

## TURBIDITY SAMPLING STATION

**Supplies:** 120 cm site tube  
Secchi disc with rope marked in meters or half meters  
Bucket

### **Measuring Turbidity:**

1) Begin with the discussion provided on the Teacher Sheet  
2) Explain both methods and then let the group do both – they can work simultaneously. Just be sure it is recorded as the type of measurement completed – long tube or secchi.

**\*Long site tube** (we have only 1 of these).

### **Procedure:**

1. Collect a bucket of water (fresh for each measurement) and after confirming the bottom tube is clamped closed, fill the long tube to the top.
2. Have the students look from where they are on the side of the tube to see if they can differentiate the black and white sectioned disc in the bottom of the tube. They will probably say ‘yes’. Now have them look straight down the stacked water column – this is the protocol...straight through the water. If they look from the side they can always see the secchi.
3. Have them work in teams of 3 or so. They fill tube, one holds tube, one releases and one looks at disc and all confirm when split in color is first discernible.
4. Do several replicates measure with each group to get an average, or if you have 3 groups going at once average the three measures. This is one method of improving this semi-quantitative measure.
5. Record each and the average for the groups on the sheet.

**\*Secchi disc** – (we have 3 of these)

### **Procedure:**

1. Along the edge of the pier gathered in small groups of 2-3 students. Each group lowers the secchi disc into the water until they can no longer see the color split. Just like the long site tube technique, they need to be looking **straight down** on the disc for this measurement. Slowly begin to raise the disc just until it is visible. Stop and establish where this position is. They will need to use their eyes to visually determine the water contact line.
2. Raise the disc and note the spot on the rope where it was hitting the water when the disc became visible by putting your fingers on it.
3. Measure from where the rope hit the water down to the secchi disc.
4. Each group completes one measurement and then average between the various groups. They can use the measuring tape against the rope to be sure it is actually marked correctly.
5. Record your readings and the average for the groups.