Project #	Project Name River Pointe Logistics 40.908311 Evaluator(s) Stephen Dadio FLOODPLAIN: Assess the cross-st Optimal Optimal Channel Geometry: These channels show very little incision or wideling and little or no evidence of active erroson. Anastomoosing	Center Longitude Stream Name a	mittent or perenni Locality Upper Mo -75.0 and Informatio UNT to Del und prevailing condi	ount Bethel 86319 on aware River itions along the AA.	th drainage areas ≤ Date 10/02/22	2,000 square mile Ch 93 Classification CW	ssification Existing: CWF, MF	AA Id WA-1	Length 695 A	
Latitude	River Pointe Logistic: 40.908311 Evaluator(s) Stephen Dadio FLOODPLAIN: Assess the cross-su Optimal Optimal Channel Geometry: These channels show very little incision or widening and little or no evidence of active erosion. Anastomosing	Center Longitude Stream Name a	Locality Upper Mo -75.0 and Informatio UNT to Del und prevailing condi	ount Bethel 86319 on aware River itions along the AA.	Date 10/02/22 FGM Level 1 C	Ch 93 Class Ch 93 Classification CW CWF, MF Channel Classif	ssification Existing: CWF, MF	WA-1	695	-
	40.908311 Evaluator(s) Stephen Dadio FLOODPLAIN: Assess the cross-st Optimal Channel Geometry: These channels show very little incision or widening and little or no evidence of active erosion. Anastomosing	Longitude Stream Name a action of the stream a	-75.0 and Informatio UNT to Del	86319 on aware River itions along the AA.	FGM Level 1 C	CWF, MF Channel Classif	CŴF, MF			-
	40.908311 Evaluator(s) Stephen Dadio FLOODPLAIN: Assess the cross-st Optimal Channel Geometry: These channels show very little incision or widening and little or no evidence of active erosion. Anastomosing	Longitude Stream Name a action of the stream a	and Informatio UNT to Del	aware River		Channel Classif	0,001,000		A	
	Evaluator(s) Stephen Dadio FLOODPLAIN: Assess the cross-st Optimal Channel Geometry: These channels show very little incision or widening and little or no evidence of active ersoin. Anastomosing	Stream Name a	and Informatio UNT to Del	aware River		1				
CHANNEL/	Stephen Dadio FLOODPLAIN: Assess the cross-su Optimal Optimal Channel Geometry: These channels show very little incision or widening and little or no very little incision or widening and little or no survery in the active ersoin. Anastomosing	ection of the stream a	UNT to Del	aware River	andition Cator					
CHANNEL/	FLOODPLAIN: Assess the cross-second state of	1	ind prevailing condi	itions along the AA.	andition Catoo					
CHANNEL/I	Optimal	1		Ū	andition Cator					
	Channel Geometry: These channels show very little incision or widening and little or no evidence of active erosion. Anastomosing	Subo	otimal	Co	andition Catory					
	Channel Geometry: These channels show very little incision or widening and little or no evidence of active erosion. Anastomosing	Subo				ory				
	very little incision or widening and little or no evidence of active erosion. Anastomosing	50	1		Marginal		Po	or	Sev	vere
	evidence of active erosion. Anastomosing	Channel Geometry:			These channels are ov than the Savere and P		Channel Geometry: <sup>-</sup> over-widened or incise		Channel Geometry: deeply incised and ac	
Channel / Toodplain	channels may be present. Channel Stability: Visual indicators include: 1) the banks are not eroding along greater than 5% of the reach; 2) natural vegetative or rock stability features are present along greater than 80% of the banks; 2) stable point bars and bankfull benches may be present; 3) mid-channel bars and transverse bars are rare and if transient channel sediment deposition is present, it covers less than or equal to 10% of the stream bottom; 4) baseflow is connected to the rooting depths of vegetation in the active floodplain. Active Floodplain Connection: The bankfull stream flows have frequent access to the active floodplain and fully developed point bars or bankfull benches that are accessed at most flows greater than baseflow.	slightly incised or over few areas of active erc Channel Stability: Vi include: 1) the banks a along less than 25% of depositional relatures s bankfull benches are p during high flows and d than 50% of the reach, protection like vegetati stability along greater t 4) baseflow is connect bankfull benches, or pp portions of the reach a inundate the active floo	ssion. sual indicators re actively eroding the reach; 2) uch as point bars and resent and stable occur along greater 3) natural bank on or rock is providing han 50% of the reach; d to vegetated point hes. nnection: The requently access pint bars along may frequently	conditions. Channel Stability: V eroding or severely un or equal to 50% of the re some vertical or under cuts; Active Floodplain Cc	than the Severe and P isual indicators include: derout along greater than cour along greater than each; 3) the stream ban rout banks or nick point: <b>connection:</b> The bankfu to the active floodplain.	1) the banks are an 25% and less than features like point bars 25% and less than or ks may consist of s associated with head all stream flows have	over-widened or incises vertically and/or laterall Channel Stability: Vi include: 1) the banks a undercut along greater reach; 2) active or rece present along greater 1 3) natural bank protect not preventing bank ere 4) depositional featured and bank full benches, reach or newly develop 25% of the reach; 5) b point bars frequently so 6) baseflow is disconne rooting depths and the Active Floodplain Co bankfull stream flows a the active floodplain.	Ity. isual indicators are eroding or severely ent bank sloughing is ent bank sloughing is ent bank vegetation is osion along the reach; is, such as point bars are absent from the bing along less than arank full benches and cour during high flows; ected from plant : active floodplain. marection: The are not connected to 6 5	deeply incised and ac and/or laterally. Over may contain sections: channels from aggrad Channel Stability: V include: 1) the banks a being undercut along is occurring along gree reach; 3) natural bank vegetation is not preve sloughing: 4) departural point bars and bankful 5) flood flows are disa active floodplain. Active Floodplain. Active floodplain. Active floodplain.	r widened chann of unstable brai Jation. //isual indicators are actively eroor greater than 80% c s protection like enting bank eroo onal features su all benches are a cconnected from onnection: The
								SCORE	4	0.20
NEARIAN	VEGETATION: Assess the floodpl	-	A (Visual estimates ondition Categ		iom aeriai photos wi	mineral verification a		Comments:		
	Optimal	Subor		-	ginal	Pc	oor	commento.		
Riparian /egetation /loodplain)	Riparian area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equa to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless o classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal	High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory.	Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.	Low Marginal: Riparian area vegetation consists of non-maintained, dense hetbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained	High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.			
SCORE	20 19 18 17 16	High 15 14 13	Low 3 12 11	High 10 9	Low 8 7 6	High 5 4 3	Low 3 2 1			
				10 3		5 4 3	, 2 1			
-	on Category areas along the floodplain area within each condition category.	using the descriptors	above.							
	parian Area in in decimal form (0.00) an	d Score for each cate	egory in the blocks b	below.		Ensure the sum of	the % Riparian Area	Blocks equal 100		
	Condition Category						Side Sub-Index			
Diaths Cida	% Riparian Area: 100%	0%	0%	0%	0%	0%	0.80	Side Sub-Ind	ex = SUM(%Are	eas*Scores
	Score:         16           Total Sub-score:         16.00	0	0.00	0	0.00	0.00	0.80	I		
Right Side		0.00	0.00	0.00	0.00					
Right Side	Condition Category					0.00	1			
Right Side	Condition Category % Riparian Area: 100%	0%	0%	0%	0%	0%	0.80		de CI + Right	CI

Opti Riparian ZOI area ve tree stratum present neight (dbh) > 3 inche equal to 60% tree ci comprised of stream (regardless of classi and lacustrine resou	getation consists of a . (diameter at breast s) with greater than or	Co Subop High Suboptimal: Riparian ZOI area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or	timal Low Suboptimal: Riparian ZOI area vegetation consists of a tree stratum (dbh >	Marg High Marginal:	-	Pr	or	Comments:	
Riparian ZOI area ve tree stratum present neight (dbh) > 3 inche equal to 60% tree c comprised of stream (regardless of classi and lacustrine resou	getation consists of a . (diameter at breast s) with greater than or	High Suboptimal: Riparian ZOI area vegetation consists of a tree stratum (dbh > 3 inches) present,	Low Suboptimal: Riparian ZOI area vegetation consists of	High Marginal:	-	Po	or		
tree stratum present height (dbh) > 3 inche equal to 60% tree ca comprised of stream (regardless of classi and lacustrine resource)	(diameter at breast s) with greater than or	3 inches) present,	a use strafum (dbh >	Riparian ZOI area vegetation consists of non-maintained,	Low Marginal: Riparian ZOI area vegetation consists of non-maintained,	High Poor: Riparian ZOI area vegetation consists of lawns, mowed, and	Low Poor: Riparian ZOI area consists of impervious surfaces; mine spoil lands,		
50160 85	i channels, wetlands fication or condition)	equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory.	3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.	dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, with less than 30% tree canopy cover with	maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegletated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.		
		High	Low	High	Low	High	Low		
		-	-	10 9 8	5 / 6	543	5 2 1		
		sing the descriptors	above.						
rian Area in decima	<u> </u>	core for each catego	ry in the blocks bel	ow.		Ensure the sums of	-	icks equal 100	
	0.00/	500/	000/	00/	00/	00/	Side Sub-Index		
								Side Sub-Index = SUM(%Are	as*Scores)/:
otal Sub-score:	16 <b>4.80</b>	10 <b>5.00</b>	3 0.60	0 0.00	0 0.00	0	0.52		
	1000/	00/	00/	00/	001	00/			
								CI = (Left Side CI + Right	CI
Score:	16	0	0	0	0	0	0.80		0.66
otal Sub-score:	16.00	0.00	0.00	0.00	0.00	0.00			
ability to support aq present in greater tha the reach. Substra colonization by a div epifaunal community	uatic organisms are in or equal to 50% of ate is favorable for verse and abundant , and there are many	ability to support aquipresent in greater than less than 50% of the r mostly desirable and for full colonization by	atic organisms are or equal to 30% and each. Conditions are are generally suitable a moderately diverse	ability to support aq present in greater than less than 30% of the r generally suitable for	uatic organisms are n or equal to 10% and reach. Conditions are partial colonization by	ability to support aq present in less thar Conditions are gen colonization by ep	uatic organisms are 10% of the reach. erally unsuitable for ifaunal and/or fish		
and/or fis	sh cover.			10 9	876	5 4 3	2 1	CI = (Score)/20	CI 0.60
									0.00
								Comments:	
Negli	gible					Sev	/ere		
in the SAR. The st	ream has unaltered	than or equia to 20% of the stream reach is disrupted by any of the channel alterations listed above. Alteration or present, usually adjacent to structures, (such as bridge abutments or culvers); evidence of past alteration, (i.e., channelization) may be present, but stream pattern and stability have	than 20% and less than or equal to 40% of the stream reach is disrupted by any of the channel alterations listed above. Alteration or channelization present, usually adjacent to structures, (such as bridge abutments or culverts); evidence of past alteration (i.e., channelization) may be present, but stream pattern and	Greater than 40% and less than or equal	Greater than 60%	Greater than 80% of any of the channel all Greater than 80% c	erations listed above. If banks shored with		
		alteration is not present. <b>High</b>	recovered; recent alteration is not	High	Low			CI = (Score)/20	CI
20 19 1	8 17 16	15 14 1	3 12 11	10 9 8	376	543	2 1	SCORE 14	0.70
			RIVERINE	CONDITION II	NDEX (RCI)				RCI
and RCI shou	Id be rounded	to 2 decimal n	aces.				RCI = (Sum	of all CI's)/5	0.59
plicable (e.g.	due to use on	intermittent wa	tercourse or >	•	• <i>,</i>		•		
	Category areas al rea within each cor rian Area in decima Condition Category % Riparian Area: Score: Condition Category for Riparian Area: Score: Condition Category	Category areas along the floodplain u         rea within each condition category.         rian Area in decimal form (0.00) and S         Condition Category         % Riparian Area:       30%         Score:       16         fotal Sub-score:       16         Condition Category       % Riparian Area:         Marking Condition Category       % Real Area         Physical Elements that enhance a stream's ability to support aquatic organisms are present in greater than or equal to S0% of the reach. Substrate is favorable for colonization and/or fish cover.         20       19	Category areas along the floodplain using the descriptors         rea within each condition category.       rian Area in decimal form (0.00) and Score for each categor         Condition Category       98 Riparian Area:       30%       50%         Score:       16       10         fotal Sub-score:       4.80       5.00         Condition Category       98       98         % Riparian Area:       100%       0%         Score:       16       0         fotal Sub-score:       16.00       0.00         IABITAT: Varied substrate sizes, water velocity and depratures.       Physical Elements that enhance a stream's ability to support aquatic organisms are present in greater than or equal to 50% of the rocionization by a diverse and abundant epifaunal contrization sitable areas for epifaunal colonization and/or fish cover.       Physical Elements that enhance are many suitable areas for epifaunal colonization and/or fish cover.         20       19       18       17       16       15       14       12         LICTERATION: Stream crossings, riprap, concrete, gabid abundant epifaural colonization present, usually adjacent to structures, (such as bridge aburtheorits in the channel atterations listed above are absent in the SAR. The stream has unaltered aburdent of the channel atteration is not present, but stream pattern or has normalized.       Structures, (such as bridge aburtheorits of the channel atteration is not present, but stream pattern on thas normalized. <td>Category areas along the floodplain using the descriptors above.         rea within each condition category.         rian Area in decimal form (0.00) and Score for each category in the blocks bell         Condition Category         % Riparian Area:       30%         500%       20%         Score:       16       10       3         fotal Sub-score:       4.80       5.00       0.60         Condition Category       0%       0%       0%         Score:       16       0       0       0         Condition Category       16.00       0.00       0.00       0.00         ABBITAT: Varied substrate sizes, water velocity and depths, woody and leaf statures.       Condition         Physical Elements that enhance a stream's ability to support aquatic organisms are present in greater than or equal to 30% and least statures.       Physical Elements that enhance a stream's ability to support aquatic organisms are present in greater than or equal to 30% and less than 50% of the reach. Conditions are mostly desirable and are generally suitable areas for epifaunal community.         20       19       18       17       16       15       14       13       12       11         LTERATION: Stream crossings, riprap, concrete, gabions, or concrete blow otherapit suitable above are absent in the SAR. The stream has unaltered patternion risted above are absent in the SAR. The stream has unalte</td> <td>Category areas along the floodplain using the descriptors above.       Image: Category in the blocks below.         rea within each condition category.       Condition Category       OVERTIMENT Category in the blocks below.         Condition Category       Server:       16       10       3       0         Server:       16       10       3       0       0         Condition Category       Condition Category       Condition Category       0       0       0         Server:       16       0       0       0       0       0       0         Condition Category       Image: Server in the serv</td> <td>Category areas along the floodplain using the descriptors above.         rea within each condition category.         Tian Area in decimal form (0.00) and Score for each category in the blocks below.         Condition Category         % Raparian Area:       30%         500e:       16         100       3       0         Condition Category       -         % Raparian Area:       100%       0%       0%         Score:       16       0       0       0         Condition Category       -       -       -       -         % Raparian Area:       100%       0%       0%       0%       0%         Score:       16       0       0.0       0.00       0.00       0.00         Idal TAT: Varied substrate sizes, water velocity and depths, woody and leady debris, stable substrate, low embeddiatures.       Physical Elements that enhance a stream?       Physical Elements that enhance stream?       Physical Elements th</td> <td>Category areas along the floodplain using the descriptors above.         Reginant Area:       Ensure the sums of condition Category         % Repartian Area:       30%       50%       20%       0%       0%       0%         Score:       16       10       3       0       0       0       0         Score:       16       10       3       0       0.00       0.00       0.00         Condition Category      </td> <td>I Category areas along the floodplain using the descriptors above.  Tea within each condition category:  Tea within each condition category:  Tea within each condition category:  Tensore:  16 10 10 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td>Contemport years storight the forder category:         Ensure the sume of % Repairs 201 Blocks equal 100           Context category:         Ensure the sume of % Repairs 201 Blocks equal 100           Secure:         16         10         3         0         0         0         0.52           Secure:         16         10         3         0         0         0         0.52           Secure:         16         10         3         0         0         0         0.52           Secure:         16         0         0.60         0.60         0.60         0.60         0.60           Secure:         16.0         0.00         0.00         0.00         0.00         0.80         C1 = (Left Side C1 + Right Side C1/2           Secure:         16.0         0.00         0.00         0.00         0.00         0.80         C1 = (Left Side C1 + Right Side C1</td>	Category areas along the floodplain using the descriptors above.         rea within each condition category.         rian Area in decimal form (0.00) and Score for each category in the blocks bell         Condition Category         % Riparian Area:       30%         500%       20%         Score:       16       10       3         fotal Sub-score:       4.80       5.00       0.60         Condition Category       0%       0%       0%         Score:       16       0       0       0         Condition Category       16.00       0.00       0.00       0.00         ABBITAT: Varied substrate sizes, water velocity and depths, woody and leaf statures.       Condition         Physical Elements that enhance a stream's ability to support aquatic organisms are present in greater than or equal to 30% and least statures.       Physical Elements that enhance a stream's ability to support aquatic organisms are present in greater than or equal to 30% and less than 50% of the reach. Conditions are mostly desirable and are generally suitable areas for epifaunal community.         20       19       18       17       16       15       14       13       12       11         LTERATION: Stream crossings, riprap, concrete, gabions, or concrete blow otherapit suitable above are absent in the SAR. The stream has unaltered patternion risted above are absent in the SAR. The stream has unalte	Category areas along the floodplain using the descriptors above.       Image: Category in the blocks below.         rea within each condition category.       Condition Category       OVERTIMENT Category in the blocks below.         Condition Category       Server:       16       10       3       0         Server:       16       10       3       0       0         Condition Category       Condition Category       Condition Category       0       0       0         Server:       16       0       0       0       0       0       0         Condition Category       Image: Server in the serv	Category areas along the floodplain using the descriptors above.         rea within each condition category.         Tian Area in decimal form (0.00) and Score for each category in the blocks below.         Condition Category         % Raparian Area:       30%         500e:       16         100       3       0         Condition Category       -         % Raparian Area:       100%       0%       0%         Score:       16       0       0       0         Condition Category       -       -       -       -         % Raparian Area:       100%       0%       0%       0%       0%         Score:       16       0       0.0       0.00       0.00       0.00         Idal TAT: Varied substrate sizes, water velocity and depths, woody and leady debris, stable substrate, low embeddiatures.       Physical Elements that enhance a stream?       Physical Elements that enhance stream?       Physical Elements th	Category areas along the floodplain using the descriptors above.         Reginant Area:       Ensure the sums of condition Category         % Repartian Area:       30%       50%       20%       0%       0%       0%         Score:       16       10       3       0       0       0       0         Score:       16       10       3       0       0.00       0.00       0.00         Condition Category	I Category areas along the floodplain using the descriptors above.  Tea within each condition category:  Tea within each condition category:  Tea within each condition category:  Tensore:  16 10 10 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Contemport years storight the forder category:         Ensure the sume of % Repairs 201 Blocks equal 100           Context category:         Ensure the sume of % Repairs 201 Blocks equal 100           Secure:         16         10         3         0         0         0         0.52           Secure:         16         10         3         0         0         0         0.52           Secure:         16         10         3         0         0         0         0.52           Secure:         16         0         0.60         0.60         0.60         0.60         0.60           Secure:         16.0         0.00         0.00         0.00         0.00         0.80         C1 = (Left Side C1 + Right Side C1/2           Secure:         16.0         0.00         0.00         0.00         0.00         0.80         C1 = (Left Side C1 + Right Side C1

		•		evel 2 Rapid A		•				
		For use in inte	•	•	of Environmen th drainage areas ≤		drainage areas			
Project #	Project Name		Locality		Date		ssification	AA Id	Length	
,	River Pointe Logist		-	ount Bethel	10/02/22	Ch 93 Classification CW		WA-2	590	-
						CWF, MF	CWF, MF			-
Latitude	40.908867	Longitude		86940	FGM Level 1 C	Channel Classif	rication		A	
	Evaluator(s)	Stream Name	and Informatio	on		Notes:				
	Stephen Dadio		UNT to Del	aware River						
CHANNEL/	FLOODPLAIN: Assess the cross-s	ection of the stream	and prevailing condi	itions along the AA.		•				
				Co	ondition Catego	ory				
	Optimal	Subo	ptimal		Marginal	-	Po	or	Se	vere
	NI/	- Marine 1	(		De		24		All	Il
	-				4	-	k)		1	A
		~ 4/3	0			Gen	and the second s	and the second s	1	(
	And the allow	<u></u>			1		1		Same	
	Channel Geometry: These channels show	Channel Geometry:	These channels are	Channel Geometry:	These channels are ov	ver-widened or incised	Channel Geometry:	These channels are	Channel Geometry:	These channels
	very little incision or widening and little or no evidence of active erosion. Anastomosing		rwidened and contain a		than the Severe and P		over-widened or incise vertically and/or lateral	d and eroding	deeply incised and ac and/or laterally. Over	tively eroding ve
	channels may be present.				liquel indiantary in the	1) the h!	Channel Stability: Vi	,	may contain sections channels from aggrad	of unstable braid
	Channel Stability: Visual indicators	Channel Stability: include: 1) the banks	are actively eroding	eroding or severely un	isual indicators include	an 25% and less than	include: 1) the banks a	re eroding or severely		
	include: 1) the banks are not eroding along greater than 5% of the reach; 2) natural		such as point bars and	or bankfull benches of	ccur along greater than	25% and less than or	undercut along greater reach; 2) active or reco	ent bank sloughing is	Channel Stability: V include: 1) the banks a	are actively eroo
	vegetative or rock stability features are present along greater than 80% of the	bankfull benches are during high flows and			each; 3) the stream ban rcut banks or nick point		present along greater 3) natural bank protect	tion like vegetation is	being undercut along the reach; 2) active or	recent bank slo
	banks; 2) stable point bars and bankfull benches may be present; 3) mid-channel	than 50% of the reac		cuts;			not preventing bank er 4) depositional feature	osion along the reach;	is occurring along greaters reach; 3) natural bank	ater than 80% o
Channel /	bars and transverse bars are rare and if transient channel sediment deposition is	stability along greater	than 50% of the reach; ted to vegetated point	Active Floodplain Co	onnection: The bankfu to the active floodplain		and bank full benches, reach or newly develop	are absent from the	vegetation is not preve sloughing; 4) deposition	enting bank eros
loodplain	present, it covers less than or equal to 10% of the stream bottom; 4) baseflow is	bars and bankfull ber			to the active hoodplain	•	25% of the reach; 5) b point bars frequently s	ank full benches and	point bars and bankfu 5) flood flows are dis	Il benches are a
	connected to the rooting depths of	Active Floodplain C					6) baseflow is disconn	ected from plant	active floodplain.	connected from
	vegetation in the active floodplain.	bankfull stream flows bankfull benches, or	ooint bars along				rooting depths and the		Active Floodplain Co	
	Active Floodplain Connection: The bankfull stream flows have frequent access	portions of the reach inundate the active flo					Active Floodplain Co bankfull stream flows a		bankfull stream flows the active floodplain.	are never conn
	to the active floodplain and fully developed point bars or bankfull benches that are						the active floodplain.			
	accessed at most flows greater than baseflow.									
SCORE	20 19 18 17	16 15	14 13	12	11 10	9	8 7	6 5	4 3	2 1
	20 19 18 17	16 15	14 13	12	11 10	9	8 7	65	4 3	2 1
	20 19 18 17	16 15	14 13	12	11 10	9	87	65	4 3	2 1
	20 19 18 17	16 15	14 13	12	11 10	9	87	65	4 3	2 1
	20 19 18 17	16 15	14 13	12	11 10	9	87		4 3	2 1 CI
	20 19 18 17	16 15	14 13	12	<u>11 10</u>	9	87			CI
mments:	20 19 18 17 20 20 20 20 20 20 20 20 20 20 20 20 20 2							CI = (S	core)/20	CI
mments:	VEGETATION: Assess the floodp	ain along the entire	AA (Visual estimates ondition Categ	s of areal coverage f <b>ory</b>	rom aerial photos w	th field verification a	acceptable).	CI = (S	core)/20	CI
mments:		ain along the entire	AA (Visual estimates ondition Categ	s of areal coverage f ory Mar	rom aerial photos w ginal	th field verification a	acceptable).	CI = (So SCORE	core)/20	CI
mments:	VEGETATION: Assess the floodp	ain along the entire C Subc High Suboptinal: Riparian area	AA (Visual estimates ondition Categ ptimal Low Suboptimal: Riparian area	s of areal coverage f Ory High Marginal: Riparia area	rom aerial photos w ginal Low Marginal: Riparian area	ith field verification a Pe High Poor: Riparian area vegetation	acceptable). Dor Low Poor: Riparian area consists of	CI = (So SCORE	core)/20	CI
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RIPARIAN RIPARIAN Riparian /egetation loodplain) SCORE Identify Conditi	VEGETATION: Assess the floodp         Optimal         Riparian area vegetation consists of a tree stratum present (diameter at breast height (dbt) > 3 inches) with greater than or equa to 60% free canopy cover. Areas comprise of stream channels, wetlands (regardless or classification or condition) and lacustrine resources ≥ 10 acres are scored as optima         20       19       18       17       16         on Category areas along the floodplain s area within each condition category. parian Area in in decimal form (0.00) ar Condition Category       100% Score:       16         Total Sub-score:       16.00       Condition Category	ain along the entire. C Subc High Suboptimal: Riparian area vegetation consists o a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree ocntaining both therbaceous and containing both therbaceous and understory. High 15 14 1 using the descriptor d Score for each car 0% 0 0.00	AA (Visual estimates ondition Categy ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 3 12 11 above. egory in the blocks t 0% 0 0.00	s of areal coverage f Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 High 0% 0 0% 0 0.00	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas tacking shrub and tree stratum, areas of hay production, and ponds or open water areas (a full of a strategy of the production, and ponds or open water areas (a full of a strategy) reduction, and ponds or open water areas (a full of a strategy) reduction, and ponds or open water areas (a full of a strategy) reduction, and ponds or open water areas (a full of a strategy) reduction, and ponds or open water areas (a full of a strategy) and tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low 8 7 6 0% 0 0.00	th field verification a High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries: no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 : Ensure the sum of 0% 0 0.00	Acceptable).	CI = (So SCORE Comments: Blocks equal 100 Side Sub-Indo	core)/20 4	CI 0.20

S. KIFARIAN	ZONE OF INFL	JENCE: Assess				n into the upland alo	ong the entire AA. (r	ough measurements	s of length & width may be acceptable)	
	-			ondition Categ	ory				Comments:	
Riparian ZOI	Riparian ZOI area ve tree stratum presen height (dbh) > 3 inche equal to 60% tree c comprised of strean (regardless of class)	s) with greater than or anopy cover. Areas n channels, wetlands ification or condition)	Suboy High Suboptimal: Riparian 201 area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shub lavers or a non-	btimal Low Suboptimal: Riparian ZOI area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	High Marginal: Riparian 201 area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.	Low Marginal: Riparian ZOI area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water	High Poor: Riparian ZOI area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails,	Dor Low Poor: Riparian ZOI area consists of impervious surfaces; mine spoil lands; denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.		
	scored a		maintained understory. <b>High</b>	Low	High	areas (< 10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with LOW	High	Low		
SCORE	20 19 1	8 17 16	15 14 1	3 12 11	10 9 8	376	5 4 3	321		
. Identify Condition	on Category areas al	ong the floodplain u	ising the descriptors	above.						
2. Estimate the %	area within each co	ndition category.								
. Enter the % Rip		al form (0.00) and S	core for each catego	ory in the blocks bel	ow.		Ensure the sums of	f % Riparian ZOI Blo	ocks equal 100	
	Condition Category	40000	00/	00/	00/	00/	00/	Side Sub-Index		
	% Riparian Area:	100%	0%	0%	0%	0%	0%		Side Sub-Index = SUM(%Are	as*Scores)/2
Right Side	Score:	16	0	0	0	0	0	0.80		· · · //-
	Total Sub-score:	16.00	0.00	0.00	0.00	0.00	0.00			
	Condition Category	1000/							r	
	% Riparian Area:	100%	0%	0%	0%	0%	0%		CI = (Left Side CI + Right	CI
Left Side	Score:	16	0	0	0	0	0	0.80	Side CI)/2	0.80
	Total Sub-score:	16.00	0.00	0.00	0.00	0.00	0.00			
Habitat/ Available Cover	present in greater that the reach. Substruction by a di epifaunal community	uatic organisms are an or equal to 50% of ate is favorable for verse and abundant r, and there are many pifaunal colonization	ability to support aq present in greater than less than 50% of the r mostly desirable and for full colonization by and abundant epif	n or equal to 30% and reach. Conditions are are generally suitable a moderately diverse	less than 30% of the	n or equal to 10% and reach. Conditions are partial colonization by	present in less than Conditions are gen colonization by ep	uatic organisms are n 10% of the reach. erally unsuitable for bifaunal and/or fish s. The reach.		
	and/or fi	sh cover.	15 14 1		10 9	8 7 6	5 4 3	3 2 1	CI = (Score)/20	CI
			prap, concrete, gabi						SCORE 12	0.60
		orean crossings, n	prop, concrete, gabi		Category	onannei/onannei/z		, spon piles, constite	-	
	Negl	igible	Mir			erate	Sev	/ere	Comments:	
Channel			Minor High: Less than or equal to 20% of the stream reach is disrupted by any of the channel alterations listed above. Alteration or present, usually adjacent to		Moderate High: Greater than 40% and less than or equal to 60% of reach is disrupted by any of the channel alterations listed above. If the stream has been channelized, normal	Moderate Low: Greater than 60% and less than or equa to 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If the stream has been		reach is disrupted by		
Alteration	in the SAR. The st	sted above are absent ream has unaltered s normalized.	structures, (such as bridge abutments or culverts); evidence of past alteration, (i.e., channelization) may be present, but straam pattern and stability have recovered; recent alteration is not onesent.	adjacent to structures, (such as bridge abutments or culverts); evidence of past alteration, (i.e., channelization) may be present, but stream pattern and stability have recovered; recent alteration is not	stable stream meander pattern has not recovered.	channelized, normal stable stream meander pattern has not recovered.	any of the channel all	terations listed above. of banks shored with		
			High	Low	High	Low			CI = (Score)/20	CI
SCORE	20 19 1	8 17 16	15 14 1	3 12 11	10 9 8	376	543	2 1	SCORE 18	0.90
				RIVERINE	CONDITION II	NDEX (RCI)	T			RCI
	ls and RCI shou	uld be rounded	l to 2 decimal p	laces.				RCI = (Sum	of all CI's)/5	0.66
VOTE: The Cl						ainage area) in				

	Feili	Ri nsylvania Riveri	ne Condition L	evel 2 Rapid A	ssessment Pro	otocol (Docume	ent No. 310-213	7-003)		
		For use in inte	•	ia Department			drainage areas			
Project #	Project Name		Locality		Date	· ·	ssification	AA Id	Length	
	River Pointe Logistics	s Center	Upper Mo	ount Bethel	10/02/22	Ch 93 Classification CW CWF, MF	CWF, MF	WA-4	134	-
Latitude	40.904339	Longitude		94091		Channel Classif			A	-
Lantado	Evaluator(s)	-	and Informatio			Notes:				
	Stephen Dadio	Stream Name		aware River						
	•									
CHANNEL/	FLOODPLAIN: Assess the cross-se	ection of the stream a	and prevailing cond	0	ondition Catego	orv				
	Optimal	Subo	ptimal		Marginal	,	Po	oor	Se	vere
	Channel Geometry: These channels show very little incision or widening and little or no	slightly incised or over	widened and contain a		These channels are ov than the Severe and P		Channel Geometry: over-widened or incise	ed and eroding	Channel Geometry: deeply incised and ac	tively eroding ve
Channel / <sup>-</sup> loodplain	Channel Stability: Visual indications in the original evidence of active erosion. Anastomosing channels may be present. Channels may be present. Channel Stability: Visual indicators include: 1) the banks are not eroding along greater than 5% of the reach; 2) natural vegetative or rock stability features are present along greater than 80% of the banks; 2) stable point bars and bankfull benches may be present; 3) mid-channel bars and transverse bars are rare and if transient channel sediment deposition is present, it covers less than or equal to 10% of the stream bottom; 4) baseflow is connected to the rooting depths of vegetation in the active floodplain. Active Floodplain Connection: The bankfull benches that are accessed at most flows greater than baseflow.	few areas of active er Channel Stability: V include: 1) the banks a along less than 25% c depositional features z bankfull benches are j during high flows and than 50% of the react protection like vegetal stability along greater	osion. isual indicators are actively eroding if the reach: 2) such as point bars and oresent and stable occur along greater x; 3) natural bank ion or rock is providing than 50% of the reach ted to vegetated point ches. <b>onnection:</b> The frequently access oint bars along and may frequently	conditions. Channel Stability: V eroding or severely ur or equal to 50% of the or bankfull benches o equal to 50% of the re- some vertical or unde cuts; Active Floodplain Co	fisual indicators include indercut along greater the reach; 2) depositional cour along greater than ach; 3) the stream ban rout banks or nick point onnection: The bankfu to the active floodplain	: 1) the banks are an 25% and less than features like point bars 25% and less than or ks may consist of s associated with head ill stream flows have	vertically and/or latera Channel Stability: V include: 1) the banks a undercut along greater reach; 2) active or rec present along greater	Ity. isual indicators are eroding or severely than 50% of the ent bank sloughing is than 50% of the reach, tion like vegetation is rosion along the reach, tion like vegetation is rosion along the reach, s, such as point bars , are absent from the ping along less than such as point bars and full benches and courd during high flows; excited from plant excite floodplain. whether the such as the such as the such as the plant of the such as the such as the such as the excite floodplain.	and/or laterally. Over may contain sections channels from aggrac channels from aggrac being undercut along the reach; 2) active o is occurring along gre reach; 3) natural ban vegetation is not prev sloughing; 4) depositi point bars and bankful 5) flood flows are dis active floodplain.	widened chann of unstable brain lation. Visual indicators are actively eroc greater than 80% o protection like enting bank eros onal features sue all benches are a connected from
SCORE	20 19 18 17	16 15	14 13	12	11 10	9	8 7	6 5	4 3	2 1
omments:	20 19 18 17 VEGETATION: Assess the floodpl	ain along the entire A	NA (Visual estimates	s of areal coverage f				CI = (Si SCORE	4 3 core)/20 2	CI
omments:		ain along the entire A	A (Visual estimates ondition Categ ptimal	s of areal coverage f		ith field verification a	acceptable).	CI = (S	core)/20	CI
omments:	VEGETATION: Assess the floodpl	ain along the entire A Cd Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory.	A (Visual estimates ondition Categ ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	s of areal coverage f Ory High Marginal: Riparian area Vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water trees stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained	th field verification a Perification and the second secon	acceptable). Dor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, row crops, active feed lots, impervious trails, or other comparable conditions.	CI = (Si SCORE	core)/20	
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RIPARIAN RIPARIAN egetation loodplain) SCORE	VEGETATION: Assess the floodpl         Optimal         Riparian area vegetation consists of a tree stratum present (dameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless o classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal         20       19       18       17       16	ain along the entire A Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh) - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory. High 15 14 1	A (Visual estimates condition Categ ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh) - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 3 12 11	s of areal coverage f ory High Marginal: Riparian area Vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water trees stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained	th field verification a Perification a High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High	acceptable). Dor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, row crops, active feed lots, impervious trails, or other comparable conditions.	CI = (Si SCORE	core)/20	CI
RIPARIAN RIPARIAN /egetation loodplain) SCORE	VEGETATION: Assess the floodpl         Optimal         Riparian area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless of classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal         20       19       18       17       16         ion Category areas along the floodplain	ain along the entire A Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh) - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory. High 15 14 1	A (Visual estimates condition Categ ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh) - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 3 12 11	s of areal coverage f ory High Marginal: Riparian area Vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, iparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh < 3 inches) present, with less than 30% tree canopy cover with maintained Low	th field verification a Perify Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High	Acceptable). Dor Low Poor: Riparian area consists of impervious surfaces, row crops, active feed lots, impervious trails, or other comparable conditions. Low	CI = (Si SCORE	core)/20	CI
RIPARIAN RIPARIAN /egetation loodplain) SCORE	VEGETATION: Assess the floodpl         Optimal         Image: Construct on the stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of straam channels, wetlands (regardless of classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal         20       19       18       17       16         ion Category areas along the floodplain 6 area within each condition category.       iparian Area in in decimal form (0.00) and	ain along the entire A Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and ocntaining both herbaceous and shrub layers or a non- maintained understory. High 15 14 1 using the descriptors	A (Visual estimates ondition Categ ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 3 12 11 above.	s of areal coverage f Ory High Marginal: Riparian area Vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a rabaceous vegetation with either a shrub layer or a rabaceous e shrub layer	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, iparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh < 3 inches) present, with less than 30% tree canopy cover with maintained Low	th field verification a Perification area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 1	Acceptable). Dor Low Poor: Riparian area consists of impervious surfaces, row crops, active feed lots, impervious trails, or other comparable conditions. Low	CI = (So SCORE	core)/20	CI
RIPARIAN RIPARIAN Riparian (egetation loodplain) SCORE Identify Condit Estimate the % Enter the % Ri	VEGETATION: Assess the floodpl         Optimal         Riparian area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless or classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal         20       19       18       17       16         ion Category areas along the floodplain 6 area within each condition category.	ain along the entire A Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and ocntaining both herbaceous and shrub layers or a non- maintained understory. High 15 14 1 using the descriptors	A (Visual estimates ondition Categ ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 3 12 11 above.	s of areal coverage f Ory High Marginal: Riparian area Vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a rabaceous vegetation with either a shrub layer or a rabaceous e shrub layer	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, iparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh < 3 inches) present, with less than 30% tree canopy cover with maintained Low	th field verification a Perification area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 1	acceptable). Dor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, row crops, active feed lots, impervious trails, or other comparable conditions. Low 3 2 1	CI = (So SCORE Comments:	core)/20	CI 0.10
RIPARIAN RIPARIAN Riparian /egetation Floodplain) SCORE Identify Condit Estimate the % Enter the % Ri	VEGETATION: Assess the floodpl         Optimal         Riparian area vegetation consists of a tree stratum present (dameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless o classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal         20       19       18       17       16         ion Category areas along the floodplain 6 area within each condition category.       japrian Area in in decimal form (0.00) and Condition Category	ain along the entire A Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and ontaining both herbaceous and shrub layers or a non- maintained understory. High 15 14 1 using the descriptors d Score for each cat 0%	A (Visual estimates ondition Categ ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 3 12 11 above. Begory in the blocks to 0%	s of areal coverage f ory High Marginal: Riparian area Vegetation consists of non-maintained, dense herbaccous vegetation with either stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 below. 0%	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay ponds or open water areas (< 10 acres). If tree stratum (dbh > 3 inches) present, with maintained Low 8 7 6	ith field verification a High Poor: Riparian area vegetation consists of lawns, mowed, and cropland; actively grazed pasture, sparsely vegetated non-maintained area, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 : Ensure the sum of 0%	Acceptable).	CI = (So SCORE Comments:	core)/20 2	CI 0.10
RIPARIAN RIPARIAN Riparian (egetation loodplain) SCORE Identify Condit Estimate the % Enter the % Ri	VEGETATION: Assess the floodpl         Optimal         Optimal         Riparian area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless of classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal         20       19       18       17       16         ion Category areas along the floodplain & area within each condition category. iparian Area in in decimal form (0.00) an Condition Category         % Riparian Area:       100% Score:       10         Total Sub-score:       10.00         Condition Category       10.00	ain along the entire A Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory. High 15 14 1 using the descriptors d Score for each cat 0% 0 0.00	A (Visual estimates ondition Categ ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh) - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 3 12 11 above. egory in the blocks I 0% 0 0.00	s of areal coverage f Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 below. 0% 0 0.00	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, niparian areas loaking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low 8 7 6 0% 0 0.00	Ith field verification a High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries: no-till cropland; actively grazed pasture, sparsely vegetated on-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 Ensure the sum of 0% 0 0.00	Acceptable).	CI = (So SCORE Comments:	core)/20 2	CI 0.10
RIPARIAN Riparian /egetation -loodplain) SCORE Identify Condit Estimate the 9	VEGETATION:       Assess the floodpl         Optimal       Optimal         Riparian area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless o classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal         20       19       18       17       16         ion Category areas along the floodplain & area in in decimal form (0.00) an Condition Category.       iparian Area in in decimal form (0.00) an Condition Category         % Riparian Area:       100%       Score:       10         Total Sub-score:       10.00	ain along the entire A Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh) - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory. High 15 14 1 using the descriptors d Score for each cat 0% 0	A (Visual estimates Didition Categ ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh) - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 3 12 11 above. egory in the blocks to 0% 0	s of areal coverage f ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 below. 0% 0% 0	rom aerial photos w ginal Kiparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (<10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low 8 7 6	ith field verification a High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 Ensure the sum of 0% 0	Acceptable).	CI = (Si SCORE Comments: Blocks equal 100 Side Sub-Ind	core)/20 2	CI 0.10

3. RIPARIAN		JENCE: Assess				n into the upland alo	ong the entire AA. (r	ough measurement	s of length & width may be acceptable)	
				ondition Catego					Comments:	
Riparian ZOI	Riparian ZOI area ve tree stratum presen height (dbh) > 3 inche equal to 60% tree c comprised of strean (regardless of class	s) with greater than or anopy cover. Areas in channels, wetlands fication or condition) urces ≥ 10 acres are	Subor High Suboptimal: Riparian 201 area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and canopy cover and shrub layers or a non- maintained understory.	ptimal Low Suboptimal: Riparian ZOI area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	High Marginal: Riparian 201 area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.	ginal Low Marginal: Riparian ZOI area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree	Pc High Poor: Riparian 2Ol area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	Dor Low Poor: Riparian ZOI area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.		
			High	Low	High	canopy cover with	High	Low		
SCORE		8 17 16	15 14 1		10 9 8	376	543	3 2 1		
	on Category areas a		ising the descriptors	above.						
	area within each co parian Area in decim Condition Category	8,	core for each catego	ory in the blocks bel	ow.		Ensure the sums of	f % Riparian ZOI Blo Side Sub-Index	ocks equal 100	
	% Riparian Area:	60%	40%	0%	0%	0%	0%	Side Gub-index		
Right Side	Score:	10	5	0	0	0	0	0.40	Side Sub-Index = SUM(%Are	as*Scores)/
	Total Sub-score:	6.00	2.00	0.00	0.00	0.00	0.00	0.40		
	Condition Category	0.00	2.00	0.00	0.00	0.00	0.00			
	% Riparian Area:	60%	40%	0%	0%	0%	0%			CI
Left Side	Score:	10	5	0	0	0	0	0.40	CI = (Left Side CI + Right	- Ci
Len Side	Total Sub-score:	6.00	2.00	0.00	0.00	0.00	0.00	0.40	Side CI)/2	0.40
Instream	Physical Elements the	imal at enhance a stream's	Physical Elements that	ptimal at enhance a stream's	Physical Elements that	ginal at enhance a stream's	Physical Elements the	oor at enhance a stream's	Comments:	
Habitat/ Available Cover	present in greater the the reach. Substr colonization by a di epifaunal community suitable areas for e	uatic organisms are an or equal to 50% of ate is favorable for verse and abundant , and there are many pifaunal colonization	ability to support aq present in greater that less than 50% of the mostly desirable and for full colonization by and abundant epit	n or equal to 30% and reach. Conditions are are generally suitable a moderately diverse	less than 30% of the	n or equal to 10% and reach. Conditions are partial colonization by	present in less than Conditions are gen colonization by ep	uatic organisms are n 10% of the reach. erally unsuitable for ifaunal and/or fish s. The reach.	CI (Coore)/20	
	and/or fi		45 44 4	3 12 11	10 9	8 7 6	5 4 3		CI = (Score)/20	CI
SCORE 5. CHANNEL	20 19 1 ALTERATION:	8 17 16 Stream crossings, ri							SCORE 6	0.30
					Category				Comments:	
	Negl	igible	Mi			erate Moderate Low:	Sev	/ere		
Channel Alteration	in the SAR. The st	sted above are absent ream has unaltered s normalized.		than or equal to 40%	Moderate High: Greater than 40% and less than or equal to 60% of reach is disrupted by any of the channel alterations listed above. If the stream has been channelized, normal stable stream meander pattern has not recovered.	Greater than 60% and less than or equal	any of the channel all	of banks shored with		
			Bresent High	alteration is not Low	High	Low			CI = (Score)/20	CI
SCORE	20 19 1	8 17 16	15 14 1	3 12 11	10 9 8	376	5 4 3	2 1	SCORE 18	0.90
				RIVERINE	CONDITION II	NDEX (RCI)	-			RCI
IOTE: The C	Is and RCI sho	uld be rounded	to 2 decimal p	laces.				RCI = (Sum	of all CI's)/5	0.44
f a CI is not a		due to use on	intermittent wa	tercourse or >	•	- /			lator feature the user will nee	d to modify

				evel 2 Rapid A						
		- · · · ·		-	of Environment					
Project #	Project Name		rmittent or perennia	al watercourses wi	th drainage areas ≤ Date	-	drainage areas.	AA Id	Length	
110,000#	River Pointe Logistic		-	unt Bethel	10/02/22	Ch 93 Classification CW	Existing:	WA-5	248	
Latitude	40.900922	Longitude		97271		CWF, MF	0001,101		A	
Latitude	Evaluator(s)		and Informatio			Notes:				
	Stephen Dadio			 aware River						
CHANNEL /	FLOODPLAIN: Assess the cross-si	action of the stream	and prevailing condi	tions along the AA						
				-	ondition Catego	ory				
	Optimal	Subo	ptimal		Marginal	-	Po	or	Sev	/ere
	Channel Geometry: These channels show				These channels are ov		Channel Geometry:		Channel Geometry:	
Channel / Floodplain	very little incision or widening and little or no evidence of active erosion. Anastomosing channels may be present. Channel Stability: Visual indicators include: 1) the banks are not eroding along greater than 5% of the reach; 2) natural vegetative or rock stability features are present along greater than 80% of the banks; 2) stable point bars and bankfull benches may be present; 3) mid-channel bars and transverse bars are rare and if transient channel sediment deposition is present, it covers less than or equal to 10% of the stream bottom; 4) baseflow is connected to the rooting depths of vegetation in the active floodplain. Active Floodplain Connection: The bankfull stream flows have frequent access to the active floodplain and fully developed point bars or bankfull benches that are accessed at most flows greater than baseflow.	few areas of active en Channel Stability: V include: 1) the banks a along less than 25% o depositional features s bankfull benches are p during high flows and than 50% of the reach protection like vegetat	osion. 'isual indicators are actively eroding of the reach; 2) such as point bars and present and stable occur along greater x; 3) natural bank ition or tock is providing than 50% of the reach; ted to vegetated point ches. <b>pnection:</b> The frequently access joint bars along and may frequently	conditions. Channel Stability: V eroding or severely un or equal to 50% of the or bankfull benches or equal to 50% of the re some vertical or under cuts; Active Floodplain Co	than the Severe and P isual indicators include: idercut along greater th reach; 2) depositional cour along greater than each; 3) the stream ban rcut banks or nick point: <b>connection</b> : The bankfu to the active floodplain.	1) the banks are an 25% and less than features like point bars 25% and less than or ks may consist of s associated with head Il stream flows have	reach; 2) active or rec present along greater	ly. sual indicators re eroding or severely than 50% of the ent bank sloughing is han 50% of the reach; ion like vegetation is osion along the reach; on like vegetation is osion along the reach; such as point bars are absent from the ing along less than ank full benches and your during high flows; acted from plant active floodplain.	deeply incised and act and/or laterally. Over may contain sections : channels from aggrad Channel Stability: V include: 1) the banks s being undercut along the reach; 2) active or is occurring along graz reach; 3) natural bank wegetation is not preve sloughing; 4) depositic your bars and bankful 5) flood flows are disc active floodplain. Active Floodplain Cc bankfull stream flows : the active floodplain.	widened channe of unstable braid ation. isual indicators re actively erodi greater than 80% of protection like recent bank slow ter than 80% of protection like nulting bank erosi nal features suc benches are at connected from 1 nnection: The
								CI - (S	core)/20	CL
								CI = (Si SCORE	core)/20 2	CI 0.10
RIPARIAN	VEGETATION: Assess the floodpl	in along the entire A	A (Visual estimates	of areal coverage fi	rom aerial photos wi	th field verification a	cceptable).		,	-
RIPARIAN		Co	ondition Catego	ory	·		cceptable).		,	-
RIPARIAN Riparian Vegetation Floodplain)	VEGETATION: Assess the floodpl Optimal Riparian area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equa to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless of classification or condition) and lacustrine resources ≿ 10 acres are scored as optimal	Ct Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory.	ondition Catego ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Dry Mar High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian	Pcor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	Dor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.	SCORE	,	-
Riparian /egetation -loodplain)	Optimal Riparian area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless of classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal	Ct Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shub layers or a non- maintained understory. High	Dendition Catego ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Pry High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or at tree stratum (dibh > 3 inches) present, with less than 30% tree canopy cover.	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas alacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low	Pec High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-til cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	bor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.	SCORE	,	-
Riparian /egetation floodplain) SCORE	Optimal           Riparian area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless o classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal           20         19         18         17         16	Ct Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory. High 15 14 1	Dendition Catego ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Pry High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or at tree stratum (dibh > 3 inches) present, with less than 30% tree canopy cover.	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (a Carces). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained	Pec High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	Dor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.	SCORE	,	-
Riparian /egetation -loodplain) SCORE Identify Conditi	Optimal Riparian area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless of classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal	Ct Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory. High 15 14 1	Dendition Catego ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Pry High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or at tree stratum (dibh > 3 inches) present, with less than 30% tree canopy cover.	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas alacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low	Pec High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-til cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	bor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.	SCORE	,	-
Riparian /egetation -loodplain) SCORE Identify Conditi Estimate the %	Optimal           Riparian area vegetation consists of a tree stratum present (dameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless or classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal           20         19         18         17         16           ion Category areas along the floodplain is area within each condition category.         parian Area in in decimal form (0.00) and	Subo           High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory.           High           15         14         1           using the descriptors	Dendition Catego ptimal Low Suboptimal: Riparian area vegatation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Mar           High Marginal:           Riparian area           vegetation consists of non-maintained, dense herbaceous           vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.           High           10         9	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas alacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low	Pecentry Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	bor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, row crops, active feed lots, impervious trails, or other comparable conditions.	SCORE Comments:	,	-
Riparian /egetation Floodplain) SCORE Identify Conditi Estimate the %	Optimal           Riparian area vegetation consists of a tree stratum present (dameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless or classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal           20         19         18         17         16           ion Category areas along the floodplain is area within each condition category.         10         10         10	Subo           High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory.           High           15         14         1           using the descriptors	Dendition Catego ptimal Low Suboptimal: Riparian area vegatation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Mar           High Marginal:           Riparian area           vegetation consists of non-maintained, dense herbaceous           vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.           High           10         9	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas alacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low	Pecentry Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	Dor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.	SCORE Comments: Blocks equal 100	2	0.10
Riparian /egetation Floodplain) SCORE Identify Conditi Estimate the %	Optimal           Riparian area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless o classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal           20         19         18         17         16           Condition condition category.           parian Area in in decimal form (0.00) an Condition Category           % Riparian Area:         100%           % core:         10	Ct Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory. High 15 14 1 using the descriptors d Score for each cate 0% 0	ondition Catego ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	High Marginal:           Riparian area           vegetation consists of non-maintained, dense herbaceous           dense herbaceous           vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.           High           10         9           velow.           0%           0	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas acking shrub and tree stratum, areas acking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, with maintained Low 8 7 6 0% 0	Pice High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated nor-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 3 Ensure the sum of 0% 0	bor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, row crops, active feed lots, impervious trails, or other comparable conditions.	SCORE Comments: Blocks equal 100	,	0.10
Riparian /egetation Floodplain) SCORE Identify Conditi Estimate the % Enter the % Ri	Optimal         Riparian area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless o classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal         20       19       18       17       16         Category areas along the floodplain 6 area within each condition category.         parian Area in in decimal form (0.00) an Condition Category         % Riparian Area:       100%         % core:       10         Total Sub-score:       10.00	Ct Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory. High 15 14 1 using the descriptors d Score for each cate 0%	ondition Catego ptimal Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Pry High Marginal: Riparian area vegetation consists of non-maintained, dense hetbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 in elow. 0%	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense hetbaceous vegetation, riparian areas lacking shrub and tree stratum, production, and ponds or open water areas (< 10 acres). If trees are present, with maintained Low 8 7 6 0%	Pice High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	Dor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions. Low B 2 1 the % Riparian Area Side Sub-Index	SCORE Comments: Blocks equal 100	2	0.10
Riparian /egetation Floodplain) SCORE Identify Conditi Estimate the % Enter the % Ri	Optimal           Riparian area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless o classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal           20         19         18         17         16           Condition condition category.           parian Area in in decimal form (0.00) an Condition Category           % Riparian Area:         100%           % core:         10	Ct Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory. High 15 14 1 using the descriptors d Score for each cate 0% 0	ondition Catego ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 3 12 11 sabove. egory in the blocks to 0% 0	High Marginal:           Riparian area           vegetation consists of non-maintained, dense herbaceous           dense herbaceous           vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.           High           10         9           velow.           0%           0	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense hetbaceous vegetation, riparian areas acking shrub and tree stratum, areas acking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, with maintained Low 8 7 6 0% 0	Pice High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated nor-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 3 Ensure the sum of 0% 0	Dor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions. Low B 2 1 the % Riparian Area Side Sub-Index	SCORE Comments: Blocks equal 100 Side Sub-Inde	2	0.10

					essment					4/2017
	LONE OF INFL	UENCE. Assess				n into the upland ald	ong the entire AA. (r	ougn measurement	s of length & width may be acceptable)	
	0	limal		ondition Catego		rinel	De	oor	Comments:	
Riparian ZOI	Riparian ZOI area ve tree stratum preser height (dbh) > 3 inche equal to 60% tree c comprised of strear (regardless of class and lacustrine reso	timal egetation consists of a ti (diameter at breast se) with greater than or anopy cover. Areas m channels, wetlands dification or condition) urces ≥ 10 acres are ts optimal.	High Suboptimal: Riparian ZOI area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory.	ptimal Low Suboptimal: Riparian ZOI area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low	High Marginal: Riparian 201 area vegetation consists of dense herbaceous vegetation with either a shrub layer or a tree stratum (dub > 3 inches) present, with less than 30% tree canopy cover.	ginal Low Marginal: Riparian ZOI area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, with less than 30% tree canopy cover with Low	High Poor: Riparian ZOI area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, no-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	Low Poor: Riparian ZOI area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.		
SCORE	20 19 1	8 17 16	15 14 1		<b>U</b>	B 7 6	5 4 3			
			ising the descriptors		10 3 0	5 7 0	J <del>,</del> ,	, , ,		
	area within each co		ang the descriptors	above.						
		8,	core for each catego	ory in the blocks bel	ow.		Ensure the sums of	f % Riparian ZOI Blo	ocks equal 100	
	Condition Category			,				Side Sub-Index	1	
	% Riparian Area:	80%	20%	0%	0%	0%	0%			
Right Side	Score:	18	14	0	0	0	0	0.86	Side Sub-Index = SUM(%Are	as*Scores)/
	Total Sub-score:	14.40	2.80	0.00	0.00	0.00	0.00			
	Condition Category									
	% Riparian Area:	60%	40%	0%	0%	0%	0%			CI
Left Side	Score:	10	5	0	0	0	0	0.40	CI = (Left Side CI + Right	
	Total Sub-score:	6.00	2.00	0.00	0.00	0.00	0.00	•••••	Side CI)/2	0.63
									ts, SAV, macrophytes, emergent vegeta	
omplexes, stable f	Opt	timal		ptimal		ginal		por	Comments:	
Habitat/ Available Cover	ability to support ac present in greater th the reach. Substr colonization by a di epifaunal community suitable areas for e	at enhance a stream's quatic organisms are an or equal to 50% of rate is favorable for iverse and abundant y, and there are many epifaunal colonization ish cover.	Physical Elements tha ability to support aq present in greater than less than 50% of the i mostly desirable and for full colonization by and abundant epit	uatic organisms are n or equal to 30% and reach. Conditions are are generally suitable a moderately diverse	ability to support aq present in greater that less than 30% of the	at enhance a stream's uatic organisms are n or equal to 10% and reach. Conditions are partial colonization by fish communities.	ability to support ac present in less than Conditions are gen colonization by ep	at enhance a stream's juatic organisms are n 10% of the reach. lerally unsuitable for oifaunal and/or fish s. The reach.	Cl = (Score)/20	CI
SCORE		8 17 16	15 14 1	3 12 11	10 9	8 7 6	543	3 2 1	SCORE 6	0.30
			prap, concrete, gabi		I			-		0.00
				Condition	n Category				Comments:	
	Negl	ligible	Mir			erate	Sev	/ere		
Channel Alteration	in the SAR. The s	sted above are absent tream has unaltered as normalized.	Minor High: Less than or equal to 20% of the stream reach is disrupted by any of the channel alterations listed above. Alteration or channelization present, usually adjacent to structures, (such as bridge abutments or culverts); evidence of past alteration, (i.e., channelization) may be present, but stream pattern and stability have recovered; recent	than or equal to 40%	Moderate High: Greater than 40% and less than or equal to 60% of reach is disrupted by any of the channel alterations listed above. If the stream has been channelized, normal stable stream meander pattern has not recovered.		any of the channel all	reach is disrupted by terations listed above. I banks shored with o, or concrete.		
000055	00 40 4	0 47 40	Bresent High	alteration is not Low	High	Low	5 4 2		CI = (Score)/20	CI
SCORE	20 19 1	8 17 16	15 14 1	3 12 11	10 9 8	876	5 4 3	3 2 1	SCORE 10	0.50
				RIVERINE	CONDITION II	NDEX (RCI)				RCI
OTE: The O	s and BCI at a		to 2 decimal -					PCI - (8	of all Cl's\/5	0.41
f a CI is not a	pplicable (e.g.	due to use on	to 2 decimal p intermittent wa re for that CI to	tercourse or >	•	• ,		•	of all Cl's)/5 Ilator feature the user will nee	
General Comn	nents:									

	F	ennsylvania River			ssessment Pro	otocol (Docume		7-003)		
	Desired N		ermittent or perenni	al watercourses wi	-	-	-			
Project #	Project N		Locality		Date	Ch 93 Classification CW	SSIFICATION Existing:	AA Id	Length	-
	River Pointe Logis			ount Bethel	10/02/22		CŴF, MF	WA-6	1,145	-
Latitude	40.901306	Longitude		95267	FGM Level 1 C	Channel Classi Notes:	rication		С	
	Evaluator(s) Stephen Dadio	Stream Name	and Informatio			NOLES.				
	•			aware River						
CHANNEL/	FLOODPLAIN: Assess the cro	ss-section of the stream	and prevailing cond	-	ondition Catego	orv				
	Optimal	Subo	optimal		Marginal	ory.	Po	oor	Se	vere
Channel / Floodplain	Channel Geometry: These channels very little incision or widening and little evidence of active erosion. Anastomo channels may be present. Channel Stability: Visual indicators include: 1) the banks are not eroding a greater than 5% of the reach; 2) nature vegetative or rock stability features are present along greater than 80% of the banks; 2) stable point bars and banktu benches may be present; 3) mid-chan bars and transverse bars are fare and transient channel sediment deposition present, it covers less than or equal to of the stream bottom; 4) baseflow is connected to the rooting depths of vegetation in the active floodplain. Active Floodplain Connection: The bankfull stream flows have frequent ac to the active floodplain and fully devel point bars or bankfull benches that are accessed at most flows greater than baseflow.	or no slightly incised or over few areas of active er few areas of active er include: 1) the banks depositional features under the stability: include: 1) the banks depositional features than 50% of the reac protection like vegeta stability along greate bars and bankfull ber Active Floodplain C bankfull stream flows bankfull stream flows bankfull stream flows bankfull stream flows pad	Visual indicators are actively eroding of the reach; 2) such as point bars and present and stable loccur along greater h; 3) natural bank tution or rock is providing tutan 50% of the reach tant 50%	but to a lesser degree conditions. Channel Stability: V eroding or severely ur or equal to 50% of the or bankfull benches or equal to 50% of the re some vertical or unde cuts; Active Floodplain Co		Poor channel 1) the banks are ian 25% and less than features like point bars 25% and less than or iks may consist of s associated with head all stream flows have	Channel Geometry: over-widened or incise vertically and/or latera Channel Stability: V include: 1) the banks a undercut along greate a) natural bank protec present along greater 3) natural bank protec present along greater a) datural bank protec point parsenting bank er 4) depositional feature and bank full benches reach or newly develo 25% of the reach: 5) b point bars frequently s 6) baseflow is disconn rooting depths and the Active Floodplain.	d and eroding lly. isual indicators are eroding or severely rt han 50% of the ent bank sloughing is than 50% of the reach reach severe the severe soion along the reach severe the severe soin along the reach s, such as point bars are absent from the ping along less than anak full benches and cour during high flows lected from plant a cative floodplain.	Channel Geometry: deeply incised and a and/or laterally. Ove may contain sections channels from aggra Channel Stability: 1 include: 1) the banks being undercut along the reach; 2) active c is occurring along gr reach; 3) natural ban vegetation is not pre- sloughing: 4) deposit active floodplain. Active Floodplain C bankfull stream flows the active floodplain.	trively eroding ver r widened channe of unstable braic dation. Visual indicators are actively erod greater than 80% of k protection like venting bank eros ull benches are a sconnected from connection: The
SCORE omments:	20 19 18 1	7 16 15	14 13	12	<u>11 10</u>	9	8 7	6 5 CI = (S	4 3 core)/20	2 1 CI
								SCORE	18	0.90
RIPARIAN	VEGETATION: Assess the flo				rom aerial photos w	ith field verification a	acceptable).			
	Optimal		ondition Categ		ginal	Pe	oor	Comments:		
Riparian /egetation Floodplain)	Riparian area vegetation consists of a stratum present (diameter at breast t (dbh) > 3 inches) with greater than or to 60% tree canopy cover. Areas corr of stream channels, wetlands (regard classification or condition) and lacus resources ≥ 10 acres are scored as op	eight equal prised ess of trine eight ess than 60% tree canopy cover and containing both herbaceous and shrub layers or a nor	Riparian area f vegetation consists of a tree stratum (dbh- 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.	Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (a fu acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained	High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries: no-tili cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.			
				High	Low	High	Low	1		
SCORF	20 19 18 17 1	High 6 15 14	Low 13 12 11		8 7 6	5 4	3 2 1			
SCORE		6 15 14	13 12 11		876	5 4 3	321			
Identify Conditi Estimate the %	ion Category areas along the floodp 6 area within each condition catego	6 15 14 Iain using the descriptor ry.	13 12 11 s above.	10 9	8 7 6			· ·		
Identify Conditi Estimate the %	ion Category areas along the flood 6 area within each condition catego parian Area in in decimal form (0.0	6 15 14 Iain using the descriptor ry.	13 12 11 s above.	10 9	8 7 6		the % Riparian Area	a Blocks equal 100		
Identify Conditi Estimate the %	ion Category areas along the floodp 6 area within each condition catego	6 15 14 Iain using the descriptor ry.	13 12 11 s above.	10 9	8 7 6			-		
Identify Conditi Estimate the % Enter the % Rip	ion Category areas along the floodp 6 area within each condition catego parian Area in in decimal form (0.0 Condition Category % Riparian Area: 100% Score: 16	6     15     14       Islain using the descriptor ty:       J) and Score for each cal 0%       0%       0     0	13         12         11           s above.	10 9 below.	0%	Ensure the sum of 0% 0	the % Riparian Area	-	lex = SUM(%Ar	eas*Scores
Identify Conditi Estimate the %	ion Category areas along the floody 6 area within each condition catego iparian Area in in decimal form (0.0 Condition Category % Riparian Area: 100% Score: 16 Total Sub-score: 16.00	6 15 14 lain using the descriptor ry. D) and Score for each ca 0%	13 12 11 s above. tegory in the blocks l 0%	10 9 below.	0%	Ensure the sum of	the % Riparian Area Side Sub-Index	-	lex = SUM(%Ar	eas*Scores
Identify Conditi Estimate the % Enter the % Rip	ion Category areas along the floodp 6 area within each condition catego parian Area in in decimal form (0.0 Condition Category % Riparian Area: 100% Score: 16	6     15     14       Islain using the descriptor ty:       J) and Score for each cal 0%       0%       0     0	13         12         11           s above.	10 9 below.	0%	Ensure the sum of 0% 0	the % Riparian Area Side Sub-Index	Side Sub-Ind	lex = SUM(%Ar ide Cl + Right	eas*Scores

					essment					4/2017
S. RIPARIAN 2	ONE OF INFL	UENCE: Assess				n into the upland alo	ong the entire AA. (r	ough measurement	s of length & width may be acceptable)	
	0	timal		ondition Catego		ginal	D	oor	Comments:	
Riparian ZOI	Riparian ZOI area ve tree stratum preser height (dbh) > 3 inche equal to 60% tree c comprised of strear (regardless of class and lacustrine reso	egetation consists of a tt (diameter at breast es) with greater than or anopy cover. Areas m channels, wetlands sification or condition) vurces ≥ 10 acres are as optimal.	High Suboptimal: Riparian ZOI area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory.	Low Suboptimal: Riparian ZOI area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	High Marginal: Riparian 201 area vegetation consists of dense herbaceous vegetation with either a shrub layer or a tree stratum (dub > 3 inches) present, with less than 30% tree canopy cover.	Low Marginal: Riparian ZOI area vegetation consists of non-maintained, dense herbaceous vegetation, iparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (<10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with Low	High Poor: Riparian ZOI area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable	Low Poor: Riparian ZOI area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.		
SCORE	20 19 1	18 17 16	15 14 1		<b>u</b>	8 7 6	5 4 3			
		along the floodplain u						-		
2. Estimate the %	area within each co	ondition category.	-							
<ol><li>Enter the % Ripa</li></ol>		al form (0.00) and S	core for each catego	ory in the blocks bel	ow.		Ensure the sums of	f % Riparian ZOI Blo	ocks equal 100	
	Condition Category				001	00/	00/	Side Sub-Index		
Diable Cists	% Riparian Area:	100%	0%	0%	0%	0%	0%	0.00	Side Sub-Index = SUM(%Are	as*Scores)/2
Right Side	Score:	16	0	0	0	0	0	0.80	, · · ·	r
	Total Sub-score: Condition Category	16.00	0.00	0.00	0.00	0.00	0.00			
	% Riparian Area:	100%	0%	0%	0%	0%	0%			CI
Left Side	Score:	16	0	0	0	0	0	0.80	CI = (Left Side CI + Right	
_0.1 0.00	Total Sub-score:	16.00	0.00	0.00	0.00	0.00	0.00	0.00	Side CI)/2	0.80
omplexes, stable f		u subsitate sizes, w			Category	strate, low embedde		four banks, root ma	ts, SAV, macrophytes, emergent vegeta	lion, nine-poor
	Opt	timal	Subo	ptimal	Marg	ginal	Po	oor		
Instream Habitat/ Available Cover	ability to support ac present in greater th the reach. Substi colonization by a d epifaunal community suitable areas for e	at enhance a stream's quatic organisms are an or equal to 50% of rate is favorable for liverse and abundant y, and there are many apifaunal colonization ish cover.	Physical Elements that ability to support aq present in greater that less than 50% of the I mostly desirable and for full colonization by and abundant epit	uatic organisms are n or equal to 30% and reach. Conditions are are generally suitable a moderately diverse	ability to support aq present in greater that less than 30% of the generally suitable for	at enhance a stream's juatic organisms are n or equal to 10% and reach. Conditions are partial colonization by fish communities.	ability to support ac present in less than Conditions are gen colonization by ep	at enhance a stream's juatic organisms are n 10% of the reach. ierally unsuitable for oifaunal and/or fish s. The reach.	Cl = (Score)/20	CI
SCORE		18 17 16	15 14 1	3 12 11	10 9	8 7 6	543	3 2 1	SCORE 16	0.80
		Stream crossings, ri					I	-		0.00
				Condition	Category				Comments:	
	Negl	ligible	Mi			erate	Sev	vere		
Channel Alteration	in the SAR. The s	isted above are absent tream has unaltered as normalized.		than or equal to 40%	Moderate High: Greater than 40% and less than or equal to 60% of reach is disrupted by any of the channel alterations listed above. If the stream has been channelized, nomal stable stream meander pattern has not recovered.	Moderate Low: Greater than 60% and less than or equa to 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If the stream has been channelized, normal stable stream meander pattern has not recovered.	Greater than 80% of any of the channel al Greater than 80% of	reach is disrupted by terations listed above, of banks shored with o, or concrete.		
			bresent. High	alteration is not	High	Low	ł		CI = (Score)/20	CI
SCORE	20 19 1	18 17 16	15 14 1		_	8 7 6	5 4 3	3 2 1	SCORE 14	0.70
			·							
				RIVERINE	CONDITION II	NDEX (RCI)				RCI
VOTE: The Cl	s and RCI sho	uld be rounded	to 2 decimal p	laces.				RCI = (Sum	of all CI's)/5	0.80
f a CI is not aj	oplicable (e.g. la or enter the		intermittent wa	tercourse or >	•	- /		•	lator feature the user will nee	ed to modify

		Penn		iverine ine Condition L Pennsylvani		ssessment Pro	tocol (Docume		37-003)		
				ermittent or perenni	al watercourses wi	th drainage areas					
Project #		Project Name		Locality		Date	Ch 93 Cla Ch 93 Classification CV	ssification	AA Id	Length	_
	River Po	inte Logistic	s Center	Upper Mo	ount Bethel	10/02/22	CWF, MF	CWF, MF	WA-8	2,442	
Latitude	40.90	02838	Longitude	-75.0	95972	FGM Level 1 C	Channel Classi	fication		A	
	Evaluator(s)		Stream Name	and Informatio	on		Notes:				
	Stephen Dadio			UNT to Del	aware River						
CHANNEL/		Assess the cross-se	ection of the stream	and prevailing condi	itions along the AA						
••••••				and provaning cond	-	ondition Catego	orv				
	Opt	imal	Subo	optimal		Marginal	,	P	oor	Se	vere
Channel / Floodplain	Channel Geometry: very little incision or wi evidence of active eror channels may be press Channel Stability: Vi include: 1) the banks a greater than 5% of the vegetative or rock stat present along greater i banks; 2) stable point 1 benches may be press bars and transverse be transient channel sedir present, it covers less of the stream bottom; connected to the rootiv vegetation in the active Active Floodplain Co bankful stream flows 1 to the active floodplain point bars or bankful I accessed at most flow baseflow.	idening and little or no sion. Anastomosing ent. isual indicators are not eroding along reach; 2) natural oility features are than 80% of the bars and bankfull ent; 3) mid-channel ars are rare and if ment deposition is than or equal to 10% 4) baseflow is ng depths of e floodplain. <b>Somection:</b> The have frequent access a naf fully developed benches that are	slightly incised or ow few areas of active e Channel Stability: include: 1) the banks along less than 25% depositional features bankfull benches are during high flows and than 50% of the read stability along greate	visual indicators visual indicators are actively eroding of the reach; 2) such as point bars and present and stable occur along greater th; 3) natural bank ation or rock is providing r than 50% of the reach; cited to vegetated point nches. connection: The s frequently access point bars along and may frequently	but to a lesser degree co intons. Channel Stability: V eroding or severely ur or equal to 50% of the or bankfull benches or equal to 50% of the re some vertical or unde cuts; Active Floodplain Co	These channels are ov than the Severe and F Isual indicators include directut along greater than reach: 3) depositional ccur along greater than reach: 30 depositional ccur along greater than reach: 30 de stream ban rcut banks or nick point onnection: The bankfit to the active floodplain	oor channel 1) the banks are an 25% and less than features like point bars 25% and less than or ks may consist of s associated with head ill stream flows have	undercut along greate reach; 2) active or rec present along greater 3) natural bank protect not preventing bank e 4) depositional featur and bank full benches reach or newly develc 25% of the reach; 5)	ed and eroding illy. fisual indicators are eroding or severely r than 50% of the sent bank sloughing is than 50% of the reach set, such as point bars set, are absent from the piping along less than bank full benches and scour during high flows nected from plant a active floodplain. <b>Donnection:</b> The	Channel Stability: \ include: 1) the banks being undercut along the reach; 2) active o ; is occurring along gre reach; 3) natural banh vegetation is not prev sloughing; 4) depositi point bars and bankfu	tively eroding ve r widened channe of unstable braic dation. Jisual indicators are actively erod greater than 80% of k protection like renting bark eros ualter than 80% of k protection like serving bark eros ualter than 80% of the serving bark eros onal features suc all benches are al sconnected from onnection: The
SCORE	20 19	18 17	16 15	14 13	12	11 10	9	8 7		4 3 Score)/20	CI
mments:				14 13 AA (Visual estimates							
omments:	VEGETATION:	Assess the floodpla	ain along the entire	AA (Visual estimates	s of areal coverage f	rom aerial photos w	th field verification a	acceptable).	CI = (S	icore)/20	CI
omments:	VEGETATION: Opt Riparian area vegeta stratum present (siint (dbh) > 3 inches) with 6 60% (tree canopy cc of stream channels, w classification or conc	Assess the floodpla imal tion consists of a tree neter at breast height greater than or equal	ain along the entire C Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh a tr	AA (Visual estimates condition Categ optimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	s of areal coverage f Ory High Marginal: Riparia area	rom aerial photos w ginal Low Marginal: Riparian area	th field verification a	acceptable).	CI = (S SCORE	icore)/20	CI
RIPARIAN Riparian /egetation Floodplain)	VEGETATION: Opt Riparian area vegeta stratum present (dian (dbh) > 3 inches) with to 60% (tree canopy oc of stream channels, w classification or conc resources ≥ 10 acres ;	Assess the floodpla imal tion consists of a tree meter at breast height ogreater than or equal over. Areas comprise verlands (regardless of dition) and lacustrine are scored as optimal.	in along the entire C Sub High Suboptimal: Riparian area vegetation consists c a tree stratum (dbh- 3 inches) present, with greater than or equal to 30% ared less than 60% tree canopy cover and containing both herbaceous and shrub layers or a nor maintained understory. High	AA (Visual estimates condition Categ optimal Low Suboptimal: Riparian area 9 vegetation consists of > a tree stratum (dbh - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. - Low	s of areal coverage f ory High Marginal: Riparian area vegetation consists of dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, iparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh < 3 inches) present, with less than 30% tree canopy cover with maintained Low	th field verification a Pri High Poor: Riparian area vegetation consists of lawns, murseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High	acceptable). Oor Low Poor: Riparian area consists of impervious surfaces; mor crops, active feed lots, impervious trails, or other comparable conditions.	CI = (S SCORE	icore)/20	CI
RIPARIAN Riparian /egetation	VEGETATION: Opt Riparian area vegeta stratum present (dian (dbh) > 3 inches) with to 60% (tree canopy oc of stream channels, w classification or conc resources ≥ 10 acres ;	Assess the floodpla imal tion consists of a tree meter at breast height greater than or equal your. Areas comprised vetlands (regardless of lition) and lacustrine	in along the entire C Sub High Suboptimal: Riparian area vegetation consists c a tree stratum (dbh- 3 inches) present, with greater than or equal to 30% ared less than 60% tree canopy cover and containing both herbaceous and shrub layers or a nor maintained understory. High	AA (Visual estimates condition Categy optimal Low Suboptimal: Riparian area d vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	s of areal coverage f ory High Marginal: Riparian area vegetation consists of dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water trees stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained	th field verification a Prigh Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High	acceptable). Coor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, row crops, active feed lots, impervious trails, or other comparable conditions.	CI = (S SCORE	icore)/20	CI
RIPARIAN RIPARIAN Riparian /egetation loodplain) SCORE	VEGETATION: Opt Riparian area vegeta stratum present (diar (dbh) > 3 inches) with to 60% tree canopy cc of stream channels, classification or conc resources ≥ 10 acres ; 20 19 1 on Category areas al	Assess the floodpla imal tion consists of a tree meter at breast height greater than or equal vert. Areas comprised vertlands (regardless of dition) and lacustrine are scored as optimal. 8 17 16 long the floodplain of	ain along the entire Sub High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a nor maintained understory. High 15 14	AA (Visual estimates condition Categy potimal Low Suboptimal: Riparian area of vegetation consists of a tree stratum (dbh) - a inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 13 12 11	s of areal coverage f ory High Marginal: Riparian area vegetation consists of dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, iparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh < 3 inches) present, with less than 30% tree canopy cover with maintained Low	th field verification a Pri High Poor: Riparian area vegetation consists of lawns, murseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High	acceptable). Oor Low Poor: Riparian area consists of impervious surfaces; mor crops, active feed lots, impervious trails, or other comparable conditions.	CI = (S SCORE	icore)/20	CI
RIPARIAN Riparian (egetation loodplain) SCORE Identify Conditi Estimate the %	VEGETATION: Opt Riparian area vegeta stratum present (dian (dbh) > 3 inches) with to 60% tree canopy co of stream channels, w classification or conc resources ≥ 10 acres. 20 19 1 on Category areas al area within each co	Assess the floodpla imal tion consists of a tree meter at breast height greater than or equal over. Areas comprised verelands (regardless of dition) and lacustrine are scored as optimal. 8 17 16 long the floodplain in indition category.	in along the entire Subb High Suboptimal: Riparian area vegetation consists c a tree stratum (dbh is inches) present, with greater than or equal to 30% arde canopy cover and containing both herbaceous and understory. High 15 14 using the descriptor	AA (Visual estimates condition Categy optimal Low Suboptimal: Riparian area di vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 39% and less than 60% tree canopy cover with a maintained understory. Low 13 12 11 s above.	s of areal coverage f Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or at the stratum (oth > 3 inches) present, with less than 30% tree canopy cover. High 10 9	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, iparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh < 3 inches) present, with less than 30% tree canopy cover with maintained Low	th field verification a Period verification a area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained areas, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4	acceptable). Oor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, row crops, active feed lots, impervious trails, or other comparable conditions. Low 3 2 1	CI = (S SCORE	icore)/20	CI
RIPARIAN Riparian (egetation loodplain) SCORE Identify Conditi Estimate the %	VEGETATION: Opt Riparian area vegeta stratum present (dian (dbh) > 3 inches) with to 60% tree canopy cc of stream channels, w classification or conc resources ≥ 10 acres. 20 19 1 on Category areas al parea within each co parian Area in in deci	Assess the floodpla imal tion consists of a tree meter at breast height greater than or equal over. Areas comprised verelands (regardless of dition) and lacustrine are scored as optimal. 8 17 16 long the floodplain ( ndition category. imal form (0.00) an	in along the entire Subb High Suboptimal: Riparian area vegetation consists c a tree stratum (dbh is inches) present, with greater than or equal to 30% arde canopy cover and containing both herbaceous and understory. High 15 14 using the descriptor	AA (Visual estimates condition Categy potimal Low Suboptimal: Riparian area rivegetation consists of a tree stratum (dbh) - a inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 13 12 11	s of areal coverage f Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or at the stratum (oth > 3 inches) present, with less than 30% tree canopy cover. High 10 9	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, iparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh < 3 inches) present, with less than 30% tree canopy cover with maintained Low	th field verification a Period verification a area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained areas, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4	acceptable). Coor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, denued surfaces, row crops, active feed lots, impervious trails, or other comparable conditions. Low	CI = (S SCORE	icore)/20	CI
RIPARIAN Riparian (egetation loodplain) SCORE Identify Conditi Estimate the %	VEGETATION: Opt Riparian area vegeta stratum present (dian (dbh) > 3 inches) with to 60% tree canopy co of stream channels, w classification or conc resources ≥ 10 acres. 20 19 1 on Category areas al area within each co	Assess the floodpla imal tion consists of a tree meter at breast height greater than or equal over. Areas comprised verelands (regardless of dition) and lacustrine are scored as optimal. 8 17 16 long the floodplain ( ndition category. imal form (0.00) an	in along the entire Subb High Suboptimal: Riparian area vegetation consists c a tree stratum (dbh is inches) present, with greater than or equal to 30% arde canopy cover and containing both herbaceous and shrub layers or a nor maintained understory. High 15 14 using the descriptor	AA (Visual estimates condition Categy optimal Low Suboptimal: Riparian area di vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 39% and less than 60% tree canopy cover with a maintained understory. Low 13 12 11 s above.	s of areal coverage f Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or at the stratum (oth > 3 inches) present, with less than 30% tree canopy cover. High 10 9	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, iparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh < 3 inches) present, with less than 30% tree canopy cover with maintained Low	th field verification a Period verification a area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained areas, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4	acceptable). Oor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, row crops, active feed lots, impervious trails, or other comparable conditions. Low 3 2 1	CI = (S SCORE Comments:	icore)/20 13	Cl 0.65
RIPARIAN Riparian /egetation Floodplain) SCORE Identify Conditi Estimate the % Enter the % Ri	VEGETATION: Piparian area vegeta stratum present (dian (dbi) > 3 inches) with to 60% tree canopy cc of stream channels, w classification or conc resources ≥ 10 acres : 20 19 1 on Category areas al area within each co parian Area in In deci Condition Category	Assess the floodpla imal tion consists of a tree meter at breast height over. Areas comprised vertainals (regardless of are scored as optimal. 8 17 16 long the floodplain in molition category. imal form (0.00) an	ain along the entire Suba High Suboptimat: Riparian area vegetation consists c a tree stratum (dbh : 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a nor maintained understory. High 15 14 using the descriptor 5 Score for each ca	AA (Visual estimates condition Categ optimal Low Suboptimal: Riparian area of vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 13 12 11 's above.	s of areal coverage f ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 below.	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas a for a production, and ponds or open water areas (< 10 acres). If tree stratum (dbh. > 3 inches) present, with leass than 30% tree canopy cover with maintained Low 8 7 6	ith field verification a High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till croplant; actively grazed pasture, sparsely vegetated non-maintained areas, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 Ensure the sum of	acceptable). Coor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, denued surfaces, row crops, active feed lots, impervious trails, or other comparable conditions. Low	CI = (S SCORE Comments:	icore)/20	Cl 0.65
RIPARIAN Riparian /egetation Floodplain) SCORE Identify Conditi Estimate the % Enter the % Ri	VEGETATION: Opt Riparian area vegeta stratum present (diar (dbh) > 3 inches) with to 60% tree canopy cc of stream channels, w classification or cone resources ≥ 10 acres : 20 19 1 on Category areas al area within each co parian Area in in deci Condition Category % Riparian Area: Score: Total Sub-score:	Assess the floodpla imal tion consists of a tree meter at breast height over. Areas comprised vertands (regardless of idition) and lacustrine are scored as optimal. 8 17 16 long the floodplain in mial form (0.00) and 50%	Ain along the entire Sub- High Suboptimal: Riparian area vegetation consists ( a tree stratum (dbh - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and ontaining both herbaceous and shrub layers or a nor maintained understory. High 15 14 Ising the descriptor Score for each ca 50%	AA (Visual estimates condition Categ poptimal Low Suboptimal: Riparian area of vegetation consists of a incres) present, with greater than or y an cres) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 13 12 11 s above. Etegory in the blocks to 0%	s of areal coverage f ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 below. 0%	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, with maintained maintained LOW 8 7 6	ith field verification a High Poor: Riparian area vegetation consists of lawns, mowed, and croplant; actively grazed pasture, sparsely vegetated non-maintained area, nurseries; no-till croplant; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 Ensure the sum of 0%	acceptable).  OOT  Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, row crops, active feed lots, impervious trails, or other comparable conditions.  Low Low Low Low J 2 1  the % Riparian Area Side Sub-Index	CI = (S SCORE Comments:	icore)/20 13	Cl 0.65
RIPARIAN Riparian /egetation Floodplain) SCORE Identify Conditi Estimate the % Enter the % Ri	VEGETATION: Opt Riparian area vegeta stratum present (diar (dbh) > 3 inches) with to 60% tree canopy cc of stream channels, w classification or conr resources ≥ 10 acres and 20 19 1 on Category areas al area within each co parian Area in In deci Condition Category % Riparian Area: Score: Total Sub-score: Condition Category	Assess the floodpla imal tion consists of a tree meter at breast height greater than or equal vert. Areas comprised vertlands (regardless of dition) and lacustrine are scored as optimal. 8 17 16 long the floodplain f ndition category. imal form (0.00) an 50% 18 9.00	ain along the entire Sub- High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh- 3 inches) present, with greater than on equal to 30% and less than 60% tree canopy cover and containing both herbaceous and understory. High 15 14 using the descriptor 50% 12 6.00	AA (Visual estimates Condition Categy potimal Low Suboptimal: Riparian area Vegetation consists of a tree stratum (dbh > a inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. 13 12 11 s above. Composition of the blocks to 0% 0 0.00	s of areal coverage f Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 below. 0% 0 0.00 0.00	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas locking shrub and tree stratum, areas of hay production, and ponds or open water areas (c 10 acres). If tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low 8 7 6 0% 0 0.00	th field verification a Prime of the second state of the second s	acceptable).  OOT  Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, row crops, active feed lots, impervious trails, or other comparable conditions.  Low Low Low Low J 2 1  the % Riparian Area Side Sub-Index	CI = (S SCORE Comments:	icore)/20 13	Cl 0.65
RIPARIAN Riparian /egetation -loodplain) SCORE Identify Conditi Estimate the %	VEGETATION: Opt Riparian area vegeta stratum present (diar (dbh) > 3 inches) with to 60% tree canopy cc of stream channels, w classification or cone resources ≥ 10 acres : 20 19 1 on Category areas al area within each co parian Area in in deci Condition Category % Riparian Area: Score: Total Sub-score:	Assess the floodpla imal tion consists of a tree meter at breast height greater than or equal ver. Areas comprised verlands (regardless of verlands of the floodplain in mal form (0.00) and 50% 18	Ain along the entire Sub High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and understory. High 15 14 Score for each ca 50% 12	AA (Visual estimates condition Categ potimal Low Suboptimal: Ripatian area regretation consists of a tree stratum (dbh > a inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 13 12 11 s above. Etegory in the blocks to 0% 0	s of areal coverage f ory Mar High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 below. 0% 0% 0	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (<10 acres). If trees are present, with less than 30% tree canopy cover with maintained Low 8 7 6 0% 0	ith field verification a High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till croplant; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 Ensure the sum of 0% 0	acceptable).  OOT  Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, row crops, active feed lots, impervious trails, or other comparable conditions.  Low Low Low Low J 2 1  the % Riparian Area Side Sub-Index	CI = (S SCORE Comments: Comments: Blocks equal 100 Side Sub-Ind	icore)/20 13	Cl 0.65

	ZONE OF INFL	JENCE: Assess				n into the upland alo	ong the entire AA. (r	ough measurement	s of length & width may be acceptable)	
	Opt	imal	Co Subor High Suboptimal:	ondition Catego otimal Low Suboptimal:	Marg	<b>.</b>		OOR Low Poor: Riparian	Comments:	
Riparian ZOI	tree stratum presen height (dbh) > 3 inche equal to 60% tree c comprised of stream (regardless of classi	s) with greater than or anopy cover. Areas in channels, wetlands fication or condition) urces ≥ 10 acres are	Riparian ZOI area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory.	Riparian ZOI area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	High Marginal: Riparian ZOI area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.	Low Marginal: Riparian ZOI area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with		ZOI area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.		
SCORE	20 19 1	8 17 16	High 15 14 1	<u>Low</u> 3 12 11	High 10 9 8	Low 3 7 6	High 5 4 3	Low 3 2 1		
	on Category areas al		-	-	10 0 0			, , ,		
2. Estimate the %	area within each co	ndition category.								
<ol> <li>Enter the % Rip</li> </ol>	Condition Category	al form (0.00) and S	core for each catego	ory in the blocks bel	ow.		Ensure the sums of	f % Riparian ZOI Blo Side Sub-Index	ocks equal 100	
	% Riparian Area:	50%	30%	20%	0%	0%	0%		Side Sub-Index = SUM(%Are	as*Scores)/2
Right Side	Score: Total Sub-score:	16 <b>8.00</b>	8 2.40	12 <b>2.40</b>	0	0 0.00	0	0.64		,
	Condition Category % Riparian Area:	50%	30%	20%	0%	0%	0%			CI
Left Side	Score:	16	8	12	0	0	0	0.64	CI = (Left Side CI + Right	
	Total Sub-score:	8.00	2.40	2.40	0.00	0.00	0.00		Side CI)/2	0.64
Instream Habitat/ Available Cover	Physical Elements tha ability to support aq present in greater tha the reach. Substr. colonization by a di epifaunal community	imal at enhance a stream's uatic organisms are an or equal to 50% of ate is favorable for verse and abundant , and there are many offaunal colonization	Subop Physical Elements that ability to support and present in greater that less than 50% of the r mostly desirable and for full colonization by and abundant epit	at enhance a stream's uatic organisms are n or equal to 30% and each. Conditions are are generally suitable a moderately diverse	Physical Elements tha ability to support aq present in greater than less than 30% of the r	uatic organisms are n or equal to 10% and reach. Conditions are partial colonization by	Physical Elements tha ability to support ac present in less than Conditions are gen colonization by ep	at enhance a stream's juatic organisms are n 10% of the reach. ierally unsuitable for oifaunal and/or fish s. The reach.		
	and/or fi	sh cover.			40.0				CI = (Score)/20	CI
SCORE 5. CHANNEL	20 19 1 ALTERATION:	8 17 16	15 14 1	-		8 7 6	5 4 3		SCORE 10	0.50
		g,	FF,, 3		Category			,,,	Comments:	
	Negl	igible	Mir	ıor	Mod	erate	Sev	vere	oonments.	
Channel Alteration		sted above are absent ream has unaltered s normalized.	the channel alterations listed above. Alteration or channelization present, usually adjacent to structures, (such as bridge abutments or culverts); evidence of past alteration, (i.e., channelization) may be present, but stream patterm and stability have recovered; recent alteration is not	of the stream reach is disrupted by any of the channel alterations listed above. Alteration or channelization present, usually adjacent to structures, (such as bridge abutments or culverts); evidence of past alteration, (i.e., channelization) may be present, but stream pattern and stability have recovered; recent	Moderate High: Greater than 40% and less than or equal to 60% of reach is disrupted by any of the channel alterations listed above. If the stream has been channelized, normal stable stream meander pattern has not recovered.	Moderate Low: Greater than 60% and less than or equa to 80% of reach is disrupted by any of the channel alterations listed in alterations listed alterations listed stable stream has been channelized, normal stable stream meander pattern has not recovered.	Greater than 80% of any of the channel al Greater than 80% of	reach is disrupted by terations listed above. of banks shored with b, or concrete.		
			Bresent. High	alteration is not Low	High	Low			CI = (Score)/20	CI
SCORE	20 19 1	8 17 16	15 14 1	3 12 11	10 9 8	376	543	8 2 1	SCORE 12	0.60
				RIVERINE	CONDITION II	NDEX (RCI)				RCI
NOTE: The C	Is and RCI shou	uld be rounded	l to 2 decimal p	laces.				RCI = (Sum	of all CI's)/5	0.63
	nnlicable (e a	due to use on	intermittent wa	tercourse or >	100 sq. mile dra	ainage area) in	order to utilize	the auto calcu	lator feature the user will nee	d to modify

		Penn		iverine ine Condition L Pennsylvani		ssessment Pro	otocol (Docume		37-003)			
			For use in inte	ermittent or perenni	•			drainage areas.				
Project #		Project Name		Locality		Date	Ch 93 Cla Ch 93 Classification CW	ssification	AA Id	Length		
	River Poi	inte Logistic	s Center	Upper Mo	ount Bethel	10/02/22	CWF, MF	CWF, MF	WA-9	1,412		
Latitude	40.90	01089	Longitude	-75.0	84967	FGM Level 1 C	Channel Classi	fication		В		
	Evaluator(s)		Stream Name	and Informatio	on		Notes:					
	Stephen Dadio			UNT to Del	aware River							
CHANNEL/	FLOODPLAIN: A	Assess the cross-se	ction of the stream	and prevailing condi	itions along the AA							
				p	-	ondition Catego	orv					
	Opti	imal	Suboptimal			Marginal		Poor		Severe		
Channel / Toodplain	evidence of active erosion. Anastomosing channels may be present. <b>Channel Stability:</b> Visual indicators include: 1) the banks are not eroding along greater than 5% of the reach; 2) natural vegetative or rock stability features are present along greater than 80% of the banks: 2) stable point bars and bankfull benches may be present; 3) mid-channel bars and transverse bars are rare and if transient channel sediment deposition is present, it covers less than or equal to 10% of the stream bottom; 4) baseflow is connected to the rooting depths of vegetation in the active floodplain. Active Floodplain Connection: The		slightly incised or overwidened and contain a few areas of active erosic Channel Stability: <u>Visual indicators</u> include: 1) the banks are actively eroding along less than 25% of the reach; 2) depositional features such as point bars and bankfull benches are present and stable during high flows and occur along greater than 50% of the reach; 3) natural bank protection like vegatation or rock is providing stability along greater than 50% of the reach;		co trions. Channel Stability: Visual indicators include: eroding or severely undercut along greater than or equal to 50% of the reach; 2) depositional f or bankfull benches occur along greater than i equal to 50% of the reach; 3) the stream bank some vertical or undercut banks or nick points cuts;		Yoor channel 1) the banks are ian 25% and less than features like point bars 25% and less than or iks may consist of s associated with head all stream flows have	undercut along greate reach; 2) active or rec present along greater 3) natural bank protect not preventing bank e 4) depositional featuri and bank full benches reach or newly develc 25% of the reach; 5)	ed and eroding illy. fisual indicators are eroding or severely tr than 50% of the sent bank sloughing is than 50% of the reach; sent bank sloughing is set as point bars set as	the reach; 2) active o is occurring along gre reach; 3) natural bank vegetation is not prev sloughing; 4) depositi point bars and bankfu	tively eroding v r widened cham of unstable bra dation. Visual indicators are actively ero greater than 80 r recent bank si auter than 80% k protection like venting bank ero sconnected from connection: Th	
SCORE mments:	20 19	18 17	16 15	14 13	12	11 10	9	8 7	6 5	4 3 core)/20 14	2 1 Cl 0.70	
mments:	20 19 VEGETATION:								CI = (S	core)/20	CI	
omments:	VEGETATION:	Assess the floodpla	in along the entire	AA (Visual estimates	s of areal coverage f	rom aerial photos w	ith field verification a		CI = (S	core)/20	CI	
omments:	VEGETATION:	Assess the floodpla imal tion consists of a tree neter at breast height greater than or equal yer. Areas comprised vertands (regardless of tion) and lacustrine	in along the entire	AA (Visual estimates condition Catego poptimal Low Suboptimal: Riparian area fr vegetation consists of a tree stratum (dbh > 3 inchesi) present, with greater than or equal to 30% ared less than 60% tree canopy cover with a maintained understory.	s of areal coverage f Ory High Marginal: Riparia area	rom aerial photos w ginal Low Marginal: Riparian area	ith field verification a High Poor: Riparian area vegetation consists of lawns, mowed, and croplant; actively grazed pasture, parsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable	acceptable).	CI = (S SCORE	core)/20	CI	
RIPARIAN Riparian /egetation	VEGETATION: Opti Riparian area vegeta stratum present (dian (dbh) > 3 inches) with to 60% (tree canopy co of stream channels, w classification or conc resources ≥ 10 acres a	Assess the floodpla imal tion consists of a tree neter at breast height greater than or equal ver. Areas comprise are scored as optimal.	in along the entire C Subs High Suboptimal: Riparian area vegetation consists c a tree stratum (dbh 3 inches) present, with greater than or equal to 30% ared containing both herbaceous and shrub layers or a nor maintained understory. High	AA (Visual estimates condition Categ optimal Low Suboptimal: Riparian area 4 vegetation consists of 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low	s of areal coverage f ory High Marginal: Riparian area vegetation consists of dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, iparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh < 3 inches) present, with less than 30% tree canopy cover with maintained Low	ith field verification a Perification a reavegetation consists of lawns, murseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintaimed area, pervious trails, recently seeded and stabilized, or other comparable condition. High	Acceptable). Dor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.	CI = (S SCORE	core)/20	CI	
RIPARIAN Riparian /egetation	VEGETATION: Opti Riparian area vegeta stratum present (dian (dbh) > 3 inches) with to 60% (tree canopy co of stream channels, w classification or cono	Assess the floodpla imal tion consists of a tree neter at breast height greater than or equal ver. Areas comprise are scored as optimal.	in along the entire C Subs High Suboptimal: Riparian area vegetation consists c a tree stratum (dbh 3 inches) present, with greater than or equal to 30% ared containing both herbaceous and shrub layers or a nor maintained understory. High	AA (Visual estimates condition Categy pptimal Low Suboptimal: Riparian area Vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	s of areal coverage f ory High Marginal: Riparian area vegetation consists of dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water trees area present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained	ith field verification a Perification a reavegetation consists of lawns, museries, no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High	acceptable). Dor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, row crops, active feed lots, impervious trails, or other comparable conditions.	CI = (S SCORE	core)/20	CI	
RIPARIAN RIPARIAN Riparian (egetation loodplain) SCORE	VEGETATION: Opti Riparian area vegeta stratum present (dian (dbh) > 3 inches) with to 60% tree canopy co of stream channels, w classification or conor resources ≥ 10 acres in 20 19 1 on Category areas al	Assess the floodpla imal tion consists of a tree neter at breast height greater than or equal ver. Areas comprised verlands (regardless of tition) and lacustrine are scored as optimal. 8 17 16 ong the floodplain u	in along the entire Subo High Suboptimat: Riparian area vegetation consists c a tree stratum (dbh - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a nor maintained understory. High 15 14	AA (Visual estimates condition Categ ptimal Low Suboptimal: Riparian area t vegetation consists of a tree stratum (dbh) - a inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 13 12 11	s of areal coverage f ory High Marginal: Riparian area vegetation consists of dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, iparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh < 3 inches) present, with less than 30% tree canopy cover with maintained Low	ith field verification a Perification a reavegetation consists of lawns, murseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintaimed area, pervious trails, recently seeded and stabilized, or other comparable condition. High	Acceptable). Dor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.	CI = (S SCORE	core)/20	CI	
RIPARIAN RIPARIAN //egetation /loodplain) SCORE //dentify Conditi Estimate the %	VEGETATION: Piparian area vegetal stratum present (dian (dbh) > 3 inches) with to 60% tree canopy co of stream channels, w classification or cond resources ≥ 10 acres a 20 19 1 on Category areas al area within each con	Assess the floodpla imal tion consists of a tree neter at breast height greater than or equal tion) and lacustrine are scored as optimal. 8 17 16 ong the floodplain u ndition category.	in along the entire C Subs High Suboptimal: Riparian area vegetation consists c a tree stratum (dbh - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and understory. High 15 14 the descriptor	AA (Visual estimates condition Categy ptimal Low Suboptimal: Riparian area Vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 13 12 11 s above.	s of areal coverage f Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or at the stratum (oth > 3 inches) present, with less than 30% tree canopy cover. High 10 9	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, iparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh < 3 inches) present, with less than 30% tree canopy cover with maintained Low	ith field verification a Perification of the second	acceptable). Dor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, row crops, active feed lots, impervious trails, or other comparable conditions. Low 3 2 1	CI = (S SCORE	core)/20	CI	
RIPARIAN RIPARIAN /egetation loodplain) SCORE Identify Conditi Estimate the %	VEGETATION: Opti Riparian area vegeta stratum present (dian (dbh) > 3 inches) with to 60% tree canopy co of stream channels, w classification or conor resources ≥ 10 acres in 20 19 1 on Category areas al	Assess the floodpla imal tion consists of a tree neter at breast height greater than or equal tion) and lacustrine are scored as optimal. 8 17 16 ong the floodplain u ndition category.	in along the entire C Subs High Suboptimal: Riparian area vegetation consists c a tree stratum (dbh - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and understory. High 15 14 the descriptor	AA (Visual estimates condition Categy ptimal Low Suboptimal: Riparian area Vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 13 12 11 s above.	s of areal coverage f Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or at the stratum (oth > 3 inches) present, with less than 30% tree canopy cover. High 10 9	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, iparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh < 3 inches) present, with less than 30% tree canopy cover with maintained Low	ith field verification a Perification of the second	Acceptable). Dor Low Poor: Riparian area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.	CI = (S SCORE	core)/20	CI	
RIPARIAN RIPARIAN Riparian (egetation loodplain) SCORE Identify Conditi Estimate the % Enter the % Ri	VEGETATION: Piparian area vegeta stratum present (dian (dbh) > 3 inches) with to 60% tree canopy co of stream channels, w classification or cond resources ≥ 10 acres a 20 19 1 on Category areas al area within each coor parian Area in in deci Condition Category % Riparian Area:	Assess the floodpla imal tion consists of a tree neter at breast height greater than or equal vver. Areas comprised etelands (regardless of tition) and lacustrine are scored as optimal. 8 17 16 ong the floodplain u ndition category. imal form (0.00) and 100%	in along the entire Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh a 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a nor maintained understory. High 15 14 Score for each ca 0%	AA (Visual estimates condition Categ patimal Low Suboptimal: Riparian area if vegetation consists of a inces) present, with greater than or qual to 30% and less than 60% tree canopy cover with a maintained understory. Low 13 12 11 s above. Etegory in the blocks to 0%	s of areal coverage f ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 below. 0%	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas acking shrub and tree stratum, areas acking shrub and tree stratum, production, and ponds or open water areas (< 10 acres). If trees are present, with maintained Low 8 7 6 0%	ith field verification a High Poor: Riparian area vegetation consists of lawns, mowed, and cropland; actively grazed pasture, sparsely vegetated non-maintained area, nurseries; no-til cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 Ensure the sum of 0%	Acceptable).	CI = (S SCORE Comments:	core)/20 14	CI 0.70	
RIPARIAN RIPARIAN Riparian (egetation loodplain) SCORE Identify Conditi Estimate the % Enter the % Ri	VEGETATION: Piparian area vegeta stratum present (dian (dbh) > 3 inches) with to 60% tree canopy co of stream channels, w classification or conc resources ≥ 10 acres a 20 19 1 on Category areas al area within each coo parian Area in in deci Condition Category % Riparian Area: Score:	Assess the floodpla imal tion consists of a tree neter at breast height greater than or equal ver. Areas comprised etelands (regardless of tifon) and lacustrine are scored as optimal. 8 17 16 ong the floodplain u ndition category. imal form (0.00) and 100% 18	in along the entire Subo High Suboptimal: Riparian area vegetation consists c a tree stratum (dbh - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a nor maintained understory. High 15 14 Score for each ca 0% 0	AA (Visual estimates condition Categ potimal Low Suboptimal: Riparian area f vegetation consists of a tree stratum (dbh > a inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 13 12 11 s above. Etegory in the blocks to 0% 0	s of areal coverage f ory Mar High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 below. 0% 0% 0	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense hetbaceous vegetation, riparian areas acking shrub and tree stratum, areas acking shrub and tree stratum, areas acking shrub and tree stratum, areas (c 10 acres). If trees are present, with less than 30% tree canopy cover with maintained Low 8 7 6	ith field verification a High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till croplant; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 Ensure the sum of 0% 0	Acceptable).	CI = (S SCORE Comments:	core)/20	CI 0.70	
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RIPARIAN RIPARIAN Riparian /egetation Floodplain) SCORE Identify Conditi Estimate the % Enter the % Ri	VEGETATION: Piparian area vegeta stratum present (dian (dbh) > 3 inches) with to 60% tree canopy co of stream channels, w classification or conc resources ≥ 10 acres a 20 19 1 on Category areas al area within each coo parian Area in in deci Condition Category % Riparian Area: Score:	Assess the floodpla imal tion consists of a tree neter at breast height greater than or equal ver. Areas comprised verlands (regardless of tition) and lacustrine are scored as optimal. 8 17 16 ong the floodplain undition category. imal form (0.00) and 100% 18 18.00	in along the entire C Subb High Suboptimal: Riparian area vegetation consists c a tree stratum (dbh - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and understory. High 15 14 sing the descriptor Score for each ca 0% 0 0.00	AA (Visual estimates condition Categy ptimal Low Suboptimal: Riparian area Vegetation consists of a tree stratum (dbh > a inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. 13 12 11 s above. Etegory in the blocks t 0% 0 0.00	s of areal coverage f Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 below. 0% 0 0.00 0.00	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, consists of nor-maintained, dense herbaceous vegetation, riparian areas locking shrub and tree stratum, areas of hay production, and ponds or open water areas (c 10 acres). If tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low 8 7 6 0% 0 0.00	ith field verification a High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries: no-till croplant; actively grazed pasture, sparsely vegetated areas, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 Ensure the sum of 0% 0 0.00	Acceptable).	CI = (S SCORE Comments:	core)/20 14 ex = SUM(%Are	Cl 0.70	
RIPARIAN Riparian /egetation -loodplain) SCORE Identify Conditi Estimate the %	VEGETATION: Piperian area vegetal stratum present (dian (dbh) > 3 inches) with to 60% tree canopy co of stream channels, w classification or cond resources ≥ 10 acres and 20 19 1 on Category areas all s area within each coo parian Area in In deci Condition Category % Riparian Area: Score: Total Sub-score: Condition Category	Assess the floodpla imal tion consists of a tree neter at breast height greater than or equal ver. Areas comprised etelands (regardless of tifon) and lacustrine are scored as optimal. 8 17 16 ong the floodplain u ndition category. imal form (0.00) and 100% 18	in along the entire Subo High Suboptimal: Riparian area vegetation consists c a tree stratum (dbh - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a nor maintained understory. High 15 14 Score for each ca 0% 0	AA (Visual estimates condition Categ potimal Low Suboptimal: Riparian area f vegetation consists of a tree stratum (dbh > a inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory. Low 13 12 11 s above. Etegory in the blocks to 0% 0	s of areal coverage f ory Mar High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 below. 0% 0% 0	rom aerial photos w ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense hetbaceous vegetation, riparian areas acking shrub and tree stratum, areas acking shrub and tree stratum, areas acking shrub and tree stratum, areas (c 10 acres). If trees are present, with less than 30% tree canopy cover with maintained Low 8 7 6	ith field verification a High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till croplant; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 Ensure the sum of 0% 0	Acceptable).	CI = (S SCORE Comments: Comments: Blocks equal 100 Side Sub-Ind	core)/20 14	CI 0.70	

			Co	ondition Categ	ory		-	-	Comments:	
Riparian ZOI	Optimal Riparian ZOI area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprised of streasm channels, wetlands (regardless of classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal.		High Suboptimal: Riparian ZOI area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory.		High Marginal: Riparian ZOI area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dubh > 3 inches) present, with less than 30% tree canopy cover.	ginal Low Marginal: Riparian ZOI area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with Low	Pc High Poor: Riparian ZOI area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	Dor Low Poor: Riparian ZOI area consists of impervious surfaces; mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.	Comments:	
SCORE	20 19 1	18 17 16	15 14 1			B 7 6	5 4 3			
			using the descriptors	-		-				
	area within each co	• • •								
Enter the % Rip			core for each catego	ory in the blocks bel	ow.		Ensure the sums of	f % Riparian ZOI Blo	ocks equal 100	
	Condition Category		00/	00/	00/	00/	00/	Side Sub-Index		
Right Side	% Riparian Area: Score:	100% 16	0% 0	0%	0%	0% 0	0%	0.80	Side Sub-Index = SUM(%Are	as*Scores)/
Night Olde	Total Sub-score:	16.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Condition Category		0.00	0.00	0.00	0.00	0.00			
	% Riparian Area:	100%	0%	0%	0%	0%	0%			CI
Left Side	Score:	16	0	0	0	0	0	0.80	CI = (Left Side CI + Right	
	Total Sub-score:	16.00	0.00	0.00	0.00	0.00	0.00		Side CI)/2	0.80
. INSTREAM omplexes, stable	features.			Condition	Category				ts, SAV, macrophytes, emergent vegeta	tion, riffle-pool
Instream		timal	Subor		Marginal Physical Elements that enhance a stream's		Poor Physical Elements that enhance a stream's			
Habitat/ Available Cover	Physical Elements that enhance a stream's ability to support aquatic organisms are present in greater than or equal to 50% of the reach. Substrate is favorable for colonization by a diverse and abundant epifaunal community, and there are many suitable areas for epifaunal colonization and/or fish cover.		Physical Elements that enhance a stream's ability to support aquatic organisms are present in greater than or equal to 30% and less than 50% of the reach. Conditions are mostly desirable and are generally suitable for full colonization by a moderately diverse and abundant epifaunal community.		ability to support aquatic organisms are present in greater than or equal to 10% and less than 30% of the reach. Conditions are generally suitable for partial colonization by		Conditions are generally unsuitable for		CI = (Score)/20	CI
SCORE	20 19 1	18 17 16	15 14 1	3 12 11	10 9	876	5 4 3	321	SCORE 14	0.70
. CHANNEL	ALTERATION:	Stream crossings, ri	prap, concrete, gabi			f channel/channeliza	ation, embankments	, spoil piles, constric	-	
	Nea	ligible	Minor		n Category Moderate		Severe		Comments:	
Channel Alteration	Channel alterations listed above are absent in the SAR. The stream has unaltered pattern or has normalized.			han or equal to 20%, than 20% and less of different than 40% and less than or equal to 40% disrupted by any of the stream reach is to 60% of reach is to 80% of reach is the channel alteration or present, usually adjacent to structures, (such as studers 10% of reach is not recovered. Is to 80% of reach is to 80\% of 80		Moderate Low: Greater than 60% and less than or equal to 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If the stream has been channelized, normal stable stream meander pattern has not recovered.	any of the channel all	of banks shored with		
SCORE	20 19 1	18 17 16	stream pattern and stability have recovered; recent alteration is not present. High 15 14 1	be present, but stream pattern and stability have recovered; recent alteration is not Low 3 12 11	High 10 9 8	Low 3 7 6	543	6 2 1	CI = (Score)/20 SCORE 17	Cl 0.85
					CONDITION II					RCI
					CONDITION				-(-II OII-)/5	
				tercourse or >	•	• <i>i</i>	order to utilize sor difference.	•	of all CI's)/5 Ilator feature the user will nee	0.79 d to modify

			_	_						
		For use in inte	•	•	of Environment th drainage areas ≤		drainage areas			
Project #	Project Nam		Locality		Date		ssification	AA Id	Length	
	River Pointe Logistic	s Center	Upper Mo	ount Bethel	10/02/22	Ch 93 Classification CW	CWF, MF	WA-14	609	
Latitude	40.898500	Longitude		89473		CVVF, IVIF			A	÷
Latitude		-				Notes:	leation		~	
	Evaluator(s)	Stream Name	and Informatio			Notes.				
	Stephen Dadio		UNT to Del	aware River						
CHANNEL/	FLOODPLAIN: Assess the cross-s	ection of the stream	and prevailing condi	itions along the AA.						
					ondition Catego	ory				
	Optimal	Suboptimal		Marginal		Po	oor	Severe		
	Channel Geometry: These channels show very little incision or widening and little or no	slightly incised or overwidened and contain a few areas of active erosion. Channel Stability: Visual indicators include: 1) thie banks are actively eroding along less than 25% of the reach; 2) during high flows and occur along greater than 50% of the reach; 3) natural bank protection like vegetation or rock is providing stability along greater than 50% of the reach; Active Floodplain Ct		These channels are over-widened or incised, e than the Severe and Poor channel Visual indicators include: 1) the banks are indercut along greater than 25% and less than or reach; 3) the stream banks may consist of ercut banks or nick points associated with head connection: The bankfull stream flows have to the active floodplain.		over-widened or incised and eroding vertically and/or laterally. Channel Stability: Visual indicators include: 1) the banks are eroding or severely undercut along greater than 50% of the reach; 2) active or recent bank sloughing is present along greater than 50% of the reach		deeply incised and actively eroding ver and/or laterally. Over widened channe may contain sections of unstable braid channels from aggradation. defined the section of the section of the channel Stability: Visual indicators include: 1) the banks are actively erodi- ch being undercut along greater than 80% is the reach; 2) active or recent bank slow th; is occurring along greater than 80% of reach; 3) natural bank protection like vegetation is not preventing bank eros sloughing; 4) depositional features sucd point bars and bankful benches are at sc; 5) flood flows are disconnected from t active floodplain Connection: The bankfull stream flows are never conne-		
Channel / Toodplain	Very inter inclusion or widering and mue of rice evidence of active erosion. Anastomosing channels may be present. Channel Stability: Visual indicators include: 1) the banks are not eroding along greater than 5% of the reach; 2) natural vegetative or rock stability features are present along greater than 80% of the banks; 2) stable point bars and bankfull benches may be present; 3) mid-channel bars and transverse bars are rare and if transient channel sediment deposition is present, it covers less than or equal to 10% of the stream bottom; 4) basellow is connected to the rooting depths of vegetation in the active floodplain. Active Floodplain Connection: The bankfull stream flows have frequent accesses to the active floodplain and fully developed point bars or bankfull benches that are accessed at most flows greater than baseflow.									
omments:							8 7			
omments:							8 7	CI = (Se	core)/20	CI
	VEGETATION: Assess the floodp	lain along the entire A	AA (Visual estimates	s of areal coverage f	rom aerial photos wi	ith field verification a				CI
	VEGETATION: Assess the floodp	-	AA (Visual estimates ondition Categ		rom aerial photos wi	ith field verification a		CI = (Se	core)/20	CI
	VEGETATION: Assess the floodp	C Subo	ondition Categ	ory Mar	ginal	Po	icceptable).	CI = (So SCORE	core)/20	CI
RIPARIAN Riparian Vegetation Floodplain)		C Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree containing both therbaceous and shrub layers or a non- t, maintained understory.	ondition Categ ptimal Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% free canopy cover with a maintained understory.	Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained	Peoplet Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	Incceptable).	CI = (So SCORE	core)/20	
RIPARIAN Riparian /egetation <sup>-</sup> loodplain)	Optimal Riparian area vegetation consists of a tree stratum present (diameter at breast heigh (dbh) > 3 inches) with greater than or eque to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless c classification or condition) and lacustrine resources ≥ 10 acres are scored as optime	C Subc High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree containing both herbaceous and shrub layers or a non- maintained understory. High	Dendition Categ ptimal Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or at the stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low	Period High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	Incomparison of the second sec	CI = (So SCORE	core)/20	CI
RIPARIAN Riparian (egetation Toodplain)	Optimal           Riparian area vegetation consists of a free stratum present (diameter at breast heigh (dbh) > 3 inches) with greater than or eque to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless classification or condition) and lacustrine resources ≥ 10 acres are scored as optimated and the strength of the strength of the strength or condition or condition or condition and lacustrine resources ≥ 10 acres are scored as optimated and the strength of the strengt of the st	C Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dhb - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both therbaceous and shrub layers or a non- maintained understory. High 15 14 1	ondition Categ ptimal Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or at the stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained	Period Construction Constructio	Incceptable).	CI = (So SCORE	core)/20	CI
RIPARIAN Riparian /egetation <sup>-</sup> loodplain) SCORE	Optimal           Riparian area vegetation consists of a tree stratum present (diameter at breast heigh (dbh) > 3 inches) with greater than or eque to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless classification or condition) and lacustrine resources ≥ 10 acres are scored as optima           20         19         18         17         16           ion Category areas along the floodplain         1000 the store of the sto	C Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dhb - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both therbaceous and shrub layers or a non- maintained understory. High 15 14 1	ondition Categ ptimal Uw Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or at the stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low	Period Reproduction Provided America Pro	Comparison of the second secon	CI = (So SCORE	core)/20	CI
RIPARIAN Riparian (egetation loodplain) SCORE	Optimal           Riparian area vegetation consists of a free stratum present (diameter at breast heigh (dbh) > 3 inches) with greater than or eque to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless classification or condition) and lacustrine resources ≥ 10 acres are scored as optimated and the strength of the strength of the strength or condition or condition or condition and lacustrine resources ≥ 10 acres are scored as optimated and the strength of the strengt of the st	C Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree containing both therbaceous and containing both therbaceous and understory. High 15 14 1 using the descriptors	ondition Categ ptimal Cow Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% free canopy cover with a maintained understory. Low 3 12 11 sabove.	Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low	High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	Comparison of the second secon	CI = (So SCORE	core)/20	CI
RIPARIAN Riparian /egetation -loodplain) SCORE Identify Condit Estimate the 9	Optimal           Riparian area vegetation consists of a tree stratum present (diameter at breast heigh (dbh) > 3 inches) with greater than or eque to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless classification or condition) and lacustrine resources ≥ 10 acres are scored as optimations of the stress of the st	C Subc High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree containing both herbaceous and shrub layers or a non- maintained understory. High 15 14 1 using the descriptors	A solution Category in the blocks I	Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or at test stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 below.	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low 8 7 6	Peo High Poor: Riparian area vegetation consists of lawns, mowed, and maintained areas, nurseries: no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, no-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition. High 5 4 5 4	Incceptable).	CI = (So SCORE	core)/20	CI
RIPARIAN Riparian /egetation Floodplain) SCORE Identify Condit Estimate the % Enter the % R	Optimal           Riparian area vegetation consists of a free stratum present (diameter at breast heigh (dbh) > 3 inches) with greater than or eque to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless classification or condition) and lacustrine resources ≥ 10 acres are scored as optima           20         19         18         17         16           ion Category areas along the floodplain 6 area within each condition category. parian Area in in decimal form (0.00) an Condition Category         100%	C Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dh) - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both shrub layers or a non- maintained understory. High 15 14 1 using the descriptors ad Score for each cat	ondition Categ ptimal Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Ory Mar High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 Delow. 0%	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, production, and ponds or open water areas (< 10 acres). If tree stratum (dbh > 3 inches) present, with maintained Low 8 7 6	Prove the sum of the s	Incceptable).	CI = (SC SCORE Comments:	core)/20	CI 0.10
RIPARIAN Riparian /egetation Floodplain) SCORE Identify Condit Estimate the % Enter the % R	Optimal           Riparian area vegetation consists of a tree stratum present (diameter at breast heigh (dbh) > 3 inches) with greater than or eque to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless classification or condition) and lacustrine resources ≥ 10 acres are scored as optimations are scored as optimation of the strength of the strengh of the strength of the strengt of the strengh of th	C Subc High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree containing both herbaceous and shrub layers or a non- maintained understory. High 15 14 1 using the descriptors	A solution Category condition Category particular and the stratum (dbh 2 solution of the stratum (dbh 2 solution) as inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Ory High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or at test stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 below.	ginal Low Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover with maintained Low 8 7 6	Period Construction Constructio	Incomparison of the second sec	CI = (SC SCORE Comments:	core)/20 2	CI 0.10
RIPARIAN Riparian /egetation Floodplain) SCORE Identify Condit Estimate the % Enter the % R	Optimal           Riparian area vegetation consists of a treast stratum present (diameter at breast heigh (dbh) > 3 inches) with greater than or eque to 60% trea canopy cover. Areas comprise of stream channels, wetlands (regardless classification or condition) and lacustrine resources ≥ 10 acres are scored as optima           20         19         18         17         16           ion Category areas along the floodplain 6 area within each condition category.         parian Area in in decimal form (0.00) an Condition Category           % Riparian Area:         100%         Score:         10	C Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dhb - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both f herbaceous and containing both g herbaceous and understory. High 15 14 1 using the descriptors d Score for each cat 0% 0	ondition Categ ptimal Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Ory Mar High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 Delow. 0% 0	ginal Cow Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas a ching production, and ponds or open water areas (c+10 acres). If trees are present, with less than 30% tree canopy cover with maintained Low 8 7 6	Procession of the second state of the second s	Incceptable).	CI = (SC SCORE Comments:	core)/20 2	CI 0.10
RIPARIAN Riparian /egetation -loodplain) SCORE Identify Condit Estimate the 9	Optimal           Riparian area vegetation consists of a free stratum present (diameter at breast heigh (dbh) > 3 inches) with greater than or eque to 60% tree canopy cover. Areas comprise of stream channels, wetlands (regardless classification or condition) and lacustrine resources ≥ 10 acres are scored as optima           20         19         18         17         16           condition category areas along the floodplain 6 area within each condition category.           parian Area in in decimal form (0.00) an Condition Category         % Riparian Area:         100%           % Riparian Area:         100%         10           Total Sub-score:         10.00         10	C Subo High Suboptimal: Riparian area vegetation consists of a tree stratum (dhb - 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both f herbaceous and containing both g herbaceous and understory. High 15 14 1 using the descriptors d Score for each cat 0% 0	ondition Categ ptimal Riparian area vegetation consists of a tree stratum (dbh > 3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	Ory Mar High Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover. High 10 9 Delow. 0% 0	ginal Cow Marginal: Riparian area vegetation consists of non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, areas a ching production, and ponds or open water areas (c+10 acres). If trees are present, with less than 30% tree canopy cover with maintained Low 8 7 6	Procession of the second state of the second s	Incceptable).	CI = (So SCORE Comments: Comments:	core)/20 2	CI 0.10

					essment					4/2017
. RIPARIAN A		UENCE: Assess				n into the upland ald	ong the entire AA. (r	ougn measurement	s of length & width may be acceptable)	
	Opt	timal	Suboptimal           High Suboptimal:         Low Suboptim           Riparian ZOI area         Riparian ZOI area           a tree stratum (dbh > a         a tree stratum (cbh > a			non-maintained, dense herbaceous r vegetation, riparian a raes lacking shrub and tree stratum, areas of hay production, and ponds or open water areas (< 10 acres). If trees are present, tree stratum (dbh < 3 inches) present, with less than 30% tree canopy cover with	Pc High Poor: Riparian ZOI area vegetation consists of lawns, mowed, and	DOF Low Poor: Riparian ZOI area consists of impervious surfaces; mine spoil lands,	Comments:	
Riparian ZOI	Riparian ZOI area vegetation consists of a tree stratum present (diameter at breast height (dbh) > 3 inches) with greater than or equal to 60% tree canopy cover. Areas comprised of stream channels, wetlands (regardless of classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal.		3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non- maintained understory.	3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with a maintained understory.	dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh > 3 inches) present, with less than 30% tree canopy cover.		maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.	denuded surfaces, active row crops, active feed lots, impervious trails, or other comparable conditions.		
SCORE	20 19 1	8 17 16	High 15 14 1	Low 3 12 11	High 10 9 8	Low B 7 6	High 5 4 3	Low 3 2 1		
			ising the descriptors							
2. Estimate the %	area within each co	ondition category.								
. Enter the % Rip		. ,	core for each catego	ory in the blocks bel	ow.		Ensure the sums of	f % Riparian ZOI Blo	ocks equal 100	
	Condition Category	100%	0%	0%	0%	0%	0%	Side Sub-Index		
Right Side	% Riparian Area: Score:	100%	0%	0%	0%	0%	0%	0.60	Side Sub-Index = SUM(%Are	as*Scores)/
ingin olde	Total Sub-score:	12	0.00	0.00	0.00	0.00	0.00	0.00		
	Condition Category		0.00	0.00	0.00	0.00	0.00			
	% Riparian Area:	100%	0%	0%	0%	0%	0%			CI
Left Side	Score:	12	0	0	0	0	0	0.60	CI = (Left Side CI + Right	0.00
	Total Sub-score:	12.00	0.00	0.00	0.00	0.00	0.00		Side CI)/2	0.60
omplexes, stable t	features.	timal	ater velocity and depths, woody and leafy debris, stable substrate, low embedd Condition Category Suboptimal Marginal				por	Comments:		
Instream Habitat/ Available Cover	Physical Elements that enhance a stream's ability to support aquatic organisms are present in greater than or equal to 50% of the reach. Substrate is favorable for colonization by a diverse and abundant epifaunal community, and there are many suitable areas for epifaunal colonization and/or fish cover.		Physical Elements that enhance a stream's ability to support aquatic organisms are present in greater than or equal to 30% and less than 50% of the reach. Conditions are mostly desirable and are generally suitable for full colonization by a moderately diverse and abundant epifaunal community.				ability to support aquatic organisms are present in less than 10% of the reach. Conditions are generally unsuitable for		Cl = (Score)/20	CI
SCORE		8 17 16	15 14 1	3 12 11	10 9	8 7 6	543	3 2 1	SCORE 3	0.15
5. CHANNEL	ALTERATION:	Stream crossings, ri	prap, concrete, gabi	ons, or concrete blo	ocks, straightening of	f channel/channeliza	ation, embankments	, spoil piles, constric	ctions, etc.	
					Category				Comments:	
	Negl	ligible	Minor Minor High: Less Minor Low: Greater		Moderate Moderate High: Moderate Low:		Severe			
Channel Alteration	Channel alterations listed above are absent in the SAR. The stream has unaltered pattern or has normalized.		than or equal to 20% than 20% an of the stream reach is disrupted by any of the channel above. Alteration or channelization present, usually adjacent to structures, (such as back above are absent the SAR. The stream has unaltered		<ul> <li>Greater than 40%</li> <li>Greater than 60%</li> <li>and less than or equal is to 60% of reach is f disrupted by any of above. If the stream has been stable stream</li> <li>stream been channelized, normal stable stream</li> <li>stream has been not recovered.</li> <li>meander pattern has of</li> <li>Greater than 60%</li> <li></li></ul>		Greater than 80% of reach is disrupted by any of the channel alterations listed above. Greater than 80% of banks shored with			
			be present, but stream pattern and stability have recovered; recent alteration is not present <b>High</b>	channelization) may be present, but stream pattern and stability have recovered; recent alteration is not Low	High	Low			CI = (Score)/20	CI
SCORE	20 19 1	8 17 16	15 14 1	3 12 11	10 9 8	B 7 6	543	6 2 1	SCORE 4	0.20
				RIVERINE	CONDITION II					RCI
	a and DOL -1							DCL (Our		
f a CI is not a he RCI formu	pplicable (e.g. la or enter the	due to use on	l to 2 decimal p intermittent wa re for that Cl to	tercourse or >	•	• ,		•	of all CI's)/5 Ilator feature the user will nee	0.31 d to modify
Seneral Comn	nents:									