TYPE: X	Road Crossin	g 🗌 Railroad	Crossing [Dam	☐ Footbridge ☐	Geol	ogical F	ormation (+/- 2ft c	hange)	Other:	
	CROSSING	G SHAPE:	# BARR	ELS:	MATERIAL:						etch)
	☐ Arch	X Circular	Singl	e	Concrete		✓ Flow-aligned		Barrel dia	meter: 3	(ft)
	Box	Other:	☐ Doub		Metal (smooth)			t flow-aligned	Barrel diameter: $\frac{3}{1}$ (ft Height: $\frac{3}{1}$ (ft		(ft)
ROAD OR	Bottom		Tripl		☐ Metal (corrugat	ed)		toward LT bank toward RT bank			(ft)
RAILROAD CROSSING					U Other.		☐ Do not know			Width:	
ONLY	CONDITION: (Evidence of)							ERT SLOPE:	Roadway	elevation: 6	
		ng/chipping/corr		wnstre:	am scour hole		☐ Fla				
		nt deposition			nbankment	Transport of the state of the s					
		ed organic debri	is Ot	her:			Ob	vious (>5°)	X No □	Yes Unsure	
					ATERIAL:						
					Concrete (poured					Height:	(ft)
DAMS	TYPE:	<u></u>		Mortared stone] Gab	oion L	Other:				
		Active Bea			ATERIAL:	, \Box	Small w	yoody debrie		Height:	(ft)
	☐ Old/Abandoned Beaver ☐ Large woody							voody deoris			
POTENTIAL RESTORATION CANDIDATE Fish barrier removal Fish passage Upstream storage retrofit Stream repair											
☐ Culvert repair/replacement ☐ Beaver deceiver/removal ☐ Other:											
IS SC ACTING AS GRADE CONTROL No Yes Unknown											
EXTENT OF PHYSICAL BLOCKAGE: BLOCKAGE SEVERITY: (circle #)											
If yes	☐ Total	Par	tial							A temporary barrier	such
for fish	☐ Tempo	rary	known		A structure such as a culvert on a 3rd order			A total fish blockage tributary that would i	solate a	as a beaver dam or a blockage at the very head	
barrier (> 6 in	CAUSE:				stream blocking the up	stream	eam Significant reach of Stream, or			of a stream with very	y little
drop or		raised, above s		` '	movement of anadrom fish passage device po		sh; no	interfere with the mig		viable fish habitat ab natural barriers such	-
$flow < \frac{1}{2}$	-	oo high, water di	-		non passage device pi	CSCIII.		anadromous fish.		waterfalls.	1 43
inch)	☐ Shallov	v flow, water de	pth:((ın)	5		4	3	2	1	
NOTES/SK											
The state of the				DEMON.	SECTION SECTION	THE WHOM		ST-EROPERNS, GIRLS IN STRAININGS	parcentalli parce	STORES OF THE PARTY OF THE PART	1/8
me.		1			and the same of th		新世纪 里	A MARINE THE RELATIVE	BUNBA LEA	Bullion Co.	100 m
- T						-			2000年		3
							T.	X		有一个	G.
		A Comment			发 界	1	1				
1											
1		a since	Mr.					4 7			
								1			The state of the s
									-14		
							6			一位。	
						7		1111			
			VII				The same of the sa		h Punt		1
The state of	3369					11			经 专业	1 1	
OTHER SURVEY FORMS COMPLETED FOR SAME AREA:								REPORTED T	O AUTHORI	TIES: YES N	NO

SC

WATERSHED/SUBSHED: 4305-04-1										TE: 04				SED BY: SH, MN	
SURVEY R	EACH ID:			Тімь	. <u>09</u> . <u>3</u>	30 A	M/PM		PH	ото ID	: (Cam	era-Pic #	<i>‡</i>)	/# ^{04-1-SC-f.j}	og
SITE ID: (C	Condition-#)	SCF	LA	T 41	o 53	• 21	.63 " I	LONG -7	'3 o	00 ,	53.0	era-Pic #	K	GPS (Unit ID) R1
														•	
TYPE: X	Road Crossin	g 🔲 Railroad	l Cro	ssing	☐ Dan	n 🔲	Footbrid	lge 🗌 (Geolo	gical Fo	ormation	(+/- 2ft c	hange)	Other:	
ROAD OR RAILROAD CROSSING	AILROAD Elliptical Other:			Single			ed)	Flo No t	NMENT: bw-aligne t flow-al oward L oward R not kno	ed igned T bank T bank	DIMENSIONS: (if varies sketch Barrel diameter: Height: Culvert length: Width: Width: 3				
ONLY											ERT SL	OPE:	Roadway	elevation:	(ft)
	☐ Cracking/chipping/corrosion ☐ Downstru ☐ Sediment deposition ☐ Failing e ☐ Collected organic debris ☐ Other:							☐ Flat		UNDERSIZED? ☑ No ☐ Yes ☐ Unsure					
							RIAL:							TT : 1.	(0)
		☐ Manmade	2				ncrete (<u>po</u>					one		Height:	(ft)
DAMS	☐ Active Beaver N				IATE	Mortared stone Gabion Other: ATERIAL: Large woody debris Small woody debris Height:							Height:	(ft)	
POTENTIAL RESTORATION CANDIDATE															
☐ Culvert repair/replacement ☐ Beaver deceiver/removal ☐ Other:															
IS SC ACTING AS GRADE CONTROL No Yes Unknown															
If yes for fish barrier (> 6 in drop or flow < ½	or fish			wn A structure such as a diculvert on a 3rd order of stream blocking the ups movement of anadromous fish passage device present of the control of the contro			or greater ostream nous fish; no tributary that would is significant reach of st partial blockage that interfere with the min			d isolate a blockage at the volation at may		r a ry head ry little above it;			
inch)	Other:	flow, water do	ерш.		_(111)			5		4	3		2	1	
NOTES/SKETCH: OTHER SURVEY FOR REPORTED TO AUTHORITIES: YES NO															

APPENDIX C

West Hill Pond Storm Water Runoff Survey

Barkhamsted & New Hartford, CT

Prepared For:

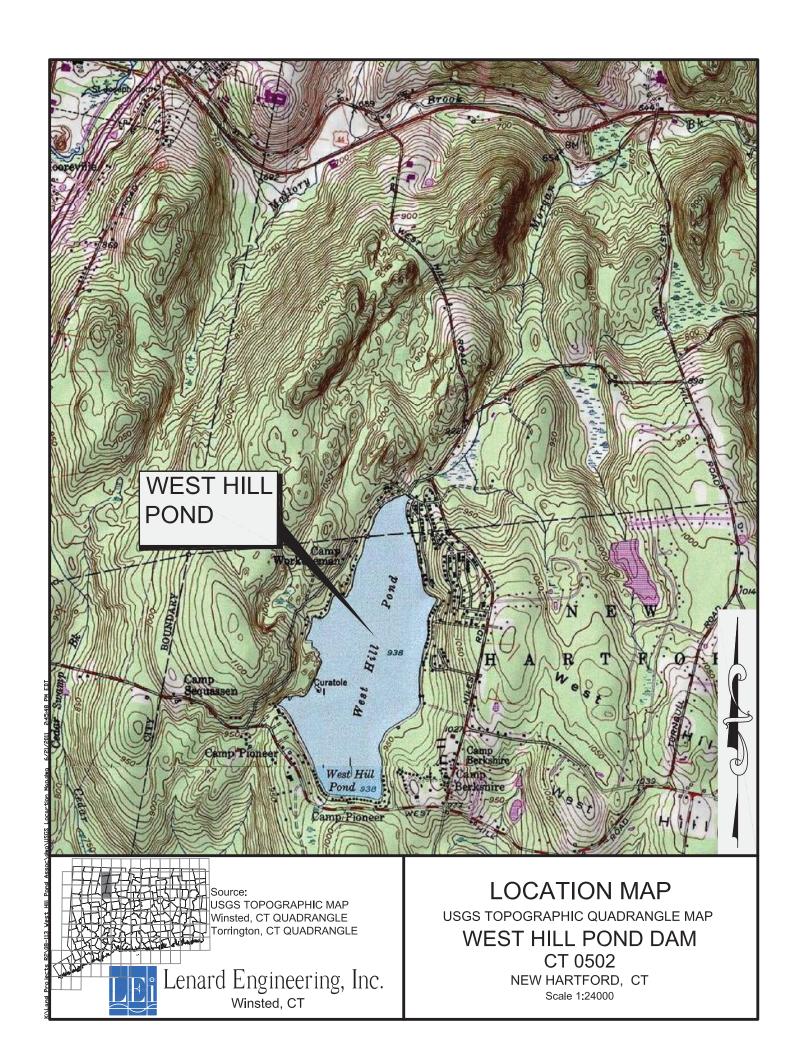
West Hill Pond Association

■ July 15, 2011



TABLE OF CONTENTS

	<u>Page</u>					
Locus Map						
Introduction	1					
Lake and Watershed Description	1					
Observations and Recommendations	1					
Priorities	2					
Outfall Locations and Watersheds	3					
Outfalls Descriptions Recommendations Budget Costs	4					
Best Management Practices	31					
Conceptual Sketches Large Particle Separator Catch Basin with Sump Upland Settling Basin In Pond Settling Basin	33					
Inappropriate Actions						



INTRODUCTION

West Hill Pond is a high quality water resource which supports a variety of passive and active recreational uses. Many of Connecticut's water bodies have experienced "eutrophication" (caused by excessive nutrients entering the lake) which results in blooms of algae and increased weed growth. Fortunately West Hill Pond still has excellent water quality and is considered oligotropic with low levels of phosphorus, only minor rooted aquatic plants, and good transparency.

In 2011 the West Hill Pond Association (WHPA) received a grant from the Connecticut Federation of Lakes to locate and inventory the drainage area and corresponding discharges into West Hill Pond.

WHPA authorized Lenard Engineering Inc (LEI) to undertake a study to locate inflows into West Hill Pond, delineate their corresponding drainage areas, document existing conditions, create conceptual plans for improvements and prepare a preliminary priority for stormwater improvements to maintain or improve existing water quality within the lake.

LAKE AND WATERSHED DESCRIPTION

West Hill Pond is a 261 acre lake located in the towns of New Hartford and Barkhamsted, Connecticut with a maximum depth of 63 feet. The lake has a relatively small watershed of roughly three times the size of the lake area, or 790 acres. Since the watershed is relatively small related to the area and volume of the lake, the amount of runoff only replaces or flushes the lake about once every four to five years, thus any materials conveyed to the lake from the stormwater systems tend to have a long residence time.

OBSERVATIONS

LEI staff:

- 1. Visually located storm water discharge points in the impoundment and assigned a numerical rating, based possible impact to the lake. Approximate locations are depicted on the attached USGS map.
- 2. Visually located collection points and assigned a numerical rating based on contributing drainage areas. Drainage areas are depicted on the attached USGS map.
- 3. Met with the Towns of Barkhamsted and New Hartford staff to review possible information on drainage infrastructure.
- 4. Developed a priority for installation of storm water upgrades or enhancements based on the numerical rating system.
- 5. Photographically documented existing major system components and conditions.
- 6. Developed preliminary improvement concepts and conceptual budget estimates. The budget estimates do not include property acquisition or permitting costs.

About 15 inflow channel were observed and there are another 10 short overland areas with no appreciable channels. The west side of the lake is sparsely developed with residences located primarily along the shore line and a significant amount of undeveloped forested area. The south end of the lake has similar development pattern except the residences are more densely clustered along the shore line with a town road in close proximity (300 to 600 ft) to the shore. The southeast quadrant of the watershed is composed recreational land (Brodie Park) and only a few residences. The northeast portion of the watershed is the most intensely developed with many residences and small seasonal cottages. A public boat ramp, maintained by the State of Connecticut is located in the northeast corner of the lake.

TOWN OF BARKHAMSTED

The Town of Barkhamsted has limited drainage infrastructure adjacent to the lake, observed catch basins discharged to areas outside the lake's drainage basin.

TOWN OF NEW HARTFORD

The Town of New Hartford is responsible for several roads that have drainage discharging into the West Hill Pond drainage basin. West Hill Road on the south end of the lake has 10 catch basins that collect roadside drainage and discharge it to two inflow locations (6 & 7). Niles Road has 9 catch basins that discharge overland, not into a direct inflow to the lake, however the drainage paths in the vicinity of the catch basins contain road sand and silt that eventually makes it to the Lake (inflow 9). The Harriet Rd, Dorothy Dr, Davis Rd and Ricki Rd area has a limited number of catch basins (3), however the roads are predominantly gravel and during runoff events erosion from the roads is directed toward inflow 14. In terms of improvements the Town should attempt to install deep sump catch basins whenever it is necessary to repair existing or install new catch basins. The catch basins sumps should be cleaned on a yearly basis, or in the case of gravel road areas, as necessary.

PRIORITY

Based on potential impact to the impoundment and corresponding drainage areas the following priorities were assigned to the INFLOW.

<u>INFLOW</u>	PRIORITY
1	6
2	N/A ²
3	10
4	Monitor ¹
5	N/A ²
6	3
7	2
8	9
9	8
10	7
11	4
12	5 ³
13	12
14	1
15	11

- Due to the drainage area and potential impact on water quality, INFLOW 4 would be assigned PRIORITY 1, however recent improvement by the Boy Scout Camps and homeowners have significantly decreased erosion. The effects of the recent construction have not yet been monitored or observed.
- N/A Both Inflows assigned this priority are undeveloped upland areas and unless there is development that might expose soil, they only need to be monitored.
- 3 The results of recent storms and resultant erosion would indicate a higher priority should be assigned to this INFLOW



DRAINAGE AREA: 5.5 Ac.

LAKE IMPAC.T ASSESSMENT: Moderate (2)



EXISTING CONDITIONS:

Inadequate sized CB on west side of road typically plugged or covered with leaves, overflow puddles in road and then erodes LAPOA beach.



RECOMMENDATIONS:

Install a deep sump CB with "CL" top and hood, install new pipe under the road and to the pond, regrade road and construct an in pond basin. Provide Siltfence or filtrex sox during winter months along the beach front to reduce beach erosion.

CONSTRUCTION BUDGET COSTS: \$6,000 -\$8,000

PRIORITY: 6

Lenard Engineering Inc.

DRAINAGE AREA: 53.1 Ac.

LAKE IMPAC.T ASSESSMENT: Low (3)



EXISTING CONDITIONS:

Stable drainage from undeveloped upland area.



RECOMMENDATIONS:

Monitor and insure entrance to culverts is kept clear to prevent overtopping roadway.

CONSTRUCTION BUDGET COSTS: \$ 0 PRIORITY: N/A 2

DRAINAGE AREA: 18 Ac.

LAKE IMPAC.T ASSESSMENT: Low (3)



EXISTING CONDITIONS:

- A. Drainage from East side of road, crosses under several private drives and is used for deposition of landscape debris.
- B. Drainage from playing fields/parking area on west side of road is collected in CB's and piped to rock lined outlet area with level spreader.



RECOMMENDATIONS:

A. Discontinue practice of filling channel with debris and brush. Insure that culvert entrances and CB grates are kept clear.

Make sure sumps or CB's are cleaned out and monitor level spreader to insure that leaves and B. brush do not create a dam allowing water to pond and discharge over unprotected area causing erosion

CONSTRUCTION BUDGET COSTS: \$0

PRIORITY: 10

DRAINAGE AREA: 151.5 Ac.

LAKE IMPAC.T ASSESSMENT: High (1)



EXISTING CONDITIONS:

The road was recently regraded and repaved to reduce roadside erosion and a settling pond for road runoff was created. A rock dam created to maintain a water levels in a large undeveloped wetland acts as a metering device to attenuate outflows and reduce erosion of banks below (east) of the road. Road regrading and paving appears to have significantly reduced erosion and sediment loads from road shoulders.



RECOMMENDATIONS:

Clean roadside sediment pond as necessary and monitor rock dam for debris accumulation that would cause high water levels allowing brook to overflow and erode material.

CONSTRUCTION BUDGET COSTS: \$0

PRIORITY: 15 (Monitor 1)

Note: Significant work has been completed in the last year, but effect on Lake has not yet been monitored or documented



DRAINAGE AREA: 4.7 Ac.

LAKE IMPAC.T ASSESSMENT: Low (3)



EXISTING CONDITIONS: Undeveloped upland area RECOMMENDATIONS: Nothing



CONSTRUCTION BUDGET COSTS: \$0

PRIORITY: N/A²

DRAINAGE AREA: 21.3 Ac.

LAKE IMPAC.T ASSESSMENT: Moderate (2)



EXISTING CONDITIONS:

Roadside drainage through a Catch Basin (6) system into a wetland area on south side of West Hill Rd and then piped to outfall at edge of pond.



RECOMMENDATIONS:

Install deep sump (2-ft min) catch basins. Regrade and vegetate roadside area to reduce exposed soil. Create a well maintained, vegetated roadside shoulder. Create roadside sediment basin for yearly cleaning. If unable to create a sediment basin (property rights or wetland issues) then install a large particle separator (equivalent of a septic tank) alongside or under the road. Particle separator could be installed on lake side of road at beginning of pipe to lake.

CONSTRUCTION BUDGET COSTS: \$ 22,000 \$ 25,000

PRIORITY: 3

DRAINAGE AREA: 15.2 AC.

LAKE IMPAC.T ASSESSMENT: High (1)



EXISTING CONDITIONS:

Roadside drainage through a Catch Basin (4) system into a wetland area on south side of West Hill Rd and then culverted under the road to an open drainage to pond. End of brook is full of sediment and during high flows material is eroded into pond



RECOMMENDATIONS:

Install deep sump (2-ft min) CB's. Regrade and vegetate roadside area to reduce exposed soil. Create roadside sediment basin for yearly cleaning. If unable to create sediment basin (property rights or wetland issues) then install a large particle separator (equivalent of a septic tank) alongside or under road. Amour or maintain vegetated roadside discharge points. Remove accumulated sediment adjacent to pond to prevent ponding of storm flows and erosion into lake.



Amour roadside discharge point



CONSTRUCTION BUDGET COSTS: \$ 20,000 - \$ 22,000 PRIORITY: 2

DRAINAGE AREA: 23.6Ac.

LAKE IMPAC.T ASSESSMENT: Low (3)



EXISTING CONDITIONS:

Drainage from the Brodie Park area, and an access road to the Town Beach and then through wetlands to the lake. The road has multiple discharge points which fill up with eroded road surface material Outfall has deposits of sand covered with weedy/rush growth. Deposition can be eroded into pond during high flow events. The Beach area has a fine, silty sand which is easily eroded and drainage from parking area is directed over beach area.



RECOMMENDATIONS:

Clean road discharge points and establish vegetation.

Dredge deposited material from outfall and use boulders to establish an in pond sediment basin area at outfall which can be cleaned out as necessary.

Lenard Engineering Inc.

Redirect parking lot runoff and create a vegetated swale along uphill side of beach area to redirect flows away from the beach.

Use coarser sand during future beach replenishments

Install silt fence or filtrex soxs along waters edge of beach during winter season.

CONSTRUCTION BUDGET COSTS: \$ 6,000 - \$ 8,000

PRIORITY: 9



Outfall Area



Wind Eroded Sand



Beach Erosion

DRAINAGE AREA: 46.1 AC.

LAKE IMPAC.T ASSESSMENT: Low (3)



EXISTING CONDITIONS:

Multiple diagonal swales from upland area and roadside runoff enter a wetland area with no distinct outfall to lake. Some of the swales have areas of exposed or disturbed soil due to recent driveway construction. There are currently 9 catch basins along Niles Road. Drainage paths adjacent to Niles road are filled with road sand.



RECOMMENDATIONS

Stabilize areas of exposed soils

Install Deep sump catch basins along Niles Road and remove accumulated sand yearly.

CONSTRUCTION BUDGET COSTS: \$ 26,000 - \$29,000

PRIORITY: 8

Lenard Engineering Inc.

INFLOW 10 & 11

DRAINAGE AREA: 10 - 4 AC.

11 - 12.3AC.

LAKE IMPAC.T ASSESSMENT: Moderate (2)



EXISTING CONDITIONS:

Paved access way with paved roadside swale and a very steep eroding channel at north end of development.



RECOMMENDATIONS:

Maintain existing pavement and keep roadside area and ditch clean. Install 2 catch basins with deep sumps (to trap large particles) at the bottom of hill. Stabilize channel using rip rap and stone waterdrops (steppools). Keep channels clean to prevent dams from forming and allowing bypass erosion during high flows.

CONSTRUCTION BUDGET COSTS: \$ 15,000 - \$ 18,000

PRIORITY: Roadway (10) 7 Channel (11) 4





DRAINAGE AREA: 7.2 AC.

LAKE IMPAC.T ASSESSMENT: Moderate (2)



EXISTING CONDITIONS:

A paved road with roadside erosion and poorly maintained drainage paths. The lower portion of the access way is steep gravel with no drainage control.



RECOMMENDATIONS:

Reconstruct roadway (existing paved and graveled portions 0.2 miles) to allow overland drainage from shoulders. The lower south section should be paved due to steepness. Improve and maintain existing drainage swales.

CONSTRUCTION BUDGET COSTS: \$44,000 - \$47,000

Lenard Engineering Inc.

PRIORITY: 5





DRAINAGE AREA: 4.4 AC.

LAKE IMPAC.T ASSESSMENT: Low (3)



EXISTING CONDITIONS:

Residential area with light to moderated development, previously installed sediment catch basin that has not been maintained. Roadway appears to stay wet from hillside seepage.



RECOMMENDATIONS:

Clean and maintain existing sediment catch basins or install deep sump basins Regrade road to drain to roadside swale and existing CB.



CONSTRUCTION BUDGET COSTS: \$10,000 - \$14,000

PRIORITY: 12

DRAINAGE AREA: 26.5 AC.

LAKE IMPAC.T ASSESSMENT: High (1)





EXISTING CONDITIONS:

Drainage is from a relatively densely developed residential area through a system of culverts and open channels. Most of the roads are gravel with poor shoulder drainage, allowing storm flows to erode roadway. Lower portion of the channel is blocked by debris, and has actively eroding areas.



Lenard Engineering Inc.

RECOMMENDATIONS:

Install deep sump catch basins or large particle separators Create roadside grassed channels or armor shoulders with 2-in stone. Remove debris and stabilize exposed channel banks



Install Large Particle Separator



Stabilize Area with Vegetation

CONSTRUCTION BUDGET COSTS: \$45,000 - \$50,000

PRIORITY: 1



Eroded Shoulders - Install shoulder armor or create grassed swales.



Outfall below Ricki Road



Evidence of Active Erosion that Progressively Moves Toward Pond



Remove Debris That Creates Dams, Forcing Flows to Erode Around Sides

INFLOW 15

DRAINAGE AREA: 6.8 AC.

LAKE IMPAC.T ASSESSMENT: Low (3)



EXISTING CONDITIONS:

Gravel access way with eroding roadside swale, culverted under access way and discharges to an open ditch alongside cottage. Large impervious paved area from former parking area.



RECOMMENDATIONS:

Stabilize roadside swale with vegetation or riprap, and install deep sump catch basin or large particle separator. Due to confined space, lower discharge will need to be conveyed in pipe system to outlet. It might be possible to create a small in pond sediment basin. Remove unnecessary impervious surface.

Lenard Engineering Inc.

CONSTRUCTION BUDGET COSTS: \$24,000 - \$27,000 PRIORITY 11





Drainage goes under existing deck & is flooding yard Insufficient room to create stabilized channel, Will require piping

BEST MANAGEMENT PRAC.TICES (BMP)

The best way to reduce nutrient loading is to reduce sediment inflow by minimizing areas of impervious surfAc.e and disturbed open soil. Minimizing disturbed areas should be a primary consideration in any watershed protection plan.

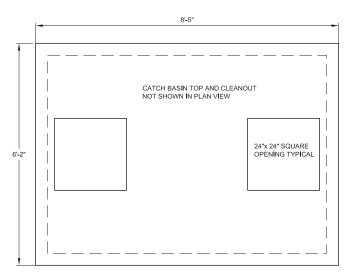
The following structural or constructed BMP's vary in their effectiveness in removing pollutants. Removal capAc.ities provided should be considered guideline that most likely will differ depending on storm events, site conditions, etc.

The estimated average removal rates for total suspended solids (TSS), total phosphorus (TP), total nitrogen (TN), nitrate (NO³), and other pollutants (bAc.teria, metals) of Best Management PrAc.tices (BMP's) are presented below

Estimated Average Pollutant Removal Capacity of Different Stormwater Filter Systems								
	F	Removal E	Efficiency	(%)				
Management Practice	TSS	TP	TN	NO^3	Other Pollutants			
Drainage Channel ¹	30	10	0	0	Bacteria negative			
Grass Channel ¹	65	25	15	0	Hydrocarbons – 65% Metals – 80-90% Bacteria - negative			
Dry Swale ¹	90	65	50	80	Metals 80-90%			
Wet Swale ¹	80	20	40	50	Metals 40-70%			
Vegetated Filter Strip ¹	70	10	65	75	Metals 40-70%			
Gravel Filter ¹	80	80	65	75	Hydrocarbons – 85% Metals 40-70%			
Catch Basin With Sump (Water Quality Inlet ²)	35	5	20	No data	Lead – 15% Zinc – 5%			
Large Particle Separator	Same as Catch Basin with larger Storage capacity							

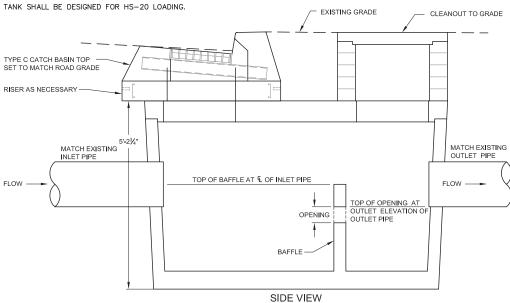
¹ From Claytor & Schueler 1996

² From Environmental Protection Agency 1990





TANK CAPACITY SHALL BE 1,000 GALLONS MINIMUM.



LARGE PARTICLE SEPARATOR

NOT TO SCALE

Designed By: rph

Drawn By: JS

Checked By. RPH Lenard Engineering, Inc.
Civil, Environmental and Hydrogeological Consultants

 Civil, Environmental and Hydrogeological Consultants

 2210 Main Street
 140 Willow Street
 19 Midstate Drive

 Glastonbury, CT 06033
 Winsted, CT 06098
 Auburn, MA 01501

 (860) 659-3100
 (860) 379-6669
 (508) 721-7600

LARGE PARTICLE SEPARATOR

STORM WATER SURVEY

WEST HILL POND

BARKHAMSTED & NEW HARTFORD
CONNECTICUT

Drawing #:

Α

Drawing date: May 27, 2011 Job #:

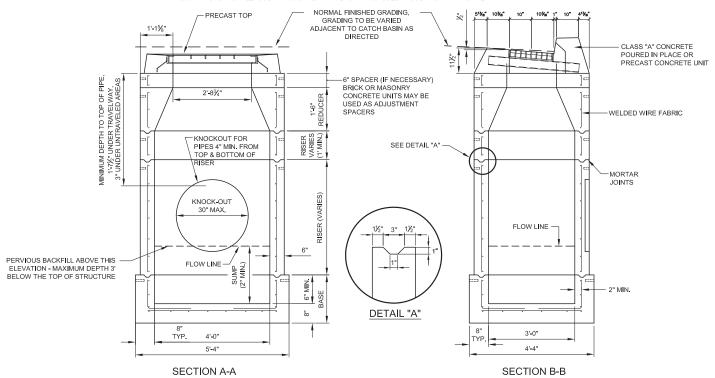
NOTES:

WHERE PRECAST CONCRETE UNIT IS USED FOR THE SUMP, THE TOP FOR THE UNIT SHALL BE AT LEAST 6" BELOW THE BOTTOM OF THE PIPE OUTLETTING FROM THE CATCH BASIN

FOR DETAILS OF FRAMES AND GRATES, SEE CONN. DOT STANDARD SHEET 507-K.

THE WALLS OF ALL CATCH BASINS OVER 10 FT. DEEP TO BE INCREASED TO 12" THICKNESS, WHILE INSIDE DIMENSIONS TO REMAIN THE SAME.

CATCH BASIN HOODS SHALL BE PLACED ON THE OUTLET PIPE OF EACH CATCH BASIN. CONTRACTOR SHALL SUBMIT SHOP DRAWING OF PROPOSED HOOD FOR APPROVAL



PRECAST CATCH BASIN

NOT TO SCALE

rph

JS

Checked By.

Lenard Engineering, Inc.

Civil, Environmental and Hydrogeological Consultants

2210 Main Street 140 Willow Street Glastonbury, CT 06033 Winsted, CT 06098 (860) 659–3100 (860) 379–6669 19 Midstate Drive Auburn, MA 01501 (508) 721-7600

PRECAST CATCH BASIN

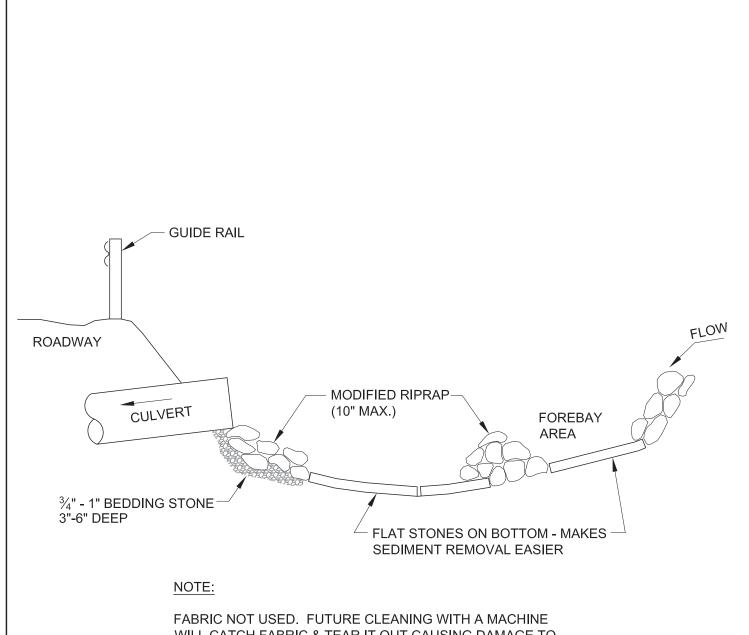
STORM WATER SURVEY

WEST HILL POND

BARKHAMSTED & NEW HARTFORD CONNECTICUT

Drawing #:

В



WILL CATCH FABRIC & TEAR IT OUT CAUSING DAMAGE TO WHOLE BASIN

UPLAND SETTLING BASIN

NOT TO SCALE

rph

Checked By.

Lenard Engineering, Inc.

Civil, Environmental and Hydrogeological Consultants 2210 Main Street 140 Willow Street 19 Midstate Drive Glastonbury, CT 06033 Winsted, CT 06098 Auburn, MA 01501 (860) 659–3100 (860) 379–6669 (508) 721–7600

UPLAND SETTLING BASIN

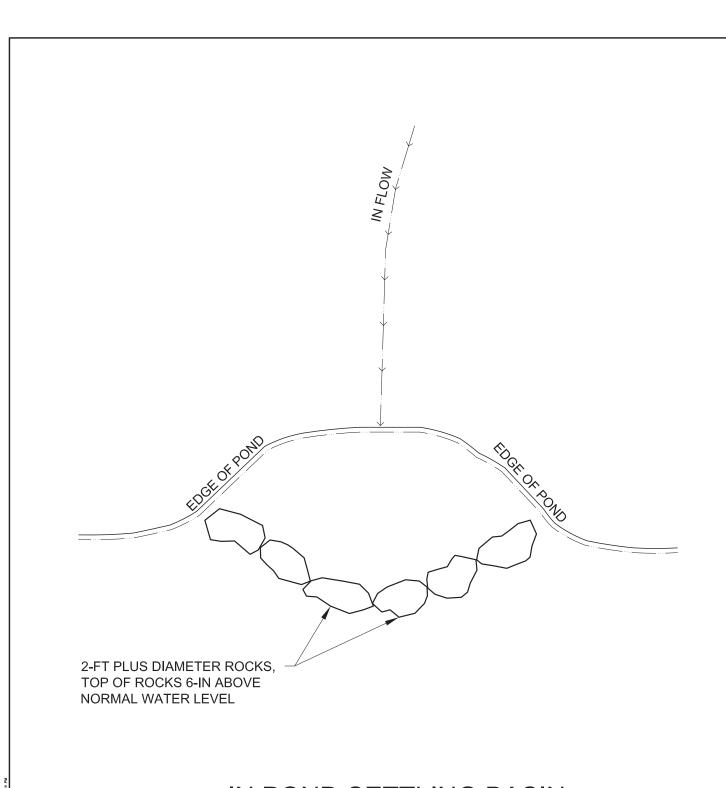
STORM WATER SURVEY

WEST HILL POND

BARKHAMSTED & NEW HARTFORD CONNECTICUT

Drawing #:

 \mathbb{C}



IN POND SETTLING BASIN

NOT TO SCALE

Designed By: rph

Checked By. RPH

Lenard Engineering, Inc. Civil, Environmental and Hydrogeological Consultants 2210 Main Street 140 Willow Street 19 Midstate Drive Glastonbury, CT 06033 Winsted, CT 06098 Auburn, MA 01501 (860) 659-3100 (860) 379-6669 (508) 721-7600

IN POND SETTLING BASIN

STORM WATER SURVEY

WEST HILL POND

BARKHAMSTED & NEW HARTFORD CONNECTICUT

Drawing #:

 D

INAPPROPRIATE ACTIONS

Allowing drainage channel to remain blocked by debris, creates dams and forces storm flows to create new paths, eroding material in the process





Disposal of landscaping wastes in drainage paths



Wrong gradation of beach sand, allows erosion by both wind & water



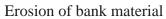
Improper grading and maintenance of drives and roads







RESULT IN









Eventually entering the Lake



Causing infilling & vegetation growth



	ID305B	NAME	LOCATION	MILES	AQUATIC LIFE	RECREATION	FISH CONSUMPTION
	CT4303-00_04	Still River (Winsted/Torrington)-04	From confuence with Mad River (just US of Route 44/183 crossing), US to headwaters (on west side of Route 8, paralell with Exit 45 offramp), Torrington.	7.56	U	FULL	FULL*
	CT4304-00_01	Sandy Brook (Colebrook)-01	From mouth at confluence with Still River (just DS of Old Forge Road crossing), Colebrook (Southeast), US to Massachusetts border, Norfolk (Northeast corner).	8.63	FULL	FULL	FULL*
7	CT4304-00_01a	Sandy Brook (Barkhamsted/Colebrook)-01a	From mouth at confluence with Farmington River, Barkhamsted, US to confluence with Still River, Colebrook. NOTE this portion was formerly called Still River-01 (CT4303-00_01).	1.35	FULL	NOT	FULL*
_	CT4304-08_01	Center Brook-01	From mouth at Sandy Brook, US to Route 183 (Colebrook Rd) crossing, Colebrook.	1.28	FULL	U	FULL*
	CT4305-00_01	Morgan Brook-01	From mouth at West Branch Farmington River, US to confluence with tributary 4305-04 (first confluence) on east side of Route 44, Barkhamsted.	0.69	FULL	NOT	FULL*
	CT4305-00_02	Morgan Brook-02	From confluence with tributary 4305-04 (end of seg-01) east side of Route 44, US to East West Hill Road crossing area (50 meters US of East West Hill Road crossing, entrance of 9/12/05 home heating fuel spill), Barkhamsted.	1.41	U	NOT	FULL*
	CT4305-00_03	Morgan Brook-03	From East West Hill Road crossing area (50 meters US of East West Hill Road crossing, entrance of 9/12/05 home heating fuel spill), US to confluence with Mallory Brook, Barkhamsted.	0.48	U	U	FULL*
	CT4305-00_04	Morgan Brook-04	From confluence with Mallory Brook, US to West Hill Pond outlet dam, Barkhamsted.	1.52	FULL	NOT	FULL*

<u>Use Support:</u>
FULL=Designated use Fully Supported NOT=Designated use Not Supported, See 303d listing for details. U=Not Assessed ///=Not applicable to Segment I= Insufficient Information to assess use FULL*=Refer to Connecticut Department of Environmental Protection Angler's Guide, or online at www.ct.gov/dep for more information about fish consumption advisories.

Ī	ID305B	NAME	LOCATION	MILES	AQUATIC LIFE	RECREATION	FISH CONSUMPTION
	CT4305-02_01	Mallory Brook-01	From confluence with Morgan Brook, US to Tennessee Gas pipeline crossing (near Barkhamsted and Winchester town line, south of Route 44), Barkhamsted.	1.54	U	U	FULL*
	CT4305-02_02	Mallory Brook-02	From Tennessee Gas Pipeline Crossing (end of segment-01, near Barkhamsted and Winchester town line, south of Route 44), US to headwaters, Winchester.	0.7	FULL	U	FULL*
8	CT4306-00_01	Valley Brook-01	From mouth at northwestern most portion of Barkhamsted Reservoir, Hartland, US (towards northeast) to CT/MA state line.	0.73	FULL	U	FULL*
_	CT4307-00_01	Hubbard Brook-01	From mouth at northwestern most portion of Barkhamsted Reservoir, Hartland, US (towards northwest) to CT/MA state line.	0.57	U	U	FULL*
	CT4308-00_01	Farmington River, East Branch- 01	From mouth at Farmington River mainstem, New Hartford, US to Lake McDonough outlet dam.	1.11	NOT	NOT	FULL*
	CT4308-01_01	Hurricane Brook (Hartland)-01	Mouth on Barkhamsted Reservoir, just DS of Route 20 crossing, US to HW at Emmons Pond, just US of Hurricane Brook Road crossing, Hartland.	2.24	FULL	U	FULL*
	CT4308-11_01	Roaring Brook (Barkhamsted)- 01	Mouth at inlet to Barkhamsted Reservoir, parallel to Kettle Brook, US to HW near Pine Mountain road, Barkhamsted.	2.4	FULL	U	FULL*
	CT4308-13_01	Kettle Brook (Barkhamsted)-01	Mouth at inlet to Barkhamsted Reservoir, just DS of Ratlum Road crossing, US to HW just US of Route 219 crossing, Barkhamsted.	1.95	FULL	U	FULL*

<u>Use Support:</u>
FULL=Designated use Fully Supported NOT=Designated use Not Supported, See 303d listing for details. U=Not Assessed ///=Not applicable to Segment I= Insufficient Information to assess use FULL*=Refer to Connecticut Department of Environmental Protection Angler's Guide, or online at www.ct.gov/dep for more information about fish consumption advisories.

Connecticut 5050 Assessment Results		LAKES	IADLE			
ID305B	NAME	LOCATION	ACRES	AQUATIC LIFE	RECREATION	FISH CONSUMPTION
CT4303-02-1-L1_01	Burr Pond (Torrington)	South of Burr Mountain Rd, Northeast corner of Torrington.	83.39	FULL	FULL	FULL
CT4304-05-2-L2_01	Triangle, Lake (Colebrook)	Northwest corner of Colebrook (North Colebrook area); lake is east of Rte 183, access by Prock Hill Road on YMCA Camp Jewelll property.	49.2	FULL	U	FULL
CT4305-00-1-L1_01	West Hill Pond (New Hartford/Barkhamsted)	Northwest corner of New Hartford.	245.54	FULL	FULL	FULL
CT4308-00-1-L2_01	Compensating Res. (L. McDonough) (Barkhamsted/New Hartford)	Southeast Barkhamsted - northeast New Hartford.	385.75	FULL	FULL	NOT
CT4315-05-1-L1_01	Birge Pond (Bristol)	West of Rt 69 and Pond Street, Bristol	11.84	FULL	FULL	FULL
CT4315-10-1-L1_01	Pine Lake (Malones Pond) (Bristol)	East Bristol, south of Pine Street	8.13	FULL	FULL	FULL
CT4318-03-1-L1_01	Stratton Brook Park Pond (Simsbury)	Small impoundment of Stratton Brook, Simsbury; south of Rte 309.	2.35	U	FULL	FULL
CT4321-00-1-L2_01	Barber Pond (Bloomfield/Windsor)	NE corner of Bloomfield, near Windsor border, N of Newberry Road.	9.4	U	U	FULL
CT4401-00-1-L1_01	Batterson Park Pond (Farmington/New Britain)	Southeast Farmington - northeastern border of New Britain.	145.49	FULL	NOT	FULL
CT4402-04-2-L1_01	Mill Pond (Newington)	Municipal park in Newington; S of Rt 175 near intersection of Rts 175 and 176	2.71	FULL	U	FULL
CT4500-00-1-L1_01	Shenipsit Lake (Tolland/Ellington/Vernon)	At meeting point of Ellington, Vernon and Tolland. CT Water Company watershed.	511.85	FULL	U	FULL
CT4500-00-3-L3_01	Union Pond (Manchester)	Impoundment of Hockanum River in Manchester at Union Street.	49.9	NOT	FULL	NOT
	ID305B CT4303-02-1-L1_01 CT4304-05-2-L2_01 CT4305-00-1-L1_01 CT4308-00-1-L2_01 CT4315-05-1-L1_01 CT4315-10-1-L1_01 CT4318-03-1-L1_01 CT4321-00-1-L2_01 CT4401-00-1-L1_01 CT4401-01-L1_01	TD305B NAME CT4303-02-1-L1_01 Burr Pond (Torrington) CT4304-05-2-L2_01 Triangle, Lake (Colebrook) CT4305-00-1-L1_01 West Hill Pond (New Hartford/Barkhamsted) Compensating Res. (L. McDonough) (Barkhamsted/New Hartford) CT4315-05-1-L1_01 Birge Pond (Bristol) CT4315-10-1-L1_01 Pine Lake (Malones Pond) (Bristol) CT4318-03-1-L1_01 Stratton Brook Park Pond (Simsbury) CT4321-00-1-L2_01 Barber Pond (Bloomfield/Windsor) CT4401-00-1-L1_01 Batterson Park Pond (Farmington/New Britain) CT4402-04-2-L1_01 Mill Pond (Newington) CT4500-00-1-L1_01 Shenipsit Lake (Tolland/Ellington/Vernon)	Triangle, Lake (Colebrook) CT4304-05-2-L2_01 Triangle, Lake (Colebrook) CT4308-00-1-L1_01 West Hill Pond (New Hartford/Barkhamsted) CT4308-00-1-L2_01 Compensating Res. (L. McDonough) CT4315-05-1-L1_01 Birge Pond (Bristol) CT4315-10-1-L1_01 CT4315-00-1-L2_01 Stratton Brook Park Pond (Simsbury) CT4318-03-1-L1_01 Stratton Brook Park Pond (Simsbury) CT4321-00-1-L2_01 Barber Pond (Bloomfield/Windsor) CT4401-00-1-L1_01 Batterson Park Pond (Farmington/New Britain) CT4402-04-2-L1_01 Mill Pond (Newington) Mill Pond (Newington) Municipal park in Newington, Vernon and Tolland. CT Water Company watershed. Impoundment of Hockanum River in Manchester at Union Impoundment of Hockanum River in Manchester at Union	CT4303-02-1-L1_01 Burr Pond (Torrington) South of Burr Mountain Rd, Northeast corner of Torrington. 83.39	TD305B NAME LOCATION South of Burr Mountain Rd, Northeast corner of Torrington. Rorthwest corner of Colebrook (North Colebrook area); lake is east of Rts 183, access by Prock Hill Road on YMCA Camp Jewelll property. CT4305-00-1-L1_01 West Hill Pond (New Hartford/Barkhamsted) CT4308-00-1-L2_01 CT4308-00-1-L2_01 Birge Pond (Bristol) CT4315-05-1-L1_01 Pine Lake (Malones Pond) (Bristol) West of Rt 69 and Pond Street, Bristol LT4318-03-1-L1_01 Stratton Brook Park Pond (Simsbury) Small impoundment of Stratton Brook, Simsbury; south of Rte 2.35 U CT4401-00-1-L2_01 Barber Pond (Bloomfield/Windsor) CT4401-00-1-L1_01 Batterson Park Pond (Farmington/New Britain) CT4402-04-2-L1_01 Mill Pond (Newington) Municipal park in Newington; S of Rt 175 near intersection of Rts 175 and 176 CT4500-00-1-L1_01 Lipion Road (Moveleptor) Impoundment of Hockanum River in Manchester at Union MOT	CT4303-02-1-L1_01 Burr Pond (Torrington) South of Burr Mountain Rd, Northeast corner of Torrington. 83.39 FULL FULL

<u>Use Support:</u>
FULL=Designated use Fully Supported NOT=Designated use Not Supported, See 303d listing for details. U=Not Assessed ///=Not applicable to Segment I= Insufficient Information to assess use FULL*=Refer to Connecticut Department of Environmental Protection Angler's Guide, or online at www.ct.gov/dep for more information about fish consumption advisories.

TABLE 3 - 2. CONNECTICUT IMPAIRED WATERS LIST

APPENDIX E

TABLE 3 - 2. CONNECTICUT IMPAIRED WATERS	LIST APPENDIX E			
Waterbody Name Sandy Brook (Barkhamsted/Colebro	ok)-01a	Waterbody Segment ID	CT4304-00_01a	
Location From mouth at confluence with Farmington River, Barkh Colebrook. NOTE this portion was formerly called Still F		Waterbody Segment Size	1.35 Miles	
Impaired Designated Use Recreation				
Cause	Potential Source			_
Escherichia coli	Source Unknown		<u>Category</u>	5
Waterbody Name Morgan Brook-01		Waterbody Segment ID	CT4305-00_01	
Location From mouth at West Branch Farmington River, US to conconfluence) on east side of Route 44, Barkhamsted.	nfluence with tributary 4305-04 (first	Waterbody Segment Size	0.69 Miles	
Impaired Designated Use Recreation				
Cause	Potential Source			_
Escherichia coli	Source Unknown		<u>Category</u>	5
Waterbody Name Morgan Brook-02		Waterbody Segment ID	CT4305-00_02	
Example 2. From confluence with tributary 4305-04 (end of seg-01) of Road crossing area (50 meters US of East West Hill Road fuel spill), Barkhamsted.		Waterbody Segment Size	1.41 Miles	
Impaired Designated Use Recreation				
Cause	Potential Source			
Escherichia coli	Source Unknown		Category	5
Waterbody Name Morgan Brook-04		Waterbody Segment ID	CT4305-00_04	
<u>Location</u> From confluence with Mallory Brook, US to West Hill Po	ond outlet dam, Barkhamsted.	Waterbody Segment Size	1.52 Miles	
Impaired Designated Use Recreation				
Cause	Potential Source		_	
Escherichia coli	Source Unknown		<u>Category</u>	5
Waterbody Name Farmington River, East Branch-01		Waterbody Segment ID	CT4308-00_01	
<u>Location</u> From mouth at Farmington River mainstem, New Hartfor	d, US to Lake McDonough outlet dam.	Waterbody Segment Size	1.11 Miles	
Impaired Designated Use Habitat for Fish, Other Aquatic Life	and Wildlife			
Cause Other flow regime alterations	Potential Source Upstream Impoundments (e.g., Pl-566 NRCS Structur	es), Flow Alterations from Water Diversions	<u>Category</u>	4c
Impaired Designated Use Recreation				
Cause	Potential Source			
Other flow regime alterations	Flow Alterations from Water Diversions, Upstream In	npoundments (e.g., Pl-566 NRCS Structures)	<u>Category</u>	4c

APPENDIX F

APPENDIX B: WATER QUALITY CRITERIA FOR BACTERIAL INDICATORS OF SANITARY QUALITY SEE ALSO STANDARDS # 23 AND 25

DESIGNATED USE		CLASS	INDICATOR	CRITERIA
Freshwat Drin	er king Water Supply ⁽¹⁾			
	Existing / Proposed	AA	Total coliform	Monthly Moving Average less than 100/100ml Single Sample Maximum 500/100ml
Recr	Potential reation (2)(3)	A		
	Designated Swimming (4)	AA, A, B	Escherichia coli	Geometric Mean less than 126/100ml Single Sample Maximum 235/100ml
	Non-designated Swimming (5)	AA, A, B	Escherichia coli	Geometric Mean less than 126/100ml Single Sample Maximum 410/100ml
	All Other Recreational Uses	AA, A, B	Escherichia coli	Geometric Mean less than 126/100ml Single Sample Maximum 576/100ml
Saltwater Shell	fishing ⁽⁶⁾			
	Direct Consumption	SA	Fecal coliform	Geometric Mean less than 14/100ml 90% of Samples less than 31/100ml
	Indirect Consumption	SB	Fecal coliform	Geometric Mean less than 88/100ml 90% of Samples less than 260/100ml
Re	ecreation			
	Designated Swimming (4)	SA, SB	Enterococci	Geometric Mean less than 35/100ml Single Sample Maximum 104/100ml
	All Other Recreational Uses	SA, SB	Enterococci	Geometric Mean less than 35/100ml Single Sample Maximum 500/100ml