

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

- | | | |
|--------------------------|----------------|---|
| ☐ | V-shape |  |
| ☐ | U-shape |  |
| ☐ | Rectangular |  |
| ☐ | Banks undercut |  |

Erosion

- | | |
|--------------------------------------|--------------------------|
| No sign of erosion | ☐ |
| Occasional areas of erosion | ☐ |
| Extensive erosion | ☐ |
| 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 |

Inorganic (%)

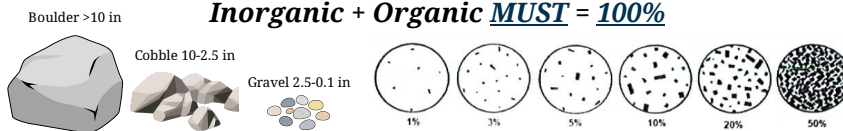
- | | |
|--------------------------|---------|
| • Bedrock (solid) | _____ % |
| • Boulder >25 cm | _____ % |
| • Cobble 6.25-25 cm | _____ % |
| • Gravel 0.25-6.25 cm | _____ % |
| • Coarse sand <0.25 cm | _____ % |
| • Silt - soft fine sand | _____ % |
| • Clay, sticky fine sand | _____ % |
| • Other: | _____ % |

Stream Bottom

Organic (%)

- | | |
|---------------------------|--------------------------|
| • Muck-mud | _____ % |
| • Pulpy peat | _____ % |
| • Fibrous peat | _____ % |
| • Detritus | _____ % |
| • Logs, limbs | _____ % |
| • Marl (gray, shell frag) | _____ % |
| • Other: | _____ % |
| • Non-wadable stream | ☐ |

Inorganic + Organic MUST = 100%



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%

* if applicable

Stream Type

choose at least one by check mark

- | | | |
|-------------------------------------|--------------------------------------|---|
| ☐ Straight | ☐ Channelized | * Estimated level of high water above present stream level: _____ m |
| ☐ Meandering | ☐ Pool/Riffle | |

Observation/Notes:

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Water Quality Volunteer Coalition

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: