

City of Chattanooga

Stormwater Regulations Seminar

What Are Mitigating Circumstances?



Mitigating Circumstances

The Chattanooga Rainwater Management Guide (p. 3-12) states:

Acceptable reasons for **not** managing all of the SOV from 100 percent of the project area onsite may include:

- The depth from the existing ground surface to seasonal high groundwater or other limiting layer (i.e., till or bedrock) is less than 2 feet, or the depth from the base of a proposed infiltration SOV management strategy to seasonal high groundwater or other limiting layer is less than 2 feet **and** other volume reduction measures (i.e., reuse, restoration) cannot be implemented to meet full SOV requirements.
- Contaminated soils or other site constraints **and** other volume reduction measures (i.e., reuse, restoration) cannot be implemented to meet full SOV requirements.
- The City has identified a preferred stormwater project or location in lieu of management at the site.
- Conditions as identified and approved at the discretion of the City.

But what do these look like?

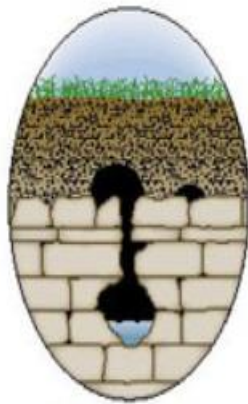
Shallow Depth to Bedrock



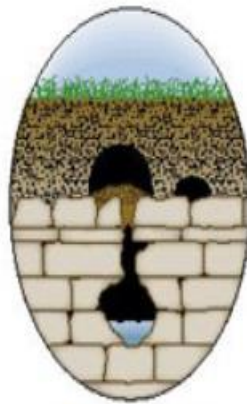
Shallow Depth to Groundwater



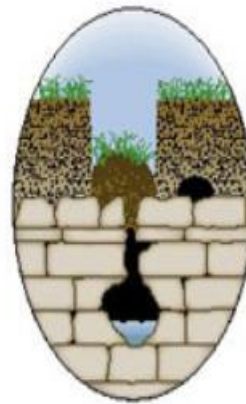
Karst and Sinkholes Areas Also Require Careful Consideration



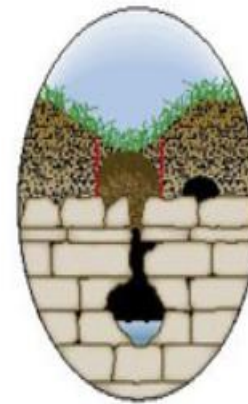
Initially, a sinkhole forms as soil collapses into a crevice and is carried away through a conduit by water.



Then the soil roof of the developing sinkhole falls into the hole to form a cylindrical cavity.

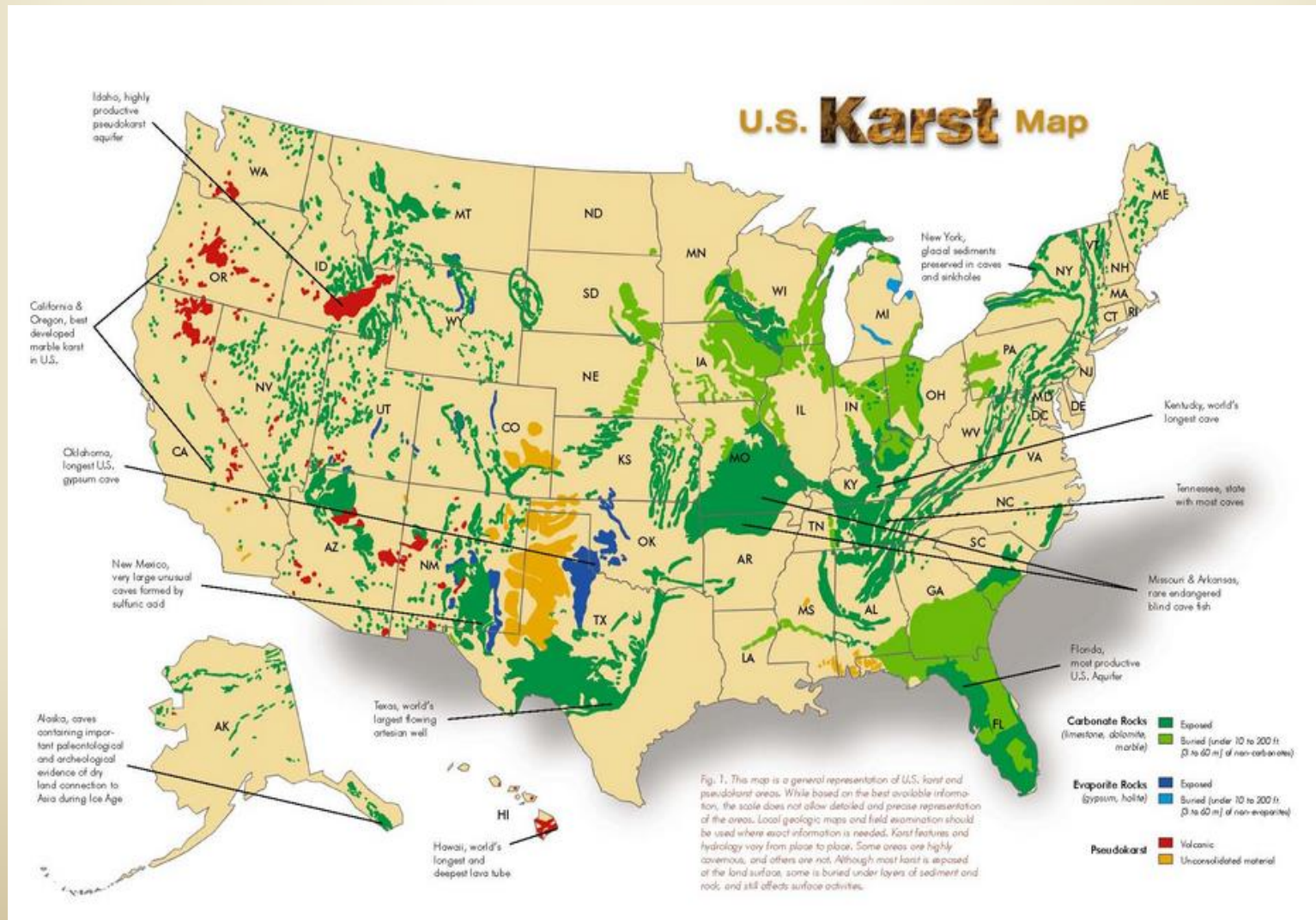


Further collapse of the soil cover from below causes circular cracks to develop at the surface.

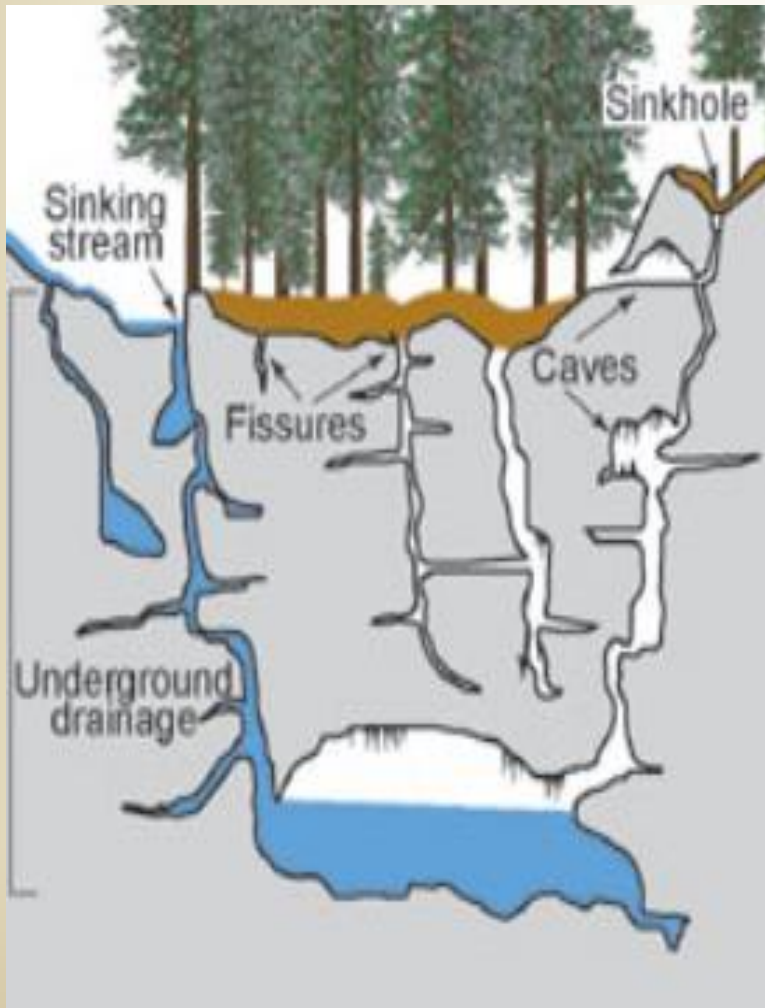


Erosion by water flowing into this new drain hole smooths the hole's sharp edges to form the typical inverted cone- or bowl-shaped depression.

Karst and Sinkholes Are in Our Area



Karst and Sinkholes Often Leave Evidence



Contaminated Soils



Contaminated Soils (Foundry Sand)



*Many Areas in Downtown Chattanooga
Have Foundry Sand*

Verification of Site Conditions Required

It is not that we don't trust you,
but we do require proof of
your site's conditions.



Questions?

