Project Summary Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Boom, bust: linking patterns of rural land-use change and wetland condition to trends in greater sandhill crane demographics

Type of Project: Technical Assistance/Research

Discipline: Natural Resources

Funding Agency: US Fish and Wildlife Service Other Partners/Cooperators: University of Montana

Student Involvement: Yes, Graduate Students

Effective Dates: 7/1/2015 - 6/30/2019

Funding Amount: \$17,100

Investigators and Agency Representative:

FWS Contact: Greg Watson, USFWS Region 6, PO Box 25486, DFC MS 60100, Denver, CO 80225;

303/236-8155; greg_watson@fws.gov

Investigator: Vicky Dreitz, Director, Avian Science Center, 32 Campus Drive, University of Montana, Missoula, MT 59812, 406/529-4557; victoria.dreitz@umontana.edu

Project Abstract: Plan of work outlines implementation of a spatially explicit monitoring and evaluation project to document landscape change influencing the Rocky Mountain population (RMP) of greater sandhill cranes (Grus canadensis tabida; herein cranes) by mapping range wide fragmentation rates in keystone summer and staging habitats. The study will link regional crane population data to patterns of land-use change and annual wetland condition over time and space (1996 - present) to identify key stressors that drive demographic trends on private and public lands. Results will provide decision support to Flyways and partners that inform species management through evaluation of habitat conditions that structure crane populations. Deliverables will provide information to prioritize conservation actions that strategically address landscape level stressors and maximize the long term viability of RMP cranes.

Outcomes with Completion Dates: June 30, 2019

Keywords: sandhill cranes (*Grus canadensis tabida; herein cranes*), ecological modeling and monitoring, US Fish and Wildlife Service, Intermountain West Joint Venture, University of Montana, The Avian Science Center