



Southeastern Vermont Watershed Association
 Water Quality Monitoring Program
2018 Equipment List

- Cooler
- Cold Pack or Ice
- Thermometer
- Labeled Sample Bottles (see below)
- Field Data Sheet
- Chain of Custody Sheet (one per volunteer/team, not per site)
- Sampling Pole (if provided)

DO NOT RINSE	RINSE 3X
 <p><i>E. coli</i> (regular and lab duplicate) Round plastic bottle with white cap. Fill to line. Remove seal before sampling.</p>	 <p>Turbidity & Conductivity Square plastic bottle (x2) Fill to shoulder.</p>
 <p>TP Round glass tube with white plastic cap. Fill to line.</p>	 <p>TN Round plastic tube with blue cap. Fill to 50 mL line leaving space for shaking.</p>

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2018 Sampling Schedule

	S	M	T	W	T	F	S
JUNE						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	1	2	3	4	5	6	7
JULY	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31	1	2	3	4
	5	6	7	8	9	10	11
AUGUST	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	

Mostly Wednesday Morning Monitoring Dates:

All Parameters: June 20, July 3 (TUESDAY!!!) July 18, August 1, August 15, August 29

There will be no E. coli only days or sites this season.

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Field Sampling Instructions

Air Temperature

1. Hang thermometer in the shade for 2 minutes or more
2. Read temperature to the nearest degree or ½ degree
3. Record your thermometer number and reading on the field data sheet.

Water Temperature

1. If safe and practical, take the temperature where the other samples are collected. Do not take the temperature close to the edge of the stream bank, as water may be warmer there
2. Place thermometer at the depth where the bottles are filled (approx. “mid-depth” in stream, not at surface)
3. Wait approximately 2 minutes for the thermometer to stabilize
4. Keep the thermometer in the water while reading the temperature to the nearest degree or ½ degree
5. Record your thermometer reading on the field data sheet

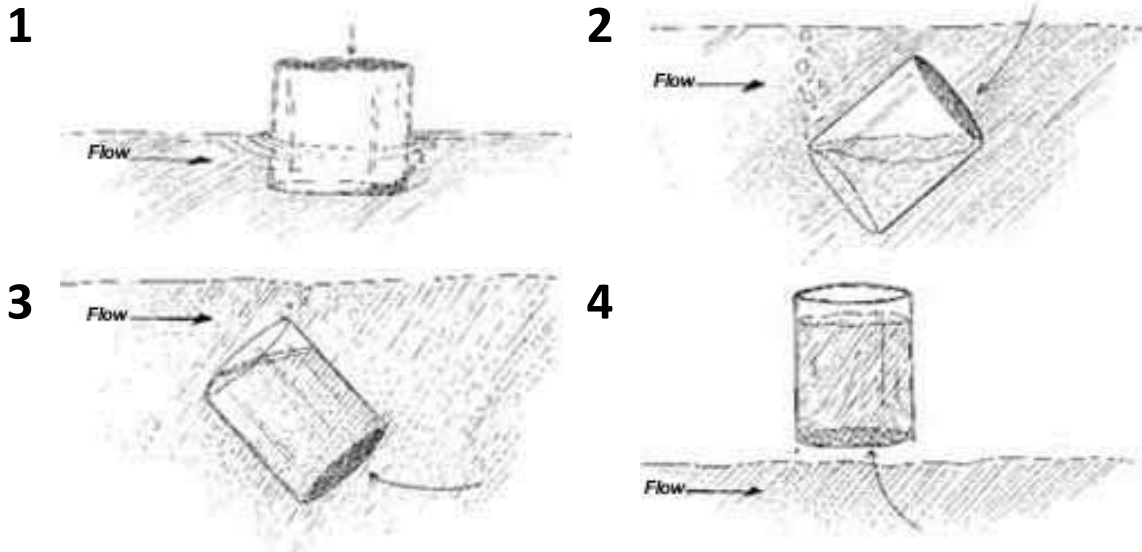
Taking a Water Sample

1. Keep bottle sterile: do not open bottle until sample time and do not touch inside of bottle or cap
 - o If you think you may have contaminated your bottle, make a note on your field sheet but take your sample anyway
2. Wade into the water to a reasonable safe depth; when possible, sample where the water is flowing strongest
3. Look upstream; **take all samples upstream of your body.**
4. **If applicable, rinse bottle 3x. See table on Equipment List.**
 - o Fill bottle with river water and dump out downstream from your body
5. Holding the bottle at its base, plunge it opening-down, perpendicular to the stream bed
6. Turn the bottle up, opening towards the current, until it is pointing slightly upwards
 - o If there is no current, push the bottle horizontally **away** from your body

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7. Fill the bottle to fill line or shoulder of the bottle. Do not underfill.
 - If the bottle is overfilled, use flick method to gently get it closer to fill line. Slightly overfilled is better than under-filled
8. Immediately replace cap, being careful not to touch inside of cap or bottle
9. Check off corresponding bottle on field data sheet
10. Place bottle in cooler with ice pack as soon as possible after collection

Diagram of best method to fill bottles:



Quality Control Samples

The lab requires us to take several types of Quality Control (QC) samples as a check in the accuracy of both our and the lab's methods. Please mark according on your field sheet. The following are some QC samples you may encounter:

- Duplicates: If you received a second set of bottles marked DUPLICATE or QCA##, take the samples as you normally would after you take the first set
- Field Blank: If you received a second set of bottles marked BLANK or QCB## and a large bottle of deionized sterile water, fill bottles in field with water provided, no need to rinse, and return unused water with filled bottles
- E. coli Lab Duplicate: If you received a larger than normal *E. coli* bottle, take it as you normally would, without rinsing, just collecting 2.5x as much water
- TP Spike: If you received a second TP tube marked "spike", take as you normally would, without rinsing. If possible, take this sample simultaneously with your regular TP sample