

Challenges for the NSMN effort

Discuss and identify gaps in available soil moisture data and information products, considering spatial coverage, temporal coverage and data availability.

Brainstorm how existing data sets could be leveraged or integrated to fill gaps and meet needs

How can we engage soil moisture data holders to share their data in machine-readable ways?

Considering successes and lessons learned from other data sharing programs, how might we fund a National Soil Moisture Network?

Brainstorm strategies for data integration and list pros and cons for each. Consider both the data provider and the data user's perspective.

Brainstorm data products that you would expect would be available from a National Soil Moisture Network.

How would you expect you'd be able to find and view soil moisture data from a National Network?

Which methods would you anticipate that soil moisture data from a National Network be accessible by? (e.g. FTP, File download, Web service)

In which formats would you anticipate that soil moisture data from a National Network be accessible in? (e.g. CSV, NetCDF, GeoJSON, XML)

Challenges

- administrative structure & coordination
- merging in situ network data with remotely-sensed values
 - research ongoing... (e.g. Steven Quiring & Trent Ford's efforts)
- diverse user groups → different data needs
 - drought assessment/mitigation
 - streamflow and reservoir storage forecasting
 - watershed modeling
 - research (basin hydrology, precipitation feedbacks, global climate, soil physical dynamics, etc.)
 - crop production, irrigation
 - fire hazard
 - flooding & erosion assessment/mitigation
 - engineering/structural applications (foundation leakage, road conditions, etc.)
 - soil ecosystems
 - ground-truthing satellite or model estimates
- identify key deliverables & timeline for each
- develop standards for data quality, sensor installations and maintenance
- determine template for presentation/delivery of data
 - example: NWCC Interactive Map...
 - (not advocating for this template, just offering it as an example of decision-making process)

Community-(2 per agency)

USDA-NRCS Jordan, Mike, Deb

USDA-ARS, Mike, Wade

USDA-NASS

USDA-FS

USDA-Drought Monitor

DOC-NOAA Mike P., Tilden, Robert Zamora

DOC-NWS

DOC-NIDIS

DOI-USGS

DOI-BLM

DOI-BIA

DOE-

DOD-USACE-

NASA-

MADIS-

CDC-

WGA-

ICWP-

Academics

osux2, Nebraska, isu, ksu, csu

State Mesonet

AASC

SWCD

CoCoRahs

Manufacturers

Producers

Executive Committee

Jordan Clayton

Mike Cosh

Bruce Baker

Tyson Ochsner

Steve Quiring

Veva Deheza

Peter Goble

Mark Svoboda

USGS

NASA