

Electronic Soil Moisture Methodology

(Last rev. 04/10/2024)

Gravimetric soil moisture has been measured manually in the Lutz catchment since 1972 (See Figures 1 and 2).

On Feb. 15, 2023, the first electronically measure soil moisture sensors were installed.

Two of the manual sampling locations (Sites 3 and 10) were instrumented – number of sites will increase in the coming years.

TEROS 10 AND 21 sensors are used (see Figure 3).

<https://www.metergroup.com/en/meter-environment/products/teros-10-soil-moisture-sensor>

<https://www.metergroup.com/en/meter-environment/products/teros-21-soil-water-potential-sensor>

As of 2023, TEROS 10 sensors are installed at all locations at depths of 10 and 40 cm. The TEROS 21 sensor is installed only at Site 3 at 20 cm (see Figure 3).

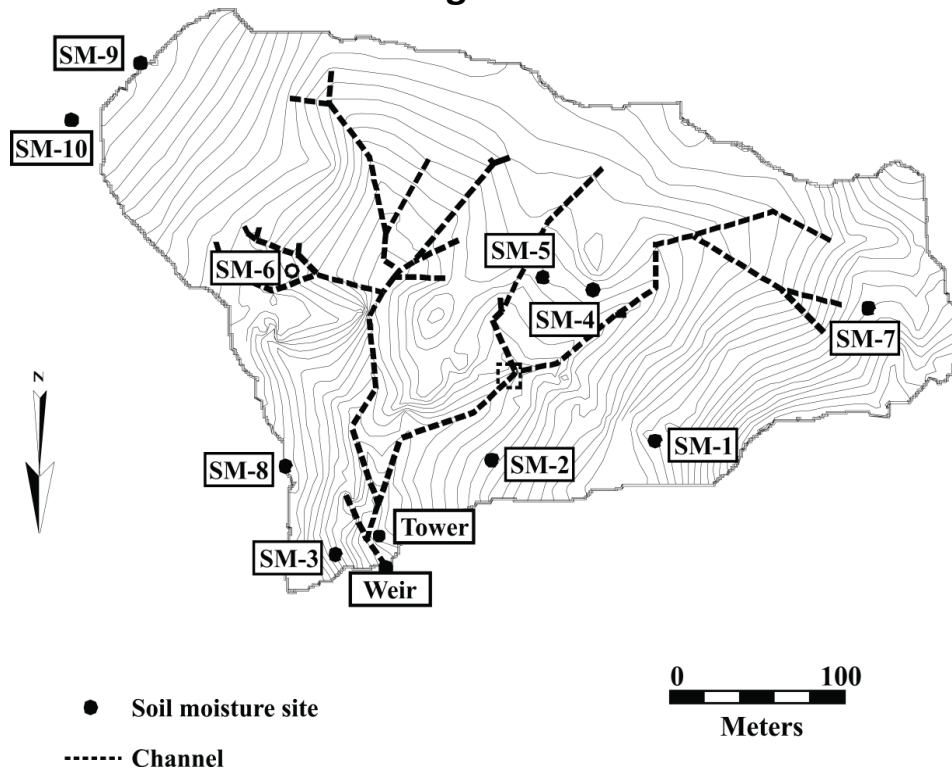
Sensors are programmed to record at 1-hour intervals.

Figure 1



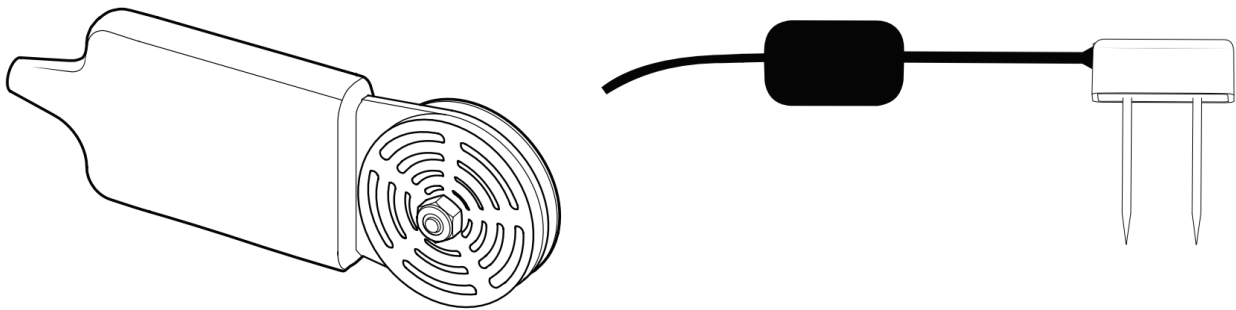
Location of Laboratory Clearing and Lutz Tower (red lines are trails, blue lines are streams)

Figure 2



Lutz Catchment topographic map showing location of Soil Moisture sampling locations

Figure 3



Drawings of the TEROS 21 (top) and TEROS 10 (bottom) sensors.

Figure 4



Installation of TEROS sensors