

Results

Land Stewardship

The SD-GAP stewardship layer identified 20 land ownership categories, including, but not limited to, lands owned by the U.S. Fish and Wildlife Service, U.S. Forest Service, South Dakota Department of Game, Fish and Parks, Bureau of Land Management, Department of Defense, The National Park Service, Indian Reservations, and privately owned lands (see Land Stewardship, wfs.sdstate.edu/sdgap/stewardmap.htm). Over 70% of the land area of South Dakota is privately owned and managed. Federal and state entities own approximately 9.5% and 2.1%, of the land area in South Dakota, respectively (Table 2).

Status codes also were assigned and evaluated. Greater than 85% of the land area in South Dakota was classified as status 4 conservation land, meaning that conversion to unnatural land cover types is possible (Table 3.). A little over 1% of the land is considered “highly conserved” under standards set by the National Gap Analysis Program (Status 1 & 2 combined).

Land Cover

The SD-GAP land cover classification identified 35 categories, including 9 grassland, 3 shrubland, 1 dwarf-shrubland, 2 woodland, 5 forest, 6 water and wetland, 3 barren or badland, and 6 disturbance categories (see Land Cover Classification, wfs.sdstate.edu/sdgap/land.htm). Combined grassland categories dominated the South Dakota landscape, accounting for 56.1% of the land area (Table 4). Agriculture comprised 31.2% of the entire land area of South Dakota. While prairie potholes are numerous in South Dakota, 6 water categories comprised only 4.5% of the land area. Badlands comprised less than 1.3% of the land area, while the forest categories of the Black Hills made up only 2.7%. Creeping juniper woodland, bur oak forest, cottonwood woodland, and shale barren slope sparse vegetation were among the smallest categories.

Gap Analysis

Less than 5% of South Dakota’s land cover types are protected from future degradation or conversion to unnatural cover types (Table 4). Rare land cover types, such as Bur Oak, Eastern Red Cedar, and Spruce forest need to be protected throughout part of their range in South Dakota. These areas are unique and offer a range of habitat unlike that available in any other part of the state.

Approximately 13% of the land area is designated as a status 3 (Table 4). These lands include, but are not limited to, Bureau of Land Management, U.S. Fish and Wildlife Service Conservation Easements, and U.S. Forest Service National Forests and Grasslands. While these lands may be protected from conversion to unnatural types, extractive uses from the land, such as logging, haying, and hunting qualify them for status 3 designation. These lands are not considered “highly preserved.”

Three land cover types have greater than 10% of their land area in status 1 and 2 classes (Burned Pine, Vegetated Badlands, and Unvegetated Badlands). The badland categories are well protected by The National Park Service. The Burned Pine land cover type is due to a fire in Custer State Park in 1988 that burned approximately 33,000 acres.