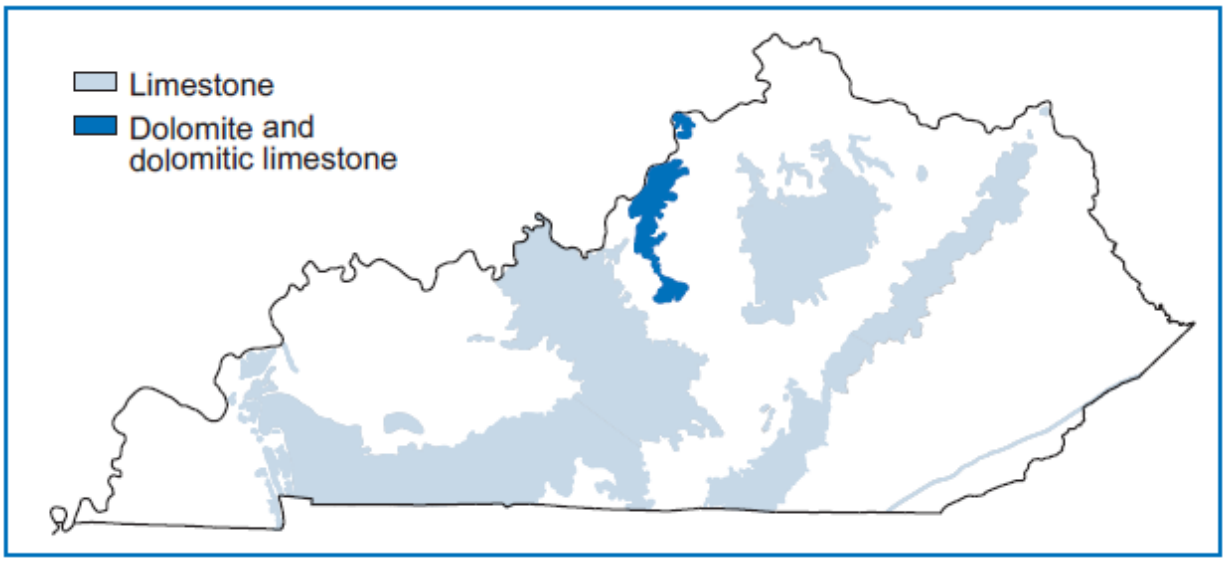
Let’s learn about Kentucky’s limestone and dolostone deposits.

Limestone and dolostone are two types of sedimentary rocks. They serve two purposes:

1) They preserve evidence of the conditions in Kentucky when they were deposited.
2) They are an important natural resource.

Where are limestone and dolostone located in Kentucky?



Why are sedimentary rocks important?

- Sedimentary rocks preserve evidence of what the environment was like during the time the rocks were deposited.
- Fossils found in the rocks tell you what organisms were living at the location and time when the rock was deposited.

Why are fossils important?

- Fossils provide information about the environment and organisms living when the rock was deposited. Certain types of fossils can be used to reconstruct the depositional

environment, by comparing them to similar modern organisms.
- In the case of limestone, marine invertebrate (without a backbone) fossils are actually casts of the organisms that thrived in the seas during ancient times.
- Sometimes a fossil is termed a trace fossil, meaning it shows us that an organism existed, but the actual organism is not preserved. For example, a trace fossil could be a track of the organism's feeding pattern or movement that was preserved in the rock, which shows what that organism was doing during that period.

Limestone not only tells us the geologic and natural history of the area where it was deposited, it also serves as a resource. Stone is produced from open-pit quarries that extend into the subsurface, and also by drift and slope mines. According to the Kentucky Department of Transportation's 2020 "Aggregate source book," there are 160 limestone operations in Kentucky.

Stone is mined and crushed for several uses.

- It is used as an aggregate in asphalt and concrete in the construction of buildings and highways.
- Aglime is used to adjust the pH of soils for agricultural crops and pastures.
- Chemically pure stone is used in the manufacture of lime and cement.
- Limestone is used as a sorbent for reducing sulfur dioxide emissions from coal-burning power plants.
- It is used as rock dust to prevent explosions in underground coal mines.
- It is used in filter beds in sewage plants.
- Limestone is an ingredient in mineral feed and poultry grit.
- Larger blocks of stone are used in jetties along lakes to control erosion along waterways and shorelines.

- Dimension stone is used for houses and buildings.
- It is used as flux in the steel-making industry.
- Some limestone and dolostone with good permeability (meaning fluids can pass through it) are excellent reservoir rock for petroleum.

Grand Rivers (Reed) Quarry, Livingston County, Kentucky.

The largest limestone quarry in Kentucky is the Grand Rivers (Reed) Quarry in Livingston County.