

Instrument: YSI Water Quality Monitoring Sonde

Year 1 Intended Use Plan:

Generally, staff will utilize the YSI equipment during field surveillance operations, when reasonable, to determine specific water conditions, particularly turbidity levels when obvious contrasts are present originating from a specific location, or after significant rainfall events (>1.0") to monitor changes in corridor NTU values (NTUs are 1 parameter necessary when qualifying/quantifying compliance for permitted stormwater sites).

Tasks for year 1:

1. Procedural development (SOP)
2. Establish an equipment staging location for monitoring unit, where calibrations and adjustments can be completed
3. Unit familiarization by staff (setup, maintenance, transfer of data collected, deployment capabilities)
4. Avail easily understood sampling data for public access on WIPD website. Data will include non-routine location collection during field surveillance, or from identified, targeted locations. Parameters for each location, displayed in table format with accompanying map, conditional thresholds, and simple explanations.
5. Parameters Collected:
 - Temperature (degrees F)
 - Dissolved Oxygen - Indicate levels of oxygen available for aquatic species (mg/L)
 - pH (acidity, alkalinity)
 - Specific Conductance - level of dissolved solids (pipe corrosion, salts, minerals) (micro-Siemens per centimeter - $\mu\text{S}/\text{cm}$)
 - Turbidity - the degree to which light is scattered by particles suspended in a liquid. (NTU's - Nephelometric Turbidity Units)

Specific Watershed Monitoring Locations for 2020:

Two watershed sub-basins are planned for regular data collection in 2020. These data sets will allow for simple year 1 critique of changes throughout stream corridors in coming months:

- I. Sucker Brook**
 - a. 5 locations
 - b. Data Collection conducted regularly during normal flow and/or when flow conditions change significantly
- II. Veness Brook**
 - a. 2 locations
 - b. Data Collection conducted regularly during normal flow and/or when flow conditions change significantly

Note: At the conclusion of year 1 instrument initiation/data collection, the WIC will determine the best approach / changes for utilizing the unit for 2021 (year 2, and beyond).