# CZO Metadata Worksheet

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| Data File Name | SH\_CZO\_VegSurvey\_2010.xlsx |
| Date Prepared | 1/21/2011 |
| Descriptive Title | Shale Hills Susquehanna Critical Zone Observatory Vegetation Survey for LiDAR Validation |
| Update Frequency | N/A |
| Abstract | A vegetation survey was conducted May through July, 2010 to validate the LiDAR data collected in July. Thirty-nine 30-diameter circular plots were chosen. Within each plot, trees over 18cm diameter were counted, species names recorded, and height and diameter measured. In meadow and wetland plots, average vegetation height and dominant plant species were recorded. In meadow and wetland plots, average vegetation height and dominant plant species were recorded.  Leaf Area Index (LAI) and canopy closure (CC) data were collected between July 14 and July 23, 2010 for meadow (M), wetland (W), and forest (Leading Ridge – LR) sites in addition to the Shale Hills catchment. LAI was measured using a LAI-2200 instrument (LI-COR Biosciences). Canopy closure was measured with a spherical densiometer, Model C Forest Densiometers). See “Notes” and “Key” sheets for additional details. |
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| Data Value Descriptions | * AvgLAI: Average of LAI for the site number listed across all measurement locations in the site * SiteSD: Site standard deviation based on average above * SiteSE: Site standard error * PCC: Percent canopy closure * X: X GPS coordinate * Y: Y GPS coordinate |
| Keywords | Leaf area index, vegetation survey, canopy closure, crown closure, spatial data, plant species, tree height, tree diameter |
| Methods | * Leaf Area Index (LAI): LAI-2200, LI-COR Biosciences * Canopy closure:  Spherical Densiometer, Model C, Forest Densiometers * Tree height:   Laser rangefinder, TruPulse 360 B, Laser Technology Inc.   * Diameter at breast height (DBH):  "Pro Tape" Diameter tape, Spencer Products Company * GPS coordinates were collected with Trimble Nomad during leaf off conditions |
| 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 | None |
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