

Data Resources for Range-Wide Assessment of Livestock Grazing Across the Sagebrush Biome

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Abstract

The data contained in this series were compiled, modified, and analyzed for the U.S. Geological Survey (USGS) report "Range-Wide Assessment of Livestock Grazing Across the Sagebrush Biome." This report can be accessed through the USGS Publications Warehouse (online linkage: <http://pubs.usgs.gov/of/2011/1263/>). The dataset contains spatial and tabular data related to Bureau of Land Management (BLM) Grazing Allotments.

We reviewed the BLM national grazing allotment spatial dataset available from the GeoCommunicator National Integrated Land System (NILS) website in 2007 (<http://www.geocommunicator.gov>). We identified several limitations in those data and learned that some BLM State and/or field offices had updated their spatial data to rectify these limitations, but maintained the data outside of NILS. We contacted appropriate BLM offices (State or field, 25 in all) to obtain the most recent data, assessed the data, established a data development protocol, and compiled data into a topologically enforced dataset throughout the area of interest for this project (that is, the pre-settlement distribution of Greater Sage-Grouse in the Western United States). The final database includes three spatial datasets: Allotments (BLM Grazing Allotments), OUT_Polygons (nonallotment polygons used to ensure topology), and Duplicate_Polygon_Allotments. See Appendix 1 of the aforementioned report for complete methods.

The tabular data presented here consists of information synthesized by the Land Health Standard (LHS) analysis (Appendix 2), and data obtained from the BLM Rangeland Administration System (<http://www.blm.gov/ras/>). In 2008, available LHS data for all allotments in all regions were compiled by BLM in response to a Freedom of Information Act (FOIA) request made by a private organization. The BLM provided us with a copy of these data. These data provided three major types of information that were of interest: (1) date(s) (if any) of the most recent LHS evaluation for each allotment; (2) whether if evaluated, each region-specific standard (3–8 LHS depending on region) had been met on a given allotment; and (3) whether livestock contributed to any of these standards not being met. A description of how we processed the original data to prepare for analysis is described in Appendix 2, and the synthesized dataset can be found in the table "lhs_x_walk." Permitted use dates, livestock type (horse, sheep or cattle), number of livestock, and Animal Unit Months [the number of animal units (1,000-pound animal equivalents) that can be grazed for 31 days with the available forage in a sustainable manner] are the legal maximum grazing amounts for a given allotment, and legal adjustments to these numbers occur infrequently. We summarized permitted use by BLM allotment in the table "Permitted_Use." Billed use records are used for calculations of permittees' annual grazing bills. We summarized billed use by allotment for BLM grazing year in the table "Billed_Use." All three tables can be joined with the allotment spatial data in a geographic information system (GIS) environment, using the IDENT attribute as the primary key.

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