

## **2020 Earth Science Week KUNM Radio Presentation: Kevin Hobbs**

Welcome to Earth Matters - field notes on the geology of New Mexico's Enchanting Landscapes. Celebrating Earth Science Week, I'm Kevin Hobbs.

Though we rarely think about it, our lives are entirely dependent upon sand, a common Earth material. In fact, sand is probably the most important solid substance on Earth. Created by the natural weathering of rocks and minerals, sand is moved about mainly by water, with some transport also being accomplished by wind and even glacial ice. It accumulates in river channels and deltas, sand dunes, and on beaches around the world.

The uses of sand are too many to count. It is in construction materials like adobe, concrete, and glass; it is used to filter water in our wells and treatment facilities; it is injected underground in a process known as fracking; and it is refined at the molecular level to make the silicon chips in our computers and smartphones. In fact, sand is the world's second-most-used natural resource. By volume, the amount of sand we use is second only to water. In 2019, humans quarried about 50 billion metric tons of sand – that's 40 pounds per person per day! Here in New Mexico, it might seem like there never could be a shortage of sand. However, like most mineral resources, sand is non-renewable and global scarcity is expected within the next 30 years.

The next time you dump sand out of your shoe or sweep it into your dustpan, give those lowly grains a little respect and perhaps pause to take a tip from the poet William Blake: try “to see a world in a grain of sand”.

Celebrating Earth Science Week, this is Kevin Hobbs with the New Mexico Bureau of Geology at New Mexico Tech.