

# Maine Department of Marine Resources Bureau of Public Health & Aquaculture



Water Quality Volunteer Program  
Quality Assurance Training





# Certification Requirements

- Fill out the online [Water Quality Volunteer Application and Liability Waiver](#)
- Review the online [Volunteer SOP](#)
- Review the Quality Assurance Training Power Point (this document)
- Complete the in-person Site Certification  
(to be completed with DMR staff member)



# Sampling Strategy

- DMR uses the **systematic random sampling** strategy based on establishing an annual schedule early in the calendar year and **adhering to that schedule** throughout the year.
- A copy of your schedule will be emailed to you at the beginning of the year along with run directions and a run map.
- Every effort must be made to adhere to the scheduled sampling dates.





# Equipment and Supplies

- Cooler with calibrated thermometer
- Field data sheet
- Gel freezer packs (4)
- Sampling tongs
- Whirl-Pak bags
- Sample racks
- Permanent marker
- Pen
- Field thermometer
- GPS
- Hip waders (if sampling by land)





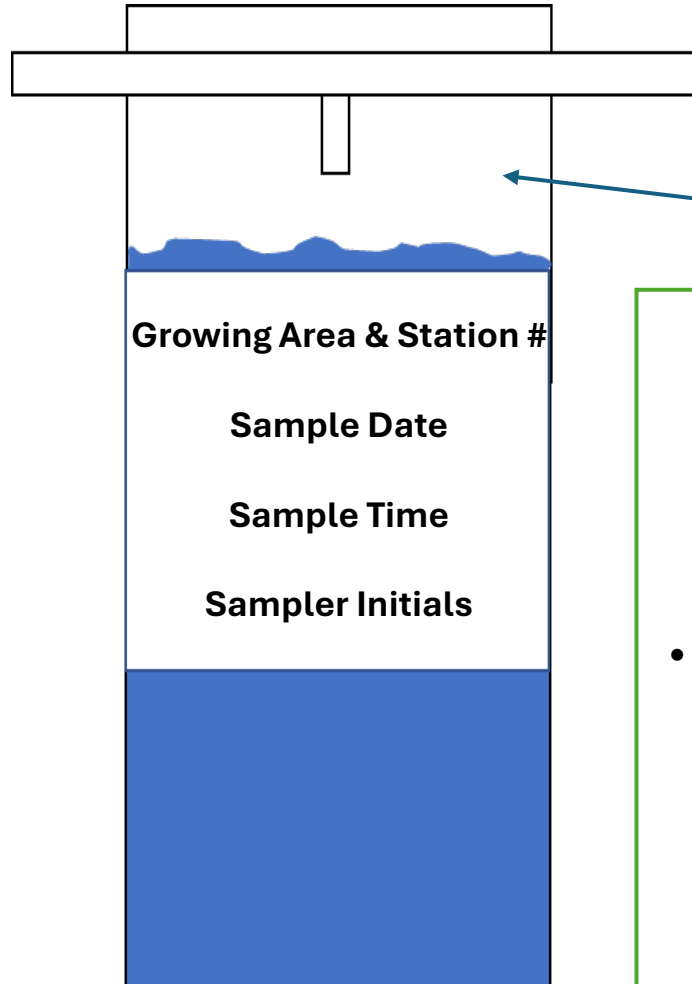
# Sampling Method

- Samples are taken with a sterile Whirl-pak bag and set of tongs.
- Samples must be kept **sterile** (no fingers in bags, minimize upwelling of sediment if land sampling, re-take sample if bag is leaking etc.).
- It is required to sample **within 300 feet** of station coordinates.
- If taken by land, the sampler must be standing in a **minimum of 18 inches of water**.
- The sample must be taken at a **minimum depth of 8 inches**.
- Samples should not be taken at low tide. (DMR recommends sampling 3 hours before or after high tide).





# Labeling Sample Bags



Headspace to allow shaking and aeration at the lab

- Use permanent marker.
- Write in the white space.
- Fill to the 4oz line but leave “headspace” as shown in the pictogram.
- Use military time.



# Transporting & Storing Samples

- DMR will provide volunteers with a cooler, tongs, racks, a calibrated cooler thermometer and a calibrated field thermometer (if sampling by land, volunteers will need to provide their own hip waders).
- Samples must be placed in the cooler immediately after collection.
- The cooler must maintain a temperature between 0 to 10 degrees Celsius (DMR recommends using 4 ice packs to achieve this temperature range).
- Samples can be dropped at a DMR satellite fridge, the DMR lab in BBH or Lamoine, or a pick up with a DMR staff member can be coordinated.
- Samples must be processed at the lab within 30 hours of collection time.



# Field Sheet Requirements

- Time must be recorded in 24-hour format (military time).
- Date should be recorded as: **Month-Day-Year**.
- Temperature must be recorded in **Celsius**.
- Missed stations need a “**missed station code**” (back of data sheet).
- Missed stations still need attempted sample time.
- Any potential source of pollution observed needs an **Adversity code** (back of data sheet).
- Fill out chain of custody (number of samples **per sheet**, not the total samples per run).
- Mistakes need a **single line** strikethrough with date and initials of the corrector (can be in annotation style, ex. on next page).
- Use black or blue pen. **Do not use pencil.**

















# Training Check #1

1. Within how many feet of the plotted station location must a sample be collected?
2. What is the minimum water depth required to take a sample?
3. What is the minimum sample depth?
4. Is it required to use a DMR cooler for sample transportation?







# Training Check #2

5. What should you do if your sample bag is leaking?
6. If samples are being dropped off at a temperature-controlled satellite location, what information must be on the Chain of Custody form?
7. What critical pieces of information must be written on the sample bag?
8. What is the acceptable temperature range for coolers?
9. Samples must be processed within how many hours of collection?



# Answers



1. 300 feet
2. 18 inches
3. 8 inches
4. Yes
5. Resample with a new, unopened bag.
6. Initials, date, time (military), temperature (C), number of samples, relinquished destination.
7. Growing Area, station #, date, time (military), and sampler initials.
8. 0-10° Celsius
9. Within 30 hours of collection



# Resources

- The volunteer application & waiver, this training guide, blank data sheets, blank GPS coordinate sheets, and the volunteer SOP can be found here:

<https://www.maine.gov/dmr/node/779>

- A copy of the FDA National Shellfish Sanitation Program (NSSP) Guide, to which DMR must comply, can be found here:

<https://www.fda.gov/food/federalstate-food-programs/national-shellfish-sanitation-program-nssp>

