Supplementary material

The importance of seasonal resource selection when managing a threatened species: targeting conservation actions within critical habitat designations for the Gunnison sagegrouse

M. B. Rice^{A,D,E}, A. D. Apa^B and L. A. Wiechman^{C,D}

^AColorado Parks and Wildlife, 317 W Prospect Avenue, Fort Collins, CO 80526, USA.

^BColorado Parks and Wildlife, 711 Independent Avenue, Grand Junction, CO 81505, USA.

^cDepartment of Fish, Wildlife, and Conservation Biology, Colorado State University, Colorado, Fort Collins, CO 80526, USA.

^DPresent address: US Fish and Wildlife Service, 1201 Oakridge Drive, Fort Collins, CO 80525, USA.

^ECorresponding author. Email: rice1 min@gmail.com

| Basinwide class | Model reclass | |
|------------------------------------|------------------|--|
| Urban/built up | urban | |
| Commercial | urban | |
| Agriculture land | agriculture | |
| Irrigated ag | agriculture | |
| Grass/forb rangeland | grassland | |
| Grass/forb mix | grassland | |
| Sparse grass (blowouts) | grassland | |
| Sagebrush community | sagebrush | |
| Saltbush sommunity | sagebrush | |
| Sagebrush/gambel oak mix | sagebrush | |
| Sagebrush/grass mix | sagebrush | |
| Sagebrush/mesic mountain shrub mix | sagebrush | |
| Pinon-juniper | forest | |
| Gambel oak | sagebrush | |
| Mesic mountain shrub mix | sagebrush | |
| Upland willow/shrub mix | sagebrush | |
| PJ-sagebrush mix | sagebrush | |
| PJ–Mountain shrub mix | forest | |
| Sparse PJ/shrub/rock mix | forest | |
| Aspen | forest | |
| Ponderosa pine | forest | |
| Englemann spruce/fir mix | forest | |
| Douglas fir | forest | |
| Lodgepole pine | forest | |
| Spruce/lodgepole pine mix | forest | |
| Bristlecone pine | forest | |
| Ponderosa pine/Douglas fir mix | forest | |
| Lodgepole/spruce/fir mix | forest | |
| Fir/lodgepole pine mix | forest | |
| Douglas fir/Englemann spruce mix | forest | |
| Spruce/fir/aspen mix | forest | |
| Ponderosa pine/aspen mix | forest | |
| Douglas fir/aspen mix | forest | |
| Lodgepole pine/aspen mix | forest | |
| Spruce/fir/lodgepole/aspen mix | forest | |
| Barren land | bare | |
| Rock | | |
| Talus slopes and rock outcrops | bare | |
| Soil | bare | |
| Alpine meadow | bare | |
| Alpine grass/forb mix | alpine alpine | |
| Subalpine shrub community | alpine | |
| Subalpine grass/forb mix | alpine | |
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| Riparian Cottonwood | riparian | |
| | riparian | |
| Willow | riparian | |
| Herbaceous riparian | riparian | |
| Water | water | |

 Table S1.
 Original basinwide vegetation classes and the classes used for model development

Table S2.Error matrices comparing the breeding, summer and combined models to thedesignated critical habitat, including overall accuracy and the True Skill Statistic (TSS).

Values are the percentages within each combination of occupied and unoccupied habitat based on occupied habitat for the models being > 0.50 relatively probability of presence.

| | | Critical habitat | | |
|----------------|------------------|------------------|------------|--|
| | | | Unoccupied | |
| Breeding model | Occupied | 47.8 | 7.2 | |
| | Unoccupied | 36.3 | 8.6 | |
| | Overall accuracy | 56.5 | | |
| | TSS | 0.113 | | |

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| | | Critical habitat | | |
|--------------|------------------|------------------|------------|--|
| | | | Unoccupied | |
| Summer model | Occupied | 52.8 | 10.2 | |
| | Unoccupied | 31.4 | 5.6 | |
| | Overall accuracy | 58.4 0.017 | | |
| | TSS | | | |

| | | Critical habitat | |
|----------------|------------------|------------------|------------|
| | | | Unoccupied |
| Combined model | Occupied | 63.2 | 10.6 |
| | Unoccupied | 20.9 | 5.3 |
| | Overall accuracy | 68.5 | |
| | TSS | 0.082 | |