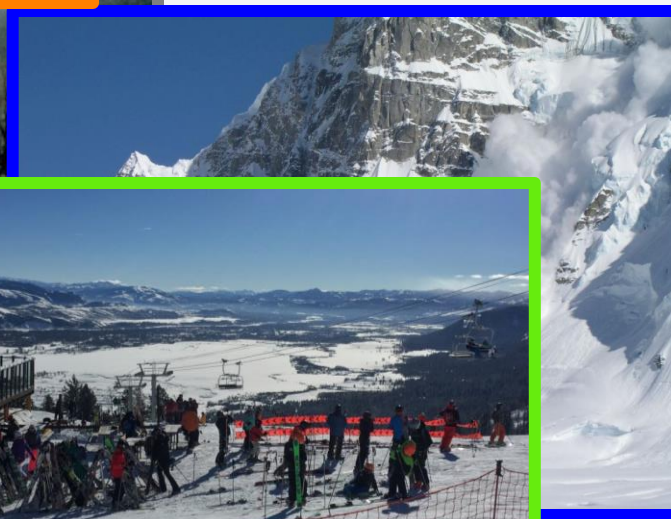# Water Resources (Hydroclimate)

Sarah B. Kapnick, Ph.D.

Stouffer Symposium

The increasing overlap between climate modeling and impact assessments, and to what extent can they be merged
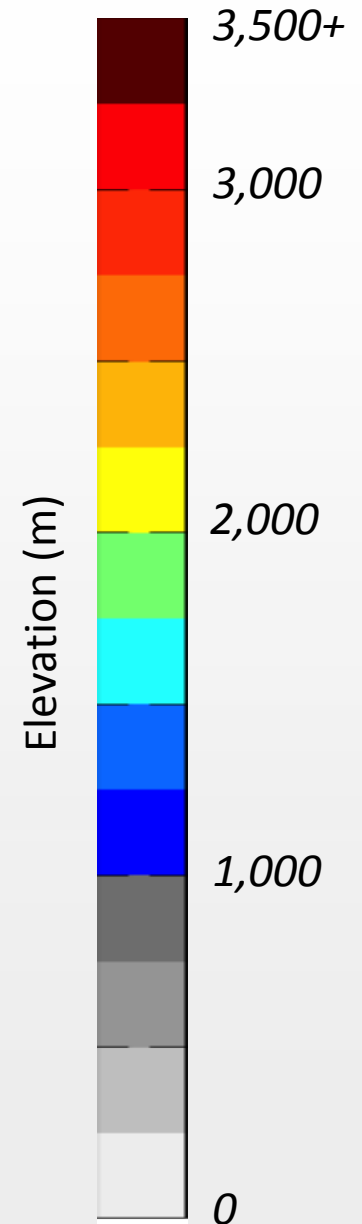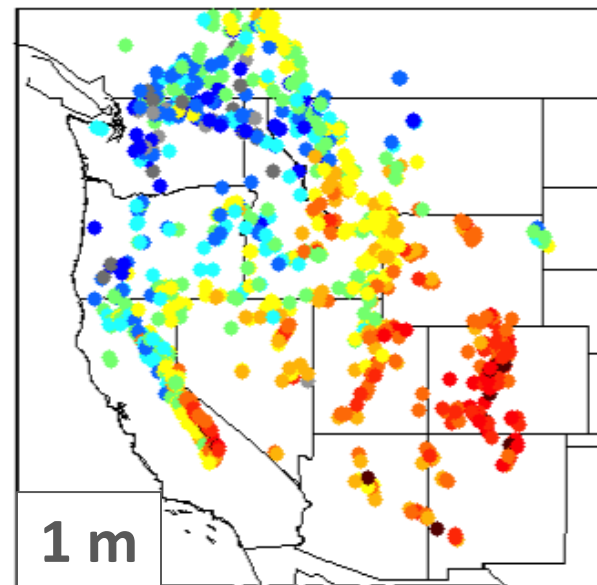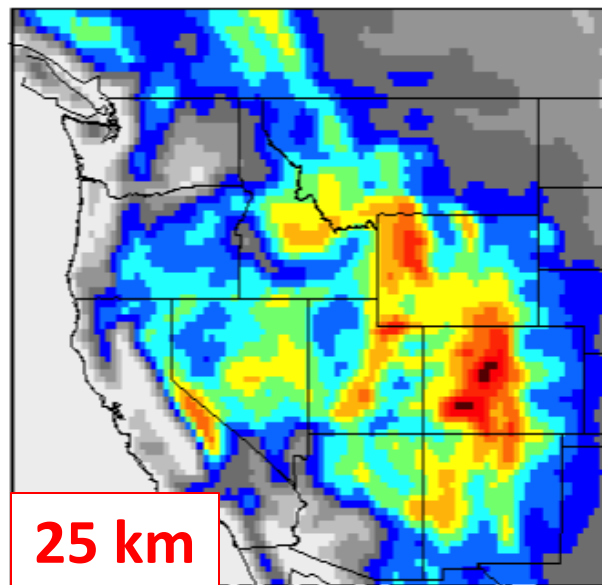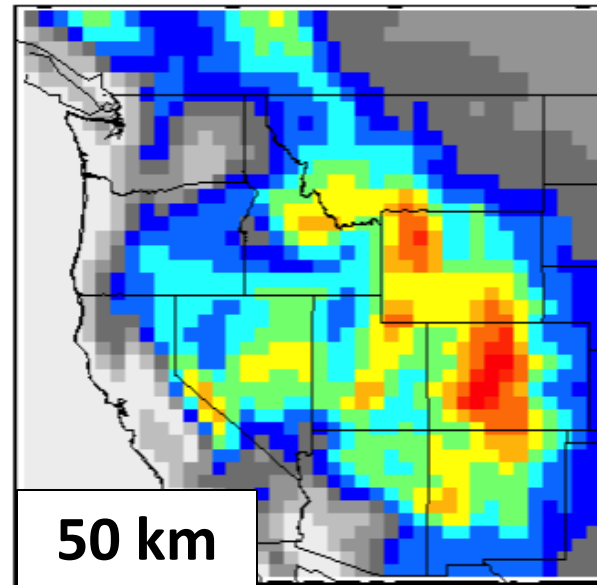
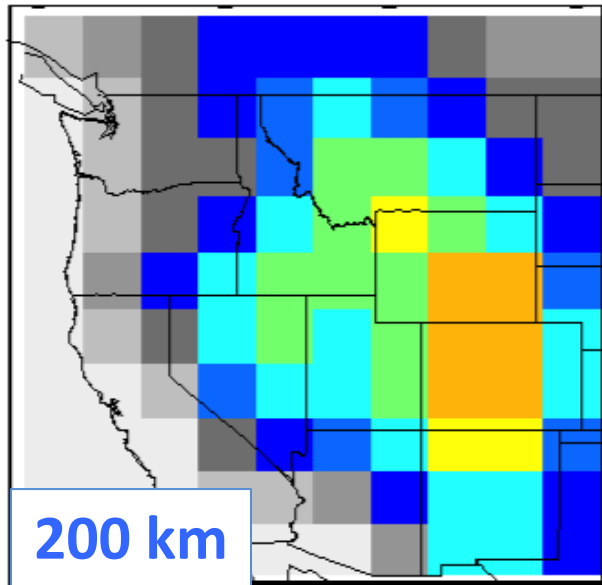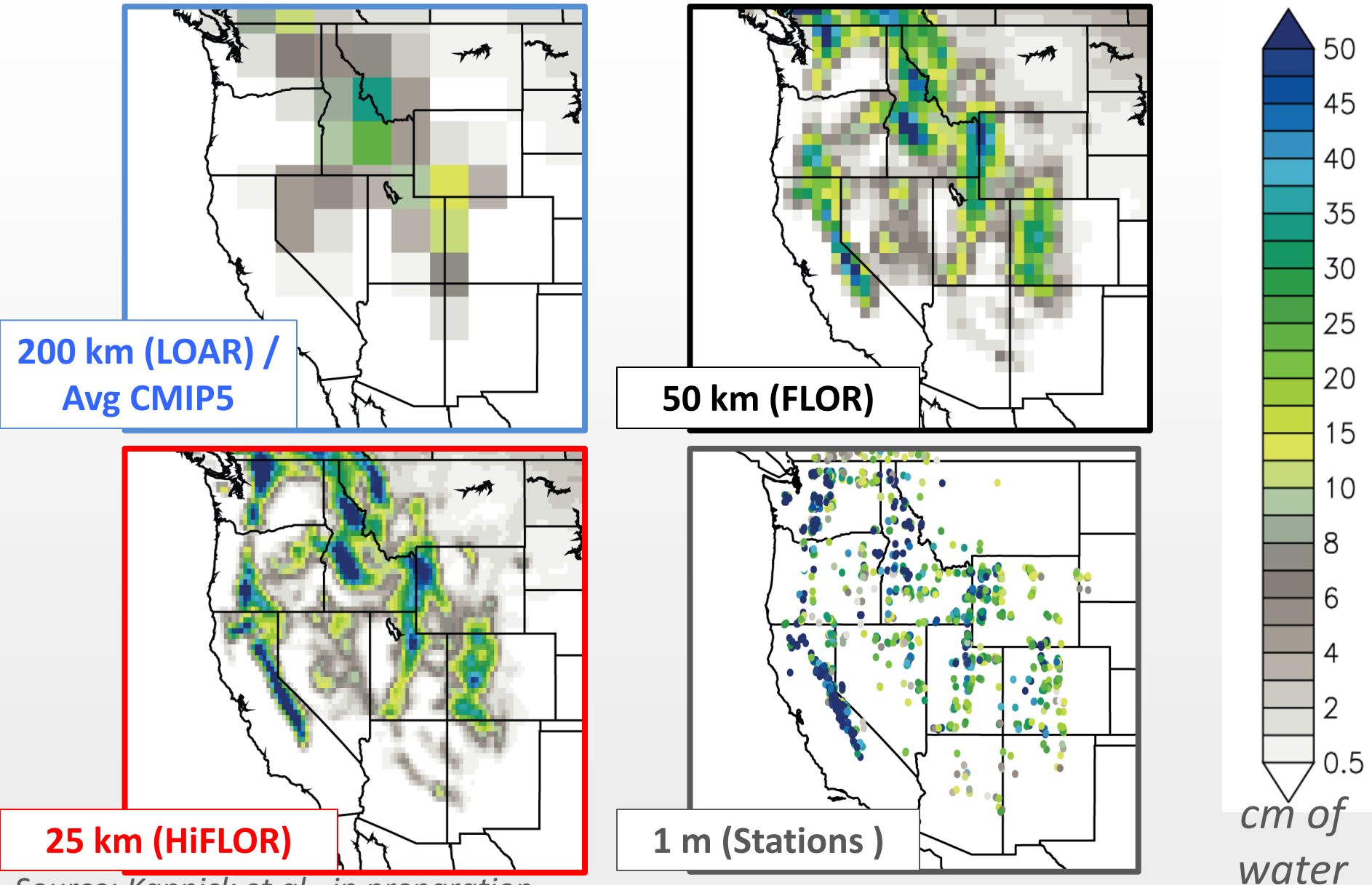# Examples of Water-Related Impacts

Low Water ← → **High Water**

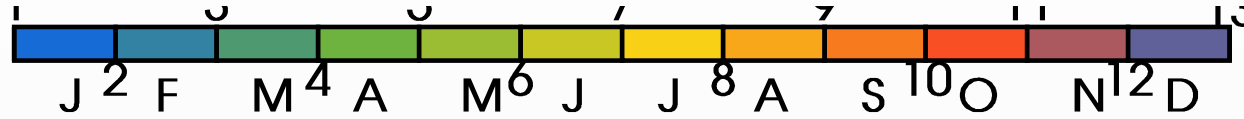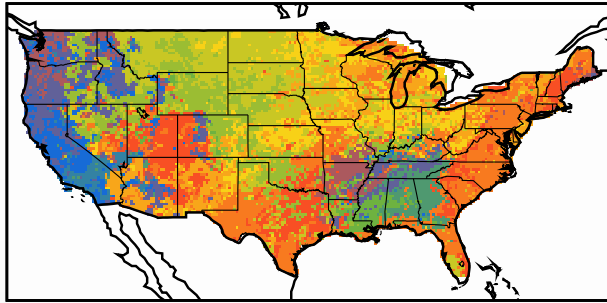# Model-to-Impacts Challenge
Elevation Resolution Dependency

How can we model water resources (snowpack) better?

200 km (LOAR) / Avg CMIP5

50 km (FLOR)

25 km (HiFLOR)

1 m (Stations)
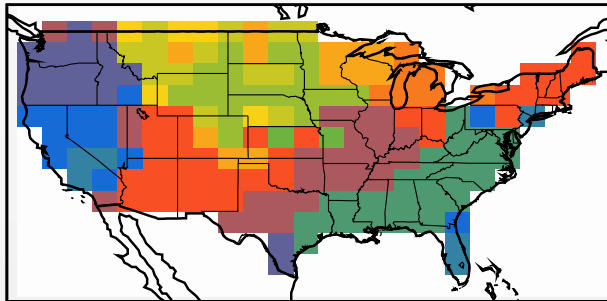
cm of water

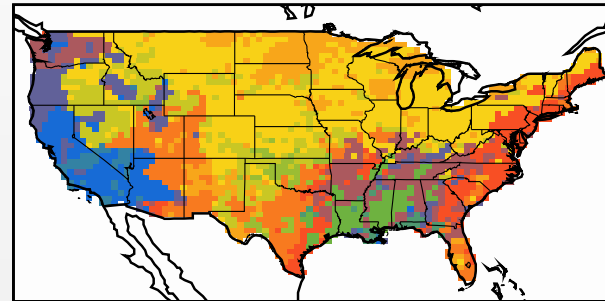*Source: Kapnick et al., in preparation*

How can we model precipitation better?

a) CPC observations

b) LOAR — present-day

c) FLOR — present-day

d) HiFLOR — present-day

DJF   JJA   MAM   SON

J 2 F   M 4 A   M 6 J   J 8 A   S 10 O   N 12 D

Source: Van der Wiel et al., in review