1. **IF USING GEL PACKS, FREEZE UPON RECEIPT IF INCLUDED IN THE COOLER BEFORE SAMPLING.**
2. **WHEN SAMPLING, ADD FROZEN GEL PACKS OR BAGGED WET ICE TO THE COOLER ON THE DAY OF SAMPLING AND BRING OTHER AVAILABLE BAGGED WET ICE IN SEALED BAGS OR FROZEN GEL PACKS TO CHILL SAMPLES DURING SAMPLE COLLECTION.**

3. The sampler may receive any of the following sample kits from our lab, depending upon the methods requested

Regular Methods							
Method	Analyte	# of Bottles	Minimum Sample Volume/ Size	Bottle Type	Preservative	Hold Time	Preservation Check
In-house LC-MS-MS	Algal Toxins (microcystins plus cylindrospermopsin and anatoxin-a	2	40 mL	Amber glass vial fitted with PTFE-lined screw cap	MON : 25 mg Ascorbic Acid; SB: 0.4 – 0.45g of mixed sample preservatives (77.5g Trizma Preset crystals, 20 g 2-chloroacetamide, 1.0 g L-ascorbic acid, 3.5 g EDTA)	28 days	---
In-house ELISA Envirologix	Microcystin LR	1	40mL	Amber glass vial fitted with PTFE-lined screw cap	6 mg Sodium Thiosulfate	1 month	---

UCMR4 Methods							
Method	Analyte	# of Bottles	Minimum Sample Volume/ Size	Bottle Type	Preservative	Hold Time	Preservation Check
EPA ELISA Draft ADDA Enzyme-Linked Immuno-sorbent Assay	Total Microcystins	3	125mL	Amber glass bottle with PTFE-lined screw cap	12.5-15.6 mg /125mL sodium thiosulfate pellet	21 days	Absence of free chlorine, <0.1 mg/L
EPA 544	Microcystins & Nodularin	3	525mL	Amber glass bottle with PTFE-lined screw cap	pH 7.0 Trizma, 7.75 g/L 2-Chloroacetamide, 2 g/L Ascorbic Acid, 0.10 g/L Ethylenediaminetetraacetic acid trisodium salt, 0.35 g/L	28 days	pH 7.0 Absence of free chlorine, <0.1 mg/L
EPA 545	Cylindrospermopsin & Anatoxin-a	3	60mL	Amber glass vial fitted with PTFE-lined screw cap	Ascorbic acid, 0.10 g/L Sodium bisulfate, 1.0 g/L	28 days	Absence of free chlorine, <0.1 mg/L

4. If sampling from a cold water tap, remove the aerator and screen.

5. Open the tap and let the water of the sample source run at fast flow for approximately 3-5 minutes or until the temperature has stabilized.

6. Use indelible ink to clearly identify the sample bottles with the information listed below.
   - -Sample ID
   - -Sample source, if not already on label
   - -Analysis required, if not already on label
   - -Date and Time of collection
   - -Preservative used, if not already on label

7. Slow water flow to minimize splashing and fill bottle from the flowing system. **Do not rinse the bottle.**

MON = Monrovia; SB = South Bend

8. **For ELISA and EPA 544 Samples:**
   a. Fill sample bottle up to at least **the bottom of the neck** to ensure adequate sample volume and to allow mixing, **taking care not to flush out preservatives** and making sure the mouth of the bottle does not come in contact with anything other than sample water.
   b. Cap and invert the sample bottle and mix until preservatives are dissolved.
   c. Collect sample for the other 2 sample bottles by repeating step 8a to 8b.

OR

For EPA 545, In-house LC-MS-MS Algal Toxins Samples, and In-house ELISA Envirologix:

   d. Fill the vial up to about within **½ to 1 inch from the top** to allow mixing, **taking care not to flush out preservatives** and making sure the mouth of the bottle does not come in contact with anything other than sample water.
   e. Cap and invert the sample bottle and mix until preservatives are dissolved.
   f. Collect sample for the other 2 sample bottles by repeating step 8d to 8e.

SHIPPING SAMPLES AND STORAGE

1. If shipping samples on the same day of sampling, chill samples until at or below 10°C by exchanging the ice used during sampling with sealed bags of fresh frozen ice or gel packs.
2. Collect samples early in the morning and refrigerate them for several hours before packing them in the cooler with the ice or frozen gel packs for transport. Alternatively, cool the samples down by placing them **overnight** in a cooler with ice, or in a refrigerator (store chilled for at least 12 hours before packing for shipment). Maintain the samples cold until repacked in the cooler for shipment to the lab.
3. **Pack chilled samples** in a cooler and add enough **FRESH** wet ice to take up 30-50% of the cooler (e.g. most of the remaining space) as recommended in our "***Wet Ice Packing Instructions***" or use FROZEN gel packs.
4. If shipping to the laboratory with **frozen gel packs** rather than wet ice, please be sure that the gel packs have **been frozen for at least 48 hours** prior to the shipment time.
5. Complete Chain of Custody during sample collection. Place completed Kit Order and completed Chain of Custody in a ziplock bag in the cooler on top of packing material. The following information is required on the completed Chain of Custody.
   - Collector's name
   - Unique field sample ID
   - PWSID #
   - Date and time of collection
   - Comments about the sample, if applicable
   - Facility ID #
6. **Ship via overnight service such as FEDEX, UPS, or DHL, etc.** Sample must not exceed 10˚C during transit.
7. **Samples MUST arrive at lab within 48 hours of sampling at or less than 10˚C, greater than 0˚C (not frozen)**
8. **If samples are received more than 48 hours after sampling they must be at or less than 6˚C, greater than 0˚C (not frozen). For UCMR4,** indicate in COC if samples were held at 10˚C or less for the first 48 hours after collection and 6°C or less while in their possession.
9. If samples are received on the same day as collection, temperature may be greater than 10˚C with evidence of cooling.

GENERAL NOTES

1. It is recommended (but except for UCMR 4 not mandatory) to wear powderless nitrile gloves during sampling and sample handling.
2. Send samples for overnight delivery to the laboratory.
3. Try to collect only on a Monday, Tuesday or Wednesday and ship no later than Thursday of each week, and try to **NOT** collect samples on Friday, Saturday, or Sunday unless special arrangements have been made for the receipt of samples at the laboratory within 48-hours of collection.

UCMR4 NOTES

1. For UCMR4 monitoring associated with the ELISA Method, measure pH and temperature for the associated samples and record the results in the COC.
2. For UCMR4, do not composite (i.e., combine, mix or blend) samples.
3. For UCMR4, Identify sample type (SR, EP, or MR)
4. For UCMR4, Identify Sample Event Number (Cyanotoxins: SEC1, SEC2, SEC3, SEC4, SEC5, SEC6, SEC7, SEC8)