CSLAP Field Sample Collection Checklist

I. Predeparture Equipment Check: Complete the following checklist **before departing** the dock.

◯	CSLAP Field Observation Form (Lake Perception, and Health and Safety Form); Sampling Record Form	◯	Supplemental shallow water collection container (or replacement large container)
◯	Secchi disk and tape measure	◯	Boat, anchor and line, and appropriate safety equipment
◯	Thermometer	◯	Pen or pencil to fill out forms
◯	Kemmerer sampling bottle and marked line	◯	Camera or phone for photos of algae blooms
◯	Plastic gloves for surface and deep sample collection	◯	Watch, phone, etc. to get time of day, GPS
◯	Collapsible water sample container and cap with spigot (For stratified lakes – deep collection container also)	◯	Boat, anchor and line, and appropriate safety equipment

II. On-Lake Observations, Secchi, and Air Temperature Readings

① Go to your sampling site by using GPS or triangulation and anchor (if possible)

② Determine sounding depth (lake depth) with Secchi disk or depth finder and record in meters.

③ Fill out **both sides** of the "**CSLAP Field Observation Form – Lake Perception and Health and Safety**"

④ Fill out "**CSLAP Sampling Record Form**"

___ Record the lake name, county, sampling round #, date, and names of volunteers .

___ Determine the Sounding Depth using the secchi disk or a depth finder and record to the nearest 0.1 meter.

___ Record lake level (high, normal, low).

___ Collect Secchi Disk measurement off the shady side of boat to the nearest 0.1 meter – **do not use aides or sunglasses.**

___ Record sampling time.

___Take the air temperature reading using the provided thermometer, and record to nearest 1 degree Celsius.

___ Assess and record today's wind and sky conditions.

___ Record average weather conditions that have occured over the past week.

___ In the comments section, briefly note any unusual weather conditions, and include a brief summary of lake management activities taking place (herbicide applications, harvesting, oxygenation, etc.)

III. Sample Collection, Water Temperature, and Odor Observations

① Collect Surface sample (at 1.5 m depth). Remember to:

- **Wear gloves throughout the sample collection process!**
- Keep the Kemmerer line as straight as possible.
- Avoid touching inside the Kemmerer while setting the tripping mechanism.
- Rinse the collapsible container with sample water- fill ¼ full, shake, and discard completely before filling.
- Avoid touching the spigot/sample while discharging from container.
- Collect additional samples if needed until the surface collapsible container is filled.

② Record Hydrogen Sulfide ("rotten egg") odor if applicable

③ Put collapsible container(s) in a cooler or in the shade to keep cool, out of sunlight prior to on-shore processing

④ **If collecting a Deep sample, repeat steps ①-③ ~1.5 meters from the bottom**

IIV. Shoreline Algae and Aquatic Plant Observations

①Assess shoreline for bloom conditions. Take photos of any HABS and report to NYHABS

② Complete aquatic plant observations in the comments section. Collect specimens for photographing and ID if needed.

◯ **Enter Field Data to Online System (on.ny.gov/cslap_dashboard)**

CSLAP On-Shore Sample Processing Checklist

I. On Shore Process for the Surface Sample

Important Tips:

o Samples should be processed immediately! Failure to do so will impact the integrity of the data.

o **Remember to wear gloves throughout the sample processing!**

o Before processing, label the bottles with sample date and organize based on parameter, and date the chain of custody.

o Open bottle caps 1 at a time, as you fill them; avoid touching the inside of the bottle caps or bottles.

1. Fill the following bottles *without* filtration from the shallow collapsible container:

① Mix the surface sample by gently inverting the collapsible container.

② Completely fill the pH bottle to the top with water, leaving no air gap, and **refrigerate.**

③ Fill the fluoroprobe sample bottle (amber glass bottle) to the shoulder with water and **refrigerate.**

④ Fill Total Phosphorus (TP), Total Nitrogen (TN), and Nitrogen Oxides/Ammonia (NO_X/NH_3) bottles to the shoulder with surface water and **freeze.**

⑤ Fill the calcium and chloride bottles (not in every round) with water to the shoulder and freeze.

2. For samples *with* filtration (Filtered Color Water and Chl-*a* Samples)

Color sample:

①Rinse entire filtration apparatus with distilled water and discard water.

②Using forceps, place 1 filter paper in the filter holder.

③ Secure filter to holder by gently threading the cup onto the holder.

④ Measure 100 ml water using the graduated cylinder, then filter– **apply a slight vacuum (a few pumps) to the sample to avoid rupturing the filter.**

⑤ Discard the filter.

⑥ Pour filtered water into the **color** bottle and **refrigerate**

⑦ Rinse equipment with distilled water

Chlorophyll a (Chl-a) sample:

① Using the forceps, place a second filter into the filter holder.

② Cover Filter Paper with 6-10 drops of $MgCO_3$ from bottle (shake well)

③Measure 100ml of water using the graduated cylinder and filter. Rinse down graduated cylinder and walls of upper apparatus with distilled water and filter to capture all Chlorophyll *a*

④ Remove the filter with the forceps, fold filter paper in quarters and place in vial labeled **Chl-a.**

⑤ Wrap entire Chl-*a* vial with aluminum foil and **freeze**

⑥ Discard remaining water and rinse equipment with distilled water.

II. On Shore Processing for the Deep Sample (if applicable)

①Mix deep sample by gently inverting the collapsible container.

②Fill the TP and NO_X/NH_3 bottles to the shoulder with deep sample water and **freeze**.

III. Finish Processing

① Verify all paperwork is complete and all bottles are labeled and place paperwork in return cooler

② Enter field data and report HABs, if applicable using the CSLAP dashboard: **on.ny.gov/cslap_dashboard** (case sensitive)

③ Place pH, color, and fluoroprobe (amber glass bottle) samples to Place in **Refrigerator – DO NOT FREEZE!!**

④ Place all other bottles, including Chl-a into the **freezer.** Place freezer packs in freezer with samples.

⑤ Rinse equipment with distilled water and set aside to dry until next session. Hang Kemmerer inside and open to dry completely

⑥ Completely fill out Chain of Custody form and compare the bottle list to the ones you are shipping.

⑦ Ship samples the following day to UFI:

o Retrieve samples from the refrigerator and freezer. Pack all samples in the big cooler box with sufficient ice packs to remain cooled.

o Place paperwork on top of cooler inside cardboard box. Use a separate sheet on top to request supplies or send notes (Do not write notes on the COC or Sampling Record Form)

o Place pre-paid label on top of cooler and take to the nearest FedEx facility for shipment

◯ **Enter Field Data to Online System (on.ny.gov/cslap_dashboard)**