# SSHCZO Metadata Worksheet

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| Data File Name | **SH\_CZMW5.csv** |
| Date Prepared | 2017-12-05 |
| Descriptive Title | CZMW 5 |
| Update Frequency | Annually |
| Abstract | CZMW 5 was drilled in 2012 using a rotary air. The well is cased to 8 meters with 5 cm diameter pvc and slotted for the bottom 1 meter.  Groundwater level data and water temperature for CZMW 5 are measured every 15 minutes from 2017-02-14 to present using a HOBO U20-001-01 non-vented pressure transducer. |
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| Data Value Descriptions | * COL1: label = TmStamp\_UTC; units = UTC * COL2: label = WaterTemp\_C; Units = degC * COL3: label = WL\_BLG\_m; water level below ground; Units = meters |
| Keywords | Groundwater Depth, Groundwater Temperatures, Hydrology |
| Methods | Groundwater level measurements are currently set to be recorded every 15 minutes on a HOBO U20-001-01 non-vented 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. Water level below ground determined using the suspended cable length to sensor below ground and taking the difference of the SensorDepth\_m [WL\_BLG\_m = 7.62 - SensorDepth\_m].  Casing type = pvc  TOC above land surface = 0.12 meters  Sensor location down borehole from TOC = 7.62 meters  Sensor location from ground level = 7.5 meters  Quality control:  Data were checked by analyzing and graphing data in R package and comparing to precipitation and manual water level measurements using a Solinist electric tape. WL\_BLG\_m data are adjusted for sensor drift by comparison of the manual measurements. Bad, missing, or erroneous data values were removed or marked with -9999 which could be caused during data downloads and/or malfunctioning sensors.  The water level/water table appears to be perched and actual water level is minimal. Due to this, numerous values are marked -9999 for the sensor being out of water.  Data Gaps:  2018-01-14 to 2018-01-17: water level below sensor – data removed  2019-10-14 to 2019-11-19: water level below sensor – data removed  2021-12-20 to 2022-02-21: sensor interval reset; no data  2022-02-21 to 2022-03-24: sensor interval issues again little data  2022-03-24 to 2022-05-17: no data; sensor failure |
| Sites | Shale Hills northing/easting: 147968.3494/ 586997.7358; DMS: 40.6658, -77.9038(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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