King Conservation District
Stream Stewards

Turbidity Procedure

This test is performed by comparing the turbidity of a measured amount of sample with an identical amount of clear distilled water. The readings are made by looking down through the column of liquid at a black dot. If turbidity is present, it will interfere with the passage of light through the column of liquid. Small amounts of turbidity will cause a "blurring" of the black dot in the bottom of the tube. Large amounts of turbidity may provide sufficient "cloudiness" so that it is not possible to see the black dot when looking down through the column. Any color that may be present in the sample should be disregarded. This determination is concerned only with the haziness or cloudy nature of the sample.

1. Fill one turbidity column to the 50 ml line with the sample stream water. If the black dot on the bottom of the tube is not visible when looking down the column of liquid, pour out a sufficient amount of the test sample so that the tube is filled to the 25 ml line.
2. Fill the second turbidity column with an amount of distilled water that is equal to the amount of sample being measured. This is the "clear water" tube.
3. Place the two tubes side by side and note the difference in clarity. If the black dot is equally visible in both tubes, the turbidity is zero. If the black dot in the sample tube is less clear proceed to step 4.
4. Shake the turbidity reagent vigorously. Add 0.5 ml to the "clear water" tube. Use the stirring rod (in supply bag) to stir the contents of both tubes to equally distribute turbid particles. Check for the amount of turbidity by looking down through the column at the black dot. If the turbidity of the "sample water" is greater than the "clear water" tube continue to add standard turbidity reagent in 0.5 ml increments to the "clear water" tube, mixing after each addition until the turbidity equals that of the sample.
5. Each 0.5 ml addition to the 50ml size sample is equal to 5 Jackson Turbidity Units (JTU's). If a 25 ml sample is used, each 0.5 ml addition of the standard turbidity reagent is equal to 10 JTU's. See Table below.
6. Both sample water and distilled water with turbidity reagent (clay) can be disposed at site without causing any harm.

# of Measured Additions	Amount in ml	50 ml graduation	25 ml graduation
1	0.5	5 JTU	10 JTU
2	1.0	10 JTU	20 JTU
3	1.5	15 JTU	30 JTU
4	2.0	20 JTU	40 JTU
5	2.5	25 JTU	50 JTU
6	3.0	30 JTU	60 JTU
7	3.5	35 JTU	70 JTU
8	4.0	40 JTU	80 JTU
9	4.5	45 JTU	90 JTU
10	5.0	50 JTU	100 JTU
15	7.5	75 JTU	150 JTU
20	10	100 JTU	200 JTU