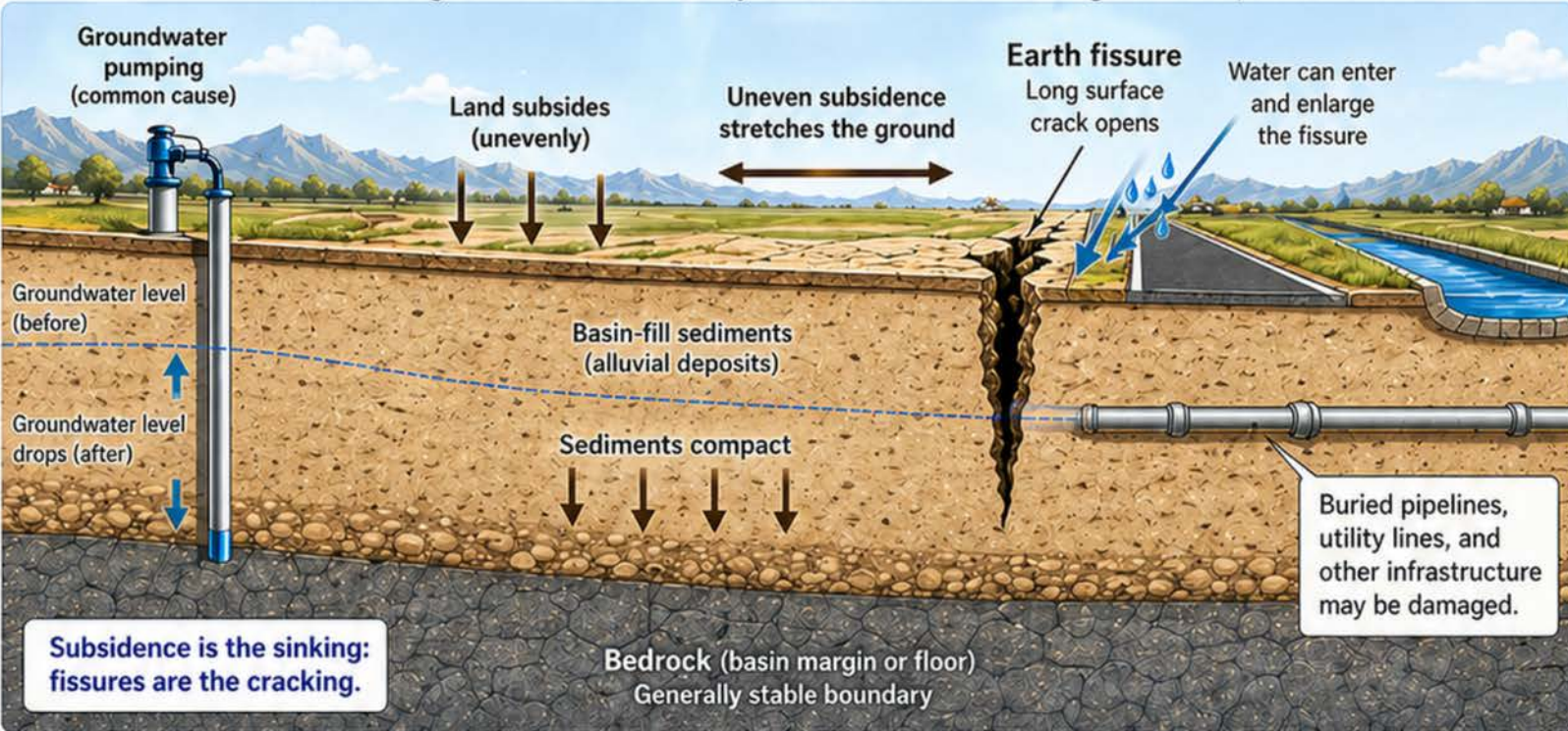


How Earth Fissures Form

Earth fissures usually form in basin-fill sediments or alluvial deposits where the ground is stretched by uneven subsidence or ground deformation.



Not the same as an ordinary drying crack

Earth fissure	Ordinary drying crack
<ul style="list-style-type: none"> • Long, deep opening • Associated with subsidence and ground deformation • Can damage infrastructure and reach great depths 	<ul style="list-style-type: none"> • Small, shallow surface crack • Caused by surface drying of soil • Usually not deep or structurally damaging

Other processes can also contribute

Groundwater pumping is a common cause, but other processes can also contribute.

<p>Natural sediment compaction</p> <p>Fine-grained sediments compact over time under their own weight or with aging.</p>	<p>Differential settlement or loading</p> <p>Uneven loads from buildings, roads, or fills cause uneven settlement.</p>	<p>Subsurface extraction</p> <p>Extraction of oil, gas, or minerals can cause ground subsidence.</p>

Water can enter and enlarge fissures

Runoff, stormwater, irrigation return flow, or canal leakage

Water enters, erodes material, and widens the fissure.

Fissures can grow over time.



Policy takeaway: Earth fissures can signal uneven subsidence and changing ground conditions. Groundwater management, subsidence monitoring, infrastructure planning, drainage control, and hazard mapping can help reduce long-term damage.