

Resource Concern: **Soil Quality Degradation**

Compaction

Compaction occurs when soil particles are pressed together, thus reducing the space available for air and water to infiltrate. This reduction restricts the plant's root growth, therefore, effecting nutrient intake, animal habitation, and the soil's biology.

Concentration of Salts or Other Chemicals

Concentration of salts can lead to salinity and/or sodicity. Salinity refers to the accumulation of dissolvable salts in soil or water. Sodicity is the amount of sodium held in soil. The level of salt affects the suitability for irrigation and plant growth which can limit the desired use and structure of the soil.

Concentration of other chemicals can impact productivity or limit the desired usage. While certain chemical elements occur naturally in soils as components of minerals, some may be toxic at certain levels.

Organic Matter Depletion

Organic Matter in soil refers to the organic components, such as plant or animal material, that goes into the soil and through the decomposition process. Organic matter affects a soil's substance, including the soil structure, water infiltration and holding capacity, and the availability of biological activity. If there is a decline in organic matter, then it can affect rainfall infiltration and water holding capacity, limit the soil's ability to provide nutrients to plants and lower soil fertility.

<https://www.sdresourceconcerns.org/resource-concern-soil-quality-degradation/>

