



EARTH FISSURES

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Earth fissures occur in areas that have subsided due to extensive groundwater withdrawal, where the ground has compacted unevenly when the groundwater table drops. Four counties in Arizona are particularly susceptible to earth fissures: Pinal, Maricopa, Cochise and Pima.

Earth fissures cause damage to infrastructure (utility lines, roads, canals, etc.) and buildings, change flood and drainage patterns, and pose a life safety risk. Additionally, earth fissures are a direct path to the groundwater table, so pollutants and contaminants placed within the fissure will impact water quality fairly quickly. Earth fissures are a long-term problem, and will continue to form as long as subsidence continues unchecked.

Reducing the occurrence of earth fissures and their associated effects is a community effort. Below are some tips:

UTILITIES, PUBLIC WORKS, AND TRANSPORTATION

- ❖ Lessen dependence on groundwater by using alternative sources;
- ❖ Be aware of where fissures are located and avoid building infrastructure through, on, or over them;
- ❖ Avoid routing drainage into fissures: watering fissures makes them grow;
- ❖ Ensure alternate emergency routes exist where fissures cross existing roads; and
- ❖ Monitor storm and sewage drains for flow reversal.



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PLANNING AND ZONING

- ❖ Encourage developers to avoid fissure-prone areas;
- ❖ Require a minimum setback for buildings/infrastructure in fissure areas; and
- ❖ Prohibit residential zones in fissure areas.

HOMEOWNERS

- ❖ Educate yourself on fissures before buying property in fissure-prone areas;
- ❖ Carefully read the disclosure before buying; and
- ❖ Fence off the fissure to keep animals and children out.

EVERYONE

- ❖ Practice smart water conservation—even if you don't live in a fissure-prone area, your water consumption may be contributing to fissure formation in other areas;
- ❖ Do NOT dump garbage, appliances, manure, or other contaminants into fissures; and
- ❖ If you see something you suspect is a fissure, report it to the Arizona Geological Survey.