

One Steppe: Efforts from Multiple Stakeholders in Wyoming to Streamline Disturbance, Reclamation, and Conservation Efforts¹

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Abstract: Researchers at University of Wyoming have collaborated to develop a suite of digital tools to improve land management throughout the state. Existing systems which were in existence included Wyoming Geographic Information Science Center's Density Disturbance Calculation Tool (DDCT) which maps land surface disturbance in critical sage-grouse habitat throughout Wyoming as well as the Wyoming Reclamation and Restoration Center's Oil and Gas Reclamation Database which tracks reclamation efforts and vegetation monitoring for over 20 oil and gas operators in Wyoming. The integration of these tools along with other spatial layers, including sage-grouse lek area data, has been developed into the Surface Mapping and Reclamation Tracking (SMaRT) Tool. While initial efforts to develop SMaRT highlighted areas where oil and gas reclamation has been occurring with various success levels throughout Wyoming, the tool lacked input from other industries affiliated with the Wyoming Mining Association and also lacked a central way to report data into the system. Reclamation upload templates have been developed for various industries to streamline disturbance and reclamation reporting and other areas where conservation efforts have occurred are being tracked through the Wyoming Conservation Efforts Database. The aforementioned tools have been developed into an integrated system, One Steppe, as an effort to paint a detailed picture of Wyoming's sagebrush-steppe ecosystem. Various aspect of One Steppe will be demonstrated and future research opportunities will be discussed.

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