Dominant source	Groundwater	Precipitation	Soil
cQ behavior	Cations	Biological activity	
Solute mobilization (cQ slope):			
long term	Slope < 0	Slope < 0	Slope > 0
event scale	Slope < 0	-1 < slope < 1	Slope > 0
Variability in cQ space:			
long term	Well confined	High scatter	High scatter
event scale	Low variability	High variability	Some variability
Potential modulators of event-scale behavior	Ionic form: lower variability for cations due to exchange buffering	Biological activity: increases the variability	Presence as <i>nanoparticulates:</i> likely affects the solute mobilization during events
Drivers and controls of interevent variability:	Warm, small events, more pre-event water  Cold, small events, more event water	Dry, large events, more event water  Wet, small events, more pre-event water	Cold, wet (opposed for Fe)  Warm, dry (opposed for Fe)
·	Seasonality indicators and event characteristics	Antecedent conditions and event water contributions	Seasonality indicators and antecedent conditions
Drivers and controls of interevent variability:	Warm, dry  Cold, wet	Warm, dry Cold, wet	Warm, dry Cold, wet
intercept	Seasonality indicators and antecedent conditions	Seasonality indicators and antecedent conditions	Seasonality indicators and antecedent conditions
Solutes (at Erlenbach)	Ca, Mg, Na, Sr, Ba, B, SO <sub>4</sub> , EC	Cl, NO <sub>3</sub>	Fe, Mn, Cr
Mixed behavior	interevent vo increases wi	Q scatter and ariability th contribution tation, e.g., K.	Long-term behavior becomes more chemostatic with increasing contributions from precipitation, mobilization behavior on the event scale.