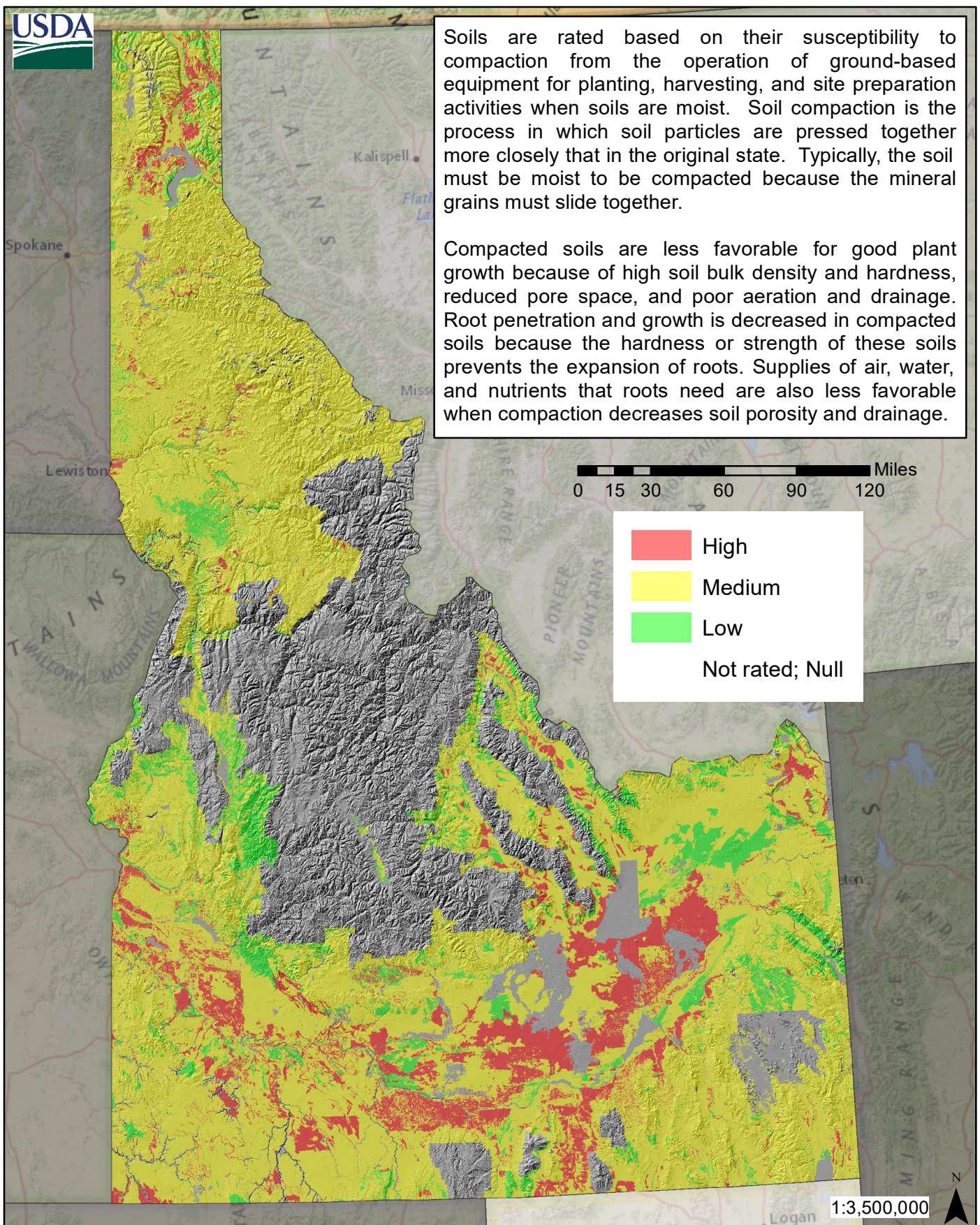


Soil Susceptibility to Compaction



Soils are rated based on their susceptibility to compaction from the operation of ground-based equipment for planting, harvesting, and site preparation activities when soils are moist. Soil compaction is the process in which soil particles are pressed together more closely than in the original state. Typically, the soil must be moist to be compacted because the mineral grains must slide together.

Compacted soils are less favorable for good plant growth because of high soil bulk density and hardness, reduced pore space, and poor aeration and drainage. Root penetration and growth is decreased in compacted soils because the hardness or strength of these soils prevents the expansion of roots. Supplies of air, water, and nutrients that roots need are also less favorable when compaction decreases soil porosity and drainage.



Soil Survey Staff. Gridded Soil Survey Geographic (gSSURGO) Database for Idaho. United States Department of Agriculture, Natural Resources Conservation Service. Available online at <http://datagateway.nrcs.usda.gov/>. 20190917 (FY2020 official release).