

STREAMKEEPERS OF CLALLAM COUNTY - Flow-only data sheet, with Tour info, rev. Dec. 2014

Project: _____ **Site:** _____ **Date:** ____/____/____

Sampler in charge: _____ **Other samplers:** _____

Meter used (owner/number): _____. Describe any equipment used that is not normally part of that kit. If possible, include model/serial #s or the number of the field kit that the item comes from:

General comments (problems encountered, major changes to reach, other significant events, recent weather, deviations from field procedures):

Chain of Custody / Quality Control Checks:

Action	Performed by	Initials	Date
Data reviewed for completeness, accuracy, & clarity	Stream team		__ / __ / __
Data submitted to Streamkeepers office	Stream team		__ / __ / __
Data received in Streamkeepers office	SK staff		__ / __ / __
Quality-control review of data	SK staff		__ / __ / __
Data entered into database	Staff/volunteers		__ / __ / __
Database checked against field sheets	Staff/volunteers		__ / __ / __

Flow protocol source: Streamkeepers ____ Other: _____ **Primary sample / Replicate**

Method: Wade-across ____ Bucket ____ Single-point ____ Floating-object ____ ← (use for zero flows)

Time (military--to nearest min.): Start: _____ End: _____ ; starting at **LB / RB** (left/right bank facing downstream)

Problems noted: _____

For Swoffer meter:	Rotor #: <input type="text"/>	Rotor calibration # (on bag): <input type="text"/>	Calibration date: <input type="text"/>
	Hand-spin test (circle one): pass / fail		Meter calibration # (switch on "calibrate"): <input type="text"/>
	Count test (circle one): pass / fail		Blow-spin test (circle one): pass / fail

Include zero velocity readings 0.3 ft. to the outside of the "measurable edges" where possible.

When zero velocity readings, indicate why: insufficient depth (*insf/d*) insufficient velocity (*insf/v*) or both (*insf/dv*)

Tape to nearest 0.1'	Depth to 0.01 ft.	Velocity* to 0.01 ft. per sec	Angle** to nearest 10°	Tape to nearest 0.1'	Depth to 0.01 ft.	Velocity* to 0.01 ft. per sec	Angle** to nearest 10°
	0	(wetted edge @ dry land)					
					0	(wetted edge @ dry land)	

Sampler's initials:

(* For depths >2 ft., record velocity readings at both 2/10 and 8/10 depths, and record both to be averaged.)
 (** Estimate the tell-tail's deviation from straight downstream, then face the prop in the direction of the current.)

Stream stage: Before measuring flow: _____ ft / m; After: _____ **Sampler's initials:** _____

Stage Benchmark: stream gage / water-level at fixed point / top-down from fixed point (mark as neg. #)

Describe fixed point: _____ over ↘

WORKSHEET TO DETERMINE CELL WIDTH AND WHERE TO START AND FINISH:

- = **LBWE:** Left Bank (facing downstream) wetted edge of dry land (tape measurement to 0.1 ft.)
- = **RBWE:** Right Bank (facing downstream) wetted edge of dry land (tape measurement to 0.1 ft.)
- = = **WW:** Wetted width; the difference between the above wetted edges (to 0.1 ft.)
- ÷ 10 = **MaxΔ:** **MAXIMUM INTERVAL;** the wetted width above divided by 10 (to 0.1 ft.)

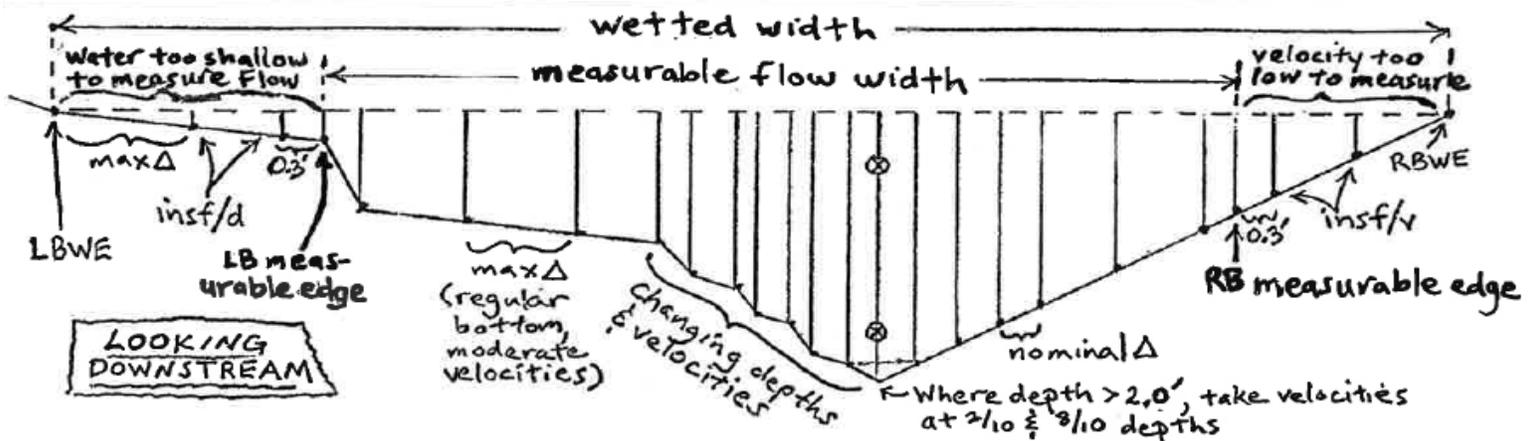
MAXIMUM INTERVAL APPLIES EVEN OUTSIDE OF THE "MEASURABLE FLOW" AREA!

If wetted width is < 6.8 ft., use 0.3 ft. (the minimum interval) as the distance between flow measurements.

- = **LBME:** Tape measurement at **LB** "measurable flow" edge
- = **RBME:** Tape measurement at **RB** "measurable flow" edge
- = = **MFW:** "Measurable flow" width; the difference between "measurable flow" edges
- ÷ 20 = **NomΔ:** **NOMINAL INTERVAL;** the "measurable" width divided by 20 (round **UP** to nearest 0.1 ft.)

However, use smaller intervals in areas where velocity or depth is large or changing rapidly.

BUT PLEASE NOTE: MINIMUM INTERVAL = 0.3 ft.



Floating-Object Flow: (circle:) Primary sample / Field replicate Sampler's initials:

Mark Start & Finish lines across a stretch of the stream (≥ 10 ft.) with fairly uniform width, depth, and flow.

Length of course (to 0.1 ft) Avg width (to 0.1 ft.): Avg depth (to 0.1 ft):

Time trials (# of seconds)--do at intervals all the way across the creek:

1) 2) 3) 4) 5) 6) 7) 8) 9) 10) Avg:

Calculations (can be done later): Average velocity = Length of course / Avg. time = ft/sec

Friction factor (circle one) = 0.8 for a gravel/cobble-bottomed stream, 0.9 for a smooth-bottomed stream

Flow (est.) = Avg. depth * Avg. width * Avg. velocity * Friction factor = ft³/sec (cfs) (round to 0.1)