7.2.3 Equipment and Supplies (*Chlorophyll a* from Water Sample)

Table 7-3 provides the equipment and supplies needed to process the *chlorophyll a* water sample.

Table 7.3. Equipment and supplies list for *chlorophyll a* processing

For filtering *chlorophyll a* sample	▪ Whatman GF/F 0.7 µm glass fiber filter ▪ Filtration apparatus with graduated filter holder ▪ Vacuum pump (electric pump may be used if available) ▪ 50-mL screw-top centrifuge tube ▪ Aluminum foil square ▪ DI water ▪ Nitrile gloves ▪ Forceps
For recording measurements	▪ Sample Collection Form ▪ Sample labels ▪ #2 pencils ▪ Fine-tipped indelible markers ▪ Clear tape strips

7.2.4 Procedures for Processing the *Chlorophyll a* Water Sample

The procedures for processing *chlorophyll a* water samples are presented in Table 7-4. Whenever possible, sample processing should be done in subdued light, out of direct sunlight.

Table 7.4. Processing procedure—*chlorophyll a* sample

1. Put on nitrile gloves.
2. Use clean forceps to place a Whatman GF/F 0.7 µm glass fiber filter in the graduated filter holder apparatus with the gridded side of the filter facing down.
3. Pour 250 mL of water into the filter holder, replace the cap, and use the vacuum pump to draw the sample through the filter. If 250 mL of site water will not pass through the filter, change the filter, rinse the apparatus with DI water, and repeat the procedures using 100-mL of site water. *NOTE: IF the water is green or turbid, use a smaller volume to start with.*
4. Rinse the upper portion of the filtration apparatus thoroughly with DI water to include any remaining cells adhering to the sides and pump through the filter (do not exceed 7 inches of Hg). Monitor the level of water in the lower chamber to ensure that it does not contact the filter or flow into the pump.
5. Observe the filter for visible color. If there is visible color, proceed; if not, repeat steps 3 & 4 until color is visible on the filter or until a maximum of 2,000 mL have been filtered. Record the actual sample volume filtered on the Sample Collection Form.
6. Remove the bottom portion of the apparatus and pour off the water from the bottom.
7. Remove the filter from the holder with clean forceps. Avoid touching the colored portion of the filter. Fold the filter in half, with the colored side folded in on itself.
8. Place the folded filter into a 50-mL screw-top centrifuge tube and cap. Record the sample volume filtered on a chlorophyll label and attach it to the centrifuge tube. Ensure that all written information is complete and legible. Cover with a strip of clear tape. Wrap the tube in aluminum foil and place in a self-sealing plastic bag. Place this bag between two small bags of ice in a cooler.