Data Accuracy

Learning Module #9

**Video – Clean Water Act and TMDLs**

Question 1: What is the purpose of the Clean Water Act?

Question 2: Does the Clean Water Act regulate point source or non-point source pollution?

Question 3: What is one example punishment for violating the Clean Water Act?

Question 4: What does it mean for a water body to be “impaired”?

Question 5: What is a TMDL (in other words, a Total Maximum Daily Load)?

Question 6: What kind or kinds of water is not included in the Clean Water Act?

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**Procedure comparison**

Sheet 1/Example 1: Dissolved Oxygen (mg/L)

Question 1: Visually comparing measurements from the two procedures, do you see any trend? (It’s ok if the answer is no!)

Question 2: What is the R2 for this trendline? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**OPTIONAL**: Sheet 2/Example 2: pH

Question 1: Visually comparing measurements from the two procedures, do you see any trend? (It’s ok if the answer is no!)

Question 2: What is the R2 for this trendline? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sheet 3: Nitrate (mg/L)

Question 1: Visually comparing measurements from the two procedures, do you see any trend? (It’s ok if the answer is no!)

Question 2: What is the R2 for this trendline? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sheet 4: Reactive phosphorus (mg/L)

Question 1: Visually comparing the measurements from the two procedures, do you see any trend? (It’s ok if the answer is no!)

Question 2: What is the R2 for this trendline? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Final Questions:

Question 1: In your own words, how did the Hach Colorimeter measurements compare to the Analytical Lab measurements for nitrate? What about for phosphorus?

Question 2: If you owned a paper mill and the stream by your factor was being tested for water quality, would you want the EPA to use the Hach Colorimeter test or the Analytical Lab to test for nutrient concentrations? Why?

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**Closing Activity**

Question 1: