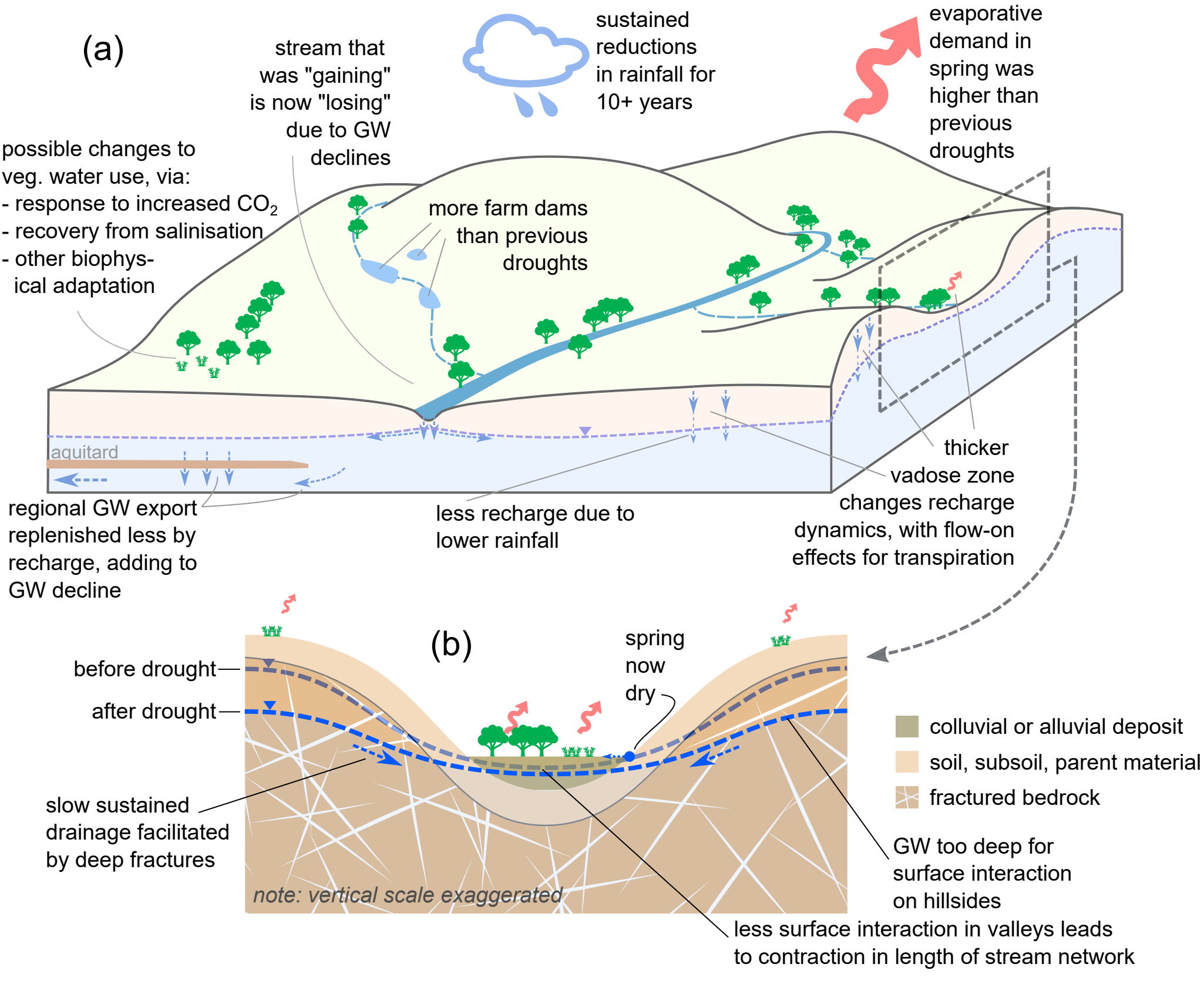
(a)
stream that was "gaining" is now "losing" due to GW declines
sustained reductions in rainfall for 10+ years
evaporative demand in spring was higher than previous droughts
possible changes to veg. water use, via:
- response to increased CO_2
- recovery from salinisation
- other biophys-ical adaptation
more farm dams than previous droughts
aquitard
regional GW export replenished less by recharge, adding to GW decline
less recharge due to lower rainfall
thicker vadose zone changes recharge dynamics, with flow-on effects for transpiration
(b)
before drought
after drought
spring now dry
slow sustained drainage facilitated by deep fractures
note: vertical scale exaggerated
colluvial or alluvial deposit
soil, subsoil, parent material
fractured bedrock
GW too deep for surface interaction on hillsides
less surface interaction in valleys leads to contraction in length of stream network