# SSHCZO Metadata Worksheet

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| Data File Name | **TMMS\_Precip\_Daily.csv** |
| Date Prepared | 2018-09-26 |
| Descriptive Title | Precipitation, Rain in mm |
| Update Frequency | Monthly  |
| Abstract | Raw (not quality controlled) precipitation data are measured as part of the Ground Hydrological Observation Gear (GroundHOG) sites in the Susquehanna Shale Hills Critical Zone Observatory. Data are recorded on a Campbell Scientific CR1000 data logger. The data are automatically transmitted back to campus into database via cellular telemetry every three hours. The tipping bucket at the TMMS pit is considered to be open canopy. Tipping bucket was installed on 2018-09-27. Data for TMMS pit: 2018-09-27 to present |
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| Data Value Descriptions | * COL1: label = TIMESTAMP, TimeZone=UTC.
* COL2: label = Record, data logger sequential system
* COL3: label = TMMS\_Daily\_Precip, TimeSupport= Daily, Units = mm, total amount of rain
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| Keywords | Precipitation, rain |
| Methods | Precipitation are measured every 10 minutes using a Texas Electronics TE 525WS tipping bucket sensor wired to a Campbell Scientific CR1000 data logger and accumulated into a daily total amount. The TMMS tipping bucket is considered to be open canopy. |
| Sites | Garner Run:TMMS – Tussey Mountain Mid-Slope Pit:

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| Name | Tussey Mountain Mid-Slope (TMMS) |
| Latitude | 40.6996002 |
| Longitude | -77.9244995 |
| Elevation (m) | 596.8 |

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| Publications | none |
| Citation | **Acknowledgement for CZO**: Financial Support was provided by National Science Foundation Grant EAR – 0725019 (C. Duffy), EAR – 1239285 (S. Brantley), and EAR – 1331726 (S. Brantley) for the Susquehanna Shale Hills Critical Zone Observatory.  Logistical support and/or data were provided by the NSF-supported Susquehanna Shale Hills Critical Zone Observatory.  For EAR 07-25019 to C.J. Duffy, award dates were 11/1/07 - 10/31/13 For EAR 12-39285 to S.L. Brantley, award dates were 9/1/12 - 8/31/14 For EAR 13-31726 to S.L. Brantley, award dates are 10/1/13 -  9/30/19**Acknowledgement for research in Shale Hills:**This research was conducted in Penn State's Stone Valley Forest, which is funded by the Penn State College of Agriculture Sciences, Department of Ecosystem Science and Management and managed by the staff of the Forestlands Management Office. **Acknowledgement for research in Garner Run:** This research was conducted in Rothrock State Forest which is funded and managed by the Pennsylvania Department of Conservation and Natural Resources, Bureau of Forestry.  **Acknowledgement for research in Cole Farm:**This research was conducted on a farm in Shaver's Creek watershed at the intersection of RT 305 and Winchester Road. |
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