

Sagebrush Steppe

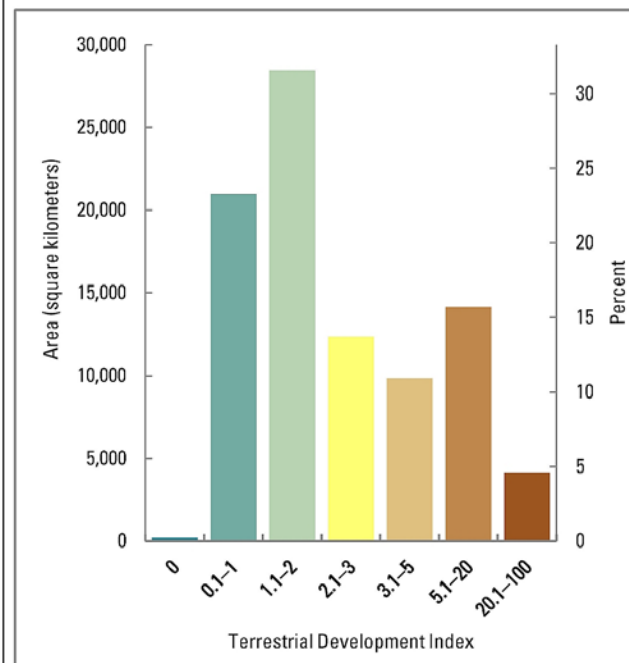
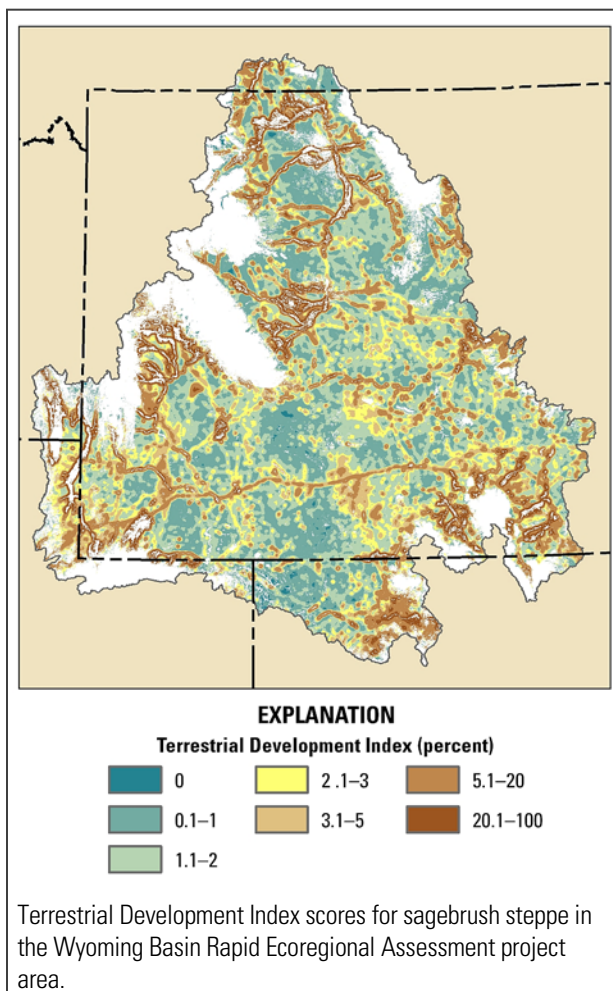
Management Questions

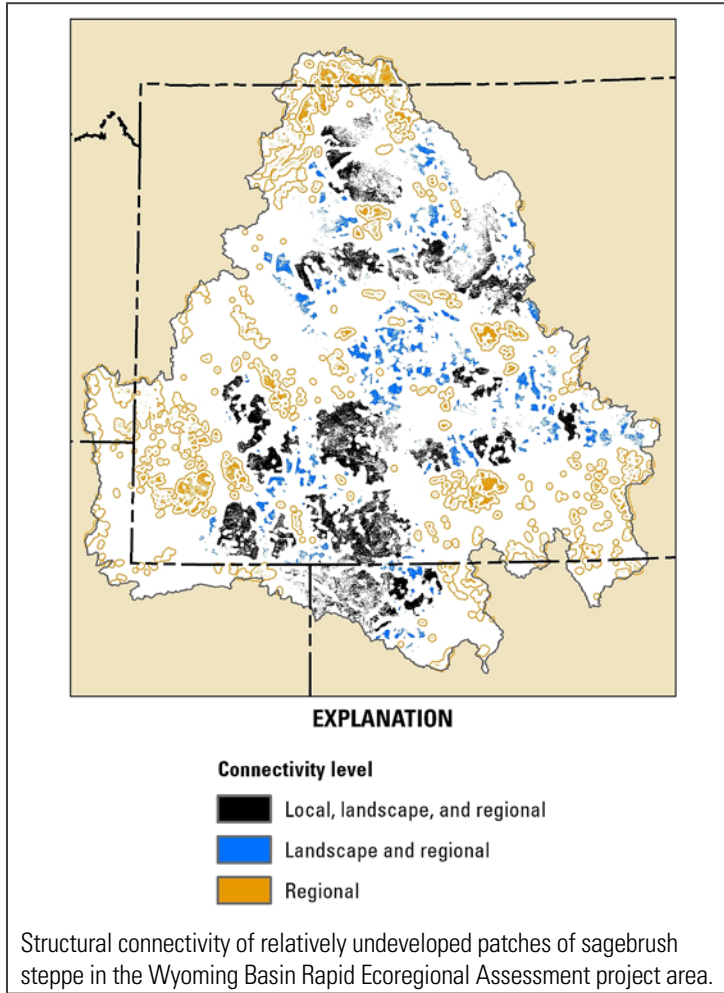
- Where is baseline sagebrush steppe, and what is the total area?
- Where does development pose the greatest threat to baseline sagebrush steppe, and where are the relatively undeveloped areas? (Left map below)
- How has development fragmented baseline sagebrush steppe, and where are the large, relatively undeveloped patches?
- How has development affected the structural connectivity of sagebrush steppe relative to baseline conditions? (Top left map following page)
- Where are potential barriers and corridors that may affect animal movements among relatively undeveloped sagebrush steppe patches?
- Where are sagebrush-juniper ecotones with potential for juniper expansion?



Photo credit: Cameron Aldridge, Colorado State University.

- Where have recent fires occurred in baseline sagebrush steppe, and what is the total area burned per year?
- What is the potential distribution of sagebrush steppe in 2030?
- How does risk from development vary by land ownership or jurisdiction for sagebrush steppe?
- Where are the townships with the greatest landscape-level ecological values? (Top right map following page)
- Where are the townships with the greatest landscape-level risks? (Center right map following page)
- Where are the townships with the greatest conservation potential? (Bottom right map following page)

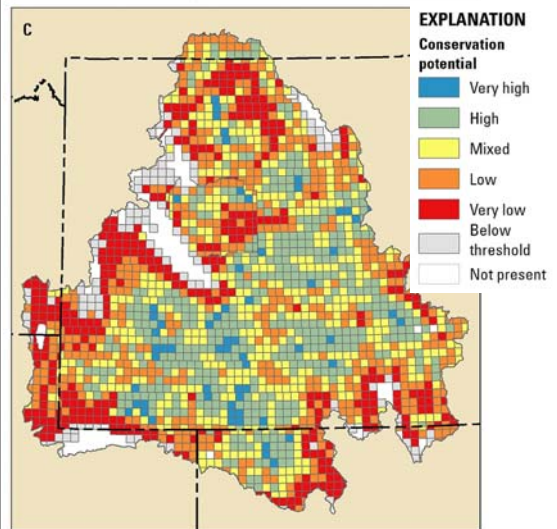
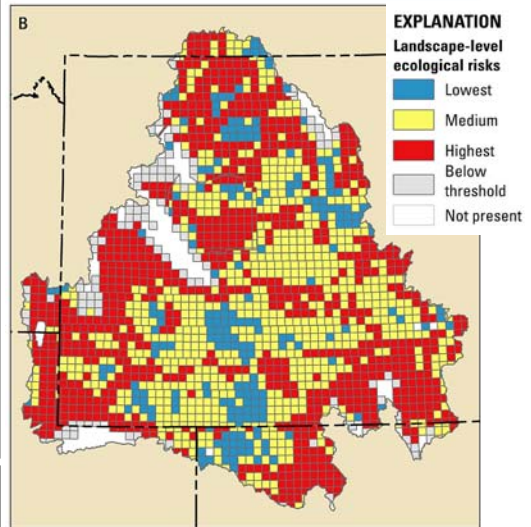
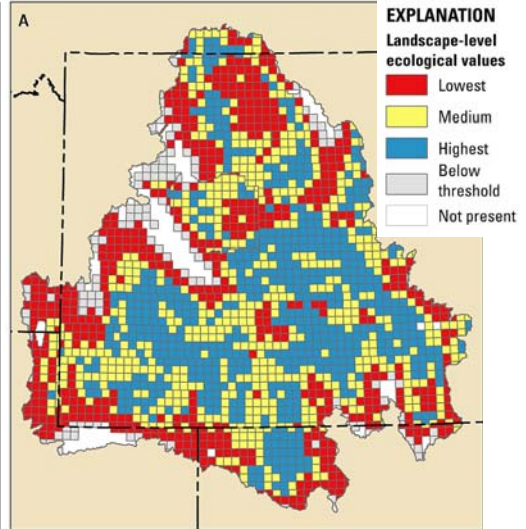




Summary

Sagebrush steppe is widely distributed in the Wyoming Basin and accounts for approximately 53 percent of the land area. Development is pervasive, and only 23 percent of sagebrush steppe is relatively undeveloped. Development (including roads, energy, and agriculture) has fragmented and decreased structural connectivity. Much of the remaining relatively undeveloped sagebrush steppe occurs in scattered patches, most of which are <1,000 square kilometers (386 square miles); only two patches of relatively undeveloped steppe >1,000 square kilometers (386 square miles) remain, representing <4 percent of the total area.

Data limitations make it difficult to evaluate decades- to centuries-long regional patterns of sagebrush steppe dynamics. Juniper woodland expansion into steppe does not appear to be a region-wide problem. Since 1990, relatively little sagebrush steppe has burned in the Wyoming Basin; recent fires appear consistent with historical fire pattern frequency and size. If cheatgrass becomes more common, however, fire could pose a much greater threat. At current development rates, particularly for energy development, sagebrush steppe is expected to experience further fragmentation, loss, and degradation. Potential invasive species risk and projected climate change could further compound these problems.



(A) Landscape-level ecological values, (B) ecological risks, and (C) conservation potential of sagebrush steppe summarized by township.