# SSHCZO Metadata Worksheet

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| Data File Name | **CFSpring\_Q.csv** |
| Date Prepared | 2020-01-24 |
| Descriptive Title | Cole Farm Spring - CFsp |
| Update Frequency | Quarterly |
| Abstract | A HS 0.8 flume was installed on the spring 2019-04-01. Wing walls were constructed to help ensure water flows through the flume. A stilling well attached to the right bank side of the flume houses an Onset HOBO U20 non-vented pressure transducer measuring water depth and water temperature (°C) every 15 minutes. Data are manually downloaded monthly. |
| Investigator  Contact Info | Dr. Susan Brantley, Professor of Geosciences, The Pennsylvania State University, 2217 Earth and Environmental Systems Institute, University Park, PA, 16802, 814.865.1619, [sxb7@psu.edu](mailto:sxb7@psu.edu). |
| Data Value Descriptions | * COL1: label = TmStamp\_UTC; Timezone = Coordinated Universal Time * COL2: label = Stage\_cm; water level above sensor; Units = meters * COL3: label = WaterTemp\_C; water temperature; Units = degC * COL4: label = dischg\_m3s; discharge; Units = m3/s * COL5: label = m3\_hr; discharge in cubic meters per hour; Units = m3/hr |
| Keywords | Stage, Discharge, Streamflow, water temperature, Hydrology |
| Methods | A HS 0.8 flume was installed on the spring 2019-04-01. Wing walls were constructed to help ensure water flows through the flume. A stilling well attached to the right bank side of the flume houses an Onset HOBO U20 non-vented pressure transducer measuring water depth and water temperature (°C) every 15 minutes. 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. Water depths are observed and annotated in a separate file. These observed depths are used to correct the HOBO sensor data. Discharge is computed using the provided rating table for the flume and applied to the 15-minute water level data.  Quality control:  Data are checked by plotting data in R package and comparing to precipitation and manual discharge measurements. 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 and stage data greater than 23 cm are screened using R and marked as -9999. The flume does collect a lot of sediment making it difficult to get smooth discharge data.  Data: |
| Sites | Cole Farm, Huntingdon County, Barree Township Lat/Long DMS: 40.635087/ -77.941952; (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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