Deliverable 4.1 – Memo on Instrumentation Completion

From IAA: Deliverable 4.1: Email and installation photos confirming successful installation of instruments with photos

This memo is written to fulfill Deliverable 4.1 stating that instrumentation need to carry out the project titled *The effectiveness of trees in mitigating stormwater runoff in Western Washington (Phase II)*.

The images below show photos of site 1 and 2 static TDP stations, site 3 mobile sap flux units, and throughfall-precipitation, soil moisture, and weather stations at The Evergreen State College, with optional captions.

A website has also been setup showing progress of this study - https://sites.evergreen.edu/fischerlab/transpiration-and-interception-in-pnw-tress/

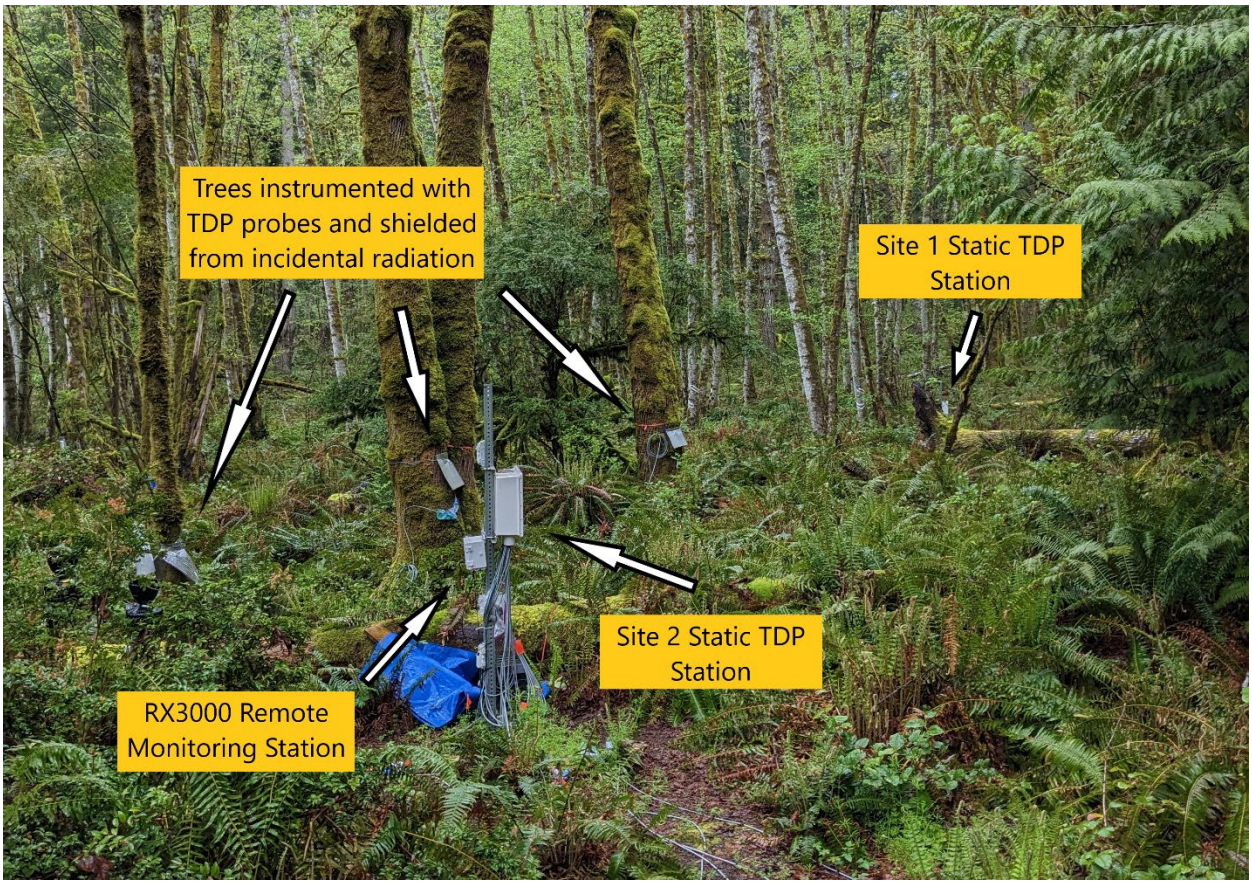

Figure 1: Trees instrumented with sap flux monitoring probes are connected to a stationary datalogger installed on sites 1 and 2. A RX3000 remote monitoring system is installed at site 2 and connected wirelessly to 24 throughfall-precipitation gauges.

Figure 2: Soil moisture at sites 1 and 2 is continuously monitored using time domain reflectometry probes (Campbell Scientific), sampling every minute and reporting 15-minute averages.

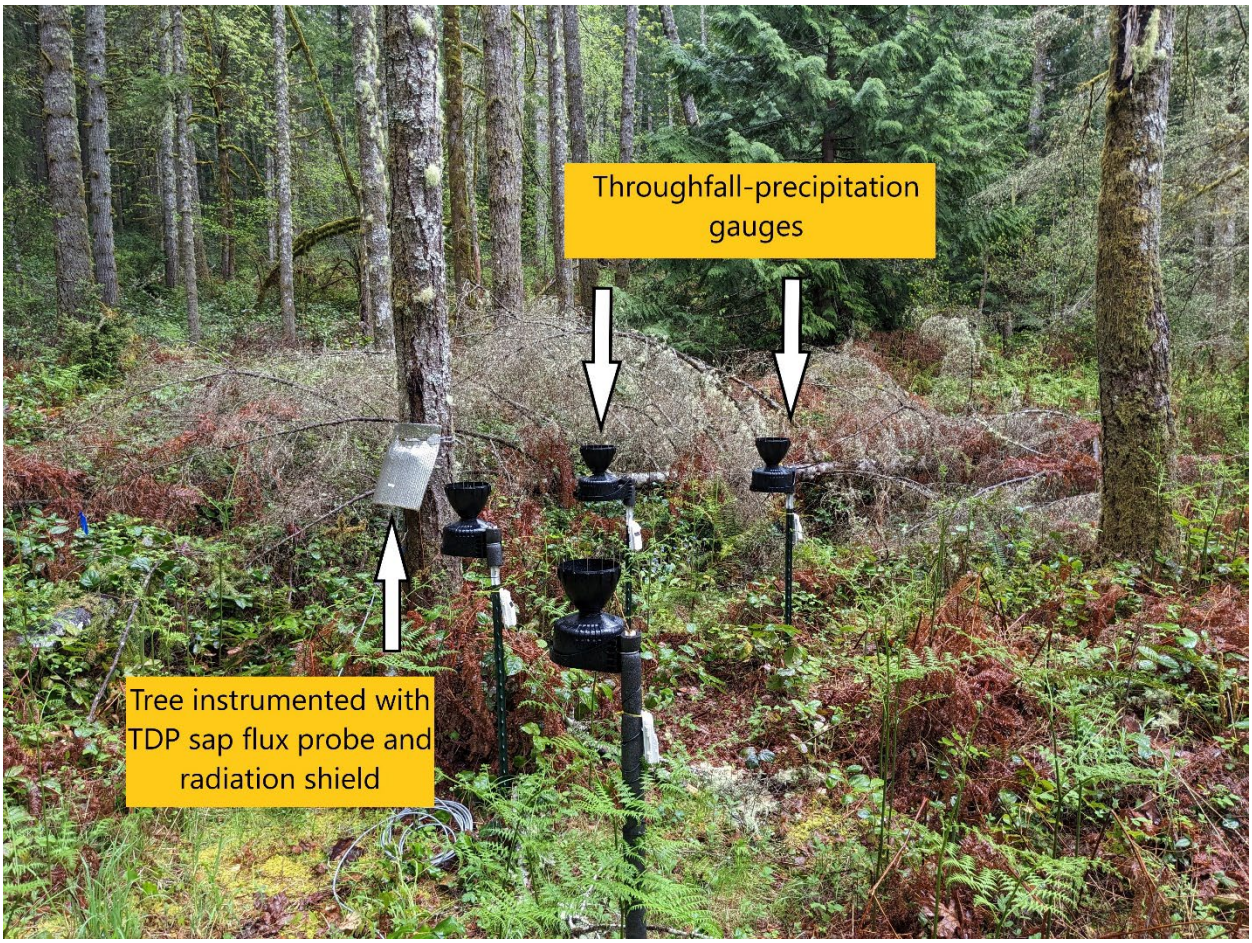

Figure 3: Four rain gauges are installed beneath each of six tree canopies with two transects extending out from the base of each tree and each rain gauge placed at one-third and two-thirds of the radial canopy distance.

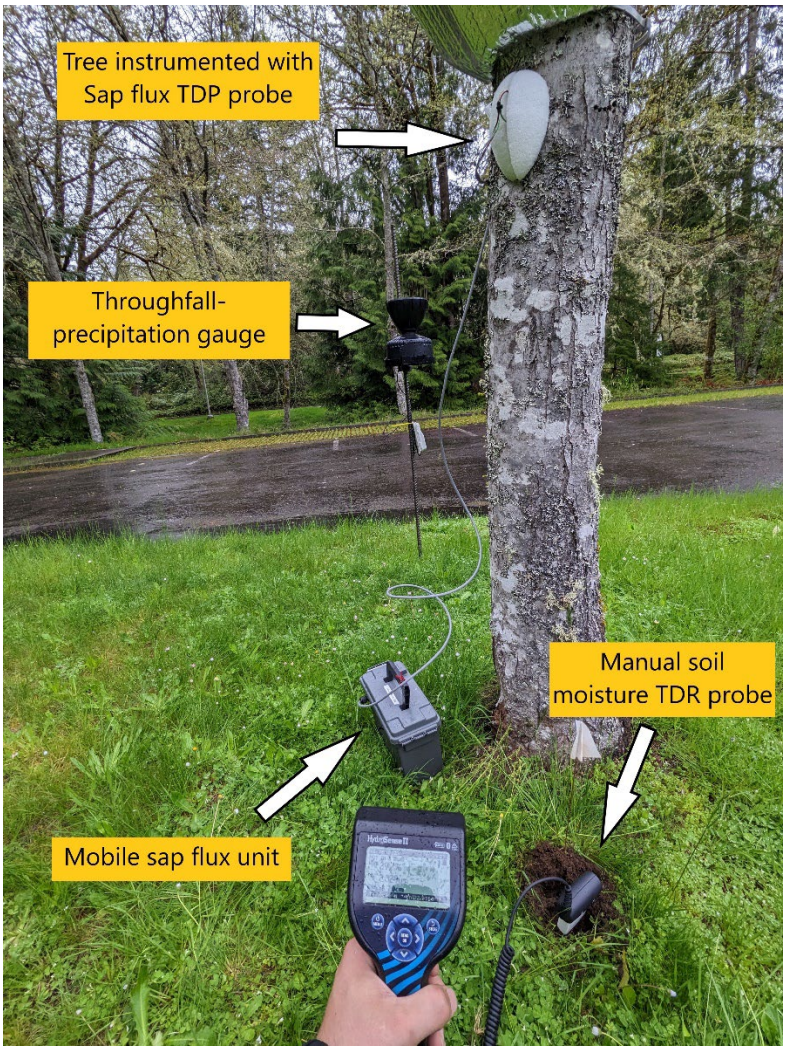

Figure 4: Mobile sap flux units are deployed weekly at site 3 and manual soil moisture measurements are collected at each tree on all three sites. One rain gauge is installed beneath each of 10 tree canopies at one-half of the radial canopy distance.

Figure 5: One of two weather stations located near sites 1 and 2, equipped with an open-canopy rain gauge, relative humidity sensor, temperature sensor, wind speed and direction sensor, leaf wetness sensor, and barometric pressure sensor.