# SSHCZO Metadata Worksheet

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| Data File Name | **SCCF\_Q\_ec.csv** |
| Date Prepared | 2020-01-22 |
| Descriptive Title | Shavers Creek Cole Farm – SCCF |
| Update Frequency | Quarterly |
| Abstract | Water depth, water temperature (°C), and conductance are measured every 15 minutes using an Onset HOBO U20 and U24 non-vented pressure transducer from 2016-09-23 to present. Sensors are housed in a 4in. perforated pvc along the right stream bank for protection and consistency in measurement location. |
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| Data Value Descriptions | * COL1: label = TmStamp\_UTC; Timezone = Coordinated Universal Time * COL2: label = WaterTemp\_C; water temperature; Units = degC * COL3: label = Stage\_m; water level above sensor; Units = meters * COL4: label = dischg\_m3s; discharge; Units = cubic meters per second * COL5: label = Cond\_Avg; raw conductivity average over 15 minute period; Units = μS/cm * COL6: label = Spc\_Cond; specific conductivity; Units = μS/cm |
| Keywords | Stage, Discharge, Streamflow, conductance, specific conductance, water temperature, Hydrology |
| Methods | The monitoring site was established on 2016-09-23 along the right bank on the downstream side of bridge. Water depth, water temperature (°C), and conductance are measured every 15 minutes using an Onset HOBO U20 and U24 non-vented pressure transducer. Data are manually downloaded monthly using HOBOWare Pro software. Continuous water level depths are calculated in the software by processing the well sensor data with barometric pressure data recorded on a separate Onset HOBO Barometric transducer. Manual discharge measurements are obtained and used to conjunction with the water level or Stage to compute a rating curve. The rating curve is used to extrapolate to 15-minute discharge values.  Conductivity values are processed in HOBOWare Pro software. A calibrated YSI sonde is used to measure temperature and conductance values and used in the software to correct and compute raw conductance into specific conductance.  Quality control:  Data are checked by plotting data in R package and comparing to precipitation and manual discharge measurements and a calibrated YSI sonde. Bad, missing, or erroneous data values are removed or marked with -9999 which could be caused during data downloads and/or malfunctioning sensors. All negative values are screened using R and marked as -9999.  Data:  2017-06-27 to 2017-07-19: no data due to failed sensor |
| Sites | Cole Farm, Huntingdon County, Barree Township Lat/Long DMS: 40.633550/ -77.941895; (NAD\_1983\_StatePlane\_Pennsylvania\_South\_FIPS\_3702) |
| Publications | none |
| Citation | The following acknowledgment should accompany any publication or citation of these data: Logistical support and/or data were provided by the NSF-supported Susquehanna Shale Hills Critical Zone Observatory. |
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