SURVEY/REACH Dr. 442-1 WTRSHD/SUBSHD:	DATE: 11/23/09 ASSESSED BY:
START TIME: 10:15 AM/PM LMK: OLMOCK END TIME	E: 11 :45 AM/PM LMK: ASLANAM GPS ID:
LAT 41 ° 43 ' 04 " LONG 72 ° 43 ' 24" LAT 41 ° 48	18 " LONG 72° 43, 34"
DESCRIPTION: DESCRIPTION:	
RAIN IN LAST 24 HOURS  Heavy rain  Steady rain  PRESENT CONDITIO	ons
□ None □ Intermittent □ Trace □ Clear	☐ Trace ☐ Overcast ☐ Partly cloudy
SURROUNDING LAND USE:    Industrial    Commercial    Urban/Residentia	al Suburban/Res Forested Institutional
☐ Golf course ☐ Park ☐ Crop	☐ Pasture ☐ Other:
AVERAGE CONDITIONS (check applicable)	CH SKETCH AND SITE IMPACT TRACKING
The state of the s	ich of survey reach. Track locations and IDs for all site impacts
CHANNEL WIDTH 25-50 % within the survey	reach (OT, ER, IB,SC, UT, TR, MI) as well as any additional
DOMINANT SUBSTRATE	res deemed appropriate. Indicate direction of flow
☐ Silt/clay (fine or slick) ☐ Cobble (2.5 –10")	
☐ Sand (gritty) ☐ Boulder (>10")	THE CONTRACT CARD
☐ Gravel (0.1-2.5") ☐ Bed rock Sime	PONTACE ROAM  YX 8' MEM 12'WIDE
	DIONIET VI
WATER CLARITY  ☐ Clear ☐ Turbid (suspended matter) ☐ Stained (clear, naturally colored) ☐ Opaque (milky)	(3.   April
Other (chemicals, dyes)	11 / ISCOND
AQUATIC PLANTS Attached: In none   some   lots	410 45" 14.9"
routing. Let note it some it lots	ANT 1 APE-1 072043'31.9"
WILDLIFE IN OR	JOHN DISMIKENSSIONE
AROUND STREAM Snails DOther: Ducks provis while	provide J SANKEROSIONE 31.9"
Mostly shaded (≥75% coverage)	1 1
STREAM SHADING  Halfway (>50%)	RESIDENTIAL WANNS
(water surface) ☐ Partially shaded (≥25%)	\ \ \
☐ Unshaded (< 25%)	11048/11/N
CHANNEL Downcutting Bed scour	91.48.11.79
DYNAMICS Widening Bank failure	013.613.38
Headcutting Bank scour	
Unknown Aggrading Slope failure Channelized	
	de Provine of
CHANNEL Height: LT bank RF 30 (ft)	1 Plante
DIMENSIONS RT bank (ft)	
(FACING DOWNSTREAM) Width: Bottom 39 66 (ft)	11
Top(ft)	//
REACH ACCESSIBILITY	//
Good: Open area in Fair: Forested or Difficult. Must cross	
public ownership, developed area wetland, steep slope, or	SUMM VACOURTHS
stocknile materials Access requires tree   stream. Few areas to	Wan
easy stream channel removal or impact to stockpile available	71
equipment using Stockpile areas distance from stream.	[[
existing roads or trails. small or distant from Specialized heavy	\\
stream.   equipment required.	<u></u>
NOTES: (biggest problem you see in survey reach)	
IMPACTED BUFFEL - NESIDENTIAL LAWAS	
	Denontron to the Control of the Cont

	Optimal	Suboptimal	Marginal	Poor
IN-STREAM HABITAT  (May modify criteria based on appropriate habitat regime)	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient).	40-70% mix of stable habitat; well- suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
<del>_</del>	20 19 (18) 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
VEGETATIVE PROTECTION  (score each bank, determine sides by facing downstream)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophyles; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.
	Left Bank 10 9	8 7 6	5 (4) 3	2 1 0
	Right Bank 10	8 7 6	5 4 3	2 1 0
BANK EROSION (facing downstream)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Grade and width stable; isolated areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or adjacent use.	Past downcutting evident, active stream widening, banks actively eroding at a moderate rate; no threat to property or infrastructure	Active downcutting; tall banks on both sides of the stream eroding at a fast rate; erosion contributing significant amount of sediment to stream; obvious threat to property or infrastructure.
	Left Bank 10 9	8 (7) 6	5 4 3	2 1 0
	Right Bank 10 9	. 8 7 6	5 4 3	2 1 0
FLOODPLAIN CONNECTION	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.
	OVE	ALL BUFFER AND FLOODPLAX	n Condition	
THE PROPERTY OF THE PROPERTY O	Optimal	Suboptimal	Marginal	Poor
VEGETATED BUFFER WIDTH	Width of buffer zone >50 feet; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, crops) have not impacted zone.	Width of buffer zone 25-50 feet; human activities have impacted zone only minimally.	Width of buffer zone 10-25 feet; human activities have impacted zone a great deal.	Width of buffer zone <10 feet: little or no riparian vegetation due to human activities.
	Left Bank 10 9	8 7 6	<b>(3)</b> 4 3	2 1 0
	Right Bank (10) 9	8 7 6	5 4 3	2 1 0
FLOODPLAIN VEGETATION	Predominant floodplain vegetation type is mature forest	Predominant floodplain vegetation type is young forest	Predominant floodplain vegetation type is shrub or old field	Predominant floodplain vegetation type is turf or crop land
_	20 19 18 17 (16)	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
FLOODPLAIN HABITAT	Even mix of wetland and non-wetland habitats, evidence of standing/ponded water	Even mix of wetland and non-wetland habitats, no evidence of standing/ponded water	Either all wetland or all non- wetland habitat, evidence of standing/ponded water	Either all wetland or all non- wetland habitat, no evidence of standing/ponded water
_	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	3 4 3 2 1 0
FLOODPLAIN ENCROACH- MENT	No evidence of floodplain encroachment in the form of fill material, land development, or manmade structures	Minor floodplain encroachment in the form of fill material, land development, or manmade structures, but not effecting floodplain function	Moderate floodplain encroachment in the form of filling, land development, or manmade structures, some effect on floodplain function	Significant floodplain encroachment (i.e. fill material, land development, or man-made structures). Significant effect on floodplain function
	20 19 18 17 16	(15) 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

Impacted	Ruffer
mpacieu	

IB

WATERSHED/SUBSHED: NGP	,		DATE: <u></u>	123/09		ESSED BY: CM/B			
SURVEY REACH: 4	Тіме: <u>//</u>	:_ <i>00</i> _a <b>Q</b> /pm		<b>):</b> (Camera-Pi					
	т <u>41°48'10"</u> I т <u>41°48' 8</u> " I	LONG <u>72 ° 43</u> LONG <u>72 ° 43</u>		LMK <u>Por</u>		GPS: (Unit ID)			
LT RT Both		y planted Otherse Park O				ants WMS+YAND WAS DUMP			
DOMINANT Paved  LAND COVER: LT Bank  RT Bank  INVASIVE PLANTS: None		wn Tall grass	Shrub/scrub		Other :	nown			
STREAM SHADE PROVIDED? None Partial Full WETLANDS PRESENT? No Yes Unknown  POTENTIAL RESTORATION CANDIDATE Active reforestation Greenway design Natural regeneration Invasives removal Other:									
RESTORABLE AREA  LT BANK RT  Length (ft):	REFORESTATION POTENTIAL: (Circle #)	Impacted area on pu where the riparian ar not appear to be use specific purpose; ple area available for pla	rea does pu ed for any pr enty of pu	npacted area on eith ublic or private land resently used for a s urpose; available are anting adequate	that is pecific	Impacted area on private land where road; building encroachment or other feature significantly limits available area for planting			
Width (ft):		5	4	3	2				
POTENTIAL CONFLICTS WITH REFOR Poor/unsafe access to site Existing	ESTATION Wighter Windows Cover Se	idespread invasive vere animal impac	plants   ts (deer, beav	Potential containver)	mination	Lack of sun			
NOTES: Residential yard-space up to top of Bank, Areas are morn actively tograss is short (""). Yard waste dumping in Repairan area t in places at Bank top to even in water channel.  It see photo PB 230010. Jpg for minor Bank exession									

Impacted Buffer	acted B	uffer
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IB

WATERSHED/SUBSHED: NBP	DATE: \ / JZ /09 ASSESSED BY: 000	186
	: ORM/PM PHOTO ID: (Camera-Pic #) cm /# PB2	
CRVB1 Addition	ONG 072 043 132 " LMK GPS: (Unit IL	
	ong ° ' ' LMK	
END LAT,,,	ONG	
☐ RT ☐ Both ☐ Recently	vegetation Too narrow Widespread invasive plants  planted Other: Residential Plante Plantes  rse Park Other Public	sent
LAID USE.		
(Facing downstream) LT Bank		
DOMINANT Paved Bare ground Turf/lav		
LAND COVER: LT Bank		ł
. RT Bank 🔲 🖂		
INVASIVE PLANTS: None Rare P	artial coverage	
STREAM SHADE PROVIDED? None Partial	Full WETLANDS PRESENT? ♣No ☐ Yes ☐ Unknown	1
***************************************	on Greenway design ANatural regeneration Invasives remov	al
no Other:		
RESTORABLE AREA	Impacted area on public land where the riparian area does land that is land where road; but	
Length (ft): KT BANK RT REFORESTATION POTENTIAL:	not appear to be used for any presently used for a specific encroachment or of	ther
Length (ft): _/S (Circle #)	specific purpose; plenty of purpose; available area for planting area available for planting adequate for planting adequate	
Width (ft):		
POTENTIAL CONFLICTS WITH REFORESTATION W	idespread invasive plants Potential contamination Lack of su	un
☐ Poor/unsafe access to site ☐ Existing impervious cover ☐ Se	vere animal impacts (deer, beaver)	
NOTES: M. O.C. : ALO MAH LOW D.DE	located Approximiately 5 feets can just see it in the plant	-
I WERE IS AN ONIGIONS PAR	and and it is the death	_
upstreating of the erosian yar	CAM MIST SEE IT IN THE PUBLIC	
[PK1 30011])		
1		
This is residential pervale	property.	
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	•	
	e e	
F		

_	WATERSHED/SUBSHED: NBP						DATE:   / 6	33/09	ASSESSE	ED BY:	36/cm
	SURVEY REA		4.	Тім	E::AM/PN	1	<b>РНОТО ID:</b> (С	Camera-Pic#	)	/#	
	SITE ID (Condition-#): OT-			LAT	41.48.6.	]" Lo	NG 72 · 43	<u>1259"</u>	LMK	G	PS: (Unit ID)
	BANK:  LT ART  FLOW:  None	Head Trickle	TYPE:  Closed pipe		MATERIAL:  Concrete  PVC/Plastic  Other:	Metal Brick		Double	DIMENSIO Diameter:_		SUBMERGED:  No Partially
☐ Moderate ☐ Substantial ☐ Other: Channe		Open channel		Concrete 🔼 Ea	arthen	☐ Trapezoid ☐ Parabolic ☐ Other:		h: th (Top): Bottom):		Fully	
CONDITION:  None  □ Chip/Cracked □ Peeling Paint □ Corrosion □ Other:  □ Other:  ODOR: ☑ □ Gas □ Sewage □ Rancid/S □ Sulfide □ Other:		Sour	DEPOSITS/STAINS  None Oily Flow Line Paint Other:	S:	VEGGIE DENS  ☑ None ☐ Normal ☐ Inhibited ☐ Excessive ☐ Other:	· I	PIPE BENTI Brown Other: POOL QUAI Good Suds Other:	Orange  LITY:   Odors	No pool Colors		
ŀ	FOR COLOR: Clear Bro				☐ Brown ☐ G	rev [	Yellow T	Green 🔲 O	rangé 🗆 R	ed 🗀 Otho	
	FLOWING	TURBIDI		•	Slight Clouding	-		Opaque	Tange 🔲 K		a
	ONLY FLOATABLES: None Sewage (to			Sewage (toilet	paper, e	tc.) 🔲 P	etroleum (oi	sheen)	Oth	er:	
	OTHER				-		Excessive Se Other:	dimentation			
1	POTENTIAL R	ESTORAT	ION CANDI	DATE	☐ Discharge inve	stigation	n Stream dayl	ighting 🔲	Local strear	n repair/ou	fall stabilization
ı	no				☐ Storm water retr		Other:	0 0 -		<b>F T</b> •	
	If yes for dayle Length of veget		r from outfa	11:	ft Type	of exist	ing vegetation:	.,.		Slope: _	
	If yes for storn	nwater:									
	Is stormwater co		ntrolled?		Land	Use des	cription:				
	☐ Yes ☐ No	☐ Not i	nvestigated			ıvailabl					
SEVERITY: storing sites. The amount of niscitarge is significant compared to the amount of niscitarge is significant did did did did did did did did did di				discharç discharç	Small discharge; flow mostly clear and odorless. If the discharge has a color and/or odor, the amount of discharge is very small compared to the stream's base flow and any impact appears to be minor / localized.  Outfall does not have dry discharge; staining; or appoint of causing any erosion profile.			ning; or appearance			
L				5	4	ļ	3		2		<u>(1)</u>
	SKETCH/NOTI	ES: T					)	- '7		,	
	*	, , , , , , , , , , , , , , , , , , ,	1								; · · · · ·
								111		1 .	
ľ					i		·	٠ ١	٠.	1	
	** . Y							Rei	PORTED TO A	UTHORITII	:s: 🗌 yes 🔲 no
	7			"							

OT

WATERSHED/SUBSHED: NG	2	DATE: 1 3 D ASSESSED BY: CM/BG				
SURVEY REACH ID: 4	<b>Тіме:</b>	<b>PHOTO ID:</b> (Camera-Pic #) /#				
SITE ID (Condition-#): OT-	LAT 41 ° 48 ' 11 "I	ong <u>72 ° 43 ' 28 "</u> LM	<b>GPS</b> : (Unit ID)			
BANK:  LT RT Head  FLOW:  None Trickle		Circular Double	NSIONS: SUBMERGED:  ter: \( \sqrt{\phi} \) (in) \( \sqrt{\phi} \) Partially \( \sqrt{\phi} \) Fully			
☐ Moderate ☐ Substantial ☐ Op Cher: Cha	en	☐ Trapezoid Depth: ☐ Parabolic Width (Top) ☐ Other: " (Bottom)	(in) (in) (in) (in)			
☐ Chip/Cracked ☐ Gas	wage	□ None □ Brown   □ Normal □ Other   □ Inhibited POOL 0   □ Excessive □ Goo	ENTHIC GROWTH: None  In Orange Green  CUALITY: No pool  I Odors Colors Oils  Algae Floatables			
FOR COLOR: SCIENT Brown Grey Yellow Green Grange Red Other:  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen) Other:  OTHER CONCERNS: Needs Regular Maintenance Bank Erosion Other:						
POTENTIAL RESTORATION C	ANDIDATE Discharge investigat  Storm water retrofit	ion Stream daylighting Local Other:	stream repair/outfall stabilization			
If yes for daylighting:	outfall:ft Type of ex	isting vegetation:	Slope:°			
If yes for stormwater:  Is stormwater currently controlled  Yes No Not investigated		lescription: Residential				
SEVERITY: strong smell. 1 compared to the stream; discharge discha	he amount of discharge is significant the amount of normal flow in receiving large appears to be having a lact downstream.	Il discharge; flow mostly clear and odorless. If the large has a color and/or odor, the amount of large is very small compared to the stream's bas and any impact appears to be minor / localized.	discharge; staining; or appearance of causing any erosion problems.			
SKETCH/NOTES:	5 4	<u>(3)</u>	2 1			
bank erosic	& ApproximateoC M + Kesidential	5' upstream of 2 cannot	Minds			
		REPORTE	D TO AUTHORITIES: \( \subseteq \text{YES } \subseteq \text{NO}			

WATERSHED/SUBSHED	: NBP		DATE: 1/23 /09 ASSESSED BY: CM (66)					
		ME::AM/PM	<b>Рното ID:</b> (Camera-Pi					
SITE ID (Condition-#): O	T- <u>C</u> LA	T41 <u>° 48 ' 14,9 "</u>	LONG 72 · 43 · 31.7 ·	LMK	GPS: (Unit ID)			
BANK:  LT RT Head  FLOW: None Trickle Moderate	TYPE: Closed pipe	MATERIAL:  ☐ Concrete. ☐ Me ☐ PVC/Plastic ☐ Bri ☐ Other:	ck	Diameter: 🖟 (i	SUBMERGED:  No in) Partially  Fully			
Substantial Other:	Open channel	☐ Concrete ☐ Earth ☐ Other:	Parabolic W	epth: (in) /idth (Top); (in) / (Bottom): (in)	NOT APPENCABLE			
CONDITION: None Chip/Cracked Peeling Paint Corrosion Other:	ODOR: 🖾 No Gas Sewage Rancid/Sour Sulfide Other:	DEPOSITS/STAINS:  None Oily Flow Line Paint Other:	VEGGIE DENSITY:  ☐ None ☐ Normal ☐ Inhibited ☐ Excessive ☐ Other:	PIPE BENTHIC G Brown Ora Other:  POOL QUALITY: Good Odors Suds Algae Other:	nnge ☐ Green ☐ No pool ☐ Colors ☐ Oils			
FOR   COLOR:   Color:   Brown   Grey   Yellow   Green   Orange   Red   Other:								
POTENTIAL RESTORAT	ION CANDIDATE	Discharge investigation	ation Stream daylighting  Other:	Local stream repai	ir/outfall stabilization			
If yes for daylighting: Length of vegetative cover	from outfall:	ft Type of e	existing vegetation:	Slope	::°			
If yes for stormwater:  Is stormwater currently controlled?  Land Use description:  Yes \( \text{No} \) Not investigated  Area available:								
SEVERITY: strong comp stream		discharge is significant discharge is significant normal flow in receiving be having a	nall discharge; flow mostly clear and ox charge has a color and/or odor, the am charge is very small compared to the s w and any impact appears to be minor	nount of discharge	pes not have dry weather e; staining; or appearance g any erosion problems.			
	5	· 4	3	2				
ž:·	Pipe is jutting out stightly, Applacex 5'							
					,			
	<del></del> :		R	REPORTED TO AUTHOR	RITIES: YES NO			

#### Stream Crossing

<b>3</b> U	

WATERSHED				ATE: 📗	23/0	ASSE	SSED BY:	66 CW
- STATES STORMERS AND STORE DESCRIPTIONS OF THE STATES AND STORE STORE AND STORE STORE AND STORE	.cн ID: <i>N</i> ВР-4	TIME: 11:45			: (Camera-Pic	#) 12	/#	•
SITE ID: (Con	dition:#) SC-Mane LAT	410 48. 12	<u> 5 " Long 72</u>	· 43	<u>34</u> " LI	YOUTH OF	GPS	(Unit ID)
TYPE: TYPE:	ad Crossing Railroad Cross	1	<u> </u>	ſ	Geological For			
	SHAPE:	#BARRELS:	MATERIAL:		NMENT:			riable, sketch)
	☐ Arch ☐ Bottomless ☐ Elliptical	☐ Single☐ Double	☐ Concrete	1	w-aligned t flow-aligned	Barrel dia	_	(ft)
FOR ROAD/	☐ Circular	Triple	Other:	1	not know		Height: _	<b>8</b> (ft)
RAILROAD	Other:	Other: 4				Culvert le		~64 <sup>1</sup> (ft)
CROSSINGS ONLY	<b>CONDITION:</b> (Evidence of)			Culy Uffa	ERT SLOPE:		width:	2'x4_(ft)
J CIVE	Cracking/chipping/corrosic			1 —	ght (2° – 5°)		wiuii. •	
	☐ Sediment deposition☐ Other (describe):	Failing emb	ankment		vious (>5°)	Roadway	elevation:	(ft)
	U Other (describe).							
POTENTIAL I	RESTORATION CANDIDATE	☐ Fish barrier re	moval  Culvert	repair/rep	placement 🔲 🛭	Jpstream st	orage retro	fit
no		Local stream	repair					
Is SC ACTING	G AS GRADE CONTROL	□No □Y	es Unkno	wn				
	EXTENT OF PHYSICAL BLO	OCKAGE:		BLO	CKAGE SEVE	RITY: (circ	le #)	
	☐ Total ☐ Partial		A structure such as a	a dam or	A total fish blocks	аде оп а	A temporary	barrier such as a
If yes for	☐ Temporary ☐ Unkno	wn	road culvert on a 3rd	l order or	tributary that wou	ld isolate a	beaver dam	or a blockage at
fish barrier	CAUSE:		greater stream block upstream movement		significant reach or partial blockag			ad of a stream with able fish habitat
Ĭ	Drop too high Water D	•	anadromous fish; no passage device pres		interfere with the anadromous fish.	migration of	above it; na as waterfall	tural barriers such
	☐ Flow too shallow Water D☐ Other:	epth:(in)	passage device pies	ent.		•	as waterias	o.
NOTES/SKET	· <del></del>		5		4 3		2	
NOTES/SKET	2000 O	4- BAY CO	Noneth Bo	x co	iven, i	UD IMP	Act 70	From
	0/L 1154	PASSAGE						
		•						
				٠				
			•					
		-						
	•							
		•						
						4		
								•
7					D==			□vec□ve
					KEPOR	CTED TO AU	THORITIES	YES No

SURVEY REACH	D: 9 wt	RSHD/SUBSHD: N	3P	DATE: 11 /23 /	Assessed a	Y
LAT 41047 1	e: <u>0 30 am/em</u> <u>54 "</u> Long <u>7</u>     Veat / PoAcl	2042 146"	END TIME: 3  LAT 4 47 4  DESCRIPTION: 42	8 " LONG 32 °	LMK: 43 ·06 " rputs	GPS ID:
RAIN IN LAST 24 HO ☐ None	DURS  Heavy rain  Intermittent	Steady rain Trace	PRESENT CONDITIONS  ☐ Clear	-		artly cloudy
SURROUNDING LAN	☐ Golf cou	rse 🗆 Park	☐ Urban/Residential ☐ Crop ☐		Forested	stitutional
ÄVERAGE	CONDITIONS (che	k applicable)	REACHS	KETCH AND SITE I	mpact Tracki	NG
BASE FLOW AS % CHANNEL WIDTH	□ 0-25% □25-50 %	□ 50%-75% <b>⊈</b> 75-100%	within the survey rea	f survey reach. Track lo ch (OT, ER, IB,SC, UT, leemed appropriate. Ind	TR, MI) as well as a	ny additional
DOMINANT SUBSTR  ☐ Silt/clay (fine or ☐ Sand (gritty) ☐ Gravel (0.1-2.5	slick) $\square$ Co	obble (2.5 –10") oulder (>10") d rock				
	GCLear □Turbic aturally colored) □ dyes)	· •				
AQUATIC PLANTS IN STREAM		e ⊠ some □ lots c □ some □ lots				
WILDLIFE IN OR AROUND STREAM	(Evidence of) □ Fish □ Beave □ Snails 🔂 Other			· · · · · · · · · · · · · · · · · · ·		
STREAM SHADING (water surface)	Mostly shaded  ☐ Halfway (≥50% ☐ Partially shaded ☐ Unshaded (< 25	) 1 (≥25% )	REAL	wat Ball	war BANK	
CHANNEL DYNAMICS	Downcutting Widening Headcutting	☐ Bed scour☐ Bank failure☐ Bank scour☐		S Ha	(spha)	لىم.
Unknown	Aggrading Sed. deposition	Slope failure Channelized	S. W. W.	//	Jamo de	(spart)
CHANNEL DIMENSIONS	Height: LT bank RT bank	(ft)		PA->	3 Hours	
(FACING DOWNSTREAM)	Width: Bottom Top	(ft)	TOUR POINTS	* <b>*</b>	16	
T .	REACH ACCESSIBILI			·	74 \	20
Good: Open area in public ownership, sufficient room to	Fair: Forested or developed area adjacent to stream. Access requires tree	Difficult. Must cross wetland, steep slope, or sensitive areas to get to stream. Few areas to			PIOES	(b)
stockpile materials, easy stream channel access for heavy	removal or impact to landscaped areas.  Stockpile areas	stockpile available and/or located a great distance from stream.				$\nearrow$
equipment using existing roads or trails.	small or distant from stream.	Specialized heavy equipment required.		0.0		
NOTES: (biggest pro	blem you see in survey NAH AL	reach) 50VVQ (WNeW) -	infacted in difficult	ACCESSALI	CIARON	U.H. AGUND
bed ROCK RestorAty	Substeal	e would b	Red Myrc.	HALL A POC	OR'C ANCLI OTO AUTHORITIES	YES NO

#10115#11:1115#### #C#18#1-18#1	Augustino et januaria januari Augustino januaria j	Suboptimal	Marginal	Poor	
IN-STREAM HABITAT (May modify criteria based	Optimal  Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full	40-70% mix of stable habitat; well- suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious, substrate unstable or lacking.	
on appropriate habitat regime)	colonization potential (i.e., logs/snags that are not new fall and not transient).	not yet prepared for colonization (may rate at high end of scale).	10 9 8 7 6	5 4 3 2 1 0	
VEGETATIVE PROTECTION (score each bank, determine sides by facing downstream)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetatior has been removed to 5 centimeters or less in average stubble height.	
	Left Bank 10 9	8 7 6	5 4 3	2 1 0	
	Right Bank 10	8 7 6	5 4 3	2 1 0	
BANK EROSION (facing downstream)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Grade and width stable; isolated areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or adjacent use.	Past downcutting evident, active stream widening, banks actively eroding at a moderate rate; no threat to property or infrastructure	Active downcutting; tall banks on both sides of the stream eroding a a fast rate; erosion contributing significant amount of sediment to stream; obvious threat to property or infrastructure.	
	Left Bank 10	8 7 6	5 4 3	2 1 0	
	Right Bank 10 (9)	8 7 6	5 4 3	2 1 0	
FLOODPLAIN CONNECTION	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	
	20 19 18 🕡 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
	OVER	ALL BUFFER AND FLOODPLAI	N CONDITION		
S (	Optimal	Suboptimal	Marginal	Poor	
VEGETATED Buffer Width	Width of buffer zone >50 feet; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, crops) have not impacted zone.	Width of buffer zone 25-50 feet; human activities have impacted zone only minimally.	Width of buffer zone 10-25 feet; human activities have impacted zone a great deal.	Width of buffer zone <10 feet: little or no riparian vegetation due to human activities.	
	Left Bank 10 9	8 <b>(5)</b> 6	5 4 3	2 1 0	
	Right Bank 10 9	8 7 6	5 4 3	2 1 0	
FLOODPLAIN VEGETATION	Predominant floodplain vegetation type is mature forest	Predominant floodplain vegetation type is young forest	Predominant floodplain vegetation type is shrub or old field	Predominant floodplain vegetation type is turf or crop land	
	20 (19) 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
FLOODPLAIN HABITAT	Even mix of wetland and non-wetland habitats, evidence of standing/ponded water	Even mix of wetland and non-wetland habitats, no evidence of standing/ponded water	Either all wetland or all non- wetland habitat, evidence of standing/ponded water	Either all wetland or all non- wetland habitat, no evidence of standing/ponded water	
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 (3) 2 1 0	
	No evidence of floodplain encroachment in the form of fill	Minor floodplain encroachment in the form of fill material, land	Moderate floodplain encroachment in the form of filling, land development, or	Significant floodplain encroachment (i.e. fill material, land development, or man-made	
FLOODPLAIN ENCROACH- MENT	material, land development, or manmade structures  20 19 18 17 (16)	development, or manmade structures, but not effecting floodplain function  15 14 13 12 11	manmade structures, some effect on floodplain function	structures). Significant effect on floodplain function  5 4 3 2 1 0	

Sub Total In-stream: 1/80

Buffer/Floodplain:

<u>55</u>/80

Total Survey Reach 127/160

# Impacted Buffer

IB |

WATERSHED/SUBSHED:	NSP				DATE	11 133100	Ass	SESSED BY: CM/BO
SURVEY REACH:	9		TIME:	_:AM/PM	Рнот	o <b>ID:</b> (Camera-Pi	ic #)	/# PB23003
SITE ID: (Condition-#)	START LA	T 41 ° 47	' <u>54</u> " I	LONG 72 °	12 1 46	' LMK		GPS: (Unit ID)
B- 4	END LA	т <u>41°47</u>	' 56 " I	ONG <u>72</u> °_	42.57	' LMK		
	REASON INA					√ Widespread in		
LT 🔼 RT 🗌 Both							n is	+444 ~ 10'L
LAND USE: (Facing downstream) LT Bank		nstitutional	Golf Cou	rse Park ] □	Other Pub			
RT Bank	_	Ø				· -		
DOMINANT	Paved	Bare ground	Turf/lav		ss Shrub/s		Other	
LAND COVER: LT Bank	· 🗆				区	L 🗆	□:	
RT Bank			₽	<u> </u>			:	
Invasive Plants:	☐ None	☐ Rare	Ø₽₽	artial coverage	☐ E2	tensive coverage	unl	known
STREAM SHADE PROVIDE	D? None	e 🗷 Parti	al [	Full Wi	ETLANDS P	RESENT? No	Y	Yes Unknown
POTENTIAL RESTORATIO	n Candida	ΓΕ ∐Activ	e reforestati	on Greenw	ay design (	Natural regenera Natural ⊼	tion 🛭	KInvasives removal
no		Other	:					
RESTORABLE AREA		e.		Impacted area o		Impacted area on eith		Impacted area on private
LT BANK	RT ,	REFORESTA		where the riparia not appear to be		public or private land presently used for a s		land where road; building encroachment or other
Length (ft):	200	POTENTIAL (Circle #)	:	specific purpose area available fo		purpose; available are planting adequate	ea for	feature significantly limits available area for planting
Width (ft):		(0., 0,0 ,,)		5	i planting	planting adequate		2 1
Down and the second sec				<del></del>	!1 <b>-</b> -	Detected conto		
POTENTIAL CONFLICTS W Poor/unsafe access to site				despread invas vere animal im				n Lack of sun
								the side
				LAUDAI I	TI IVOLEY C	11100 ( 5	V( D	1001 3100
on U-Haret 60	nd cu	ampus	•					•
~ Landwarek	- P	start	to	B = 8	-6AU	culvert/5	trop	AM CLOSSIM
J. DANGGONIO F	- 01	ا الم	. ^	and to Ot	Ţ			J
that mar	yks the	. start	0+	peren 1				
+ LANDANASK					tout	over DASS (	مايده	dre
- The white	- 6			2.(144	~ <del>~ ~ ~</del> .			3
	-							

# Impacted Buffer

IB

1.00			DATE:	1/23/09	ASSESSED BY: CM BG
WATERSHED/SUBSHED: NBP				<del></del>	
SURVEY REACH:	TIME:	_:AM/PM		ID: (Camera-Pic:	#) /# PQ2300 \(\bar{C}\)
	141 ° 47'54" I				- GIS. (Omi 1D)
B- 6 END LA	ат <u> 41°47'52"</u> I	ong <u>72°43</u>	<u>'' 000 '''</u>	LMK	
LT RT Both		planted Oth		idential	
LAND USE: Private	Institutional Golf Cou			<del>-</del>	
RT Bank	2 W-Hnet-Faed [				cliff on RB
DOMINANT Paved	Bare ground Turf/lav	Ü	_	crub Trees C	Other
LAND COVER: LT Bank					□: Ø: Bedfock cliff
RT Bank		] 🗀			
INVASIVE PLANTS: None		artial coverage			unknown
STREAM SHADE PROVIDED? Non	e 🖾 Partial	Full   WETL	ANDS PR	ESENT? No	Yes Unknown
POTENTIAL RESTORATION CANDIDA  no	TE Active reforestati	ion Greenway o	lesign [	Natural regeneratio	on  Invasives removal
RESTORABLE AREA  Length (ft):   LT BANK RT  Length (ft):   Length	REFORESTATION POTENTIAL: (Circle #)	Impacted area on pu where the riparian ar not appear to be use specific purpose; ple area available for pla	rea does od for any nty of	Impacted area on either public or private land that presently used for a sper purpose; available area to planting adequate	at is land where road; building cific encroachment or other
Width (ft):		5	· 4	. 3	2
POTENTIAL CONFLICTS WITH REFOR Poor/unsafe access to site Existing	g impervious cover Se	vere animal impact	ts (deer, b	eaver) Other:	nation
NOTES: IMPACTED ARE	a is located	on pa	whe	property	/ + is A
MANTANIEN	Lawn w/ so	we JAto	d u	paste disp	osal at
edge ob Rive	r. the Righ	ert Baul	- is	. A bedic	och eliff
·					
				•	
1					
·					

WATERSHED/SUBSHED: N	BP	DATE: 11 /23 /09\ ASSESSED BY: CM/66						
SURVEY REACH ID:	TIME::AM/PM	РНОТО ID: (Camera-Pic #) /# РВЭЗОЗ /						
STTE ID (Condition-#); OT- A	LAT41 047 154 "	LONG 2042 , 46"						
Hararda occido de cararda a martina de la companya	76880G							
BANK: TYPE:	MATERIAL: ☐ Concrete ☑Met	SHAPE: Single al Circular Double	DIMENSIONS: SUBMERGED:					
LT RT Head	sed PVC/Plastic Bric		Diameter (in) Partially					
FLOW: pip	e Other:	Other:	☐ Fully					
Moderate		☐ Trapezoid De	epth: (in)					
Substantial Ope	en Concrete Earthe	Parabolic W	idth (Top): (in) NOT APDECABLE					
Control.		Other:	(Bottom): (in)					
	: \(\overline{\text{DEPOSITS/STAINS:}}\)	VEGGIE DENSITY:	PIPE BENTHIC GROWTH: None					
None ☐ Gas ☐ Chip/Cracked ☐ Sev	I ₩ '	✓ None  ☐ Normal	☐ Brown ☐ Orange ☐ Green ☐ Other:					
1 — ·	cid/Sour	☐ Inhibited	POOL QUALITY: No pool					
☐ Corrosion ☐ Sul	<b></b>	Excessive	☑ Good ☐Odors ☐Colors ☐Oils					
Other: Oth	er: Other:	Other:	Suds Algae Floatables					
	· · · · · · · · · · · · · · · · · · ·		Other:					
FOR COLOR:	☑ Clear Brown — Grey	100 100 100 100 100 100 100 100 100 100	Orange Red Other:					
FLOWING TURBIDITY:	None Slight Cloudiness							
ONLY FLOATABLES:	None Sewage (toilet paper (paper/plastic bags) Dump	oing (bulk)	(oil sheen)					
OTHER		· / —						
POTENTIAL RESTORATION CA	NDIDATE Discharge investiga	ation Stream daylighting	Local stream repair/outfall stabilization					
□ no	Storm water retrofit	Other:						
If yes for daylighting:		!-A!	Clamat 9					
Length of vegetative cover from o	outfall:π Type of e	existing vegetation:	° Slope:°					
If yes for stormwater:								
is stormwater currently controlled		description: U- HARTA	id CAMPUS					
Yes No Not investiga	so with a distinct color and/or a							
Strong smell. T	he amount of discharge is significant	all discharge; flow mostly clear and or charge has a color and/or odor, the arr	ount of Outlan does not have dry wearner					
	disc	charge is very small compared to the s wand any impact appears to be minor.	tream's base of causing any procion amblems					
	act downstream.							
SKETCH/NOTES: Dros	Jed with the	9- LAN CONVERT	that marks the ene there is also					
DESCRIPTION NO.	the with the		4 - 1 - 0					
avision be	tween Reaches	9+10 (NBP) wh	ere there is also					
An 8-647	culveit.							
			·					
		•						
		F	REPORTED TO AUTHORITIES: YES NO					



	WATERSHED/SUBSHED: NGP			D	DATE: 11 /23 /09 ASSESSED BY: CM/ BO			
	SURVEY REACH ID:		ие::ам/Рм	ı P	PHOTO ID: (Camera-Pic	#) /#		
Ì	SITE ID (Condition-#): O'	1-6 HC 12			37) · 42 · 5/"	LMK	GPS: (Unit ID)	
	BANK:  LT RT Head  FLOW:	TYPE:  Closed pipe	☐ PVC/Plastic ☐	S Metal [ Brick [	HAPE: Single Circular Double Elliptical Triple	DIMENSIONS: Diameter:(i	SUBMERGED:  No  Partially	
	None Trickle Moderate Substantial Other:	Open channel	Other:	arthen [	Parabolic W	epth: (in) idth (Top): (in) (Bottom); (in)	NOT APPECABLE	
	CONDITION:  None Chip/Cracked Peeling Paint Corrosion Other:	ODOR: NO Gas Sewage Rancid/Sour Sulfide Other:	DEPOSITS/STAINS None Oily Flow Line Paint Other:		/EGGIE DENSITY:  None  Normal Inhibited Excessive Other:	PIPE BENTHIC G  Brown Ora Other:  POOL QUALITY: Good Odors Suds Algae Other:	□ No pool □ Colors □ Oils	
	FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other:  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen)  OTHER CONCERNS: December Plastic bags Dumping (bulk) Excessive Sedimentation  Other: Other:							
	POTENTIAL RESTORA	TION CANDIDATE	☐ Discharge inve		Stream daylighting [	Local stream repa	ir/outfall stabilization	
	If yes for daylighting: Length of vegetative cover	er from outfall:				Slop	e:°	
	If yes for stormwater:  Is stormwater currently co  ☐ Yes ☐ No ☐ Not			Use descri available:	iption:			
	SEVERITY: stro con stre	npared to the amount of eam; discharge appears nificant impact downstre	of discharge is significant normal flow in receiving to be having a am.	discharge discharge flow and a	harge; flow mostly clear and or has a color and/or odor, the arr is very small compared to the s ny impact appears to be minor	nount of tream's base / localized.	loes not have dry weather ge; staining; or appearance ng any erosion problems.	
	SKETCH/NOTES:	5	<u> </u>	4	3	2	1	
	SKEICH/NOIES:							
		·						
				-a <u></u> ,	<u> </u>	REPORTED TO AUTHO	ORITIES: YES NO	

Storm Water Outlalis

	`	П
l	J	L

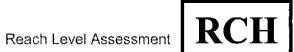
WATERSHED/SUBSHED: WSP		DATE: 11/23/01 ASSESSED BY: 34/0M			
SURVEY REACH ID:	Тіме::Ам/РМ	Рното ID: (Camera-Pic#) /# P633 0633			
SITE ID (Condition-#): OT	LAT41 . 47 . 56 " LO	ONG <u>72 ° 42 ' 57 " LMK GPS: (Unit ID)</u>			
BANK:  LT ART Head  FLOW:  None Trickle  Moderate Substantial  Closed pipe  Characte	MATERIAL:  Concrete Metal  PVC/Plastic Brick  Other:	SHAPE: Single DIMENSIONS: SUBMERGED: Circular Double No Elliptical Triple Diameter: (in) Partially Other: Fully Trapezoid Depth: (in) NOT APPECABLE			
Other: channel	2 Other: Led Rock	Other: " (Bottom): (in)			
CONDITION:  None □ Chip/Cracked □ Peeling Paint □ Corrosion □ Other: □ Other: □ Other:	⊠ None □Oily	VEGGIE DENSITY:			
FOR COLOR:	Clear Brown Grey	☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:			
FLOWING TURBIDITY:	None Slight Cloudiness	Cloudy Opaque			
	None Sewage (toilet paper, er/plastic bags) Dumpin				
OTHER	· • · · · · · · · · · · · · · · · · · ·	8			
the contract of the contract o		on Stream daylighting Local stream repair/outfall stabilization			
Ø-no	Storm water retrofit	Other:			
If yes for daylighting: Length of vegetative cover from outfal	ll:ft Type of exis	sting vegetation:°			
If yes for stormwater:  Is stormwater currently controlled?	Land Use de	escription:			
Yes No Not investigated	Area availab	ole:			
SEVERITY: strong smell. The arr compared to the arre	ount of discharge is significant discharge ount of normal flow in receiving discharge pears to be having a	discharge; flow mostly clear and odorless. If the arge has a color and/or odor, the amount of arge is very small compared to the stream's base and any impact appears to be minor / localized.  Outfall does not have dry weather discharge; staining; or appearance of causing any erosion problems.			
	5 4	3 2 1			
SKETCH/NOTES: aut 6 All	pipe worked A	ppriox, 20' from top to Bul.			
		REPORTED TO AUTHORITIES: YES NO			

WATERSHED/SUBSHED: NBP		DATE: 13/9) ASSESSED BY: BG/CM			
SURVEY REACH ID:	TIME::AM/PM	Рното ID: (Camera-Pic#) /# PB 230537			
SITE ID (Condition-#): OTE	LAT 41 0 47 1 48 " LO	ong <u>72°43 '06 "</u>	LMK GPS: (Unit ID)		
BANK: TYPE:  LT RT Head  FLOW: pipe  None Trickle	MATERIAL:  ☑ Concrete	SHAPE: ☐ Single ☐ Circular ☐ Double ☐ Elliptical ☐ Triple ☐ Other:	DIMENSIONS: SUBMERGED:  No ~ 20'   Diameter: (in) Partially  ☐ Fully		
☐ Moderate       ☐ Substantial     ☐ Open       ☐ Other:     channel	☐ Concrete ☐ Earthen ☐ Other:	Parabolic W	epth: (in) (idth (Top): (in) (Bottom): (in)		
CONDITION:  None  Chip/Cracked Peeling Paint Corrosion Other:  Condition Other: Condition O	None □Oily	VEGGIE DENSITY: None Normal Inhibited Excessive Other:	PIPE BENTHIC GROWTH:		
FLOWING TURBIDITY:	None Slight Cloudiness None Sewage (toilet paper, or plastic bags) Dumping	Cloudy Opaque etc.) Petroleum ( g (bulk) Excessive S			
POTENTIAL RESTORATION CANDID	Storm water retrofit	Other:	Local stream repair/outfall stabilization  Slope:°		
If yes for stormwater: Is stormwater currently controlled?  Yes No No Not investigated	Land Use des Area availabl	•			
SEVERITY: strong smell. The am	ount of normal flow in receiving pears to be having a wristream.	lischarge; flow mostly clear and oc ge has a color and/or odor, the am ge is very small compared to the st d any impact appears to be minor /	discharge; staining; or appearance of causing any erosion problems.		
SKETCH/NOTES:	5 4	3	2 1		
this outback	Pipe is located	h near the	-rap 16 A bedrock		
			a water 2 time		
10 Asserment	(rear bankbull	). Located.	Applex, 40' from		
end to peren a	^	,			
<u> </u>		R	REPORTED TO AUTHORITIES: YES NO		

# Stream Crossing

SC

111111111111111111111111111111111111111				DATE: _	11/23/09	ASSES	SED BY: CM 186
SURVEY REA	SURVEY REACH ID: BREAK betwee 9+10 TIME: 2:30 AMPR				<b>ID:</b> (Camera-Pic	c #)	# PB 230031
SITE ID: (Con	dition#) SC-126 LAT	41 - 47 - 54	<u> " Long 72</u>	<u> </u>	<u>' 46" Li</u>	MK	GPS (Unit ID)
TYPE: Ros	ad Crossing Railroad Crossi						
	SHAPE:  Arch Bottomless	#BARRELS:	MATERIAL:	ALI ATI FALI	IGNMENT: Flow-aligned	Barrel dian	ONS: (if variable, sketch) neter: 30 (ft)
	Box Elliptical	Double	Metal Will	M 0	Not flow-aligned		Height:(ft)
FOR ROAD/ RAILROAD	Circular Other:	☐ Triple ☑ Other:	Other:	ים	Do not know		
CROSSINGS	CONDITION: (Evidence of)	Exomer 8		CIII	LVERT SLOPE:	Culvert len	ngth:(ft)
ONLY	Cracking/chipping/corrosion	n Downstream	n scour hole	ים	Flat .	1	Width:(ft)
	Sediment deposition	☐ Failing emb			Slight (2° – 5°)		
	Other (describe):				Obvious (>5°)	Roadway e	elevation:(ft)
DOTESTIAL 1	RESTORATION CANDIDATE	Fish barrier re	emoval [] Culve	ert renair/	replacement 🔲 l	Instream sto	orage retrofit
no	RESTORATION CANDIDATE	Local stream		_	pressuont L	_ pour emii ott	
	G AS GRADE CONTROL						
1550 ACTIN	EXTENT OF PHYSICAL BLO				LOCKAGE SEVER	RITY: (circle	e #)
	☐ Total ☐ Partial		A structure such a	s a dam or	A total fish blocka	age on a	A temporary barrier such as a
If you for	☐ Temporary ☐ Unkno	wn	road culvert on a 3	3rd order or	tributary that wou	lid isolate a	beaver dam or a blockage at the very head of a stream with
If yes for fish barrier	Cause:		greater stream blo upstream moveme	ent of	significant reach or partial blockag	e that may	very little viable fish habitat
	☐ Drop too high Water D ☐ Flow too shallow Water D	rop: (in)	anadromous fish; a passage device pr		interfere with the anadromous fish.	- 1	above it; natural barriers such as waterfalls.
		·=·	5	***	4 3		2 1
NOTES/SKET	CH: Caracatra	A1M1 A	10 - L = 100 l	cu li	ner to	D O D OF	n 9 (NBP)
	- Downsie	6	D- While	0		100)-100	box n x n
	Lucktream is	Reach 1	o the	Kenc	1 4 5 m	che wa	5 JAPOTACO
NOTES/SKETCH: Downstream of 8-boy culvert is reach 9 (NBP)  + upstream is reach to the reach 9 side was worked  + upstream is reach to the reach 9 side was worked							
stre Rip-RAP in the channel, velocity is high, and immediately downstream (An ~ 201) is EliAllow; Rither rower, which is deeper, slower zowe, upstream (Readn) of when is deeper, slower							
	immediately d	ouns then	M (COL)	الب	veit is	deeper	r, slower
-	zove, upstrem	n (ReAd	10) 6	<i></i>		•	
	+ ponded.						
	Athere is also	l	valer in	· (	24" Meto	er Le	ie .
	- 10000 12 HIZE 1	r Staemu	water bib		Vision (		
	•	•	9				
							•
					•		•
					REPOR	RTED TO AUT	HORITIES YES NO



SURVEY REACH I		BP DAT	re: <u>\\ /23 /0</u> 5	ASSESSED BY/BG	
START TIM	E: 1 : 45 AM/M LMK:	END TIME: 3:3			
LAT4 947 DESCRIPTION: AT	40 " Long 72 · 42 · 32 ·		Long 70.42	- 400 " CW	ا (ل
DESCRIPTION AT	Junation	KC/AS/	raiver		
RAIN IN LAST 24 HO	OURS ☐ Heavy rain ☐ Steady rain ☐ Intermittent ☐ Trace		Heavy rain ■Stead	ly rain ☐ Intermittent reast ☐ Partly cloudy	
SURROUNDING LAND			ourban/Res		
AVERAGE	CONDITIONS (check applicable)	REACHSKET	CH AND SITE IMPA	OTTRACKING	
BASE FLOW AS % CHANNEL WIDTH	□ 0-25% □ 50%-75% □ 25-50 % ■ 75-100%	· ·		I) as well as any additional	;
DOMINANT SUBSTR.  ☐ Silt/clay (fine or ☐ Sand (gritty) ☐ Gravel (0.1-2.5	slick)				
I *	Clear		RIPLAP ON COLETE BONK PICK	MUNICAL CALLEST, AT	curry
AQUATIC PLANTS IN STREAM	Attached: ☐ none ⊠ some ☐ lots Floating: ☑ none ☐ some ☐ lots		RIPAP.	5//	ā
WILDLIFE IN OR AROUND STREAM	(Evidence of) □ Fish □ Beaver □ Deer □ Snails ☑ Other: Elly pho MAY	avos	Serve (t)		
STREAM SHADING (water surface)	Mostly shaded (≥75% coverage)  ☐ Halfway (≥50%)  ☐ Partially shaded (≥25%)  ☐ Unshaded (<25%)				
CHANNEL DYNAMICS Unknown	Downcutting Widening Headcutting Aggrading  Bed scour Bank failure Bank scour Slope failure	الرعم	Mish Joseph		
CHANNEL DIMENSIONS (FACING DOWNSTREAM)	Height: LT bank (ft)  RT bank (ft)  Width: Bottom (ft)  Top (ft)			SM, MUSUTAN	ry
	REACH ACCESSIBILITY	<del>(111</del>			
Good: Open area in public ownership, sufficient room to stockpile materials, easy stream channel access for heavy equipment using existing roads or trails.	Fair: Forested or developed area adjacent to stream. Access requires tree removal or impact to landscaped areas. Stockpile areas small or distant from stream.  Stream.  Difficult. Must cross wetland, steep slope, or sensitive areas to get to strockpile available and/or located a great distance from stream. Specialized heavy equipment required.		BANK &	nosion. QUENTRACT	
NOTES: (biggest proi	blem you see in survey reach) IMPA	ded Gutter Ad	ly Aceust to	PARKING	
			REPORTED TO A	AUTHORITIES 🗌 YES 🔲 N	oio

	Optimal	Suboptimal	Marginal	Poor	
IN-STREAM HABITAT  (May modify criteria based on appropriate habitat regime)	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient).	40-70%, mix of stable habitat; well- suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lac of habitat is obvious; substrate unstable or lacking.	
	20 (19) 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
VEGETATIVE PROTECTION (score each bank, determine sides by facing downstream)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambanl surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.	
	Left Bank 10 9	8 7 6	5 4 3	2 1 0	
	Right Bank 10 9	8' (7) 6	5 4 3	2 1 0	
BANK EROSION (facing downstream)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Grade and width stable; isolated areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or adjacent use.	Past downcutting evident, active stream widening, banks actively eroding at a moderate rate; no threat to property or infrastructure	Active downcutting; tall banks on both sides of the stream eroding a fast rate; erosion contributing significant amount of sediment to stream; obvious threat to property or infrastructure.	
	Left Bank 10 9	8 7 6	5 (4) 3	2 1 0	
	Right Bank 10 9	8 0 6	5 4 3	2 1 0	
FLOODPLAIN CONNECTION	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	
	20 19 18 17 (6)	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
	OVER	ALL BUFFER AND FLOODPLAI	N CONDITION		
	Optimal	Suboptimal	Marginal	Poor	
VEGETATED Buffer Width	Width of buffer zone >50 feet; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, crops) have not impacted zone.	Width of buffer zone 25-50 feet; human activities have impacted zone only minimally.	Width of buffer zone 10-25 feet; human activities have impacted zone a great deal.	Width of buffer zone <10 feet: littl or no riparian vegetation due to human activities.	
	Left Bank 10 S	8 7 6	5 4 3	2 1 0	
		<b>3</b> 7 6	5 4 3	2 1 0	
LOODPLAIN EGETATION	Predominant floodplain vegetation type is mature forest	Predominant floodplain vegetation type is young forest	Predominant floodplain vegetation type is shrub or old field	Predominant floodplain vegetation type is turf or crop land	
<del></del> _	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
FLOODPLAIN HABITAT	Even mix of wetland and non-wetland habitats, evidence of standing/ponded water	Even mix of wetland and non-wetland habitats, no evidence of standing/ponded water	Either all wetland or all non- wetland habitat, evidence of standing/ponded water	Either all wetland or all non- wetland habitat, no evidence of standing/ponded water	
	20 19 18 17 16	15 14 13 12 11	(10) 9 8 7 6	5 4 3 2 1 0	
FLOODPLAIN ENCROACH- MENT	No evidence of floodplain encroachment in the form of fill material, land development, or manmade structures	Minor floodplain encroachment in the form of fill material, land development, or manmade structures, but not effecting floodplain function	Moderate floodplain encroachment in the form of filling, land development, or manmade structures, some effect on floodplain function	Significant floodplain encroachment (i.e. fill material, land development, or man-made structures). Significant effect on floodplain function	
	20 19 18 17 16	15 (14) 13 12 11	10 9 8 7 6	5 4 3 2 1 0	

Sub Total In-stream: 1/80

Buffer/Floodplain:

<u>50</u>/80

Total Survey Reach 152 /160

Utility Impacts

UT	

WATERSHED/SUBSH	IED: NBP	DATE:	DATE: 1 / 23 / 07 ASSESSED			Q			
SURVEY REACH ID:	, ,	TIME::_	_AM/PM	<b>Рното ID:</b> (Са	umera-Pic #)	# PB23003			
SITE ID: (Condition-#)	UT- LAT	11047.53	_" Long <u>7</u> 2	10 42 , 44	' LMK:	GPS: (Unit ID)			
TYPE:  Leaking sewer Exposed pipe Exposed manhole Other:	MATERIAL:  Concrete Corrugated metal Smooth metal PVC Other:	LOCATION:  ☐ Floodplain ☐ Stream bank ☐ Above stream ☐ Stream botton ☐ Other:	Yes CONDIT	FION:	Diamete Length of failure	IMENSIONS: er:in exposed:ft corrosion/cracking hole cover absent			
EVIDENCE OF DISCHARGE: Dark Brown  Lt Brown  Yellowish  Greenish  Other:  DISCHARGE: DEPOSITS  None  Tampons/Toilet Paper  Lime  Surface oils  Stains  Other:  POTENTIAL RESTORATION CANDIDATE  Structural repairs  Pipe testing  Citizen hotlines  Dry weather sampling  Ino  Other:									
· -	Vater Drop: (ir	n)							
UTILITY IMPACT SEVERITY: (Circle #)	stream; a long stream where nearly	partially exposed to immediate threat to undermined and b immediate future. is that the pipe ma	y long section of pipe is ossed but there is no nreat that the pipe will be and break in the uture. The primary concern to make the primary concern fish movements and the primary concern to the primary conc		od pipe, stream bank near the s across the bottom of the portion of the top of the pipe cosed but is reinforced with susing a blockage to upstream ole stack that is at the edge of t extend very far out into the				
Leaking= 5	failure. 5	·	4	3	2				
NOTES: NOT 8-6AY CU (NBP).	critical, bu duent which located un	ger ban Hyster Thomas	potion the 1 rectives	) LOCATED DREAM DO (LANDEN	L downstr etween r work)	eAM & eAches 9+1¢ THORITIES □ Yes □ No			

### Severe Bank Erosion



WATERSHED/SUE	BSHED: NBP			DATE: 11 / 2	3/09 AS	SSESSED BY: 0	WIRE
SURVEY REACH:		TIME:	AM/PM	Рното ID (Са			23003
SITE ID: (Condition			<u> </u>	12:37"		GPS: (Unit	$\frac{15000}{ID}$
er- (an/y )	END LAT_		LONG	1 11	LMK		,
	STREET, LINE BAI		20110				
PROCESS:	Currently unknown			RT Both			
Downcutting	☐ Bed scour			☐ Straight section	Steep slope	/valley wall L_C	other:
☐ Widening		DIMENSIONS			s ( -	N 4.1.1	
☐ Headcutting	Bank scour	1		t and/or RT		Bottom width	
Aggrading	Slope failure	Bank Ht		t and/or RT		op width	1
Sed. deposition	Channelized	Bank Angle	1	° and/or RT		Vetted Width	11
LAND OWNERSHI	P: Private Publi	ic Unknown	LAND COVER	: 🛛 Forest 🔲	Field/Ag	Developed:	
	ORATION CANDIDAT		•	Bank stabilization	on		
No Tune AT To Prov	PERTY/INFRASTRUCT	Other		he):			
		_	_ ,	•			
EXISTING RIPARI			☐ 25 - 50 ft	□ 50-75ft 🛮 🗖 7	5-100 <del>ft</del> □>	-100ft	
EROSION	Active downcutting; tall bar of the stream eroding at a	fast rate; erosion	Pat downcutting evid widening, banks activ			h stable; isolated areas	
SEVERITY(circle#)	contributing significant amo stream; obvious threat to p		moderate rate; no th			likely caused by a pipe riparian vegetation or	
Channelized= 1	infrastructure.		infrastructure				,
Accres-	5 Good access: Open area		4 G	nd or douglossed area	2 Difficult acces	1 s. Must cross wetland,	steep slope or
ACCESS:	ownership, sufficient room materials, easy stream cha	to stockpile	adjacent to stream. A			areas to access stream available and/or locate	
	heavy equipment using exi		removal or impact to Stockpile areas small	landscaped areas. Il or distant from stream.	distance from st	tream section. Specia	
٠	trails.	4	(3	2)	equipment requ	irea.	
Notes/Cross Se	CTION SKETCH:	) loored	l in st	20800			
	·		~ (01 5"				
. '							
					•		
				•			
				•			
				•			
					Dones	O AUTHORITIES	Ivre DNo

Impacted Buffer

| IB |

									[45]
	<u> 184</u>				DATE:	<u> </u>	\ Assi	ESSED BY:	11Bby
SURVEY REACH: \O			TIME:	_:AM/PM	Рното 1	<b>ID:</b> (Camera-l	ic #) ρ(	32300/#27	• •
SITE ID: (Condition-#)	TART LA	T 41 047	146 " I	LONG 72 º 43		LMK		GPS: (Unit.	
				LONG 72 042		LMK			
	ND LA	1 71 77	70 1	JUNG 10 10		EMIK			
Inchi comp Danie. D	EACON IN	DEOLLATE		vegetation  To		Widespreed i	nyosiya n	lante	
IMPACTED BANK: R  □ LT FART □ Both	EASON INA			y planted ☑ Oth					املم دما
<del></del>	Private I	nstitutional			ther Public		<u> av icce</u>	TC " 0 1	we see
LAND USE: (Facing downstream) LT Bank						J			
RT Bank		<b>⊒</b>	· •		:				
DOMINANT	Paved	Bare ground				ub Trees	Other		
LAND COVER: LT Bank				. <u>-</u>		ub 11€€3 <b>⊠</b>	□:		
				. —			□:		
RT Bank				<del></del>	<u> </u>				
Invasive Plants:	☐ None	Rare		Partial coverage	∐ Exte	nsive coverage	unk	nown	
STREAM SHADE PROVIDEI	? Non	e 🗘 Parti	ial [	Full WETL	ANDS PRE	ESENT? □ No	□ Y	es 🔲 Unknov	vn
				l		<del></del>			
POTENTIAL RESTORATION	CANDIDA	TE Activ	e reforestat	ion Greenway	design $\square$	Natural regener	ation	Invasives remo	val
	Cinibibil	Othe				·			
no			<u> </u>				1		
RESTORABLE AREA				Impacted area on pu where the riparian a		Impacted area on ei public or private lan		Impacted area on land where road; i	
LT BANK	RT	REFOREST		not appear to be use	ed for any	presently used for a	specific	encroachment or	
Length (ft):		POTENTIAL	<b>.:</b>	specific purpose; ple		purpose; available a	rea for	feature significant	• "
Width (ft):		(Circle #)		area available for pla	anung	planting adequate	<u>.</u>	available area for	planting
Width (It)				5	4	3	2		1
POTENTIAL CONFLICTS WI				idespread invasive		Poten <u>tia</u> l cont		Lack of	sun
Poor/unsafe access to site									
Notes:		""		· · · ·			1	0.1	,
Dio-RAP	Mu		0 00	10 -					
		11128 0	4 (6)	novett, o	X /2054	ed con a	rete,	PARKI	11 lot,
10.1	, 0000	inks o	+ (4)	noiete, o	x pose	ed Conc	rete,	PARKA	5
and la	uv1	inks o	+ 0	noieth, o	x pose	ed Cond	rete,	PARKA	5 5
and la	v/\	in/es o	<i>+</i> W	noveth, e	X P05+	ed cond	iete,	parkai	1) (1)
and la	w1	inks o	+ 0	noiete, o	X P054	ed Conc	iete,	PARIA	15 lot,
and la	uvi	inks o	<i>F</i> C1	novete, o	'x ροs*	ed Cond	rete,	PARIA	1) (1)
And la	uvi	in/s o	<i>+</i> C	navete, o	'X ρο <sub>&gt;</sub>	ed Conc	irete,	PARIA	1) (1)
and la	uv1	inks o	* •	novete, o	'x ρο <i>&gt;</i> *	ed Cond	iete,	PARIA	1) by
and la	uv1	inks o	* •	novete, o	'x ρο <i>&gt;</i> *	ed cond	refe,	PARIA	1) (1)
and la	uvi	inks o				ed Cond	rete,	PARIA	1) (1)
And la	uvi	inks o		novete, o		ed Cond	rete,	PARIA	1) (1)
And la	uvi	in/4s o				ed cond	rete	PARIA	1) (1)
and la	uv1	inks o				ed Cond	rete	PARIA	1) (1)
and la	uvi	inks o				ed Cond	rete,	PARIA	1) (1)
and la	uvi	inks o				ed Cond	rete	PARIA	1) (1)
and la	uvi	inks o				ed Cond	vete,	PARIA	1) (7)
and la	uv\	inks o				ed cond	rete,	PARIA	1) (T)
and la	uv\	in/4s o				ed Cond	rete	PARIA	1) (1)
and la	uvi	in/4s o				ed Cond	rete,	PARIA	1) (1)
and la	uv\	inks o				ed Cond	rete	PARIA	1) (T)



WATERSHED/	SUBSHED	: NBP				DATE: 128/09 ASSESSED BY: CM/BG					
SURVEY REA	CH ID:	10	Tin	ME::AM/PN	1	PHOTO ID: (Camera-Pic#) /# PB33007					
SITE ID (Condi	tion-#): O	TA	La	T41047 4	<u>"</u> " Lo	ong <u>72 ° 42 ° 43</u>	" LMK		PS: (Unit ID)		
FLOW:	LT			MATERIAL: Concrete PVC/Plastic Other: Concrete End		Parabolic v	Diameter:@ Depth:  Vidth (Top):	24 (in) (in) (in)	SUBMERGED:  No Partially Fully  NOT APPECABLE		
CONDITION: None Gas Chip/Cracked Peeling Paint Corrosion Other: Other:			DEPOSITS/STAINS: None Oily		VEGGIE DENSITY:  ☐ None ☐ Bro ☐ Oth ☐ Inhibited ☐ Excessive ☐ God		DL QUALITY: No pool Good Odors Colors Oil Guds Algae Floatables				
FOR FLOWING ONLY OTHER CONCERNS:	TURBIDITY:   None   Slight Cloudiness   Cloudy   Opaque										
POTENTIAL R	ESTORAT	TION CANDI	DATE	☐ Discharge inve	_	on Stream daylighting Other:	Local stream	m repair/ou	tfall stabilization		
If yes for dayl	-	r from outfa	11:			ting vegetation:		_ Slope:	0		
If yes for storm Is stormwater of Yes \[ \] No	arrently co			Land Area a	Use des	scription: <u>NEAR PA</u> R le:	Kinj, h	lostly	forestal		
OUTFALL SEVERITY: (circle #)	EVERITY: strong smell. The amount of discharge is significant compared to the amount of normal flow in receiving				dischar dischar flow an	fischarge; flow mostly clear and c ge has a color and/or odor, the ar ge is very small compared to the d any impact appears to be minor	mount of stream's base / localized.	discharge; sta	ot have dry weather ining; or appearance erosion problems.		
SKETCH/NOTES: 5 4						<u>(3)</u>	2		1		
Reported to authorities: □ yes □ no											

	WATERSHED/S	VATERSHED/SUBSHED: NBP					DATE: 1 /23 /99   ASSESSED BY: CM /B6				
	SURVEY REAC	H ID:	10	Tin	1E;	M/PM	PHOTO ID: (Camera-Pic#) /# P62300 28				
	SITE ID (Condit	ion-#): <b>O</b>	г- <u>В</u>	La	r41047	' <u>47</u> "1	ong <u>72 ° 42</u>	<u>. 45 "</u>	LMK_		GPS: (Unit ID)
-	BANK: TYPE:  LT RT Head  FLOW: pipe  None Trickle  Moderate Substantial Other: Open channel		 1	MATERIAL: Concrete PVC/Plast Other: Concrete Other:	☐Metal ic ☐Brick	Circular Elliptical Dother:	] Triple Dep Wid	DIMENSIO	30 "(in) (in) (in)	SUBMERGED:  No Partially Fully	
	CONDITION:  ✓ None  ☐ Chip/Cracked  ☐ Peeling Paint  ☐ Corrosion  ☐ Other:  ✓ ODOR: ✓  ☐ Gas  ☐ Rancid/ ☐ Rancid/ ☐ Other:  ☐ Other:		age id/Sour ide	DEPOSITS/S None Oily Flow Line Paint Other:		VEGGIE DENS None Normal Inhibited Excessive Other:		PIPE BENTHIC GROWTH: ☑ None  ☐ Brown ☐ Orange ☐ Green ☐ Other:  POOL QUALITY: ☐ No pool ☐ Good ☐ Odors ☐ Colors ☐ Oi ☐ Suds ☐ Algae ☐ Floatables ☐ Other:		ge	
	FOR COLOR: Clear Brown Grey FLOWING TURBIDITY: None Slight Cloudiness ONLY FLOATABLES: None Sewage (toilet pap OTHER Excess Trash (paper/plastic bags)					loudiness	Cloudy C	Opaque Petroleum (o	Orange 1		Other:
	OTHER CONCERNS:		ds Regular			Bank E	- · · ·	Other:			
	Æno If yes for daylı	ighting:			Storm wa	ter retrofit	Other:				outfall stabilization
	If yes for storm ls stormwater of Yes \( \sum \) No	nwater: urrently c	ontrolled?	,	ft		isting vegetation:lescription:lble:			_ Slope:	
	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.				ificant disclusiving disclusiving	Il discharge; flow mostly harge has a color and/or harge is very small comp and any impact appears	odor, the amo pared to the str s to be minor /	ount of ream's base localized.	discharge; of causing	es not have dry weather staining; or appearance any erosion problems.	
	SKETCH/NOT	es: He	Polus	All	+ ov46	lan	p.pe 101	chled	~ 101	WAR	h Gran
	Channel										
D								R	EPORTED TO	AUTHOR	JTIES: ☐ YES ☐ NO

#### Reach Level Assessment



	SURVEY REACH I	<b>D:</b> <u>II</u> Wт	RSHD/SUBSHD: N	ş- <b>ρ</b>	DATE: 1 / ⊋3	Asses	MIB6
	START TIM	E: : COO AM/PM	LMK: <u>kr</u>	END TIME:	1 : 46 AM/EM	LMK: <u>T</u> v	
	LAT: 41 0 47 1	<u> 5  </u> " Long∃	<u>2 · 42 · 30 "</u>			· 42·3	L" (CM)
	DESCRIPTION:	R-TRAX		DESCRIPTION:	bioing M	Ain Stew	м
r							
	RAIN IN LAST 24 HO	•	■ Steady rain	PRESENT CONDITIONS	-	-	☐ Intermittent
-	□ None	☐ Intermittent		Clear		Overcast	☐ Partly cloudy  ☐ Institutional
	SURROUNDING LAN		l ☐ Commercial	<ul><li>□.Urban/Residential</li><li>□ Crop</li></ul>	•	Forested Other:	W Hyper Ford
ļ		CONDITIONS (che		Brach!	SKETCH AND SITE	Olf Carallana (National Property	
į	CHEST CONTROL	□ 0-25%	□ 50%-75%		of survey reach. Track	andoonne ee ee ee ee	TRICTETE JATOTES (TETES AS PRANJANAS PANANAS PANANAS AND ANTONIO AN
	BASE FLOW AS % CHANNEL WIDTH	□ 0-25% □25-50 %	<b>⊠</b> .75-100%	within the survey red	ach (OT, ER, IB,SC, U	T, TR, MI) as we	ll as any additional
-	DOMINANT SUBSTR			jeatures d	deemed appropriate. I	naicate airectioi –	SHALL STATE
	☐ Silt/clay (fine or		obble (2.5 –10")			• •	F
	Sand (gritty)		oulder (>10")				I COMM
	☐ Gravel (0.1-2.5	·") 🗆 🖪 🗷	ed rock			,	P14.
	WATER CLARITY					(	<u> </u>
	☐ Stained (clear, no ☐ Other (chemicals,		Opaque (milky)			).	1
-	U Otter (chemicais,					(1	` }
ľ	AQUATIC PLANTS		e ⊠ some □ lots			ا رخ	+
.	IN STREAM	(Evidence of)	e 🗆 some 🗆 lots				1 7
ł	WILDLIFE IN OR	☐ Fish ☐ Beav	er 🗆 Deer		•	، سے لے	SEVERE
)	AROUND STREAM	☐ Snails ☐ Other	r:			1 \ '	BANK EMISUN
İ	Power and City Division	☐ Mostly shaded				ASIVE)	DOWNCOMING +
1	STREAM SHADING (water surface)	☐ Halfway (≥50% Partially shaded			sff (	ies ( )	, pamping
		☐ Unshaded (< 25			\	· )/	
	CHANNEL	Downcutting	Bed scour			(4	
1	DYNAMICS	Widening	Bank failure			)	
	_	☐ Headcutting ☐ Aggrading	Bank scour Slope failure		EYNING /	V	INV ASIVES
	Unknown	Sed. depositio	· = ·	1	CRETA TI	) F	
İ		Height: Height	<b>3</b> <sup>(7)</sup> (ft)	1	Marker !	كسمه	
ŀ	CHANNEL DIMENSIONS	RThel	(ft)		***	•	· ·
	(FACENS	Width: Bottom	(ft)		/ / /		
	2 and hall	Тор	(ft)	16		\	
		REACH ACCESSIBILI	TY	N. STAR	S SECULATED SECULATION	4	
Ì	Good: Open area in	Fair: Forested or	Difficult. Must cross	2	To los		
	public ownership, sufficient room to	developed area adjacent to stream.	wetland, steep slope, or sensitive areas to get to		C DISMAN		
	stockpile materials,	Access requires tree removal or impact to	stream. Few areas to stockpile available	1 7 LES	Ster		
	easy stream channel access for heavy	landscaped areas	and/or located a great				
	equipment using	Stockpile areas small or distant from	distance from stream.  Specialized heavy	TEND			
ļ	existing roads or trails.	stream.	equipment required.		•		
,	NOTES: (biggest prob	<u> </u>		NO FLACIM	Dow, 1871	WWW.	PIANTS,
)			CENIME	UT LAD			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
			2011/14	יין יין יין			, <u> </u>
		•			DEPORT	ED TO ALITHOD	TITLES [] VES [] NO

IN-STREAM HABITAT  (May modify criteria based on appropriate habitat regime)  VEGETATIVE PROTECTION  (score each bank, determine sides by facing	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient).  20 19 18 17 16  More than 90% of the streambank surfaces and immediate riparian zone	Suboptimal  40-70% mix of stable habitat; well- suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).  15 14 13 12 11	Marginal  20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	of habitat is obvious; substrate		
PROTECTION  (score each bank, determine	More than 90% of the streambank	15 14 13 12 11		unstable or tacking.  UNSTANSE WIM  VINTANCHNE RAKS		
PROTECTION  (score each bank, determine			10 9 8 7 6	5 4 3 2 1 0		
downstream)	covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented, disruption evident but not affecting full plant growth potential to any great extent, more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.		
. [	Left Bank 10 9	8 7 6	(3) 4 3	2 1 0		
	Right Bank 10 9	8 7 6	<b>3</b> 4 3	2 1 0		
BANK EROSION (facing downstream)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Grade and width stable; isolated areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or adjacent use.	Past downcutting evident, active stream widening, banks actively eroding at a moderate rate; no threat to property or infrastructure	Active downcutting; tall banks on both sides of the stream eroding a fast rate; erosion contributing significant amount of sediment to stream; obvious threat to property or infrastructure.		
_	Left Bank 10 9	8 7 .6	5 4 3	2 1 0		
	Right Bank 10 9	8 7 6	5 4 3	<u> </u>		
CONNECTION	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.		
	OVER	ALL BUFFER AND FLOODPLAI	N CONDITION			
1	Optimal	Suboptimal	Marginal	Poor		
Buffer	Width of buffer zone >50 feet; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, crops) have not impacted zone.	Width of buffer zone 25-50 feet; human activities have impacted zone only minimally.	Width of buffer zone 10-25 feet; hurnan activities have impacted zone a great deal.	Width of buffer zone <10 feet: little or no riparian vegetation due to human activities.		
<b>⊢</b>	Left Bank 10 9	8 7 6	5 4 3	2 1 0		
	Right Bank 10	8 7 6	5 4 3	2 1 0		
	Predominant floodplain vegetation type is mature forest	Predominant floodplain vegetation type is young forest	Predominant floodplain vegetation type is shrub or old field	Predominant floodplain vegetation type is turf or crop land		
	20 19 18 17 16	15 14 (13) 12 11	10 9 8 7 6	5 4 3 2 1 0		
HARITAT	Even mix of wetland and non-wetland habitats, evidence of standing/ponded water	Even mix of wetland and non-wetland habitats, no evidence of standing/ponded water	Either all wetland or all non- wetland habitat, evidence of standing/ponded water	Either all wetland or all non- wetland habitat, no evidence of standing/ponded water		
	20 19 18 17 16	15 14 (13) 12 11	10 9 8 7 6	5 4 3 2 1 0		
ENCROACH-	No evidence of floodplain encroachment in the form of fill material, land development, or manmade structures	Minor floodplain encroachment in the form of fill material, land development, or manmade structures, but not effecting floodplain function	Moderate floodplain encroachment in the form of filling, land development, or manmade structures, some effect on floodplain function	Significant floodplain encroachment (i.e. fill material, land development, or man-made structures). Significant effect on floodplain function		
<u>l</u> _	20 19 18 17 16	(15) 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0		

Trash and Debris

TR

WATERSHED/SUI	BSHED: NBP		DATE: 1 / 2	DATE: 1 / 23 / 0   ASSESSED BY:					
SURVEY REACH	ID: //	TIME:AM/PM	PHOTO ID: (Camera-Pic #) PB2300/# 16						
SITE ID: (Condition	749) TR- A LAT	41 . 47 . 50 "LONG	32·42·30	_" LMK_	GPS: (Unit ID)				
TYPE:  Industrial Commercial Residential	☐ Appliances ☐ Y	Paper	SOURCE:  Unknown  Flooding  Ullegal dump  Local outfall	LOCATION:  Stream Riparian Ar  Lt bank Rt bank	A negotiation (ii no ii ii ii				
POTENTIAL REST	POTENTIAL RESTORATION CANDIDATE   Stream cleanup   Stream adoption segment   Removal/prevention of dumping  Other:								
If yes for trash or debris removal	EQUIPMENT NEEDED: WHO CAN DO IT:		rash bags 🔲 Unkno Bov 🔲 Hazmat Te		DUMPSTER WITHIN 100 FT: ☐ Yes ☑ No ☐ Unknown				
CLEAN-UP POTENTIAL:	A small amount of trash (i.e. than two pickup truck loads) ic inside a park with easy access	ocated a long period of time but	nay have been dumped ov it could be cleaned up in	ver area, where a	nt of trash or debris scattered over a large coess is very difficult. Or presence of drums of hazardous materials				
(Circle #)	5	1	/3\	2	·				
NOTES: Delaciós includes sciepping cart, chates, -lines, Railrord très, plastic bottles, broken glass, etc.									
			• •••	Reporte	D TO AUTHORITIES YES NO				

Trash and Debris

TR

SURVEY REACH ID:   TIME: :_AM/PM PHOTO ID: (Camera-Pic #)  # PAQL  SITE ID: (Condition #) TR_B LAT 4  0 47 . 440 " LONG 32 0 42 . 32 " LMK GPS: (Unit ID)  TYPE:	WATERSHED/SUB	SHED: NBP			DATE: 1/2	3/09	ASSESSED BY: CM/BG		
TYPE:   Industrial   Plastic   Paper   Metal   Unknown   Stream   Private   Medical   Illegal dump   Local outfall   Lt bank   Dumpster with easy access from two pickup truck loads) cost from the work with easy access is very difficult. Or presence of drums or indicators over all lifes   Metal   Unknown   Private   Location   Private   Medical   Illegal dump   Lt bank   Dumpster with easy access is very difficult. Or presence of drums or indicators over all lifes   Metal   Dumpster with a small backnown   Dumpster with 100 FT:   Volunteers   Location   Dumpster with 100 FT:   Volunteers   Volun			TIME:	:AM/PM	Рното ID: (Са.	mera-Pic #)	14 nane		
Paper	SITE ID: (Condition	#) <b>TR</b> L/	т <u>41.47.</u>	46 "LONG	G 12 ° 42 ' 27 " LMK GPS: (Unit ID)				
Other:   If yes for trash or debris removal	☐ Industrial ☐ Commercial ?	☐ Plastic ☐ Tires ☐ Appliances ☐	Construction Yard Waste	☐ Medical	☐ Unknown ☑ Flooding ☐ Illegal dump	Stream Riparian Are	Public Unknown Private  AMOUNT (# Pickup truck		
WHO CAN DO IT: Volunteers Local Gov Hazmat Team Other Ves No Unknown  CLEAN-UP POTENTIAL: (Circle #)  A small amount of trash (i.e., less than two pickup truck loads) located inside a park with easy access  Trash may have been dumped over a large amount of trash or debris scattered over a large with easy access. Trash may have been dumped over a long period of time but it could be cleaned up in a few days, possibly with a small backhoe.  NOTES: plastic bottles + plastic claffer were pried or indications of hazardous materials  Fallen free this has been dumped Ploaded + Settled here indicates over the little problem + which noting									
CLEAN-UP POTENTIAL: (Circle #)  A small amount of trash (i.e., less than two pickup truck loads) located inside a park with easy access  The potential inside a park with easy access  A large amount of trash or debris scattered over a large with easy access. Trash may have been dumped over a long period of time but it could be cleaned up in a few days, possibly with a small backhoe.  NOTES: plastic bottles + plastic claffer when piked up a park with easy access is very difficult. Or presence of drums or indications of hazardous materials  1 NOTES: plastic bottles + plastic claffer when piked up a park with easy access. Trash may have been dumped over a large amount of trash or debris scattered over a large amount of trash or debris scattered over a large area, where access is very difficult. Or presence of drums or indications of hazardous materials  1 NOTES: plastic bottles + plastic claffer when piked up a park with easy access. Trash may have been dumped over a large amount of trash or debris scatter				<u> </u>	·	<del></del>			
NOTES: plastic bottles + plastic clates have piled up against A fallen tree this has been dumped / Plozobod + settled here— indicates oversel little problem + worth noting.	POTENTIAL:	than two pickup truck load	(i.e., less with ear	sy access. Trash r period of time but	nay have been dumped of it could be cleaned up in	ver area, where ac	cess is very difficult. Or presence of drums		
	<b>,</b>	5		4	3	2	ı		

# Stream Crossing

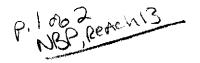
SC

WATERSHED	WATERSHED/SUBSHED: NBP DATE: 11 / 23 / 29 ASSESSED BY: CM / BG									
SURVEY REA	an anno ann an ann an Aireanna an Aireann an Aireann an Aireann an Aireann an Aireann an Aireann an Aireann an			юто ID: (Camera-	Pic #) <b>PB</b> 2					
SITE ID: (Con	dition-#) SC- <u>A</u>	LAT 4 0 47 5	" Long <u>7</u> 3 "	42 30 "	LMK	GPS (Unit ID)				
TYPE: Roa	d Crossing Railroad	d Crossing	Dam Beaver I	Dam Geological F	ormation	Other:				
FOR ROAD/ RAILROAD	SHAPE: Arch Botton Box Ellipt Circular Other:	#BARRELS:	MATERIAL:  ☑ Concrete  ☐ Metal ☐ Other: STONE	ALIGNMENT:  Flow-aligned  Not flow-aligned  Do not know	Barrel dia	Height:(ft)				
CROSSINGS ONLY	CONDITION: (Evidence   Cracking/chipping/c   Sediment depositio   Other (describe):	corrosion Downstream		Cliabe (20 50)		ength:(ft) Width:(ft) elevation:(ft)				
POTENTIAL RESTORATION CANDIDATE										
Is SC ACTING	G AS GRADE CONTRO	L No Y	es Unknov							
If yes for fish barrier NO	CAUSE: Drop too high Flow too shallow	Partial Unknown  Water Drop:(in)	A structure such as a road culvert on a 3rd greater stream blockii upstream movement anadromous fish; no to passage device prese	order or tributary that wang the significant real or partial block interfere with the control of	ckage on a yould isolate a ch of stream, rage that may he migration of	A temporary barrier such as a beaver darn or a blockage at the very head of a stream with very little viable fish habitat above it; natural barriers such as waterfalls.				
	Other:		.5	4 3		2 1				
Notes/Sket	CH: upstream Bank (s	n of Rk c	but this	nere is con	cretc spect of	reach 11.				
	ā									
				Rep	ORTED TO AU	THORITIES YES NO				

# Stream Crossing

SC

WATERSHEI	WATERSHED/SUBSHED: NGP DATE: 11/3/09 ASSESSED BY: 0M/BG									
SURVEY REA		A second	TIME::_			): (Camera-Pi	c #) <b>PB &gt;</b> 3			
SITE ID: (Co	idition-#) SC-	LAT	41 . 47 . 41	" LONG 7	2. 4p.	<u>32 " Li</u>	MK	GPS (Unit ID)		
Type:0X Ro	ad Crossing	Railroad Crossii	ng	Dam Beave	r Dam 🔲	Geological Fon	mation $\square$	Other:		
FOR ROAD/ RAILROAD	SHAPE: Arch Box Circular Other:	Arch ☐Bottomless ☐ Box ☐ Elliptical ☐ Circular		MATERIAL: Concrete Metal Other:	ALIG	NMENT; ow-aligned of flow-aligned o not know	DIMENSE Barrel dia	IONS: (if variable, sketch)		
CROSSINGS ONLY		-	□ Downstrean □ Failing emb		☐ Fla	CULVERT SLOPE;    Flat   Slight (2° - 5°)   Obvious (>5°)		elevation:(ft)(ft)		
POTENTIAL I	Restoratio	N CANDIDATE	Fish barrier re Local stream t	-	_	placement 🔼	Upstream st	torage retrofit		
IS SC ACTIN	G AS GRADE	CONTROL	□ No □ Ye	es 🔲 Unkı						
EXTENT OF PHYSICAL BLOCKAGE:  Total Partial Temporary Vunknown  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.  BLOCKAGE SEVERITY: (circle #)  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.  A temporary barrier such as a deaver 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:			5		4 3		2 1		
PA CM	upstream his sha ssage for not sec	he tuethes	given	the In	u lig	yent per	NOTRA	n Acceptable tion (you		
Spe	AK)									
				•		Repor	RTED TO AU	THORITIES  YES NO		





REPORTED TO AUTHORITIES YES NO

SURVEY REACH I	D: NBP-13 WT	rshd/Subshd: /	UBP	DATE: 11 / 24 /	ASSESSED BY:	8G+CM
	E: <u>12 : <b>30</b> am/@</u>	LMK:	END TIME:	. <u>05</u> AM/(N)	LMK:	GPS ID:
LAT92.46 1	<u> </u>	2.42.33	· LAT <u>41 ° 47 ' C</u>	24 " LONG 12	<u>°42 '28 "</u>	
DESCRIPTION: Por	ential versial A	201 (Photo #	DESCRIPTION: RAC	. 44 over pas	5	Com
	<u> </u>		<u> </u>			
RAIN IN LAST 24 HO	URS   Heavy rain	Steady rain	PRESENT CONDITIONS	☐ Heavy rain ☐	🗆 Steady rain 🗀 Inter	mittent
□ None	☐ Intermittent		☐ Clear			ly cloudy
SURROUNDING LANI		☐ Commercia		•	Forested Institution of the Inst	tutional
Average	CONDITIONS (che	ck applicable)	REACH S	SKETCH AND SITE	IMPACT TRACKING	;
Base Flow as % Channel Width	□ 0-25% □25-50 %	□ 50%-75% <b>□ 7</b> 5-100%	within the survey rea	ich (OT. ER. IB.SC, UT	locations and IDs for all F, TR, MI) as well as any ndicate direction of flow	
DOMINANT SUBSTR ☐ Silt/clay (fine or ☐ Sand (gritty) ☐ Gravel (0.1-2.5	slick) ☐ Be	obble (2.5 –10") oulder (>10") ed rock		POUTE 44		į
WATER CLARITY  ☐ Stained (clear, n ☐ Other (chemicals,	aturally colored)   dyes)	Opaque (milky)	PANNING			
AQUATIC PLANTS IN STREAM		e □ some □ lots e □ some □ lots	'  ~ //		INSTITUTED	, al
WILDLIFE IN OR AROUND STREAM	(Evidence of)  ☐ Fish ☐ Beav ☐ Snails ☐ Other		Moore	MOODED	MSTITUTE	
STREAM SHADING (water surface)	☐ Mostly shaded ☐ Halfway (≥50% ☐ Partially shaded ☐ Unshaded (< 25	5) I ( <u>&gt;</u> 25% )		Week part	and the second	
CHANNEL DYNAMICS	Downcutting Widening Headcutting	Bed scour Bank failure Bank scour	(1	2		
Unknown	Aggrading Sed. depositio	Slope failur  Channelize		7116		
CHANNE	Height: LT bank	(ft	WATER			
DIMENSIONS	RT bank	(fi	/ Commanda (A)		•	
(FACING	Width: Bottom	<b>5</b> ](fi				
DOIVNSTREAM)	MKFUL Top	(f	t)			
I	REACH ACCESSIBILI	TY	$\neg$			
Good: Open area in public ownership, sufficient room to stockpile materials, easy stream channel access for heavy equipment using existing roads or trails.	Fair: Forested or developed area adjacent to stream. Access requires tree removal or impact to landscaped areas. Stockpile areas small or distant from stream.	Difficult. Must cross wetland, steep slope, sensitive areas to get stream. Few areas to stockpile available and/or located a great distance from stream. Specialized heavy equipment required.	0			·
Notes: thiggest pro 1/2 of Myl Repark	blem you see in survey A BANL B	reach) Debais Thus acach	, parking lot stormulater	adjacent out fall p	to nearly pipes in need	. of

p.2002 repens

OVERALL STREAM CONDITION						
	Optimal	Suboptimal	Marginal	Poor		
HABITAT favorable for epifaunal colonization and fish cover, mix of snags, submerged logs, undercut banks, cobble or other criteria based on appropriate colonization potential (i.e., logs/snags)		40-70% mix of stable habitat; well- suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.		
<u>.                                    </u>	20 19 18 17 16	(5) 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0		
(score each bank, determine sides by facing downstream)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.		
	Left Bank (10) (9	8 7 6	5 4 3	2 1 0		
	Right Bank 10 9	8 7 6	5 4 3	2 I 0		
BANK EROSION (facing downstream)  Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems.		Grade and width stable; isolated areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or adjacent use.	Past downcutting evident, active stream widening, banks actively eroding at a moderate rate; no threat to property or infrastructure	Active downcutting; tall banks on both sides of the stream eroding at a fast rate; erosion contributing significant amount of sediment to stream; obvious threat to property or infrastructure.		
	Left Bank 10 9	<b>3</b> 7 6	5 4 3	2 1 0		
	Right Bank 10 9	8 7 6	5 4 3	2 1 0		
FLOODPLAIN CONNECTION	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.		
	20 19 (18) 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0		
	Over	ALL BUFFER AND FLOODPLAI	N CONDITION			
	Optimal	Suboptimal	Marginal	Poor		
VEGETATED BUFFER WIDTH Width of buffer zone >50 feet; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, crops) have not impacted zone.		Width of buffer zone 25-50 feet; human activities have impacted zone only minimally.	Width of buffer zone 10-25 feet; human activities have impacted zone a great deal.  Width of buffer zone <10 fe or no riparian vegetation de human activities.			
	Left Bank (6°) 9	8 7 6	5 4 3	2 1 0		
	Right Bank 10 9	8 7 6	5 4 3	2 1 0		
FLOODPLAIN VEGETATION	Predominant floodplain vegetation type is mature forest	Predominant floodplain vegetation type is young forest	Predominant floodplain vegetation type is shrub or old field	Predominant floodplain vegetation type is turf or crop land		
.,,	20 19 18 17 16	(15) 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0		
FLOODPLAIN HABITAT  Even mix of wetland and non-wetland habitats, evidence of standing/ponded water		Even mix of wetland and non-wetland habitats, no evidence of standing/ponded water	Either all wetland or all non- wetland habitat, evidence of standing/ponded water	Either all wetland or all non- wetland habitat, no evidence of standing/ponded water		
	20 (19) 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0		
FLOODPLAIN ENCROACH- MEN'T	No evidence of floodplain encroachment in the form of fill material, land development, or manmade structures	Minor floodplain encroachment in the form of fill material, land development, or manmade structures, but not effecting floodplain function	Moderate floodplain encroachment in the form of filling, land development, or manmade structures, some effect on floodplain function	Significant floodplain encroachment (i.e. fill material, land development, or man-made structures). Significant effect on floodplain function		
	20 19 18 17 16	(15) 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0		
Sub Total In-stream: 68 /80 + Buffer/Floodplain: 67 /80 = Total Survey Reach 135 /160						

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$\mathbf{O}\mathbf{I}$	

WATERSHED/SUBSHED: Nβρ			DATE: 11 124 10°	DATE: 11 124 109 ASSESSED BY: CM 186			
SURVEY REACH ID: 13 TIME: 12:35 AM/EM		PHOTO ID: (Camera-Pi	PHOTO ID: (Camera-Pic#) PBJ 0/# 72				
SITE ID (Condition-#): OTA		LAT <u>41 ° 47 ' 00 " Long 72 ° 42 ' 25 " LMK GPS:</u> (Unit II			GPS: (Unit ID)		
BANK: TYPE:  LT RT Head  FLOW: Closed pipe		MATERIAL:  ⊠ Concrete □Mo □ PVC/Plastic □Br □ Other:	ick	DIMENSIONS: Diameter: (in)	SUBMERGED: No Partially Substituting Fully		
Moderate Substantial Other:	Open channel	☐ Concrete ☐ Eart☐ Other:	hen Trapezoid D	repth:         (in)           /idth (Top):         (in)           ' (Bottom):         (in)	NOT APPENCABLE		
CONDITION:  None Chip/Cracked Peeling Paint Corrosion Other: detached The falure  Condition Corrosion Corr		☑ None ☐ Oily	VEGGIE DENSITY:  None  Normal Inhibited Excessive Other:	PIPE BENTHIC GRO Brown Grang Other:  POOL QUALITY: Grang Good Godors Grang Suds Algae Grang Other:	ge ☐ Green  **No pool ☐Colors ☐Oils		
FOR D COLOR:		Clear Brown Gre	y Yellow Green	Orange Red Or	ther:		
FLOWING TURBID		Ione 🔲 Slight Cloudiness	☐ Cloudy ☐ Opaque				
1 1	BLES: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	= '		(oil sheen)	ther:		
	TION CANDIDA		gation  Stream daylighting	☑ Local stream repair/o	outfall stabilization		
☐ no  If yes for daylighting:		Storm water retrof	it Other:				
1	r from outfall:	ft Type of	existing vegetation:	Slope:	<u> </u>		
If yes for stormwater:							
Is stormwater currently co	ontrolled?	Land Us	e description:				
Yes No Not	investigated	Area ava	ilable:	·····			
SEVERITY:  (circle #)  stream; the amount of oscillage is significant compared to the amount of normal flow in receiving discharge appears to be baying a stream; discharge appears to be baying a			scharge has a color and/or odor, the an scharge is very small compared to the s	discharge; flow mostly clear and odorless. If the arge has a color and/or odor, the amount of arge is very small compared to the stream's base and any impact appears to be minor / localized.  Outfall does not have dry weather discharge; staining; or appearance of causing any erosion problems.			
		5 4	3	2	1		
NOT CLEAR Whether outfall water can reach the river except though seepage or extreme are blow.							
though seepinge or extreme are blow.							
		•					
	Reported to authorities:  Ves  No						



	WATERSHED/SUBSHED: NBP			Γ	DATE: 11 124 107 ASSESSED BY: CM 186			
	SURVEY REACH ID:		ME::AM/PM	F	PHOTO ID: (Camera-l	Pic#) none	#	
	SITE ID (Condition-#): O	T- <u>&amp;</u> LA	T41 º 47 · 01	_" Lone	672 º42 · 26	_" LMK	GPS: (Uni	t ID)
	BANK:  LT RT Head  FLOW: None Trickle Moderate Substantial	TYPE:  ☑ Closed χユ pipe  ☐ Open	☐ PVC/Plastic ☐ Other: ☐ Concrete ☐ Ea	Metal×2 [ Brick [ 	<b>¬</b>	le l	O <sup>''</sup> (in)	ally
	Other:	channel	Other:		Other:	" (Bottom):	(in)	
	CONDITION: None Chip/Cracked Peeling Paint Corrosion Other:	ODOR: No Gas Sewage Rancid/Sour Sulfide Other:	DEPOSITS/STAINS  None □Oily □ Flow Line □ Paint □Other:	( <u>)</u>	VEGGIE DENSITY: None Normal Inhibited Excessive Other:	Brown Other:  POOL QUAI	HIC GROWTH: ☑ N ☐ Orange ☐ Green  LITY: ☑ No pool  Odors ☐ Colors  Algae ☐ Floatables	Oils
		ITY: None	e		Cloudy Opaque ) Petroleur pulk) Excessiv		ed Other:	
į	POTENTIAL RESTORAT	FION CANDIDATE	E ☐ Discharge inves ☐ Storm water retr		_ Stream daylighting ☐ Other:	Local stream	n repair/outfall stabil	ization
	If yes for daylighting:	•						
	Length of vegetative cove	π from outfall:	ft Type	of existing	g vegetation:		Slope:	_°
	If yes for stormwater:  Is stormwater currently controlled?  Land Use description:  Yes No Not investigated  Area available:							
	SEVERITY: strong sneet. The amount of discharge is significant compared to the amount of normal flow in receiving discharge appears to be having a			discharge i discharge i	all discharge; flow mostly clear and odorless. If the charge has a color and/or odor, the amount of charge is very small compared to the stream's base v and any impact appears to be minor / localized.  Outfall does not have dry weather discharge; staining; or appearance of causing any erosion problems.			earance
ļ		5	4		3	2	1	
	SKETCH/NOTES:	re on Re	B + corres	povo	ling one	m us		
			•					
						REPORTED TO A	AUTHORITIES:	□NO



WATERSHED/SUBSHED:	5P	DATE: 11/24/9 ASSESSED BY: CM/B4			
		PHOTO ID: (Camera-Pic #	PHOTO ID: (Camera-Pic#) /#		
SITE ID (Condition-#): OT-	LAT 41 0 47 00 "	LONG 72.42 .27"	LMK GPS: (Unit ID)		
BANK: TYPE:  LT RT Head  FLOW: pipe  None Trickle Moderate Substantial  Open	MATERIAL: ☐ Concrete ☑Met	SHAPE: Single  al Circular Double  ck Elliptical Triple  Other:  Trapezoid Dep	DIMENSIONS: SUBMERGED:  Diameter: 10 "(in) Partially  Fully  th: (in)		
Other: chann		☐ Parabolic Wid	hth (Top): (in) NOT APPECABLE (Bottom): (in)		
CONDITION:  None  □ Chip/Cracked □ Peeling Paint □ Corrosion □ Other: □ Other	None Oily Flow Line Paint	VEGGIE DENSITY:  None Normal Inhibited Excessive Other:	PIPE BENTHIC GROWTH: None  Brown Orange Green Other:  POOL QUALITY: No pool Good Odors Colors Oils Suds Algae Floatables Other:		
FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other:  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen)  OTHER Excess Trash (paper/plastic bags) Dumping (bulk) Excessive Sedimentation  CONCERNS: Needs Regular Maintenance Bank Erosion Other:					
POTENTIAL DESTORATION CAN	NINATE Discharge investige	ation Stream daylighting	Local stream repair/outfall stabilization		
no	Storm water retrofit		Local sucam repair/outian stabilization		
If yes for daylighting: Length of vegetative cover from out	fall:ft Type of e	xisting vegetation:	° Slope:°		
If yes for stormwater:         Is stormwater currently controlled?       Land Use description:         Yes □ No □ Not investigated       Area available:					
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 appears to be minor / localized.  Outfall does not have dry weat discharge is very small compared to the stream's base flow and any impact appears to be minor / localized.					
	5 4	3	2 1		
SKETCH/NOTES:					
			·		
		RE	PORTED TO AUTHORITIES: YES NO		



WATERSHED/SUBSHED:	NBP		DATE: 11 124 100	DATE: 11/04/07 ASSESSED BY: Om /BG			
SURVEY REACH ID:	13 Тім	E::AM/PM	PHOTO ID: (Camera-Pic	:#) have /#			
SITE ID (Condition-#): OT-	LAT	· •	"LONG°'"	LMK GPS: (Unit ID)			
LT RT Head	ZLClosed	MATERIAL:  ☐ Concrete ☐ Mo ☐ PVC/Plastic ☐ Br ☐ Other:		DIMENSIONS: SUBMERGED:  Diameter: O (in) Partially  NO Pully  Fully			
Moderate Substantial Other:	Open channel	☐ Concrete ☐ Eartl ☐ Other:	Parabolic W	cpth: (in) idth (Top): (in) (Bottom): (in)			
□ Chip/Cracked     □ Peeling Paint	☐Gas ☐ Sewage ☐Rancid/Sour	DEPOSITS/STAINS:  ☑ None ☐ Oily ☐ Flow Line	VEGGIE DENSITY:  ☑None ☐ Normal ☐ Inhibited	PIPE BENTHIC GROWTH: None Brown Orange Green Other:  POOL QUALITY: No pool			
Corrosion [ Other:	Sulfide Other:	☐ Paint ☐Other:	Cther:	Good Godors Colors Goils Suds Algae Floatables Other:			
FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other.  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen) Other:  OTHER CONCERNS: Needs Regular Maintenance Bank Erosion Other:							
POTENTIAL RESTORATIO	POTENTIAL RESTORATION CANDIDATE ☐ Discharge investigation ☐ Stream daylighting ☐ Local stream repair/outfall stabilization ☐ no ☐ Storm water retrofit ☐ Other:						
If yes for daylighting: Length of vegetative cover	from outfall:	ft Type of	existing vegetation:	Slope:°			
	If yes for stormwater:  Is stormwater currently controlled?  Land Use description:  Yes \( \sum \) No \( \sum \) Not investigated  Area available:						
SEVERITY: strong s (circle #) strong s compar stream;		discharge is significant ormal flow in receiving be having a	mall discharge; flow mostly clear and od scharge has a color and/or odor, the am scharge is very small compared to the st ow and any impact appears to be minor /	ount of discharge; staining; or appearance of causing any erosion problems			
	5	. 4	3	2 1			
SKETCH/NOTES: \oca	HEOL APP	ex 3' high		·			
				·			
,			R	EPORTED TO AUTHORITIES: YES NO			

P. 1862 NBP, REPENILY

RCH

			,							
	SURVEY REACH D	D: <u>/4</u>	WTRSI	HD/SUBSHD: NR	P	DATE: 11 / 24	<u>/01</u>	Assessed by:	نعا	
7	START TIME	: 10 : SP 6	Ø/PM	LMK:	END TIME:	12:30 AM/	LMK	÷	GPS 1D:	
	LAT4 0 46 13	ل " Lo	NCO)	· 42 · 04 "	LATED . Lite	Se " Long 7	2 ·42	· 23 "	(em)	:
1	DESCRIPTION: -TR				DESCRIPTION:			Adu To		ı
Ĺ	DESCRIPTION - (PC)	watthen "	<u>riput</u>	<del></del>	1000000	TENTIFIC VELINA	re hoof i	RIGHT-BAYK	<del>1</del> )	
ſ	RAIN IN LAST 24 HO	IIRS [] Heavy	rain	Steady rain	PRESENT CONDITIONS	S ☐ Heavy rain	□ Steady	rain 🗆 Intern	nittent	
	□ None	☐ Interm		☐ Trace	☐ Clear	☐ Trace	☑ Overc		y cloudy	
İ	SURROUNDING LAND			· · · · · · · · · · · · · · · · · · ·	☐ Urban/Residential					
	DOMINO DINO DINO			□ Park	☐ Crop	☐ Pasture	☐ Other:		*************	
t	AVERAGE	CONDITIONS	(check o	unnlicable)	REACH	SKETCH AND SI	TE ÎMPAC	T TRACKING		
-	BASE FLOW AS %	□ 0-25%		□ 50%-75%	Simple planar sketch					
-	CHANNEL WIDTH	□ 0-23% □25-50 %		<b>■</b> 75-100%		each (OT, ER, IB,SC,				
}				43475 10070	features	s deemed appropriate	. Indicate di	rection of flow		
	DOMINANT SUBSTRA  ☐ Silt/clay (fine or s		æ Cobb	ole (2.5 –10")						ı
1	☐ Sand (gritty)			der (>10")						ı
	☐ Gravel (0.1-2.5)		□ Bed					ħ		
ŀ	W.mm C		د الله الله ال		1			//		
	WATER CLARITY Stained (clear, no	-		•						
- 1	Other (chemicals, a	-	,	paque (ming)	7		- CARES	T		ļ
-		Attachad: 💆	I none	□ some □ lots		BON BWOOL	D (0.			
	AQUATIC PLANTS IN STREAM		•	□ some □ lots	4	//	ANT IND	كالما		
	TO TREAT	(Evidence of)	none i	RACOS	LANDE	ale on Burgos	2 ( ) <b></b> (		,	
1	WILDLIFE IN OR	<b>⊠</b> Fish □	Beaver	Deer Myssel	ESTATES					
	AROUND STREAM	☐ Snails 🙀	Other: 😤	lallands, woodchus MA! MATYMMAIS		VEM			INS	לעסידעדדי
		Mostly sh	aded (≥7	75% coverage)		OUD				l
	STREAM SHADING (water surface)	☐ Halfway (		250/ \	Grant .	FOREST			at in	
	(water surface)	☐ Partially s ☐ Unshaded			- anter	<b>11</b>		J"	WAR OF	JE
			1		TO BINGS MIN	1/	stown	-	W	
	CHANNEL	☐ Downcut		☐ Bed scour☐ Bank failure		- 11 .	10 P		1	
	DYNAMICS	Headcutt		Bank scour		يو الم	10	<b>1</b>	[	
		Aggradia	- 1	Slope failure	1/1	11 MENTER	<b>7</b> /	)		
	Unknown	Sed. dep	osition	Channelized	\ \frac{1}{2}	\\ @ \$\\	7	- (		V See
		Height: LT	hank		]	\\_J" <b>/</b>	l	`	) / / / / ·	PILES
	CHANNEL	•	bank	(ft)		16			1/	Horse
	DIMENSIONS	Width; Bet	•	55 (ft)		\\ <i>JI</i>				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	POWNSTREAM)			,				<b>6</b>	- TH	. `
	BANKFULL	Ter		(ft)	-			ACARS	5	1
		Fair: Forested of		Difficult, Must cross	-			STREAM	//	
	Good: Open area in public ownership,	developed area		vetland, steep slope, or				CAUSEUM		
	sufficient room to	adjacent to stre Access requires		ensitive areas to get to tream. Few areas to	<u> </u>			Anna 1. a. o. Andreas i.	7/(	
	stockpile materials,	removal or impa		tockpile available					0	
	easy stream channel access for heavy	landscaped are	as. a	ind/or located a great						
	equipment using	Stockpile areas small or distant		listance from stream. Specialized heavy	Ì					
	existing roads or trails.	stream.		equipment required.	_					}
	5	4 3	2	<u> </u>	10,000	chio-Cari-	∞ ا بمن	talact m	I sur in	ł
	NOTES: (biggest prot	blem you see in	survey re L	ach) TRASH I	in water (i.e.,	STY KOTOANY C	C+ F	SHAKZ I H.	W. Tillian	
	particularly	MOM H	ne le	FT BANK IN	oversel the	formalation	Diest	offer Ma	Hav	
	trees DBH	> 30" 4	excel	leurt RIPARIA	n wildlife ha	Heint Am				
	liefers makes	- wr 1	W/ 146!		y	REPO	RTED TO AU	JTHORITIES 🔲	YES 🗌 No	



OVERALL STREAM CONDITION					
Optimal		Suboptimal	Marginal	Poor	
IN-STREAM HABITAT favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags of the suited for fine adequate in populations substrate in colonization potential (i.e., logs/snags on to yet presented in the suited for fine adequate in the suited		40-70% mix of stable habitat; well- suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.	
	20 (19) 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
VEGETATIVE PROTECTION (score each bank, determine sides by facing downstream)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.	
EROSION or bank failure absent or minimal; little potential for future problems. <5% of bank affected. areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or adjacent use.		5 4 3	2 1 0		
		5 4 3	2 1 0		
		areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or	Past downcutting evident, active stream widening, banks actively eroding at a moderate rate; no threat to property or infrastructure	Active downcutting; tall banks on both sides of the stream eroding at a fast rate; erosion contributing significant amount of sediment to stream; obvious threat to property or infrastructure.	
	Left Bank 10 9	<b>3</b> 7 6	5 4 3	2 1 0	
	Right Bank 10 9	<b>3</b> 7 6	5 4 3	2 1 0	
FLOODPLAIN CONNECTION	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	
	20 19 (18) 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
	OVER	ALL BUFFER AND FLOODPLAI	N CONDITION		
		Suboptimal	Marginal	Poor	
VEGETATED BUFFER WIDTH Width of buffer zone >50 feet; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, crops) have not impacted zone.		Width of buffer zone 25-50 feet; human activities have impacted zone only minimally.	Width of buffer zone 10-25 feet; human activities have impacted zone a great deal.	Width of buffer zone <10 feet: little or no riparian vegetation due to human activities,	
	Left Bank 10 9	8 7 6	5 4 3	2 1 0	
	Right Bank 10 9	<b>3</b> 7 6	5 4 3	2 1 0	
FLOODPLAIN VEGETATION	Predominant floodplain vegetation type is mature forest	Predominant floodplain vegetation type is young forest	Predominant floodplain vegetation type is shrub or old field	Predominant floodplain vegetation type is turf or crop land	
	20 19 (8) 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
FLOODPLAIN HABITAT  Even mix of wetland and non-wetland habitats, evidence of standing/ponded water		Even mix of wetland and non-wetland habitats, no evidence of standing/ponded water	Either all wetland or all non- wetland habitat, evidence of standing/ponded water	Either all wetland or all non- wetland habitat, no evidence of standing/ponded water	
	20 (9) 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
FLOODPLAIN ENCROACH- MENT	No evidence of floodplain encroachment in the form of fill material, land development, or manmade structures	Minor floodplain encroachment in the form of fill material, land development, or manmade structures, but not effecting floodplain function	Moderate floodplain encroachment in the form of filling, land development, or manmade structures, some effect on floodplain function	Significant floodplain encroachment (i.e. fill material, land development, or man-made structures). Significant effect on floodplain function	
···	20 🕚 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
Sub Total In-si	tream: <u>6</u> /80 + B	uffer/Floodplain: 12 /80	= Total Survey	Reach 141 /160	

WATERSHED/SUBSHED: NBP			DATE:	11/24/09	ASSESSED BY: CM 16G	
SURVEY REACH: 14	TIME:	AM/PM			PB2400 #58,59,60,61	
SITE ID: (Condition-#) START I	AT See . NOTES " I	LONG °	, ,,	LMK	GPS: (Unit ID) +	
IB- Sheet only END L		LONG°	, ,,	LMK		
IMPACTED BANK: REASON IN	NADEQUATE: Lack of				-	
LAND USE: Private		y planted 🔼 Oth	ner: <u>See</u> ther Public		elm	
(Facing downstream) LT Bank						
RT Bank			<u></u> :			
<b>DOMINANT</b> Paved	Bare ground Turf/lav	wn Tall grass	Shrub/scr		her	
LAND COVER: LT Bank					<u>_</u> :	
RT Bank		<u> </u>		<del></del>	<u>]:</u>	
INVASIVE PLANTS: None		artial coverage			unknown	
STREAM SHADE PROVIDED? No	ne 🗌 Partial 💆	Full WETL	ANDS PRE	SENT? No	4-Yes Unknown	
POTENTIAL RESTORATION CANDIDA	ATE Active reforestati	ion DGreenway	design 🗆	Natural regeneration	☐ Invasives removal	
Z no	Other:	iondicchway	ucsign	ivaturar regeneration	Invasives removal	
RESTORABLE AREA		Impacted area on pu	rblic land	Impacted area on either	Impacted area on private	
LT BANK RT	REFORESTATION	where the riparian at	rea does	public or private land that i	s land where road; building	
Length (ft):	POTENTIAL:	not appear to be use specific purpose; ple	enty of	presently used for a specif purpose; available area for	feature significantly limits	
Width (ft):	(Circle #)	area available for pla		planting adequate	available area for planting	
		5	4	3	2 1	
POTENTIAL CONFLICTS WITH REFORM Poor/unsafe access to site  Existing		idespread invasive vere animal impac			ation Lack of sun	
NOTES: @ MINOR WANK	erosion to Ri	3 AdjAcent	-10	brick MAN	sion (see pic. 58)	
, but good wildli property so pesto	fe habitar, so	me invasi	vie pl	Auts here,	Private	
@ permant stan	e Musau bizi	dges 410	40 4.	o"/72°42'	07" - See pic. 60	
(3) TRASh belinged	L law-incorne	- harein				
3 TRASH belind law-income housing						
@ very minor bank erosion on RB bout Tooks like good wildlife habitury						
(overhanging roots, cover habitar) + not easy accest so low restoration potential of 41°46'45" /70°42' 12" - King fisher burrow here						
(8) paragrant stone MASON beidge 2) 41°46'95"/42°42'26"						
B remnant stone MASON bridge 2 41°46'95"/42°42'26"						
@ comma edges	96 m			. 00 . 14.	- OnAnla	
There iss	ues are mi	nor And		NAU TM	s Reach is Mostly A Diameter the Roodplain	
is in 9	ood condition	The Val	yeyen ac	in th	A Diameter	
MATURE	+ladrim V	theat ,	t The	MON an	the Roadplan	
a brev	kst Height	130 KM	-500			

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<b>U</b> I

WATERSHED/SUBSHED: NSF	•	DATE: 11/24/07 ASSESSED BY: CM/BG			
SURVEY REACH ID: 14	TIME::AM/PM	PHOTO ID: (Camera-Pic #) Pβ24co /# 59			
SITE ID (Condition-#) OII-	LAT 4 0 46 1 40 "L	ONG 72042 106 "	LMK GPS: (Unit ID)		
			G		
BANK: TYPE:    Closed   Dipe   Trickle   TYPE:	MATERIAL:  ☐ Concrete ☐ Metal ☐ PVC/Plastic ☐ Brick ☐ Other:	SHAPE: Single Double Double Triple Other:	DIMENSIONS: SUBMERGED:    No   No   Partially (~ 3		
Moderate   Open   Channel   Substantial   Channel   Channel   Substantial   Channel   Concrete Earthen Other:	☐ Trapezoid Do	cpth: (in) NOT APDELCABLE  (Bottom): (in)			
CONDITION:  None  Gas  Chip/Cracked  Peeling Paint  Corrosion  Other:  Odor:	None □Oily	VEGGIE DENSITY: None Normal Inhibited Excessive Other:	Pipe Benthic Growth: None Brown Orange Green Other: No pool Good Odors Colors Oils Suds Algae Floatables Other:		
FLOWING TURBIDITY:	· · · · · · · · · · · · · · · · · · ·	Cloudy Dpaque etc.) Petroleum og (bulk) Excessive	Orange Red Other:  oil sheen) Other  Sedimentation  MCC IN WAHL (BAW)		
POTENTIAL RESTORATION CANDID	ATE Discharge investigation		Local stream repair/outfall stabilization		
□no	☐ Storm water retrofit	Other:	-		
If yes for daylighting:					
Length of vegetative cover from outfall:	ft Type of exis	ting vegetation:	Slope:°		
If yes for stormwater:  Is stormwater currently controlled?  Land Use description:  Yes \( \text{No} \) No \( \text{Not investigated} \) Area available:					
SEVERITY strong smell. The amo	nt of normal flow in receiving dischargers to be having a	discharge; flow mostly clear and or rge has a color and/or odor, the am rge is very small compared to the s id any impact appears to be minor	ount of discharge; staining; or appearance of causing any erosion problems		
	5 4	3	2 1		
SKETCH/NOTES: LOCATED	belind 10-5	body building.			
			,		
		· R	EPORTED TO AUTHORITIES: YES NO		

$\Lambda$ T	
<b>\</b> / /	

WATERSHED/SUBSHED:		DATE: 1 / 24 / 09   ASSE	SSED BY: 64/cm		
SURVEY REACH ID: 14	TIME::AM/PM	Рното ID: (Camera-Pic #)	100# 64		
SITE ID (Condition-#): OT- B	LAT°' LO	DNG°'_" LMK	GPS: (Unit ID)		
BANK:  LT RT Head  FLOW: None Trickle  TYPE:  Closed pipe	MATERIAL: Concrete Metal PVC/Plastic Brick Other:	SHAPE: Single DIMENS Circular Double Elliptical Triple Diameter Other:	□ N <sub>a</sub>		
☐ Moderate       ☐ Substantial     ☐ Open channel	Concrete Earthen Other:	☐ Parabolic Width (Top):_ ☐ Other: " (Bottom):_			
CONDITION:  None Chip/Cracked Peeling Paint Corrosion ODOR: Sewage Rancid/S Sulfide Other: See Notes	None Oily	None Brown Normal Other:  Inhibited POOL QU Excessive Good	UALITY: No pool  Odors Colors Oils  Algae Floatables		
FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other.  FLOWING TORBIDITY: None Slight Cloudiness Cloudy Opaque  FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen)  OTHER Excess Trash (paper/plastic bags) Dumping (bulk) Excessive Sedimentation  CONCERNS: Needs Regular Maintenance Bank Erosion Other:					
POTENTIAL RESTORATION CANDIDATE       □ Discharge investigation □ Stream daylighting       □ Local stream repair/outfall stabilization         □ no       □ Storm water retrofit       □ Other:         If yes for daylighting:       □ Storm outfall: □ ft       Type of existing vegetation: □ Slope: □ °					
If yes for stormwater:  Is stormwater currently controlled?  □ Yes □ No □ Not investigated  Area available:					
SEVERITY: strong smell. The am	ount of discharge is significant discharged in the following and discharged in the following a	discharge; flow mostly clear and odorless. If the rge has a color and/or odor, the amount of rge is very small compared to the stream's base d any impact appears to be minor / localized.	Outfall does not have dry weather discharge; staining; or appearance of causing any erosion problems.		
SKETCH/NOTES:	ale like en	me kind ap	La Adusale		
SKETCH/NOTES: This books like some kind of headware with an overflow Phop- however - it was closed to didn't look like it functions properly (?) boxated belund some kind of medical facility.					
·		REPORTED T	TO AUTHORITIES: YES NO		



WATERSHED/SUBSHED:	NBP		DATE: 11 / 24 / 0"	Assessed by: cm /86		
SURVEY REACH ID: 14	TIME	::AM/PM	PHOTO ID: (Camera-Pi	c#) PB2400 /# bl + 62-		
SITE ID (Condition-#): OT-	<b>6</b> Lat	41 0 46 1458 "LO	ONG 72 0 42 08.6"			
LT RT Head	Z Closed	MATERIAL:  ☑ Concrete	SHAPE: Single Double Double Triple Other:	DIMENSIONS:  Diameter: (in)  Diameter: Fully		
Moderate Substantial Other:	~ <u>_</u>	Concrete Earthen Other:	Parabolic W	epth: (in) /idth (Top): (in) / (Bottom): (in)		
□ None         □ Gas           □ Chip/Cracked         □ Sewage           □ Peeling Paint         □ Rancid/Sour           □ Corrosion         □ Sulfide		DEPOSITS/STAINS: None Oily Flow Line Paint Other:	VEGGIE DENSITY: None Normal Inhibited Excessive Other:	PIPE BENTHIC GROWTH: ☑ None  ☐ Brown ☐ Orange ☐ Green ☐ Other:  POOL QUALITY: ☐ No pool ☐ Good ☐ Odors ☐ Colors ☐ Oils ☐ Suds ☐ Algae ☐ Floatables ☐ Other:		
FOR COLOR:						
POTENTIAL DESTORATIO	on Candidate [	Digabarga investigatio	n Stroom doulighting	I coul stream renair/outful stabilization		
no	POTENTIAL RESTORATION CANDIDATE ☐ Discharge investigation ☐ Stream daylighting ☐ Local stream repair/outfall stabilization ☐ no ☐ Storm water retrofit ☐ Other:					
If yes for daylighting:						
Length of vegetative cover fi	rom outfall:	ft Type of exist	ting vegetation:	Slope:		
If yes for stormwater:  Is stormwater currently controlled?  Land Use description:  Yes □ No □ Not investigated  Area available:						
SEVERITY: strong sr compare (circle #) stream; c	lischarge with a distinct mell. The amount of dis ed to the amount of non discharge appears to b nt impact downstream.	scharge is significant discharge is a significant mal flow in receiving discharge having a	lischarge; flow mostly clear and or ge has a color and/or odor, the am ge is very small compared to the s d any impact appears to be minor.	ount of discharge; staining; or appearance of causing any employees		
		4	3	2 1		
SKETCH/NOTES: CONCLETE CHUNKS AROUND ONTGARLS SLOPPI						
		•				
·			R	REPORTED TO AUTHORITIES: YES NO		



WATERSHED/SUBSHED:						
BANK:						
Concrete   Metal   Circular   Double   Diameter:						
Substantial						
None       Gas       None       Brown       Orange       Green         Chip/Cracked       Sewage       Oily       Normal       Other:       Other:         Peeling Paint       Rancid/Sour       Flow Line       Inhibited       Pool QUALITY:       No pool         Corrosion       Sulfide       Other:       Other:       Other:       Good Odors Colors Oils         Other:       Other:       Other:       Other:       Other:     Flow Line    Double   D						
FLOWING						
POTENTIAL RESTORATION CANDIDATE Discharge investigation Stream daylighting Local stream repair/outfall stabilization						
no Storm water retrofit Other:						
If yes for daylighting:  Length of vegetative cover from outfall:ft Type of existing vegetation: Slope:°						
If yes for stormwater:  Is stormwater currently controlled?  Land Use description:  Yes \( \sum \) No \( \sum \) Not investigated  Area available:						
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:						
Reported to authorities:  ves  no						



WATERSHED/SUBSHED: NBP		DATE: 11/24/09 ASSESSED BY: CM/BG			
SURVEY REACH ID: 14	Гіме::ам/рм	PHOTO ID: (Camera-Pic #)	nare /#		
SITE ID (Condition-#): OT-	LAT 4) 0 46 148 " LO	ONG 720 42 17 " I	MK GPS: (Unit ID)		
Himzentalandi Sictional 12300 albe Munclauli					
BANK: TYPE:  □LT □RT □ Head  FLOW: □ Trickle    Closed pipe	MATERIAL:  Concrete		MENSIONS: SUBMERGED:		
☐ Moderate           ☐ Open           ☐ Other:           ☐ Channel	Concrete Earthen Other:		(in) Top): (in) NOT APPE (CABLE tom): (in)		
CONDITION:  None □ Chip/Cracked □ Peeling Paint □ Corrosion □ Other: □ Other: □ Other: □ Odor: No □ Sas □ Sewage □ Rancid/Sou □ Sulfide □ Other:	None Oily	None Normal Inhibited Excessive Other:	E BENTHIC GROWTH: None  Brown Orange Green  Other:  DL QUALITY: No pool  Good Odors Colors Oils  Suds Algae Floatables  Other:		
Clear					
POTENTIAL RESTORATION CANDIDATE ☐ Discharge investigation ☐ Stream daylighting ☐ Local stream repair/outfall stabilization ☐ no ☐ Storm water retrofit ☐ Other:					
If yes for daylighting:  Length of vegetative cover from outfall:ft Type of existing vegetation: Slope:°					
If yes for stormwater:  Is stormwater currently controlled?  Land Use description:  Yes No Not investigated  Area available:					
	of discharge is significant of normal flow in receiving a discharge is to be having a	lischarge; flow mostly clear and odorless. ge has a color and/or odor, the amount of ge is very small compared to the stream's d any impact appears to be minor / localiz	discharge; staining; or appearance of causing any erosion problems		
	4	3	2 1		
SKETCH/NOTES: LOCATED an both banks Appleximately 10' dawn- stream of the OT, there are 2 sower hotes lone on each banks the one on the lebt Bank was open - both surreccol like sound.					
the one on the	lebt Bank wa	s open - both	smerco		
wire semage,			·		
,					
		REPOR	TED TO AUTHORITIES: YES NO		

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WATERSHED/SUBSHED: NG	•	DATE: 1/ /24 /09	ASSESSED BY: CM/BG			
SURVEY REACH ID: 14	TIME: 12:00 AM/PM	Рното ID: (Camera-Pic	:#) nave/#			
SITE ID (Condition-#): OT- <u>É</u>	LAT 41 0 46 . 46	"LONG 72 . 42 . 20,5"	LMK GPS: (Unit ID)			
BANK: TYPE:  LT RT Head  FLOW: pipe  None Trickle	MATERIAL:  Concrete M  PVC/Plastic B:  Other:		DIMENSIONS: SUBMERGED:  No Diameter: (in) Partially Fully			
☐ Moderate ☐ Substantial ☐ Other: chann	☐ Concrete ☑ Earlel ☐ Other:	then Parabolic Wi	cpth:(in)			
CONDITION:		VEGGIE DENSITY:  None Normal Inhibited Excessive Other:	PIPE BENTHIC GROWTH: None Brown Orange Green Other:  POOL QUALITY: No pool Good Odors Colors Oils Suds Algae Floatables Other:			
FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other:  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen)  OTHER CONCERNS: Needs Regular Maintenance Bank Erosion Other:						
POTENTIAL RESTORATION CANDIDATE Discharge investigation Stream daylighting Local stream repair/outfall stabilization						
no Storm water retrofit Other:						
If yes for daylighting:  Length of vegetative cover from outfall:ft Type of existing vegetation: Slope:°						
If yes for stormwater:  Is stormwater currently controlled?  Land Use description:  Yes ☐ No ☐ Not investigated  Area available:						
SEVERITY: strong smell. The compared to the a	amount of discharge is significant mount of normal flow in receiving appears to be having a	Small discharge; flow mostly clear and od discharge has a color and/or odor, the am discharge is very small compared to the st low and any impact appears to be minor /	ount of discharge; staining; or appearance of causing any erosion problems			
	5 4	3	2 1			
SKETCH/NOTES:						
		R	EPORTED TO AUTHORITIES: YES NO			



WATERSHED/SUBSHED: NGP		DATE: 1/24/09 A	SSESSED BY: CM/66	
SURVEY REACH ID: 14 TIME: AM/PM		PHOTO ID: (Camera-Pic#)	B2400/# 66	
SITE ID (Condition-#): OT	LAT 41 0 46 . 44 "LO	DNG 72 · 42 · 2/ " LI	MK GPS: (Unit ID)	
BANK: TYPE:  LT RT Head  Flow: Closed pipe	MATERIAL:  Concrete ☐Metal  PVC/Plastic ☐Brick  Other:	Circular Double	MENSIONS: SUBMERGED:  Mo  Meter: 19 (in) Partially	
None Trickle Moderate Substantial Other: Open channel	Concrete Earthen Other:	☐ Trapezoid Depth: ☐ Parabolic Width (To	(in) pp): (in) NOT APPLICABLE m): (in)	
CONDITION:  None Gas Chip/Cracked Sewage Peeling Paint Corrosion Other: Other:	IJ None □Oily	None	L QUALITY: No pool  ood Odors Colors Oils  ids Algae Floatables	
FOR COLOR: Glear Brown Grey Yellow Green Orange Red Other.  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen)  OTHER CONCERNS: Needs Regular Maintenance Bank Erosion Other:  POTENTIAL RESTORATION CANDIDATE Discharge investigation Stream daylighting Local stream repair/outfall stabilization				
☐ no  If yes for daylighting:  Length of vegetative cover from outfal	Storm water retrofit	Other:		
If yes for stormwater:  Is stormwater currently controlled?  ☐ Yes ☐ No ☐ Not investigated	Land Use des Area availabl	•		
SEVERITY: strong smell. The am	ount of discharge is significant unt of normal flow in receiving dischar dischar pears to be having a	lischarge; flow mostly clear and odorless. If ge has a color and/or odor, the amount of ge is very small compared to the stream's b d any impact appears to be minor / localized	discharge; staining; or appearance	
	5 4	3	2 1	
SKETCH/NOTES: OUT fall &	headurall (le	ected from headed No Plan	dusel + pype	
		REPORT	ED TO AUTHORITIES: YES NO	



REPORTED TO AUTHORITIES YES NO

SURVEY REACH	m. 15	Wangun (Eu 11.0	0	DATE: 11 /24	(A)	ASSESSED BY;	
		WTRSHD/SUBSHD: NB		L		0~~/	BG
	ie: <u>10 : 15 <b>a</b></u>	· .		7 : <b>53. (D)</b> /PM	LM		GPS ID:
LAT41 ° 46 '		10002 412 1 12 "	LAT <u>41°46 ' 3</u>		• <u> </u>	<u>' 04 "</u>	(m)
DESCRIPTION: E	Wabeth	AVEL Expectorer	DESCRIPTION: TR	ibutionly itu	ne-tian	· WIMMING	
RAIN IN LAST 24 HO	OURS □ Heavy	rain Steady rain	PRESENT CONDITIONS	☐ Heavy rain	□ Stea	dy rain 🔲 Intern	
□ None	☐ Interm	• •	□ Clear	☐ Trace	Ø Ove	•	y cloudy
SURROUNDING LAN		estrial	Urban/Residential [ Crop [	□ Suburban/Res □ Pasture	☐ Fores		utional
AVERAGI	E CONDITIONS	(check applicable)	REACH S	KETCH AND SIT	E IMPA	CT TRACKING	!
BASE FLOW AS % CHANNEL WIDTH	□ 0-25% □25-50 %	□ 50%-75% ▲ 75-100%	Simple planar sketch o within the survey rea features d		UT, TR, M	II) as well as any d	
DOMINANT SUBSTR Silt/clay (fine or Sand (gritty) Gravel (0.1-2.5	slick)	□ Cobble (2.5 –10") □ Boulder (>10") □ Bed rock	, , , , , , , , , , , , , , , , , , ,	ooned appropriate	- Travelle	oc. o, j.o.	
	naturally colored)	urbid (suspended matter)  Opaque (milky)		and W			
AQUATIC PLANTS IN STREAM		none some lots		peren 14 here	Les sign	BUTANY	
WILDLIFE IN OR AROUND STREAM	(Evidence of)	Beaver B. Deer Marker Other: SMACK MARNAM	1. Figh.)	MODIFICON	SHUP		
STREAM SHADING (water surface)	✓ Mostly sha  ☐ Halfway (2)	ded (≥75% coverage) :50%) aded (≥25% )		J	t	PANCINO	
CHANNEL DYNAMICS	Downcutt Widening Headcutti	Bank failure  Bank scour		PANL + Syayey Hones			·
Unknown	Aggrading Sed. depo			+ //	PANE	ano	
CHANNEL DIMENSIONS	Height: LTD			LARUNS (	+1A		
BANKTHAN)	Width: Bett	om <u>(e</u> 4 (ft) (ft)					
1	REACH ACCESS	BILITY	]				
Good: Open area in public ownership, sufficient room to stockpile materials, easy stream channel access for heavy equipment using existing roads or trails.	Fair: Forested or developed area adjacent to streat Access requires of removal or impact landscaped areas Stockpile areas small or distant fr stream.	wetland, steep slope, or sensitive areas to get to stream. Few areas to stockpile available and/or located a great distance from stream.		VENERA OF	PE V	<u>(LUM</u> AVE	
5	4 (0)	2 1			- 4×4·	• • • • • • • • • • • • • • • • • • • •	
NOTES: (biggest pro-	blem you see in si I'C PHANT! ISOLATED A	urvey reach) districts wow. V S (J. Knotweed), zehs.	MPHCKA ISUHTEN TRASM, STORM W	2 aug to 19462. Mtfal	pheen c	mors, nunker of	で マンシントストント

OVERALL STREAM CONDITION					
	Optimal	Suboptimal	Marginal	Poor	
IN-STREAM HABITAT  (May modify criteria based on appropriate habitat regime)	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient).	40-70% mix of stable habitat; well- suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.	
	20 19 18 17 16	15 🐠 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
VEGETATIVE PROTECTION  (score each bank, determine sides by facing downstream)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.	
	Left Bank 10 9	8 🕜 6	5 4 3	2 1 0	
	Right Bank 10 9	8 🙆 6	5 4 3	2 1 0	
BANK EROSION (facing downstream) c Most Archs of Sank Failly are good whole	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Grade and width stable; isolated areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or adjacent use.	Past downcutting evident, active stream widening, banks actively eroding at a moderate rate; no threat to property or infrastructure	Active downcutting; tall banks on both sides of the stream eroding at a fast rate; erosion contributing significant amount of sediment to stream; obvious threat to property or infrastructure.	
ARE good wildige	Left Bank 10 9	8 6 6	5 4 3	2 1 0	
history through	Right Bank 10 9	8 💋 6	5 4 3	2 1 0	
FLOODPLAIN CONNECTION	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	
	20 19 (8) 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
	Over	ALL BUFFER AND FLOODPLAI	N CONDITION		
	Optimal	Suboptimal	Marginal	Poor	
VEGETATED Buffer Width	Width of buffer zone >50 feet; human activities (i.e., parking lots, roadbeds, 'clear-cuts, lawns, crops) have not impacted zone.	Width of buffer zone 25-50 feet; human activities have impacted zone only minimally.	Width of buffer zone 10-25 feet; human activities have impacted zone a great deal.	Width of buffer zone <10 feet: little or no riparian vegetation due to human activities.	
1	Left Bank 10 9	<b>®</b> 7 6	5 4 3	2 1 0	
	Right Bank 10	8 7 6	5 4 3	2 1 0	
FLOODPLAIN VEGETATION	Predominant floodplain vegetation type is mature forest	Predominant floodplain vegetation type is young forest	Predominant floodplain vegetation type is shrub or old field	Predominant floodplain vegetation type is turf or crop land	
	20 19 🔞 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
FLOODPLAIN Habitat	Even mix of wetland and non-wetland habitats, evidence of standing/ponded water	Even mix of wetland and non-wetland habitats, no evidence of standing/ponded water	Either all wetland or all non- wetland habitat, evidence of standing/ponded water	Either all wetland or all non- wetland habitat, no evidence of standing/ponded water	
	20 19 🐠 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
FLOODPLAIN ENCROACH- MENT	No evidence of floodplain encroachment in the form of fill material, land development, or manmade structures	Minor floodplain encroachment in the form of fill material, land development, or manmade structures, but not effecting floodplain function	Moderate floodplain encroachment in the form of filling, land development, or manmade structures, some effect on floodplain function	Significant floodplain encroachment (i.e. fill material, land development, or man-made structures). Significant effect on floodplain function	
	20 19 18 17 16	15 14 🗭 12 11	10 9 8 7 6	5 4 3 2 1 0	
Sub Total In-st	ream: <u>(p</u>	suffer/Floodplain: <u>66</u> /80	= Total Survey	Reach 126 /160	

WATERSHED/SUBSHED: NGP	DATE:	11 124 109 A	ASSESSED BY: CM/B
SURVEY REACH: 15 TIME:	:Ам/РМ РНОТО	o <b>ID:</b> (Camera-Pic #)	
SITE ID: (Condition-#) START LAT 41°46'332" L	ong <u>72°42'/2'</u>	LMK	GPS: (Unit ID)
IB END LAT 41 0 46 28 " Lo	ong <u>72 ° 42 '08.9</u>	LMK	
IMPACTED BANK: REASON INADEQUATE: ☐ Lack of v	regetation  Too narrow planted  Other:	Widespread invasion	ve plants
LAND USE: Private Institutional Golf Cour	se Park Other Publ		
(Facing downstream) LT Bank		: PARKing lors	>
RT Bank 🔑 🔲	<u> </u>	•	
DOMINANT Paved Bare ground Turf/law	Ü		
LAND COVER: LT Bank 🔼 🔲 🔯		•	]: ]:
			unknown
STREAM SHADE PROVIDED? None Partial	Full WETLANDS PE	RESENT? No	Yes Unknown
			_
POTENTIAL RESTORATION CANDIDATE	on Greenway design	Natural regeneration	Invasives removal
RESTORABLE AREA	Impacted area on public land	Impacted area on either	Impacted area on private
LT BANK RT REFORESTATION	where the riparian area does	public or private land that is	land where road; building
Length (ft): POTENTIAL:	not appear to be used for any specific purpose; plenty of	presently used for a specific purpose; available area for	
(Circle #)	area available for planting	planting adequate	available area for planting
Width (ft):	5	3	2 1
POTENTIAL CONFLICTS WITH REFORESTATION Wide Poor/unsafe access to site Existing impervious cover Seve	lespread invasive plants ere animal impacts (deer, l		tion    Lack of sun
NOTES: O LEGT GANK (LB) START 410 410 410 110 110 110 110 110 110 110	<u>-</u>		
O Lept BANK (UB) 2 41041	4123.81 /72:4	21 12" due -	to MAINTAINED
LANGS DARLEMANTS	, L	and the s	C conscrate to
(10)	iuasive plants	, chunes o	t conformer, lite
(D)	D 41º46 28	"/72°42 108	2.5"
But at end point	(41.46,38" /7	) (ロー(ロー)コ コ 411 /08 5 5 5	I trace is
Impart to the Rige	at mark 1	RB) due -	, \\ \( \)
1	12400-	KIS) accent	10 P
Re-taining week.			
$\overline{}$			

П	П
_	L

WATERSHED/SUBSHED: N6₽		DATE: 11 124 109   ASSESSED BY: 0m/66			
SURVEY REACH ID: 15 TIME: D: 20 (M)PM		Рното ID: (Camera-Pi			
SITE ID (Condition-4): O	r A La	т <u>41°46 '-04 "</u> L	onc 12.43 · 11 ·	' LMK	GPS: (Unit ID)
BANK:    Carlor   Car	TYPE: Closed pipe	MATERIAL:  ☑ Concrete	☐ Elliptical ☐ Triple ☐ Other:	Diameter: 30 (ir	SUBMERGED:  No Partially  Fully
Substantial Other:	Open channel	Concrete Earthen Other:	Parabolic W	epth: (in) /idth (Top): (in) / (Bottom): (in)	NOT APPAICABLE
CONDITION: None Chip/Cracked Peeling Paint Corrosion Other:	ODOR: NO Gas Sewage Rancid/Sour Sulfide Other:	DEPOSITS/STAINS: None Oily Flow Line Paint Other:	VEGGIE DENSITY:  None Normal Inhibited Excessive Other:	PIPE BENTHIC GR Brown Oral Other:  POOL QUALITY: Good Odors Suds Algae Other:	nge
Clear					
POTENTIAL RESTORAT	ION CANDIDATE	Discharge investigation	on Stream daylighting	Local stream repair	outfall stabilization
по		Storm water retrofit	Other:		
If yes for daylighting: Length of vegetative cover	from outfall:	ft Type of exis	sting vegetation:	Slope:	O
If yes for stormwater:  Is stormwater currently com  ☐ Yes ☐ No ☐ Not in		Land Use de Area availab	-	4.44.4.14.4.4.1	-
SEVERITY: strong comp stream	compared to the amount of normal flow in receiving		discharge; flow mostly clear and o rge has a color and/or odor, the an rge is very small compared to the s nd any impact appears to be minor	nount of discharge of causing	es not have dry weather staining; or appearance any erosion problems.
	5	4	3	. 2	1
SKETCH/NOTES:					
			I	REPORTED TO AUTHOR	ITIES: YES NO



WATERSHED/SUBSHED: NBP			DATE: 11 /24 /00	Assessed by:	im/66
SURVEY REACH ID:	<b>15</b> тіме:	:AM/PM	<b>Рното ID:</b> (Camera-Pio	c#) none /#	
SITE ID (Condition-#)=01	- <u>6</u> Lat41	<u>046 126 "La</u>	" 6.00' CH OCF DNG		GPS: (Unit ID)
FLOW: None Trickle	Closed P	TERIAL: Concrete	SHAPE: Single Circular Double Elliptical Triple Other:	DIMENSIONS: Diameter: 12 (in)	SUBMERGED: No Partially Fully
☐ Moderate ☐ Substantial ☐ Other:	open	Concrete	Parabolic W	epth: (in) (idth (Top): (in) (Bottom): (in)	NOT APPEACABLE
CONDITION:  None Chip/Cracked Peeling Paint Corrosion Other:	☐Gas ☐N Sewage ☐O	ily Tow Line aint	VEGGIE DENSITY:  None Normal Inhibited Excessive Other:	PIPE BENTHIC GRO Brown Orange Other:  POOL QUALITY: Good Odors Suds Algae Other:	e Green  No pool Colors Oils
FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other:  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen)  OTHER CONCERNS: Sexual Maintenance Bank Erosion Other:					
POTENTIAL RESTORATION In o If yes for daylighting: Length of vegetative cover	s	Storm water retrofit	n Stream daylighting [ Other:	-	utfall stabilization
If yes for stormwater:  Is stormwater currently cor  Yes No Not in	nvestigated	Land Use des Area available			
SEVERITY: strong composition (circle #)	VERITY: strong smell. The amount of discharge is significant compared to the amount of normal flow in receiving discharge appears to be having a		ischarge; flow mostly clear and oc ge has a color and/or odor, the am ge is very small compared to the si d any impact appears to be minor /	ount of tream's base / localized.	not have dry weather aining; or appearance by erosion problems.
SKETCH/NOTES:	12000 CO.O.C 1	e herduse	1 - Ought D	2	1
here.	mege covicted	E PORES COMP	e + puny pi	140 . JAP.	Ruotweed
	·				
			R	EPORTED TO AUTHORIT	IES: YES NO



WATERSHED/SUBSHED: NBP	DATE: 11/34/09	ASSESSED BY: O	m /66	
SURVEY REACH ID: 15	TIME::AM/PM	PHOTO ID: (Camera-Pic #)	PB2400# 5	<del></del> _
SITE ID (Condition-#): OT-	LAT41 .46 .28 "LO	ονο <u>42 ° 42 ' 08.5 "</u>	LMK	GPS: (Unit ID)
BANK:  LT RT Head  FLOW: None Trickle Moderate Substantial Other:  TYPE: Closed pipe  Closed pipe  Closed pipe	MATERIAL: Concrete Metal PVC/Plastic Brick Other: Concrete Earthen Other:	Circular Double Elliptical Triple Other:  Trapezoid Depth Parabolic Width	DIMENSIONS:  Diameter: (in)  i: (in) in (Top): (in) outom): (in)	SUBMERGED:  No Partially Fully  NOT APPECABLE
CONDITION:  None  Chip/Cracked  Peeling Paint  Corrosion  Other:  Odor:   Rancid/S  Rancid/S  Other:	None ☐Oily	VEGGIE DENSITY:  None  Normal Inhibited Excessive Other:	PE BENTHIC GROVE  Brown Corange  Other:  OOL QUALITY: CORANGE  Good Corange  Suds Algae  Other:	Green No pool Colors Oils
FOR COLOR: Clear Brown Grey Yellow Green Grange Red Other:  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen) Other:  OTHER CONCERNS: Needs Regular Maintenance Bank Erosion Other:				
POTENTIAL RESTORATION CANDII			_ocal stream repair/ou	utfall stabilization
If yes for daylighting: Length of vegetative cover from outfal	Storm water retrofit	Other:	Slope: _	0
If yes for stormwater:  Is stormwater currently controlled?  ☐ Yes ☐ No ☐ Not investigated	Land Use de Area availabl		######################################	
SEVERITY: strong smell. The am compared to the amo stream; discharge ap	ERITY: strong smell. The amount of discharge is significant compared to the amount of normal flow in receiving		discharge; sta of causing an	not have dry weather aining; or appearance y erosion problems.
SKETCH/NOTES: NEAR RETAINING WALL				
				·
		Repo	ORTED TO AUTHORITI	ES: YES NO



WATERSHED/SUBSHED: NBP			DATE: \\ / Q	4/00 ASSESSED BY	en /BG	
Ę	SURVEY REACH ID:	\5 T	ГІМЕ:;АМ/РМ	Рното ID: (Ca	umera-Pic#)   /#	
	STEID (Condition-#):	on-19	AT 42 · 46 · 30	"Long 72 .42 .		GPS: (Unit ID)
	BANK:  CLT □ RT □ Head  FLOW: □ None □ Trickle	TYPE:	MATERIAL:  Concrete  PVC/Plastic  Other:	letal 【 Circular 🔲	5/ )	SUBMERGED:  No (in) Partially Fully
	☐ Moderate ☐ Substantial ☐ Other: ₹	Open channel	Concrete Ear	then Trapezoid Parabolic Other:	Depth:         (ir           Width (Top):         (ir           " (Bottom):         (ir	NOT APPECABLE
	CONDITION: None Chip/Cracked Peeling Paint Corrosion Other:	ODOR: NO Gas Sewage Rancid/Sour Sulfide Other:	None ☐Oily	VEGGIE DENSI None Normal Inhibited Excessive Other:	Brown On Other:  POOL QUALITY: Good Godor	: No pool
,	FOR       COLOR:       Clear       Brown       Grey       Yellow       Green       Orange       Red       Other:         FLOWING       TURBIDITY:       None       Slight Cloudiness       Cloudy       Opaque         ONLY       FLOATABLES:       None       Sewage (toilet paper, etc.)       Petroleum (oil sheen)       Other:         OTHER       Excess Trash (paper/plastic bags)       Dumping (bulk)       Excessive Sedimentation         CONCERNS:       Needs Regular Maintenance       Bank Erosion       Other:					
	_	ATION CANDIDA		<u>—</u>	ghting	air/outfall stabilization
	If yes for daylighting: Length of vegetative co		Storm water retro	<del></del>	Slop	ре:°
	If yes for stormwater:  Is stormwater currently controlled?  Land Use description:  Yes No No Not investigated  Area available:					_
	SEVERITY: strong smeil. The amount of discharge is significant compared to the amount of normal flow in receiving discharge in the service of		Small discharge; flow mostly of discharge has a color and/or or discharge is very small compart flow and any impact appears to	dor, the amount of red to the stream's base of caus	does not have dry weather ge; staining; or appearance ing any erosion problems.	
	SKETCH/NOTES: Adj Acent to A PARKING LOT				1	
				<i>J</i>		
	)				REPORTED TO AUTHO	ORITIES: YES NO



SURVEY REACH ID:	WATERSHED/SUBSHED: NBP			DATE: <u>//</u> /8	24 109	ASSESSED BY:	cm/166
BANK:   TYPE:   MATERIAL:   SHAPE:   Single   DIMENSIONS: SUBMERGED:   MATERIAL:   SHAPE:   Single   Dimensions:   SUBMERGED:   MATERIAL:   SHAPE:   Single   Dimensions:   Material   Material   Substantial   Substantial   Substantial   Open   Oncrete   Earthen   Other:   Other:   Other:   Other:   Fully   Other:	SURVEY REAC	н <b>:</b> 15	TIME: AM/P!	м <b>Рното ID:</b> (	Camera-Pic#)	P32400#	53
PLT   RT   Head   PLOW:   PORP   PORP   PORP   PORP   Port   Partially   Par	SITE ID (Conditi	ол-#): ОТ- <u>Е</u>	LAT 41046 · 3				GPS: (Unit ID)
Other:	FLOW:	Head Closed	Concrete ☐ PVC/Plastic ☐	Metal   Circular	☐ Double ☐ Triple □	Diameter: 54 (in)	No ☐ Partially
Shone   Gas   Sewage   Oily   Normal   Other:   Other   Othe	1 =	-		Parabolic	Width	(Top):( <u>in</u> )	NOT APPRICABLE
FOR   COLOR:     Clear   Brown   Grey   Yellow   Green   Orange   Red   Other:	☑ None ☐ Chip/Cracked ☐ Peeling Paint ☐ Corrosion	☐Gas☐Sewag☐Rancid☐Sulfide	None Oily Flow Line Paint	✓ None  ☐ Normal  ☐ Inhibited  ☐ Excessive	Po	Brown Orang Other:  OOL QUALITY: Good Odors	ge ☐ Green  M. No pool ☐ Colors ☐ Oils
POTENTIAL RESTORATION CANDIDATE   Storm water retrofit   Other:	- Coner.	- Junei.					
Storm water retrofit   Other:	FLOWING   TURBIDITY:   None   Slight Cloudiness   Cloudy   Opaque						
If yes for daylighting:   Length of vegetative cover from outfall:	POTENTIAL RE	STORATION CANE	DIDATE Discharge inve	estigation   Stream day	ylighting L	ocal stream repair/o	outfall stabilization
Length of vegetative cover from outfall:			Storm water ret	rofit Other:			
Is stormwater currently controlled?    Yes   No   Not investigated   Area available:		_	all:ft Type	of existing vegetation:	, , , , , , , , , , , , , , , , , , ,	Slope:	°
SEVERITY: (circle #)  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.  SKETCH/NOTES:  SKETCH/NOTES:  strong smell. The amount of discharge is significant compared to the amount of normal flow in receiving discharge is very small compared to the stream's base flow and any impact appears to be minor / localized.  SKETCH/NOTES:  Outfall does not have dry weather discharge; staining; or appearance of causing any erosion problems.  SKETCH/NOTES:  A 3 2 1  SKETCH/NOTES:  Outfall does not have dry weather discharge; staining; or appearance of causing any erosion problems.	Is stormwater cui	rrently controlled?		-		· 	
there was no con an 11/24/09.	SEVERITY:	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		discharge has a color and/o discharge is very small com	Small discharge; flow mostly clear and odorless. If the discharge has a color and/or odor, the amount of discharge is very small compared to the stream's base		taining; or appearance
there was no con an 11/24/09.	5 4 3 2 1						
Reported to authorities: ☐ yes ☐ no	there was no flow on 11124/09.						
Reported to authorities: ☐ yes ☐ no							
REPORTED TO AUTHORITIES: YES NO	,						
					Repo	ORTED TO AUTHORIT	ries: ☐ yes ☐ no

WATERSHED/SUBSHED: NGP			DATE: 1 24 / 0	ASSESSED BY:	cm/86
SURVEY REACH ID:	16 TI	ME::AM/PM	PHOTO ID: (Camera-Pic	#) PB2400 /# _	<b>55</b>
SUTE ID (Condition-#): O	·	T41 · 46 · 33 ·	LONG 72 . 42 . 06 "	LMK	GPS: (Unit ID)
SILE DA (Contamons an) NOS		·· <u>-1</u>			CURAFREEN
BANK:	TYPE:  Closed pipe	MATERIAL:  ☐ Concrete ☐ Me ☐ PVC/Plastic ☐ Br ☐ Other:	<del></del>	Dimensions:  Diameter: (i	SUBMERGED:  No Partially Fully
Moderate Substantial Other:	Open channel	Concrete Eart	Parabolic W	epth:(in) (idth (Top):(in) (Bottom):(in)	NOT APPACABLE
CONDITION:  None Chip/Cracked Peeling Paint Corrosion Other: Scave	ODOR: NO Gas Sewage Rancid/Sour Sulfide Other:	Oily	VEGGIE DENSITY:  ☐ None  ☑ Normal ☐ Inhibited ☐ Excessive ☐ Other:	PIPE BENTHIC G.  Brown Ora Other:  POOL QUALITY: Good Odors Suds Algae Other:	nnge ☐ Green  No pool ☐ Colors ☐ Oils
FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other  FLOWING TURBIDITY: None Slight Cloudiness Gloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen)  OTHER CONCERNS: Needs Regular Maintenance Dumping (bulk) Excessive Sedimentation  Other:  POTENTIAL RESTORATION CANDIDATE Discharge investigation Stream daylighting Local stream repair/outfall stabilization					
no  If yes for daylighting:  Length of vegetative cov	er from outfall:	Storm water retro	fit Other:	Slop	pe:°
If yes for stormwater:  Is stormwater currently controlled?  Land Use description:  Yes No Not investigated  Area available:				does not have dry weather	
SEVERITY: str	rong smell. The amou	nt of discharge is significant to f normal flow in receiving ars to be having a	Small discharge; flow mostly clear and discharge has a color and/or odor, the discharge is very small compared to the flow and any impact appears to be min	amount of discha	rge; staining; or appearance sing any erosion problems.
		54	3		11
SKETCH/NOTES:	steep ga	de, some	scow (see	photo)	
				REPORTED TO AUTI	HORITIES: YES NO



WATERSHED/SUBSHED: NG	<b>a</b>	DATE: 1 / 24 / 59 ASSESSED BY: CM /BG		
SURVEY REACH ID: 15	TIME::AM/PM	PHOTO ID: (Camera-Pic#) Nove /#		
SITE ID (Condition-#): OT-	LAT41 . 46 . 34.9"	LONG 72 . 42 . 04.6" LMK GPS: (Unit ID)		
BANK:   Closed pipe   Closed p	MATERIAL:	ck		
CONDITION:  None  Chip/Cracked Peeling Paint Corrosion Other:  Condition:  Con	None Oily	VEGGIE DENSITY:		
FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other:  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen)  OTHER Excess Trash (paper/plastic bags) Dumping (bulk) Excessive Sedimentation  CONCERNS: Needs Regular Maintenance Bank Erosion Other:				
POTENTIAL RESTORATION CANDII  no  If yes for daylighting:	DATE Discharge investige Storm water retrofit	ation Stream daylighting Local stream repair/outfall stabilization  Other:		
Length of vegetative cover from outfal	l:ft Type of e	xisting vegetation: Slope:°		
If yes for stormwater:  Is stormwater currently controlled?  ☐ Yes ☐ No ☐ Not investigated	Land Use Area avai	description:lable:		
SEVERITY. strong smell. The am	ount of discharge is significant unt of normal flow in receiving pears to be having a	nall discharge; flow mostly clear and odorless. If the charge has a color and/or odor, the amount of charge is very small compared to the stream's base wand any impact appears to be minor / localized.  Outfall does not have dry weather discharge; staining; or appearance of causing any erosion problems.		
5 4		3 2 1		
SKETCH/NOTES:				
:	· 	REPORTED TO AUTHORITIES: YES NO		

Stream Crossing

SC

	/SUBSHED: NGP	l		DATE: <u>U</u>	/ <u>34</u> /8	1		um/ou
SURVEY REA	CH ID: 15	TIME: 10 : 15	<u>√</u> <b>⊘</b> /PM 1	Рното ID	: (Camera-Pi		1	49
SITE ID: (Con	dition#) SC-ore LAT	41 ° 46 · 23.	<u>8" Long <del>1</del></u>	<u>° 42 '</u>	<u> 15 T</u>	<u>MK</u>	GPS (	Unit ID)
- — — — — — — — — — — — — — — — — — — —	10 1 7 7 7 10 1				~		0.1	
TYPE: K Ros	ad Crossing 🔲 Railroad Crossi							
FOR ROAD/ RAILROAD	SHAPE: Arch Bottomless Box Elliptical Circular Other:	#BARRELS: Single Double Triple Other:	MATERIAL: Concrete Metal Other:	∏ Flo □ No	NMENT: ow-aligned t flow-aligned not know	Barrel dia	Height: _	(ft)
CROSSINGS ONLY	CONDITION: (Evidence of)  Cracking/chipping/corrosio  Sediment deposition  Other (describe):			☐ Fla	ERT SLOPE: t ght (2° – 5°) vious (>5°)		wigth: Width: elevation:	(ft) (ft)
POTENTIAL I	RESTORATION CANDIDATE		emoval Culver		placement []	Jpstream st	orage retrof	it
	G AS GRADE CONTROL	□ No □ Ye						
IJ DO ACTING	EXTENT OF PHYSICAL BLO				CKAGE SEVEI	RITY: (circ	le #)	
If yes for fish barrier	Total Partial Unkno  CAUSE: Drop too high Water D Flow too shallow Water D	wn rop:(in)	A structure such as road culvert on a 3r greater stream bloc upstream movemer anadromous fish; no passage device pre	a dam or d order or king the at of o fish	A total fish blocks tributary that wou significant reach or partial blockag interfere with the anadromous fish.	nge on a ld isolate a of stream, e that may migration of	A temporary libeaver dam of the very head very little viab	parrier such as a or a blockage at I of a stream with the fish habitat ral barriers such
NOTES/SKET	Other:		5		3		2	1
							_	<b>-</b>
					REPOR	TED TO AU	THORITIES [	YES No

PAGE 10/2
for NBP, REACH 10

Reach Level Assessment



SURVEY REACH I	D: <u>\</u>	WTRSHD/SUBSHD:	Note	ROMAGE PAR	DATE: 1 /24	<u>/09</u> As	SSESSED BY:	R(n
START TIM	E: 9:00 M			END TIME: 10	: 15 CD PM	LMK:	OVVIT	GPS ID:
LAT 41 0 46 1		ca2 · 42 · 13		LAT4 046 0		··42 ·	12."	65.00
	<del></del> -			DESCRIPTION: < 0	•		<del></del> _	0000
DESCRIPTION: Me	edical Cen	ter	,	DESCRIPTION. EX	trabeth	PAUL		
RAIN IN LAST 24 HO	URS □ Heavy r	ain 🕰 Steady rai	n Pr	ESENT CONDITIONS	☐ Heavy rain	☐ Steady r	ain 🗆 Intern	nittent
☐ None	☐ Intermit	tent   Trace		Clear	☐ Trace	Overcas	t 🗆 Partly	y cloudy
SURROUNDING LAN		strial <b>E</b> Comme course <b>D</b> Park			] Suburban/Res ] Pasture	☐ Forested ☐ Other:	Institu Medical A	
Average	CONDITIONS	(check applicable)		REACH S	KETCH AND SIT			
BASE FLOW AS %	□ 0-25%	□ 50%-75%	o l	Simple planar sketch of				
CHANNEL WIDTH	□25-50 %	<b>₄</b> Z 75-100	)%	within the survey read	ch (OT, ER, IB,SC, U eemed appropriate.			additional
DOMINANT SUBSTR	ATE BUT MOS	Hy RIP-RAP		jeurures ui	remen approprimie. De		cuon oj jion	
Silt/clay (fine or	slick)	, □ Cobble (2.5 –10")			- 9	'av'		
☐ Sand (gritty)	·	☐ Boulder (>10")			<b>₹</b> .	7,.,4	LUM AN	<b>ب</b>
☐ Gravel (0.1-2.5	5") 🗆	Bed rock			8 1	17		
W. con Co.					₹/	PANKING	<b>;</b>	
WATER CLARITY					[ ]	Lots		
☐ Stained (clear, n☐ Other (chemicals,		⊔ Opaque (milky)			woods)/	1		UMP ON
- Outer (enemicals,	<u> </u>				- //	/		UK S
AQUATIC PLANTS	Attached: 🗹	none □ some □	lots		-11 .	J	, -	DUDY DUT
IN STREAM	Floating: 🔯 1	none 🗆 some 🗀	lots		12			P. (2)
Wilniermon	(Evidence of)				(1)	K-exosic	1.4	- To Manager
WILDLIFE IN OR AROUND STREAM		Beaver Deer	MARK		Work )	\		
	☐ Snails 🔂 🤇	Other: Wood duck	<u> </u>		- Ju	1/2.6	mekinn	
		ded (≥75% coverage	$M_{\rm W}^{\rm W}$ (e	Q.A.		1 Por	]	
STREAM SHADING (water surface)	☐ Halfway (≥		3,100	101-1			ξ.	. ^-
(water surface)	☐ Partially sh☐ Unshaded (		14 35	•	GABION Water at	v=4 <del>(</del> E)	1 080	SiO13
		<u> </u>			WALL S		1/4	
CHANNEL	Downcutt	·   ==	· I		wo	م (الواعان ن	] ] ,	wood ve Th
DYNAMICS	Widening						<del>K)</del>	July 65/
	Headcuttin	·   =	I			1000		Crea
Unknown	☐ Aggrading				سلرهم)	The same of the sa		
	Sed. depo	sition	11200	, nDE	W/S			
CHANISIT	Height: LT b	ank	_(ft)	410PE	-d/ P	AMCENS		
CHANNEL DIMENSIONS	RTb	ank	(ft)	44.4-		075		
(FACING	Width: Bette	٦.	(ft)		Shops	- January		
DOWNSTREAM)					775	575		
Bankfull	Тор		_(ft)			77	LINIM RIPLA	Lø
<u> </u>	REACH ACCESSI Fair: Forested or	Difficult. Must cre		•		END /	+STEEL M	Esh
Good: Open area in	developed area	wetland, steep sk						
public ownership, sufficient room to	adjacent to strear	n. sensitive areas to	get to					
stockpile materials,	Access requires t removal or impac	4	t t					
easy stream channel	landscaped areas							
access for heavy equipment using	Stockpile areas	distance from stre	am.					
existing roads or trails.	small or distant for							
5	stream. 3	equipment require 2 1						
NOTES: (biggest pro-	blem you see in su	rvey reach) \MP	Arted	BUFFER => A banks Resid Hosive Species HOSE + Storn un	PARKINA LOTS	Adlinea	At to BA	KULK,
RIP-RAP MON	in Almost "	entire peaks	1/100-11	1 banks Resid	entral Man	1 IAWA	. YAND.	unte.
dumping, sr	www bilim	, TRASH Idelo	1915, IVN	Histore Species	· (especially	JAP, KU	o-tweed)	1
Unstalde d	named rel	ated to Impac	ted Bu	HER + STORN WA	Here inputs:		. –	
Olys D. Hand		<u>,                                    </u>			REPORT	TED TO AUT	HORITIES 🔲	YES No

	Optimal	Suboptimal	Marginal	Poor
ABITAT  May modify riteria based in appropriate	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient).	40-70% mix of stable habitat; well- suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.  Riport was ducks indi
habitat regime)	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	(3) 4 3 2 1 0
VEGETATIVE PROTECTION (score each bank, determine sides by facing downstream)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.
	Left Bank 10 9	8 7 6	5 4 3	<u>O</u> 1 0
	Right Bank 10 9	8 7 6	5 4 3	2 1 0
BANK EROSION (facing downstream)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Grade and width stable; isolated areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or adjacent use.	Past downcutting evident, active stream widening, banks actively eroding at a moderate rate; no threat to property or infrastructure	Active downcutting; tall banks on both sides of the stream eroding at a fast rate; erosion contributing significant amount of sediment to stream; obvious threat to property or infrastructure.
	Left Bank 10 9	8 7 6	5 4 3	2 1 0
	Right Bank 10 9	8 7 6	5 4 🕄	2 1 0
FLOODPLAIN CONNECTION	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.
	20 19 18 17 16	13 12 11	10 9 8 7 6	5 4 3 2 1 0
	OVER	ALL BUFFER AND FLOODPLA	IN CONDITION	
	Optimal	Suboptimal	Marginal	Poor
VEGETATED BUFFER WIDTH	Width of buffer zone >50 feet; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, crops) have not impacted zone.	Width of buffer zone 25-50 feet; human activities have impacted zone only minimally.	Width of buffer zone 10-25 feet; human activities have impacted zone a great deal.	Width of buffer zone <10 feet: little or no riparian vegetation due to human activities.
	Left Bank 10 9	8 7 6	5 4 3	(3) 1 0
	Right Bank 10 9	8 7 6	5 4 (3)	2 1 0
FLOODPLAIN VEGETATION	Predominant floodplain vegetation type is mature forest	Predominant floodplain vegetation type is young forest	Predominant floodplain vegetation type is shrub or old field	Predominant floodplain vegetation type is turf or crop land
	20 19 18 17 16	15 14 13 12 11	9 8 7 6	5 4 3 2 1 0
FLOODPLAIN HABITAT	Even mix of wetland and non-wetland habitats, evidence of standing/ponded water	Even mix of wetland and non-wetland habitats, no evidence of standing/ponded water	Either all wetland or all non- wetland habitat, evidence of standing/ponded water	Either all wetland or all non- wetland habitat, no evidence of standing/ponded water
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
FLOODPLAIN ENCROACH-	No evidence of floodplain encroachment in the form of fill material, land development, or manmade structures	Minor floodplain encroachment in the form of fill material, land development, or manmade structures, but not effecting floodplain function	Moderate floodplain encroachment in the form of filling, land development, or manmade structures, some effect on floodplain function	Significant floodplain encroachment (i.e. fill material, land development, or man-made structures). Significant effect on floodplain function
MENT	***************************************		10 9 8 7) 6	5 4 3 2 1 0

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		_

				T .	1 61	ı		4
WATERSHED/SUBSHED:	NBP			DATE: _			ED BY: CM/(	7
SURVEY REACH: 16		TIME:	_:AM/PM	Рното I	<b>D:</b> (Camera-Pic		0 # 38,39,6	<u>1</u> þ+
SITE ID: (Condition-#)	START LAT 41	046:047"1	LONG 072-0 42	1.13.6"	LMK	G	<b>PS:</b> (Unit'ID)	
IB <del>[}</del>	END LAT41	_046 109.9" L	ONG 572 0 43	<u>'13.8"</u>	LMK	_		
						•		7
IMPACTED BANK:  ☐ LT ☐ RT ☑ Both	REASON INADEQU				Widespread inv			
LAND USE:	Private Institut			ther Public	100,100			1
(Facing downstream) LT Ba	nk 🔽		) 🗆	□:	-			
RT Ba	nk 🔲			<b>⊠</b> :	Parking	LOTS		
DOMINANT		e ground Turf/lav		Shrub/scru		Other		
LAND COVER: LT Ba				堅	<b>Z</b> .	<u> </u>		
RT Ba	<del></del>			<del>/</del> A_	<u>A</u>	:		4
INVASIVE PLANTS:	☐ None ☐	Rare P	artial coverage	Exten	sive coverage	unknov	vn	
STREAM SHADE PROVI	DED? None	Partial	Full WET	LANDS PRES	SENT? No	☐ Yes	Unknown	
D D						<b>5</b> 1.		-
POTENTIAL RESTORAT		☐Active reforestati ☐ Other:	ion Greenway	design [X]	Natural regenerati	on <b>p⊴</b> in∨	asives removal	
RESTORABLE AREA			Impacted area on n	ublic land	mandad ama an aitha	r Imr	acted area on private	1
	DT REE	ORESTATION	Impacted area on p where the riparian a		mpacted area on eithe ublic or private land th		pacted area on private d where road; building	
Length (ft):	Рот	ENTIAL:	not appear to be us specific purpose; pl	enty of p	resently used for a sp urpose; available area	for fea	croachment or other ture significantly limits	
Width (ft):	(Circ	le #)	area available for p	anting p	lanting adequate	ava	ilable area for planting	4
	L		5	ري	3	<u> </u>	<u></u>	┨
POTENTIAL CONFLICTS  Poor/unsafe access to s					Potential containver)	ination	Lack of sun	
NOTES: 10 UDS	ream of laing lot, ethining was culvest r	The r	Direct o	a Iho	LR +	here	15 A	
DAR	lains law	as the a	a other		121Ann 14	zith	screen tren	رز لد
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ما ما ما	00 Fr 100	ise pin-	0 NA (	yel selection	ulis	~ ~ 30/ UD	Ste
/ <del>+</del>  C	ETYTINI ING WA	rece 1 - 100	Je Pip	in the fi	SOTOL O.		30 -4	7
of	culvet r	the constant	, with	m 6 - 15	mq ,	. 1		
@ Resta	Al satuak	the Act 1	aceut -	to RB	+ PARK	1 CM	OTS AdjAc	eh-
	UB. Leaf/					J	,	
						,		
(3) BAN	K failure	DRB (	see phon	0 40)-	) 41° 46'0	5.9 1/7	3042/17/1"	
					•	,	10 1 7.1	
• <b>•</b> ••	A		ν C.	0	\ \ .			
- V	ch 200d	CHANGU OLA	+x " " " " " " " " " " " " " " " " " " "	kes-talla	show.			
	•							

WATERSHED/SUBSHED: NBP		DATI	E: 11/24/09	ASSESSED BY: CM/66
SURVEY REACH:	TIME:			#)PB)400/# 44
Ţ <u></u>	AT 41 ° 46 ' 11 " I			GPS: (Unit ID)
' -	AT 41 046 12 " I			<del>-</del>
			·	
	ADEQUATE: Kack of			
LT RT Both		planted Q Other: Q		uire Mesch
LAND USE: Private (Facing downstream) LT Bank	Institutional Golf Cou	rse Park Other Pul 1	oli¢ ∃:	
RT Bank			 :	
DOMINANT Paved	Bare ground Turf/lav	vn Tall grass Shrub	scrub Trees	Other
LAND COVER: LT Bank			T	<u>:</u>
RT Bank			•	
INVASIVE PLANTS: None	Rare P	artial coverage 🙀 E	extensive coverage	unknown
STREAM SHADE PROVIDED? No	ne 😡 Partial 🗆	Full WETLANDS I	PRESENT? No	☐ Yes ☐ Unknown
			-	
POTENTIAL RESTORATION CANDIDA	<u> </u>	on Greenway design	Natural regeneration	on X Invasives removal
no	Other:			
RESTORABLE AREA	REFORESTATION	Impacted area on public land where the riparian area does	Impacted area on either public or private land the	
LT BANK RT Length (ft):	POTENTIAL:	not appear to be used for any	presently used for a spe	cific encroachment or other
	(Circle #)	specific purpose; plenty of area available for planting	purpose; available area planting adequate	for feature significantly limits available area for planting
Width (ft):		5	4 3	2 1
POTENTIAL CONFLICTS WITH REFORM Poor/unsafe access to site  Existin		despread invasive plants /ere animal impacts (deer		ination    Lack of sun
NOTES: 1 Impacts to	both banks	· Associated :	with Rip	- RAP
conved wi	_	,	•	
Drivier bank	Lelesian j	ust upstrem	mof end	L GR HARK.
				·
				l
·				

WATERSHED/SUBSHED: NBP			DATE:	11/24/09	Ass	ESSED BY: OWN /R
SURVEY REACH:	Тіме:	:AM/PM	Рното	ID: (Camera-Pi	ic#) n	ove#
	T41 046 108.7" L	ONG72 042	·18_"	LMK		GPS: (Unit ID)
	T 41 046 109.9" L			LMK		
	· — — — — — — — — — — — — — — — — — — —					
IMPACTED BANK: REASON INA  LT □ RT □ Both	DEQUATE:  Lack of Recently	planted \( \overline{\over	ier: see	below	vasive p	olants
		_	ther Public			
(Facing downstream) LT Bank			□: □:			
RT Bank DOMINANT Paved	Bare ground Turf/law				Other	
DOMINANT Paved  LAND COVER: LT Bank				····	□:	
RT Bank				<u>Z</u>	<u> </u>	
INVASIVE PLANTS: None	Rare P	artial coverage		ensive coverage	unk	
STREAM SHADE PROVIDED? None	e 🖾 Partial 🗌	Full WET1	ANDS PRI	ESENT? No	□ Y	Yes Unknown
				3		)
POTENTIAL RESTORATION CANDIDA'		ion Greenway	design 🔼	Natural regenera	tion /	Unvasives removal
□ no	Other:					
RESTORABLE AREA		Impacted area on po where the riparian a		Impacted area on eit public or private land		Impacted area on private land where road; building
LT BANK RT	REFORESTATION POTENTIAL:	not appear to be use	ed for any	presently used for a	specific	encroachment or other
Length (ft):	(Circle #)	specific purpose; ple area available for pl		purpose; available at planting adequate	rea tor	feature significantly limits available area for planting
Width (ft):	,	5	4	7) 3		2 1
POTENTIAL CONFLICTS WITH REFOR  Poor/unsafe access to site Existing	ESTATION Wi	idespread invasive	e plants	Potential conta	minatio	on Lack of sun
6		•				
NOTES: 1 Pip-RAP A	riony US	•				
1 leap dur	IPINA ON UR	Adj Acent	t to 1	River +	2055	ible
@ leaf dur snow pilit	na Gardaina	Once	. هاما	مد خلامی	aneidi	ia 17
21800 Pm	J (Miller 119)	wt ), Pos	31010	sair ay	01101	1000
· ·						

WATERSHED/SUBSHED:	1BP			DATE:	11/24/09	Ass	ESSED BY: CW1/C	
URVEY REACH:		TIME:	_:AM/PM	Рното	<b>ID:</b> (Camera-Pi	c #)	/#	
SITE ID: (Condition-#) STAR	RT LAT 4 9 4	6' 1 " 1	Long <u>72°42</u>	· <u>)4                                    </u>	LMK		GPS: (Unit ID)	
IB- END	Lat <u>41 ° 44</u>	<u>, '12_" i</u>	LONG 72-0 40	· 14.8"	LMK			
LAND USE: Priv (Facing downstream) LT Bank RT Bank	son Inadequate:  rate Institutional  Description	Golf Cou	y planted	her: Lither Publi	p-RAP (po : :		lants	
LAND COVER: LT Bank						<u> </u>		
RT Bank						:		
	None Rare		artial coverage			unk		
STREAM SHADE PROVIDED?	☐ None ☐ Par	tial [	Full WETL	ANDS PR	ESENT? No	□ Y	es Unknown	
POTENTIAL RESTORATION CA	ANDIDATE Acti		ion Greenway	design 💋	Natural regenerat	ion 🔼	Invasives removal	
RESTORABLE AREA	POTENTIA (Circle #)		Impacted area on pu where the riparian ar not appear to be use specific purpose; ple area available for pla	rea does ed for any enty of	Impacted area on eith public or private land to presently used for a spurpose; available are planting adequate	hat is pecific	Impacted area on private land where road; building encroachment or other feature significantly limits available area for planting	
widili (it).	<del></del>		5	4	<u></u>	2	1	
POTENTIAL CONFLICTS WITH		cover D Se	idespread invasive	plants	Potential contar	nination	Lack of sun	
Poor/unsafe access to site   Existing impervious cover   Severe animal impacts (deer, beaver)   Other:  NOTES:   Rip - RAP on both banks    Other:								

Impacted Buffer

IB |

LWATERSHED/SUBSHED: NBP			DATE: 1 / 24 /09	ASSESSED BY:CM/86
111	Typen			
URVEY REACH: \( \( \text{\text{Condition-#}} \) \( START \) \( \text{L}. \( \text{\text{Condition-#}} \) \( START \) \( \text{L}. \( \text{\text{Condition-#}} \) \( \text{START } \) \( \text{L}. \( \text{\text{Condition-#}} \) \( \text{START } \) \( \text{L}. \( \text{Condition-#} \) \( \text{START } \) \( \text{L}. \( \text{Condition-#} \) \( \text{START } \) \( \text{L}. \( \text{Condition-#} \) \( \text{START } \) \( \text{L}. \( \text{Condition-#} \) \( \text{START } \) \( \text{L}. \( \text{Condition-#} \) \( \text{START } \) \( \text{L}. \( \text{Condition-#} \) \( \text{START } \) \( \text{L}. \( \text{Condition-#} \) \( \text{START } \) \( \text{L}. \( \text{Condition-#} \) \( \text{START } \) \( \text{L}. \( \text{Condition-#} \) \( \text{START } \) \( \text{L}. \( \text{Condition-#} \) \( Condi	11ME: AT <u>41 ° 46 ° 14 "</u> 1	:AM/PM	PHOTO ID: (Camera-Pic	C#) PB2400 /# 47 (WALL) GPS: (Unit ID)
			• .	= (Jib. (Jim. 1D)
B END LA	<u> </u>	LONG 1  1  1  1  1  1  1  1  1  1  1  1  1	1963" LMK	
IMPACTED BANK: REASON IN	ADEQUATE: 🗹 Lack of	f vegetation To	o narrow Widespread inv	vasive plants
LT RT Both	Recentl	y planted 🔽 Oth	ier: erosion, parking	lors, TRACL, Retaining us
LAND USE: Private  (Facing downstream) LT Bank		urse Park O □ □	ther Public	~
RT Bank			□:	
DOMINANT Paved	Bare ground Turf/la		Shrub/scrub Trees	Other
LAND COVER: LT Bank				<u></u> :
RT Bank				□:
INVASIVE PLANTS: None	Rare 🔼	Partial coverage	Extensive coverage	unknown
STREAM SHADE PROVIDED? Non	e 🗓 Partial 📗	Full WETL	ANDS PRESENT? No	☐ Yes ☐ Unknown
POTENTIAL RESTORATION CANDIDA	TE Active reforestat	ion Greenway	design 🔽 Natural regenerat	ion 🛭 Invasives removal
RESTORABLE AREA  LT BANK RT  Length (ft):	REFORESTATION POTENTIAL: (Circle #)	Impacted area on pu where the riparian ar not appear to be use specific purpose; ple area available for pla	rea does public or private land the difference presently used for a sponty of purpose; available are	hat is land where road; building pecific encroachment or other
Width (ft):		5	4 (3)	2 1
POTENTIAL CONFLICTS WITH REFOR		idespread invasive vere animal impac		nination
NOTES: O PARKING LOT  O RIP-RAP ON  O MINOR ELE  O MOUNT LAN	1 banks (poor	e wildlife banks)		ps mark
G MOWN (NV		-008c &P 16	wec	
		·	:	

WATERSHED/SUBSHED: NO	DATE: 11 124 109   ASSESSED BY: CM 1869							
SURVEY REACH ID: 6	TIME::AM/PM	<b>РНОТО ID:</b> (Camera-Pio	:#) None /#					
SITE ID (Condition-#): OTA	LAT 41 . 46 1037 "LO	ong 72 · 42 · 18 "	LMK	GPS: (Unit ID)				
BANK: TYPE:  LT RT Head  FLOW: Trickle	MATERIAL:	SHAPE: Single Circular Double Elliptical Triple Other:	DIMENSIONS: Diameter: 29	SUBMERGED:  No in) Partially Fully				
☐ Moderate       ☐ Substantial     ☐ Open       ☐ Other:     channel	☐ Concrete ☐ Earthen☐ Other:	☐ Parabolic W	epth: (in idth (Top): (in (Bottom): (in	NOT APPASCABLE				
CONDITION:  None  Chip/Cracked  Sewage	☐ None ☐ Oily	VEGGIE DENSITY:  None Normal Inhibited	Brown Or					
☐ Peeling Paint ☐ Rancid/S ☐ Corrosion ☐ Sulfide ☐ Other: ☐ Other:	Paint Other:	Excessive Other:	POOL QUALITY: Good Godors Suds Algae Other:	s □Colors □Oils				
FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen)  OTHER Excess Trash (paper/plastic bags) Dumping (bulk) Excessive Sedimentation  OTHER ONCERNS: Needs Regular Maintenance Bank Erosion Other:								
POTENTIAL RESTORATION CANDI	POTENTIAL RESTORATION CANDIDATE ☐ Discharge investigation ☐ Stream daylighting ☐ Local stream repair/outfall stabilization ☐ no ☐ Storm water retrofit ☐ Other:							
If yes for daylighting:								
If yes for stormwater:  Is stormwater currently controlled?  ☐ Yes ☐ No ☐ Not investigated	Is stormwater currently controlled?  Land Use description:							
SEVERITY: strong smeil. The amount of discharge is significant compared to the amount of normal flow in receiving discharge or the property to be beginned as the property of		charge has a color and/or odor, the amount of charge is very small compared to the stream's base wand any impact appears to be minor / localized.  Outfall does not have of discharge; staining; or of causing any erosion						
	5 4	3	2	1				
sketch/Notes: Rip-Rap (+ possible snow)	SKETCH/NOTES: Rip-RAP SURfainding Pipe, Also leab dumping here (+ possible snowing + salt inputs).							
		· 	REPORTED TO AUTHO	ORITIES: YES NO				



WATERSHED/SUBSHED: NBP		DATE: 11 / 24 / 09 ASSESSED BY: CM/BG				
SURVEY REACH ID: 6	TIME::AM/PM	PHOTO ID: (Camera-Pic #)	PB0400 # 43			
SITE ID (Condition-#): OT- 8		ong <u>612° 42' 138"</u>	LMK GPS: (Unit ID)			
BANK: TYPE:  LT RT Head  FLOW: Closed pipe	MATERIAL:  Concrete Metal  PVC/Plastic Brick  Other:	Circular Double	DIMENSIONS:  SUBMERGED:  No VOTE  Diameter: (in) Partially  Fully			
Moderate Substantial Open channel	Concrete Earthen Other:					
CONDITION:  ☐ None ☐ Chip/Cracked ☐ Peeling Paint ☐ Corrosion ☐ Other: ☐ Other: ☐ ODOR: ☑ None ☐ Gas ☐ Rancid/So ☐ Rancid/So ☐ Other: ☐ Other:	⊠ None □Oily	None Normal Inhibited Excessive Other:	Pre Benthic Growth: None   Brown			
FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other:  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen)  OTHER CONCERNS: Needs Regular Maintenance Bank Erosion Other:						
POTENTIAL RESTORATION CANDID	ATE Discharge investigation		ocal stream repair/outfall stabilization			
no	Storm water retrofit	Other:	·			
If yes for daylighting: Length of vegetative cover from outfall	ft Type of exis	sting vegetation:	Slope:°			
If yes for stormwater:  Is stormwater currently controlled?  ☐ Yes ☐ No ☐ Not investigated	Land Use de Area availab		· 			
SEVERITY: strong smell. The amo	unt of discharge is significant at the formal flow in receiving ears to be having a	discharge; flow mostly clear and odorle rge has a color and/or odor, the amount rge is very small compared to the strear and any impact appears to be minor / loca	of discharge; staining; or appearance of causing any erosion problems			
	5 4	<u> </u>	2 1			
SKETCH/NOTES: The Pip	e is Juthing out	from bank	NIO', possible			
evidence of by	tule erosion a	renaunal wic	dening?			
evidence of by another pipe included to	a us with,	s Arme Chara o admicy.	faistics is			
			ORTED TO AUTHORITIES: YES NO			

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WATERSHED/SUBSHED: NBP		DATE: 11 / 24 / 09 ASSESSED BY: BG/CM			
SURVEY REACH ID: \	TIME: :AM/PM	PHOTO ID: (Camera-Pi	c#) have /#		
SITE ID (Condition-#): OT-	LAT 41 0 461 12.9" LO	on <del>c/2                                    </del>		GPS: (Unit ID)	
BANK: TYPE:  LT RT Head  FLOW: pipe  None Trickle	MATERIAL: Concrete Metal PVC/Plastic Brick Other:	SHAPE: Single Circular Double Elliptical Triple Other:	DIMENSIONS:  Diameter: (in)	SUBMERGED: No Partially Fully	
	Concrete Earthen Other:	Parabolic W	epth: (in) //idth (Top): (in) / (Bottom): (in)	NOT APPENCABLE	
CONDITION:  Chip/Cracked  Peeling Paint  Corrosion  Other:  ODOR:  Gas  Sewage  Rancide  Sulfide  Other:	None Oily Sour Flow Line	VEGGIE DENSITY:  None Normal Inhibited Excessive Other:	PIPE BENTHIC GRO Brown Orang Other:  POOL QUALITY: Some Orang Odors Suds Algae Other:	e ☐ Green  No pool Colors ☐ Oils	
FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other:  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen) Other:  OTHER CONCERNS: Needs Regular Maintenance Bank Erosion Other:					
POTENTIAL RESTORATION CAND	<u></u>		Local stream repair/o	outfall stabilization	
If yes for daylighting:	Storm water retrofit	Other:			
Length of vegetative cover from outf	all:ft Type of exis	ting vegetation:	Slope: _	<u> </u>	
If yes for stormwater:  Is stormwater currently controlled?  ☐ Yes ☐ No ☐ Not investigated	Land Use de Area availab	-			
SEVERITY: strong smell. The a compared to the an	discharge is significant of normal flow in receiving a pipears to be having a pownstream.	discharge; flow mostly clear and or rge has a color and/or odor, the an rge is very small compared to the s id any impact appears to be minor	nount of stream's base / localized.	not have dry weather taining; or appearance ny erosion problems.	
SKETCH/NOTES: A. A. C.O.A.	5 4	3	. 2	1	
1tan 4 an	At to parking	LOT,			
		F	REPORTED TO AUTHORIT	TES: YES NO	

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WATERSHED/SUBSHED: NBP			DATE: 11 / 24 / CM ASSESSED BY: BG / CM			
SURVEY REACH ID:	6 Tu	ME:;AM/PM	РНОТО ID: (Camera-Pic#) РВ24 00 /# 446			
SITE ID (Condition=#): O	LA	т <u>41°46 · 17                                   </u>	LONG 10 . 42 . 10 " LMK GPS: (Unit ID)			
BANK:  LT RT Head  FLOW:  None Trickle	TYPE: Closed pipe	MATERIAL:  ☐ Concrete Met ☐ PVC/Plastic ☐ Brid ☐ Other:	~ ~ ~ ~ ~ ~ ~ ~ ~			
Moderate Substantial Other:	Open channel	Concrete Earth	Trapezoid   Depth:(in)   NOT APPECABLE     Other:   (Bottom):(in)			
CONDITION: None Chip/Cracked Peeling Paint Corrosion Other:	ODOR: NO Gas Sewage Rancid/Sour Sulfide Other:	DEPOSITS/STAINS: None Oily Flow Line Paint Other:	VEGGIE DENSITY:   PIPE BENTHIC GROWTH:			
FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other:  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen)  OTHER CONCERNS: Needs Regular Maintenance Bank Erosion Other:						
DOTENTIAL DECTROPATE	ION CANDIDATI	7 Disabanca investiga	tion Comment destriction			
no	ION CANDIDATE	Storm water retrofit	ation Stream daylighting Local stream repair/outfall stabilization  Other:			
If yes for daylighting:		Brown water reactive				
Length of vegetative cover	from outfall:	ft Type of e	xisting vegetation:o			
If yes for stormwater:  Is stormwater currently controlled?  Land Use description:  Yes \[ \] No \[ \] Not investigated  Area available:						
SEVERITY: strong comp stream		f discharge is significant normal flow in receiving to be having a	all discharge; flow mostly clear and odorless. If the charge has a color and/or odor, the amount of charge is very small compared to the stream's base v and any impact appears to be minor / localized.  Outfall does not have dry weather discharge; staining; or appearance of causing any erosion problems.			
	5	4	3 (2) 1			
SKETCH/NOTES: Se	wer?					
			Reported to authorities: \( \square\) yes \( \square\) no			



WATERSHED/SUBSHE	D: NEP		DATE: 194/9 ASSESSED BY: CM/86			
SURVEY REACH ID:	\6 Tı	ME::AM/PM	Рното ID: (Camera-Pi	ic#) Nave /#		
SITE ID (Condition-#): C	M-E LA	1741 <u>· 46 · 8.9</u> "I	ONG 10 0 40 11.3	' LMK	GPS: (Unit ID)	
BANK: SLT RT Head FLOW: None Trickle	TYPE: Closed pipe	MATERIAL:  ☐ Concrete		DIMENSIONS: Diameter: 36 "	SUBMERGED: No in) Partially Fully	
Moderate Substantial Other:	Open channel	Concrete Earthen Other:	Parabolic W	cepth:         (in           /idth (Top):         (in           " (Bottom):         (in	NOT APPECABLE	
CONDITION:  None Chip/Cracked Peeling Paint Corrosion Other:	ODOR: NO Gas Sewage Rancid/Sour Sulfide Other:	DEPOSITS/STAINS: None Oily Flow Line Paint Other:	VEGGIE DENSITY:  None Normal Inhibited Excessive Other:	PIPE BENTHIC G  Brown Or Other:  POOL QUALITY: Good Odors Suds Algae Other:	☐ No pool ☐ Colors ☐ Oils	
FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other:  FLOWING TURBIDITY: None Slight Cloudiness Gloudy Opaque  FLOWING FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen)  OTHER Excess Trash (paper/plastic bags) Dumping (bulk) Excessive Sedimentation  CONCERNS: Needs Regular Maintenance Bank Erosion Other:  POTENTIAL RESTORATION CANDIDATE Discharge investigation Stream daylighting Local stream repair/outfall stabilization						
□no		Storm water retrofit	Other:			
If yes for daylighting:						
	er from outfall:	ft Type of exi	sting vegetation:	Slope	e:°	
If yes for stormwater:  Is stormwater currently controlled?  Land Use description:  Yes No No tinvestigated  Area available:						
SEVERITY: strc cor stre	npared to the amount of eam, discharge appears	of discharge is significant discharge in ormal flow in receiving to be having a	discharge; flow mostly clear and o arge has a color and/or odor, the ar arge is very small compared to the and any impact appears to be minor	nount of discharg of causii	loes not have dry weather le; staining; or appearance ng any erosion problems.	
G	5	4	3	2	1	
SKETCH/NOTES: N A CONCLER Server?	letal pipe box cul	vent. Coming	n end that i	s AyAR + by lot AR	ea, Assible	
			ı	REPORTED TO AUTHO	RITIES: YES NO	

Stream Crossing

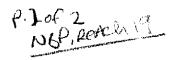
SC

WATERSHED	/SUBSHED: NEP				124109		SSED BY: CM /B6	
SURVEY REA					: (Camera-Pic			
SITE ID: (Con		41 0 46 04,	<u>7" Long<i>0</i>73</u>	<u>42 -</u>	13.6" LI	мк	GPS (Unit ID)	
	- Svert				C 1 ' 15		Other	
TYPE: X Roa	ad Crossing Railroad Crossi			I	MENT:		ONS: (if variable, sketch)	
	SHAPE:  Bottomless	#BARRELS: ☐ Single	MATERIAL:  Concrete		w-aligned	Barrel dia	.,	
'	Box Elliptical	Double	Metal		flow-aligned		Height:(ft)	
FOR ROAD/	Circular Other:	Triple Other: 5	Other:	□ Do	not know			
RAILROAD CROSSINGS		none	<u> </u>	CULV	ERT SLOPE:	Culvert le	ngth:(ft)	
ONLY	CONDITION: (Evidence of)  Cracking/chipping/corrosio	·	n scour hole	☐ Fla	t		Width:(ft)	
	Sediment deposition	· Failing emb			ght (2° – 5°)			
	Other (describe):			U 06	vious (>5°)	Roadway	elevation:(ft)	
	Daniel Carlon Carlon		emoval Culver	t rongir/ro	alacement 🔲	Instream st	orage retrofit	
1	RESTORATION CANDIDATE	<del></del>	repair Other:		nacement [	opsu cum se	Orago ronom	
Ø no	C. L. Co. LDT CO. WIDO!	·						
IS SC ACTIN	G AS GRADE CONTROL		es 🔲 Clikilo		CKAGE SEVE	RITY: (circ	le #)	
1	EXTENT OF PHYSICAL BLO						A temporary barrier such as a	
	Temporary Unkno	wn	A structure such as road culvert on a 3rd		A total fish block tributary that wo	uld isolate a	beaver dam or a blockage at	
If yes for	CAUSE:		greater stream block upstream movemen	~	significant reach or partial blockag		the very head of a stream with very little viable fish habitat	
fish barrier	Drop too high Water D	Orop:(in)	anadromous fish; no	fish	interfere with the	fere with the migration of above it; natural barriers such as waterfalls.		
14.	☐ Flow too shallow Water I☐ Other:	Depth: (in)	passage device pre			•		
N /G	U Other:		5		4 3	<u> </u>	2 1	
NOTES/SKE	TCH: this mar! ) + the south	es the a	downstre	AM	(Stand	1 36	reach	
(1100)	I also a construction	30 1 2 2 A 350	. سده ه	~ ~	lale Ac	Sessme	<del>al</del>	
(NGP	1 & Ash Property	COFF COFF	י רמיסק י		Andrian array	et amo		
İ								
ri.								
							WHO DIFFER TO VES TO NO.	
					REPO	RTED TO AU	JTHORITIES 🗌 YES 📗 NO	

NBP REACH T



SURVEY REACH ID: 19 WTRSHI	D/SUBSHD: NBF	)	DATE: 1/23	ASSE	SSED BY: 169
START TIME: 8:21 (AN)/PM	LMK:	_	1:25 (PM)PM	LMK:	GPS ID:
LAT4] . 48 . 18 " LONG 172.	42 . 24 "	LAT41° 48'	24 " Long 9	J. 42. 2	生" (2017)
DESCRIPTION: Culvert 2 ROAd		DESCRIPTION: Ex	manua del	postulation	
Colinor of the	Crossing		MIN TO BASE OF IN	DRIVEN	JAY /GERM/CUI
RAIN IN LAST 24 HOURS  Heavy rain	Steady rain	PRESENT CONDITIONS	B ☐ Heavy rain	☐ Steady rain	<b>⊡</b> Intermittent
None 🗆 Intermittent	Trace [	☐ Clear	Trace	☐ Overcast	☐ Partly cloudy
SURROUNDING LAND USE:		♣Urban/Residential  □ Crop	☐ Suburban/Res ☐ Pasture	☐ Forested ☐ Other:	
AVERAGE CONDITIONS (check ap	pplicable)	REACH	SKETCH AND SIT	ГЕ ІМРАСТ ТЕ	RACKING
BASE FLOW AS % 0-25%	□ 50%-75%	Simple planar sketch	of survey reach. Tra	ck locations and	IDs for all site impacts
CHANNEL WIDTH □25-50 %	<b>≰</b> 3.75-100%	within the survey r feature	each (OT, ER, IB,SC, s deemed appropriate.	UI, IR, MI) as w Indicate direction	
DOMINANT SUBSTRATE		•			on of flow
Silt/clay (fine or slick)	e (2.5 –10")	Environn			
☐ Sand (gritty) ☐ Bould ☐ Gravel (0.1-2.5") ☐ Bed ro		Restora	10°7 \		
☐ Gravel (0.1-2.5") ☐ Bed re		DIM Par	127		
WATER CLARITY  Celear  Turbid (su		Γ	1 /xV		
☐ Stained (clear, naturally colored) ☐ Opt	aque (milky)		Olivers	,	
Other (chemicals, dyes)					(2E)7M
AQUATIC PLANTS Attached:  none				$-\int \mathcal{N}_{\alpha}$	WEG LEN IN
IN STREAM Floating: A none	some 🗆 lots		Oure	- / / ->1	TEEL COLVERT
WILDLIFE IN OR (Evidence of)	Прож		ENDOED	211	
AROUND STREAM ☐ Fish ☐ Beaver ☐ Snails	Deer	i	culvent	7 \	
⊠ Mostly shaded (≥75			SIMM	1 1	
STREAM SHADING Halfway (≥50%)	o vo co verage)		water		
(water surface) ☐ Partially shaded (≥			,	$\neg$ $\square$	
☐ Unshaded (< 25%)	·		्र १	111 =	(vol:
CHANNEL Downcutting	Bed scour	/ . /	thing		1
DYNAMICS Widening Headcutting	Bank failure Bank scour	///	tolesto	1 83	- thin
Aggrading	Slope failure		cher	1/75	forested
Unknown Sed. deposition	Channelized		4	11	terffér
Height: LT bank	30 // (ft)	]		11	*
CHANNEL	(ft)	\ \		11	
DIMENSIONS RT bank	(ft)(ft)	~ 1//		11	
DOWNSTREAM)	()	') /'/			
Top _	(ft)	(N)	CONCRETE E	Re	cent excavation,
REACH ACCESSIBILITY Fair: Forested or Diff	fficult. Must cross	income /	Black	K \	imparated bank
Good: Open area in developed area we	etland, steep slope, or	1 (500)	1	1 58	open (no camp
sufficient room to adjacent to stream.	nsitive areas to get to eam. Few areas to	* /		04	culvot
stockpile materials, removal or impact to sto	ockpile available	1	-		
access for heavy landscaped areas. an	id/or located a great stance from stream.		\ \		
equipment using small or distant from Sp	ecialized heavy			, ,OA-A1-	
Sueam. eq	uipment required.	-	' <b>}                                   </b>	C PARK-	<b>&gt;</b>
NOTES: (biggest problem you see in survey rea	<u>rch)</u> ,	<u> </u>		<u> </u>	1,
Impacted bank of s	sixthen e	war upstream	m of, conjudi	r we	Mackakomina
turner that carrier	- water	damstre	AM MUST	be ve	my Img - 1
NOTES: (biggest problem you see in survey real MPAZED LOANK DS turned that CARRIED it is not located a street on it is	on the oth	ur side of	the Repo	RTED TO AUTHO	ORITIES YES NO
5 troot - or it	s closed		,		
ا المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة					



		OVERALL STREAM CONDI	TION	
	Optimal	Suboptimal	Marginal	Poor
IN-STREAM HABITAT  (May modify criteria based on appropriate habitat regime)	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient).	40-70% mix of stable habitat; well- suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
	20 19 18 17 16	15 14 13 12 (1)	10 9 8 7 6	5 4 3 2 1 0
VEGETATIVE PROTECTION  (score each bank, determine sides by facing downstream)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.
	Left Bank 10 9	8 7 6	<b>(3)</b> 4 3	2 1 0
	Right Bank 10 9	8 7 (6)	5 4 3	2 1 0
BANK EROSION (facing downstream)  Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems.		Grade and width stable; isolated areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or adjacent use.	Past downcutting evident, active stream widening, banks actively eroding at a moderate rate; no threat to property or infrastructure	Active downcutting; tall banks on both sides of the stream eroding at a fast rate; erosion contributing significant amount of sediment to stream; obvious threat to property or infrastructure.
	Left Bank 10 9	8 7 6	<b>3</b> 4 3	2 1 0
	Right Bank 10 9	8 🔿 6	5 4 3	2 1 0
FLOODPLAIN CONNECTION	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.
	20 19 18 17 16	15 14 13 12 🗘	10 9 8 7 6	5 4 3 2 1 0
	OVER	ALL BUFFER AND FLOODPLAI	IN CONDITION	
	Optimal	Suboptimal	Marginal	Poor
VEGETATED BUFFER WIDTH Width of buffer zone >50 feet; human activities (l.e., parking lots, roadbeds, clear-cuts, lawns, crops) have not impacted zone.		Width of buffer zone 25-50 feet; human activities have impacted zone only minimally.	Width of buffer zone 10-25 feet; human activities have impacted zone a great deal.	Width of buffer zone <10 feet: little or no riparian vegetation due to human activities.
	Left Bank 10 9	8 7 6	<b>5</b> 4 3	2 1 0
FLOODPLAIN VEGETATION	Right Bank 10 9  Predominant floodplain vegetation type is mature forest	Predominant floodplain vegetation type is young forest	5 4 3  Predominant floodplain vegetation type is shrub or old field	2 I 0  Predominant floodplain vegetation type is turf or crop land
	20 19 18 17 16	15 14 🕦 12 11	10 9 8 7 6	5 4 3 2 1 0
FLOODPLAIN HABITAT	Even mix of wetland and non-wetland habitats, evidence of standing/ponded water	Ever mix of wetland and non-wetland habitats, no evidence of standing/ponded water	Either all wetland or all non- wetland habitat, evidence of standing/ponded water	Either all wetland or all non- wetland habitat, no evidence of standing/ponded water
	20 19 18 17 16	15 14 (13) 12 11	10 9 8 7 6	5 4 3 2 1 0
Et coppy And	No evidence of floodplain encroachment in the form of fill	Minor floodplain encroachment in the form of fill material, land	Moderate floodplain encroachment in the form of filling, land development, or	Significant floodplain encroachment (i.e. fill material, land development, or man-made
FLOODPLAIN ENCROACH- MENT	material, land development, or manmade structures  20 19 18 17 16	development, or manmade structures, but not effecting floodplain function  14 13 12 11	manmade structures, some effect on floodplain function	structures). Significant effect on floodplain function  5 4 3 2 1 0

WATERSHEI	SUBSHED: N						17310		ESSED BY: CM/86
SURVEY REA	· · · · · · · · · · · · · · · · · · ·	TIM	Œ: <u>∦:∂</u> ≤	_ <b>40</b> 2/PM	Рнс	ото ID	: (Camera-P	ic#)   PBI3	00 # 01 +02
SITE ID: (Con	ndition#) SC- <u>[}</u>	LAT 41 °	48 . 18	_" Long <u>7</u>	<u>)</u>	42	<i>3</i> 4 " I	LMK	GPS (Unit ID)
TYPE: K Ro	TYPE: Road Crossing Railroad Crossing Manmade Dam Beaver Dam Geological Formation Other:								
FOR ROAD/ RAILROAD	SHAPE:  Arch Botto Box Ellipt Circular Other:	mless # BA	ARRELS: Single Double Triple Other:	MATERIAL: Concrete Metal Other:		ALIGN Flo	NMENT: ow-aligned t flow-aligned not know	DIMENS Barrel dia	SIONS: (if variable, sketch) ameter:(ft) Height:(ft)
CROSSINGS ONLY	CONDITION: (Evidence of)  Cracking/chipping/corrosion  Sediment deposition  Other (describe): Rip-Rap, fill, Recent exception			n scour hole ankment assi U.C. Flood	Flat			Culvert length:(ft)  Width:(ft)  Roadway elevation:(ft)	
по	RESTORATION CANDI	<b>⊠</b> L		emoval 🔀 Culv repair 🔼 Othe				- I -	torage retrofit -CAN it be Sho
Is SC ACTIN	G AS GRADE CONTRO			es 🛭 Unk	nown				
If yes for fish barrier	fish barrier  CAUSE:  Drop too high Water Drop:(in)  Flow too shallow Water Depth:(in)  Other:  OCHORN  CAUSE:  Upstream movement of anadromous fish; no fish passage device present.  Upstream movement of anadromous fish, no fish passage device present.  Or partial blockage that may interfere with the migration of anadromous fish.  Very little viable fish habitat above it; natural barriers such as waterfalls.								
NOTES/SKET	сн:						,		
NOTES/SKETCH:  REACH 19 (NBP) flows 1 nto this box culvert but "  it is unclear how far the stream must travel  underground - no autlet was observed and there is  an athletic field at the other side of the street.  At the box culvert inlet there appears to be  evidence as recent excavation - possibly from an  emergency from event (?) there is RII, Rip-RAP, t  evidence of a recent unshout under the rand  (see photo#01+00).									
									·
	· ·						REPO	RTED TO AU	THORITIES  YES NO

C	
3	

WATERSHEI	D/SUBSHED: NB/				DATE: ]	103107		SED BY: CM	1/66
SURVEY REA	ACH ID:	Tim		(A)M/PM		): (Camera-Pi	: #) PB23		
SITE ID: (Co	ndition#) SCB	LAT 41°	48 - 26	<u>"</u> " Long <u>7</u>	1 · 42 ·	<u> ЭЧ "</u> L	MK	GPS (Unit I	(D)
	FARM _								
TYPE: Re			Manmade Dam Beaver Dam Geological Formati			1	IMENSIONS: (if variable, sketch)		
	SHAPE:	l	ARRELS: Single	MATERIAL:		NMENT: ow-aligned	Barrel dian		(ft)
i	Box Elliptical		Double	Metal		ot flow-aligned		Height:	(ft)
FOR ROAD/	Circular		Triple	Otherape	ארן <u> </u> דען   דען	not know	•		(/
RAILROAD	Other:		Other:	botte		/EDT CLOBE:	Culvert ler	ngth:	(ft)
ONLY	CONDITION: (Evide		Doumetroor	m scour hole		/ERT SLOPE: at	,	Width:	(ft)
	Cracking/chipping Sediment deposit		Failing emb		1	ight $(2^{\circ} - 5^{\circ})$			
	Other (describe):					ovious (>5°)	Roadway 6	elevation:	(ft)
				. = .		. —			
<u> </u>	RESTORATION CANI	OIDATE ∐ F	ish barrier r	emoval 🛭 Culv repair 📮 Oth	ert repair/re	placement $\square$	Upstream sto	rage retront  / better S	bemun
no	· · · · · · · · · · · · · · · · · · ·					ment ke	2MIDNAY	1 MAN	mzem
IS SC ACTIN	G AS GRADE CONTR	OL N	lo 🗆 Y	es 🖾 Unk		COLL OF CHIEF	marra ( ) I	- 41	
	EXTENT OF PHYSI	CAL BLOCKA Partial	GE:		BLO	OCKAGE SEVE	KITY: (circi	е # <u>)</u> ·	
1		Unknown		A structure such road culvert on a		A total fish block tributary that wo		A temporary barrie beaver dam or a bi	
If yes for	C. won-		greater s		ocking the	significant reach	ant reach of stream, the very he		stream with
fish barrier	CAUSE:  Drop too high	(in)	anadromous fish; no fish interfere w			ge that may   migration of	very little viable fish above it; natural ba		
	Flow too shallow					us fish. as waterfalls.			
7	Other:					4 3		2 1	
NOTES/SKE	TCH: the st	REAM (	ASSES	thou	yen 4	uis a	ulvert	under	.
	,,,,		1 4	Dagara	المده	11 : 6	20	and	
A \	perm- pos	sibly A	N DIO	THOM	KONTO		1 6 1	7000	
cen	perm- pos dition of n starm	her H	JAN	high s	edime	int lop	els – (	likely	
1,00	n storm	unter	inpu	ts.					
G.G.	3,0,2,0,								l
		4							
								ł	
								•	
					_	REPO	RTED TO AU	THORITIES Y	'es 🔲 No

#### Channel Modification



WAIEKSHED/SU	JBSHED:	NBP			DATE: 11 / 2	3/07	ASSESSED BY: CM/B6
SURVEY REACH	ı ID:	19	TIME: 8	32_AMPM	Рното II	D: (Camera-Pic #)	100 # 002
SITE ID: (Conditi	lon-#)	START LAT	<u>• 48 · 18 "</u>	LONG	<u> </u>	LMK Sta	GPS: (Unit ID)
CM		END LATE		Long	0 1 11	LMK	- '
80.5533607000000000000000000000000000000000							
TYPE: Chanr	nelization	Bank annoring	concrete c	hannel 🔼 F	loodplain encroach	ment Other:	
MATERIAL:		Does channel ha	ve perennial f	low?	Yes 🗌 No	DIMENSIONS:	
☐ Concrete ☐		Is there evidence	of sediment	deposition?	XYes ☐ No	Height Bottom Width	
<del>-</del> –	Earthen	Is vegetation gro	wing in chan	nel?	Yes No	Top Width:	(ft)
☐ Metal ☐ Other:		Is channel conne	<u>-</u>		☐ Yes ☑ No	Length:	(fi)
BASE FLOW CH		,			ADJACENT ST	REAM CORRIDO	R
Depth of flow _	• •	(in)			Available widt	h LT	(ft) RT(ft)
Defined low flo	w channel	l? 🗌 Yes 🔲 No			Utilities Presen	nt? MY.	Fill in floodplain?
% of channel bo	ottom	%			☑ Yes □ No		<b>K</b> Yes □ No
POTENTIAL RE	STORATIO	ON CANDIDATE	Structural re	ераіг ПВа	se flow channel cre	eation 🐼 Natural	channel design
no	DI OICITI			•	sh barrier removal	Bioengi	
	A long section	of concrete stream (>50	)0')		but channel stabilized a		nannel less than 100 ft with good water
CHANNEL	channel when	e water is very shallow (< natural sediments prese	to beginning t	to function as a na	atural stream channel.	uepui, a natui	ral sediment bottom, and size and to the unchannelized stream reaches
SEVERITY:	deep) with no the channel.	natural sediments prese	"" Vegetated	bars may have for	rmed in channel.		low impacted area.
(Circle #)		5	4	3		2	(1)

### Storm Water Outfalls

**OT** 

WATERSHED/SUBSHED: N	&₽ 	DATE: 11/23/09   ASSESSED BY: CM/BG				
SURVEY REACH ID:	TIME: 1 : 05 @/PM	<b>РНОТО ID:</b> (Сатега-Ріс #) /#				
SITE ID (Condition #): OT-	LAT41 . 48 . 24 "Le	DNG #20 4 2-125 " I	MK GPS: (Unit ID)			
BANK: TYPE:  LT RT Head  Close	MATERIAL:  Concrete Metal	☐ Circular ☐ Double	MENSIONS: SUBMERGED:  No uneter: (in) Partially			
FLOW: pipe None Trickle	d	☑ Elliptical ☐ Triple Dia ☐ Other:	Fully			
Moderate   □ Open   Chann	Concrete Earthen	☐ Trapezoid Depth: ☐ Parabolic Width (* ☐ Other: " (Bott	3, 2 1 NOT APPECABLE om): (in)			
CONDITION: Solve   Gas   Sewa   Sewa   Sewa   Chip/Cracked   Sewa   Sanci   Corrosion   Sulfic   Other:	y None ge Qily 56 Yr.  If I I I I I I I I I I I I I I I I I I	None         □ Excessive           □ Other:         □ Other	BENTHIC GROWTH: None Brown    Orange    Green Other:  DL QUALITY:  No pool Good    Odors    Colors    Oils Buds    Algae    Floatables Other:			
	None Sewage (tollet paper, paper/plastic bags)	☐ Cloudy ☐ Opaque  etc.) ☐ Petroleum (oil sh g (bulk) ☐ Excessive Sedir	ge Red Other:  seen) Rother: SCUM  nentation  AP~ 10' diam Rock			
POTENTIAL RESTORATION CAN	DIDATE Discharge investigation  Storm water retrofit	on  Stream daylighting Lo Other:	cal stream repair/outfall stabilization			
If yes for daylighting: Length of vegetative cover from ou			Slope:°			
If yes for stormwater:  Is stormwater currently controlled?  ☐ Yes ☐ No ☐ Not investigate	Land Use de d Area availab		. <u></u>			
SEVERITY: strong smell. The compared to the	discharge is significant and discharge appears to be having a downstream.	discharge; flow mostly clear and odorless rge has a color and/or odor, the amount o rge is very small compared to the stream's nd any impact appears to be minor / localiz	discharge; staining; or appearance of causing any erosion problems.			
SKETCH/NOTES:	5 4		2 1			
SKEICH/INGLES:						
		REPOR	RTED TO AUTHORITIES: 🗌 YES 🗎 NO			

P.1002 Fyb, feach 1

### Reach Level Assessment



<b>)</b>	SURVEY REACH I	DD:	WTRSHD/SUBSHD: Fy	S	DATE: 1 / 30	<u> /0</u> 91   45°	SESSED BY:	
	START TIM	E: 7 : 55 0	D/PM LMK;	END TIME: 10	30 DI/PM	LMK:		PS ID:
	LAT 41 . 49 .		vc 72 ° 43 ' 41 "	LAT41 0 49 1	12 " LONG 7	2.43.5	70 "	au l
	DESCRIPTION: R		icks/culvet	DESCRIPTION: Le				·
		hiras Ace	ICAZICNIA DAI	Ne.	M PASS			
	RAIN IN LAST 24 HO	OURS  Heavy	rain   Steady rain	PRESENT CONDITIONS	☐ Heavy rain	☐ Steady ra	in 🕰 Intermit	tent
	None	☐ Intermi	•	☐ Clear	☐ Trace	☐ Overcast		1
	SURROUNDING LAN	D USE: 🗆 Indu	strial   Commercial	☐ Urban/Residential	☐ Suburban/Res	☐ Forested	<b>S</b> Institution	onal
		☐ Golf	f course Park	☐ Crop	☐ Pasture	⊠Other: P	WEIL TO	rechast R+V
	AVERAGE	CONDITIONS	(check applicable)	REACH	SKETCH AND SI	ге Імраст Т	RACKING	<u> </u>
	BASE FLOW AS %	□ 0-25%	□ 50%-75%	Simple planar sketch o	of survey reach. Tra	ck locations and	l IDs for all site	impacts
	CHANNEL WIDTH	□25-50 %	<b>₺</b> 75-100%	within the survey red features	icn (O1, EK, 1B,SC, deemed appropriate.			inonai
	DOMINANT SUBSTR  ✓ Silt/clay (fine or  ☐ Sand (gritty)  ☐ Gravel (0.1-2.5)	slick) [	□ Cobble (2.5 –10") □ Boulder (>10") □ Bed rock	1	MEU PAD			
		aturally colored) dyes)	urbid (suspended matter)  Opaque (milky)	DT TO	MER	umak		
	AQUATIC PLANTS IN STREAM	Floating: 🗖	none △ some □ lots none □ some □ lots		1	Hie	CHOOL	
	Wildlife in or Around Stream	☐ Snails ☐X	J VZ+ W	2	EMEADEN			
	STREAM SHADING (water surface)	☐ Mostly sha  ☐ Halfway (≥ ☐ Partially sh ☐ Unshaded (	aded (≥25%)		***		- CLEAN	ΞΛ,
	CHANNEL	☐ Downcutt☐ Widening	· '		*		MULCH	Es
	DYNAMICS	Headcuttii	ng 🔲 Bank scour		ta	NHT TO	NER	
	Unknown	☐ Aggrading ☐ Sed. depo			7	<b>)</b>	1410.	
	BANA	Height: LT b	ank 32 <sup>11</sup> (ft)	1	,	<b>136</b>	Noust	nac
	CHANNEL YVV	RTb				198,0,00	1/	
	(FACING	Width: Botto	- 111 l.			200 TO		
	DOWNSTREAM)	Top-	(ft)			K		\
	F	REACH ACCESSI		1		$\lambda$		
	Good: Open area in	Fair: Forested or	Difficult. Must cross	1		X	/1	7
	public ownership,	developed area adjacent to strear	wetland, steep slope, or sensitive areas to get to			$\chi$		İ
	sufficient room to stockpile materials,	Access requires t	ree stream. Few areas to			1	<u>ب</u>	
	easy stream channel	removal or impaction				•	<b>)</b>	
	access for heavy equipment using	Stockpile areas	distance from stream.				1	
	existing roads or trails.	small or distant from stream.	om Specialized heavy equipment required.				<b>?</b> -	•
	5	4) 3	2 1	1			<u>^</u> ~	14
	NOTES: (biggest prof Vento ACCOVS Resol Rend	WHY SI	ome service	tours + v	has Arens	es t wi	re onte	y Mothy
		•			Repor	TED TO AUTHO	ORITIES   YE	s 🗆 No
							_	<del></del>

P.2-62 FYB, REARN!

	OVERALL STREAM CONDITION								
	Optimal	Suboptimal	Marginal	Poor					
IN-STREAM HABITAT  (May modify criteria based on appropriate habitat regime)	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient).	40-70% mix of stable habitat; well- suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.					
	20 19 18 17 16	(15) 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0					
VEGETATIVE PROTECTION  (score each bank, determine sides by facing downstream)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.  Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation is very high; vegetation is very high; vegetation one-half of the potential plant stubble height.						
	Left Bank 10 9	8 7 6	5 🐠 3	2 1 0					
	Right Bank 10 9	8 7 6	<b>3</b> 4 3	2 1 0					
BANK EROSION (facing downstream)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Grade and width stable; isolated areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or adjacent use.	Past downcutting evident, active stream widening, banks actively eroding at a moderate rate; no threat to property or infrastructure	Active downcutting; tall banks on both sides of the stream eroding at a fast rate; erosion contributing significant amount of sediment to stream; obvious threat to property or infrastructure.					
	Left Bank 10 9	<b>8</b> 7 6	5 4 3	2 1 0					
	Right Bank 10 9	<b>8</b> 7 6	5 4 3	2 1 0					
FLOODPLAIN CONNECTION	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.					
	20 (19) 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0					
	Over	ALL BUFFER AND FLOODPLAI	N CONDITION						
	Optimal	Suboptimal	Marginal	Poor  Width of buffer zone <10 feet: little or no riparian vegetation due to human activities.					
VEGETATED BUFFER WIDTH	Width of buffer zone >50 feet; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, crops) have not impacted zone.	Width of buffer zone 25-50 feet; human activities have impacted zone only minimally.	Width of buffer zone 10-25 feet; human activities have impacted zone a great deal.						
	Left Bank 10 9	8 7 6	5 4 3	2 1 0					
	Right Bank 10 9	8 7 6	5 🐴 3	2 1 0					
FLOODPLAIN VEGETATION	Predominant floodplain vegetation type is mature forest	Predominant floodplain vegetation type is young forest	Predominant floodplain vegetation type is shrub or old field	Predominant floodplain vegetation type is turf or crop land					
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 🚳	5 4 3 2 1 0					
FLOODPLAIN HABITAT	Even mix of wetland and non-wetland habitats, evidence of standing/ponded water	Even mix of wetland and non-wetland habitats, no evidence of standing/ponded water	Either all wetland or all non- wetland habitat, evidence of standing/ponded water	Either all wetland or all non- wetland habitat, no evidence of standing/ponded water					
	20 19 18 17 16	15 14 13 12 11	10 9 (8) 7 (6)	5 4 3 2 1 0					
FLOODPLAIN ENCROACH- MENT  No evidence of floodplain encroachment in the form of fill material, land development, or manmade structures		Minor floodplain encroachment in the form of fill material, land development, or manmade structures, but not effecting floodplain function	Moderate floodplain encroachment in the form of filling, land development, or manmade structures, some effect on floodplain function	Significant floodplain encroachment (i.e. fill material, land development, or man-made structures). Significant effect on floodplain function					
	20 19 18 17 16	15 14 13 12 11	10 9 (8) 7 6	5 4 3 2 1 0					
Sub Total In-stream:       57 /80 + Buffer/Floodplain:       27 /80 = Total Survey Reach       80 /160									

#### Impacted Buffer

IB

		т		
WATERSHED/SUBSHED: FYB			DATE: <u>   /30 /09</u>	
URVEY REACH:		_: <u>58_</u> am/pm	Рното ID: (Camera-Pic	
	<u>чт 41°49'-28" і</u>	LONG 72 ° 43	<u>' 4</u> " LMK	GPS: (Unit ID)
B A END LA	<u>т°'" І</u>	LONG°	'" LMK	
1			_	
☐ LT ☐ RT 🔂 Both			o narrow ☐ Widespread inve er: P(p-PAp	asive plants
			her Public  B: RR TRACKS	L. Combleton
(Facing downstream) LT Bank RT Bank			B: RR TRACK	
DOMINANT Paved	Bare ground Turf/lav	vn Tall grass		Other
LAND COVER: LT Bank		. <u> </u>		
RT Bank	<b>5</b> 4.			E: RA TRAX
Invasive Plants: None	Rare 🔀 🛭	artial coverage	☐ Extensive coverage [	unknown
STREAM SHADE PROVIDED? Non	e ≰Partial [	Full WETL	ANDS PRESENT? No	Yes Unknown
POTENTIAL RESTORATION CANDIDA	TE Active reforestat	ion <b>G</b> Greenway d	esign 🔀 Natural regeneration	on 🔀 Invasives removal
RESTORABLE AREA		Impacted area on put		
LT BANK RT	REFORESTATION	where the riparian are not appear to be used	1 ' '	1
Length (ft): 200' 200'	POTENTIAL: (Circle #)	specific purpose; pler area available for plai		for feature significantly limits available area for planting
Width (ft):	(	5	4) 3	2 1
BOTTONELLI COMPLICES WITH DEPON	ECTATION CIW	I <del></del>	<del></del>	
POTENTIAL CONFLICTS WITH REFOR ☐ Poor/unsafe access to site ☐ Existing			plants	mation Lack of sun
NOTES: RAIRANCE TO	eneks / Rip	-PAP C	tlang both b	Hella
for ~200'				
, ,				
				*
-				•
			•	
				•
7				

WATERSHED/SUBSHED: FYG	· · · · · · · · · · · · · · · · · · ·		DATE	:11 130 100	Ass	SESSED BY	· CMA I	12
URVEY REACH:	TIME:	: AM/PM		o ID: (Camera-P				0
na manana ka ka ka ka ka ka ka ka ka ka ka ka ka	··	Long 12 °4			,,,,	GPS: ((		-
		LONG 72 ° 4	<del></del>			1	ŕ	ŀ
Report 24 12 12 12 12 12 12 12 12 12 12 12 12 12	<u> </u>	DO:10 10.	<u> </u>					
IMPACTED BANK: REASON IN	NADEQUATE: Lack	of vegetation 🗆	Γοο narrow	✓   Widespread in	vasive	plants		
LT RT Both	Recent			munder input	<u>15 wi</u>	that c	AMORY C	<u> </u>
LAND USE: ? Private  (Facing downstream) LT Bank	Institutional Golf Co	ourse Park	Other Pub			•	(A to	and
RT Bank				_				
DOMINANT Paved	Bare ground Turf/la		s Shrub/s	scrub Trees	Other			_
LAND COVER: LT Bank	•			≅	□:			ŀ
RT Bank	· · · · · · · · · · · · · · · · · · ·		<u>_</u>	<u>⊠</u>	:	····		_
INVASIVE PLANTS: None	Rare 🔀	Partial coverage	☐ E>	tensive coverage	unl	known		
STREAM SHADE PROVIDED? No	one 🛭 Partial	☐ Full WE	TLANDS P	RESENT? 🗌 No	<i>'</i>	∕es ☐ Uni	known	
						<u> </u>		
POTENTIAL RESTORATION CANDID	<del>_</del>	ation UGreenwa	y design	Natural regenera	tion [_	] Invasives	removal	
Decrease Anna	Other:	T		Ι				$\dashv$
RESTORABLE AREA	REFORESTATION	Impacted area on where the ripariar		Impacted area on eith public or private land			rea on private road; building	
LT BANK RT Length (ft):	POTENTIAL:		not appear to be used for any specific purpose; plenty of purpose; available area for feature significantly					
A PARTICIPATION OF THE PARTICI	(Circle #)	area available for		planting adequate	54 101		ea for planting	. [
Width (ft):		5	C	3	. ,	2	1	$\Box$
POTENTIAL CONFLICTS WITH REFO				Potential contain Deaver) Deaver		n 🔲 Lacl	k of sun	
NOTES:								$\Box$
-> Recent cleans	n of res t	110295T	. 50	ears ws	be	iam 1	wid	,
down to kee	op seedlsoi	1. (vest	- BA	10				
+ No butter her				•				
to Many Janes w	without vegety	atian in	RIPA	risin 2	we_	. + 10	w	
% Cares a CA	MAGEL (30%)	- lent B	Aul					
+ bield (both	banks wit	h stown	when	they is	ter	myli	_	
+ bield (both openssy smale	a - could in	onexise T	theu	use log	-\re			
<b>.</b>								ı

# Storm Water Outfalls



	WATERSHED/SUBSHEE	FYB		DATE: 1 /30 /09   ASSESSED BY: CM /66				
	SURVEY REACH ID:		IME: 9:55 AD/PM	PHOTO ID: (Camera-Pi	РНОТО ID: (Camera-Pic #) 149300 /# 03			
	SITE ID (Condition-#): O	r <u> </u>	AT 41 0 49 1 28 "1			GPS: (Unit ID)		
	BANK: TYPE:  LT RT Head  FLow: Closed pipe		MATERIAL:  ☐ Concrete  Meta ☐ PVC/Plastic ☐ Brick ☐ Other:		DIMENSIONS: Diameter: 5 (in)	SUBMERGED:  No Partially Fully		
	None Trickle Moderate Substantial Other:	Open channel	Concrete Earther	Trapezoid D	Depth:         (in)           Vidth (Top):         (in)           " (Bottom):         (in)	NOT APPECABLE		
	CONDITION: None Gas Chip/Cracked Peeling Paint Corrosion Other: Other: Odor:		DEPOSITS/STAINS:  None Oily Flow Line Paint Other:	VEGGIE DENSITY:  None Normal Inhibited Excessive Other:	PIPE BENTHIC GROWTH: None  ☐ Brown ☐ Orange ☐ Green ☐ Other:  POOL QUALITY: ☐ No pool ☐ Good ☐ Odors ☐ Colors ☐ Oils ☐ Suds ☐ Algae ☐ Floatables ☐ Other:			
Seed Street, And America, and Seed Street, S	FOR COLOR: Clear Brown Grey Yellow Green Orange Red Other:  FLOWING TURBIDITY: None Slight Cloudiness Cloudy Opaque  ONLY FLOATABLES: None Sewage (toilet paper, etc.) Petroleum (oil sheen)  OTHER Excess Trash (paper/plastic bags) Dumping (bulk) Excessive Sedimentation  CONCERNS: Needs Regular Maintenance Bank Erosion Other:							
ſ	POTENTIAL RESTORAT	TION CANDIDAT	TE ☐ Discharge investigat	ion Stream daylighting	Local stream repair/	outfall stabilization		
	If yes for daylighting: Length of vegetative cove	r from outfall:		isting vegetation:	Slope:	o		
	If yes for stormwater: Is stormwater currently co ☐ Yes ☐ No ☐ Not i		Land Use o Area availa	lescription:ble:				
	SEVERITY: stror com stres		of discharge is significant discharge in receiving s to be having a	Il discharge; flow mostly clear and on narge has a color and/or odor, the an narge is very small compared to the sand any impact appears to be minor	mount of discharge; stream's base	not have dry weather staining; or appearance any erosion problems.		
ŀ		5	. 4	3	2	1		
	SKETCH/NOTES: NE	ext to c	acker.	uch carrie	s street			
	)			. 1	Reported to authori	fies: □ yes □ no		

## Storm Water Outfalls



WATERSHED/SUBSHED:	FYB	DATE: 11 / 30 / 09   ASSESSED BY: CAM 186				
SURVEY REACH ID:	TIME::AM/PM	PHOTO ID: (Camera-Pic #) Nove /#				
SITE ID (Condition-#): OT-	LAT <u>41 ° 49 ' 30 "</u>					
L L'I CAILLA	PE: MATERIAL:  Concrete Metric PVC/Plastic Bric Other:					
	Open Concrete Earthe	Trapezoid   Depth:(in)   NOT AP DESCABLE   Other:   (Bottom):(in)   NOT AP DESCABLE   Other:   (Bottom):				
□ None         □ Chip/Cracked           □ Peeling Paint         □ R           □ Corrosion         □ S	OR: NO Gas Sewage Rancid/Sour Sulfide Other:  DEPOSITS/STAINS: OBPOSITS/STAINS: Plow Line Paint Other:	VEGGIE DENSITY:       PIPE BENTHIC GROWTH: ☐ None         ☐ None       ☐ Brown ☐ Orange ☐ Green         ☐ Other:       POOL QUALITY: ☐ No pool         ☐ Excessive       ☐ Good ☐ Odors ☐ Colors ☐ Oi         ☐ Other:       ☐ Suds ☐ Algae ☐ Floatables				
		Other:				
	None Slight Cloudiness Sewage (toilet pape	Cloudy Opaque				
l	gular Maintenance Bank I	Erosion Other:				
POTENTIAL RESTORATION		tion  Stream daylighting  Local stream repair/outfall stabilization  Other:				
If yes for daylighting: Length of vegetative cover from	m outfall:ft Type of ex	sisting vegetation:°				
If yes for stormwater:  Is stormwater currently controll  Yes No Not invest		description:able:				
SEVERITY: strong smel compared to stream; disc	to the amount of normal flow in receiving disc	Ill discharge; flow mostly clear and odorless. If the harge has a color and/or odor, the amount of harge is very small compared to the stream's base and any impact appears to be minor / localized.  Outfall does not have dry weather discharge; staining; or appearance of causing any erosion problems.				
Commence	5 4	3 2 1				
SKETCH/NOTES: INSU	factent notes.					
	?					
	•					
		REPORTED TO AUTHORITIES: YES N				

WATERSHED/SUBSHED:	: FYB		DATE: 11 / 30 /	DATE: 11/30/09   ASSESSED BY: CM/B6				
SURVEY REACH ID: TIME:AM/PM				PHOTO ID: (Camera-Pic#) 149300 /# 07 +09				
SITE ID (Condition-#): OI	LA1	+ see welon	LONGº'	" LMK	GPS: (Unit ID)			
BANK: * See below	Түре:	MATERIAL:	SHAPE: Single		Submerged:			
LT RT Head  FLOW:	Closed pipe	Concrete M PVC/Plastic B Other:			rantany			
None Trickle Moderate Substantial	<b>Ø</b> Open	Concrete Example Earl	then Rossballs	Depth: (in) Width (Top): (in)				
Other:	channel	□ Other: <b>GRASS</b> SWAK	Other:	" (Bottom): (in)				
CONDITION: None Chip/Cracked	ODOR: No Gas Sewage	DEPOSITS/STAINS:  ✓ None  Oily  Flow Line	☐ None ☐ Normal	PIPE BENTHIC GR Brown Ora Other:				
Peeling Paint Corrosion Other:	☐Rancid/Sour ☐ Sulfide ☐ Other:	Paint Other:	☐ Inhibited ☐ Excessive ☐ Other:	POOL QUALITY: Good Odors Suds Algae Other:	□Colors □Oils			
ELECTRIC PROPERTY OF THE PROPE			инирия разоранория а <u>сто</u> мирия астор		inaa.ngab.sananapaa.saanananan			
FLOWING TURBIDIT	22 24 25 25 25 25 25 25 25 25 25 25 25 25 25							
	s Trash (paper/plas		—	ive Sedimentation				
CONCERNS:     Needs	Regular Maintena	ince 🔲 Ban	nk Erosion					
POTENTIAL RESTORAT	ION CANDIDATE	☐ Discharge invest	igation Stream daylighting	g  Local stream repair	r/outfall stabilization			
no		Storm water retro	fit Other:					
If yes for daylighting: Length of vegetative cover	from outfall:	ft Type of	f existing vegetation:	Slope	:°			
If yes for stormwater:			•					
Is stormwater currently cor			se description:		_			
Yes No Not in		Area av	/ailable:					
SEVERITY: strong comp stream	y discharge with a distir g smell. The amount of ared to the amount of n m; discharge appears to icant impact downstreal	discharge is significant ormal flow in receiving be having a	Small discharge; flow mostly clear al discharge has a color and/or odor, the discharge is very small compared to flow and any impact appears to be m	e amount of discharge the stream's base of causing	es not have dry weather ; staining; or appearance g any erosion problems.			
	5	4	<u>(3)</u>	2	1			
SKETCH/NOTES: UNKNOWN   And USC? Several inputs through grassy swales could increase steems temperatures "40"/70"43'50"  41° 49' 42"/70'43'50", swale   Swale 41'49'39"/72" 43'47"  41° 49' 38'/70'43'46" swale   Pan  41° 49'37"/70'43'46" swale   41° 49'39"/72" 43'47"								
	~~~~	5~ 5~	He/input 241°	19 '35 "/72°43' Reported to Author	44" rities: 🗆 yes 🔲 no			

WATERSHED	SUBSHED: FYB	- III		DATE: 11	<u>/ 30 /09</u>			CMIK	<u>55</u>
SURVEY REA			<b>Ø</b> I/PM	Рното II	: (Camera-Pi	c#) <b>/47 3</b>	<i>D</i> /#	<u>ශ</u>	
SITE ID: (Con	dition#) SC-A LAT	41 0 49 . 2	<u>8_" Long_</u>	<u>ع و لاع ا</u>	<u>4)</u> " L	MK	GPS	(Unit ID)	
					•				
TYPE: Ros	ad Crossing	ing Manmade	Dam Beav	er Dam 🔲	Geological Fon				
	SHAPE:	# BARRELS:	MATERIAL:	ALIG	NMENT:			riable, sketch	
	☐ Arch ☐ Bottomless ☐ Elliptical	Single Double	Concrete	we ☐ Fic	ow-aligned	Barrel diar	_		(ft)
FOR ROAD/	☐ Circular	Triple	☐ Metal 346	Deg 140	t flow-aligned not know	]	Height: _	(	(ft)
RAILROAD	Other: Cerrent botto	Other:	Oulci.		TIOL KIIOW	G 1 41		,	(0)
CROSSINGS ONLY	CONDITION: (Evidence of)				ERT SLOPE:	Culvert ler	ngth: Width:		(ft)
ONLI	Cracking/chipping/corrosio			Fla	ght (2° – 5°)	,	width: _	(	(ft)
	Sediment deposition	☐ Failing emb	ankment		vious (>5°)	Roadway e	elevation:		(ft)
	Other (describe):					Roadway			-(11)
POTENTIAL I	RESTORATION CANDIDATE	Fish barrier re	moval 🔲 Culv	ert repair/re	olacement 🔲 🛚	Upstream sto	orage retro	fit	
<b>™</b> no		Local stream		-		-	•		
IS SC ACTING	G AS GRADE CONTROL	□No □Y	es 🔲 Unk	nown					
	EXTENT OF PHYSICAL BLO	OCKAGE:		BLO	CKAGE SEVEI	RITY: (circle	e #)		
	☐ Total ☐ Partial		A structure such a	es a dam or	A total fish blocka	ene on a	A temporary	/ barrier such a	as a
If yes for	☐ Temporary ☐ Unkno	wn	road culvert on a	Brd order or tributary that would		ould isolate a beaver dam or a bloc		or a blockage	at
fish barrier	CAUSE:		greater stream ble upstream movem		significant reach of stream, or partial blockage that may		the very head of a stream with very little viable fish habitat		
,		rop:(in)	anadromous fish; passage device p	no fish	interfere with the anadromous fish.	migration of		tural barriers si	
	☐ Flow too shallow Water D☐ Other:	epth:(in)	passage device p	resent.	anauromous iisii.			s. 	
NOTES/SKET			5	•	1 3		2	1	
NOTES/SKET	Сн:								
			•						
								•	
	•								
1					Dance				Nic
	-				KEPOR	TED TO AUT	HORITIES	L YES L	INO

SC

WATERSHED	/SUBSHED:	FYB			DATE:	11/30/0	7 Asse	SSED BY:	cm/84
SURVEY REA		graduuri ja kara	TIME::	_AM/PM		ID: (Camera-P	ic#) <b>1493</b>	<i>୭</i> ୦ /#	06
SITE ID: (Con	dition=#) SC-	LAT	<u>41 · 49 · 3</u>	3" Long 1	<u>12° 43</u>	<u>142" I</u>	.MK	GPS	(Unit ID)
Type, [7] D.,		7 p.::	🗆 \( \tau_{\text{1}}	D [] D	D	Code de la Code		l 041	
TYPE: (X) KOZ	SHAPE:	_ Railroad Crossi	mg Manmade #BARRELS:	MATERIAL:		☐ Geological Fo			riable, sketch) 🚜
	Arch	□Bottomless	₩ BARRELS.	☐ Concrete	t	Flow-aligned	Barrel dia		(ft)
FOR ROAD/ Box Scircular		☐ Elliptical	☐ Double	Metal		Not flow-aligned		Height: _	(ft)
RAILROAD	Other:		☐ Triple ☑ Other:	Other:		Do not know			
CROSSINGS	CONDITION	: (Evidence of)			Cu	LVERT SLOPE:	Culvert le	-	(ft)
ONLY		chipping/corrosion				Flat Slight $(2^{\circ} - 5^{\circ})$		Width: _	(ft)
	☐ Sediment☐ Other (de.	•	☐ Failing emb	ankment		Obvious ( $>5^\circ$ )	Roadway	elevation:_	(ft)
	U Other (ae.	scribe).					1.0000		(.0)
POTENTIAL I	RESTORATIO	N CANDIDATE	Fish barrier re	moval 🔲 Culv	ert repair	r/replacement	Upstream s	torage retro	fit
no			Local stream	repair	er:				
Is SC ACTING	G AS GRADE (	CONTROL	□No □Y	es 🔲 Unk					
	EXTENT OF	PHYSICAL BLO	CKAGE:		В	BLOCKAGE SEVI	RITY: (circ	:le #)	
	Temporar	☐ Partial y ☐ Unknov	vn	A structure such road culvert on a					barrier such as a
If yes for	CAUSE:			greater stream b	ocking the	significant reacl	the very head of a str age that may very little viable fish h above it; natural barri		d of a stream with
fish barrier	Drop too	high Water Di	rop:(in)	upstream moverr anadromous fish		or partial blocks interfere with th			
		shallow Water De	epth: (in)	passage device	oresent.	anadromous fis	h.	as waterfalls	•
77 (7	Other:			5		4 3		2	1
NOTES/SKET	CH:				T -	- PARK-A	ve_		
11 monok			Y41 X4	x6')	\				
WHA	—> (	18") (4							
chipagn		<b>-</b>						•	
Shear					<b>a</b>				
(18" ONE	·				4 <u>5.</u>				
stormur	Her)				4				
		١.		arb.	9				
			nsteem		2				
	3		side		17				•
	8				`				
	eft Bank								
	<u> </u>				1				
	J								
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	there p	re 3 k	ARLES.	an the	wost	WEBON 1	3,000	. ط بد نا≑	# 12 m 1
	MYVOR	· ME NE	BULL OF	hereb.	·len 1	terr -	the 15	5 . W	Art Ciery
	is ston	than M	بسيارا						
						Repo	RTED TO AU	THORITIES	☐ YES ☐ No

Trash and Debris

TR

WATERSHED/SUE	SHED: FYB		DATE: 1/3	0109	ASSESSED BY: 36+ CM
SURVEY REACH I		TIME::AM/PM	Рното ID: (Са		
SITE ID: (Condition	r#) TR- <u>ovy</u> Lat	throughout "LON	G°'_	" LMK	GPS: (Unit ID)
TYPE:   Industrial   Commercial   Residential	☑ Tires ☐ C	Paper Metal Construction Medical Yard Waste Other: Shapping chal-	SOURCE: Unknown Flooding Illegal dump	LOCATION:  Stream Riparian Ar  Lt bank	A 2 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
POTENTIAL REST		Stream cleanup Stre	am adoption segmen	t Removal/pr	
If yes for trash or debris removal	EQUIPMENT NEEDED: WHO CAN DO IT:	☐ Heavy equipment ☐ T			DUMPSTER WITHIN 100 FT:  Yes No Unknown
CLEAN-UP POTENTIAL: (Circle #)	A small amount of trash (i.e than two pickup truck loads) k inside a park with easy access	ocated with easy access. Trash	may have been dumped on it could be cleaned up i	over A large amoul	nt of trash or debris scattered over a large ccess is very difficult. Or presence of drums of hazardous materials
Notes	5	4	3	2	1 4 4
NOTES: Oi	bottles, plastic	c bottles she	pping car	uts, than	s, parts of a
Nissan	which app	arently cras	ited t was	POORly	s, parts of a cleaned up,
etc. Th	e Nissam u	ms next to	PARK Ave	ا ، ا	
				Reporte	D TO AUTHORITIES YES NO



					·····		
SURVEY REACH 1	ID: 🔼   W1	RSHD/SUBSHD: F	YB	DATE: 1 /24	<u>/08</u> A	ASSESSED BY:	26
START TIM	1E:3 25 AME	) LMK:	END TIME:	_: <u>22_</u> AM/€M	LMK:		GPS 1D:
	55_" LONG	2.43 39 "	LAT41 0 49 .	20 " LONG TO	3 . 43	40 "	MAN
DESCRIPTION: JU	inchon with	WBS	DESCRIPTION: Co	HARE LOOME Q	w Hund	en paces / }	2,00
.,		<u> </u>		HITE COCOY == 1-		Culver	<del></del>
RAIN IN LAST 24 HO	OURS   Heavy rain	Steady rain	PRESENT CONDITIONS	☐ Heavy rain	☐ Steady	rain 🗆 Intermi	ittent
□ None	☐ Intermittent	☐ Trace	☐ Clear	☐ Trace	<b>▼</b> Overca	ist 🗆 Partly	cloudy
SURROUNDING LAN		l ☐ Commercial rse ☐ Park		☐ Suburban/Res ☐ Pasture	☐ Forester	d □Institut Retikermen	+ Commu
AVERAGE	E CONDITIONS (che	ck applicable)	REACH S	SKETCH AND SIT	TE IMPACT	TRACKING	F
BASE FLOW AS % CHANNEL WIDTH	□ 0-25% □25-50 %	□ 50%-75% <b>△</b> 75-100%	Simple planar sketch o within the survey red features		UT, TR, MI)	as well as any ad	
DOMINANT SUBSTR DASilt/clay (fine or □ Sand (gritty) □ Gravel (0.1-2	slick)   C  B	obble (2.5 –10") oulder (>10") ed rock		,			
		Opaque (milky)					
AQUATIC PLANTS IN STREAM		ne □ some □ lots e □ some □ lots					
WILDLIFE IN OR AROUND STREAM	(Evidence of) □ Fish □ Beav □ Snails □ Othe						
STREAM SHADING (water surface)	☐ Mostly shaded  【Halfway (≥50% ☐ Partially shade ☐ Unshaded (< 2	%) d (≥25%)					
CHANNEL DYNAMICS	Downcutting Widening Headcutting	Bed scour Bank failure Bank scour					
Unknown	Aggrading Sed. deposition	Slope failure Channelized	_	COTTAGE	carve	ROM	<b>-</b> ,
CHANNEL DIMENSIONS (FACING DOWNSTREAM)	Height: LT bank RT bank Width: Bottom Top	·	1	ony culvert of more sec. in the sec. in the sec.	7/2	TAM washoute	ano
	REACH ACCESSIBIL	•		\	7	- reignitary	Mau
Good: Open area in public ownership, sufficient room to stockpile materials,	Fair: Forested or developed area adjacent to stream. Access requires tree	Difficult. Must cross wetland, steep slope, or sensitive areas to get to stream. Few areas to	1	APAVITMENT COMPLEX	4	- Tenbut	vary input
easy stream channel access for heavy equipment using existing roads or trails.	removal or impact to landscaped areas. Stockpile areas small or distant from stream.	stockpile available and/or located a great distance from stream. Specialized heavy equipment required.	cuand come feate	1		og+ desu	SDAM
5 (	4 3	2 1			_/	·	
NOTES: (biggest pro	oblem you see in surve	v reach) StorkMwa	Her Runoff	not well	MANASI	al.	
				Dana		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Ven Divis

	Optimal	Suboptimal	Marginal	Poor	
IN-STREAM HABITAT  (May modify criteria based on appropriate habitat regime)	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are <u>not</u> new fall and <u>not</u> transient).	40-70% mix of stable habitat; well- suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; la of habitat is obvious; substrate unstable or lacking.	
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 (4) 3 2 1 0	
VEGETATIVE PROTECTION  (score each bank, determine sides by facing downstream)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.	
	Left Bank (10) 9	8 7 6	5 4 3	2 1 0	
<u> </u>	Right Bank 10 9	8 7 6	5 4 3	2 1 0	
BANK EROSION (facing downstream)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Grade and width stable; isolated areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or adjacent use.	Past downcutting evident, active stream widening, banks actively eroding at a moderate rate; no threat to property or infrastructure	Active downcutting; tall banks on both sides of the stream eroding a fast rate; erosion contributing significant amount of sediment to stream; obvious threat to property or infrastructure.	
	Left Bank 10 9	8 7 6	5 4 (3)	2 1 0	
	Right Bank 10 9	8 7 6	5 4 (3)	2 1 0	
FLOODPLAIN CONNECTION	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain, Stream deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	
<del></del>	20 19 18 17 16	15 14 (3) 12 11	10 9 8 7 6	5 4 3 2 1 0	
	OVER	ALL BUFFER AND FLOODPLAI	N CONDITION		
	Optimal	Suboptimal	Marginal	Poor	
VEGETATED Buffer Width	Width of buffer zone >50 feet; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, crops) have not impacted zone.	Width of buffer zone 25-50 feet; human activities have impacted zone only minimally.	Width of buffer zone 10-25 feet; human activities have impacted zone a great deal,	Width of buffer zone <10 feet; little or no riparian vegetation due to human activities.	
	Left Bank 10 9	8 ① 6	5 4 3	2 1 0	
<del></del>	Right Bank 10 9	8 7 6	5 4 3	2 1 0	
FLOODPLAIN VEGETATION	Predominant floodplain vegetation type is mature forest	Predominant floodplain vegetation type is young forest	Predominant floodplain vegetation type is shrub or old field	Predominant floodplain vegetation type is turf or crop land	
	20 19 18 17 16	15 (14) 13 12 11	10 9 8 7 6	5 4 3 2 1 0	
FLOODPLAIN HABITAT	Even mix of wetland and non-wetland habitats, evidence of standing/ponded water	Even mix of wetland and non-wetland habitats, no evidence of standing/ponded water	Either all wetland or all non- wetland habitat, evidence of standing/ponded water	Either all wetland or all non- wetland habitat, no evidence of standing/ponded water	
	20 19 18 17 16	15 14 (13) 12 11	10 9 8 7 6	5 4 3 2 1 0	
FLOODPLAIN ENCROACH- MENT	No evidence of floodplain encroachment in the form of fill material, land development, or manmade structures	Minor floodplain encroachment in the form of fill material, land development, or manmade structures, but not effecting floodplain function	Moderate floodplain encroachment in the form of filling, land development, or manmade structures, some effect on floodplain function	Significant floodplain encroachment (i.e. fill material, land development, or man-made structures). Significant effect on floodplain function	

Severo Bank Erosion

ER

WATERSHED/SUBS	SHED: FYB			DATE: 1/6	<u> 14/09</u>	ASSESSED B	v: CM +	BG
SURVEY REACH:	2	TIME: 3 :	<u>∂5</u> amæ	PHOTO ID (CA	MERA-PIC#	):PB240/#	075+0	76+
SITE ID: (Condition-	#) START LAT_	11.48.55	" LONG <u>チ</u> よ。 <sup>ん</sup>	13 139"	LMK	GPS	: (Unit ID)	
ER- one shee	END LAT_	<u> </u>	" LONG°_	1 17	LMK			
Bnoones.		D. W. On Co	worms: Dim		,, ,, ,			
	Currently unknown	LOCATION:	INCERN: ∐ LI Meander bend	RT Both Straight section	(looking dowi	<i>nstream)</i> lopc/vallev wai	II  Other	
Downcutting  Widening	Bed scour  Bank failure	DIMENSIONS			. 🗀 эксер и	ope rane, wa	ir 🗀 oliici.	
Headcutting	Bank scour		-	ft and/or RT	ft	Bottom wid	th f	t
Aggrading	Slope failure			ft and/or RT				ft
Sed. deposition	Channelized	Bank Angle	LT	° and/or RT	•	Wetted Wid	lth	ft
	P: Private Publi							
POTENTIAL REST	ORATION CANDIDAT	E: Grade	control	Bank stabilizati	on ,	_		
□ No				the control	8 /Minin	41.50 AA	skivess	<u> </u>
THREAT TO PROP	ERTY/INFRASTRUCT	URE: 🔼 No	Yes (Descr	ibe):				
EXISTING RIPARIA	AN WIDTH:	<b>⊠</b> ≤25 ft	25 - 50 ft	□ 50-75ft □ 7	75-100 <del>fl</del> [	]>100 <del>f</del>		
Erosion	Active downcutting; tall bar		Pat downcutting evi	dent, active stream		114		
SEVERITY(circle#)	of the stream eroding at a contributing significant amo	ount of sediment to	widening, banks act	tively eroding at a		width stable; isola ion; likely caused		
Channelized= 1	stream; obvious threat to p infrastructure.	roperty or	infrastructure	near to property or		aired riparian vege		
	5		4 3		2	O		
ACCESS:	Good access: Open area ownership, sufficient room			ted or developed area		cess. Must cross tive areas to acces		
	materials, easy stream cha heavy equipment using ex-		removal or impact to	Access requires tree landscaped areas.	stockpile ar	reas available and om stream section	or located a gre	eat
	trails.		Stockpile areas sma	all or distant from stream	equipment		. oposialized tit	~1 J
NOTES/CROSS SEC	CTION SKETCH:	10000 0	or Onillas	o A-+ 100	wation	<u> </u>	₹172 ±	
WBS	Adjakent Pairly easy. one of	- to Se	miar h	rm facil	ity +	Accen	could	<b></b> -
1	The sales	<u></u>		را المحالية	$\Omega$ $\mathbf{v}_{\mathbf{v}}$ :	pince 1	Slava	
voe f	MRY EASY.	There	IS A	wand -	d Ather L.	wwww	7	
PORT	are ob 1	d who	mules, 4	haigh.				
,	_			-				
1								
					REPORTE	D TO AUTHORI	TIES 🗌 YES	□No

	(FRI) JAN 22 2010 9:44	
DΕ	COUNT NAME: STINATION: Scan PDF ST. NUMBER: 1  DOCUMENT#: 6800000-400 TIME STORED: JAN 22 9:43 TIME SENT: DURATION: MODE:	
	GES : O sheets SULT : NG	
	P. 1 76 2  Fyb, leach    Reach Level Assessment RCH	
_	SURVEY REACH ID: WTRSHD/SUBSHD: FYS  DATE: 1/30/09 ASSESSED BY:  START TIME: 1:55 DD/PM LMK: END TIME: 0:30 DD/PM LMK: GPS ID:  LAT 41 0 49 0 48 " LONG 72 0 43 0 41 " LAT 41 0 49 0 42 " LONG 72 0 45 0 50 " OM  DESCRIPTION: RA RACKS/CUIVET DESCRIPTION: LONG 72 0 45 0 50 "	
	RAIN IN LAST 24 HOURS   Heavy rain   Steady rain   PRESENT CONDITIONS   Heavy rain   Steady rain   Intermittent   Face   Clear   Trace   Overcast   Partly cloudy    SURROUNDING LAND USE:   Industrial   Commercial   Urban/Residential   Suburban/Res   Forested   Institutional   Commercial   Crop   Pasture   ROther: Proceedings   Rother: Process   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother   Rother	<b>ሳ</b> ኦ
	AVERAGE CONDITIONS (check applicable)  REACH SKETCH AND SITE IMPACT TRACKING	
	BASE FLOW AS %	
	WATER CLARITY Clear ATurbid (suspended matter)  Stained (clear, naturally colored) Opaque (milky)  Other (chemicals, dyes)	
	AQUATIC PLANTS Attached:   IN STREAM Floating:   In one Some lots  WILDLIFE IN OR AROUND STREAM   Snails   Souther: SAALE   Michael  Snails   Stream   Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Snails   Stother: SAALE   Michael  Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stother: Stoth	
_	☐ Mostly shaded (≥75% coverage)  STREAM SHADING (⇒Halfway (≥50%)  (water surface) ☐ Partially shaded (≥25%)  ☐ Unshaded (<25%)	

Bed scour

☐ Bank failure

Bank scour
Slope failure

Downcutting

Widening

Headcutting
Aggrading

CHANNEL

**D**YNAMICS

Trash and Debris

TR

WATERSHED/SUB	SHED: FYB			DATE: <u>  / 2</u>	ASSESSED BY: CM+84			
SURVEY REACH I	D: 2	Тіме::_	AM/PM	<b>РНОТО ID:</b> (Сал	mera-Pic#)PBDY	10 /# 080 + 082		
SITE ID: (Condition	#) TR-XX LAT	11 <u>• 48 • 59</u>	LONG	12.43.38	_" LMK	GPS: (Unit ID)		
TYPE: Industrial Commercial Residential	<b>=</b>	onstruction  ard Waste	Metal [ Medical [	GOURCE:  Unknown  Flooding  Illegal dump  Local outfall	LOCATION: Stream Riparian Are Lt bank Rt bank	A TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTA		
POTENTIAL REST	ORATION CANDIDATE	Stream cleanu	р 🗌 Stream	adoption segment	☑ Removal/pre	evention of dumping		
If yes for trash or debris removal	EQUIPMENT NEEDED: WHO CAN DO IT:			sh bags Unkno v Hazmat Te		DUMPSTER WITHIN 100 FT:  ☐ Yes ☐ No ☐ Unknown		
CLEAN-UP POTENTIAL: (Circle #)	A small amount of trash (i.e., than two pickup truck loads) lo- inside a park with easy access	cated a long period of time but it could be cleaned up in a			t of trash or debris scattered over a large cess is very difficult. Or presence of drums f hazardous materials			
	(3)	4 3			2	2 1		
NOTES: local antiall - Adjacent to dumpster and parking lot in favely unborn area. Stream reach is in between a serior living center + apartment building (?)								
					Reported	TO AUTHORITIES YES NO		

# Storm Water Outfalls



WATERSHED/SUBSHED:	В	DATE: V/24/09 ASSESSED BY: CM/B6				
SURVEY REACH ID: $\partial$	TIME::AM/PM	PHOTO ID: (Camera-Pic#) /#				
SITE ID (Condition-#): OT- A	LAT 41 0 48 1 55 "LI	ong <u>72 ° 43 '38 " LMK GPS: (Unit ID)</u>				
BANK:    XLT	I , C/I lustic []Brick	SHAPE: Single DIMENSIONS: SUBMERGED: Circular Double No Elliptical Triple Diameter: (in) Partially Other: Fully				
☐ Moderate ☐ Substantial ☐ Other: ☐ Char		☐ Trapezoid         Depth:				
CONDITION:  None  □ Chip/Cracked □ Peeling Paint □ Corrosion □ Other:  □ Other:  □ ODOR: □ Gas □ Sew □ Ranc □ Ranc □ Corrosion □ Other	age	VEGGIE DENSITY:				
FOR COLOR: FLOWING TURBIDITY: ONLY FLOATABLES: OTHER CONCERNS:  Needs Regular	None Sewage (toilet paper, paper/plastic bags)	☐ Cloudy ☐ Opaque etc.) ☐ Petroleum (oil sheen) ☐ Other; g (bulk) ☐ Excessive Sedimentation				
POTENTIAL RESTORATION CA	NDIDATE Discharge investigation  Storm water retrofit	on Stream daylighting  Local stream repair/outfall stabilization  Other:				
If yes for daylighting: Length of vegetative cover from or	<del></del>	sting vegetation: Slope:°				
If yes for stormwater:  Is stormwater currently controlled?  ☐ Yes ☐ No ☐ Not investigat	Land Use de ed Area availab	scription: Parthing / building (Apt?)				
SEVERITY: strong smell. The compared to the	e amount of discharge is significant discharge amount of normal flow in receiving discharge appears to be having a	discharge; flow mostly clear and odorless. If the trige has a color and/or odor, the amount of trige is very small compared to the stream's base and any impact appears to be minor / localized.  Outfall does not have dry weather discharge; staining; or appearance of causing any erosion problems.				
	5 4	3 2 1				
SKETCH/NOTES: POORLY	designed steem	under from parking for.				
		REPORTED TO AUTHORITIES: YES NO				

V	VATERSHED/SUBSHED	: FYB			DATE: 1 / 24 / 0	ASSES	SED BY: C	m+B6	
S	URVEY REACH ID: 🭃	<b>L</b> TIN	<b>ИЕ:</b> :AM/PM	1	<b>РНОТО ID:</b> (Camera-Pic	:#)	/#		
S	ITE ID (Condition#): O	Г <u>. В.</u>   Lл	To_See_loel	_"Lo	NG''	LMK_	G	PS: (Unit ID)	
E	BANK: See Gelow  LT RT Head  LOW:  None Trickle	TYPE: Closed pipe	Material:	Metal	SHAPE: Single Circular Double Elliptical Triple Other:	DIMENSI Diameter:	ons: 7ð <sup>(in)</sup>	SUBMERGED:  No Partially Fully	
	Moderate Substantial Other:	Open channel	Concrete E E	arthen	Parabolic W	epth: idth (Top): (Bottom):		NOT APPACABLE	
12	CONDITION:  None Chip/Cracked Peeling Paint	ODOR: No Gas Sewage Rancid/Sour	DEPOSITS/STAINS None Oily Flow Line	S:	VEGGIE DENSITY:  ☑ None ☐ Normal ☐ Inhibited	Brown Other:	PE BENTHIC GROWTH: None Brown Orange Green Other:		
	Corrosion Other:	Sulfide Other:	r		Excessive Other:	Good [	POOL QUALITY:  No pool  Souds  Algac  Floatables  Other:		
O C	FOR   COLOR:   Brown   Grey   Yellow   Green   Orange   Red   Other:								
L	yes for daylighting: ength of vegetative cover yes for stormwater:	r from outfall:			ing vegetation:				
Is	stormwater currently co		Land Area	Use des	cription: PARKING /	Build	iving lp	partments	
O Si	DUTFALL Heavestron stron computer (ircle #)	y discharge with a disting smell. The amount of	inct color and/or a discharge is significant normal flow in receiving to be having a	Small di discharg discharg	scharge; flow mostly clear and oc ge has a color and/or odor, the am ge is very small compared to the si I any impact appears to be minor /	ount of tream's base	discharge; sta	ot have dry weather ining; or appearance y erosion problems.	
Si	KETCH/NOTES:			1	<u>3</u>	2		1	
51	SOWI	oe iter		4	parland to Apts.			648'59"/72°4	
<b>//</b>		her to	hart Flaw	<b>←</b>	- stormwater/wash 	unt 20 41	148 '57	es; U yes \( \text{NO} \) "/72"43'38" "72"43'35"	

WATERSHED		T		DATE:				cont	$\mathbb{Q}$
SURVEY REA	CHID:		_AM/ <b>f</b>	Рното П	<b>):</b> (Camera-Pio	: #) PB240	/#	<i>0</i> 83	-
SITE ID: (Con	dition#) SC-	41.49.0	O" LONG	<u> </u>	<u>40 "</u> LI	МК	GPS	(Unit ID)	
TYPE: K Ros	ad Crossing	i -	Dam Beav	er Dam 🔲	Geological Form	nation 🔲 C	Other:		
	SHAPE:	#BARRELS:	MATERIAL:		NMENT:	DIMENSIO		ıriable, sketo	ch)
	☐ Arch ☐ Bottomless ☐ Elliptical	Single	Concrete		ow-aligned	Barrel diam	_		_(ft)
FOR ROAD/	Circular	Double Triple	☐ Metal ☐ Other:		ot flow-aligned o not know	H	leight:		_(ft)
RAILROAD	Other:	Other:	U Otner.		not know				
CROSSINGS	CONDITION: (Evidence of)				ERT SLOPE:	Culvert len	_		_(ft)
ONLY	Cracking/chipping/corrosio	n 🔲 Downstrear	n scour hole	□ Fla		V	/idth:		<u>(</u> ft)
	Sediment deposition	☐ Failing emb	pankment	l l	ght (2° – 5°) ovious (>5°)				(0)
	Other (describe):				ovious (/3 )	Roadway el	levation:		_(ft)
POTENTIAL I	RESTORATION CANDIDATE	Fish barrier re	emoval D Culs	ert ranair/ra	nlacement D I	Instraam sto	raiga ratro	.fit	
no	ALGIORATION CANDIDATE	Local stream		=	•	-	-	,11 <b>t</b>	
	G AS GRADE CONTROL	• -			love sed	unnent			
18 SC ACTING			es 🔲 Unk		OCKAGE SEVER	DITV: /aimala	#)		
}	EXTENT OF PHYSICAL BLO	CKAGE:		DLC	CRAUE SEVE	arr. (circle	π/		-
<b>,</b>	☐ Temporary ☐ Unkno	wn	A structure such road culvert on a		A total fish blocka tributary that wou			y barrier such or a blockage	
If yes for	Caron		greater stream bl		significant reach	of stream,	he very hea	ad of a stream	ı with
fish barrier	CAUSE:  Drop too high Water D	rop:(in)	upstream moven anadromous fish		or partial blockage interfere with the		•	able fish habit tural barriers	
	☐ Flow too shallow Water D	•	passage device p		anadromous fish.		as waterfall		30011
	Other:		5		4 3	l	<u> </u>	1	
NOTES/SKET	CH:								
	"excess selv	ment.							
							•		
									-
			•						
	4								ĺ
]									
						•			•
•								<b>—</b> —	
					REPOR	TED TO AUTH	IORITIES	∐ YES [	] No

P.1062 Pybrenes



SURVEY REACH II	D: <u>3</u> WTR	SHD/SUBSHD: F }		DATE: 11 / 39	<u>/07</u> A	ASSESSED BY:	معكر
LAT41 049 1		LMK: 	LAT41 0 49 13	1 /		41 "	GPS ID:
DESCRIPTION: RE	. 218/culvet	Crozind	DESCRIPTION: RR	- tracks/c	miret e	closs	
RAIN IN LAST 24 HO	URS  Heavy rain	☐ Steady rain☐ Trace	PRESENT CONDITIONS  Clear	☐ Heavy rain ☐ Trace	☐ Steady ☐ Overca	rain ÆUntern ast □ Partly	
SURROUNDING LAND		☐ Commercial	☐ Urban/Residential	≰Suburban/Res □ Pasture	Foreste	d 🗆 Institu	itional
AVERAGE	CONDITIONS (chec	k applicable)	REACH S	SKETCH AND SI	TE IMPACT	TRACKING	
BASE FLOW AS % CHANNEL WIDTH	□ 0-25% □25-50 %	□ 50%-75% ♥ <b>ズ</b> 75-100%	Simple planar sketch of within the survey rea features o	of survey reach. Tra och (OT, ER, IB,SC, deemed appropriate	UT, TR, MI)	as well as any a	ite impacts additional
DOMINANT SUBSTRA	Co		CLIPMAP A	+	WARE	NOVSES D EMENT	
AQUATIC PLANTS IN STREAM		some 🗆 lots	NOW		PAV	EMENT	
WILDLIFE IN OR AROUND STREAM	(Evidence of)  ☐ Fish ☐ Beave ☐ Snails 🌠 Other	er Deer :RACON		MPNAP			
STREAM SHADING (water surface)	Mostly shaded ( ☐ Halfway (≥50%) ☐ Partially shaded ☐ Unshaded (< 25	) .(≥25% )	PIPE	wares	1		
CHANNEL DYNAMICS Unknown	Downcutting Widening Headcutting Aggrading Sed. deposition	Bed scour Bank failure Bank scour Slope failure Channelized	A - 12 ( a 6	# 36" PAPE	1	A	
CHANNEL DIMENSIONS (FACING DOWNSTREAM) BANVAN	Height: LT bank RT bank Width: Bottom Top	(ft)(ft)(ft)(ft)		VOORD K	TRIBUTA		
I	REACH ACCESSIBILI			/	1	J 4	
Good: Open area in public ownership, sufficient room to stockpile materials, easy stream channel access for heavy equipment using existing roads or trails.	Fair: Forested or developed area adjacent to stream. Access requires tree removal or impact to landscaped areas. Stockpile areas small or distant from stream.	Difficult. Must cross wetland, steep slope, or sensitive areas to get to stream. Few areas to stockpile available and/or located a great distance from stream. Specialized heavy equipment required.	1	Contra	BU	FACE COINGS AMENIA COTTACE	CMAV <sup>6</sup>
NOTES: (biggest pro	blem you see in survey	reach) mparity	The buffer of A rputs Junshau rood,	reas of costs, areas	of exp	- RAP (Rig	Elf bank
weemna	F-10-4(2000) 1.1/2		,	REPO	ORTED TO A	UTHORITIES _	YES No

P.2% I FYB, REACTIZ

		OVERALL STREAM CONDI	······································	
	Optimal	Suboptimal	Marginal	Poor
IN-STREAM HABITAT  (May modify criteria based on appropriate habitat regime)	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient).	40-70% mix of stable habitat; well- suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
	20 19 18 17 16	(15) 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
VEGETATIVE PROTECTION  (score each bank, determine sides by facing downstream)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.
ı	Left Bank 10 9	<b>№</b> 7 6	5 4 3	2 1 0
	Right Bank 10 9	<b>®</b> 7 6	5 4 3	2 1 0
BANK EROSION (facing downstream)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Grade and width stable; isolated areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or adjacent use.	Past downcutting evident, active stream widening, banks actively eroding at a moderate rate; no threat to property or infrastructure	Active downcutting; tall banks on both sides of the stream eroding a a fast rate; erosion contributing significant amount of sediment to stream; obvious threat to property or infrastructure.
	Left Bank 10 9	8 7 6	<b>3</b> 4 3	2 1 0
	Right Bank 10 9	8 7 6	<u>G</u> 4 3	2 1 0
FLOODPLAIN CONNECTION	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	OVEI	RALL BUFFER AND FLOODPLA	IN CONDITION	
	Optimal	Suboptimal	Marginal	Poor
VEGETATED BUFFER WIDTH	Width of buffer zone >50 feet; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, crops) have not impacted zone.	Width of buffer zone 25-50 feet; human activities have impacted zone only minimally.	Width of buffer zone 10-25 feet; human activities have impacted zone a great deal.	Width of buffer zone <10 feet: little or no ripanan vegetation due to human activities.
	Left Bank 10	8 7 6	5 4 3	2 1 0
<del></del> "	Right Bank 10 9	8 7 6	5 4 3	2 1 0
FLOODPLAIN VEGETATION	Predominant floodplain vegetation type is mature forest	Predominant floodplain vegetation type is young forest	Predominant floodplain vegetation type is shrub or old field	Predominant floodplain vegetation type is turf or crop land
	20 19 18 17 16	15 14 (13) 12 11'	10 9 8 7 6	5 4 3 2 1 0
FLOODPLAIN HABITAT	Even mix of wetland and non-wetland habitats, evidence of standing/ponded water	Even mix of wetland and non-wetland habitats, no evidence of standing/ponded water	Either all wetland or all non- wetland habitat, evidence of standing/ponded water	Either all wetland or all non- wetland habitat, no evidence of standing/ponded water
	20 19 18 17 16	15 14 (13 12 11	10 9 8 7 6	5 4 3 2 1 0
	No evidence of floodplain encroachment in the form of fill	Minor floodplain encroachment in the form of fill material, land	Moderate floodplain encroachment in the form of filling, land development, or	Significant floodplain encroachment (i.e. fill material, land development, or man-made
FLOODPLAIN ENCROACH- MENT	material, land development, or manmade structures	development, or manmade structures, but not effecting floodplain function  15 14 13 12 (1)	manmade structures, some effect on floodplain function 10 9 8 7 6	structures). Significant effect on floodplain function  5 4 3 2 1 0

SC

WATERSHED	SUBSHED: FY S		D	)ATE: <u>                                    </u>	<u>/30/09</u> 1	ASSE	SSED BY: CM +	80
SURVEY REA		TIME: 8:15	AM/PM P	ното <b>П</b>	): (Camera-Pi	:#) dym	pus/# 002	
SITE ID: (Con	idition-#) SCLAT	<u>41 •49 • 02</u>	" Long <u>7</u> 2	<u>•43                                    </u>	<u>40 " L</u>	мк	GPS (Unit ID)	
	R+1-218 _							
TYPE: A.Ro		ng Manmade		T T				
	SHAPE:  Arch Bottomless	#BARRELS:	MATERIAL:	1 4	NMENT: ow-aligned	DIMENS Barrel dia	IONS: (if variable, sketch	h) (ft)
	Box 🔲 Elliptical	Double	☐ Metal		ot flow-aligned	Danci die		(ft)
FOR ROAD/ RAILROAD	☐ Circular☐ Other:	☐ Triple☐ Other:	Other:		not know			(49)
CROSSINGS	CONDITION: (Evidence of)	oulei.		CIIIA	ERT SLOPE:	Culvert le	ength:	(ft)
ONLY	Cracking/chipping/corrosio	n Downstream	n scour hole	☐ Fla	at		Width:	(ft)
	Sediment deposition	☐ Failing emb			ght (2° – 5°)			
	Other (describe):				ovious (>5°)	Roadway	elevation:	_(ft)
POTENTIAL I	RESTORATION CANDIDATE	Figh harrier w	emoval 📈 Culver	t renair/re	nlacement 🗆 I	Instream	torage retrofit	$\dashv$
□ no	ALDI ORATION CANDIDATE		repair Other:	-	-	_	•	
	G AS GRADE CONTROL	□ No □ Y			vient re	>~\(\(\rac{10}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\rac{1}{\chint}}}}} \right.} \right.} \right.} \right.} \right.} \right.} \right.} \right.} \right.} \right.} \right.} \right.}} \right.}} \right.}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	~	
ISSC ACTIVE	EXTENT OF PHYSICAL BLO		CS Delikilo		CKAGE SEVEI	RITY: (circ	de #)	
	☐ Total ☐ Partial					,		
7.5	☐ Temporary ☐ Unkno	wn '	A structure such as a road culvert on a 3rd		A total fish blocka tributary that wou	~	A temporary barrier such a beaver dam or a blockage	
if yes for fish barrier	If yes for fish harrier CAUSE:			ing the			the very head of a stream very little viable fish habita	
1		rop:(in)	upstream movement anadromous fish; no	fish	interfere with the	migration of	above it; natural barriers s	
	☐ Flow too shallow Water D☐ Other:	epth: (in)	passage device pres	ent.	anadromous fish.		as waterfalls.	
NOTES/SKET			5		4 3		2	$\dashv$
NOTES/SKET	CH: CIAM NOT SEE	ugut -	Maga	۱۳۸۸ مرد د صما	aced had	No-T	be used	
1 0 W	by of 2-by cul	TVETIES- C	11 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ر دور در دور	5 7000 T	7 <b>-</b> 0 -	). 	
1067	into the state of	weller is a	37760 01.1.	, 59	- 11 - WOLF	1 1120	<b>O</b> , <b>S</b>	
PESTE	icted to reight l	ale and h		` a fl				
Com	ext does maker i	CH, 228 / 1	1-VANE	MSW	very.			
,								
7							<b>-</b>	
					Repor	TED TO AU	THORITIES 🔲 YES 🔲	No

WATERSHED/SUBSHED:	B	DATE: \\ \/30 /6\\ ASSESSED BY: \( \mathrew \/\BG					
SURVEY REACH ID: 3	TIME: : ADVPM	<b>PHOTO ID:</b> (Camera-Pic #) /#	)				
SITE ID (Condition-#): OT	LAT_ ox see, Reven	LONG " LMK '	GPS: (Unit ID)				
BANK: Type:	3.5	Supply IM C. 1. December 1	SUBMERGED:				
LT RT Head	MATERIAL:  ☑ Concrete ☑Meta	SHAPE: Single DIMENSIONS:    Single Dimensions:   Single VARITY	No				
FLOW: Close		Elliptical Triple Diameter: Sec (in)	Doutiolly				
None Trickle	Other:	U Otner:	Fully				
Substantial Open		Trapezoid Depth: (in) Parabolic Width (Top): (in)	1107				
Other: chan	nel Other:	☐ Other: Width (Top): (in) ☐ Other: " (Bottom): (in)	NOT AP DESCABLE				
CONDITION: ODOR:	<del>_</del>	VEGGIE DENSITY: PIPE BENTHIC GRO	WTH: None				
☑ None	ge □Oily	□ None □ Brown □ Orang □ Normal □ Other:	e 🔲 Green				
Peeling Paint Ranci	d/Sour Flow Line	Inhibited POOL QUALITY:	l No pool				
☐ Corrosion ☐ Sulfidence ☐ Other: ☐ Other		☐ Excessive ☐ Good ☐ Odors ☐	Colors Oils				
Other:	: Domer.	Other: Suds Algae C	Floatables				
Eskoagunaaniaan kongonooniaanaanaan ka	Anoissippeessa maariika haaniya maanaya ree						
	☑ Clear ☐ Brown ☐ Grey ☑ None ☐ Slight Cloudiness	Yellow Green Orange Red Ot Cloudy Opaque					
36 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	None Sewage (toilet paper	, etc.) Petroleum (oil sheen) Ot	her:				
OTHER							
CONCERNS: Needs Regular	Maintenance Bank E	rosion Other:					
POTENTIAL RESTORATION CAN	DIDATE Discharge investigat	ion Stream daylighting Local stream repair/o	utfall stabilization				
<b>Ø</b> -no	☐ Storm water retrofit	Other:					
If yes for daylighting: Length of vegetative cover from out	fall: ft Type of av	isting vegetation: Slope:	٥				
Estign of vegetative cover from our	ianit Type of ex.	Stope					
If yes for stormwater: Is stormwater currently controlled?	r nit i	Dagkin ham					
Yes No Not investigate	d Area availa	escription: PARKING FOT ble:					
	with a distinct color and/or a Small	I discharge; flow mostly clear and odorless. If the					
(circle #) compared to the a	amount of normal now in receiving   disch	arge has a color and/or odor, the amount of discharge; st	not have dry weather aining; or appearance				
significant impact	e appears to be having a downstream.	and any impact appears to be minor / localized.	y erosion problems.				
Symmon Norman	5 4	3 2	1				
SKEICH/NOTES: There Av	le several open	channel inputs to this Red). See Reverse side for	Ach				
Additional detail	pipes ( - ) in total	i); see recreise side for	LOCATIONS T				
· ·			·				
- No unusial dos	jeunations—						
		REPORTED TO AUTHORIT	IES: 🗌 YES 🗍 NO				

```
1.) -reibutary entering LB as 41°49'03"/72"43'41" - possibly starmanter from parking lot.
 2) without from stremmeter from ar trebutarry on LB 2 41° 49'03" / 72° 43'41"
 3) Telbutary input on LB 20 41°49'05"/72'43'41"
 4) tributary input on RB D 41°49'05"/72°43'41"
5) "" " 241°49'06"/72'43'41"
 6.)
              " 2 41*49'06"/72*43"43"
               " L6 ~ 30 'Routher North
                     " 241°49'08"/72°43.41"
                     " 2 41°49′ 10"/12°43′ 40"
     " D 41'49' 12"/-90'43'42" - there is some Running water here, unlike
11.) WAShout/terlashay input to RB 241.47'13"/72" 43'42"
                                   believed residential AREA 2 41°49 13"/72°43'42"
 13.) Stochwater input on R6 2 41°49'15"/72"43" - there's a 30" Round concrete pipe 

N2' high off ground + Rip-PAP under to buffer outface before it perchen lovade.

See photo olympus 1 - ook.
14.) terbutary at statementary flaw (x2) on RB 20 41°49'16"/72°43'42°
15.) Tenentary input on LB ~ 41049 16 "/72"43"40"
16) Input on LB ~ 41° 49' 17"/72° 43'41"
17) Stremmater pipe on RB believed residential ARRA N12" diam; Rip-RAP under pipe
     + ~ 4' back from Top ob bank a 41°49'21"/12°43'43"
18.) Tribularry /input with running water to LB 2 41949 22"/72"43"42"
19.) Input To LB 2 41°49'25"/72°43'42"
20.) Starmmater injust (no pipe) to RE 20 41049 26 1/72043 45"
and of reach (upstream end) a culvert there is A 5' round metae pipe
```

#### Severe Bank Erosion

ER

_[	WATERSHED/SUBS	HED: FYB			DATE: 1 / 30	/ <u>O</u> Ass	SESSED BY: CM +66
1	SURVEY REACH:	3		AM/PM	PHOTO ID (CAMI		-
distribution in		START LAT 4	1 .49 . 20	' Long <u>72 ° 4</u>	<u>3'42"</u> 1	LMK	GPS: (Unit ID)
	BR-	END LAT_	<u> </u>	LONG°		LMK	
$\mid$	PROCESS:	Currently unknown	BANK OF CO	NCERN: ALT	RT Both (lo	aking downstre	am)
	Downcutting	Bed scour					valley wall  Other:
	☐ Widening	☐ Bank failure	DIMENSIONS	:			
	Headcutting	Bank scour		•	and/or RT		ottom widthft
	Aggrading	Slope failure	Bank Ht	LTft	and/or RT	ft To	op widthft
-	Sed. deposition	Channelized		1			etted Widthft
	LAND OWNERSHIP	: Private Publi	Unknown	LAND COVER	Forest  Fi	eld/Ag D	eveloped:
	Bowers A. Drope	DATE OF CANDADAM	, D.C., de		□ Dault stabilination	· · · · · · · · · · · · · · · · · · ·	
	No No	DRATION CANDIDATI	E: Grade  Other	-	Bank stabilization		
	THREAT TO PROP	ERTY/INFRASTRUCT	URE: No	Yes (Describ	pe):		
	EXISTING RIPARIA	N WIDTH:	□ ≤25 ft	□ 25 - 50 ft [	□ 50-75ft □ 75-	100ft □>	100ft
ı	EROSION	Active downcutting; tall bar of the stream eroding at a f		Pat downcutting evide	ent, active stream	Grade and width	stable: isolated areas of bank
.	SEVERITY(circle#)	contributing significant amo	unt of sediment to	widening, banks activ moderate rate; no thr		failure/erosion; li	kely caused by a pipe outfall, local
	Channelized= 1	stream; obvious threat to prinfrastructure.	operty or	infrastructure		scour, impaired i	iparian vegetation or adjacent use.
	ACCESS:	Good access: Open area		4 (3)	d or developed area	2 Difficult access	Must cross wetland, steep slope or
	ACCESS:	ownership, sufficient room materials, easy stream cha	to stockpile	Fair access: Foreste adjacent to stream. A	ccess requires tree	1	reas to access stream. Minimal vailable and/or located a great
	ii.	heavy equipment using exi- trails.		removal or impact to Stockpile areas small	landscaped areas. For distant from stream.		eam section. Specialized heavy
		5		3	)	2	1
		CTION SKETCH:					
	vivious s	pors turang	hart pe	mer-thic	example	is typic	AP
		nother slape:					· · · · · · · · · · · · · · · · · · ·
	- Н	VID (100) Supe	1. 11.	in cept	W4701C = 4	11 47 65	1010 43 42
i							
			-		•		
		•					
	•			·		REPORTED TO	AUTHORITIES YES NO

WATERSHED/SUBSHED:	FYB	r			DATE:		1	SESSED BY: CMM-	
BURVEY REACH: 3				_: <u>45_</u> @/pm			Pic #) {	DISP # 007	
SITE ID: (Condition=#)	START LA	T41 049	<u>'26"</u> I	ong 72 ° 43	3 1 42 "	LMK_		GPS: (Unit ID)	
<b>B</b> -	END LA	т <u>41°49</u>	' <u>28</u> " 1	ong <u>72 ° 41</u>	<u>' 41 "</u>	LMK_			
IMPACTED BANK: ☐ LT	REASON INA					□ Widespread i		plants slife whene)	
LAND USE:	Private 1	nstitutional	Golf Cou	rse Park (	Other Publi				
(Facing downstream) LT Ban	_								
RT Ban			T. C1	<del> </del>	<u> </u>		0:1		
DOMINANT LAND COVER: LT Bar	Paved nk ☐	Bare ground	i uri/lav	vn Tall grass	Snrub/s	crub Trees ☑	Other		
RT Bar						₽			
Invasive Plants:	None	Rare		artial coverage	Ex	tensive coverage		known	
STREAM SHADE PROVID	DED? Non	e 💆 Parti	al	Full WET	LANDS PR	RESENT? No	□ <i>y</i>	Yes Unknown	
POTENTIAL RESTORATION	ON CANDIDA	TE Activ		on Greenway	design [	Natural regener	ation [	Invasives removal	
	K RT /± ~ 80/±	REFORESTA POTENTIAL (Circle #)		Impacted area on p where the riparian a not appear to be us specific purpose; pl area available for p	area does ed for any enty of	Impacted area on e public or private lan presently used for a purpose; available a planting adequate	d that is specific	Impacted area on private land where road; building encroachment or other feature significantly limits available area for planting	
Vidth (ft):				5	4	3	,	2 1	
POTENTIAL CONFLICTS WITH REFORESTATION ☐ Widespread invasive plants ☐ Potential contamination ☐ Lack of sun ☐ Poor/unsafe access to site ☐ Existing impervious cover ☐ Severe animal impacts (deer, beaver) ☐ Other:									
NOTES: there are to stabilize to stabilize	these	AREMS	were	. docem	rent	col As	. اها	elau o	
- b Rip-Rap no - prip-Rap no - Another	40' lmg,	x 15' Wigh	1 She	en of Rip-	ing, a	light BAN	Αφ, - Ju.	then	
=> these they b it is propose	AREAS I	day non Ready to to v	technic technic tote teach!	particular other is	Rest Lly if soewer	restored " Return meaning	res tech		

SURVEY REACH I	<b>D:</b> W1	RSHD/SUBSHD: BB	E	DATE: 12 / 3 /09	Assessed by:	á
START TIME	E: 7 : 20 (1)/PM		END TIME:	: <u>45@</u> 1/PM LM		GPS ID:
LAT 41 0 50 1		2042149"	LAT 41 . 50 . 2	13" LONG 72° 4	1 45 "	OW
	<del></del>			luckt a dike		
DESCRIPTION: JW	uction wi	th look > 2		INCIAL TO GUER		
RAIN IN LAST 24 HO	URS 64 Heavy rain	☐ Steady rain	PRESENT CONDITIONS	☐ Heavy rain ☐ Stea	dy rain  Intern	nittent
□ None	☐ Intermittent	-	□ Clear	☐ Trace ☐ Ove	· .	
SURROUNDING LANI				☐ Suburban/Res ☐ Fore	sted Mostitu	itional (Service)
DORROUNDING EARN		rse 🗆 Park			or Ole, Do	merchaen And
Average	CONDITIONS (che	ck applicable)	REACH S	KETCH AND SITE IMPA	[225 Ca3446] Evel (00045) 24 45pq 96 8q5q 96 97 99 4	remembracione
BASE FLOW AS %	□ 0-25%	□ 50%-75%		f survey reach. Track locatio		
CHANNEL WIDTH	□25-50 %	<b>反</b> 75-100%	1	ch (OT, ER, IB,SC, UT, TR, N eemed a <u>ppr</u> opriate.  Indicate		dditional
DOMINANT SUBSTR	ATE		, jeanures u		anection by flow	
Silt/clay (fine or		obble (2.5 –10")		$\mathcal{A}_{\mathcal{E}_{\mathcal{I}}}$		>e/k
☐ Sand (gritty)		oulder (>10")		ponded /		Sevic Cent
☐ Gravel (0.1-2.5	i") 🗆 Be	ed rock		Clooche	ત્ર	Δ
WATER CLARITY	☐ Clear ♣ZTurbia	(suspended matter)		floode	k T	$\Gamma f$
☐ Stained (clear, no				N.Va		<del></del>
Other (chemicals,	•	- I - I - I - I - I - I - I - I - I - I		< Dike ->		
A accompany to the same of	Z Attached: ☐ non	e 🗆 some 🗀 lots	-			
AQUATIC PLANTS ?		e 🗆 some 🗆 lots				
	(Evidence of)	C L Some L lots	· · · · · · · · · · · · · · · · · · ·	101	culvert	
WILDLIFE IN OR	☐ Fish ☐ Beav	er 🗆 Deer	RAY	· >07.1	A CHIVEL	L RAP
AROUND STREAM	☐ Snails 🛱 Other	FRTHANK	\ k.d	Dow To	1 7	
	☐ Mostly shaded		\ \ \	1 44000 3400	· /	
STREAM SHADING	☐ Halfway (≥50%		\ \	- {	)	
(water surface)	☐ Unshaded (< 25		1 7 1		St PO	اه/
**	· _ · · · · · · · · · · · · · · · · · ·		<b>┤                                    </b>		<i>(</i> '	
CHANNEL	Downcutting	Bed scour			$I^{\circ}$	
DYNAMICS	☐ Widening ☐ Headcutting	Bank failure Bank scour	\ '> \		[	
in flood	Aggrading	Slope failure	\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		1	
<b>Z</b> Unknown	Sed. deposition	1 <del>=</del> '	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1 1	1	
BANISTULL	<del> </del>	2/	TAKE SO SE SE SE SE SE SE SE SE SE SE SE SE SE	1 14	,	A
CHANNEL	Height: LT bank	<u>3</u> (ft)	1339		e chan	ANER
DIMENSIONS	R <del>T ban</del> k	(ft)	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\ \	( <b>(</b> 1	3BE-1)
( <del>FACING &gt; DOWNSTREAM</del> )	Width: Bottom	13' (ft)	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	V /		
Estimate &	Top	(ft)		\	•	
R	teach Accessibili	ΤΥ	\	1		
Good: Open area in	Fair: Forested or	Difficult. Must cross		\ <b>\</b>		
public ownership,	developed area adjacent to stream.	wetland, steep slope, or sensitive areas to get to		1		
sufficient room to stockpile materials,	Access requires tree	stream. Few areas to		•		
easy stream channel	removal or impact to landscaped areas.	stockpile available and/or located a great	}			
access for heavy	Stockpile areas	distance from stream.				
equipment using existing roads or trails.	small or distant from	Specialized heavy				
(S) 4	stream.	equipment required.	-			
		reach) - the	12 20 thock	ow through	n the c	west
WAS SO WI	serit ch	used the w	ater to pool	ow terrough the ban py cover —	ks to b	lowant
( henre tho	LID-RAD	), -There is	L NO CAMA	N COVER -TV	1 Hamps	include
10.00000	· • • • • • • • • • • • • • • • • • • •	w t same	عدد اد محرب ع <sup>ال </sup> و به د دوم ع	Denonwer wo	. CETTODIETES [	'

	Optimal	Suboptimal	Marginal	Poor			
IN-STREAM HABITAT  (May modify criteria based on appropriate habitat regime)	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient).	40-70% mix of stable habitat; well- suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.			
	20 19 18 17 16	15 14 13 12 11	(10) 9 8 7 6	5 4 3 2 1 0			
VEGETATIVE PROTECTION  (score each bank, determine sides by facing downstream)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.			
	Left Bank 10 9	8 7 6	<b>5</b> 4 3	2 1 0			
	Right Bank 10 9	8 7 6	<b>3</b>	2 1 0			
BANK EROSION (facing downstream)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Grade and width stable; isolated areas of bank failure/erosion; likely caused by a pipe outfall, local scour, impaired riparian vegetation or adjacent use.	Brade and width stable; isolated ireas of bank failure/erosion; likely aused by a pipe outfall, local scour, impaired riparian vegetation or in the stream widening, banks actively eroding at a moderate rate; no threat to property or				
under	Left Bank 10 9	8 7 6	5 4 3	2 1 0			
	Right Bank 10 9	8 7 6	5 4 3	2 1 0			
FLOODPLAIN CONNECTION	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) able to enter floodplain. Stream not deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.	High flows (greater than bankfull) not able to enter floodplain. Stream deeply entrenched.			
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0			
	OVER	ALL BUFFER AND FLOODPLAI	N CONDITION				
	Optimal	Suboptimal	Marginal	Poor			
VEGETATED Buffer Width	Width of buffer zone >50 feet; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, crops) have not impacted zone.	Width of buffer zone 25-50 feet; human activities have impacted zone only minimally.	Width of buffer zone 10-25 feet; human activities have impacted zone a great deal.	Width of buffer zone <10 feet: little or no riparian vegetation due to human activities.			
	Left Bank 10 9	8 7 (6)	5 4 3	2 1 0			
	Right Bank 10 9	8 7 6	5 4 3	2 1 0			
FLOODPLAIN VEGETATION	Predominant floodplain vegetation type is mature forest	Predominant floodplain vegetation type is young forest	Predominant floodplain vegetation type is shrub or old field	Predominant floodplain vegetation type is turf or crop land — R			
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	<b>3</b> 4 3 2 1 0			
FLOODPLAIN HABITAT	Even mix of wetland and non-wetland habitats, evidence of standing/ponded water	Even mix of wetland and non-wetland habitats, no evidence of standing/ponded water	Either all wetland or all non- wetland habitat, evidence of standing/ponded water	Either all wetland or all non- wetland habitat, no evidence of standing/ponded water			
	20 19 🔞 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0			
FLOODPLAIN ENCROACH- MENT CLIKE, CULVELY, R.O. W	No evidence of floodplain encroachment in the form of fill material, land development, or manmade structures	Minor floodplain encroachment in the form of fill material, land development, or manmade structures, but not effecting floodplain function	Moderate floodplain encroachment in the form of filling, land development, or manmade structures, some effect on floodplain function	Significant floodplain encroachment (i.e. fill material, land development, or man-made structures). Significant effect on floodplain function  5 (4) 3 2 1 0			

Sub Total In-stream: 51 /80

Buffer/Floodplain:

<u>33</u>/80

Total Survey Reach 84 /160

SC

WATERSHED	O/SUBSHED: BBE			DATE: 12	<u>-/03 /09</u>	ASSE	SSED BY: 🏌	S6+cm
SURVEY REA		TIME: 9:45	<b>⊘M</b> /PM	Рното ID	: (Camera-Pic	:#)PC03	100 1# 1	0
SITE ID: (Con	ndition:#) SC-Test LAT	41 · 50 · 2	3_" Long <u>7</u>	<u>2° 42 '</u>	<u>45</u> " ы	мк	GPS (	Init ID)
TYPE: Ros	ad Crossing	ng 🛛 Manmade	Dam Beave	r Dam 🔲	Geological Form	nation $\square$	Other: Di	les
	SHAPE:	#BARRELS:	MATERIAL:		NMENT:		IONS: (if vari	
	Arch Bottomless	Single	☐ Concrete		w-aligned	Barrel dia		<u>" (ft)</u>
FOR ROAD/	│ □ Box □ Elliptical ☑ Circular	Double Triple	Metal		t flow-aligned		Height:	(ft)
RAILROAD	Other: pipe	Other:	Other:		not know		_	
CROSSINGS CONDITION: (Evidence of)			•		ERT SLOPE:	Culvert le	-	(ft)
UNLI	Cracking/chipping/corrosion			∏ Fla	t ght $(2^{\circ} - 5^{\circ})$		Width:	(ft)
	☐ Sediment deposition☐ Other (describe):	☐ Failing emb	ankment		vious (>5°)	Roadway	elevation:	(ft)
	Guid (describe).							` _
R	RESTORATION CANDIDATE	Fish barrier re	emoval 🔲 Culve	ert repair/rep	olacement 🔲 U	Jpstream st	orage retrofit	:
по		■ Local stream:	repair 🔲 Othe	r: ;	· · ·		1 1	
Is SC ACTING	G AS GRADE CONTROL	□ No □ Y	es 🔲 Unkr					
ļ.	EXTENT OF PHYSICAL BLO	OCKAGE:		BLO	CKAGE SEVER	HTY: (circ	le #)	
	Temporary Unkno	wn	A structure such a road culvert on a 3		A total fish blocka tributary that woul			amer such as a a blockage at
If yes for	Cause:		greater stream blo	cking the	significant reach of	of stream,	the very head	of a stream with
fish barrier	☐ Drop too high Water D		upstream moveme anadromous fish;	no fish	or partial blockage interfere with the			e fish habitat al barriers such
	☐ Flow too shallow Water D☐ Other:	epth: (in)	passage device pr	resent.	anadromous fish.		as waterfalls.	
NOTES/SKET			5		3		2	1
NOTES/SKET	CH: See RCh de	atasheet	for s	sketel	• .			
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