Crucial Areas Assessment Categories

Montana Fish, Wildlife and Parks

AQUATIC SPECIES

Sport Fish 44 Species

Areas recognized as important to meeting the biological requirements of fish species regulated by harvest.

- o Abundance, size and sport fish tier;
- o Trophy fishery or unique species opportunities
- o Angler Pressure
- o Spawning, rearing and thermal refugia

Game Fish Life History

44 species

Areas depicting habitats that support at least one of the game fish species during limiting life history stages: spawning, rearing or thermal refuge areas.

Species of Concern

19 Species

Native Montana fish species that are considered to be "at risk" due to declining population trends, threats to their habitats, and/or restricted distribution.

o Weighting based on Montana Species of Concern status

Watershed Integrity

13 Landscape Metrics

Measurement of watershed-scale human influences that affect water quality, quantity, and species persistence.

o Road Density, Cultivated Cropland, Mining, Oil & Gas Production, Irrigation Diversions, Dams, Urban, and some of these variables more closely associated with riparian areas.

Native Fish Species Richness

85 Fish Species

Areas recognized as important to native fish assemblages.

Data Sources for above - Federal, State, and Other (University) Fisheries and Aquatic Survey Data and biological interpretation of survey data.

TERRESTRIAL SPECIES

Game Species

12 Species

Areas recognized as important to meeting the biological requirements of species with regulated harvest.

- o Big Game Winter Range –Deer species, Elk, Antelope, Moose: Winter Distribution delineated by expert knowledge/ sagebrush grassland habitat in prairie areas.
- o Forest Carnivores Wolverine, Marten, Fisher: Distribution and species overlap using habitat suitability models validated by expert knowledge.
- o Prairie Grouse Sharp-tailed Grouse, Sage-grouse: Distribution and breeding areas via survey data, habitat suitability models and expert knowledge.
- Bighorn Sheep / Mountain Goat Overall/Winter Distribution delineated by expert knowledge.

Conservation Species

83 Species

Native Montana species that are considered to be "at risk" due to declining population trends, threats to habitat, inherent sensitivity, etc.

- o Threatened or Endangered, Species of Concern, Habitat Specialists.
- o Habitat Suitability model predictions or range map/occurrence data.

Species Richness Potential

366 Species

Ecological systems associated with a high diversity of species

- o Species associations based on ReGAP Ecosystem Classification for all vertebrate species; additive value for each ecological system in Montana
- o 13 amphibians, 17 reptiles, 100 mammals, 236 birds

HABITAT

Intact Landscapes (in development)

Areas that possess a high degree of intact habitat or natural habitats compared to their surroundings.

- Large intact patches, and other key characteristics of selected priority habitats. Sagebrush Grassland, Inter-mountain Grassland, Aspen Clones, Cottonwood Galleries, Woody Draws and Ravines
- Data Source: ReGAP Ecological Systems: Natural Heritage Program

Riparian Zones

Riparian habitats were considered separately based upon their uniqueness and complexity and the diversity of species that they support.

- o Area of riparian buffer within a section
- o Weighted separately from "base" terrestrial species richness

Wetland Areas

Wetlands were considered separately based upon their unique function as an ecosystem, the uniqueness of their environment and the diversity of species that they support.

- o Lakes/Ponds & Swamp/Marsh categories used from 1:24 K National Hydrologic Dataset
- o Total wetland area within a section

CONNECTIVITY – Companion document details corridor and connectivity efforts.

DESIGNATED LANDS

Landscapes that have been recognized, and in many cases have some form of conservation protection, as having value to fish, wildlife or recreation.

SOCIOECONOMIC (Scheduled for Version 1.2)

Consumptive Recreational Value

Areas valued for their importance to the recreating public for consumptive uses including sport fishing and big game hunting. Values based upon recreational effort. Other areas providing unique recreational opportunities were included.

Non-consumptive Recreational Value

Areas important for wildlife viewing or other aesthetic quality.

Economic Value

Conversion of recreational values into dollar amount based on the value of one recreation day.