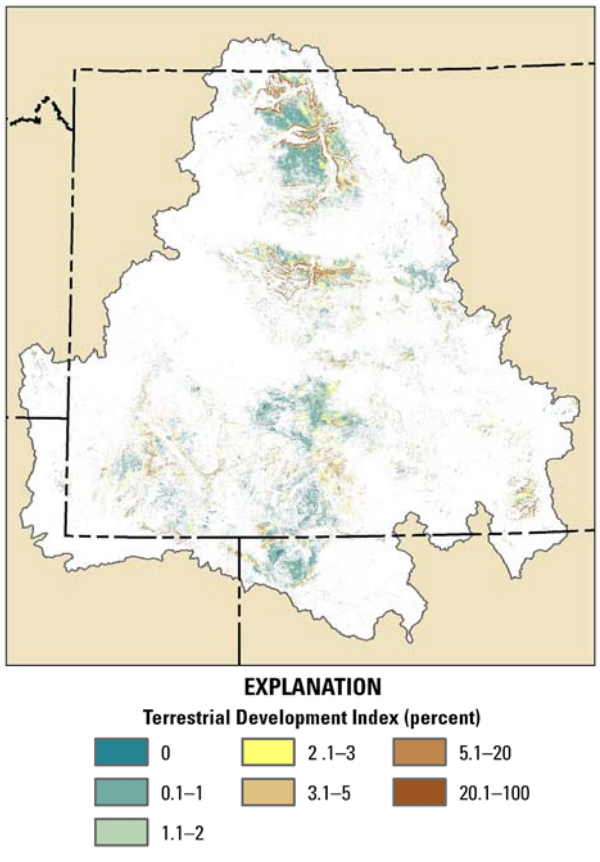
Desert Shrublands

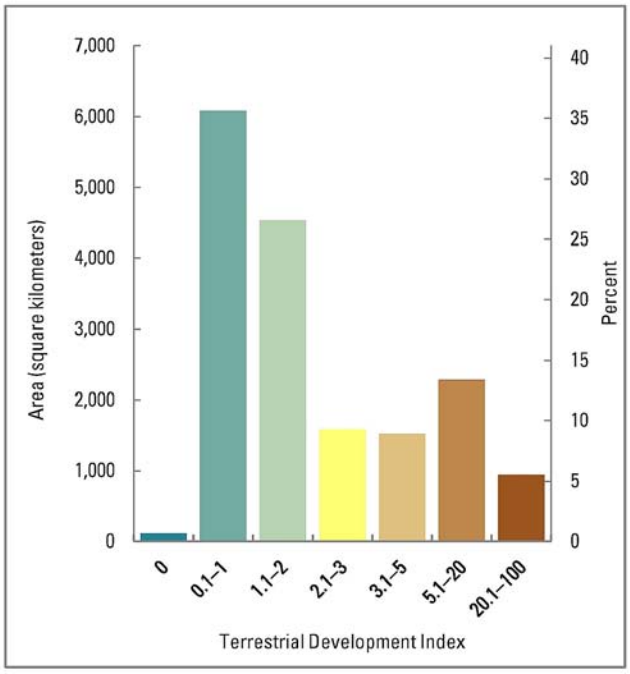
Photo credit: Natasha B. Carr, U.S. Geological Survey.

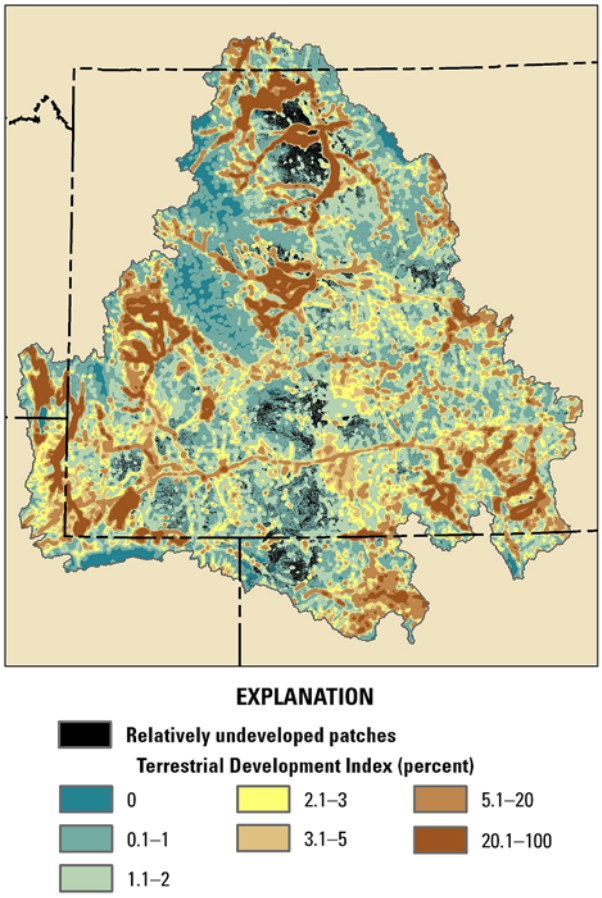
Management Questions

- Where are baseline desert shrublands, and what is the total area?
- Where does development pose the greatest threat to baseline desert shrublands, and where are the relatively undeveloped areas? (Left map below)
- How has development fragmented baseline desert shrublands, and where are the large, relatively undeveloped patches?
- How has development affected structural connectivity of desert shrublands relative to baseline conditions?
- Where are potential barriers and corridors that may affect animal movements among relatively undeveloped desert shrubland patches? (Top left map following page)
- Where have recent fires occurred in baseline desert shrublands, and what is the total area burned per year?
- What is the potential distribution of desert shrublands in 2030?
- How does risk from development vary by land ownership or jurisdiction for desert shrublands?
- 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)



Terrestrial Development Index scores for desert shrublands in the Wyoming Basin Rapid Ecoregional Assessment project area.

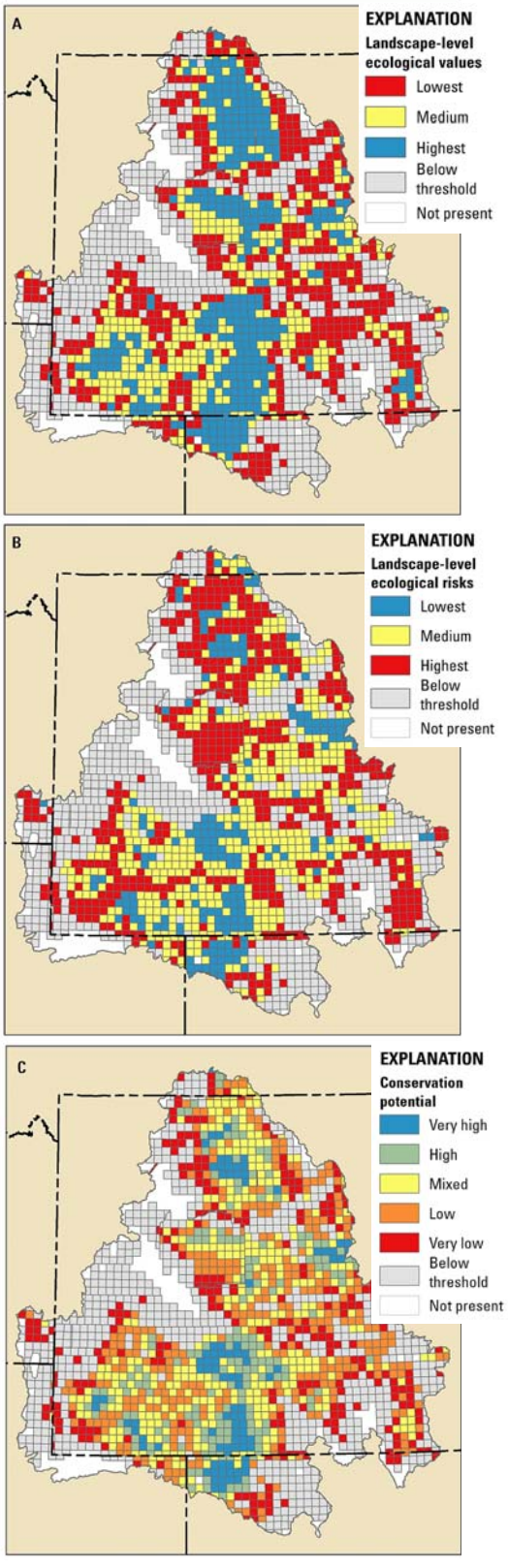




Terrestrial Development Index (TDI) Scores for lands surrounding relatively undeveloped desert shrublands. Higher TDI scores (for example, >5 percent) represent potential movement barriers among relatively undeveloped patches. Lower TDI scores (<2 percent) represent potential movement corridors.

Summary

Desert shrublands are widely distributed in the Wyoming Basin but cover only about 10 percent of the land area. Development is pervasive across desert shrublands and has increased fragmentation and decreased structural connectivity. Development is highly clustered in desert shrublands, and 36 percent of the desert shrublands are relatively undeveloped. Many relatively undeveloped areas fall under Bureau of Land Management jurisdiction. Species of management concern, such as mountain plover, are strongly tied to sparsely vegetated habitats prevalent in desert shrublands. Vulnerability to climate scenarios evaluated here is expected to be low because desert shrublands are more tolerant of decreasing precipitation and increasing temperatures than sagebrush steppe.



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