

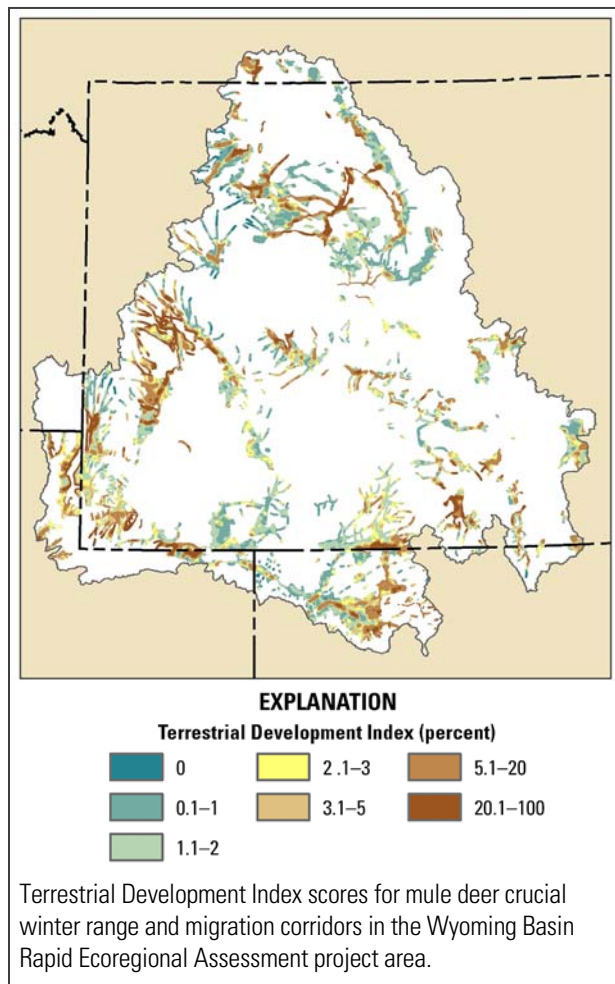
Mule Deer

Management Questions

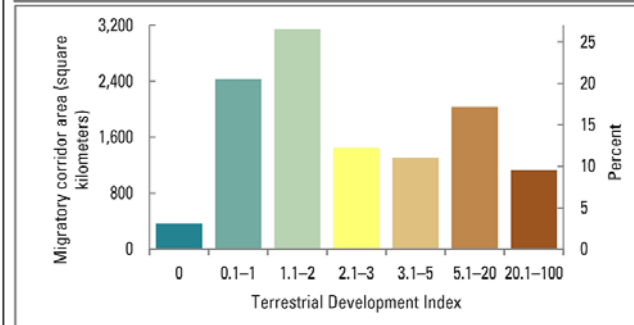
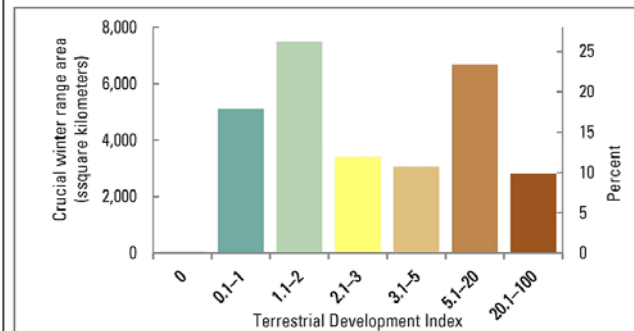
- Where are baseline mule deer crucial winter range and migration corridors, and what is the total area and elevation of crucial winter range?
- What is the amount and distribution of vegetation types providing forage and cover on crucial winter range?
- Where does development pose the greatest threat to crucial winter range, and where are the relatively undeveloped patches? (Left map below)
- How has development fragmented baseline crucial winter range, and where are the large, relatively undeveloped patches?
- How has development affected structural connectivity of crucial winter range? (Top left map following page)
- Where are potential barriers that may affect mule deer movements among crucial winter ranges?

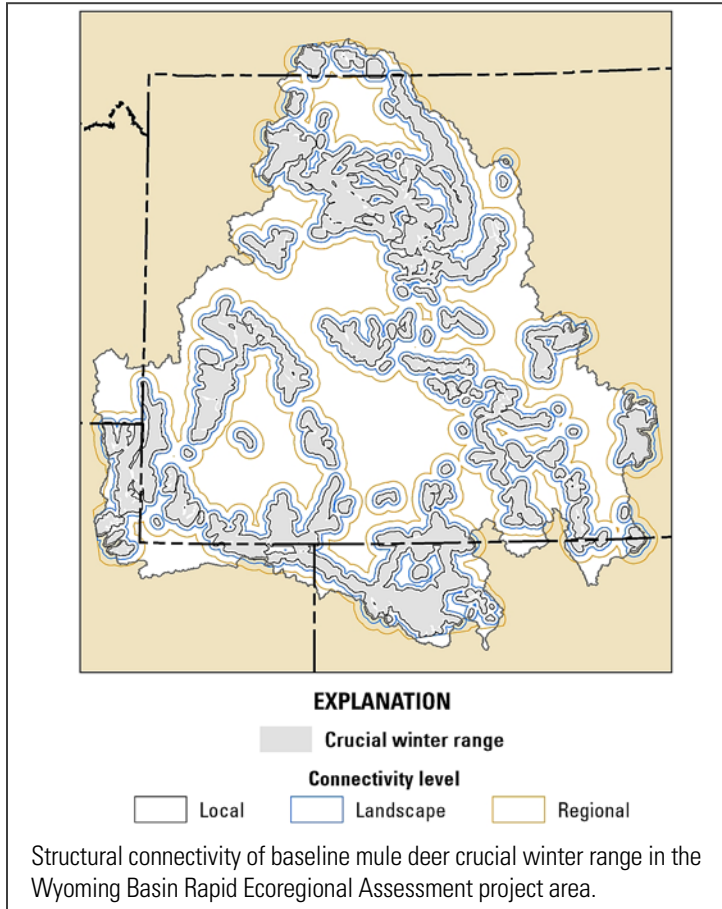


Photo credit: Joe Ruis, Mule Deer Migration Initiative.



- Where has chronic wasting disease been detected in the Wyoming Basin?
- Where have recent fires occurred in crucial winter range, and what is the total area burned per year?
- What is the risk from development by land ownership for baseline mule deer crucial winter range?
- 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)



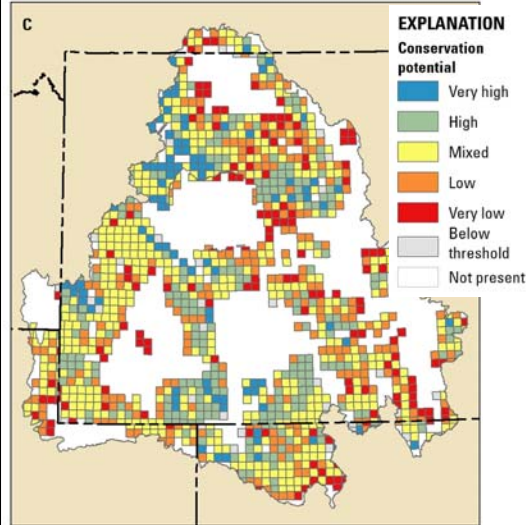
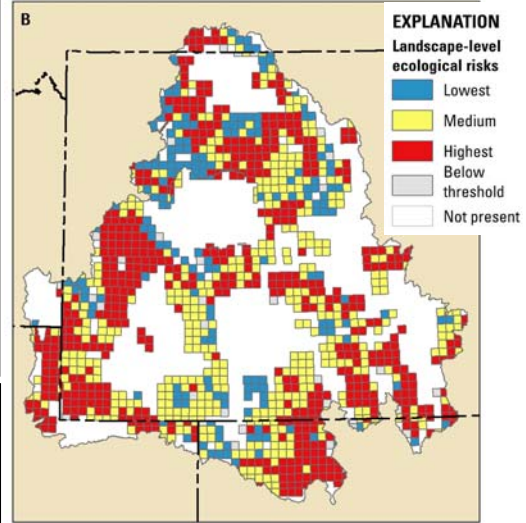
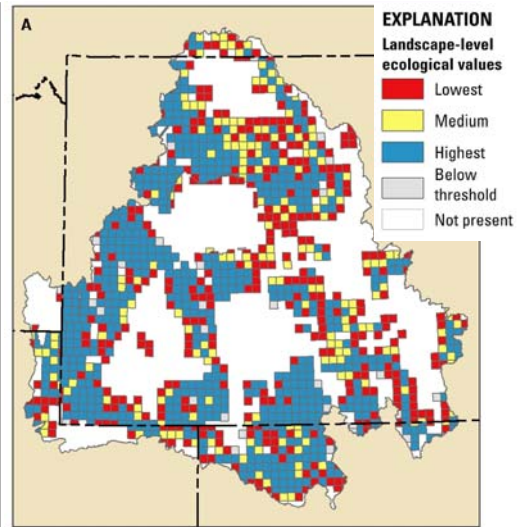


Summary

Mule deer crucial winter range occurs on approximately 16 percent of the Wyoming Basin Ecoregional Assessment project area, primarily at elevations between 1,400–1,700 meters (4,593–5,577 feet). Dominant vegetation is sagebrush shrublands, a major winter forage; deciduous shrublands and riparian areas also provide forage. Juniper provides thermal cover and concealment on crucial winter range and during migration. Consequently, management to control juniper could have negative effects on mule deer populations. Agricultural lands have mixed effects on wintering mule deer: winter wheat and alfalfa offer forage, but most agricultural lands do not provide cover.

Relatively undeveloped areas may provide refuge from disturbance during the vulnerable winter, migration, and parturition periods. Development levels, particularly from roads and energy development, on crucial winter range and along migration corridors are high in many areas. Even low levels of development can cause the indirect loss of crucial winter range. Direct and indirect loss of winter range may have population-level effects, as disturbance along roads and from activities at energy fields could affect over-winter survival.

Analyses for the Rapid Ecoregional Assessment focused on crucial winter range due to the availability of region-wide information and because of the vulnerability of wintering deer.



(A) Landscape-level ecological values, (B) ecological risks, and (C) conservation potential of mule deer crucial winter range and migration corridors summarized by township.