

Stream Crossin	g Data Sheet			Site ID:	BlueCreens
General Information					BL4:
Name of	C 11 600 - 00 11				0/11/2010
Observer(s):	Snell EMaishail	GPS		Date:	9/16/2010
GPS Waypoint:		Lat/I	.ong:		
Additional Location		1			
Comments:	High water volume -	mondy bases	ne so lecture recov	1 lain	
load Information	(% ±	9 2			
load Name/Number:					
Road Type: F	ederal State County	Town Tribal	Private Oth	ner:	
toad Surface:	Paved Gravel Sand	Native Surface	Other:		
load Width (ft):	Fill Depth (ft):	0.5F+			
rossing Information		4	2.		
tructure Type:	Culvert(s) no.: Bridge	Ford Dam	Other:	Structure	ID: Blue (reek 1
tructure Shape	Structure Material	Substrate in Struct	ure Structure Co	ndition	
ound	Metal	None	Sand General Con	dition: Nev	w Good Fair Poor
quare/Rectangle	Concrete	Gravel	Rock Plugged:) % Inlet	
pen Bottom Square/Rectan		Mixture	Crushed	_	
		Mixture	Rusted Thro	-	
pe Arch	Wood		1 1		Yes
pen Bottom Arch	Structure I		Inlet To	/pe	Outlet Type
llipse		or Corrugated	Projecting	Mitered	At stream grade
tructure Water Veloci	ty (ft/sec): 1 . 2 ft/ Sc	<u>^</u>	Headwall	Apron (Cascade over riprap
tructure Water Depth	(ft): 1 inlet 4,0+4	outlet 4	5F+ Wingwall 10-30	or 30-70° F	reefall into pool.
tructure Length (ft):	4214		Trashrack	1	Freefall onto riprap
	8F4 Structure F	loight (ft): 1	- 51		
				,	Outlet apron
erch Height (ft): 1,2	Nonc Height of H	lead (ft): 1,2	ne		Other
uried Depth of Structi	ure (ft): ¹ ? inlet	outlet	par .		
tream Information					
	Blue Creek	Ch-	eam Water Velocity (in	rifflo) (ft/so	c).
tream Name:				riile) (it/se	cj.
tream Flow: None	< ½ Bankfull (Bankfull)	= Bankfull > Ban			1001
Vater Depth (in riffle)	(ft): Bankfull Wid	oth (in riffle) (ft):	16f+ Stream	Width (in rif	fle) ft: 16TT
cour Pool Length, Wid	th & Depth (ft):2/	U	pstream Pond Length 8	Width (ft): 2	
ish Passage Informatio	on				
the structure perched		1	ere ponding upstream?		Yes No.
there a scour pool at	the outlet?		e structure fully backwa		Yes No
there substrate throu	gh the structure's entire length?	LANCE AL INU	ere a change in head fro to downstream side?	om the upstro	eam Yes No
oes the structure subs	trate match the stream	Nes No Is th	e structure narrower tham width?	an the bankf	ull Yes No
water in the structure ream?	e moving faster than in the	Yes No Is th	ere debris blocking the	inlet?	Yes No

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert #	Width (ft)	Height (ft)	Length (ft)
2			
3			

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos		
Site ID Unlet Up Outlet		
□ Road Approach – Left □ Road Approach – Right □		
Upstream Conditions Downstream Conditions		
Fish Passage Determination		
Follow these guidelines to determine "passability" for a range of fish species. Thresholds may need to be modified if to evaluate passage for a particular species. Answer all questions.	the object	tive is
Passability = 0 Most species and life stages cannot pass	s at most	flows.
If any of the following questions can be answered "yes", then the crossing barrier score = 0.		777440
	Yes	No
·	Yes 2	No
	Yes 🧷	No
Structure water depth: Stream water depth: Depth Ratio:		
Passability = 0.5 Some species and/or life stages cannot pass	s at most	flows.
If any of the following questions can be answered "yes", then the crossing barrier score = 0.5.		
1. The water depth in the structure is less than 0.2 feet.	Yes (No
2. The structure water velocity is 2-3 feet/second during baseflow.	Yes 🤇	No
3. The structure is longer than 30 feet and does not have natural substrate through its entire length.	Yes (No
Passability = 0.9 Barrie	er at high	flows
If any of the following questions can be answered "yes", then the crossing barrier score = 0.9.	ei ar mbu	1,0113.
4 THE LANGE TO SERVICE THE PROPERTY OF THE PRO	Yes .	No
The second secon	Yes	No
2. The ratio of the structure width to stream bankfull width is less than 0.5. Structure width: Stream bankfull width: Constriction Ratio:	163	140
Structure width Stream bankidii width Constriction ratio		
Passability = 1	Not a b	arrier.
If all of the following questions can be answered "yes", then the crossing barrier score = 1.		
	Yes_)	No
	Yes	No
St. There is not a sood, post select the state of	Yes	No
7. The structure is longer than 30 feet and has natural substrate through its entire length, or		-
	Yes	No
☐ The structure is shorter than 30 feet and does not have natural substrate through its entire length.		

Additional Comments

Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



BLU1- DOWNSTREAM



UPSTREAM



ROAD

Stream crossing Data Sneet				Site ID:	Bea	0	
General Information							
Name of Snell				Date:	08/0	- 1	20
Observer(s): \[\int nell \]			GPS	Date:	0070	S /1 5	and .
GPS Waypoint:			Lat/Long:				
Additional Location							
Comments:							_
Road Information							
Road Name/Number: Territoria.							
Road Type: Federal State County	Γown	Т	ribal Pr	ivate Other:			
Road Surface: Paved Gravel Sand	Nativ	e Surfa	ce	Other:			
Road Width (ft): 16 Fill Depth (ft):	20	_					
Crossing Information							
Structure Type: Culvert(s) no.:/_ Bridge	Ford	1	Dam Oth	er: Structur	re ID:		
Structure Shape Structure Material S	Substra	ate in S	tructure	Structure Condition			
Round	None	e	Sand	General Condition:	lew Good	Fair	Poor
Square/Rectangle Concrete	Grav	rel	Rock	Plugged: % In	let Outle	t In	Pipe
Open Bottom Square/Rectangle Plastic		Mixt	ure	Crushed % In	et Outle	t In	Pipe
Pipe Arch Wood				Rusted Through?	Yes	Ne	o
Open Bottom Arch Structure In	terior			Inlet Type	Outle	t Type	:
Ellipse Smooth c	or Cor	rugate	ł	Projecting Mitered	At stream gi	rade	
Structure Water Velocity (ft/sec): 1				Headwall Apron	Cascade ove	r riprap	
Structure Water Depth (ft): inlet	(outlet	0.4	Wingwall 10-30° or 30-70°	Freefall into	pool.	
Structure Length (ft): 1				Trashrack	Freefall onto	o riprap	
Structure Width (ft): ¹ 3' Structure He	eight (ft): 1	3'	Other	Outlet apro	n	
Perch Height (ft): 1,2 Height of He	ead (ft): ^{1, 2}	-		Other		
Buried Depth of Structure (ft): ¹ inlet		outlet					
Stream Information							
			Chung Mr	ton Volositu (in -iffla) (fr.)	cool: 0	-8	
Stream Name: Blue Creak				ter Velocity (in riffle) (ft/	setj: 🗸	-0	
	Bankf		Bankfull			7	
Water Depth (in riffle) (ft): 04 Bankfull Wid	th (in i	riffle) (f	t): _/こ	Stream Width (in	riffle) ft:	7	
Scour Pool Length, Width & Depth (ft):2	1		Upstream	Pond Length & Width (ft): ²		
Fish Passage Information		_					-
Is the structure perched?	Yes	No		ding upstream?		Yes	No
Is there a scour pool at the outlet?	Yes	(No)		ure fully backwatered?		Yes	No
Is there substrate through the structure's entire length?	Yes	No		ange in head from the ups nstream side?	stream	Yes	Na
Does the structure substrate match the stream	Yes	No	Is the struct	ure narrower than the bar	kfull	Yes	No
substrate?	163	>-	stream widt			high plant gray	-
Is water in the structure moving faster than in the	Yes	No	Is there deb	ris blocking the inlet?		Yes	No

Is water in the structure shallower than in the stream?

Yes No Is there evidence of overtopping or wash-outs?

Photos

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert #	Width (ft)	Height (ft)	Length (ft)	Culvert #	Width (ft)	Height (ft)	Lengti (ft)
2				4			
3				5			
				la constant			-

	ite ID	☐ Inlet	☐ Outlet		
	Road Approach – Left	☐ Road Approach — Right			
u t	Jpstream Conditions	☐ Downstream Conditions			
Fi	sh Passage Determination	l			
	low these guidelines to determine "passa evaluate passage for a particular species.	ability" for a range of fish species. Thresho Answer all questions.	lds may need to be modified	l if the obje	ective is
	sability = 0		cies and life stages cannot	pass at mo	st flows.
		wered "yes", then the crossing barrier scor	re = 0.		
1. 2.	The outlet of the structure is perched. The structure water velocity is greater t	han 2 foot/second during beseffew		Yes	No
	The ratio of the structure water depth t	_		Yes Yes	No No
		Stream water depth is less than 6.1.	Depth Ratio:	162	NO
			-		
	sability = 0.5		s and/or life stages cannot i	pass at mo	st flows.
If a		wered "yes", then the crossing barrier scor	e = 0.5.		
1.	The water depth in the structure is less			Yes Yes	No
	2. The structure water velocity is 2-3 feet/second during baseflow.				
3.	The structure is longer than 30 feet and	does not have natural substrate through	ts entire length.	Yes	No
Pas	sability = 0.9		Ra	errier at hig	h flows
		wered "yes", then the crossing barrier scor		miles de ing	511 110 1131
1.	There is a scour pool below the structur	· · · ·		Yes	No
2.	The ratio of the structure width to stream			Yes	No
Stru	ucture width:	Stream bankfull width:	Constriction Ratio:		
_	.1.115				
	sability = 1	and "" then the aversing housing	_ 1	Not a	barrier.
1.	The outlet of the structure is not perche	ered "yes", then the crossing barrier score	= 1.	Yes	No
2.	The structure water velocity is less than			Yes	No
3.		o stream water depth is greater than 0.1.		Yes	No
4.	The water depth in the structure is grea			Yes	No
5.	There is not a scour pool below the stru			Yes	No
6.	The ratio of the structure width to stream			Yes	No
7.		and has natural substrate through its entire	e length, or		
		and has natural substrate through its entir	=	Yes	No
	$\hfill \square$ The structure is shorter than 30 feet	and does not have natural substrate throu	gh its entire length.		

Additional Comments

 $^{^{\}mbox{$1$}}\mbox{Fill}$ out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



BLU10- DOWNSTREAM

General Information				
Name of				
Observer(s): Snell & Marshall		Date:	9/16/2010	
1	GPS		, ,	
GPS Waypoint: Additional Location	Lat/Long:			
Comments: Concret bing	x - no fin	Passage Earli	el i	70 60g
* old bridge abi	ge - No Fish	down stram from	brogs -	Sp.
Road Information	100			
load Name/Number: Red Arow thiny		Other:		
Road Type: Federal State County		-		
Road Surface: Paved Gravel Sand	Native Surface	Other:		-
Road Width (ft): 45f Fill Depth (ft):				
Crossing Information	L4			
structure Type: Culvert(s) no.: Bridge	Ford Dam Otl	her: Structur	e ID:	
tructure Shape Structure Material	Substrate in Structure	Structure Condition		
	None Sand		lew (Good)Fair	Poor
	Gravel Rock			In Pipe
	Mixture	Crushed \bigcirc % Inl		In Pipe
pen Bottom Square/Rectangle Plastic	Mixture			No
pe Arch Wood		Rusted Through?		_
pen Bottom Arch Structure I		Inlet Type	Outlet Typ	e
llipse Natura (Smooth)	or Corrugated	Projecting Mitered	At stream grade	
tructure Water Velocity (ft/sec):		Headwall Apron	Cascade over ripra	р
tructure Water Depth (ft): inlet	outlet	Wingwall 10-30° or 30-70°	Freefall into pool.	
tructure Length (ft): 1		Trashrack	Freefall onto riprag	o o
tructure Width (ft):1 Structure	Height (ft): 1	Other	Outlet apron	
	Head (ft): 1,2		·	
	-		Other	
uried Depth of Structure (ft): ¹ inlet	outlet	-		
tream Information		d of		
tream Name: Blue Creek	Stream Wa	ater Velocity (in riffle) (ft/s	sec):	
tream Flow: None < ½ Bankfull (< Bankfull)	= Bankfull > Bankfull			
/ater Depth (in riffle) (ft): Bankfull Wid	dth (in riffle) (ft):	Stream Width (in r	iffle) ft:	
cour Pool Length, Width & Depth (ft):2 /	/ Upstream	n Pond Length & Width (ft)	2	
sh Passage Information	3			
the structure perched?		ding upstream?	Yes	No
there a scour pool at the outlet?		ure fully backwatered?	Yes	No
there substrate through the structure's entire length?		lange in head from the upst nstream side?	ream Yes	No
388 the atructure substrate match the atream	In the structu	are narrower than the bank	full	1
lostrate?	Yes No stream widt		Yes	(No
Dottate:				
s water in the structure moving faster than in the		oris blocking the inlet?	Yes	(No

BLUZ + WHX HALLY

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert #	Width (ft)	Height (ft)	Length (ft)
2			
3			

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos				
Site ID	□Inlet	Outlet		
☐ Road-Approach – Left	☐ Road Approach — Right			
Upstream Conditions	☐ Downstream Conditions			
Fish Passage Determin	nation			
	ine "passability" for a range of fish species. Thr	resholds may need to be modified	if the obje	ective is
to evaluate passage for a particula	r species. Answer all questions.			
Passability = 0	Mos	st species and life stages cannot p	pass at mo	st flows.
	an be answered "yes", then the crossing barrie	r score = 0.		
1. The outlet of the structure is p			Yes	No
	s greater than 3 feet/second during baseflow.		Yes	No
	er depth to stream water depth is less than 0.1	L.	Yes	No
Structure water depth:	Depth Ratio:			
	_			
Passability = 0.5	· · · · · · · · · · · · · · · · · · ·	pecies and/or life stages cannot p	pass at mo	st flows.
	an be answered "yes", then the crossing barrie	r score = 0.5.	Van	N.
1. The water depth in the structi			Yes	No
	s 2-3 feet/second during baseflow.	1 2	Yes	No
3. The structure is longer than 3	0 feet and does not have natural substrate thro	ough its entire length.	Yes	No
Passability = 0.9		Ва	errier at hig	gh flows.
	an be answered "yes", then the crossing barrie	r score = 0.9.		
1. There is a scour pool below th			Yes	No
2. The ratio of the structure wid	th to stream bankfull width is less than 0.5.		Yes	No
Structure width:	Stream bankfull width:	Constriction Ratio:		
			Note	a barrier.
Passability = 1	I W II was the same to be a with	u- = 1	MOL	i parrier.
	n be answered "yes", then the crossing barrier	score = 1.	Var	No
1. The outlet of the structure is			Yes	No
2. The structure water velocity is	s less than 2 feet/second during baseflow.	- 0.1	Voc	No
	er depth to stream water depth is greater than	10.1.	Vac	No
4. The water depth in the struct			(18)	
5. There is not a scour pool belo			Vas	No No
6. The ratio of the structure wid	th to stream bankfull width is greater than 0.5.	,	Tes	No
7. The structure is longer than	n 30 feet and has natural substrate through its	entire length, or	Non	Na
	an 30 feet and has natural substrate through its		Yes	No
The structure is shorter that	an 30 feet and does not have natural substrate	through its entire length.		

Additional Comments

Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



BLU2-DOWNSTREAM



LOOKING DOWNSTREAM



UPSTREAM

Stream Crossing Data Sheet				Site ID:	BLU	3	
General Information Name of Observer(s):					08/2	-/.	
Observer(s): 2nell			GPS	Date:	08/2	05/10	,
GPS Waypoint: Additional Location Comments:		_	Lat/Long:				
Road Information							
Road Name/Number: Hanhland							
Road Type: Federal State County	Town	7	Tribal Pri	vate Other:			
Road Surface: Paved Gravel Sand	Nativ	ve Surfa	ice (Other:			
Road Width (ft): 7 Fill Depth (ft):	~ 20						
		===					
Crossing Information							
	Ford			er: Structur	re ID:		-
Structure Shape Structure Material	Substr	ate in S	tructure	Structure Condition			
Round Metal	Non	e	Sand	General Condition:	lew Good	Faid	Poor
Square/Rectangle Concrete	Gra	vel	Rock	Plugged: % Inl	let Outl	let Ir	n Pipe
Open Bottom Square/Rectangle Plastic		Mix	iure	Crushed % Ini	et Outl	et Ir	n Pipe
Pipe Arch Wood				Rusted Through?	Yes	N	lo
Open Bottom Arch Structure	Interior			inlet Type	Outl	et Type	2
Ellipse	or Cor	rugate	d	Projecting Mitered	At stream g	grade	
Structure Water Velocity (ft/sec): 6.8				Headwall Apron	Cascade ov	er riprap	,
Structure Water Depth (ft): inlet		outlet	0.9	Wingwall 10-30° or 30-70°	Freefall into	o pool.	
Structure Length (ft): 1				Trashrack	Freefall on	to riprap	
Structure Width (ft): ¹ /b Structure	Height (ft\·¹	8	Other	Outlet apro		
			-	Other		211	
					Other		
Buried Depth of Structure (ft): inlet		outlet					
Stream Information							
Stream Name: Blue Crack			Stream Wate	er Velocity (in riffle) (ft/s	sec): と	7	
Stream Flow: None Stream Flow: A Bankfull	= Bankf	ull :	> Bankfull				
Water Depth (in riffle) (ft): 0.9 Bankfull Wi				Canana Midah /in a	::£(]_)	20	2
Scour Pool Length, Width & Depth (ft): ²	0 1	5	Upstream I	Pond Length & Width (ft)	:-		
Fish Passage Information							
Is the structure perched?	Yes	ZNO		ing upstream?		Yes	(NO)
Is there a scour pool at the outlet?	Yes	No		re fully backwatered? nge in head from the ups	tream	Yes	No.
Is there substrate through the structure's entire length?	Yes	No	side to downs	-	u Calli	Yes	No
Does the structure substrate match the stream	Nes	No		re narrower than the ban	kfull	Yes	No
Is water in the structure moving faster than in the			stream width				
stream?	Yes	NO		s blocking the inlet?		Yes	No
Is water in the structure shallower than in the stream?	Yes	(16)	Is there evide	nce of overtopping or wa	sh-outs?	Yes	No

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert#	Width (ft)	Height (ft)	Length (ft)	Culvert #	Widt
2				4	
3				5	

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Phot	os				
🗆 Si	te ID	☐ Inlet	Outlet		
□ Ro	oad Approach – Left	Road Approach – Right			
□ U _l	pstream Conditions	☐ Downstream Conditions	Q		
Fis	sh Passage Determin	nation			
	_	ne "passability" for a range of fish species. Thr r species. Answer all questions.	esholds may need to be modific	ed if the obje	ective is
	sability = 0		st species and life stages canno	t pass at mo	st flows.
If an	y of the following questions ca	n be answered "yes", then the crossing barrie	r score = 0.		
	The outlet of the structure is p			Yes	No
		greater than 3 feet/second during baseflow.		Yes	No
		er depth to stream water depth is less than 0.1		Yes	No
Stru	cture water depth:	Stream water depth:	Depth Ratio	-	
Pass	sability = 0.5	Some s	pecies and/or life stages canno	t pass at mo	st flows.
		n be answered "yes", then the crossing barrie	r score = 0.5.		
	The water depth in the structu			Yes	No
		2-3 feet/second during baseflow.		Yes	No
		feet and does not have natural substrate thro	ough its entire length.	Yes	No
Pass	sability = 0.9			Barrier at hi	gh flows.
If an	y of the following questions ca	in be answered "yes", then the crossing barrie			-
	There is a scour pool below the			Yes	No
		h to stream bankfull width is less than 0.5.		Yes	No
	cture width:	Stream bankfull width:	Constriction Ratio		
Doca	sability = 1			Not a	a barrier.
		be answered "yes", then the crossing barrier	score = 1		
	The outlet of the structure is r		30010 21	Yes	No
		less than 2 feet/second during baseflow.		Yes	No
3.	The ratio of the structure water	er depth to stream water depth is greater than	0.0.1	Yes	No
	The water depth in the structu		. 0.2.	Yes	No
	There is not a scour pool below	-		Yes	No
		th to stream bankfull width is greater than 0.5.		Yes	No
6. 7	The structure is lenger than	30 feet and has natural substrate through its	entire length or		
7.	The structure is shorter the	n 30 feet and has natural substrate through its	contine length or	Yes	No
	The structure is shorter tha	n 30 feet and has natural substrate through its n 30 feet and does not have natural substrate	through its entire length	163	140
	ine structure is snorter tha	ii 50 ieet and does not have hatdrai substrate	anough its chare length.		

Additional Comments

Culvert diagram, erosion, channel condition, evidence of wash-out, beaver, local testimony of frequency of overtopping...

Turbial

 $^{^{\}mbox{$1$}}\mbox{Fill}$ out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



BLU5-DOWNSTREAM



LOOKING AT CULVERT

Stream Crossing D	ata Sheet				Site ID:	BLU	4	
General Information								
Name of Sobserver(s):	nell				Date:	07/00	5/13	5
GDS Mouncints				GPS Lat/Long:				
GPS Waypoint: Additional Location Comments:				Lat/Long.				
Road Information								
Road Name/Number:	Territorial							
Road Type: Federal	State County	Town	1	Tribal Private	Other:			
Road Surface: Paved:	Gravel Sand	Nativ	e Surfa	ace Othe	r:			
Road Width (ft): 2	Fill Depth (ft):	30	_					
Crossing Information								
Structure Type: Culvert	c(s) no.:/_ Bridge	Ford		Dam Other:	Structu	re ID:		
Structure Shape	Structure Material	Substra	ate in S	tructure Str	ucture Condition			
Round	Metal	Non	e	Sand Ge	neral Condition:	New Good	Fair	Poor
Square/Rectangle	Concrete	Grav	rel	Rock Plu	igged: % In	let Outle	t In	Pipe
Open Bottom Square/Rectangle	Plastic		Mix	ture Cru	ushed % In	let Outle	t In	Pipe
Pipe Arch	Wood			Ru	sted Through?	Yes	No	0
Open Bottom Arch	Structure In	terior			Inlet Type	Outle	t Type	
Ellipse	Smooth	or Cor	rugate	d Pro	jecting Mitered	At stream gr	ade	
Structure Water Velocity (ft/s	sec):1	*		Hea	adwali Apron	Cascade ove	r riprap	
Structure Water Depth (ft): 1	inlet Z 2		outlet	₹ Z Wir	ngwall 10-30° or 30-70°	Freefall into	pool.	
Structure Length (ft): 1	90				shrack	Freefall onto	o riprap	
Structure Width (ft):	3 Structure H	eight (ft): ¹	3 Oth		Outlet apror		
Perch Height (ft): 1,2	Height of H					Other		
Buried Depth of Structure (ft):¹ inlet	(outlet					
Stream Information								
Stream Name: 3/0	ie Cark			Stream Water V	elocity (in riffle) (ft/	/sec): /	<u>)</u>	
Stream Flow: None	Bankfull < Bankfull =	: Bankf	ull	> Bankfull				
Water Depth (in riffle) (ft):		lth (in i	iffle) (1	ft): 19	Stream Width (in	riffle) ft:	17	
Scour Pool Length, Width & [1 5				d Length & Width (ft			
Fish Passage Information								
Is the structure perched?		Yes	No	Is there ponding u	ıpstream?		Yes	Ño
Is there a scour pool at the ou	ıtlet?	Yes	No	Is the structure fu			Yes	No
Is there substrate through the	e structure's entire length?	Yes	No	Is there a change side to downstrea	in head from the up: nm side?	stream	Yes	No
Does the structure substrate	match the stream	Yes	Ŋô	Is the structure na stream width?	arrower than the bar	nkfull	Yes	No
Is water in the structure movi	ing faster than in the	Yes	No	Is there debris blo	ocking the inlet?		Yes	No
Is water in the structure shall	ower than in the stream?	Yes	No	Is there evidence	of overtopping or w	ash-outs?	Yes	No

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert #	Width (ft)	Height (ft)	Length (ft)
2			
3			

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Phot	ios				
□ Si	te ID	☐ Inlet	☐ Outlet		
□ Re	oad Approach – Left	☐ Road Approach – Right			
□ U	pstream Conditions	☐ Downstream Conditions			
Fis	sh Passage Determin	ation			
	ow these guidelines to determir valuate passage for a particular	ne "passability" for a range of fish species. Thre species. Answer all questions.	esholds may need to be modified	d if the obj	ective is
Pass	sability = 0	Mos	t species and life stages cannot	pass at mo	st flows.
		n be answered "yes", then the crossing barrier	score = 0.		
	The outlet of the structure is pe			Yes	No
	The state of the s	greater than 3 feet/second during baseflow.		Yes	No
		r depth to stream water depth is less than 0.1		Yes	No
Stru	cture water depth:	Stream water depth:	Depth Ratio:		
Pass	sability = 0.5	Some sp	pecies and/or life stages cannot	pass at mo	st flows.
If an	y of the following questions car	n be answered "yes", then the crossing barrier		•	
	The water depth in the structur			Yes	No
2.	The structure water velocity is	2-3 feet/second during baseflow.		Yes	No
3.	The structure is longer than 30	feet and does not have natural substrate thro	ugh its entire length.	Yes	No
Pass	sability = 0.9		Ва	arrier at hi	gh flows.
	•	n be answered "yes", then the crossing barrier			9
	There is a scour pool below the			Yes	No
2.	The ratio of the structure width	n to stream bankfull width is less than 0.5.		Yes	No
Stru	cture width:	Stream bankfull width:	Constriction Ratio:		
Pass	ability = 1			Not a	a barrier.
		be answered "yes", then the crossing barrier s	score = 1.		
	The outlet of the structure is no	• • •		Yes	No
		less than 2 feet/second during baseflow.		Yes	No
		r depth to stream water depth is greater than	0.1.	Yes	No
	The water depth in the structur			Yes	No
5.	There is not a scour pool below	the structure.		Yes	No
6.	The ratio of the structure width	to stream bankfull width is greater than 0.5.		Yes	No
7.	☐ The structure is longer than	30 feet and has natural substrate through its ϵ	entire length, or		
	☐ The structure is shorter than	30 feet and has natural substrate through its	entire length, or	Yes	No
	☐ The structure is shorter than	30 feet and does not have natural substrate t	through its entire length.		

Additional Comments

¹Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



BLU6-DOWNSTREAM

Stream Crossing Data Sheet				Site ID:	BLY	5	
General Information							
Name of Observer(s): Sne				Date:	08/0	< 1/0	,
			GPS			-	
GPS Waypoint: Additional Location		_	Lat/Long:				
Comments:							
Road Information				De.			
Road Name/Number: Park							
Road Type: Federal State County	Town	7	ribal Pri	vate Other:			
Road Surface: Paved Gravel Sand	Nativ	e Surfa	ice (Other:			
Road Width (ft): 2/ Fill Depth (ft):							
Crossing Information							
Structure Type: Culvert(s) no.:/_ Bridge	Ford		Dam Othe	r:Structu	re ID:		
Structure Shape Structure Material	Substra	ate in S	tructure	Structure Condition			
Round	None	e	Sand	General Condition:	New Good	Fair	Poor
Square/Rectangle Concrete	Grav	⁄el	Rock	Plugged: %	nlet Outlet	t In	Pipe
Open Bottom Square/Rectangle Plastic		Mix	ure	Crushed % In	nlet Outlet	: In	Pipe
Pipe Arch Wood				Rusted Through?	Yes	N	0
Open Bottom Arch Structure In	nterior			Inlet Type	Outle	t Type	3
Ellipse Smooth	or Cor	rugate	9	Projecting Mitered	At stream gr	ade	
Structure Water Velocity (ft/sec): 2				Headwall Apron	Cascade ove	r riprap	
Structure Water Depth (ft): inlet		outlet	0.8	Wingwall 10-30° or 30-70°	Freefall into	pool.	
Structure Length (ft): 60				Trashrack	Freefall onto	riprap	
Structure Width (ft): ¹ Structure H	eight (1	ft): 1	3	Other	Outlet apron	ı	
Perch Height (ft): 1,2 Height of H	ead (ft): ^{1, 2}	***		Other		
Buried Depth of Structure (ft): inlet	(outlet					
Stream Information							
Stream Name: Blac (K			Stream Wat	er Velocity (in riffle) (ft,	/sec):	. 7	
Stream Flow: None 1/2 Bankfull < Bankfull =	Bankfı	ull :	> Bankfull				
Water Depth (in riffle) (ft): Bankfull Wid	th (in r	iffle) (1	t): 20	Stream Width (în	riffle) ft:	15	
Scour Pool Length, Width & Depth (ft): ² /	/		Upstream	Pond Length & Width (fi	t); ²		
Fish Passage Information							
Is the structure perched?	Yes	NO		ing upstream?		Yes	No
Is there a scour pool at the outlet?	Yes	No		re fully backwatered? nge in head from the up	stream	Yes	
Is there substrate through the structure's entire length?	Yes	₩ō	side to downs	stream side?		Yes	No
Does the structure substrate match the stream substrate?	Yes	No	Is the structure stream width	re narrower than the bar ?	nktuii	(Yes)	No
Is water in the structure moving faster than in the	Yes	No		s blocking the inlet?		Yes	Nõ
stream?	Voc			nce of overtonning or w	ach-nute?	Vac	NA

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

	anapie cene in	otti ielis te tiigiiis			_
Culvert #	Width (ft)	Height (ft)	Length (ft)	Culvert #	١
2				4	
3				5	

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos			
☐ Site ID	☐ Inlet	☐ Outlet	
Road Approach – Left	Road Approach – Right		
Upstream Conditions	Downstream Conditions		
Fish Passage Deter	mination		
_	ermine "passability" for a range of fish species. Thre	esholds may need to be modified if the	objective is
to evaluate passage for a parti	icular species. Answer all questions.		
Passability = 0	Most	t species and life stages cannot pass at	t most flows.
	ns can be answered "yes", then the crossing barrier	score = 0.	
1. The outlet of the structure	e is perched.	Yes	s No
2. The structure water veloc	ity is greater than 3 feet/second during baseflow.	a interest	s) No
3. The ratio of the structure	water depth to stream water depth is less than 0.1.	Yes	s No
Structure water depth:	Stream water depth:	Depth Ratio:	
			_
Passability = 0.5	•	ecies and/or life stages cannot pass at	t most flows.
	ns can be answered "yes", then the crossing barrier		- N-
 The water depth in the sti 		Yes	-74
	city is 2-3 feet/second during baseflow.	Yes	9
3. The structure is longer that	an 30 feet and does not have natural substrate thro	ugh its entire length.	s No
Passability = 0.9		Rarrier :	at high flows.
rassability = 0.5	ns can be answered "yes", then the crossing barrier		ic ingil novio
 There is a scour pool belo 		Yes	s No
	width to stream bankfull width is less than 0.5.	Yes	
Structure width:	Stream bankfull width:	Constriction Ratio:	
Passability = 1		r	Not a barrier.
	s can be answered "yes", then the crossing barrier s	score = 1.	
1. The outlet of the structur		Ye	s No
2. The structure water veloc	city is less than 2 feet/second during baseflow.	Ye	s No
3. The ratio of the structure	water depth to stream water depth is greater than	0.1. Yes	
	ructure is greater than 0.2 feet.	Ye	
5. There is not a scour pool	below the structure.	Ye	
The ratio of the structure	width to stream bankfull width is greater than 0.5.	Yes	s No
The structure is longer	than 30 feet and has natural substrate through its e	entire length, or	
The structure is shorte	r than 30 feet and has natural substrate through its	entire length, or Ye	s No
☐ The structure is shorte	r than 30 feet and does not have natural substrate t	through its entire length.	
Additional Comments			
Auuruphar Comments	nnel condition, evidence of wash-out, beaver, local t	testimony of frequency of overtopping	····
Cald mater -	beautiful! 73 folker @	sialet + slight dia	P
	- (•	

¹ Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



BLU7-DOWNSTREAM



UPSTREAM

Stream Cros	sing Data Sheet				Site ID:	BL46	
General Information	on .						
Name of Observer(s):	Snell				Date:	08/65/	1,6
GPS Waypoint: Additional Location Comments:	1			GPS Lat/Long:			
Road Information							
Road Name/Numb	er: Park						
Road Type:	Federal State County	Town	٦	ribal P	rivate Other:		
Road Surface:	Paved Grave Sand	Nativ	e Surfa	ice	Other:		
Road Width (ft):	21 Fill Depth (ft):	5	_				
Crossing Information	on						
Structure Type:	Culvert(s) no.: / Bridge	Ford		Dam Oth	ner: Structure	ID:	
Structure Shape	-	Substra	ate in S	tructure	Structure Condition		
Round	Metal	None	e	Sand	General Condition: Ne	w Good) Fair	Poor
Square/Rectangle	Concrete	Grav	rel	Rock	Plugged: % Inle	t Outlet I	In Pipe
Open Bottom Square/Re	ectangle Plastic		<u> Mixi</u>	ure	Crushed % Inlet	Outlet I	In Pipe
Pipe Arch	Wood		-		Rusted Through?	Yes	No
Open Bottom Arch	Structure In	nterior			Inlet Type	Outlet Typ	ie
Ellipse	Smooth	or Cor	rugate	d	Projecting Mitered	At stream grade	
Structure Water Ve	elocity (ft/sec):1				Headwall Apron	Cascade over ripra	р
Structure Water De	epth (ft): inlet		utlet	15	Wingwall 10-30° or 30-70°	Freefall into pool.	
Structure Length (f	t):1 40				Trashrack	Freefall onto riprar	p
Structure Width (ft	s): ¹ Structure H	leight (f	ft): 1	3	Other	Outlet apron	
Perch Height (ft): 1,						Other	
Buried Depth of Sta	ructure (ft):1 inlet	c	outlet		2 9 9		
Stream Information	n						
Stream Name:	Blue Creek			Stream Wa	ater Velocity (in riffle) (ft/se	ec): 6-8	
	one % Bankfull < Bankfull =	= Bankfı	ull :	> Bankfull			
	fle) (ft): Bankfull Wid				Stream Width (in ri	ffle) ft: 5	
	Width & Depth (ft): ² /				n Pond Length & Width (ft):		
Fish Passage Inforn	nation						
Is the structure per	ched?	Yes	Nô.		ding upstream?	Yes	- James
Is there a scour poo	ol at the outlet?	Yes (No		ure fully backwatered?	Yes	No
Is there substrate th	hrough the structure's entire length?	Yes	No		nange in head from the upstr nstream side?	ream	No
Does the structure substrate?	substrate match the stream	Yes	No	Is the struct stream widt	ure narrower than the bank :h?	full	No

No

No

Yes

Yes

Is there debris blocking the inlet?

Is there evidence of overtopping or wash-outs?

No

Yes No

Yes

Is water in the structure moving faster than in the

Is water in the structure shallower than in the stream?

stream?

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert#	Width (ft)	Height (ft)	Length (ft)
2			
3			

		All the same of th	
Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos				
☐ Site ID	☐ Inlet	Outlet		
☐ Road Approach – Left	☐ Road Approach – Right			
Upstream Conditions	Downstream Conditions			
Fish Passage Determin	nation			
Follow these guidelines to determine to evaluate passage for a particula	ne "passability" for a range of fish species. Thre r species. Answer all questions.	esholds may need to be modified	if the obje	ective is
Passability = 0		st species and life stages cannot p	ass at mc	st flows.
	an be answered "yes", then the crossing barrier			
1. The outlet of the structure is p			Yes	No
	greater than 3 feet/second during baseflow.		Yes	No
3. The ratio of the structure water	er depth to stream water depth is less than 0.1		Yes	No
Structure water depth:	Stream water depth:	Depth Ratio:		
D	Sama av	pecies and/or life stages cannot p	acc at me	et flows
Passability = 0.5	some span be answered "yes", then the crossing barrier		1833 at 1110	ost ilows.
The water depth in the structure.	·	1 SCOTE - 0.3.	Yes	No
	2-3 feet/second during baseflow.		Yes	No
3. The structure is longer than 30	Diffeet and does not have natural substrate thro	ough its entire length.	Yes	No
D 189 00		Po	rrier at hi	ah flows
Passability = 0.9	an be answered "yes", then the crossing barrier		merat nij	RII IIOWS.
1. There is a scour pool below th	-	1 30016 - 0.3.	Yes	No
•	th to stream bankfull width is less than 0.5.		Yes	No
Structure width:	Stream bankfull width:	Constriction Ratio:		
-				
Passability = 1			Not a	a barrier.
	be answered "yes", then the crossing barrier	score = 1.		
1. The outlet of the structure is r	·		Yes	No
	less than 2 feet/second during baseflow.	0.4	Yes	No
	er depth to stream water depth is greater than	0.1.	Yes	No
4. The water depth in the structu	-		Yes	No No
5. There is not a scour pool below6. The ratio of the structure width			Yes	No No
	th to stream bankfull width is greater than 0.5. a 30 feet and has natural substrate through its o		TES	140
	n 30 feet and has natural substrate through its		Voc	No
	n 30 feet and does not have natural substrate f	<u> </u>	153	140
= The strattare is shorter tha	55 1550 and does not have natural substitute	and agricion critical confident		

Additional Comments

 $^{^{\}mbox{$1$}}\mbox{Fill}$ out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



BLU8- UPSTREAM

Stream crossing Data S	пеес				Site ID:	BLU	
General Information							
Name of Saell				GPS	Date:	08/05	110
GPS Waypoint: Additional Location Comments:			_	Lat/Long:			
Road Information							
Road Name/Number:	ark -5						
Road Type: Federal St	ate County	Town	-	Tribal Pr	ivate Other:		
Road Surface: Paved Gra	avel Sand	Nativ	/e Surfa	ace	Other:		
Road Width (ft):	ill Depth (ft):	3	_				
Crossing Information							
Structure Type: Culvert(s) no.:	Bridge	Ford		Dam Oth	er: Structu	re ID:	
Structure Shape St	ructure Material	Substra	ate in S	Structure	Structure Condition		
Round	Metal	Non	e	Sand	General Condition:	New Good Fai	ir Poor
Square/Rectangle	Concrete	Grav	/el	Rock	Plugged: % In	let Outlet	In Pipe
Open Bottom Square/Rectangle	Plastic		Mix	ture	Crushed % In	let Outlet	In Pipe
Pipe Arch	Wood				Rusted Through?	Yes	No
Open Bottom Arch	Structure In	terior			Inlet Type	Outlet Ty	ype
Ellipse	Smooth o	or Cor	rugate	d	Projecting Mitered	At stream grade	
Structure Water Velocity (ft/sec): 1	2	- " ~	ann inggeneration		Headwall Apron	Cascade over rip	гар
Structure Water Depth (ft): 1	inlet 0.4		outlet	0.4	Wingwall 10-30° or 30-70°	Freefall into poo	ol.
Structure Length (ft):	30				Trashrack	Freefall onto ripr	rap
Structure Width (ft):1	Structure H	eight (ft): 1	8	Other	Outlet apron	
Perch Height (ft): 1,2	Height of H	ead (ft): ^{1, 2}			Other	
Buried Depth of Structure (ft):1	inlet	•	outlet		-		
Stream Information							
Stream Name: Blue Cr	ree K			Stream Wa	ter Velocity (in riffle) (ft/	sec):	
Stream Flow: None 2 Bankfo	ill < Bankfull =	Bankf	ull	> Bankfull			
Water Depth (in riffle) (ft):	Bankfull Wid	th (in i	riffle) (ft):	Stream Width (in	riffle) ft: 🖆	
Scour Pool Length, Width & Depth (ht): ² /			Upstream	Pond Length & Width (ft);²	
Fish Passage Information			,				
Is the structure perched?		Yes	No		ding upstream?		es No
Is there a scour pool at the outlet?		Yes	(Ma		ure fully backwatered? ange in head from the up:	stream	es No
Is there substrate through the struct		Yes	(NB)	side to dowr	nstream side?	Ye	es No
Does the structure substrate match t substrate?	he stream	Yes	400	Is the structu stream widtl	ure narrower than the bar h?	ıkfull	es No
Is water in the structure moving faste	er than in the	Voc	Na		ris blocking the inlet?	V.	es Nõ

Yes

Yes

stream?

Is water in the structure shallower than in the stream?

No

(N)

Is there debris blocking the inlet?

Is there evidence of overtopping or wash-outs?

Yes No

Yes No

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

				-	
Culvert#	Width (ft)	Height (ft)	Length (ft)	Culvert #	Width (ft)
2				4	
3				5	

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Pho	otos				
_ 5	Site ID	☐ Inlet	☐ Outlet		
⊐ F	Road Approach – Left	☐ Road Approach — Right			
	Jpstream Conditions	☐ Downstream Conditions			
Fi	sh Passage Determii	nation			
	•	ne "passability" for a range of fish species. Thr	resholds may need to be modi	fied if the ohis	ective is
	evaluate passage for a particular	•	esholds may need to be modi	ned if the obje	.00170 15
Pas	ssability = 0	Mo	st species and life stages cann	ot pass at mo	st flows.
		n be answered "yes", then the crossing barrie	-		
1.	The outlet of the structure is p	erched.		Yes	No
2.	The structure water velocity is	greater than 3 feet/second during baseflow.		Yes	No
		er depth to stream water depth is less than 0.1		Yes	No
	ucture water depth:		Depth Rati	0:	
Dod	ssability = 0.5	Samas	pecies and/or life stages cann	ot nace at mo	et flows
	•	n be answered "yes", then the crossing barrie		ot pass at mo	JE 110113.
	The water depth in the structu		1 30010 - 0.3.	Yes	No
1. 2.	The state of the s	2-3 feet/second during baseflow.		Yes	No
		2-3 reet/second during baseriow. I feet and does not have natural substrate thro	ough its entire length.	Yes	No
٠.	The structure is longer than se	rect and abes not have natural bass, are the	ough its chance length.		,,,,
Pas	ssability = 0.9			Barrier at hig	gh flows.
lf a	ny of the following questions ca	n be answered "yes", then the crossing barrie	r score = 0.9.		
1.	There is a scour pool below the	e structure.		Yes	No
2.	The ratio of the structure widt	h to stream bankfull width is less than 0.5.		Yes	No
Str	ucture width:	Stream bankfull width:	Constriction Rati	0:	
Dad	ssability = 1			Not a	a barrier.
		be answered "yes", then the crossing barrier	score = 1.		
	The outlet of the structure is n			Yes	No
		less than 2 feet/second during baseflow.		Yes	No
		er depth to stream water depth is greater than	0.1.	Yes	No
	The water depth in the structu		. 5.2.	Yes	No
T.	There is not a scour pool below			Yes	No
5. 6.	-	h to stream bankfull width is greater than 0.5.		Yes	No
7.		30 feet and has natural substrate through its			
٠.		n 30 feet and has natural substrate through its		Yes	No
		n 30 feet and has natural substrate till oughts n 30 feet and does not have natural substrate		163	140
Δd	ditional Comments				

Culvert diagram, erosion, channel condition, evidence of wash-out, beaver, local testimony of frequency of overtopping...

Texted at d/3 - 2' niek pt nt uls

¹Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



BLU9- DOWNSTREAM



LOOKING UPSTREAM THROUGH PIPE

Stream Crossing Data Sheet				Site ID:	ZHR 11		_
General Information Name of Observer(s): Snell Deegen				Date:	12/2	7	
GPS Waypoint: Additional Location Comments:			GPS at/Long:				_
Road Information							
Road Name/Number: M1. Zion							
Road Type: Federal State County T	own	Tr	ibal Pri	vate Other:			
Road Surface: Paved Gravel Sand	Native	Surfa	ce (Other:			
Road Width (ft): Fill Depth (ft):		-					
Crossing Information							
Structure Type: Culvert(s) no.: 4 Bridge	Ford	0	am Othe	r: Structur	e ID:		_
	ubstra	te in St	ructure	Structure Condition			
Round	None		Sand	General Condition: N	ew Good	Fair P	oor
Square/Rectangle Concrete	Grave	el	Rock	Plugged: % Inl	et Outlet	In P	ipe
Open Bottom Square/Rectangle Plastic		Mixto	ıre	Crushed % Inle	et Outlet	In P	ipe
Pipe Arch Wood				Rusted Through?	Yes	No	
Open Bottom Arch Structure In	terior			Inlet Type	Outlet	Туре	
Ellipse Smooth of	r Corr	ugatec		Projecting Mitered	At stream grad	de	
Structure Water Velocity (ft/sec): 1				Headwall Apron	Cascade over	riprap	
Structure Water Depth (ft): inlet 1.5	0	utlet	1	Wingwall 10-30° or 30-70°	Freefall into p	ool.	
Structure Length (ft): ¹ 30				Trashrack	Freefall onto r	riprap	
Structure Width (ft):1 Structure H	eight (f	t):¹	4	Other	Outlet apron		
Perch Height (ft): 1,2 Height of He	ead (ft)	:1,2			Other		
Buried Depth of Structure (ft): ¹ inlet	0	utlet					
Stream Information							
Stream Name: [hastoma			Stream Wat	ter Velocity (in riffle) (ft/	sec):	_	
Stream Flow: None < 1/2 Bankfull =	Bankfu	: الد	Bankfull			_	
Water Depth (in riffle) (ft): Bankfull Wid	th (in r	iffle) (f	t): <u>35</u>	Stream Width (in	riffle) ft: 🔮	arab .	_
Scour Pool Length, Width & Depth (ft):2 /	/		Upstream	Pond Length & Width (ft):²	-	-
Fish Passage Information			4.274	1.		Yes	No
Is the structure perched?	Yes	No		ding upstream? are fully backwatered?		Yes	No
Is there a scour pool at the outlet?				ange in head from the ups	stream		No
Is there substrate through the structure's entire length?	Yes	N)	side to down	stream side?			CONTO.
Does the structure substrate match the stream substrate?	Yes	No	Is the structi stream widt	ure narrower than the bar h?	IKIUII	Yes	No
Is water in the structure moving faster than in the	Yes	No	Is there deb	ris blocking the inlet?		Yes	No

Ng

Yes

Is water in the structure shallower than in the stream?

Is there evidence of overtopping or wash-outs?

Yes No

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert #	Width (ft)	Height (ft)	Length (ft)
2			
3			

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos				
☐ Site ID	☐ Inlet	☐ Outlet		
☐ Road Approach – Left	☐ Road Approach – Right			
☐ Upstream Conditions	☐ Downstream Conditions			
	photo 11-13			
Fish Passage Determination	e groto			
Follow these guidelines to determine "passa to evaluate passage for a particular species.	ability" for a range of fish species. Thresholds Answer all questions.	may need to be modified	if the obje	ective is
Passability = 0		es and life stages cannot p	ass at mo	st flows.
 If any of the following questions can be anso The outlet of the structure is perched. The structure water velocity is greater to The ratio of the structure water depth to Structure water depth: 	to stream water depth is less than 0.1.	= 0. Depth Ratio: _	Yes Yes Yes	No No No
2	Some species a	nd/or life stages cannot p	ass at mo	st flows.
Passability = 0.5	wered "yes", then the crossing barrier score			
1. The water depth in the structure is less	than 0.2 feet.		Yes	No
 The structure water velocity is 2-3 feet, 	/second during baseflow.		Yes	No
3. The structure is longer than 30 feet and	d does not have natural substrate through its	entire length.	(Yes)	No
Passability = 0.9		Ва	rrier at hi	gh flows.
If any of the following questions can be ans	wered "yes", then the crossing barrier score	= 0.9.	200	
1. There is a scour pool below the structu	re.		Yes	No
2. The ratio of the structure width to stream Structure width:	am bankfull width is less than 0.5. Stream bankfull width:	Constriction Ratio:	Yes	No
	-	-	Not	a barrier.
Passability = 1	roand "voc" than the crossing barrier score =	1	1400	a barrier.
If all of the following questions can be answ	vered "yes", then the crossing barrier score =	1.	Yes	No
 The outlet of the structure is not perch The structure water velocity is less than 	eu. n 2 faet/second during haseflow		Yes	No
2. The structure water velocity is less that	to stream water depth is greater than 0.1.		Yes	No
The ratio of the structure water depthThe water depth in the structure is gre.	ater than 0.2 feet.		Yes	No
5. There is not a scour pool below the structure is given			Yes	No
6. The ratio of the structure width to stre	am bankfull width is greater than 0.5.		Yes	No
7. The structure is longer than 30 feet	and has natural substrate through its entire I	ength, or		
☐ The structure is shorter than 30 feet	t and has natural substrate through its entire t and does not have natural substrate through	length, or	Yes	No

Additional Comments

¹Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



CHR11-DOWNSTREAM



LOOKING DOWNSTREAM

Stream Crossing Dat	a Sheet				Site ID:	CHR	12	_
General Information								
Name of Observer(s):	Deegen				Date:	1-17	9	
Observer(s).			(3PS		-121-		
GPS Waypoint:				.at/Long:				-
Additional Location Comments:								
Road Information								
Road Name/Number:	Cassopolis (sont	2)						
Road Type: Federal		Γown	Tr	ribal Pr	ivate Other:			
Road Surface: Paved	Gravel Sand	Native	Surfa	ce	Other:			
Road Width (ft):	Fill Depth (ft):				1			
Crossing Information	3		_		Character and the control of the con	ID.		
	no.: 3 Bridge	Ford			er: Structur	e ID:		
Structure Shape	Structure Material S	Substra	te in St	ructure	Structure Condition		<u>.</u> .	_
Round	Metal	None		Sand		lew Good		Poor
Square/Rectangle	Concrete	Grave		Rock		let Outle		Pipe
Open Bottom Square/Rectangle	Plastic		Mixt	ıre	Crushed % Inl			Pipe
Pipe Arch	Wood				Rusted Through?	Yes	No.	
Open Bottom Arch	Structure In				Inlet Type		et Type	
Ellipse	Smooth o	or Corr	ugated		Projecting Mitered	At stream g		
Structure Water Velocity (ft/sec					Headwall Apron	Cascade ove	ır riprəp	
Structure Water Depth (ft): 1	inlet 2	0	utlet -	1.5	Wingwall 10-30° or 30-70°	Freefall into	pool.	
Structure Length (ft): 1	4811			!	Trashrack	Freefall onto	o riprap	
Structure Width (ft):1	6 ff Structure He	eight (f	t): 1	644	Other	Outlet apro	n	
Perch Height (ft): 1,2	Height of He	ead (ft)	:1,2			Other		
Buried Depth of Structure (ft):1	inlet	0	utlet		4.			
Stream Information								
- 1	ya na			Stream Wa	ter Velocity (in riffle) (ft/	sec): /,	5	
		Dankfi	d1 S	Bankfull				
Stream Flow: None < 1/2 Ba		Bankfu				100 10	1,5	-
Water Depth (in riffle) (ft):					Stream Width (in			
Scour Pool Length, Width & Dep	th (ft): ² 30 / 4	0 /	5	Upstream	Pond Length & Width (ft): 200	5 x 2	0
Fish Passage Information		Yes	(No)	la there non	ding upstream?		Yes	No
Is the structure perched? Is there a scour pool at the outle	t?	Yes	No		ure fully backwatered?		Yes	(No)
Is there substrate through the st		Yes	(No)	Is there a ch	ange in head from the up	stream	Yes	No
Does the structure substrate ma					nstream side? ure narrower than the bar	nkfull	Van	Alc
substrate?		Yes	No	stream widt			(Yes)	No
Is water in the structure moving stream?	faster than in the	Ves	No	Is there deb	ris blocking the inlet?		Yes	No
	or than in the stream?	(Ves)	No	Is there evic	lence of overtopping or wa	ash-outs?	Yes	No

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert #	Width (ft)	Height (ft)	Length (ft)
2	35	\$5	48
3	\$5	\$5	48

Culvert#	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos				
☐ Site ID	☐ Inlet	Outlet		
☐ Road Approach – Left	☐ Road Approach — Right			
☐ Upstream Conditions	☐ Downstream Conditions			
Fish Passage Determina	ntion			
Follow these guidelines to determine to evaluate passage for a particular s	"passability" for a range of fish species. Th	resholds may need to be modif	ied if the obje	ective is
Passability = 0		ost species and life stages canno	ot pass at mo	ist flows.
	be answered "yes", then the crossing barric	er score = 0.	Yes	No
 The outlet of the structure is per The structure water velocity is gr 	cried. eater than 3 feet/second during baseflow.		Yes	No
	depth to stream water depth is less than 0.		Yes	No
Structure water depth:		Depth Ratio);	
Passability = 0.5		species and/or life stages canno	ot pass at mo	st flows.
	be answered "yes", then the crossing barri	er score = 0.5.	Vaa	Ma
1. The water depth in the structure			Yes Yes	No No
 The structure water velocity is 2-3 feet/second during baseflow. The structure is longer than 30 feet and does not have natural substrate through its entire length. 		Yes	No	
3. The structure is longer than 30 fe	eet and does not have natural substrate till	ough its entire length.	163	140
Passability = 0.9			Barrier at his	gh flows.
If any of the following questions can	be answered "yes", then the crossing barri	er score = 0.9.		
1. There is a scour pool below the s	tructure.		Yes	No
2. The ratio of the structure width	to stream bankfull width is less than 0.5.		Yes	No
Structure width:	Stream bankfull width:	Constriction Ratio):	
Passability = 1			Not :	a barrier.
	e answered "yes", then the crossing barrie	r score = 1.		
1. The outlet of the structure is not			Yes	No
	ss than 2 feet/second during baseflow.		Yes	No
3. The ratio of the structure water	depth to stream water depth is greater tha	ın 0.1.	Yes	No
4. The water depth in the structure			Yes	No
5. There is not a scour pool below t			Yes	No
6. The ratio of the structure width	to stream bankfull width is greater than 0.5	5.	Yes	No
7. The structure is longer than 3	0 feet and has natural substrate through it	s entire length, or		
The structure is shorter than ?	30 feet and has natural substrate through i	ts entire length, or	Yes	No
☐ The structure is shorter than 3	30 feet and does not have natural substrate	e through its entire length.		

Additional Comments

¹Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse,

²Fill out, if present.



CHR12-DOWNSTREAM



UPSTREAM

Stream Cros	sing Data Sheet			Site ID:	_ CHIR/	13
General Informatio	n					
Name of	C 11 000			Date:	12/29/	1.
Observer(s):	Snell, Deesen	G	PS	Date:		10
GPS Waypoint:			t/Long:			
Additional Location						
Comments:						
Road Information						
Road Name/Numbe	er: (assopolis					_
Road Type:	Federal State County	Town Tri	oal Private	Other:		
Road Surface:	Paved Gravel Sand	Native Surface	e Othe	er:		
Road Width (ft):	Fill Depth (ft):	1				
Crossing Information	n					
Structure Type:	Culvert(s) no.: 2 Bridge	Ford Da	m Other:	Structur	e ID:	
Structure Shape	Structure Material	Substrate in Str	ucture Sti	ructure Condition		
Round	Metal	None	Sand G e	eneral Condition: N	lew Good Fair	Poor
Square/Rectangle	Concrete	Gravel	Rock Plu	ugged: % Ini	et Outlet In	Pipe
Open Bottom Square/Re	ctangle Plastic	Mixtur	e Cr	ushed % Inl	et Outlet In	Pipe
Pipe Arch	Wood		Ru	sted Through?	Yes No	3
Open Bottom Arch	Structure la	nterior		Inlet Type	Outlet Type	1
Ellipse	Smooth	or Corrugated	Pro	ojecting Mitered	At stream grade	
Structure Water Ve	locity (ft/sec): 1 > 3		He	adwall Apron	Cascade over riprap	
Structure Water De	pth (ft): inlet	outlet	0 . 8 wi	ngwall 10-30° or 30-70°	Freefall into pool.	
Structure Length (fi	33			ashrack	Freefall onto riprap	
Structure Width (ft): ¹	leight (ft):	2 Ot	her	Outlet apron	
Perch Height (ft): 1,1		lead (ft): 1, 2			Other	
Buried Depth of Str		outlet				
Stream Information						
Stream Name:	Leninger		Stream Water V	elocity (in riffle) (ft/s	sec):	
	J	= Bankfull >	Bankfull			
	fle) (ft): Bankfull Wid			Stream Width (in	riffle) ft: 🤲	10
	Width & Depth (ft):2					hēe
Fish Passage Inform Is the structure per		Yes (No)	s there ponding	upstream?	Yes	No
Is there a scour poo		Yes No	s the structure f	ully backwatered?	Yes	(No
	hrough the structure's entire length?	Vac I NA	s there a change side to downstre	in head from the ups am side?	tream	No
	substrate match the stream	Ves No		arrower than the bar	kfull	No
substrate? Is water in the struc	cture moving faster than in the			ocking the inlet?	Yes	No
stream?						No
Is water in the struc	cture shallower than in the stream?	(Yes) No	is there evidence	of overtopping or wa	ash-outs? Yes	1 140

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert #	Width (ft)	Height (ft)	Length (ft)
2	2	2	33
3			

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

rilotos				
☐ Site ID #/16	☐ Inlet	☐ Outlet		
☐ Road Approach — Left	Road Approach – Right			
☐ Upstream Conditions	☐ Downstream Conditions			
Fish Passage Determina	ntion			
Follow these guidelines to determine to evaluate passage for a particular s	"passability" for a range of fish species. Thr pecies. Answer all questions.	esholds may need to be modified	if the obj	ective is
Passability = 0	Mo	st species and life stages cannot p	ass at mo	ost flows.
 If any of the following questions can The outlet of the structure is per The structure water velocity is gr The ratio of the structure water 	eater than 3 feet/second during baseflow. depth to stream water depth is less than 0.1		Yes Yes	No No No
Structure water depth:	Stream water deptil.			
Passability = 0.5		pecies and/or life stages cannot p	pass at me	ost flows.
	be answered "yes", then the crossing barrie	r score = 0.5.	Yes	No
1. The water depth in the structure			Yes	No
 The structure water velocity is 2- The structure is longer than 30 fe 	eet and does not have natural substrate thro	ough its entire length.	Yes	No
Passability = 0.9		Ва	rrier at h	igh flows.
If any of the following questions can	be answered "yes", then the crossing barrie	er score = 0.9.		
1. There is a scour pool below the s			Yes	No
2. The ratio of the structure width	to stream bankfull width is less than 0.5.		Yes	No
Structure width:	Stream bankfull width:	Constriction Ratio:		-
Passability = 1			Not	a barrier.
	e answered "yes", then the crossing barrier	score = 1.		A1 .
 The outlet of the structure is not 	perched.		Yes	No
The structure water velocity is le	ss than 2 feet/second during baseflow.		Yes	No
3. The ratio of the structure water	depth to stream water depth is greater than	n 0.1.	Yes	No No
4. The water depth in the structure			Yes Yes	No No
5. There is not a scour pool below t			Yes	No
6. The ratio of the structure width	to stream bankfull width is greater than 0.5	entire langth or	163	140
7. The structure is longer than 3	0 feet and has natural substrate through its	enure lengui, or	Yes	No
☐ The structure is shorter than :	30 feet and has natural substrate through it 30 feet and does not have natural substrate	through its entire length.		,10

Additional Comments

¹Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



CHR13-LENINGER OUTLET

Stream Crossing Data Sheet		Site ID:	CHR 16
General Information			
Name of			11/25/
Observer(s): Sncll, Dees	GPS	Date:	12/24/16
GPS Waypoint:	Lat/Long:		
Additional Location			
Comments:			
Road Information			
Road Name/Number:	Conter		
Road Type: Federal State County	Town Tribal	Private Other:	-
Road Surface: Paved Gravel Sand	Native Surface	Other:	
Road Width (ft): 27 Fill Depth (ft):			
Crossing Information			
Structure Type: Culvert(s) no.: Bridge	Ford Dam Of	ther: Structur	re ID:
Structure Shape Structure Material	Substrate in Structure	Structure Condition	
Round	None Sand	General Condition:	lew Good Fair Poor
Square/Rectangle Concrete	Gravel Rock	Plugged: % In	let Outlet In Pipe
Open Bottom Square/Rectangle Plastic	Mixture	Crushed % Inl	et Outlet in Pipe
Pipe Arch Wood		Rusted Through?	Yes No
Open Bottom Arch Structu	re Interior	Inlet Type	Outlet Type
Ellipse) Smoo	th or Corrugated	Projecting Mitered	At stream grade
Structure Water Velocity (ft/sec): 1	- 2	Headwall Apron	Cascade over riprap
Structure Water Depth (ft): inlet	outlet	Wingwall 10-30° or 30-70°	Freefall into pool.
Structure Length (ft): 1		Trashrack	Freefall onto riprap
	re Height (ft):	Other	Outlet apron
	of Head (ft): 1, 2		Other
	outlet		
	Odilet		
Stream Information	1,		. 1
Stream Name: Chaishana Cree	Stream W	/ater Velocity (in riffle) (ft/	sec):
Stream Flow: None < ½ Bankfull < Bankfull			
Water Depth (in riffle) (ft): Bankfull			
Scour Pool Length, Width & Depth (ft): ²	25 / 3 Upstrea	m Pond Length & Width (ft): ²
Fish Passage Information			
Is the structure perched?		onding upstream?	Yes (No)
Is there a scour pool at the outlet? — New Swette - might be reason		cture fully backwatered? change in head from the ups	Yes No
Is there substrate through the structure's entire length		wnstream side?	Yes No
Does the structure substrate match the stream	Yes No	cture narrower than the bar	kfull (Yes) No
substrate? Is water in the structure moving faster than in the	stream wi		
stream? (4/4-x - yes 2-ns		ebris blocking the inlet?	Yes (No)
Is water in the structure shallower than in the stream	n? Yes No Is there ev	ridence of overtopping or wa	ash-outs? Yes No

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1,

Culvert #	Width (ft)	Height (ft)	Length (ft)
2	6	5	60
3	6	5	60

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Pno	tos				
☐ Si	ite ID	☐ Inlet	Outlet		
☐ R	oad Approach – Left	Road Approach – Right			
□ U	pstream Conditions	☐ Downstream Conditions			
Fis	sh Passage Determination	1			
Foll- to e	ow these guidelines to determine "pass evaluate passage for a particular species	ability" for a range of fish species. Th . Answer all questions.	nresholds may need to be mod	dified if the obj	ective is
Pas	sability = 0		ost species and life stages car	inot pass at mo	ost flows.
If ar 1. 2. 3.	ny of the following questions can be ans The outlet of the structure is perched. The structure water velocity is greater The ratio of the structure water depth ucture water depth:	than 3 feet/second during baseflow. to stream water depth is less than 0		Yes Yes Yes	No No No
Pas	sability = 0.5	Some	species and/or life stages car	nnot pass at mo	ost flows.
If ar	ny of the following questions can be ans	wered "yes", then the crossing barri	ier score = 0.5.		\sim
1.	The water depth in the structure is less	than 0.2 feet.		Yes	No
2.	The structure water velocity is 2-3 feet	/second during baseflow.		Yes	No
3.	The structure is longer than 30 feet and	d does not have natural substrate th よけ ふしょくらんだっ ひん	rough its entire length.	Yes	No
Pas	sability = 0.9			Barrier at hi	igh flows.
If ar	ny of the following questions can be ans	swered "yes", then the crossing barr	ier score = 0.9.	.,	NI.
1.	There is a scour pool below the structu	ire.		Yes	No
2. Stru	The ratio of the structure width to streucture width:	am bankfull width is less than 0.5. Stream bankfull width:	Constriction Ra	Yes atio:	No
	L-15a. 4			Not	a barrier.
lf al	sability = 1 II of the following questions can be ansv	vered "ves", then the crossing barrie	er score = 1.		
1.	The outlet of the structure is not perch			Yes	No
2.	The structure water velocity is less tha	n 2 feet/second during baseflow.		Yes	No
3.	The ratio of the structure water depth	to stream water depth is greater that	an 0.1.	Yes	No
4.	The water depth in the structure is gre	ater than 0.2 feet.		Yes	No
5.	There is not a scour pool below the str			Yes	No
6. 7.	The ratio of the structure width to stre The structure is longer than 30 feet	am bankfull width is greater than 0.	5. ts entire length, or	Yes	No
	☐ The structure is shorter than 30 fee☐ The structure is shorter than	t and has natural substrate through	its entire length, or	Yes	No

Additional Comments

¹Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



CHR16-DOWNSTREAM



UPSTREAM

Stream Crossing Data	Sheet				Site ID:	CHR	7	
General Information								
Name of Observer(s):	Desail				Date	12/2	, 9	
Observer(s): Snell	Dregorh		-	GPS	Date.		- 1	
GPS Waypoint:				Lat/Long:				
Additional Location								
Comments:		-						
Road Information	7 . !!							
Road Name/Number:	Brownsville							_
Road Type: Federal S	tate County	Town	Т	ribal Pri	vate Other:			
Road Surface: Paved G	ravel Sand	Nativ	e Surfa	ce	Other:			
Road Width (ft):	Fill Depth (ft):	2	_					
Crossing Information								
Structure Type: Culvert(s) no	: <u>3</u> Bridge	Ford	I	oam Othe	er: Structur	e ID:		_
Structure Shape S	tructure Material S	Substra	ite in S	ructure	Structure Condition			
Round	Metal	None	2	Sand	General Condition:	lew Good	Fair	Poor
Square/Rectangle	Concrete	Grav	el	Rock	Plugged: % In	et Outlet	t In	Pipe
Open Bottom Square/Rectangle	Plastic		Mixt	ıre	Crushed % inl	et Outlet	i ln	Pipe
Pipe Arch	Wood				Rusted Through?	Yes	No	o
Open Bottom Arch	Structure In	terior			Inlet Type	Outle	t Type	!
Ellipse	Smooth	or Cor	rugated		Projecting Mitered	At stream gr	ade	
Structure Water Velocity (ft/sec):1	1.5				Headwall Apron	Cascade ove	r riprap	
Structure Water Depth (ft): 1	inlet		utlet	2	Wingwall 10-30° or 30-70°	Freefall into	pool.	
Structure Length (ft):1	30				Trashrack	Freefall onto	riprap	
Structure Width (ft):1	Structure H	eight (1	ft):1	4	Other	Outlet apror	1	
Perch Height (ft): 1, 2	Height of He			-		Other		
Buried Depth of Structure (ft):	inlet	0	utlet					
Stream Information								
Stream Name: (hat	6467			Stream Wat	ter Velocity (in riffle) (ft/	sec): /		
Stream Flow: None < 1/2 Bankf		Bankf		Bankfull				
Water Depth (in riffle) (ft):	Bankfull Wid	th (in r	iffle) (f	t): 25	Stream Width (in	riffle) ft:	22	
Scour Pool Length, Width & Depth	(ft): ² 30 1 45		74	Upstream	Pond Length & Width (ft	:2		
Fish Passage Information								,
Is the structure perched?		Yes	No		ling upstream?	-	Yes	_NO
Is there a scour pool at the outlet?		Yes	No		re fully backwatered? ange in head from the ups	tream		No
Is there substrate through the struc	ture's entire length?	Yes	(No)	side to down	stream side?		Yes	No
Does the structure substrate match	the stream	Yes	No	Is the structu stream width	ire narrower than the bar	kfull	Yes	No
substrate? Is water in the structure moving fas:	ter than in the	0	No			- 17	Yes	No
stream?		Yes	No		is blocking the inlet?	ah auta?		
Is water in the structure shallower t	han in the stream?	Yes	No	is there evide	ence of overtopping or wa	isn-outs?	res	No

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert #	Width (ft)	Height (ft)	Length (ft)
2	4	4	30
3	Ч	4	35

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos				
☐ Site ID	☐ Inlet	Outlet		
☐ Road Approach – Left	Road Approach – Right			
☐ Upstream Conditions	☐ Downstream Conditions			
Fish Passage Determin	nation			
	ine "passability" for a range of fish species. Thr	resholds may need to be modifie	d if the ob	jective is
to evaluate passage for a particula	r species. Answer all questions.			
Passability = 0	Mos	st species and life stages cannot	pass at m	ost flows.
If any of the following questions ca	an be answered "yes", then the crossing barrie	r score = 0.		
1. The outlet of the structure is p			Yes	No
2. The structure water velocity is	greater than 3 feet/second during baseflow.		Yes	No
	er depth to stream water depth is less than 0.1	l.	Yes	No
Structure water depth:	Stream water depth:	Depth Ratio:		
	Same a	species and/or life stages cannot	nace at m	ost flows
Passability = 0.5			hass at III	USL HUWS.
	an be answered "yes", then the crossing barrie	!r score = 0.5.	Yes	No
1. The water depth in the structu			Yes	No
2. The structure water velocity is			Yes	No
3. The structure is longer than 30	Difeet and does not have natural substrate thro	ough its entire length.	Tes	140
Passability = 0.9		В	arrier at h	igh flows.
	an be answered "yes", then the crossing barrie	er score = 0.9.		
1. There is a scour pool below th			Yes	No
	th to stream bankfull width is less than 0.5.		Yes	No
Structure width:	Stream bankfull width:	Constriction Ratio:		
			Blos	- barrier
Passability = 1			NOL	a barrier.
	n be answered "yes", then the crossing barrier	score = 1.	V	No
1. The outlet of the structure is r			Yes	No
2. The structure water velocity is	s less than 2 feet/second during baseflow.		Yes	No
	er depth to stream water depth is greater thar	ი 0.1.	Yes	No
4. The water depth in the struct			Yes	No
5. There is not a scour pool below			Yes	No
6. The ratio of the structure wid	th to stream bankfull width is greater than 0.5.		Yes	No
7. The structure is longer than	n 30 feet and has natural substrate through its	entire length, or		p. 4
☐ The structure is shorter that	in 30 feet and has natural substrate through it	s entire length, or	Yes	No
The structure is shorter that	n 30 feet and does not have natural substrate	through its entire length.		

Additional Comments

¹Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



CHR17-DOWNSTREAM



UPSTREAM

Stream Crossing Data Sheet			Site ID:	CHR	18	_	
General Information							
Name of							
Observer(s): Snell Deegan			GPS	Date:	-		_
GPS Waypoint:			Lat/Long:				
Additional Location							
Comments:							_
Road Information	3.4						
Road Name/Number: Day Lake	*d						
Road Type: Federal State Count) Town	٦	ribal Pri	ivate Other:			_
Road Surface: Pave Gravel Sand	Nativ	ve Surfa	ace	Other:			
Road Width (ft): Fill Depth (ft):	1-2	_					
Crossing Information							
Structure Type: Culvert(s) no.: 2 Brid	ge Ford		Dam Othe	er: Structui	re ID:		_
Structure Shape Structure Mater	ial Substra	ate in S	tructure	Structure Condition			
Round	Non	e	Sand	General Condition:	lew Good	Fair 🤇	Poor
Square/Rectangle Concrete	Grav	rel	Rock	Plugged: % In	let Outle	t In F	Pipe
Open Bottom Square/Rectangle Plastic		Mix	ture	Crushed 20 %	er outle	ln f	Pipe
Pipe Arch Wood				Rusted Through?	Yes	No	
Open Bottom Arch Struc	ture Interior			Inlet Type	Outle	t Type	
Ellipse	ooth or Cor	rugate	d	Projecting Mitered	At stream gr	ade	
Structure Water Velocity (ft/sec):	#2.	3		Headwall Apron	Cascade ove	r riprap	
Structure Water Depth (ft): inlet	1	outlet	1	Wingwall 10-30° or 30-70°	Freefall into	pool.	
Structure Length (ft): ¹				Trashrack	Freefall onto	riprap	
	ture Height (ft): 1	3	Other	Outlet apror	1	
	ht of Head (ft		ile.		Other		
	- Control of the Control		,,,,,		Other		
Buried Depth of Structure (ft): inlet		Juliet		-			
Stream Information	?						
Stream Name: Parketige outle	A STATE OF THE STA		Stream Wat	ter Velocity (in riffle) (ft/	sec):		
Stream Flow: None < ½ Bankfull < Bankful	ıll = Bankf	ull	> Bankfull				
Water Depth (in riffle) (ft): Bankfo	ull Width (in	riffle) (ft):	Stream Width (in	riffle) ft:		
Scour Pool Length, Width & Depth (ft): ²	1 1		Upstream	Pond Length & Width (ft): ²		
Fish Passage Information				4	- 4	GKe.	
Is the structure perched?	Yes	(1)		ding upstream?		Yes	No
Is there a scour pool at the outlet?	Yes	(N)		ure fully backwatered?	tue e e	Yes	No
Is there substrate through the structure's entire le	ngth?	No		ange in head from the ups istream side?	tream	Yes	6
Does the structure substrate match the stream	Yes	No		ure narrower than the bar	kfull	Yeş	No
substrate? Is water in the structure moving faster than in the		-	stream width				-
stream?	(Yes	No		ris blocking the inlet?		Yes	(Î)
Is water in the structure shallower than in the street	am? Yes	No	Is there evid	ence of overtopping or wa	ash-outs?	Yes	No

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert #	Width (ft)	Height (ft)	Length (ft)
2	5	3	
3			

Culvert#	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos				
☐ Site ID	☐ Inlet	Outlet		
☐ Road Approach – Left	Road Approach – Right			
Upstream Conditions	☐ Downstream Conditions			
Fish Passage Determin	nation			
Follow these guidelines to determi	ne "passability" for a range of fish species. Thr	esholds may need to be modified	if the obje	ective is
to evaluate passage for a particula				
Passability = 0		st species and life stages cannot	pass at mo	st flows.
	n be answered "yes", then the crossing barrier	r score = 0.	Yes	No
1. The outlet of the structure is p			Yes	No
2. The structure water velocity is	greater than 3 feet/second during baseflow. er depth to stream water depth is less than 0.1		Yes	No
Structure water depth:		Depth Ratio:		
Structure Water depth.		-		
Passability = 0.5		pecies and/or life stages cannot	pass at mo	st flows.
If any of the following questions ca	n be answered "yes", then the crossing barrie	r score = 0.5.		
1. The water depth in the structu	re is less than 0.2 feet.		Yes	No
2. The structure water velocity is	2-3 feet/second during baseflow.		Yes	No
3. The structure is longer than 30) feet and does not have natural substrate thro	ough its entire length.	Yes	No
Passability = 0.9		Ва	arrier at hi	gh flows.
If any of the following questions ca	in be answered "yes", then the crossing barrie	er score = 0.9.		
There is a scour pool below th			Yes	No
2. The ratio of the structure widt	h to stream bankfull width is less than 0.5.		Yes	No
Structure width: 10	Stream bankfull width:	Constriction Ratio:		
			No.4	- housies
Passability = 1			NOT	a barrier.
	be answered "yes", then the crossing barrier	score = 1.	Yes	No
1. The outlet of the structure is r			Yes	No
2. The structure water velocity is	less than 2 feet/second during baseflow.	2.0.1	Yes	No
	er depth to stream water depth is greater than	10.1.	Yés	No
4. The water depth in the struct.5. There is not a scour pool below			Yes	No
	the structure. Th to stream bankfull width is greater than 0.5.	_	Yes	No
6. The ratio of the structure wid?7. The structure is longer than	a 30 feet and has natural substrate through its	entire length, or		
The structure is shorter that The structure is shorter that	n 30 feet and has natural substrate through it.	s entire length, or	Yes	No
☐ The structure is shorter tha	n 30 feet and does not have natural substrate	through its entire length.		

Additional Comments

 $^{^{1}\}mbox{{\it Fill}}$ out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



CHR18-PARADISE OUTLET

Stream Cros	sing Data Sheet				Site ID:	CHR 19	
General Informatio	on .						
Name of						1-9	
Observer(s):	Snell Deegan				Date:	12/29	
				GPS			
GPS Waypoint:				Lat/Long:			
Additional Location	1						
Comments:							
Road Information							
Road Name/Number	er: <u>Seffries</u>						
Road Type:	Federal State County	Town	Т	ribal Pr	rivate Other:		
Road Surface:	Paved Gravel Sand	Nativ -	e Surfa	ce	Other:		
Road Width (ft):	Fill Depth (ft):	5	-				
Crossing Information	on						
Structure Type:	Culvert(s) no.: 2 Bridge	Ford		Dam Oth	ner: Structure	ID:	
Structure Shape	Structure Material	Substra	ite in S	tructure	Structure Condition		
Round	Metal	None)	Sand	General Condition: Nev	w Good Fair	Poor
Square/Rectangle	Concrete	Grav	el	Rock	Plugged: % Inlet	Outlet In	n Pipe
Open Bottom Square/Re	ectangle Plastic		Mixt	ure	Crushed % Inlet	Outlet In	n Pipe
Pipe Arch	Wood				Rusted Through?	Yes N	lo
Open Bottom Arch	Structure In	terior			Inlet Type	Outlet Type	e
Ellipse	Smooth o	or Cor	rugate	i'	Projecting Mitered	At stream grade	
Structure Water Ve	elocity (ft/sec): 1		-0.		Headwall Apron C	Cascade over riprap)
Structure Water De	epth (ft): 1 inlet/	0	utlet		Wingwall 10-30° or 30-70° F	Freefall into pool.	
Structure Length (f	t): 1				Trashrack F	Freefall onto riprap	
Structure Width (ft): ¹	eight (1	ft): 1	4	Other	Outlet apron	
Perch Height (ft): 1,	2 Height of He	ead (ft)): ^{1, 2}	-		Other	
Buried Depth of Str	ructure (ft):1 inlet	0	outlet	_	_		
Stream Information	n						
Stream Name:	Christiane			Stream Wa	ater Velocity (in riffle) (ft/se	c):	
	one <½ Bankfull < Bankfull =	Bankf	ull :	> Bankfull			
	ffle) (ft): Bankfull Wid				Stream Width (in rif	fle) ft: <u>/て</u>	
	Width & Depth (ft):2 /				n Pond Length & Width (ft): 2	!	
Fish Passage Inforn	nation						
Is the structure per		Yes	NO	Is there pon	iding upstream?	Yes	
Is there a scour poo		Yes	NO		cure fully backwatered?	Yes	(No
	hrough the structure's entire length?	Yes	100		nange in head from the upstr Instream side?	ream Yes	(No
	substrate match the stream				ture narrower than the bankf	full	A1-
substrate?	Sandti ata matan tire se tami	Yes	NB	stream widt		iuii @	No
Is water in the struc	cture moving faster than in the	Yes	6		oris blocking the inlet?	Yes	No
stream?					dence of overtopping or wash	h-outs? Yes	No
Is water in the struc	cture shallower than in the stream?	Yes	0	is there evid	dence of overtopping or wast	i-outs: 162	140

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert #	Width (ft)	Height (ft)	Length (ft)
2	И	4	
3			

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos			
☐ Site ID	☐ Inlet	☐ Outlet	
☐ Road Approach – Left	☐ Road Approach – Right		
☐ Upstream Conditions	☐ Downstream Conditions		
Fish Passage Determination	l		
Follow these guidelines to determine "passato evaluate passage for a particular species.	ability" for a range of fish species. Thresholds Answer all questions.	may need to be modified if th	ie objective is
Passability = 0	· · · · · · · · · · · · · · · · · · ·	es and life stages cannot pass	at most flows.
If any of the following questions can be answ	wered "yes", then the crossing barrier score =	= 0.	6-
1. The outlet of the structure is perched.		·	es No
2. The structure water velocity is greater t	han 3 feet/second during baseflow.		es No
3. The ratio of the structure water depth t	so stream water depth is less than U.1.	Depth Ratio:	es 440
Structure water depth:	Stream water depth:		
Passability = 0.5	Some species a	nd/or life stages cannot pass	at most flows.
If any of the following questions can be ansi	wered "yes", then the crossing barrier score		
1. The water depth in the structure is less	than 0.2 feet.	Υ	es No
2. The structure water velocity is 2-3 feet/		_	es No
3. The structure is longer than 30 feet and	does not have natural substrate through its	entire length.	es No
Passability = 0.9		Barrie	r at high flows.
If any of the following questions can be ans	wered "yes", then the crossing barrier score	= 0.9.	
1. There is a scour pool below the structu		Υ	'es No
2. The ratio of the structure width to stream			es No
Structure width:	Stream bankfull width:	Constriction Ratio:	-
Passability = 1			Not a barrier.
If all of the following questions can be answ	rered "yes", then the crossing barrier score =	1.	
1. The outlet of the structure is not perch	ed.	'	res No
2. The structure water velocity is less than	n 2 feet/second during baseflow.		es No
3. The ratio of the structure water depth	to stream water depth is greater than 0.1.		res No
4. The water depth in the structure is great			res No res No
5. There is not a scour pool below the stru			res No
6. The ratio of the structure width to stre.7. ☐ The structure is longer than 30 feet	and has natural substrate through its entire l	ength, or	
☐ The structure is shorter than 30 feet	and has natural substrate through its entire	length, or	res No
☐ The structure is shorter than 30 feet	and does not have natural substrate through	h its entire length.	

Culvert diagram, erosion, channel condition, evidence of wash-out, beaver, local testimony of frequency of overtopping...

Additional Comments

¹Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



CHR19

Stream Crossing Data Sheet		Site ID:	CH220
General Information Name of			ox land
Observer(s): Snell Deejen		Date:	12/29/10
GPS Waypoint:	GPS Lat/Long:		
Additional Location	Eury cong.		
Comments:			
Road Information			
Road Name/Number: M60			
Road Type: Federal State Count	y Town Tribal Pr	ivate Other:	
Road Surface: Paved Gravel Sand	Native Surface	Other:	
Road Width (ft): 42 Fill Depth (ft):	6		
Crossing Information			
Structure Type: Culvert(s) no.: Brid	ge Ford Dam Oth	er:Structure	ID:
Structure Shape Structure Mater	ial Substrate in Structure	Structure Condition	
Round Metal	None Sand	General Condition: Ne	w Good Fair Poor
8quare/Rectangle Concrete	Gravel Rock	Plugged: % Inle	t Outlet In Pipe
Open Bottom Square/Rectangle Plastic	Mixture	Crushed % Inle	Outlet In Pipe
Pipe Arch Wood		Rusted Through?	Yes No
Open Bottom Arch Struct	ture Interior	Inlet Type	Outlet Type
Ellipse Sm	ooth or Corrugated	Projecting Mitered	At stream grade
Structure Water Velocity (ft/sec): 1	2	Headwall Apron	Cascade over riprap
Structure Water Depth (ft): inlet	outlet 12	Wingwall 10-30° or 30-70°	Freefall into pool.
Structure Length (ft): 1/0	5	Trashrack	Freefall onto riprap
Structure Width (ft):1 Struc	cture Height (ft): 1	Other	Outlet apron
Perch Height (ft): 1,2 Heig	ht of Head (ft): 1, 2		Other
Buried Depth of Structure (ft): inlet	outlet	_	
Stream Information			
Stream Name: Chrishia si	Stream Wa	ter Velocity (in riffle) (ft/s	ec):
Stream Flow: None < ½ Bankfull < Bankfu	ıll = Bankfull > Bankfull		
Water Depth (in riffle) (ft): Bankf		Stream Width (in ri	ffle) ft: 18
Scour Pool Length, Width & Depth (ft): ²		Pond Length & Width (ft):	2 6
Fish Passage Information			
Is the structure perched?		ding upstream?	Yes (N
Is there a scour pool at the outlet?	Is there a ch	ure fully backwatered? ange in head from the upst	Yes (No
Is there substrate through the structure's entire le	ngth? Yes No side to down	nstream side?	Tes (W
Does the structure substrate match the stream	Yes No Is the struct stream widt	ure narrower than the bank	full Yes N
substrate? Is water in the structure moving faster than in the	Stream widt	ris blocking the inlet?	Yes (N
stream?	Tes No listricie deb	lence of overtopping or was	
Is water in the structure shallower than in the stre	am? Yes (No) Is there evid	ience or overtopping or was	II Ours: Les Lin

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert #	Width (ft)	Height (ft)	Length (ft)
2			
3			

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos					
☐ Site ID		☐ Inlet	☐ Outlet		
☐ Road Ap	proach – Left	☐ Road Approach — Right			
Upstrea	n Conditions	☐ Downstream Conditions			
Fish Pa	ssage Determir	ation			
		ne "passability" for a range of fish species. Thre species. Answer all questions.	esholds may need to be modified	if the obje	ective is
Passability	= 0	Most	t species and life stages cannot p	ass at mo	st flows.
 The or The st The ra 	itlet of the structure is p ructure water velocity is tio of the structure wate	n be answered "yes", then the crossing barrier erched. greater than 3 feet/second during baseflow. r depth to stream water depth is less than 0.1. Stream water depth:		Yes Yes Yes	No No No
Passability	= 0.5	Some sp	ecies and/or life stages cannot p	ass at mo	st flows.
If any of th 1. The way 2. The st	e following questions ca ater depth in the structu ructure water velocity is	n be answered "yes", then the crossing barrier re is less than 0.2 feet. 2-3 feet/second during baseflow. feet and does not have natural substrate thro		Yes Yes Yes	No No
Passability	= 0.9		Ва	rrier at hi	gh flows.
If any of the	e following questions ca is a scour pool below the tio of the structure widt	n be answered "yes", then the crossing barrier e structure. n to stream bankfull width is less than 0.5. Stream bankfull width:	constriction Ratio:	Yes	No No
Passability	= 1			Not a	a barrier.
 The or The st The ra The w There The ra The There 	Itlet of the structure is now tructure water velocity is to of the structure water depth in the structuris not a scour pool below tio of the structure widt structure is longer than	less than 2 feet/second during baseflow. If depth to stream water depth is greater than If is greater than 0.2 feet. If the structure. If to stream bankfull width is greater than 0.5. If it is greater than 0.5. If it is greater than 0.5. If it is greater than 0.5.	0.1. entire length, or	Yes Yes Yes Yes Yes	No No No No No
☐ The	structure is shorter that structure is shorter that	n 30 feet and has natural substrate through its n 30 feet and does not have natural substrate f	entire length, or through its entire length.	Yes	No

Additional Comments

¹Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



CHR20

Site ID: CHR 2 Stream Crossing Data Sheet **General Information** Name of Date: Observer(s): **GPS** Lat/Long: GPS Waypoint: Additional Location Comments: **Road Information** Dular Road Name/Number: Other: Tribal Private County Town Federal State Road Type: **Native Surface** Other: Paved) Gravel Sand Road Surface: Fill Depth (ft): Road Width (ft): **Crossing Information** Other: Structure ID: Dam Bridge Ford Structure Type: Culvert(s) no.: Structure Condition Substrate in Structure Structure Material Structure Shape **General Condition:** New Good Fair Poor Sand None Metal Round Plugged: % Inlet Outlet In Pipe Rock Gravel Concrete Square/Rectangle Crushed % Inlet Outlet In Pipe Mixture Open Bottom Square/Rectangle Rusted Through? Yes No Pipe Arch **Outlet Type Inlet Type** Structure Interior Open Bottom Arch Smooth or Corrugated Mitered At stream grade Projecting Ellipse Cascade over riprap Headwall Apron Structure Water Velocity (ft/sec): Wingwall 10-30° or 30-70° Freefall into pool. Structure Water Depth (ft):1 inlet Freefall onto riprap Trashrack Structure Length (ft): 1 Structure Height (ft): 1 Outlet apron Other Structure Width (ft):1 Height of Head (ft): 1,2 Other Perch Height (ft): 1,2 Buried Depth of Structure (ft):1 inlet **Stream Information** Stream Water Velocity (in riffle) (ft/sec): Stream Name: > Bankfull < 1/2 Bankfull < Bankfull = Bankfull Stream Flow: None Stream Width (in riffle) ft: Bankfull Width (in riffle) (ft): Water Depth (in riffle) (ft): Upstream Pond Length & Width (ft): 2 Scour Pool Length, Width & Depth (ft):2 / **Fish Passage Information** Yes No Is there ponding upstream? Yes No Is the structure perched? Yes No Is the structure fully backwatered? Yes No Is there a scour pool at the outlet? Is there a change in head from the upstream Yes No No Is there substrate through the structure's entire length? Yes side to downstream side? is the structure narrower than the bankfull Does the structure substrate match the stream Yes No Yes No stream width? substrate? Is water in the structure moving faster than in the Is there debris blocking the inlet? Yes No Yes No

Yes

Is water in the structure shallower than in the stream?

Is there evidence of overtopping or wash-outs?

Yes

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert #	Width (ft)	Height (ft)	Length (ft)
2			
3			

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos				
☐ Site ID	☐ Inlet	Outlet		
☐ Road Approach – Left	☐ Road Approach – Right			
☐ Upstream Conditions	☐ Downstream Conditions			
Fish Passage Determination	l			
Follow these guidelines to determine "passate to evaluate passage for a particular species."	ability" for a range of fish species. T Answer all questions.	hresholds may need to be modifie	d if the obje	ective is
Passability = 0	M	lost species and life stages cannot	pass at mo	st flows.
If any of the following questions can be anson. The outlet of the structure is perched. The structure water velocity is greater of the structure water depth of the structure water depth of the structure water depth.	than 3 feet/second during baseflow to stream water depth is less than C	<i>1</i> .	Yes Yes Yes	No No No
Passability = 0.5		e species and/or life stages cannot	t pass at mo	st flows.
If any of the following questions can be ans	wered "yes", then the crossing barr	rier score = 0.5.	Voc	No
1. The water depth in the structure is less	than 0.2 feet.		Yes Yes	No
 The structure water velocity is 2-3 feet. The structure is longer than 30 feet and 	second during baseflow. I does not have natural substrate th	hrough its entire length.	Yes	No
Passability = 0.9		1	Barrier at hi	gh flows.
 If any of the following questions can be ans There is a scour pool below the structure The ratio of the structure width to street 	re.	rier score = 0.9. Constriction Ratio	Yes Yes	No No
Structure width:	Stream Bankton Wiscon			
Passability = 1			Not a	a barrier.
If all of the following questions can be answ		er score = 1.	Yes	No
1. The outlet of the structure is not perch	ed.		Yes	No
 The structure water velocity is less tha The ratio of the structure water depth 	n 2 feet/second during basenow.	nan 0.1.	Yes	No
	ater than 0.2 feet	1011 0.2.	Yes	No
	ucture		Yes	No
5. There is not a scour pool below the str6. The ratio of the structure width to stre	am bankfull width is greater than 0).5.	Yes	No
7. The structure is longer than 30 feet	and has natural substrate through	its entire length, or		
☐ The structure is shorter than 30 fee	t and has natural substrate through	n its entire length, or	Yes	No

Additional Comments

Culvert diagram, erosion, channel condition, evidence of wash-out, beaver, local testimony of frequency of overtopping...

tind culvert -

¹Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



CHR21

Stream Crossing Data Sneet				Site ID:	CAFLU	_
General Information						
Name of				Data		
Observer(s): Snell Deegen			GPS	Date:	_	_
GPS Waypoint:			Lat/Long:			
Additional Location			, ,	-		
Comments:						
Road Information						
Road Name/Number:						
Road Type: Federal State County	Town	Т	ribal Pi	rivate Other:		
Road Surface: Paved Gravel Sand	Nativ	e Surfa	ce			
Road Width (ft): 7_1 Fill Depth (ft):	1					
Road Width (it).		_				
Crossing Information						
Structure Type: Culvert(s) no.: Bridge	Ford	[Dam Oth	ner: Structur	re ID:	_
Structure Shape Structure Material	Substra	ite in S	tructure	Structure Condition		
Round Metal	None	2	Sand	General Condition:	lew Good Fair	Poor
Square/Rectangle Concrete	Grav	el	Rock	Plugged: % In	let Outlet In	Pipe
Open Bottom Square/Rectangle Plastic		Mixt	ure	Crushed % Ini	et Outlet In	Pipe
Pipe Arch Wood				Rusted Through?	Yes N	ю
Open Bottom Arch Structure	Interior		_	Inlet Type	Outlet Type	2
Ellipse Smooth	or Cor	rugate	D	Projecting Mitered	At stream grade	
Structure Water Velocity (ft/sec): 1				Headwall Apron	Cascade over riprap	
Structure Water Depth (ft): inlet		utlet		Wingwall 10-30° or 30-70°	Freefall into pool.	
Structure Length (ft): 1				Trashrack	Freefall onto riprap	
Structure Width (ft): ¹ % Structure	Height (1	ft): 1	3	Other	Outlet apron	
Perch Height (ft): 1,2 Height of	Head (ft)): ^{1, 2}			Other	
Buried Depth of Structure (ft): inlet		outlet				
Stream Information						
Stream Name:			Stream Wa	ater Velocity (in riffle) (ft/	sec):	
				ater releasity (in time) (15)	· · · · · · · · · · · · · · · · · · ·	
Stream Flow: None < ½ Bankfull < Bankfull	= Bankf		> Bankfull	<	riffic) ft.	
Water Depth (in riffle) (ft): Bankfull W	idth (in r	iffle) (f		Stream Width (in	e, it.	
Scour Pool Length, Width & Depth (ft): ² /	1		Upstream	n Pond Length & Width (ft): ²	
Fish Passage Information						1 259
Is the structure perched?	Yes	No		nding upstream?	Yes	-
Is there a scour pool at the outlet?	Yes	ND		ture fully backwatered?	Yes	No
Is there substrate through the structure's entire length?	PA	NO NO		nange in head from the ups Instream side?	Yes	(Ng
Does the structure substrate match the stream	Yes	tho		ture narrower than the ban	nkfull Yes	No
substrate?	Tes	-	stream widt	th?	103	+_
Is water in the structure moving faster than in the stream?	Yes	Nø	Is there deb	oris blocking the inlet?	Yes	(No.
Is water in the structure shallower than in the stream?	Yes	No)	Is there evid	dence of overtopping or wa	ash-outs? Yes	No

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert #	Width (ft)	Height (ft)	Length (ft)
2			
3			

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos			
☐ Site ID	☐ Inlet	☐ Outlet	
☐ Road Approach – Left	☐ Road Approach – Right		
Upstream Conditions	☐ Downstream Conditions	۵	
Fish Passage Determ	ination		
Follow these guidelines to deter	mine "passability" for a range of fish species. Th	resholds may need to be modified if the ob-	jective is
	llar species. Answer all questions.		
Decembility - 0	Mo	ost species and life stages cannot pass at m	ost flows.
Passability = 0	can be answered "yes", then the crossing barrie		
1. The outlet of the structure i		Yes	No
	is greater than 3 feet/second during baseflow.	Yes	No
3. The ratio of the structure water	ater depth to stream water depth is less than 0.	1. Yes	No
Structure water depth:	Stream water depth:	Depth Ratio:	
-			
Passability = 0.5		species and/or life stages cannot pass at m	ost flows.
	can be answered "yes", then the crossing barrie	er score = 0.5.	N.
1. The water depth in the structure		Yes	No
2. The structure water velocity	is 2-3 feet/second during baseflow.	Yes	No
3. The structure is longer than	30 feet and does not have natural substrate thr	rough its entire length. Yes	No
Passability = 0.9		Barrier at h	igh flows.
	can be answered "yes", then the crossing barrie		
There is a scour pool below		Yes	No
	idth to stream bankfull width is less than 0.5.	Yes	No
Structure width:	Stream bankfull width:	Constriction Ratio:	
-		9 1	- 6
Passability = 1			a barrier.
	can be answered "yes", then the crossing barrier	r score = 1. Yes	No
1. The outlet of the structure i		Yes	No
2. The structure water velocity	is less than 2 feet/second during baseflow.		No
	ater depth to stream water depth is greater tha	Yes	No
	cture is greater than 0.2 feet.	Yes	No
5. There is not a scour pool be			No
6. The ratio of the structure w	idth to stream bankfull width is greater than 0.5 Ian 30 feet and has natural substrate through its	•	
7. The structure is longer th	han 30 feet and has natural substrate through it	ts entire length, or Yes	No
The structure is shorter t	han 30 feet and does not have natural substrate	e through its entire length.	
Additional Comments			
Culvert diagram, erosion, chann	el condition, evidence of wash-out, beaver, loca	al testimony of frequency of overtopping	

No Regonice Value

¹Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present.



CHR22

Stream Crossing Data Sheet Site ID: CHR 23 **General Information** Name of Snell Derson Date: Observer(s): **GPS** Lat/Long: **GPS Waypoint: Additional Location** Comments: **Road Information** White Timple Road Name/Number: Tribal Private Other: Road Type: Federal State County Town Paved 7 **Road Surface:** Gravel Sand **Native Surface** Other: Fill Depth (ft): Road Width (ft): **Crossing Information** Structure Type: Culvert(s) no.: Bridge Ford Dam Other: Structure ID: Structure Shape Structure Material Substrate in Structure Structure Condition **General Condition:** Round Metal None New Good/ Poor Plugged: Inlet Outlet In Pipe Concrete Gravel Rock Square/Rectangle Crushed Inlet Outlet In Pipe Plastic Mixture Open Bottom Square/Rectangle Rusted Through? Wood Yes No Pipe Arch Inlet Type **Outlet Type** Structure Interior Open Bottom Arch Smooth or Corrugated Projecting Mitered At stream grade Ellipse Structure Water Velocity (ft/sec): 1 Headwall Apron Cascade over riprap Wingwall 10-30° or 30-70° Freefall into pool. Structure Water Depth (ft): 1 inlet Structure Length (ft): Trashrack Freefall onto riprap Structure Height (ft):1 Structure Width (ft):1 Other Outlet apron Height of Head (ft): 1,2 Perch Height (ft): 1, 2 Other **Buried Depth of Structure (ft):**¹ inlet Stream Information Stream Water Velocity (in riffle) (ft/sec): Stream Name: = Bankfull > Bankfull None < 1/2 Bankfull < Bankfull Stream Flow: Stream Width (in riffle) ft: Water Depth (in riffle) (ft): D 5 Bankfull Width (in riffle) (ft): Upstream Pond Length & Width (ft): 2 Scour Pool Length, Width & Depth (ft):2 **Fish Passage Information** Nò Yes Yes No Is there ponding upstream? Is the structure perched? Is the structure fully backwatered? Yes 4 No No Yes Is there a scour pool at the outlet? Is there a change in head from the upstream Yes No Is there substrate through the structure's entire length? side to downstream side? Is the structure narrower than the bankfull Does the structure substrate match the stream Yes Yes No No stream width? substrate? Is water in the structure moving faster than in the No No Yes Is there debris blocking the inlet? Yes Yes No Yes Is there evidence of overtopping or wash-outs?

Is water in the structure shallower than in the stream?

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert#	Width (ft)	Height (ft)	Length (ft)
2			
3			

Culvert #	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos				
☐ Site ID	☐ Inlet	☐ Outlet		
☐ Road Approach – Left	Road Approach – Right			
☐ Upstream Conditions	☐ Downstream Conditions			
Fish Passage Determin	nation			
Follow these guidelines to determi to evaluate passage for a particular	ne "passability" for a range of fish species. Thi r species. Answer all questions.	resholds may need to be modified if	the objec	ctive is
Passability = 0	Mo	st species and life stages cannot pa	ss at mos	t flows.
 The outlet of the structure is p The structure water velocity is 	n be answered "yes", then the crossing barrie erched. greater than 3 feet/second during baseflow. er depth to stream water depth is less than 0.1 Stream water depth:		Yes Yes Yes	No No
Passability = 0.5		species and/or life stages cannot pa	ss at mos	t flows.
 The water depth in the structure. The structure water velocity is 	n be answered "yes", then the crossing barrie ire is less than 0.2 feet. 2-3 feet/second during baseflow. I feet and does not have natural substrate thr		Yes Yes Yes	No No
Passability = 0.9		Barri	ier at hig	h flows.
If any of the following questions ca 1. There is a scour pool below the	in be answered "yes", then the crossing barrie e structure. h to stream bankfull width is less than 0.5. Stream bankfull width:	er score = 0.9. Constriction Ratio:	Yes Yes	No No
Passability = 1			Not a	barrier.
 The outlet of the structure is r The structure water velocity is The ratio of the structure wate The water depth in the structure There is not a scour pool below The ratio of the structure widt The structure is longer than 	less than 2 feet/second during baseflow. er depth to stream water depth is greater than are is greater than 0.2 feet.	n 0.1. s. s entire length, or	Yes Yes Yes Yes Yes Yes	No No No No No
☐ The structure is shorter tha	n 30 feet and does not have natural substrate	through its entire length.		

Additional Comments

¹Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

²Fill out, if present



CHR23-LAKE OUTLET

Stream Crossing Data Sheet			Site ID: CHE 24				
General Information							
Name of Snell Deegan				Date:			
Observer(s): Snell Deegan		-	GPS	Date.	-		
GPS Waypoint:			Lat/Long:				
Additional Location Comments:							
Road Information							
Road Name/Number: Crooked Chief							
	Town	Т	ribal P r iv	vate Other:			
Road Surface: Paved Gravel Sand	Nativ	e Surfa	ce (Other:			
Road Width (ft): 2/ Fill Depth (ft):	7_						
		_					
Crossing Information Structure Type: Culvert(s) no.: Bridge	Ford	г	oam Othe	er: Structur	e ID:		
			ructure	Structure Condition	-		
Round Metal	None		Sand		lew Good	Fair	Poor
Square/Rectangle Concrete	Grave		Rock		et Outle	t In	Pipe
Open Bottom Square/Rectangle Plastic		Mixt	ure		et Outlet	t In	Pipe
Pipe Arch Wood				Rusted Through?	Yes	No)
Open Bottom Arch Structure In	terior			Inlet Type	Outle	t Type	
Ellipse Smooth of	or Çofi	ugated	P	Projecting Mitered	At stream gr	ade	
Structure Water Velocity (ft/sec): 1		ARE LANGE TO THE PARTY OF THE P		Headwall Apron	Cascade ove	r riprap	
Structure Water Depth (ft): inlet /	o	utlet	/	Wingwall 10-30° or 30-70°	Freefall into	pool.	
Structure Length (ft): 50				Trashrack	Freefall onto	riprap	
Structure Width (ft): ¹ 5 Structure H		t): 1	4	Other	Outlet apror	1	
Perch Height (ft): 1,2 Height of H		1	-		Other		
Buried Depth of Structure (ft): ¹ inlet		utlet	_				
				-			
Stream Information			Stroom Wat	er Velocity (in riffle) (ft/	sec).		
Stream Name: Damond Suffet				er velocity (in time) (is)	300).		
	: Bankfı		Bankfull			1	
Water Depth (in riffle) (ft): 0.3 Bankfull Wid	lth (in r	iffle) (f		Stream Width (in		10	
Scour Pool Length, Width & Depth (ft):2	-1		Upstream	Pond Length & Width (ft):²		
Fish Passage Information							100
Is the structure perched?	Yes	No		ling upstream? Ire fully backwatered?		Yes	(NO)
Is there a scour pool at the outlet?	Yes	NO		ange in head from the ups	tream		1
Is there substrate through the structure's entire length?	Yes	6	side to down	stream side?		Yes	160
Does the structure substrate match the stream	Yes	ίνο	Is the structu stream width	ire narrower than the bar	nktull	Yes	No
substrate? Is water in the structure moving faster than in the	(ve)	No		is blocking the inlet?		Yes	No
stream? Is water in the structure shallower than in the stream?	Yes	No		ence of overtopping or wa	ash-outs?	Yes	No

Number multiple cells from left to right facing downstream. Include a diagram below indicating which culvert is culvert #1.

Culvert#	Width (ft)	Height (ft)	Length (ft)
2			
3			

Culvert#	Width (ft)	Height (ft)	Length (ft)
4			
5			

Photos				
☐ Site ID	☐ Inlet	Outlet		
☐ Road Approach – Left	Road Approach – Right			
☐ Upstream Conditions	Downstream Conditions			
Fish Passage Determi	nation			
Follow these guidelines to determ to evaluate passage for a particula	ine "passability" for a range of fish species. Thr ar species. Answer all questions.	resholds may need to be modified	l if the obje	ective is
Passability = 0	Mo	st species and life stages cannot (pass at mo	st flows.
If any of the following questions c	an be answered "yes", then the crossing barrie	er score = 0.		
1. The outlet of the structure is	perched.		Yes	No
2. The structure water velocity i	s greater than 3 feet/second during baseflow.		Yes	No
3. The ratio of the structure wat	er depth to stream water depth is less than 0.1	l.	Yes	No
Structure water depth:	Stream water depth:	Depth Ratio:		
	Same a	species and/or life stages cannot	nace at mo	st flows.
Passability = 0.5			pass at mo	36 110 1131
If any of the following questions of	an be answered "yes", then the crossing barrie	31 SCOIE - 0.3.	Yes	No
1. The water depth in the struct	ure is less than 0.2 feet.		Yes	No
2. The structure water velocity i	s 2-3 feet/second during baseflow. O feet and does not have natural substrate thr	ough its entire length.	Yes	No
3. The structure is longer than 3	O leet and does not have natural substruce the	ough its citation anguit	,	
Passability = 0.9		Ba	arrier at hi	gh flows.
If any of the following questions of	an be answered "yes", then the crossing barrie	er score = 0.9.		
1. There is a scour pool below the			Yes	No
2. The ratio of the structure wid	th to stream bankfull width is less than 0.5.		Yes	No
Structure width:	Stream bankfull width:	Constriction Ratio:	_	
			Not	a barrier.
Passability = 1	then the gracing barrier	r score = 1		
If all of the following questions ca	n be answered "yes", then the crossing barrier	36016 - 1.	Yes	No
1. The outlet of the structure is	is less than 2 feet/second during baseflow.		Yes	No
2. The structure water velocity	ter depth to stream water depth is greater tha	n 0.1.	Yes	No
	ture is greater than 0.2 feet.		Yes	No
4. The water depth in the struct5. There is not a scour pool below	ow the structure.		Yes	No
6. The ratio of the structure wid	Ith to stream bankfull width is greater than 0.5	5.	Yes	No
7. The structure is longer that	in 30 feet and has natural substrate through its	s entire length, or		
☐ The structure is shorter th	an 30 feet and has natural substrate through it	ts entire length, or	Yes	No
☐ The structure is shorter th	an 30 feet and does not have natural substrate	e through its entire length.		

Additional Comments

¹Fill out for primary culvert (culvert #1). If multiple culverts are used, see reverse.

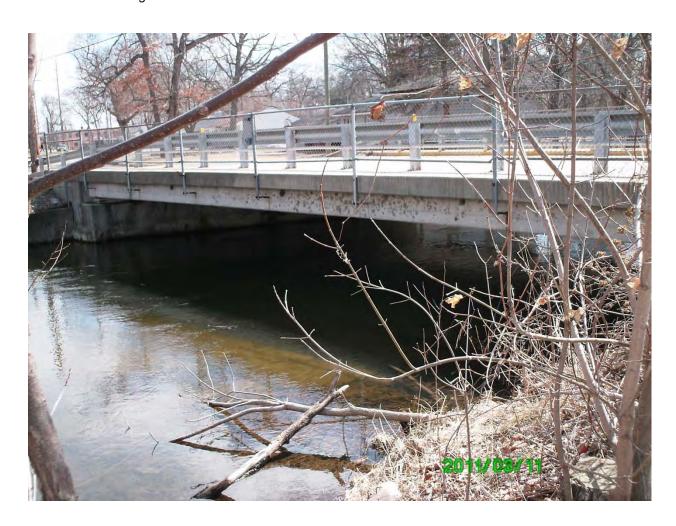
²Fill out, if present.



CHR24-Diamond Outlet

CHR25-Simonton Road

A Stream Crossing Data Sheet was not provided for this site during the 2011 field inspection.
- Streamside Ecological Services



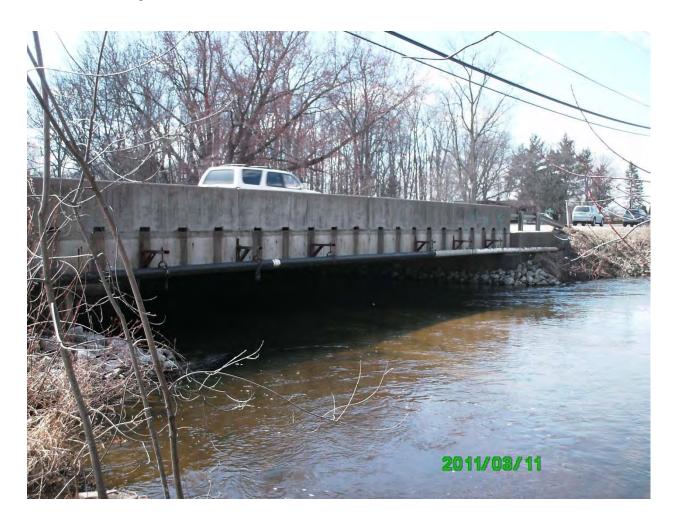
CHR26-Bristol Street

A Stream Crossing Data Sheet was not provided for this site during the 2011 field inspection.
- Streamside Ecological Services



CHR27-County Road 6

A Stream Crossing Data Sheet was not provided for this site during the 2011 field inspection.
- Streamside Ecological Services



CHR28-County Road 4

A Stream Crossing Data Sheet was not provided for this site during the 2011 field inspection.
- Streamside Ecological Services



Site Location Inform	nation:				
GPS Waypo	oint Latitude:	Longitude:			
County:		T/R/Sec.:		111X: D	Ł
Access Road	d	Dam or Impound	lment name (if any):	High Dive Par	- K
Dam/Proper	ty Owner(s): Federal	□State □Local Gov. □I	rivate □Abandoned	□Unknown	
Stream Nam	ne: Christian a	Tributary to:) oe		
Recent Prec	ipitation (web source su	ch as wunderground.com)	: Past 24 hours:	in Past Week:	<u>in</u>
Land Use Informati			-	Dam Use Information	
(Check any	that apply)		·	that apply)	
1	Downstream:		Recreation		
□Forest	□Forest		□ Wildlife pond		
□Wetland	□Wetland		☐ Waterfront develo	opment	
□ Residential	☐ Residential		☐Hydropower		
□Urban	□Urban		□ Water supply		
-	□Agriculture		□Flood control		
▼ Park	□ Park		Other:		
□Industrial					
Other:	□Other:				
	tion (check all appropria	· ·		O(1) C(4) - E4	
Barrier Type		Construction Materials		Other Site Features	
□Earthen Berm	-	Concrete		☐ Emergency Spillway ☐ Stream Diversion or C	anal
□Dam Wall(no overl		□Earth		□Retaining Walls	
Open Crest spanning		Broken		□Low level outlet	
☐Open crest channel	izing flow	□Wood □Rock □Metal		☐Gates	
□Debris Jam				□Rip-Rap	
☐ Stoplogs or Flashb	ooards			☐Fish passage Structure	
☐Beaver dam		□Other:		□ Vehicle access	·
☐ Undersized culvert		□ Attached or Adjacent Building		Buildings	
□Natural Falls			Other:		Dundings
□Other:				Doner	
Upstream Condition	ne•		Is there evidence	of erosion?	
	es to the stream caused	hy the harrier)	(Check all that app		
Widening	os to the stream eadsed	by the builtiery	Upstream:	At Structure:	Downstream:
□ Deepening			□Overtopping	□Overflow/Breach	Plunge Pool
□Loss of channel/Pa	rtially Lake		□Gullies	☐ Access Paths/Trails	Scour
☐ Change to lake/pon	·		☐Bare Soil	□Gullies	□Gullies
□ Wetland/Flooding			□Bank Failure	☐Bare Soil	☐Bare Soil
□None			□Undercut Banks	□Bank Failure	□Bank Failure
				□Undercut Banks	□Undercut
					Banks
Direct Stream Meas	surements:				
Stream:		Spillway:		Vertical Characteristic	es:
Widest Impoundmen	t Width: 35 ft	Width: ft		Height of Head: 2 ft	
Impoundment Length		Length: ft		Freeboard Available	- ft
Estimated Area of Im		Number of Interruptions	or Steps: /		
	•	Water Velocity: 3 fb			
Width After Plunge I	Pool: ft				

Site ID	: CHE3	Inventoried by :	Date:	
Other I	Pertinent Information: Physical Condition Ranking: (Please Ran Reasoning/Justification: Does the dam have the ability to regulate Is it being actively managed? Based on MDNRE contamination flowchasts another barrier (dam or road crossing) was there any invasive species present?	water level? □Y ŠN art (included in instructions), should se risible up or downstream? ŠY □N		
	Documentation: Please number the photos Downstream Face: Upstream Face etch (Please Mark Photo Numbers on Site S	e:Downstream View:	_Upstream View: Othe	ers:
Overhea	ad view			



CHR3



GPS Wayne		Longitude:			
				1	b
Aggass Pop	d	T/R/Sec.:	lment name (if any):	High Dive Pa	14
Dom/Proper	ty Owner(s): Federal	□State □Local Gov. □F	Private		
		Tributary to:			
Pagent Prog	initation (wob course su	ich as wunderground.com)	Past 24 hours	in Past Week:	in
Recent Prec	ipitation (web source su	ich as wunderground.com)	7.1 43t 24 Hours	iii Tust Wooki	
Land Use Informati	ion		Impoundment or	Dam Use Information	
(Check any			•	that apply)	
Upstream:	Downstream:		Recreation		
□ Forest	Forest		☐ Wildlife pond		
□Wetland	☐ Wetland		☐ Waterfront devel	opment	
□ Residential	□ Residential		□Hydropower		
□Urban	□Urban		□ Water supply		
☐ Agriculture			☐Flood control		
M Park	□ Agriculture □ Agriculture		□Other:		
☐ Industrial	☐ Industrial				
☐ Other:	Other.				
Standunal Informa	tion (check all appropri	ate).			
Barrier Type	non (eneck an appropri	Construction Materials		Other Site Features	
☐ Earthen Berm		☑ Concrete		☐ Emergency Spillway	
☐ Dam Wall(no over	flow	☐ Earth			anal
✓ MOpen Crest spannin		□Wood		⊠Retaining Walls	
	_	□Rock		□Low level outlet	
□Open crest channel	izing now			Gates	
□Debris Jam		Metal □Screen		□Rip-Rap	
☐ Stoplogs or Flashb	oarus	Other:		☐Fish passage Structure	:
☐ Beaver dam				□ Vehicle access	
☐ Undersized culvert				☐ Attached or Adjacent 1	Buildings
□ Natural Falls				Other:	Bullumgs
□Other:				Other.	
Upstream Condition	13. C. C.		Is there evidence	of erosion?	
	es to the stream caused	by the harrier)	(Check all that app		
☐ Widening	es to the stream edused	by the burner)	Upstream:	At Structure:	Downstream:
□ Widening □ Deepening			Overtopping	□Overflow/Breach	MPlunge Pool
☐ Loss of channel/Pa	rtially Lake		□Gullies	☐ Access Paths/Trails	□Scour
☐ Change to lake/por			□Bare Soil	□Gullies	□Gullies
☐ Wetland/Flooding	Id		☐Bank Failure	□Bare Soil	☐Bare Soil
None ™ None			☐ Undercut Banks	□Bank Failure	□Bank Failure
Zinolie			- Ondereut Damie	☐Undercut Banks	□Undercut
					Banks
Direct Street Mee	av vom onta				3, 11
Direct Stream Mea	surements.	Spillway:		Vertical Characteristic	es:
Stream:	nt Width: 6	Width: 40 ft		Height of Head: / ft	
Widest Impoundment		Length: ft		Freeboard Available	
Impoundment Lengt		Number of Interruptions	s or Stens: /		
Estimated Area of In	npounument.	Water Velocity: 3	or proba. I		
Width After Plunge	Pool: ft	water verseity. 5			
Tridui filtor i fungo.					

Site ID :	CHR4
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Inventoried by:

Γ	_	_	_	
	-3	т	ρ	٠

Othon	Danting	m4 Tmf	rmation
()ther	Pertine	ent Inta	irmation

- Physical Condition Ranking: (Please Rank 5 being best condition, 1 being worst): 5, 43, 2, 1 Reasoning/Justification:
- Does the dam have the ability to regulate water level? $\Box Y \not \stackrel{-}{\boxtimes} N$
- Is it being actively managed? □Y 🔊 N
- Based on MDNRE contamination flowchart (included in instructions), should sediments be tested?
- Is another barrier (dam or road crossing) visible up or downstream? $\nearrow Y \square N$
- Are there any invasive species present? $\Box Y \Box N$ If so, which?_____

Photo Documentation: Please number the photos in the order you take them.

Downstream Face: _____ Upstream Face: _____ Downstream View: _____ Upstream View: _____ Others: ____

PHOTO 3
Site Sketch (Please Mark Photo Numbers on Site Sketch)

Overhead view



CHR4

Site Location Inform					
GPS Waypo	int Latitude:	Longitude:			
County:	Elichert	T/R/Sec.:		1	
Access Road	(c35080 5	Dam or Impound	ment name (if any):_	NA	
Dam/Propert	ty Owner(s): □Federal	□State □Local Gov. □P	rivate Abandoned	□Unknown	
Stream Nam	e: Christiana	Tributary to: 5+ 7	00		
Recent Preci	pitation (web source su	ch as wunderground.com):	: Past 24 hours:	<u>in</u> Past Week: 💆	<u>in</u>
Land Use Information	on		Impoundment or I	Dam Use Information	
(Check any t			(Check all	that apply)	
Upstream:	Downstream:		□Recreation		
□Forest	□Forest		☐ Wildlife pond		
□Wetland	□Wetland		□ Waterfront development	pment	
□Residential	□Residential		□Hydropower		
⊌Urban	Urban		□ Water supply		
□Agriculture	□Agriculture		□Flood control	rd //	/
☐ Park	□ Park		Other: Water	man creates spill	vey
☐ Industrial	□Industrial				
☐Other:	Other:				
Structural Informat	ion (check all appropri	ate):			
Barrier Type	ion (oncon an appropri	Construction Materials		Other Site Features	
☐Earthen Berm		Concrete		☐ Emergency Spillway	
□Dam Wall(no overf	low)	□Earth		☐Stream Diversion or Ca	anal
□Open Crest spannin		□Wood		☐ Retaining Walls	
Open crest channel		□Rock	□Low level outlet		
□ Debris Jam	izing now	☑ Metal	□Gates		
☐ Stoplogs or Flashb	oards	Screen	□Rip-Rap		
☐ Stoplogs of Flasho ☐ Beaver dam	varus	Other:		☐Fish passage Structure	
				□ Vehicle access	
☐ Undersized culvert				☐ Attached or Adjacent I	Buildings
□Natural Falls			Other:		
Other: waken	•••				
Upstream Condition	161		Is there evidence of	of erosion?	
	es to the stream caused	by the barrier)	(Check all that app		
☐ Widening	es to the stream eaused	by the builter)	Upstream:	At Structure:	Downstream:
•		2	Overtopping	□Overflow/Breach	Plunge Pool
Deepening	etially Laka		☐ Gullies	☐ Access Paths/Trails	□Scour
□ Loss of channel/Par	•		□Bare Soil	☐ Gullies	□Gullies
Change to lake/pon	ıa		□Bank Failure	□Bare Soil	□Bare Soil
□ Wetland/Flooding			☐ Undercut Banks	☐Bank Failure	☐Bank Failure
□None			Olideredt Danks	☐ Undercut Banks	□Undercut
				Olderent Danks	Banks
					Duints
Direct Stream Meas	surements:	Cmillero		Vertical Characteristic	98:
Stream:	. m. 1.1 /5 0	Spillway:		Height of Head: 1 ft	
Widest Impoundmen		Width: 25 ft		Freeboard Available	
Impoundment Length		Length: ft	an Chamas	TICCOUALU AVAIIAUIC	
Estimated Area of Im	npoundment: O	Number of Interruptions	or Steps:		
		Water Velocity:			
Width After Plunge I	Pool: ²) ft				

Site	ID	700	
site	w	•	

CHR5

Inventoried by:

Date:

Other Pertinent Information:

- Physical Condition Ranking: (Please Rank 5 being best condition, 1 being worst): 5 4, 3, 2, 1 Reasoning/Justification:
- Does the dam have the ability to regulate water level? $\Box Y$
- Is it being actively managed?

 ▼Y □N
- Based on MDNRE contamination flowchart (included in instructions), should sediments be tested? \sqrt{a}
- Is another barrier (dam or road crossing) visible up or downstream? □Y IN
- Are there any invasive species present? N If so, which?_____

Photo Documentation: Please number the photos in the order you take them.

Downstream Face:______ Upstream Face:______ Downstream View:_____ Upstream View:_____ Others:_____

Site Sketch (Please Mark Photo Numbers on Site Sketch)

Overhead view



CHR5

Site Location Info					
GPS Way	point Latitude:	Longitude:			
County:		T/R/Sec.:			
Access Ro	oad	Dam or Impound	ment name (if any):	Mairi)	
Dam/Prop	erty Owner(s): □Federal	☐ State Local Gov. ☐ P	rivate □Abandoned	□Unknown	
Stream Na	ame: Christiann	Tributary to: 51 Joe			
Recent Pr	ecipitation (web source su	ich as wunderground.com)	: Past 24 hours:	in Past Week:	<u>m</u>
				D. T. T. C	
Land Use Informa			•	Dam Use Information	
,	y that apply)		Recreation	that apply)	
Upstream:				. 1	.a.\$
□Forest	□Forest		☐ Wildlife pond☐ Waterfront development	water Mai	
■Wetland				obmen	
Residential			☐ Hydropower☐ Water supply		
∀Urban	Urban		☐ water supply ☐ Flood control		
□Agriculture	□Agriculture				
☐ Park	□ Park		Other:		
☐Industrial	/				
Other:	☐Other:				
	nation (check all appropri	ate): Construction Materials		Other Site Features	
Barrier Type ☐ Earthen Berm		Concrete		☐ Emergency Spillway	
	orflow)	□Earth		☐Stream Diversion or C	anal
□Dam Wall(no ov ☑Open Crest spann		□Wood		☐Retaining Walls	
☐ Open crest chann	•	□Rock		□Low level outlet	
□ Debris Jam	lenzing now	Metal	□Gates		
☐ Stoplogs or Flas	hboards	Screen		ĕRip-Rap	
☐ Beaver dam	iiboarus	Other:		☐Fish passage Structure	;
☐ Undersized culve	art			□ Vehicle access	
□ Natural Falls	JI t			☐ Attached or Adjacent	Buildings
Other:				□Other:	-
Other					
Upstream Condit	ions:		Is there evidence	of erosion?	
(Mark evident char	nges to the stream caused	by the barrier)	(Check all that app	oly)	
□Widening			Upstream:	At Structure:	Downstream:
□Deepening			□Overtopping	☐ Overflow/Breach	Plunge Pool
□Loss of channel/	Partially Lake		□Gullies	☐ Access Paths/Trails	Scour
☐Change to lake/p	ond		☐Bare Soil	□Gullies	□Gullies
□ Wetland/Floodin	ıg		□Bank Failure	☐Bare Soil	☐Bare Soil
None			☐Undercut Banks	☐Bank Failure	☐Bank Failure
1				□Undercut Banks	□Undercut
					Banks
Direct Stream Mo	easurements:			¥7421 (Cl 44.4.4.	201
Stream:		Spillway:		Vertical Characteristic	
Widest Impoundm		Width: 3º ft		Height of Head: / ft	
Impoundment Len		Length: ft	G. 1)	Freeboard Available	<u>ft</u>
Estimated Area of	Impoundment:	Number of Interruptions	s or Steps: 4		
		Water Velocity: 3+			
Width After Plung	e Pool: ft	-			

Site ID: CHA	ite ID	:	CHE	2	6
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Inventoried by:

Date:

Other Pertinent Information:

Physical Condition Ranking: (Please Rank - 5 being best condition, 1 being worst): 5, (4) 3, 2, 1 Reasoning/Justification:

Does the dam have the ability to regulate water level? $\square Y$ is it being actively managed? $\square Y \square N$ is $\square Y \square N$

Based on MDNRE contamination flowchart (included in instructions), should sediments be tested?

Is another barrier (dam or road crossing) visible up or downstream? $\Box Y \ \Box N$

Are there any invasive species present? $\Box Y \Box N$ If so, which?_

Photo Documentation: Please number the photos in the order you take them.

Downstream Face: _____ Upstream Face: _____ Downstream View: ____ Upstream View: ____ Others: ____ Photo 5-6

Site Sketch (Please Mark Photo Numbers on Site Sketch)

Overhead view





CHR6-DOWNSTREAM



UPSTREAM

GPS Waypoint Latitude:	Site Location Inform						
Dam of Impoundment name (if any): Dam of Impoundment or Dam Use Information (Check any that aply) Dam of Impoundment or Dam Use Information (Check any that aply) Downstream: Wildlife pond Pock dam Downstream: Downstream:	GPS Waypo	oint Latitude:	Longitude:				
Dam of Impoundment name (if any): Dam of Impoundment or Dam Use Information (Check any that aply) Dam of Impoundment or Dam Use Information (Check any that aply) Downstream: Wildlife pond Pock dam Downstream: Downstream:	County:	County: T/R/Sec.:					
Stream Name:	Access Road	d	Dam or Impound	ment name (if any):			
Recent Precipitation (web source such as wunderground.com): Past 24 hours:in Past Week:in Land Use Information (Check any that apply) Upstream:	Dam/Proper	Dam/Property Owner(s): □Federal □State ☑Local Gov. □Private □Abandoned □Unknown					
Limpoundment or Dam Use Information (Check any that apply) Check any that apply Check any that app	Stream Nam	ne: Christiane	Tributary to: 51 300				
Check any that apply Check all that apply	Recent Prec	ipitation (web source su	ch as wunderground.com):	: Past 24 hours:	<u>in</u> Past Week:	<u>ın</u>	
Check any that apply Check all that apply				T	Dan II.a Information		
Upstream:							
Wildlife pond Water Wildlife pond Water Wate	, ,						
Wetland Wetland Wetland Waterfront development Hydropower Water supply Hydropower					Rock das	n	
Residential					,	- 1	
Urban					оршен		
Agriculture							
Park							
Industrial	-	_		D 1 0			
Structural Information (check all appropriate): Barrier Type	,			doner			
Structural Information (check all appropriate): Barrier Type							
Construction Materials	Other:	Uotner:					
Construction Materials	C(1 T. C	than taka ala all ammonni	ata).				
Concrete Emergency Spillway Stream Diversion or Canal		tion (check an appropria			Other Site Features		
Dam Wall(no overflow)							
Open Crest spanning stream		flow)	1				
Composition	·		_		□Retaining Walls		
Debris Jam		_	□Rock (C)		-		
Stoplogs or Flashboards	, .	iiziiig iiow					
Beaver dam		noards			≯Rip-Rap		
Undersized culvert Natural Falls Other:	. •	ou as			, -		
Natural Falls					□ Vehicle access		
Upstream Conditions: (Mark evident changes to the stream caused by the barrier) Widening Deepening Change to lake/pond Wetland/Flooding Wetland/Flooding Word Stream Undercut Banks Direct Stream Measurements:		•			☐ Attached or Adjacent Buildings		
Upstream Conditions: (Mark evident changes to the stream caused by the barrier) Widening □Deepening □Loss of channel/Partially Lake □Change to lake/pond □Wetland/Flooding □Wetland/Flooding □Wetland/Flooding □None □Bare Soil □Undercut Banks □Bank Failure □Undercut Banks					□Other:		
(Mark evident changes to the stream caused by the barrier) Check all that apply Check all that	=						
ZWidening Upstream: At Structure: Downstream: □Deepening □Overtopping □Overflow/Breach ☑Plunge Pool □Loss of channel/Partially Lake □Gullies □Access Paths/Trails □Scour □Change to lake/pond □Bare Soil □Gullies □Gullies □Wetland/Flooding □Bank Failure □Bare Soil □Bare Soil □None □Undercut Banks □Bank Failure □Bank Failure □Undercut Banks □Undercut Banks □Undercut Banks							
□ Deepening □ Loss of channel/Partially Lake □ Change to lake/pond □ Wetland/Flooding □ None □ Undercut Banks	(Mark evident chang	es to the stream caused	by the barrier)	•		D	
□Loss of channel/Partially Lake □Gullies □Access Paths/Trails □Scour □Change to lake/pond □Bare Soil □Gullies □Gullies □Wetland/Flooding □Bank Failure □Bare Soil □Bare Soil □None □Undercut Banks □Undercut Banks □Undercut □Bank Failure □Undercut Banks □Undercut □Bank Failure □Banks □Undercut □Bank Failure □Undercut Banks □Undercut □Banks □Undercut Banks □Undercut	-						
□ Change to lake/pond □ Wetland/Flooding □ Wetland/Flooding □ Undercut Banks						, -	
□ Wetland/Flooding □ Bank Failure □ Bank Failure □ Undercut Banks		•					
□ Undercut Banks □ Bank Failure □ Banks □ Undercut Banks	□ Change to lake/por	nd					
Undercut Banks Direct Stream Measurements:	☐ Wetland/Flooding						
Banks Direct Stream Measurements:	None			Undercut Banks			
Direct Stream Measurements:					Undercut Banks		
	D1 (0) 35					Danks	
Stream: Spillway: Vertical Characteristics:							
Stream: Spillway: Vertical Characteristics: Widest Impoundment Width: ft Width: 20 ft Height of Head: 3 ft		at Width: A					
Impoundment Length: ft Length: ft Freeboard Available ft	-				-		
Estimated Area of Impoundment: Number of Interruptions or Steps:			_	or Steps:			
Water Velocity: U	Estimated Alea Of III	npoundmont.	-	r			
	Width After Plunge	Pool: <u> ft</u>	7,				
	wiath After Plunge	1001:I <u>I</u>					

Site ID :	CHE	7	Invent	toried by :		Date:
	M-14-14-1					
Re Do Is i Ba Is a	ysical Con asoning/Ju es the dam it being act sed on MD another bas e there any	dition Ran estification have the tively man ONRE contrier (dam vinvasive	: ability to regulate water leaded? Yellow Park camination flowchart (includer road crossing) visible to species present? Yellow Park Park Park Park Park Park Park Park	uded in instructions), should up or downstream? MY □N If so, which?	I sediments be tested?	
Photo Doci Do	i mentatio wnstream	n: Please r Face:	number the photos in the o Upstream Face:	Downstream View:	Upstream View:	Others:
		P	hoto 7		-	
		lark Photo	Numbers on Site Sketch)			
Overhead v	iew					



CHR7

Site Location Inform	nation:					
		Longitude:				
County:		T/R/Sec.:		01.1		
Access Road	ii	Dam or Impoundment name (if any): Bot anica				
Dam/Proper	ty Owner(s): □Federal	State MLocal Gov. □Private □Abandoned □Unknown				
Stream Nam	ie: Christian	Tributary to: 54 Jo				
Recent Prec	ipitation (web source su	ch as wunderground.com)	: Past 24 hours:	<u>in</u> Past Week:	<u>in</u>	
				- T T A 4		
Land Use Information		Impoundment or Dam Use Information				
(Check any that apply)		(Check all that apply)				
<u> </u>	Downstream:		Recreation			
	□Forest		☐ Wildlife pond			
⊌Wetland			□ Waterfront develo	opment	,	
□Residential	Residential		∐Hydropower	For ponds @ cit	hy water place	
□Urban	□Urban		Water supply -	or barrage		
_	☐ Agriculture		1 Flood Control			
Park Park	⊠ Park		□Other:			
☐Industrial						
☐ Other:	□ Other:					
	tion (check all appropria			Other Site Features		
Barrier Type		Construction Materials		☐ Emergency Spillway		
□Earthen Berm	n \	Concrete		Stream Diversion or Canal		
Dam Wall(no overflow)		□Earth		□Retaining Walls		
Open Crest spanning stream		□Wood		□Low level outlet		
Open crest channelizing flow		Rock	□Gates			
Debris Jam		□ Metal	□Rip-Rap			
☐ Stoplogs or Flashboards		Screen				
Beaver dam		□Other:	□ Vehicle access			
Undersized culvert				☐ Attached or Adjacent 1	Buildings	
□Natural Falls				Other:	24	
Other:				Other.		
Upstream Condition	ns:		Is there evidence	of erosion?		
	es to the stream caused	by the barrier)	(Check all that app	ly)		
X Widening €			Upstream:	At Structure:	Downstream:	
□Deepening			Overtopping	□Overflow/Breach	⊠Plunge Pool	
□Loss of channel/Pa	rtially Lake		□Gullies	Access Paths/Trails	⊠Scour	
☐Change to lake/por			☐Bare Soil	□Gullies	□Gullies	
□ Wetland/Flooding			□Bank Failure	⊠Bare Soil	™Bare Soil	
□None			□Undercut Banks	□Bank Failure	□Bank Failure	
				□ Undercut Banks	□Undercut	
					Banks	
Direct Stream Meas	surements:					
Stream:		Spillway:			Characteristics:	
Widest Impoundmen		Width: 30 ft		Height of Head: 4 ft		
Impoundment Length: 200 ft				Freeboard Available	<u>ft</u>	
Estimated Area of Impoundment:		Number of Interruptions or Steps:				
		Water Velocity:				
Width After Plunge	Pool: <u>ft</u>					

Site ID:	CHR8	Inventoried by :	Date:		
 Other Pertinent Information: Physical Condition Ranking: (Please Rank - 5 being best condition, 1 being worst): 5, 4, €, 2, 1 Reasoning/Justification: Does the dam have the ability to regulate water level? □Y ⋈ □ (Ity) and (Virginia) which is it being actively managed? □Y □N Based on MDNRE contamination flowchart (included in instructions), should sediments be tested? Is another barrier (dam or road crossing) visible up or downstream? □Y □N Are there any invasive species present? □Y □N If so, which? 					
D	ownstream Face: h (Please Mark Pho	te number the photos in the order you take them. Upstream Face: Downstream View: PHOTO 8 oto Numbers on Site Sketch)	Upstream View: Ot	hers:	



CHR8

CHR29-Redfield Road

A Stream Crossing Data Sheet was not provided for this site during the 2011 field inspection.
- Streamside Ecological Services

