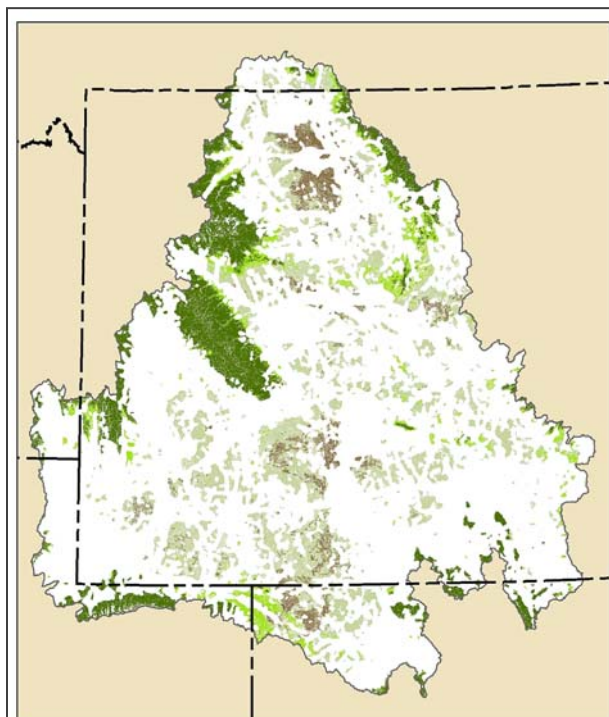


# Landscape Intactness



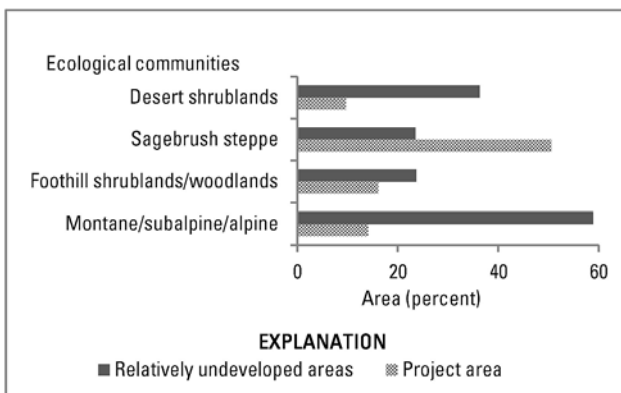
Photo credit: Phil Stoffer, U.S. Geological Survey.

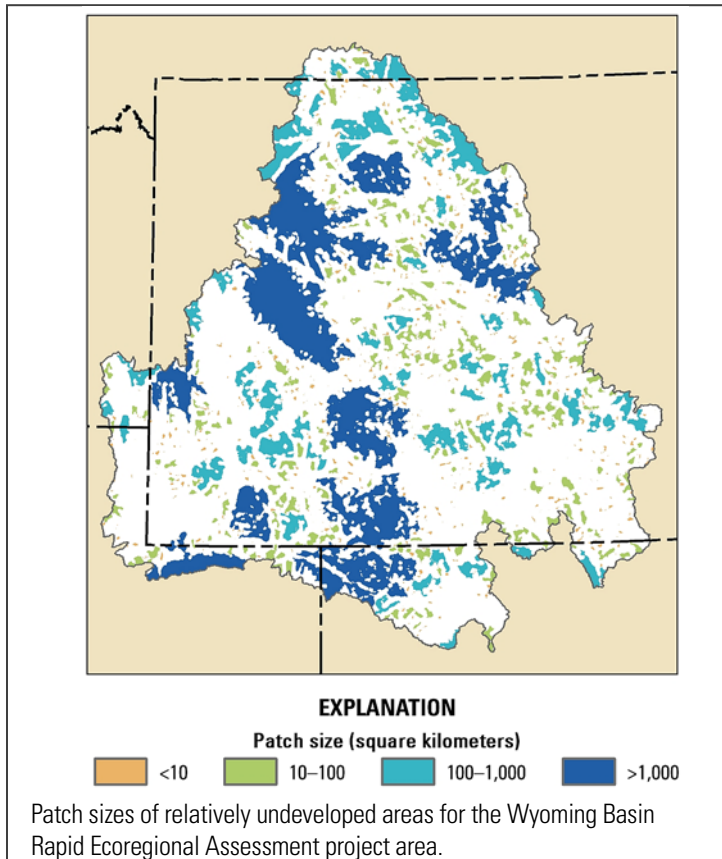


Distribution of terrestrial ecological communities within relatively undeveloped areas in the Wyoming Basin Rapid Ecoregional Assessment project area.

# Management Questions

- Where are the relatively undeveloped terrestrial areas? (Bottom left map below)
- Where are the largest relatively undeveloped patches?
- Where are relatively undeveloped areas with high structural connectivity, and which areas function as stepping stones that connect large, relatively undeveloped areas ?
- Where does development pose potential barriers to animal movements among relatively undeveloped areas?
- What is the distribution and percent of each terrestrial ecological community within relatively undeveloped areas?
- Where are the relatively undeveloped aquatic areas?
- Where has development fragmented streams and rivers, altered flows, and decreased connectivity?
- What is the land ownership or jurisdiction and protected status of relatively undeveloped areas?
- Where are the potential changes in the distribution of terrestrial communities for the Wyoming Basin Rapid Ecoregional Assessment project area and historic trails?
- Where are the projected changes in distribution of terrestrial communities for relatively undeveloped areas?
- How well do relatively undeveloped areas represent terrestrial species evaluated as Conservation Elements?
- Where are the townships with the highest conservation potential for terrestrial Conservation Elements? (Top right map following page)
- Where are the sixth-level watersheds with the highest conservation potential for aquatic Conservation Elements? (Bottom right map following page)

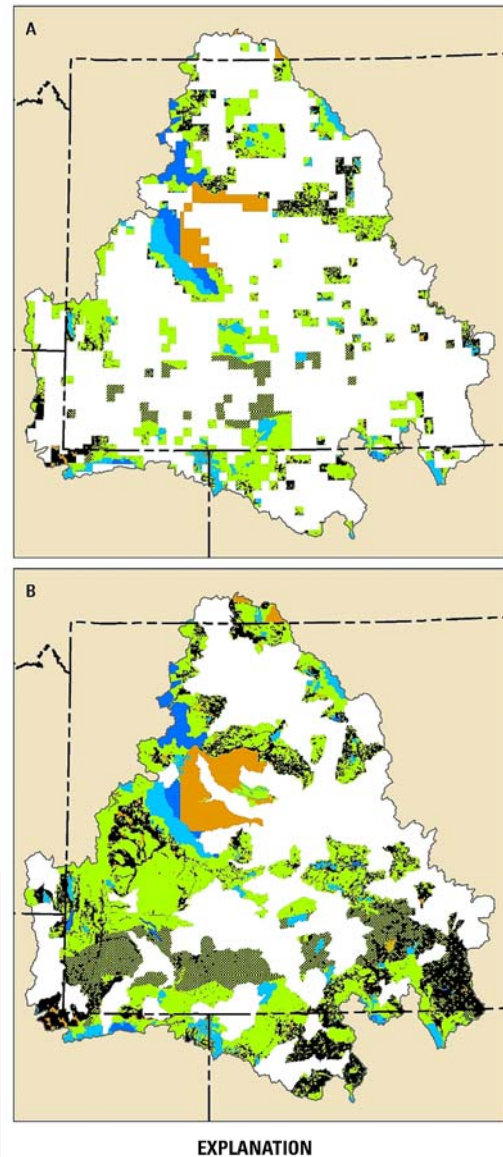




### Summary

Large relatively undeveloped areas within the Wyoming Basin Ecoregional Assessment project area represent potential areas with high landscape intactness. Most of the relatively undeveloped areas occur on Federal lands, and most of these lands are under Bureau of Land Management jurisdiction and subject to extractive use. For terrestrial systems, relatively undeveloped areas cover 29 percent of the project area, most of which fall within the largest relatively undeveloped patches. Sagebrush steppe, which covers 55 percent of the ecoregion, is underrepresented in relatively undeveloped areas, as only 20 percent of sagebrush steppe falls within the relatively undeveloped areas.

For most terrestrial species, townships with the highest conservation potential correspond to relatively undeveloped areas for the entire ecoregion. For aquatic species, however, there were many watersheds with high conservation potential that were outside of the relatively undeveloped watersheds for the entire ecoregion. Because areas with high conservation potential for species and communities may occur outside of the largest relatively undeveloped areas for the ecoregion, landscape intactness at the ecoregion level is useful but not sufficient in evaluating conservation potential of public lands. Conservation potential for ecological communities and priority species may help to identify other areas of high ecological value and low risk.



(A) Townships with very high conservation potential for at least one terrestrial species evaluated as a Conservation Element and (B) sixth-level watersheds with high or very high conservation potential for at least one aquatic species by level of protection as defined by GAP Status (U.S. Geological Survey, 2012) in the Wyoming Basin Rapid Ecoregional Assessment project area,