

Water Quality Volunteer Coalition



Updated June 2026

Water Monitoring Site Physical & Chemical Data Page - 1

Site ID #:	Site/Waterbody Name:
Date:	Time:
Recorder:	
Monitor(s):	Equipment:

Current Conditions	Precipitation	Past 24 Hours
☐	Stormy Weather	☐
☐	Rain (Continuous)	☐
☐	Showers (Intermittent)	☐
☐	Overcast Skies	☐
☐	Clear Skies	☐

Stream Bank Characteristics	
complete both cross-section shape & erosion section	
Cross-Section Shape	Erosion
☐ V-shape	No sign of erosion ☐
☐ U-shape	Occasional areas of erosion ☐
☐ Rectangular	Extensive erosion ☐
☐ Banks undercut	Artificial stabl. present (rock/log) ☐

Water Appearance	
choose at least one by check mark	
☐ Clear	☐ Foamy
☐ Orange/Red	☐ Milky/White
☐ Dark Brown	☐ Muddy/Cloudy
☐ Green	☐ Multi-colored
☐ Other (describe): _____	

Water Odors	
choose at least one by check mark	
☐ No smell	☐ Sewage
☐ Chlorine	☐ Manure
☐ Fishy	☐ Musty
☐ Earthy	☐ Non-wadeable stream
☐ Other (describe): _____	

Sediment Deposits		
choose at least one by check mark		
☐ No unsual sediments	☐ Silt	☐ Paper Fiber
☐ Other (describe): _____	☐ Gravel	☐ Sand
	☐ Mud	☐ Sludge

Stream Type	
choose at least one by check mark	
☐ Straight	☐ Channelized
☐ Meandering	☐ Pool/Riffle
* Estimated level of high water above present stream level: _____ m	

Stream Bottom	
Inorganic (%)	Organic (%)
☐ Bedrock (solid) _____ %	☐ Muck-mud _____ %
☐ Boulder >25 cm _____ %	☐ Pulpy peat _____ %
☐ Cobble 6.25-25 cm _____ %	☐ Fibrous peat _____ %
☐ Gravel 0.25-6.25 cm _____ %	☐ Detritus _____ %
☐ Coarse sand <0.25 cm _____ %	☐ Logs, limbs _____ %
☐ Silt - soft fine sand _____ %	☐ Marl (gray, shell frag) _____ %
☐ Clay, sticky fine sand _____ %	☐ Other: _____ %
☐ Other: _____ %	☐ Non-wadable stream ☐

Inorganic + Organic MUST = 100%

Boulder >10 in Cobble 10-2.5 in Gravel 2.5-0.1 in

1% 3% 5% 10% 20% 50%

Surrounding Land Use	
Estimated by percentage & total should = 100%	
☐ Wetlands _____ %	☐ Commercial _____ %
☐ Forest _____ %	☐ Industrial _____ %
☐ Cropland _____ %	☐ Unused/Abandoned _____ %
☐ Pasture _____ %	☐ Shrubs/Small trees _____ %
☐ Residential _____ %	☐ Other: _____ %

No change in land use from previous sampling ☐ **TOTAL = 100%**

Observation/Notes:

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Water Monitoring Site Physical & Chemical Data Page - 2



Site ID #:

Site/Waterbody Name:

Stream Width (m)

- Stream width is measured across stream from water edge to water edge
- Measured upstream & downstream (~10 meters or 32 feet apart)
- Conversion:** 1 foot = 0.3048 meters (_____ feet x 0.3048 = _____ meters)

	Upstream	Downstream
Width in Feet	_____ ft	_____ ft
	x 0.3048 ↓	x 0.3048 ↓
Width in Meters	_____ m	_____ m

Average Stream Width (m) Δ (upstream + downstream) / 2 = _____ m

Stream Depth (m)

- Stream depth is measured at three* to five locations evenly spaced across stream width
- Measured at same locations stream width was taken (up & downstream)
- Conversions:** 1 inch = 2.54 cm, 1 cm = 0.01 meters

Depth samples across stream	Upstream	Downstream	Unit
• Sample 1 (LT side looking up)*			
• Sample 2			
• Sample 3 (stream center)*			
• Sample 4			
• Sample 5 (RT side looking up)*			

Average Stream depth (m) Δ _____ m

Conversions: _____ cm x 0.01 = _____ m OR _____ in x 0.0254 = _____ m

Stream Velocity (m/s)

- If using bobber method - perform test at least 3 times*; time (sec) for bobber to travel 10 m
- If using flow meter - only one measurement necessary; ensure propeller is in middle of water column

Velocity Readings	Bobber Method	Flow Meter
• Sample 1 (LT side looking up)*	_____ sec	
• Sample 2	_____ sec	
• Sample 3 (stream center)*	_____ sec	_____ m/s
• Sample 4	_____ sec	
• Sample 5 (RT side looking up)*	_____ sec	

Bobber Method Calculation: 10 m / _____ (Avg time (sec)) = average surface velocity

Average Stream Velocity Δ _____ m/s

Stream Flow/Volume

Stream flow (m³/s) = avg width x avg depth x avg velocity

_____ m x _____ m x _____ m/s = _____ m³/s

avg width Δ avg depth Δ avg velocity Δ x flow factor (if applicable) 0.8 or 0.9

Average Temperature

Take 2 readings and then average them

Air Use weather app or thermometer	(_____ °F + _____ °F) / 2 = _____ °F
	(_____ °C + _____ °C) / 2 = _____ °C
Water Use DO meter	(_____ °F + _____ °F) / 2 = _____ °F
	(_____ °C + _____ °C) / 2 = _____ °C

Water Chemistry

Parameter <i>Equipment</i>	*Water Quality Guidelines*	Original Reading	Duplicate Reading
Dissolved Oxygen¹ <i>DO Meter / YSI (mg/l)</i>	≥ 6.0 mg/l		
pH¹ <i>PocketPro</i>	6.0 - 9.0		
Specific Conductivity² <i>PocketPro (µS/cm)</i>	50 - 1,500 µS/cm		
Total Dissolved Solids¹ <i>PocketPro (mg/l)</i>	≤ 750 mg/l		
Salinity³ <i>PocketPro (ppt)</i>	< 1 ppt		
Total Alkalinity¹ <i>Alkalinity Kit (mg/l)</i>	≥ 20 mg/l		
Nitrate¹ <i>Colorimeter (mg/l)</i>	≤ 10 mg/l		
Phosphate <i>Colorimeter (mg/l)</i>	-		
Turbidity <i>Colorimeter (NTU)</i>	-		

Water Quality Guidelines derived from PA Code 25, Chapter 93¹, US EPA², and USGS³. These values help indicate the health of a stream and should only be used as a reference. They do not indicate the range of the instrument

Nitrate Reagent (Lot # & Exp):

Phosphate Reagent (Lot # & Exp):

Alkalinity Reagent (Lot # & Exp):

Observation/Notes: