



## Standard Laboratory Operating Procedure #201 Water Quality Monitoring for Aquaculture System

**Laboratory:** Biotechnology/Environmental  
**SOP prepared by:** R. Sanders

**Location:** Science Lab  
**Last Revision:** 7/15/2014

**General:** An aquaculture tank's ecosystem is dependent on good water quality. Maintaining specific levels of chemical and physical characteristics in the water are critical to the health and survival of the fish. The purpose of this procedure is to continuously monitor the aquaculture system for chemical and physical changes.

**Safety:** Wear proper PPE.

### **Materials:**

Hach's Nine-Parameter Water Quality Kit, Model FF-1A  
<http://www.hach.com/nine-parameter-test-kit-model-ff-1a>  
Science Lab Notebook  
Blue or Black Ink Pen

### **Procedure:**

#### **Chemical Monitoring:**

1. Monitor aquaculture system's water daily for the following parameters, dissolved oxygen, pH, temperature and record data in lab notebook using blue or black ink pen.
2. Monitor the aquacultures system's water weekly for the following parameters: nitrate, nitrite, turbidity, carbon dioxide, ammonia, alkalinity, hardness, and chloride. Refer to Hach Kit, Model FF-1A for each test kit. If a parameter is out of the normal range, conduct a water change and continue to monitor the water frequently until the problem is corrected.

<http://www.hach.com/nine-parameter-test-kit-model-ff-1a>