

Electronic Soil Moisture Methodology

(Last rev. 08/07/2023)

Gravimetric soil moisture has been measured manually in the Lutz catchment since 1972. 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

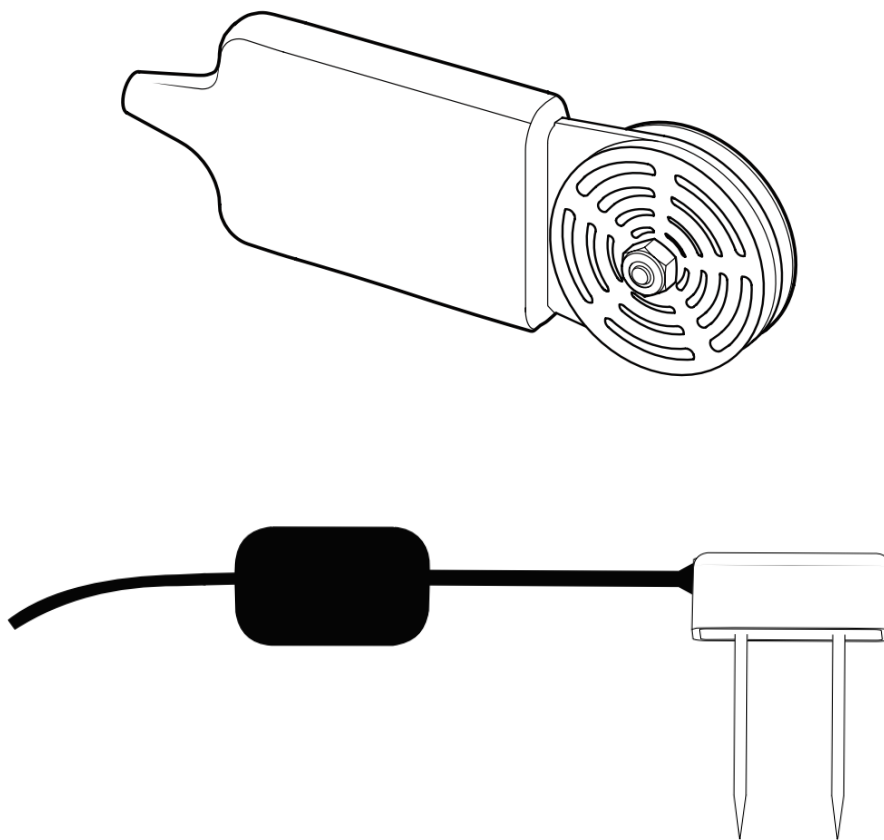
<https://www.metergroup.com/en/meter-environment/products/teros-10-soil-moisture-sensor>

<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.

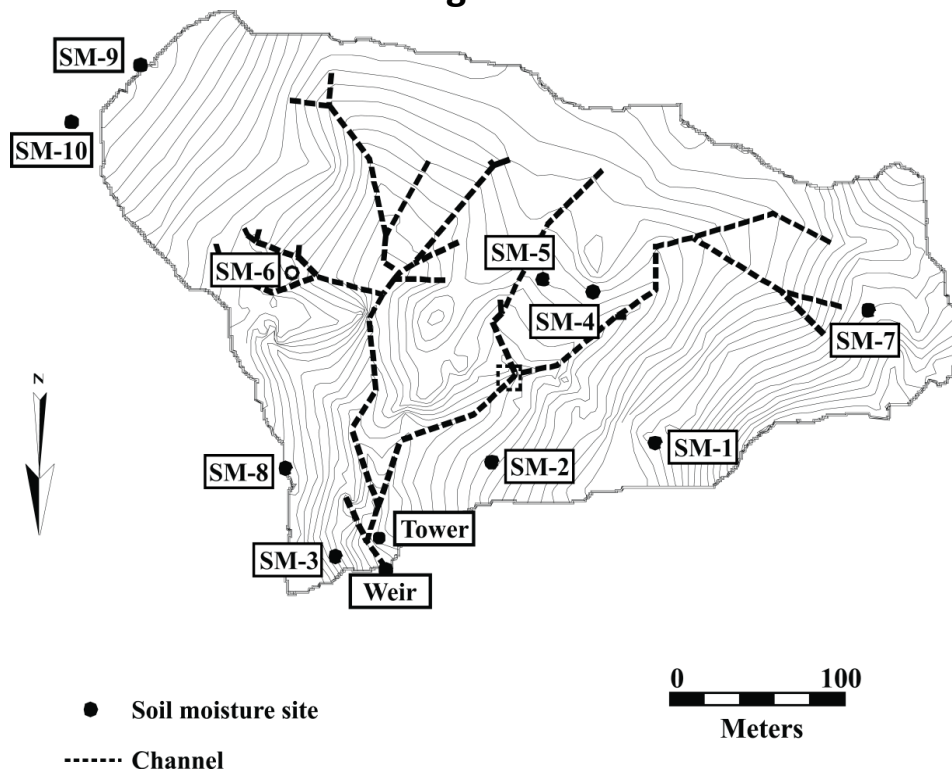
Sensors are programmed to record at 1-hour intervals.

Figure 1



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

Figure 2



Lutz Catchment topographic map showing location of Soil Moisture sampling locations

Figure 3



Installation of TEROS sensors