NFWF Restoration Visual-Physical Assessment Datasheet

Monitoring Information					
Monitors		Date		Start Time	
Stream		Site ID		End Time	
Circle one: Pre-Installation Post-Installation					

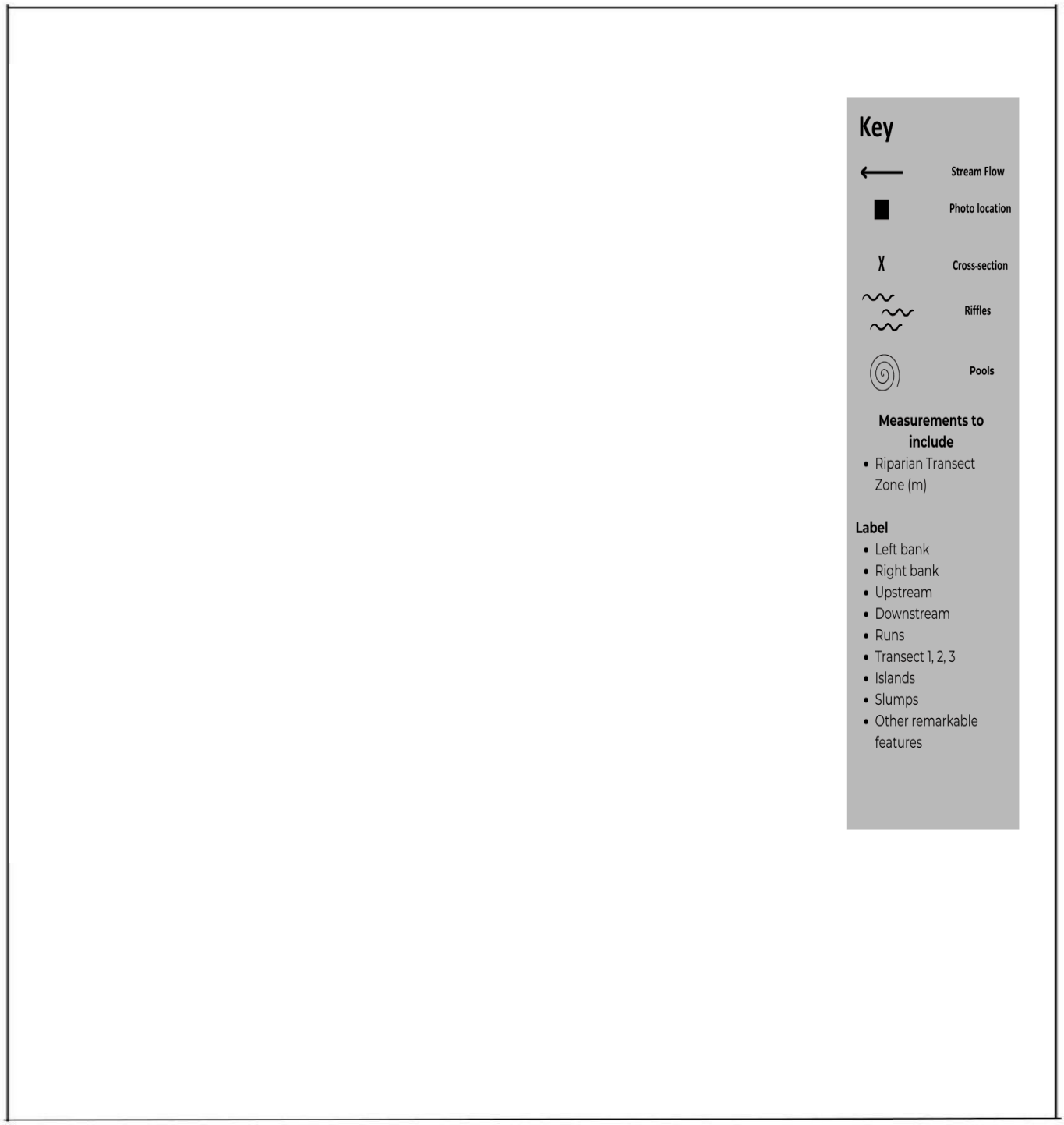
Assessment Results:

Weather Conditions Today: Sun Partial Cloud Overcast Fog Drizzle Rain Snow					
Weather Conditions Past 2 Days:			Air Temperature (°C):		
Turbidity Tube (cm)	Rep. 1	Rep. 2	Water Temp Downstream (°C)	Rep. 1	Rep. 2

Comments, Challenges and Other Notable Observations: Describe here and take a picture.

Site Diagram

Draw assessment reach and include any notable features referenced in the Key.



*For the next sections: When recording data, if no measurement is applicable, please write N/A. When the value is zero, please write zero. If you cannot take data for whatever reason, please describe why in the section Comments, Challenges, and the Notable Observations and write "See comment".

Transect 1: Downstream Transect

Channel Geometry: Left and right bank are determined by looking downstream

Measurements	Left Bank	Right Bank
Bank Height (m)		
Bankfull Width (m)		
Bank angle (degrees)		
Wetted Width (m)	(divide by 4 to get distance to cross-section points)	

Cross-Section Measurements: Left and Right banks are determined by looking downstream

Measurement	Distance Across Channel		
Cross-Section Points	L (25%) = _____m	M (50%) = _____ m	R (75%) = _____ m
Depth (cm)			
Substrate Classification (add to 100%)	Boulder- Cobble- Gravel- Sand- Silt/Mud- Other-	Boulder- Cobble- Gravel- Sand- Silt/Mud- Other-	Boulder- Cobble- Gravel- Sand- Silt/Mud- Other-
Periphyton Coverage (%)			
Periphyton Thickness (bare, <2cm, >2cm)			
Embeddedness (%)			
Stream Viewer Photo (mark location)			
Canopy Cover (%)*			

***(0% = No trees covering the stream; NA = Trees are covering the stream, but no leaves are present; Leave blank if no measurement taken)**

Substrate Classification Chart				
Boulder	**Cobble**	**Gravel**	**Sand**	**Silt/Mud**
>25 cm (>Basketball)	5 – 24 cm (Golf ball to basketball)	0.5 – 4 cm (Sesame seed to golf ball)	<0.5cm (gritty)	<0.5cm (Slimy)

Transect 1: Downstream Transect

Biological Habitat: Check all that are present. Assess within 4 meters (2 meters each side of the transect).

Logs/large woody debris (longer/thicker than arm)		Small woody debris		Leaf packs	
Cobbles		Boulders		Riffles	
Tree root wad		Overhanging vegetation		Aquatic vegetation	
Pools		Undercut bank with roots visible		Bank cracks and/or Fresh bank slumps	

Riparian Zone: Extend reach two **bankfull widths** on each bank (min 10m and max 30m). Assess riparian status within 4 meters (2 meters each side of the transect).

Riparian Categories		**Left Bank**	**Right Bank**
Transect Length (m)			
# Pre-existing/established trees (trees taller than the gage stick)			
Planted Buffer (post-restoration only)	# Trees with a diameter less than 5 cm at gage stick height		
	# Trees with a diameter greater than 5 cm at gage stick height		
	# Dead or fallen trees		
Concerns (this may include invasive species present, restoration failure, etc.) *Take a picture of concerns			

Transect 1: Downstream Transect

Cross-Section Diagram:

Please include: Wetted width, bankfull width, bank height, label the left and right bank, indicate where banks angles were taken, any notable features.

REMINDER: Take the 25% stream reach photo on your way to the next transect!

Transect 2: Mid Transect (Reminder: take the 50% stream reach photo)

Channel Geometry: Left and right bank are determined by looking downstream

Measurements	Left Bank	Right Bank
Bank Height (m)		
Bankfull Width (m)		
Bank angle (degrees)		
Wetted Width (m)	(divide by 4 to get distance to cross-section points)	

Cross-Section Measurements: Left and Right banks are determined by looking downstream

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Stream Viewer Photo (mark location)			
Canopy Cover (%)*			

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Concerns (this may include invasive species present, restoration failure, etc.) *Take a picture of concerns			

Transect 2: Mid Transect

Cross-Section Diagram:

Please include: Wetted width, bankfull width, bank height, label the left and right bank, indicate where bank angles were taken, any notable features.

REMINDER: Take the 75% stream reach photo on your way to the next transect!

Transect 3: Upstream Transect

Channel Geometry: Left and right bank are determined by looking downstream

Measurements	Left Bank	Right Bank
Bank Height (m)		
Bankfull Width (m)		
Bank angle (degrees)		
Wetted Width (m)	(divide by 4 to get distance to cross-section points)	

Cross-Section Measurements: Left and Right banks are determined by looking downstream

Measurement	Distance Across Channel		
Cross-Section Points	L (25%) = _____m	M (50%) = _____ m	R (75%) = _____ m
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Transect 3: Upstream Transect

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Please include: Wetted width, bankfull width, bank height, label the left and right bank, indicate where bank angles were taken, any notable features.

Photo Checklist

Standardized Site Photos		
Photo Taken?	**Nomenclature**	**Description of Photo**
	25Down1	unobstructed photo from 25% looking downstream
	25Up2	unobstructed photo from 25% looking upstream
	50Down3	unobstructed photo from 50% looking downstream
	50Up4	unobstructed photo from 50% looking upstream
	75Down5	unobstructed photo from 75% looking downstream
	75Up6	unobstructed photo from 75% looking upstream
Stream Viewer Photos		
Photo Taken?	**Nomenclature**	**Description of Photo**
	SVDown	stream viewer photo at downstream transect
	SVMid	stream viewer photo at middle transect
	SVUp	stream viewer photo at upstream transect

General Characteristics (Assess across entire reach)

Upstream Water Temperature

Upstream Water Temp (°C)	Rep 1:	Rep 2:

Reach categorization (percentages should add up to 100%)

# of Riffles:	% Riffles:	% Pools:	% Runs:

Aquatic Vegetation Classification

Watercolor (examples: clear, hint of green, pea green, brown, milky)	
Estimate aquatic vegetation, how much (%) of the stream reach is green?	

Bank Condition

Note! *Only assess the bank (where the bank angle was measured) and not into the floodplain or riparian zone.*

Bank Condition (add to 100%)	**Percent of left bank**	**Percent of right bank**
Grasses/herbaceous plants		
Trees/shrubs		
Soil		
Bedrock		
Fortified bank materials (concrete/rip-rap/lumber)		
Bank impacts (animal/human/vehicle tracks)		
Floodplain inundation	**Left bank: Yes/No**	**Right bank: Yes/No**
water ring stains around trees		
flattened vegetation, lines of leaves		
twigs and/or trash		
Impact of Animals		
Are livestock fenced out of the stream? No (Unlimited access) Yes (limited access) Yes (No access) N/A		
Is the fence actually keeping animals out of the stream? Yes No N/A		

Benthic Macroinvertebrate Collection Field Data Sheet

Chesapeake Bay Program
Science. Restoration. Partnership.

CMC Chesapeake Monitoring Cooperative

Please return this completed datasheet to your CMC service provider along with your collected sample.

Station ID:	**Date:** m/d/yy
Certified Monitor(s):	**Start time** AM/PM **End Time** AM/PM
Latitude: **Decimal degrees**	**Longitude:** **Decimal degrees**
Additional Comments:	

Parameter	Field Readings
Water Temperature (nearest tenth)	_____ . _____ °C
Length of Reach Sampled (meters) All kicks/jabs should be taken within a 100m stretch of stream	_____ meters
Rocky: Number of Riffles Sampled Target 2-3 riffle areas if possible	_____riffles
Rocky: Number of Double-Wide Kicks	_____ kicks
Muddy: Number of Jabs in Each Habitat 20 jabs total	_____ riffles _____ woody debris _____ steep banks, overhanging vegetation _____ submerged aquatic vegetation

Total Time Spent Monitoring: _____ hours (round to nearest 15 min.) *includes travel to/from monitoring site, equipment preparation, sample collection, water's edge time, and time spent filling out datasheets.*

Signature: _____

Date: _____

Updated April 2023

Draw a simple schematic of your stream sampling locations. Locations should be throughout the stream sample reach from at least 2 different riffle areas. Try to get samples from the left and right side of the stream and in fast and slower flowing riffle areas. Mark them off as you go. If muddy bottom sampling, mark type location of jab taken and label habitat type.