

## **USFS – NASA Virtual Pitch Fest / June 3, 2020**

*Detection and Attribution of a Recent,  
Unexpected Hydrologic Change*

*By: Mark Green, Scott Bailey, John Campbell*

# About Me



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And

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Focus Areas: Forest hydrology



Scott Bailey

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John Campbell

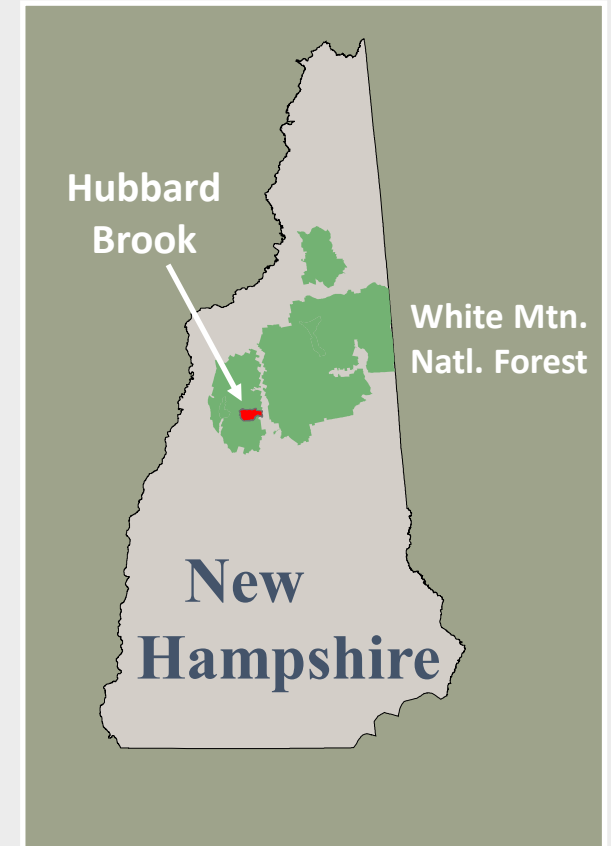
Research Ecologist, Northern Research Station

## Detection and Attribution of a Recent, Unexpected Hydrologic Change

### The Idea



- Hubbard Brook Experimental Forest
- White Mountains
- Northern Forest



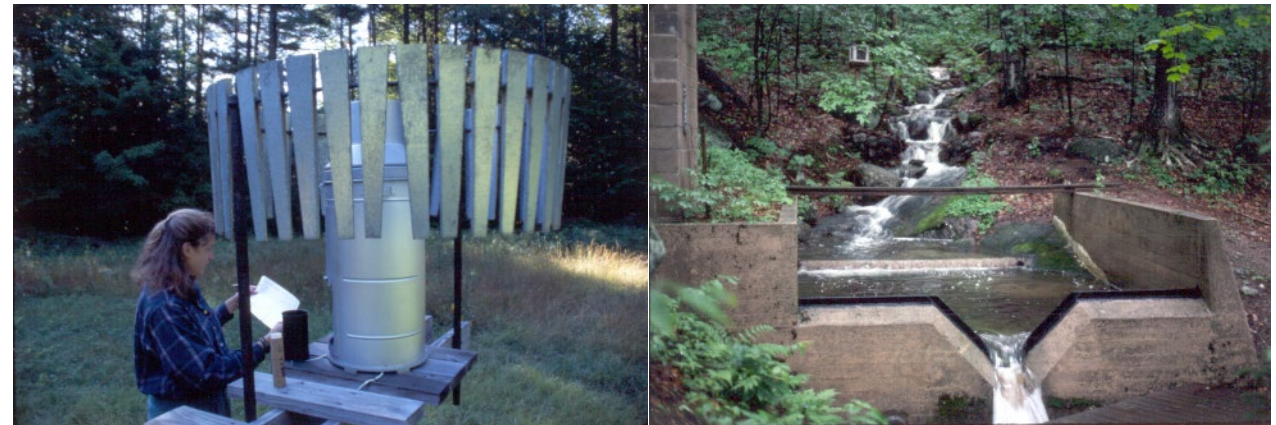
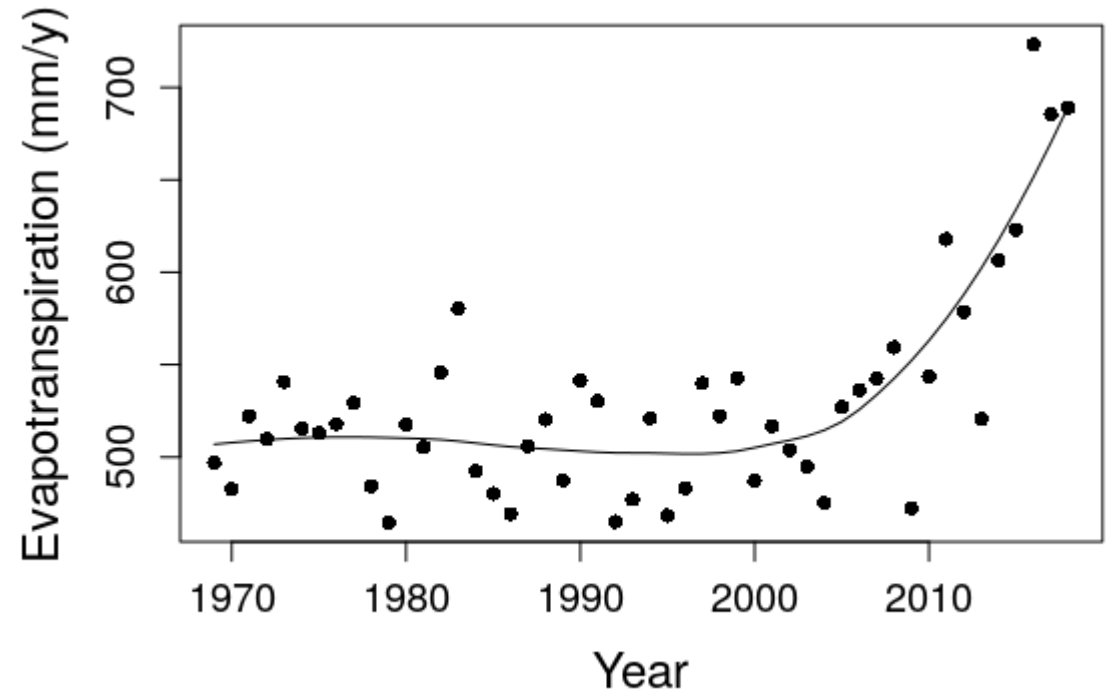
# The Idea

Evapotranspiration from the Hubbard Brook forest appears to be changing rapidly.

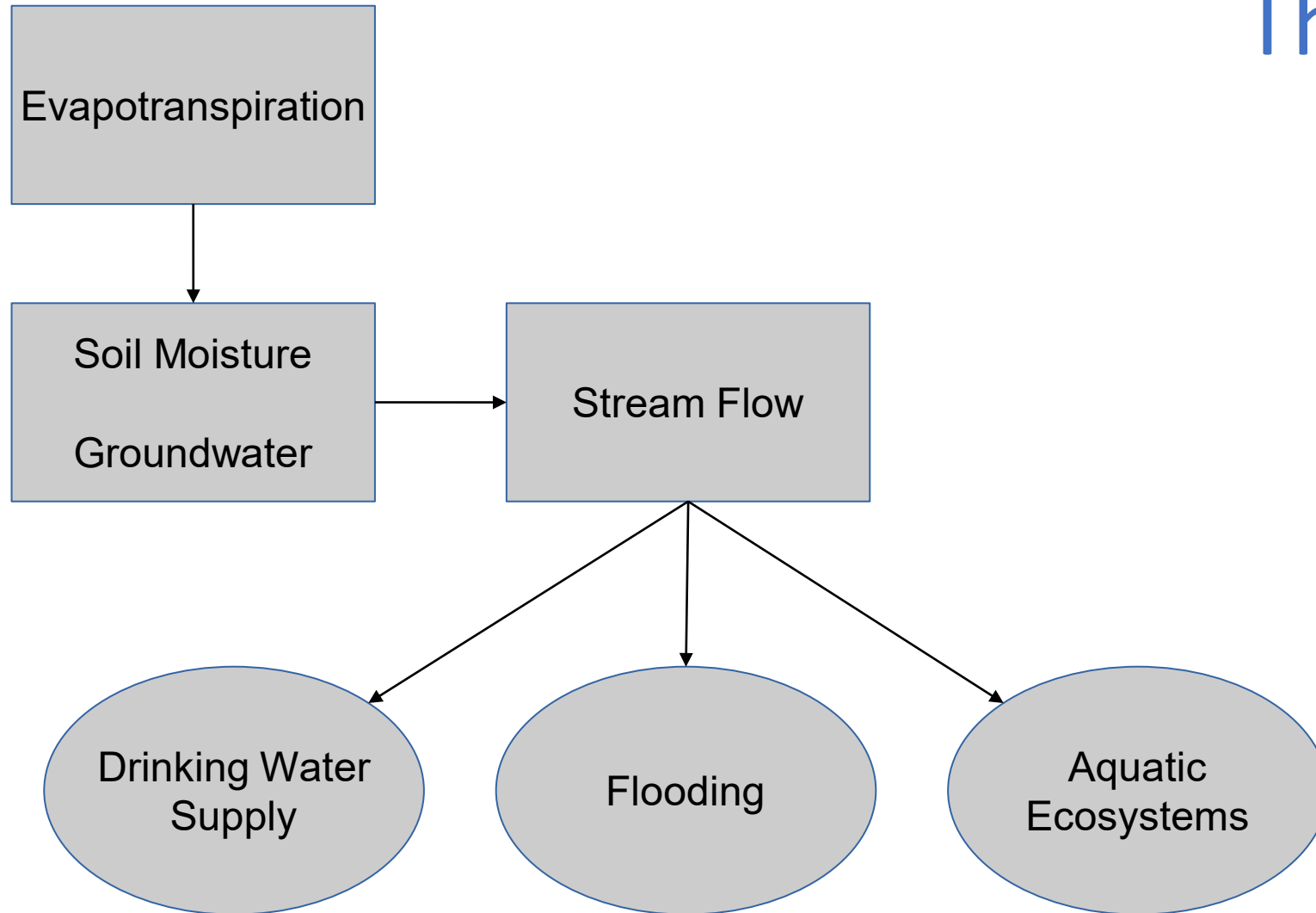
What is exactly happening and why?

What is the scale of this change?

Can we leverage this change to identify best practices for detecting similar changes with remote sensing?



# Issue(s) being addressed



## The Idea



Issues Addressed



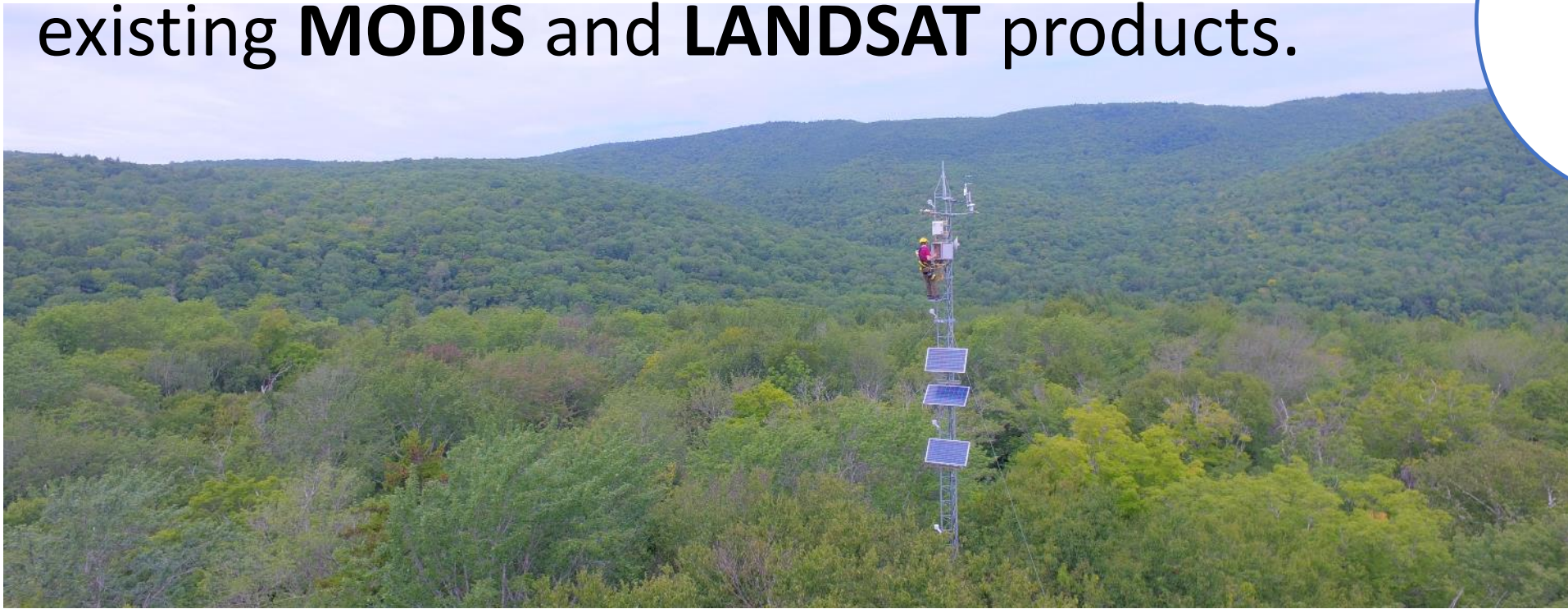
# What EO data does your idea utilize?

## The Idea

This idea would leverage the new **ECOSTRESS** and **SMAP** products, and existing **MODIS** and **LANDSAT** products.



Earth Observation Tools



# The Idea – Outcomes / Societal Benefits

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- Decision Support: We expect this idea will improve monitoring protocols for tracking hydrologic changes with remote sensing of forests.
- Benefit to the Forest Service: More efficient and accurate identification of areas experiencing major hydrologic changes.



Thank You!

