Lesson 2: Data Analysis Plan

Directions. Use the prompts below to outline a plan for identifying the variables or indicators that you and your team will focus on and for analyzing the data set.

The **research question** guiding our data analysis:

What is the relationship between increased precipitation, particularly severe weather events, and water quality in the Lake Erie basin?

Which indicators (variables) will our team focus on in our analysis? *(Select at least 2 of the 5 indicators to analyze their relationships with precipitation and daily discharge.)*

Indicator #1:
Indicator #2:
Indicator #3 (if needed):

Why did we select these indicators?

How do we predict that these indicators are related to precipitation and daily discharge variables? *(Use your predictions from the reading. If your team members have different predictions, come to consensus [agreement] before recording the predictions here.)*

Indicator #1:

Indicator #2:

Indicator #3 (if needed):

What time periods will we focus on in our data analysis? For instance, will we look at individual days; certain months, seasons, or years; or a combination of these time scales? Will we look at days with certain levels of rainfall and compare them to other days? Why?

How do we plan to analyze our focal data using Excel?

● Do we need to reorganize the data in order to identify patterns (e.g., top 10% data points for each variable, days with over 25 mm of precipitation, days immediately following extreme precipitation events, etc.)?

If so, how will we organize the data?

● How will we look at these data across the time spans we mentioned above?

● Which Excel formulas will support our data analysis (e.g., averages, etc.)? *(Look back at your Excel resource sheet, if needed.)*