This module helps participants organize and interpret water quality data for effective communications in planning documents, outreach publications and informational presentations. It outlines how best to format sampling results to enable comparison with associated water quality standards or the best available benchmarks when standards are not available. Participants will also receive guidance on how to display data in graphics or maps, so that they can be more easily understood and presented to others, using such tools as Excel, ArcGIS online and Google maps.

1. **The Watershed Coordinator and Data Driven Watershed Planning (10 minutes)**
   * Scientific method and watershed planning
   * Quick overview of data needs by planning phase
   * Role of Coordinator vs Data Scientist
2. **Collecting Data: Requirements for Watershed Planning (50 minutes)**
   * Basic monitoring equipment and tools
   * Watershed plan monitoring requirements and logistics
   * Site selection and scale considerations
   * Data quality levels
3. **Using USGS StreamStats (10 minutes)**
   * Tutorial on generating a watershed delineation

**BREAK**

1. **Basic Mapping Tools (30 minutes)**
   * ArcGIS
   * Google Earth
2. **Quality Assurance / Quality Control Overview (45 minutes)**
   * Overview of quality assurance and quality control
   * Quality Assurance Program Plan (QAPP) elements
   * Quality measurements
   * Data screening considerations

**LUNCH**

1. **Understanding Basic Statistics, Graphs, and Charts (50 minutes)**
   * Basic descriptive statistics
   * Visualizations and pitfalls
   * Data and Benchmarks
   * Report card or multi-metric summaries

**BREAK**

1. **Pollutant Load Calculation and Allocation (30 minutes)**
   * Definitions and terms
   * Calculation methods
   * Source allocation and best management practice determination
   * Helpful visualizations
2. **Spreadsheet Tools (via Microsoft Office Support) (30 minutes)**
   * Filtering Results
   * Conditional Formatting
   * Pivot Tables

**Supplemental Resources:**

* Watershed Data Resources, Google Earth Tutorials, NWQMC Factsheets, KDOW Health Report