



Data Resources for the Wyoming Landscape Conservation Initiative (WLCI) Integrated Assessment (IA)

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Abstract

The data contained in this report were compiled, modified, and analyzed for the Wyoming Landscape Conservation Initiative (WLCI) Integrated Assessment (IA). The WLCI is a long-term science based effort to assess and enhance aquatic and terrestrial habitats at a landscape scale in southwest Wyoming while facilitating responsible energy development through local collaboration and partnerships. The IA is an integrated synthesis and analysis of WLCI resource values based on best available data and information collected from multiple agencies and organizations. It is a support tool for landscape-scale conservation planning and evaluation, and a data and analysis resource that can be used for addressing specific management questions. The IA analysis was conducted using a Geographic Information System in a raster (that is, a grid) environment using a cell size of 30 meters. To facilitate the interpretation of the data in a regional context, mean values were summarized and displayed at the subwatershed unit (WLCI subwatersheds were subset from the National Hydrography Dataset, Hydrologic Unit Code 12/Level 6). A dynamic mapping platform, accessed via the WLCI webpage at <http://www.wlci.gov> is used to display the mapped information, and to access underlying resource values that were combined to produce the final mapped results.

The raster data used in the IA are provided here for use by interested parties to conduct additional analyses and can be accessed via the WLCI webpage. This series contains 74 spatial data sets: WLCI subwatersheds (vector) and 73 geotiffs (raster) that are segregated into the major categories of Multicriteria Index (including Resource Index and Condition), Change Agents, and Future Change. The Total Multicriteria Index is composed of the Aquatic Multicriteria Index and the Terrestrial Multicriteria Index. The Aquatic Multicriteria Index is composed of the Aquatic Resource Index and the Aquatic Condition. The Aquatic Resource Index is composed of the following components: Groundwater, Special Management Areas, and Priority Areas. The Aquatic Condition is composed of the following components: Focal Species, Species of Concern, Focal Ecosystems, and Proper Functioning Condition. The Terrestrial Multicriteria Index is composed of the Terrestrial Resource Index and the Terrestrial Condition. The Terrestrial Resource Index is composed of the following components: Special Management Areas, Agriculture, and Priority Areas. The Terrestrial Condition is composed of the following

components: Focal Species, Big Game, Species of Concern, Rare Plants, and Focal Ecosystems. The Change Agents are composed the following components: Roads, Energy, Mines, and Urban. The Future Change is composed of the following components: Oil-Gas-Coal, Wind, Minerals, Climate-Temperature, Invasive Species, and Urban.

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