

ERA5 REGIONAL PRECIPITATION ANALYSIS

Caitlin Crossett

Advisors: Lesley-Ann Dupigny-Giroux, Arne Bomblies,
and Alan Betts

All Hands Meeting
12 June 2018



VT EPSCoR Grant No. NSF OIA 1556770



Goals

- Create a climatology of heavy precipitation events in the Lake Champlain Basin (LCB)
 - ERA5 Climate Reanalysis
 - 1979–present
- Explore how the modes, frequency, and/or intensity of heavy precipitation events in the LCB have changed over time
- Investigate how climate-sensitive land-surface conditions impact the frequency and/or intensity of a flooding event in the LCB
 - Antecedent soil moisture
 - Snowpack characteristics

45.75N, -76.05W

45.75N, -70.65W

45.45N, -74.65W

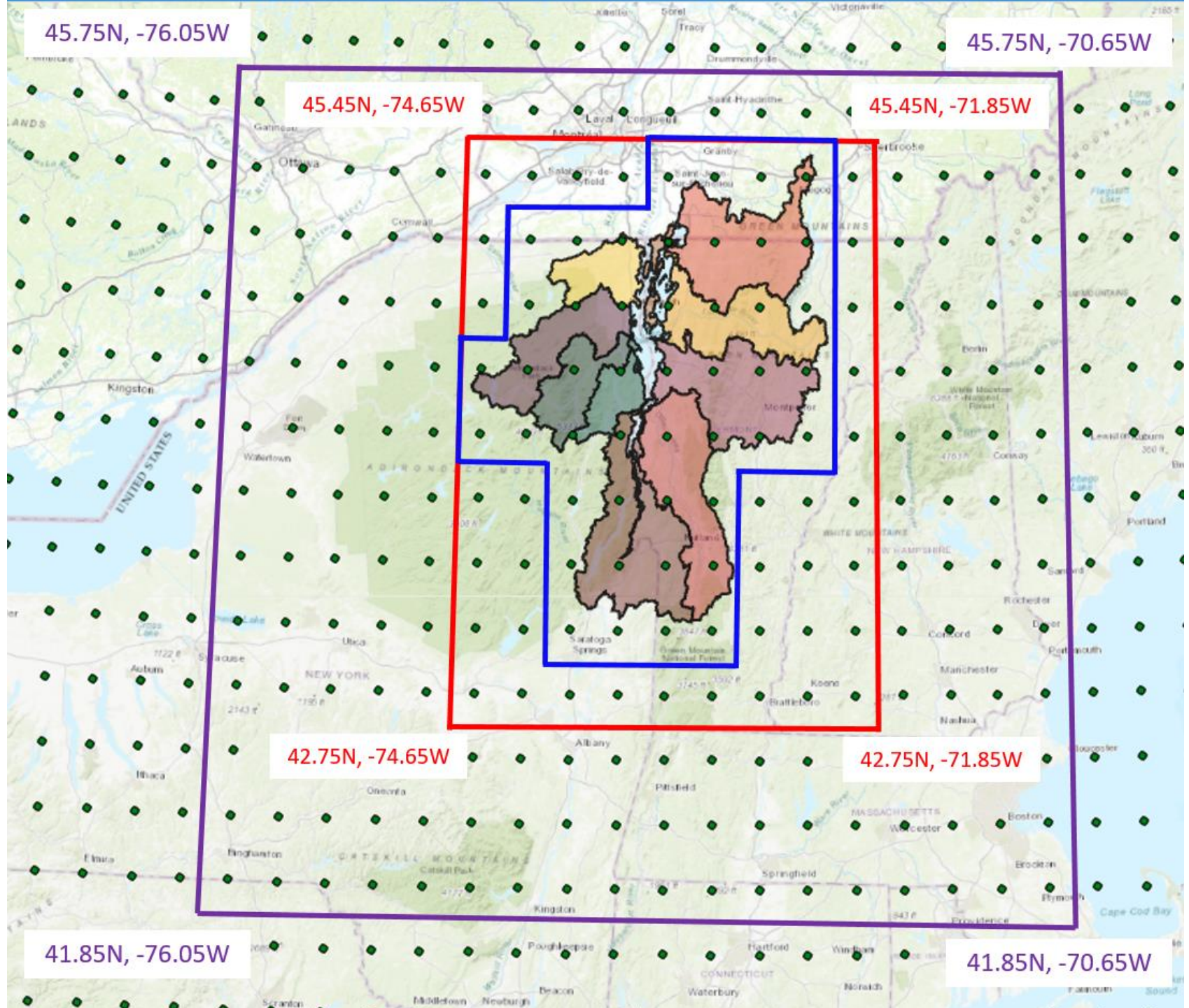
45.45N, -71.85W

42.75N, -74.65W

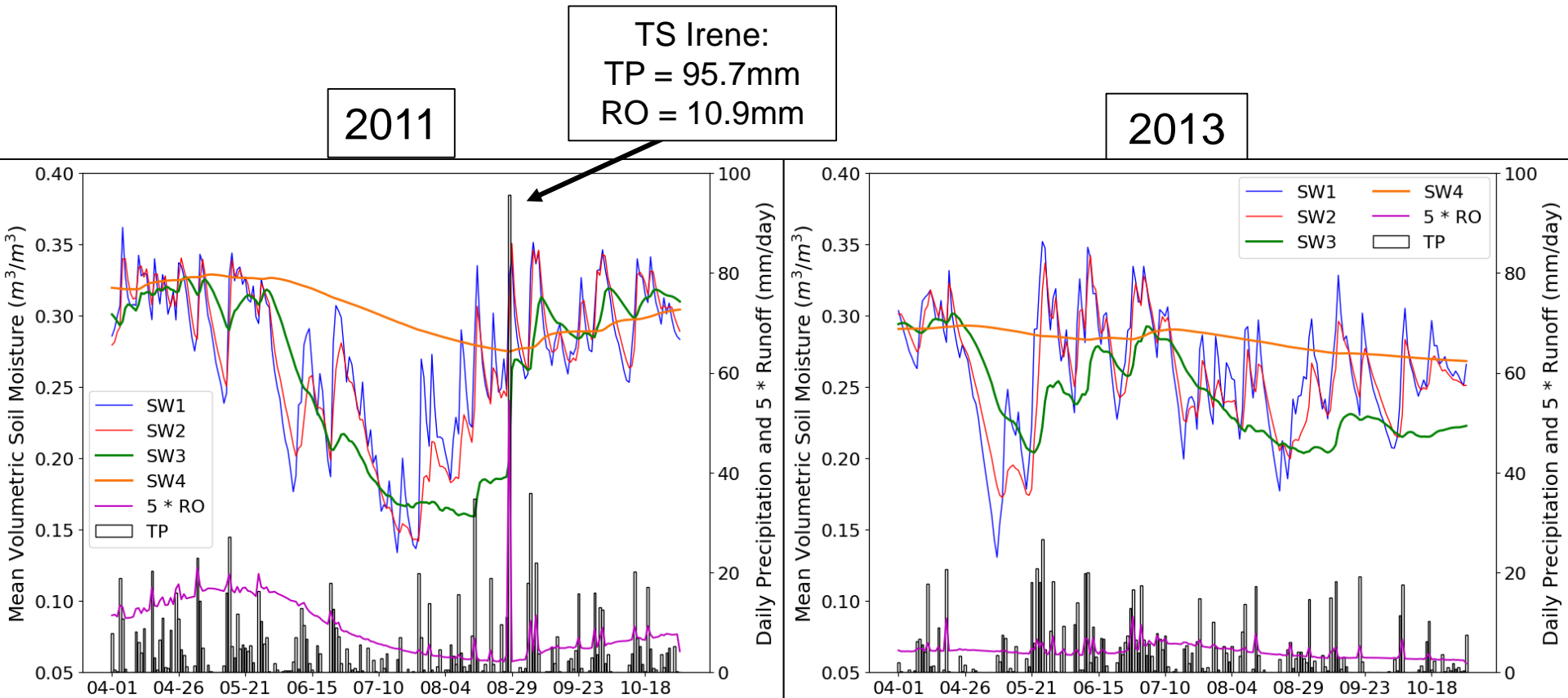
42.75N, -71.85W

41.85N, -76.05W

41.85N, -70.65W



Mean Daily Volumetric Soil Moisture, Daily Precipitation and Runoff within the LCB



Thank You!

caitlin.crossett@uvm.edu



VT EPSCoR Grant No. NSF OIA 1556770

