

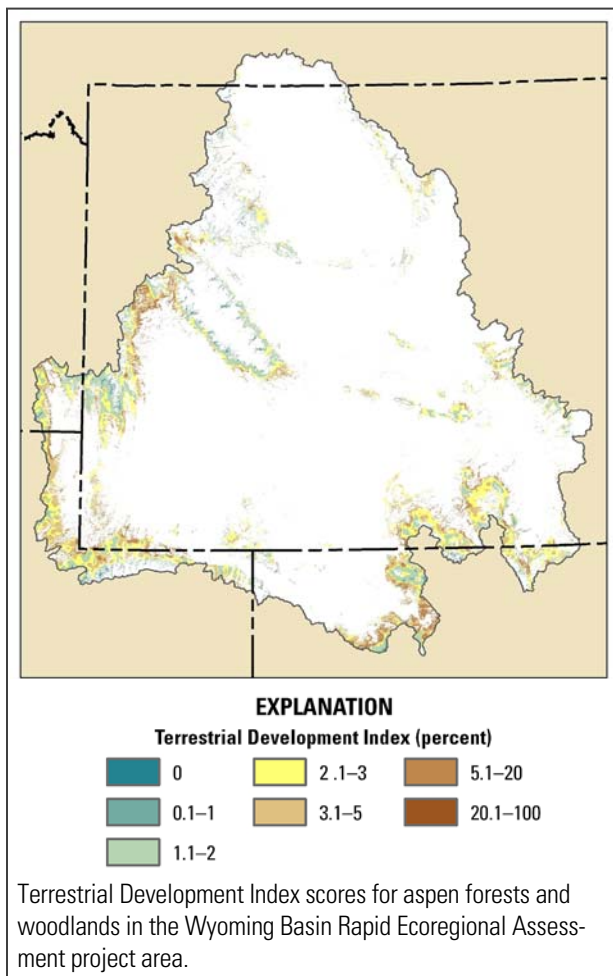
# Aspen Forests and Woodlands

## Management Questions

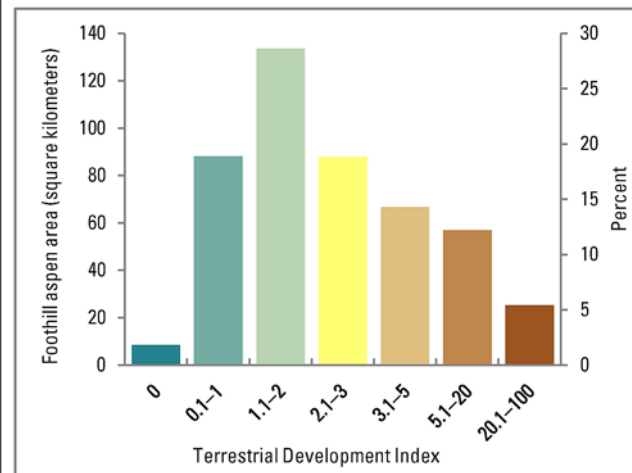
- Where are the two baseline aspen functional types (mountain slope and foothill), and what is the total area of each?
- Where does development pose the greatest threat to baseline aspen, and where are the relatively undeveloped areas? (Left map below)
- How has development fragmented baseline aspen, and where are the large, relatively undeveloped patches?
- Where are aspen core areas, and how is core area affected by the presence of roads and railroads?
- Where are baseline aspen stands with high levels of structural connectivity, and which stands function as stepping stones?
- Where are potential barriers and corridors that may affect animal movements among baseline aspen patches?

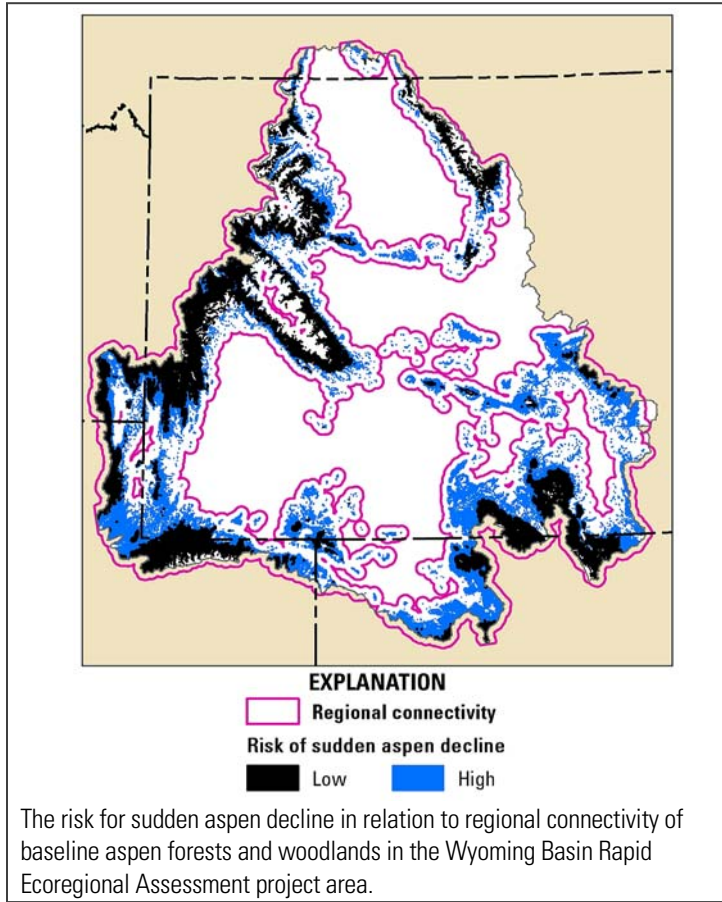


Photo credit: Natasha B. Carr, U.S. Geological Survey.



- Where does aspen have a greater vulnerability to sudden aspen decline based on climatic risk factors, and how would the loss of these stands affect the structural connectivity of aspen? (Top left map following page)
- Where are mountain slope aspen-conifer ecotones with potential for conifer or aspen expansion, and which aspen stands may undergo competitive release as a result of recent disturbances?
- What is the potential distribution of aspen in 2030?
- How does risk from development vary by land ownership or jurisdiction for mountain slope and foothill aspen?
- 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)

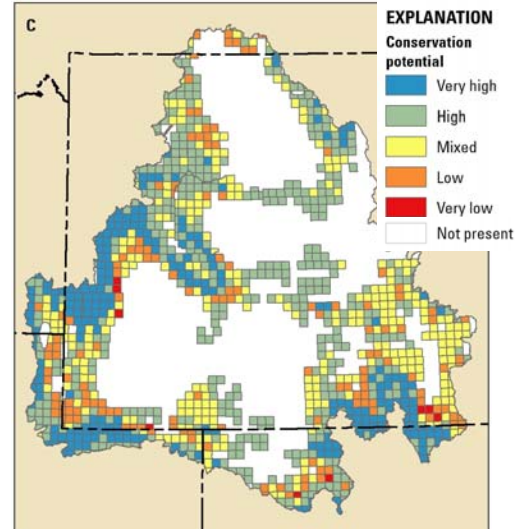
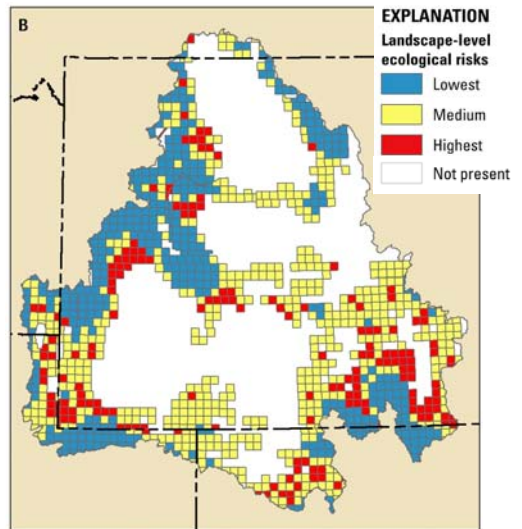
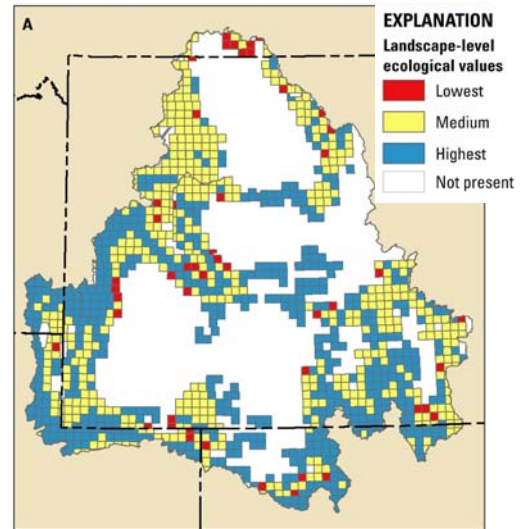




### Summary

Most aspen in the Wyoming Basin Rapid Ecoregional Assessment project area occurs along the periphery, with 10 percent occurring in the ecoregion proper. Most aspen is classified as mountain slope and only 10 percent is classified as foothill aspen. Over 66 percent of mountain slope aspen is currently managed by Federal and state agencies, including the largest relatively undeveloped areas. Only 42 percent of foothill aspen is currently managed by Federal and state agencies. Most of the federally managed foothill aspen falls under Bureau of Land Management jurisdiction; most of the federally managed mountain slope aspen is under U.S. Department of Agriculture Forest Service jurisdiction.

Foothill aspen is more vulnerable to Change Agents than mountain slope aspen. The cumulative effects of development, herbivory along natural or artificial (road) edges, potential for sudden aspen decline, and projected climate changes are expected to have greater impacts on foothill aspen due to the drier and hotter setting, smaller patch size, lower connectivity, and greater levels of development in proximity to foothill aspen compared to mountain slope aspen. Mountain slope aspen is currently relatively secure and may not require active management to maintain it on the landscape. However, foothill aspen represents significant management challenges because fire is not required for stand maintenance.



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