

HABITAT SUITABILITY FOR THE COLUMBIAN SHARP-TAILED GROUSE ON THE FLATHEAD INDIAN RESERVATION

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The Columbian sharp-tailed grouse (*Tympanuchus phasianellus columbianus*) is an important species to the Salish, Pend O'reille and Kootenai people that has suffered tremendous declines over the past century with 1978 being the last documented recording on tribal lands. An understanding of the quantity and quality of Columbian sharp-tailed grouse (CSTGR) habitat on tribal lands is critical in order to increase the probability of successful reintroduction of this species. Presently, we have completed a habitat assessment of Ferry

Basin using a hybrid approach of field data collection and a combination of several remote sensing platforms. Riparian draws were delineated using high resolution 1m/4m multi-spectral spring IKONOS imagery. Grasslands systems were delineated using multi-temporal (spring, summer, and fall) 15m ASTER imagery. The fused product was then used as inputs into existing habitat suitability index (HSI) models to determine the amount and quality of habitat that is available on Flathead Indian Reservation. The most suitable habitats had areas and HSI values that ranged from 738 ha above 0.3 to 1603 ha above 0.4 across the models used. Current habitat and management does not warrant reintroduction of CSTGR without implementing a restoration plan.