

Water Sampling Techniques to Evaluate Effluents

Method and location of where to take water samples during effluent testing is key to making a water quality assessment at facilities seeking certification.

Water samples should be done at select points chosen to represent the situation at the farm(s) being evaluated.

The attached diagram can be used to help the inspector make a decision on where the samples should be taken and the frequency of the sampling required.

Source water refers to the water being pumped into ponds or reservoirs or the water that is entering the ponds from an entrance canal or reservoir. Measurements for source water should be taken at point **I** which will be influenced by the number of entry points (canals, pump stations, etc.)

Effluent discharge water should be collected at the point(s) **PE** where the water is leaving the pond or before the water mixes with water other than what is being discharged from the pond. Sample should be taken from water being decanted off the surface, not the bottom. There are several options where these samples could be collected. See diagram.

Receiving water – this would be the point where the effluent from the farm enters a natural body of water like a river, bay, estuary or ocean. If the water is being discharged into a manmade canal on the facility's property, the samples should be taken at the point where it leaves the property to compare it with the point where it enters a larger body of water. Sampling points for the receiving water are shown as **RE** on the diagram.

In special cases, effluent water may be discharged into a manmade mangrove or wetland area before it enters the receiving water. In this situation the sampling point would be **ME** for the effluent discharge and **CDN** for the receiving water. In some cases you may have to sample at some point to establish a Common

Drainage Network Measurement **CDN**. This might be necessary if there are other aquaculture farms or agricultural / industrial facilities upstream from the farm being sampled.

The inspector must choose the sampling points based on the situation present at the facility he or she is evaluating, since there may be several options available.

The numbers of samples required will vary with each situation, but you must take enough to represent the situation at the facility being evaluated.

Diagram Of Where To Take Source Water, Effluent, And Receiving Water Measurement At Aquaculture Farms

