# SSHCZO Metadata Worksheet

|  |  |
| --- | --- |
| Data File Name | **SCAL\_Discharge.csv** |
| Date Prepared | 08/26/2016 |
| Descriptive Title | Shaver’s Creek Above Lake Discharge and Rating Curve |
| Update Frequency | Quarterly |
| Abstract | Surface water discharge data for Shaver’s Creek Above Lake Data interval was measured every 10 to 15 min and a rating curve was built with manual measurements from a FlowTracker. All data contributes to the goals of concentration-discharge relationships spatially and temporally. Data spans from 2015-Oct 23 to present. |
| 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=ValueAttribute, value=TmStamp\_UTC, TimeZone=UTC * Col2: label=Air\_Press\_kPa(Barometric pressure), Units=kPa * COL3: label=AirTemp\_C (air temperature), Units=degC * Col4: label=WaterTemp\_C(water temperature), Units=DegC * Col6: label=SpecCond(specific conductance), Units= μS/cm * Col7: label=Stage\_m(Corrected sensor depth), Units=meters(m) * Col8: label=dischg\_m3s - 15 min discharge calculated from the rating curve data, Units=m3/s |
| Keywords | Hydrology, Stream discharge, rating curve |
| Methods | Discharge measurements were collected using a FlowTracker monthly to build and maintain rating curves.  Stage was measured every 15 min using a HOBO U20-001 pressure transducer. Data are manually downloaded monthly using HOBO-Ware Pro software. Sensor depth is calculated in the software by processing with barometric pressure data recorded on a separate HOBO U20-001-01 pressure transducer. Discharge was calculated for each stage measurement based upon the rating curve. Drift and calibration adjustments occasionally made due to sensor electronic drift and cleanliness/calibration of sensors. Adjustments to the stage levels were prorated between visits and peak events based on staff plate readings.  Specific Conductivity and water temperature readings were measured using a HOBO U24-001 conductivity meter. Sensor drift and calibration corrections applied using the HOBOWare Pro software and R. Corrections determined by using a calibrated YSI ProPlus multi-meter and measuring beside the HOBO sensor for direct comparisons during each visit.  QA/QC:   * The period between 2016-06-15 to 2016-10-20 had little or no recordable flow due to an exceptional dry year * 2017-04-21 to 2017-0628 no recorded data due to sensor system being vandalized and removed from stream |
| Sites | Shavers Creek Above Lake: 40.672967 -77.901864 |
| Citation | The following acknowledgment should accompany any publication or citation of these data: Logistical support and/or data were provided by the NSF-supported Shale Hills Susquehanna Critical Zone Observatory. |
| Publications |  |
| Data Use Notes | The user of Shale Hills Susquehanna CZO data agrees to provide proper acknowledgment with each usage of the data. Citation of the name(s) of the investigator(s) responsible for the data set, in addition to the generic statement above, constitutes proper acknowledgment. Author(s) (including Shale Hills Susquehanna CZO investigators) of published material that makes use of previously unpublished Shale Hills Susquehanna CZO data agree to provide the Shale Hills Susquehanna CZO data manager with four (4) copies (preferably reprints) of that material for binding as soon as it becomes available. The user of Shale Hills Susquehanna CZO data agrees not to resell or redistribute shared data. The user of these data should be aware that, while efforts have been taken to ensure that these data are of the highest quality, there is no guarantee of perfection for the data contained herein and the possibility of errors exists. These data are defined as either public or private, such that a password may be required for access. |