**Instrument and sensor list**

Data logger – Campbell Scientific CR3000

Eddy covariance measurements – Campbell Scientific EC150 Open Path CO2/ H2O Gas Analyzer with integrated Campbell Scientific CSAT3A Sonic Anemometer. LI-COR LI-7500RS Open Path CO2/ H2O Gas Analyzer paired with Campbell Scientific CSAT3 Sonic Anemometer

Air temperature (oC) - Campbell Scientific EE181

Soil heat flux at 10 cm depth W/m2 - 2X Prede PHF-02

Soil temperature (oC) at 2.5cm depth - Type E Thermocouples

Soil temperature (oC) at 5cm depth - Type E Thermocouples

Soil temperature (oC) at 7.5cm depth - Type E Thermocouples

Soil temperature (oC) at 10 cm depth - Type E Thermocouples

Net radiation (Rn) W/m2 - Kipp and Zonen CNR4

Relative humidity (%) - Campbell Scientific EE181

Precipitation (mm) - Geonor T200 Weighing Gauge

Wind Speed (m/s) - Campbell Scientific CSAT3/A Sonic Anemometer

Incoming shortwave radiation W/m2 - Kipp and Zonen CNR4

Outgoing shortwave radiation W/m2 - Kipp and Zonen CNR4

Incoming longwave radiation W/m2 - Kipp and Zonen CNR4

Outgoing longwave radiation W/m2 - Kipp and Zonen CNR4

Wind direction (degrees) - Campbell Scientific CSAT3/A Sonic Anemometer

Photosynthetic Photon Flux Density (µmolPhoton m-2 s-1) - Campbell Scientific CS310 PAR Sensor

Air Pressure (kPa) - Vaisala PTB-110 barometer

Surface Temperature (degrees Celsius) - Apogee SI-111 Infrared Radiometer

Soil Volumetric Water Content at 10cm (SWC, %) - Campbell Scientific CS650