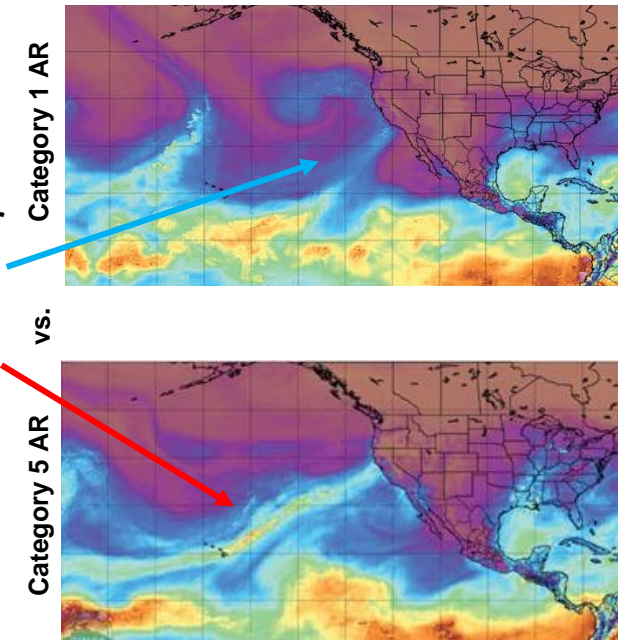


New categorization of atmospheric rivers allows for managers to prepare for large rain events

- The Atmospheric River (AR) scale, along with weather data, can be used to forecast AR intensity. This may inform water and natural resource managers of preparations that may need to take place, such as releasing water from a dam.
- ARs are important weather systems as they can be both beneficial and hazardous.
 - **Benefits:** fill reservoirs, sustain wetlands, change wildfire risks
 - **Hazards:** flooding, storm surge, landslides, levee breaches

Atmospheric Rivers (AR): channels of water vapor in the atmosphere that deliver precipitation.



AR Categories based on duration and water content

AR Category*	# of AR events**	Length of AR (days)	Max 3-day rainfall	Description
Cat 5	10	1-3	21.7 in	Primarily hazardous
Cat 4	22	0-3	17.4 in	Mostly hazardous, also beneficial
Cat 3	78	0-3	12.8 in	Balance beneficial and hazardous
Cat 2	138	0-3	11.9 in	Mostly beneficial, also hazardous
Cat 1	268	0-2	10.9 in	Primarily beneficial
Not an AR	392	0-1	NA	NA

*Categorization given the amount of water transported by the AR and the duration of the storm.
 **Out of 908 storm events in Bodega Bay, Jan 1980-April 2017.

A scale to characterize the strength and impacts of atmospheric rivers. Ralph, MF; Rutz, JJ; Cordeira, JM; Dettinger, M; Anderson, M; Reynolds, D; Schick, LJ; and Smallcomb, C. *Bulletin of the American Meteorological Society*. February 2019. <https://doi.org/10.1175/BAMS-D-18-0023.1>.