

# GUNNISON BASIN HPP

## DISTRIBUTION MANAGEMENT PLAN AMENDMENTS

### CHANGES FROM 2010-2020

- Added 'Executive Summary'
- Updated committee area map
- Rearranged and updated 'Committee Members'
- Removed big game population data from and consolidated historic project information in 'Introduction'
- Added 'HPP Orientation' and 'HPP Statute'
- Added "(6) To facilitate communication between landowners, sportsmen, CPW, and other agencies" and "(7) To improve big game habitat, distribution, and population sizes in accordance with CPW management objectives" to 'Committee Objectives'
- Added Land Ownership Map to 'Area Description'
- Updated 'Habitat Areas', and removed outdated maps and 'Habitat Evaluation'
- Updated 'Big Game Population Summary' with current data; added Deer, Elk, Moose, and Pronghorn Range Maps; removed information on Gunnison Sage Grouse
- Added new locations to 'Conflict Areas' and updated map
- Rearranged 'Project Types & Priorities', 'Conflict Management Strategies', and 'Budget Guidelines' sections
- Added "Comment Letters" and "Travel Management" to 'Project Types and Priorities'
- Added 'Management Strategies' and 'Operating Guidelines' section
- Added operating guideline for program eligibility
- Added 'Current and Foreseeable Issues'
- Removed appendices containing maps

Colorado Parks and Wildlife  
Habitat Partnership Program  
Gunnison Basin



# DISTRIBUTION MANAGEMENT PLAN

**DRAFT**



Approved - Colorado Parks and Wildlife Commission: \_\_\_\_\_  
This plan is valid for 10 years from approval date.

**2020 - 2030**

# TABLE OF CONTENTS

Executive Summary.....	2
Map: Gunnison Basin HPP Area.....	2
Committee Members.....	3
Introduction.....	4
-HPP Orientation	
HPP Statute.....	5
Committee Objectives.....	6
Area Description.....	6
-Map: Land Ownership	
-Habitat Description	
Big Game Population Summary.....	8
-Maps: Deer, Elk, Pronghorn, and Moose Ranges	
-Impact Areas & Map	
-Game Management Objectives	
Project Types & Priorities.....	15
Operating Guidelines.....	16
-Management Strategies	
Budget Guidelines.....	18
Current and Foreseeable Issues.....	18

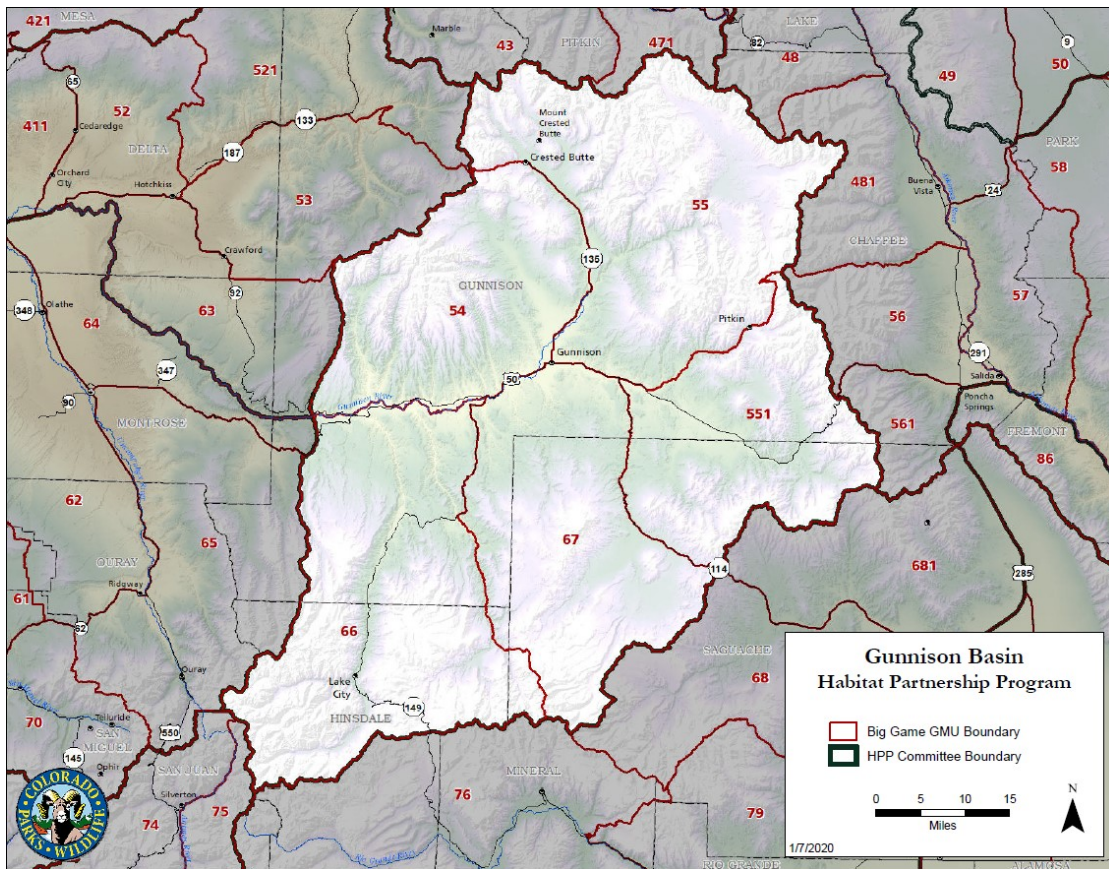


# EXECUTIVE SUMMARY

The Gunnison Basin Habitat Partnership Program Committee (GBHPP) was formed in 1991 to help resolve local wildlife conflicts with agriculture. The committee area includes a mix of private, federal, and state lands; and consists of a variety of habitat types and land use patterns. Wildlife conflicts with agriculture in the committee area are attributed primarily to elk and mule deer, and occur mainly on lower elevations on pasture land, hay stacks, and fences. Agricultural operations, changes in land use, and loss of habitat for residential and recreational development have resulted in specific impact areas that the committee has identified as high priority zones. However, projects will be implemented wherever the committee believes they can effectively reduce or eliminate big game conflicts and assist CPW in achieving management objectives.

Operating guidelines have been established to help direct funding decisions and project implementation, and to ensure that the committee's policies and procedures are clear and consistent for all applicants. Management strategies relative to the committee's objectives have been developed, and most projects will fall into the prescribed categories for big game conflict resolution or management objectives. The updated budget guidelines reflect the desired funding allocation and prioritization of projects.

## MAP OF GUNNISON BASIN HPP AREA



## COMMITTEE MEMBERS

- |   |                             |
|---|-----------------------------|
| 1. Navid Navidi, sportsman representative           | Started HPP Term: Jan. 2002 |
| 2. Steve Guerrieri, livestock grower representative | Started HPP Term: Jan. 1998 |
| 3. Paul Mowery, livestock grower representative     | Started HPP Term: Jan. 2017 |
| 4. Shane Cox, livestock grower representative       | Started HPP Term: Feb. 2018 |
| 5. Kathy Brodhead, BLM representative               | Started HPP Term: July 2016 |
| 6. Matt Vasquez, USFS representative                | Started HPP Term: Mar. 2015 |
| 7. Nick Gallowich, CPW representative               | Started HPP Term: May 2012  |

# INTRODUCTION

In the 1980's and 90's, Colorado was experiencing the impacts of burgeoning elk populations, declining habitat resources, and increasing game damage conflicts between wildlife and agricultural producers. The Colorado Division of Wildlife's long-standing Game Damage Program began to show its limitations in resolving these conflicts due to its reactive nature, and a major 'credibility gap' developed between the CDOW and livestock growers. In response, the Habitat Partnership Program was implemented to facilitate partnerships between agricultural producers, sportsmen and federal land management agencies and the Colorado Division of Wildlife.

The Gunnison Basin Habitat Partnership Program Committee (GBHPP) was created and committee representatives appointed on November 14, 1991. The committee was tasked with resolving fence and forage conflicts by developing proactive short-term and long-term strategies that could be implemented within the Gunnison Basin. A variety of conflicts were identified, ranging from the traditional damage to fences, haystacks, and private pastures during the winter/spring periods, to conflicting overlap of grazing areas by big game and livestock during all seasons. The timing of hunting seasons, conflicting recreational pressure, limited public land access, and private land refuge situations have complicated the management of these conflicts.

Over time, many of the short-term conflicts have been addressed. Examples of the work that this committee has funded include elk inventory and survival studies; fence repairs and new fence construction to protect sensitive habitats or improve grazing management; habitat inventories; water developments; and rangeland enhancement treatments (primarily mechanical and prescribed fire). More recently, the committee has begun to focus on long-term solutions to the remaining, more complex conflicts as well as assisting CPW to achieve game management objectives.

This Distribution Managements Plan (DMP) will help the committee prioritize management strategies that deal with familiar and existing conflicts, as well as new conflicts that will continue to evolve due to the ever-changing social, biological and economic environments that exist in the Gunnison Basin.

## HPP ORIENTATION

HPP was initially started to resolve fence and forage conflicts caused to agricultural operators by deer, elk, pronghorn and moose. While the law governing HPP was broadened in 2002 ("...reduce wildlife conflicts... assist in meeting game management objectives") in 2017 the State Council and the NW Region Manager reaffirmed the intent and focus of HPP.

This direction provides for HPP participation, whether by local committees or the State Council, to be limited to those conflict resolution projects or game management objective projects that involve deer, elk, pronghorn and moose.

## HPP STATUTE - (C.R.S. 33-1-110)

(8) (a) The habitat partnership program is hereby created to assist the division of parks and wildlife by working with private land managers, public land management agencies, sports persons, and other interested parties to reduce wildlife conflicts, particularly those associated with forage and fence issues, and to assist the division of parks and wildlife in meeting game management objectives through duties as deemed appropriate by the director.

(b) The director, with the approval of the commission, shall have the authority to appoint a "habitat partnership committee", referred to in this section as a "committee", in any area of the state where conflicts between wildlife and private land owners and managers engaged in the management of public and private land exist.

(c) A committee shall consist of the following members: One sports person who purchases big game licenses on a regular basis in Colorado; three persons representing livestock growers in the area of the state in which the committee is being established; one person from each of the federal agencies that has land management responsibilities in such area of the state; and one person from the Colorado division of parks and wildlife. All persons on any such committee shall be residents of the state of Colorado.

(d) The duties of a committee are the following:

(I) To develop big game distribution management plans to resolve rangeland forage, growing hay crop, harvested crop aftermath grazing, and fence conflicts subject to commission approval;

(II) To monitor program effectiveness and to propose to the council changes in guidelines and land acquisition planning and review as appropriate;

(III) To request for the committee, on an annual basis, funds from the council consistent with the distribution management plan developed by any such committee;

(IV) To expend funds allocated by the council or acquired from other sources as necessary to implement distribution management plans;

(V) To make an annual report of expenditures and accomplishments of the committee to the council by August 15 of each year;

(VI) To nominate a person to act as a representative of agricultural livestock growers or crop producers to the habitat partnership council for the area of the state where such committee is organized;

(VII) To reduce wildlife and land management conflicts as the conflicts relate to big game forage and fence issues and other management objectives.

(e) The committee shall be authorized to procure from land owners, land managers, or other providers, materials or services necessary for carrying out activities identified in the distribution management plans pursuant to subparagraph (IV) of paragraph (d) of this subsection (8); except that all such procurements shall be certified as within the scope of the activities and funding levels authorized in such distribution management plans before any such procurement may be authorized.

# COMMITTEE OBJECTIVES

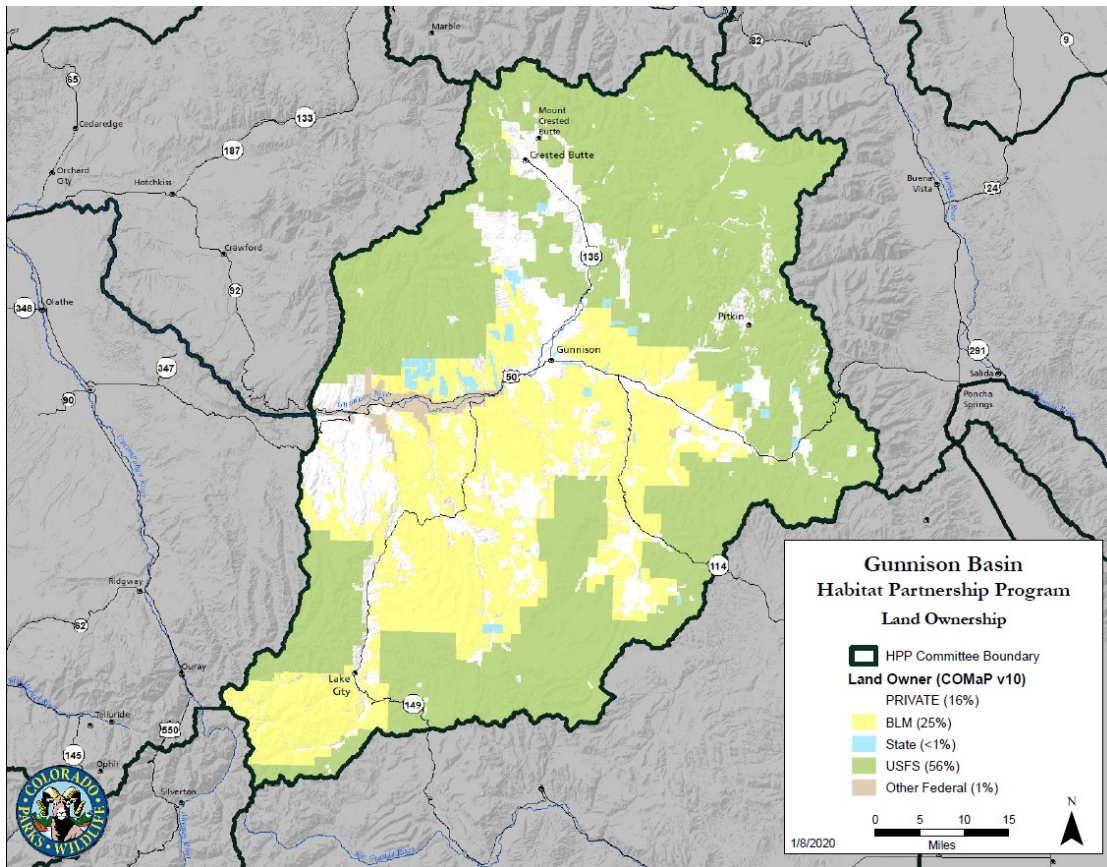
The committee has five main purposes, as follows:

1. To ensure appropriate local involvement in identifying conflicts between wildlife and agricultural producers and implementing short-term and long-term solutions.
2. To improve communication and encourage an atmosphere of cooperation among CPW, agricultural producers and other private landowners, public land management agencies, sportsmen, and local governments.
3. To make recommendations that encourage appropriate management actions for public and private lands and wildlife populations that will reduce conflicts and help sustain individual operations and viable big game herds.
4. To improve the accuracy of population and habitat data within the committee area to provide a more appropriate basis for management decisions.
5. To improve big game habitat, distribution, and population sizes in accordance with CPW game management objectives.
6. To increase effectiveness of habitat manipulation projects and implement a landscape-scale philosophy by increasing the scope and connectivity of projects; and by soliciting and coordinating habitat treatments which incorporate public and private land, creating a link between past and future treatments on a landscape scale.

## AREA DESCRIPTION

The Gunnison Basin HPP committee area contains about 2.4 million acres, with 1,280,000 acres (51%) of USFS; 585,000 acres (24%) of BLM; 300,000 acres (15%) of private lands; 160,000 acres (8%) of state, tribal, and municipal lands; and 40,000 acres (2%) of NPS. The committee area includes Game Management Units 54, 55, 66, 67, and 551; and portions of Gunnison, Saguache, and Hinsdale counties. The area is bounded on the east and south by the Continental Divide; on the west by the Hinsdale-San Juan county Line, Hinsdale-Ouray county line, Cimarron River-Henson Creek Divide, and Big Blue Creek-Little Cimarron River divide, US 50, Big Blue Creek, and Curecanti Creek; on the north by the Gunnison River-North Fork of the Gunnison River divide to the Gunnison-Pitkin county line.





## HABITAT DESCRIPTION

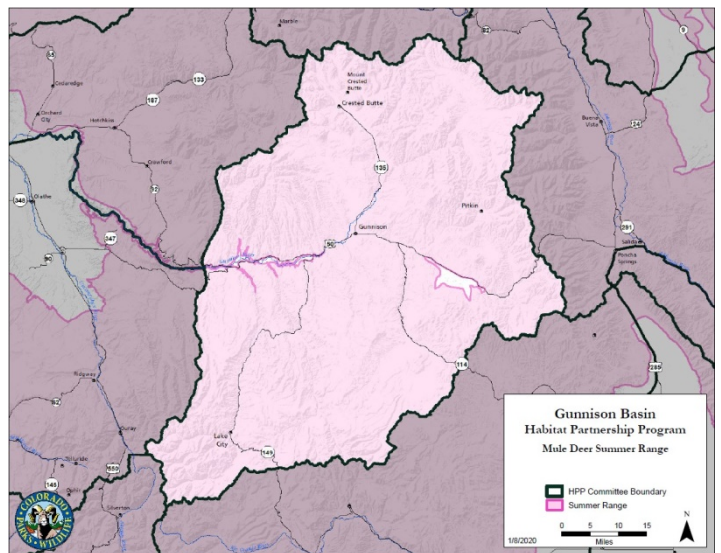
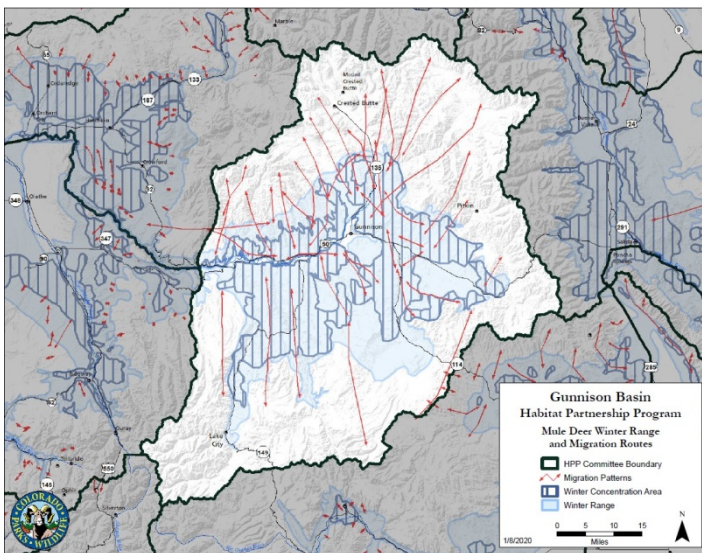
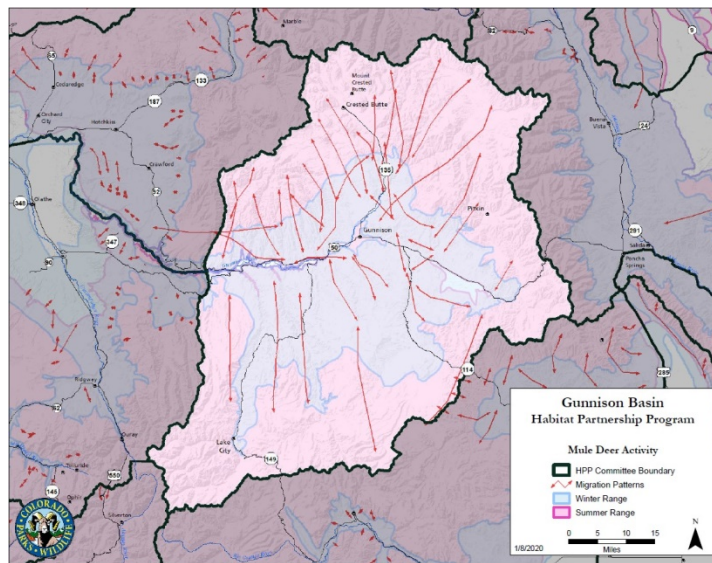
The committee area is a high elevation, closed intermountain basin, with cool springs and autumns, warm summers, and cold winters. The average annual precipitation in Gunnison is 12-13 inches, and snowfall averages 50 inches per year. At higher elevations, snowfall can total 250-300 inches. Extended drought conditions periodically occur, and very severe winters occur roughly once each decade. Vegetative types include high alpine meadows above 12,000 feet; spruce/fir stands above 10,000 feet; aspen/conifer stands mixed with shrubland communities of oak brush and serviceberry above 7,000 feet; and sagebrush and open agricultural fields of grass, alfalfa and clover below 9,000 feet.

Winter range is the limiting factor for big game in this area. In normal winters, big game animals are well-distributed across mid- to lower-elevation areas. During severe winters, deer and elk migrate further into lower elevations and concentrate in the Basin, typically creating conflicts on private lands and agricultural operations. Mid-elevation transition range is also important habitat for big game, especially during seasonal migration.

# BIG GAME POPULATION SUMMARY

**DEER** - Similar to the trends observed in most western states throughout the 1990's, mule deer populations in the Gunnison Basin declined. While the exact cause of this is unknown, it is likely that multiple factors influenced deer numbers. Populations stabilized and later thrived in the early 2000's until the severe winter of 2007-08, which had a significant impact on the herd. CPW estimates that 45-50% of the population was lost, despite large-scale feeding operations. In response to severely decreased deer numbers, deer licenses were greatly reduced and doe hunt codes were removed. Since 2008, deer numbers have rebounded, and CPW population objectives were brought more in line with the annually-varying carrying capacity of the Basin. Currently, there is some public support for increased deer numbers, and few conflicts exist on private agricultural lands due to deer use. The current population sizes of the deer herds are technically within the population size objectives; however the potential always exists for a harsh winter or extended drought that again greatly reduces the population sizes below objective.

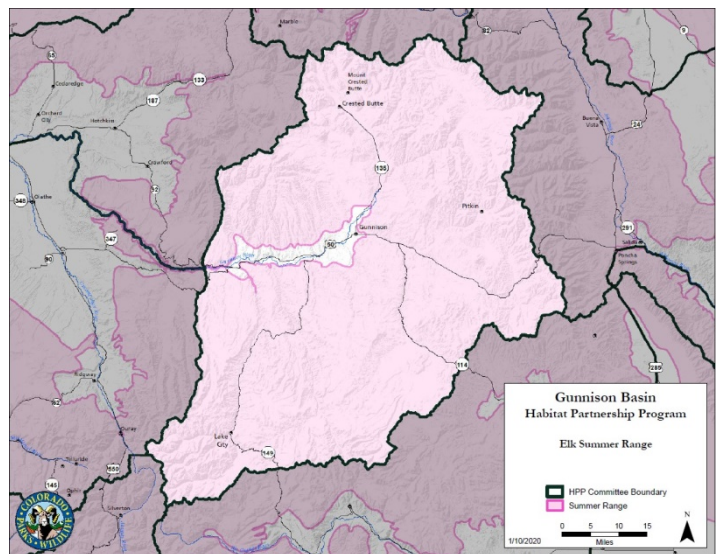
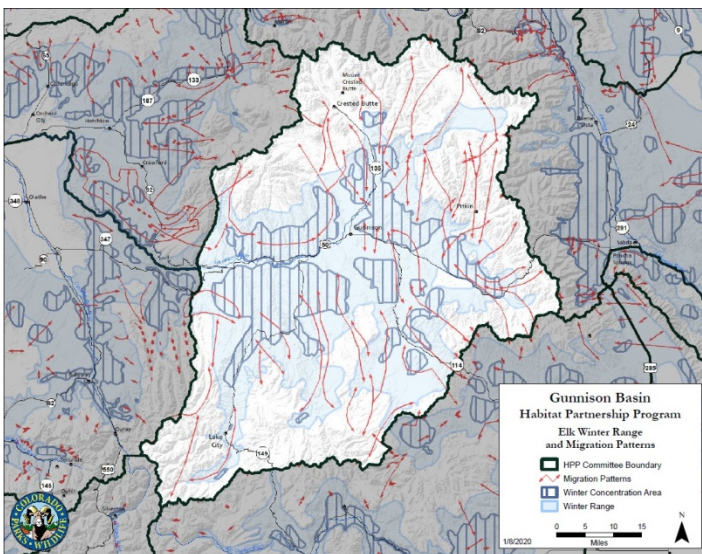
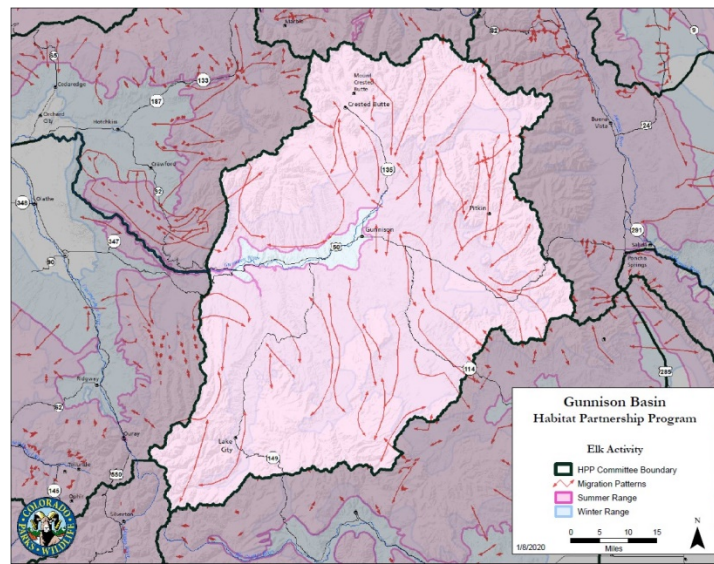
## DEER RANGE MAPS





**ELK** - Elk populations in the Gunnison Basin have historically been the cause of much controversy. From conflicts with fences and forage resources to lawsuits over over-the-counter antlerless elk licenses and arguments about "real" and "paper" elk numbers, these issues have made managing elk populations and associated conflicts incredibly complicated. Estimates suggest that in the late 1980's and early 1990's elk numbers in the Gunnison Basin were in excess of 20,000. Current populations are at or near population objectives; however the Herd Management Plan for E43 is currently being revised, and management objectives may change. The 2017 herd management revision combined the former E41 (GMU 54) and E52 (GMUs 53 & 63) into one population after HPP partially funded radio collar studies determined a high degree of movement between the two herds. Thus, comprehensive management of elk in GMU54 must also consider elk harvest and conflicts in GMUs 53 and 63, which represents a joint conflict management effort with the North Fork HPP committee.

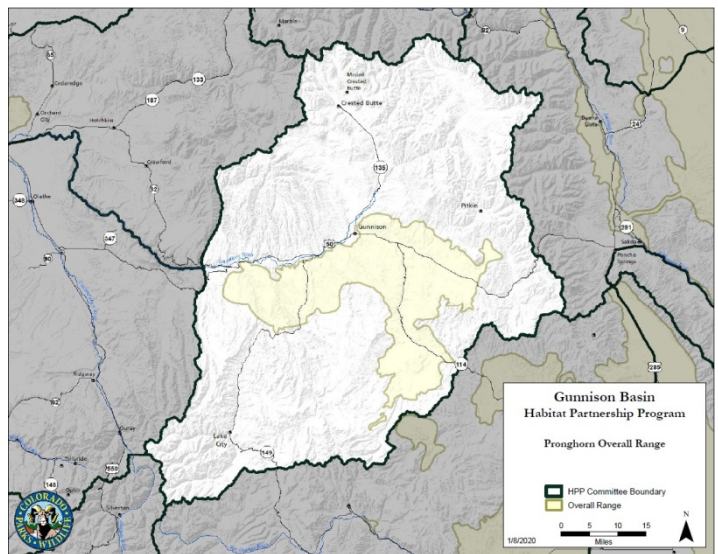
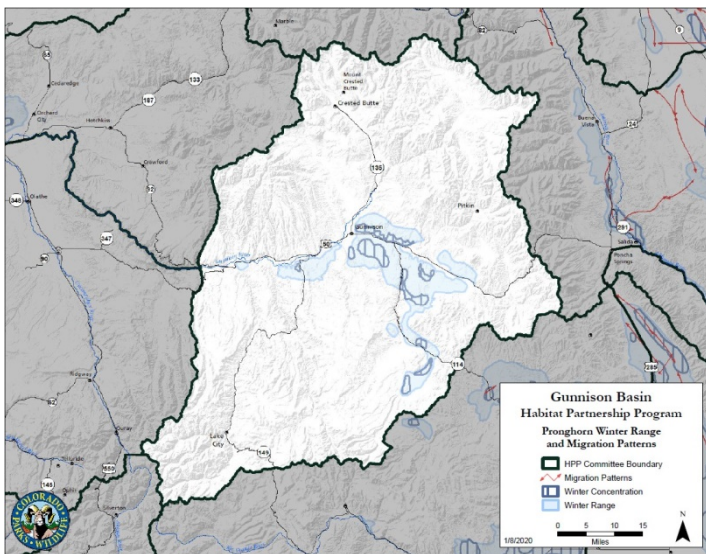
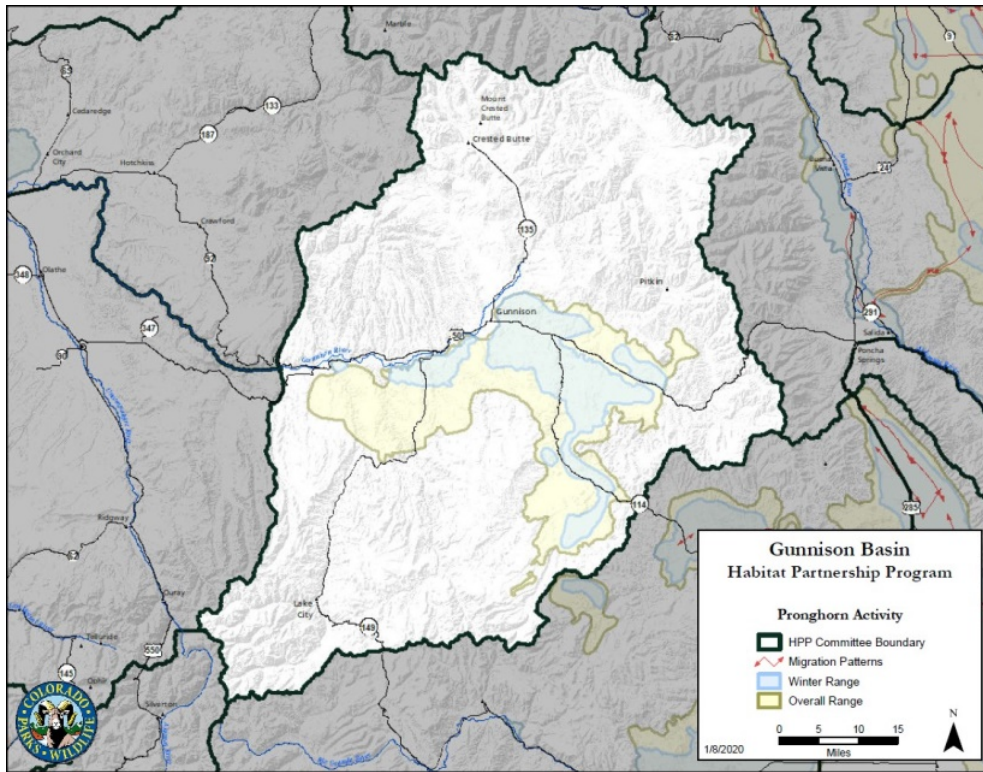
## ELK RANGE MAPS





**PRONGHORN** - The Gunnison Basin is home to a small population of pronghorn of approximately 350 animals. This population fluctuates due to winter severity. No significant conflicts have been identified with agricultural operations, but potential changes to CPW management objectives may result in conflicts in the future.

## PRONGHORN RANGE MAPS





**MOOSE** - The Gunnison Basin contains parts of three moose populations. Most of these animals migrated into the area following moose transplants in the San Juan mountains and the Grand Mesa from the 1990s through 2008. Due to their relatively low numbers, conflicts between agriculture and moose seem unlikely.

## MOOSE RANGE MAPS

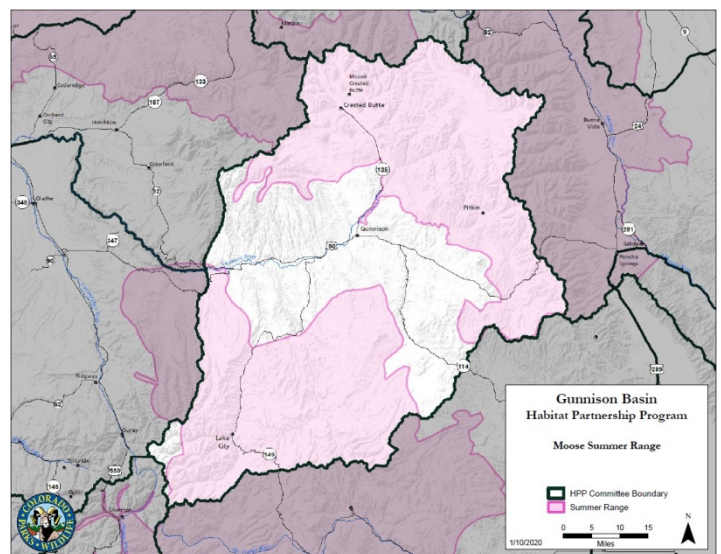
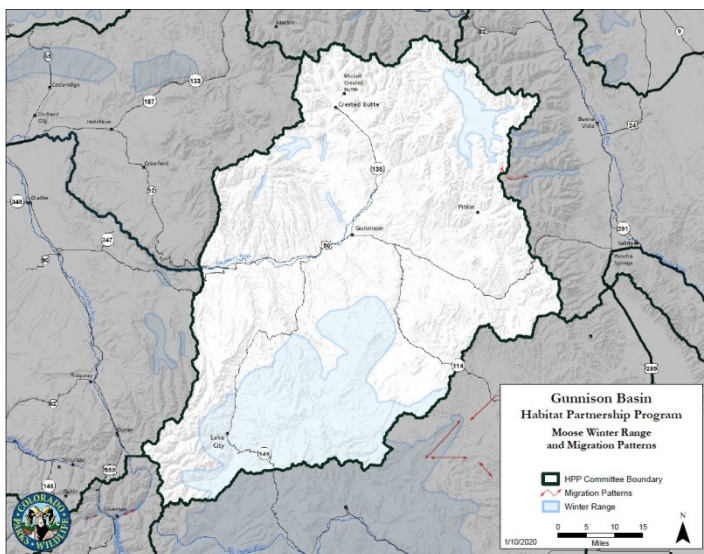
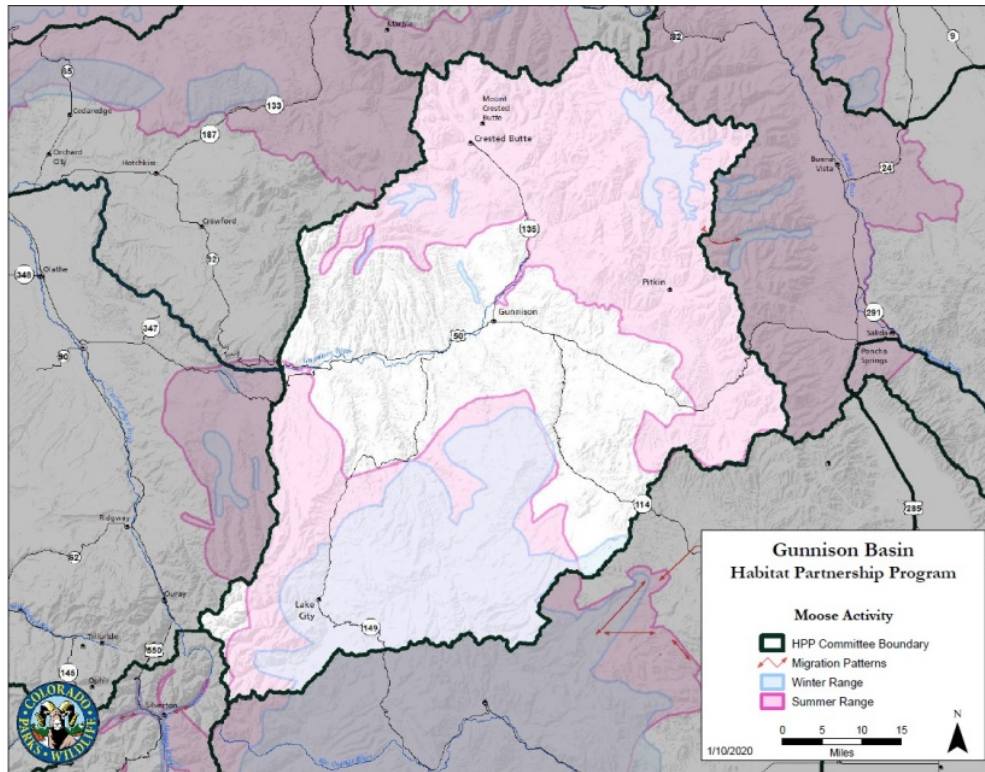




Table 1. Data Analysis Unit Summary for Gunnison Basin HPP Area

Management Herd	1990s Population Average	2000s Population Average	2010 - 2018 Population Average	Current Population Management Objective
Deer - West Elk (D21)	7,060	5,060	3,620	5,000 - 5,500
<i>Game Management Units: 54</i>				
Deer - Taylor Park (D22)	7,770	7,280	5,380	5,000 - 5,500
<i>Game Management Units: 55, 551</i>				
Deer - Powderhorn (D25)	12,280	9,030	6,300	5,400 - 5,900
<i>Game Management Units: 66, 67</i>				
Elk - West Elk (E5)	10,900	9,800	7,980	7,800-8,800
<i>Game Management Units: 53, 54, 63 (53 and 63 not in the GBHPP area)</i>				
Elk - Lake Fork (E25)	7,250	10,300	7,550	6,000 - 7,000
<i>Game Management Units: 66, 67</i>				
Elk - Fossil Ridge (E43)	7,220	8,260	6,066	4,710
<i>Game Management Units: 55, 551</i>				
Pronghorn - Gunnison Basin (A23)	NA	410	600	450
<i>Game Management Units: 66, 67, 551</i>				
Moose - Taylor Park/Buena Vista (M12)	NA	NA	100	NA
<i>Game Management Units: 55, 551</i>				
Moose -West Elks/Grand Mesa (M5)	NA	NA	800	NA
<i>Game Management Units: 41, 42, 421 (M5 includes GMUs 411, 43, 52, 521, 53, 54, and 63; however these units are not in the GMHPP area.)</i>				
Moose - Southwest Colorado (M4)	NA	NA	400	NA
<i>Game Management Units: 66, 67</i>				

# IMPACT AREAS

Impact areas are public or private lands where concentrations of big game animals cause damage to agricultural operations. The impacts can be to forage, growing crops, harvest aftermath, fences, and/or general use on a property. Although some very localized issues have occurred with mule deer in the past, the majority of conflicts in the Gunnison Basin HPP Committee area involve elk and are primarily caused by poor distribution, rather than large population numbers.

## WINTER IMPACT AREAS:

These are locations where big game concentrate during the winter months and cause conflicts. Depending on the severity of the winter, conflicts may include damage to fences, elk eating with livestock in feed lines, and destruction of stacked hay. Conflict areas on public lands may result in degradation of range grasses, forbs, shrubs, and aspen communities. In severe winters, high concentrations of big game along highways increases the potential for vehicular collisions, which poses a public safety risk and may negatively impact big game populations. Some of the winter impact areas identified by the Committee include:

- Lost Canyon/Cabin Creek/North Parlin area of GMU 55
- Sargents and Tomichi River Valley area of GMU 551
- Powderhorn and Cebolla Creek area of GMUs 66 and 67
- Ohio Creek/Flattop area of GMU 54
- Steuben Creek area of GMU 54
- Beaver Creek area of Taylor River area of GMU 55

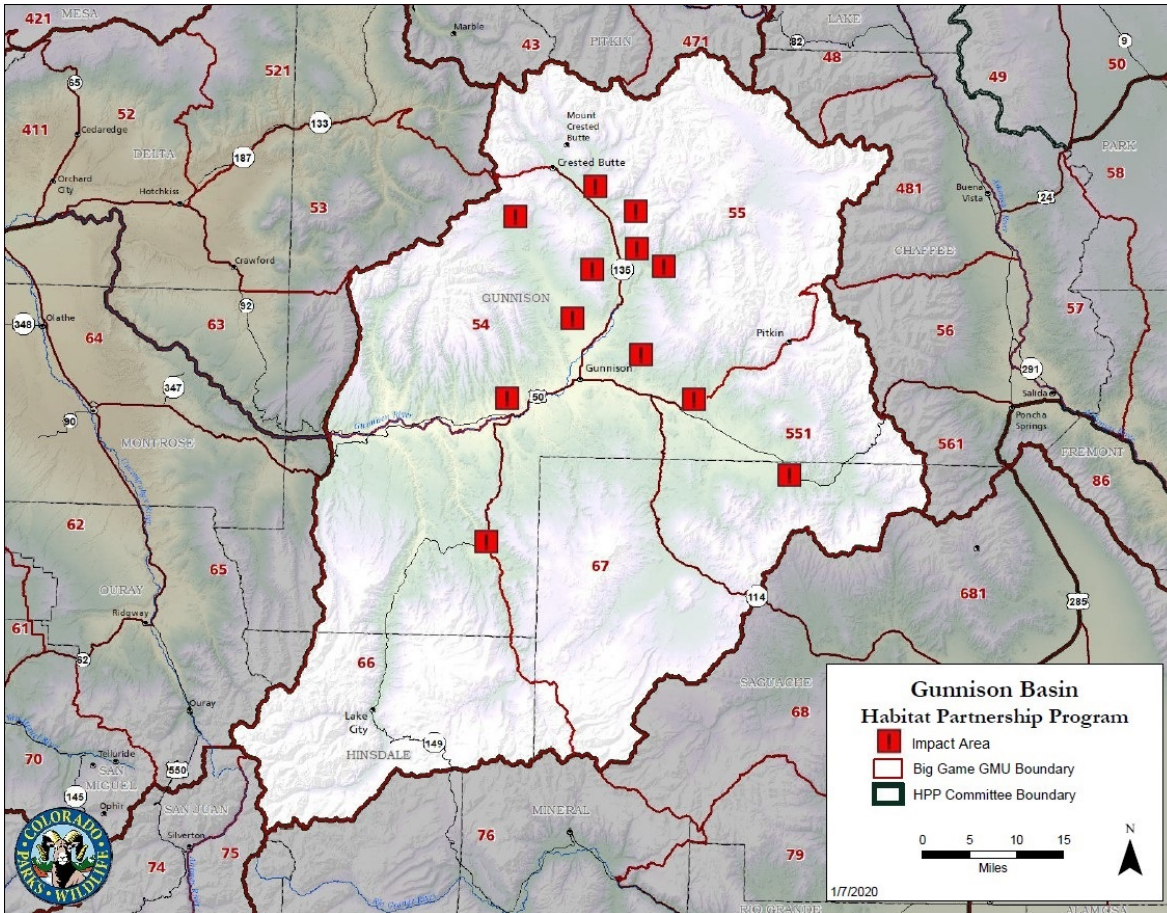
## SUMMER IMPACT AREAS:

These are areas affected by the movement and distribution of elk during the summer months and can impact both public and private lands. Most of the conflicts on public lands are associated with elk herds that compete directly with cattle for forage. There are also concerns that elk have learned to follow cattle herds throughout the summer and graze the re-growth that occurs after cattle have left an allotment. Some operators have experienced elk damage to growing hay.

Another aspect of summer conflict involves recreation-related dispersal of elk. Long-time operators in the area have witnessed dramatic differences in the locations, timing, and ways that elk utilize the available public lands, particularly in the Crested Butte area. Both motorized and non-motorized recreation have caused elk to avoid some of their traditional summer ranges and increased utilization on remaining ranges. In other instances, the amount of human disturbance has brought elk into conflict on private lands in the area. Summer conflict areas identified by the Committee include:

- Crested Butte/Round Mountain/East River Valley/Point Lookout area of GMU 55
- Tomichi Dome/Sargents area of GMU 551
- Carbon Peak/Flattop Mountain area of GMU 54
- Ohio Creek Valley area of GMU 54
- Alkali Basin area of GMU 54
- Beaver Creek area of Taylor River area of GMU 55

# IMPACT AREAS MAP



## GAME MANAGEMENT OBJECTIVES

In addition to resolving wildlife conflicts, HPP is also statutorily directed to “assist the division in meeting game management objectives...” This assistance will be directed towards a) maintaining/increasing the population in a given area primarily by habitat manipulation projects; b) maintaining/decreasing the population in a given area primarily by pursuing hunting opportunities; and c) participating in research activities aimed at habitat, population, disease, and/or movement factors that influence big game populations.

# PROJECT TYPES & PRIORITIES

## PROJECT TYPES (TO INCLUDE, BUT NOT LIMITED TO):

### Habitat Manipulation:

- Prescribed burning
- Water developments
- Weed control, including herbicide vouchers
- Fertilization
- Seeding
- Hand thinning
- Mechanical (chaining, roller chopping, hydro axing, etc.)

### Fencing Projects:

- Fence vouchers for fence repair materials
- Construction of new fences (usually > ¼ mile in length)
- Landowner reimbursement for purchased fencing materials
- Prototype or experimental fence designs
- Wildlife crossings or retrofitting fences to be more wildlife-friendly

### Game Damage Projects:

- Stackyards- materials and/or labor
- Distribution hunts
- Hunt coordinators for distribution hunts, youth hunts, etc.
- Forage purchases
- Baiting

### Information/Education Projects:

- Seminars
- Workshops
- Brochures
- Electronic media: websites, etc.
- Comment letters
- Travel management: signage, temporary fencing, etc.

### Research/Monitoring Projects:

- Habitat
- Population
- Inventory
- Movement

Conservation Easements (transaction costs only)

Archaeological Clearances (and other NEPA required clearances)

HPP projects may be undertaken on public lands, private lands or a combination of both as needed wherever the local committee believes the project has the best chance to effectively reduce, minimize or eliminate the big game/livestock conflict or assist CPW in meeting big game management objectives.

# OPERATING GUIDELINES

In an effort to be consistent and fair to all applicants, the committee has established operating guidelines that detail priorities, eligibility requirements, project rules and limits, and other policies. The committee retains the authority to review and update these guidelines as necessary to meet the changing needs of the area; however, these standard rules should apply to most HPP projects and will be enforced by the committee with few exceptions. Projects that mitigate big game conflicts with agriculture will have higher priority than those that assist CPW in achieving big game management objectives. Project applications should adequately address the following questions:

1. Has the applicant/landowner acted in good faith and cooperation with CPW? To maximize program effectiveness, applicants or landowners with a history of misconduct related to the HPP program shall be ineligible for program participation.
2. Will the project directly mitigate existing conflicts, or prevent future conflicts?
3. Will the project improve habitat conditions and/or big game distribution?
4. Does the project impact a significant number of big game animals?
5. Will the project benefit landowners, management agencies, big game, sportsmen, the public and/or public safety?
6. Does the applicant/landowner allow hunting?
7. Is the landowner willing to contribute towards at least 50% of the project? Are other cooperator funds available for cost-share?
8. Have the special considerations for Gunnison Sage Grouse populations & habitat, or other species of concern, been addressed?
9. Will follow-up treatments, monitoring, or long-term maintenance occur?

Monitoring projects are critical for the long-term sustainability of HPP. In order to provide documentation, determine treatment effectiveness, and be able to convey results, monitoring will be done on all projects. Specific monitoring methodology shall be matched to the treatment. Generally, the GBHPP will use photo points, line transects, pellet plots, and completed landowner project evaluations to monitor completed projects. In the case of projects occurring on public lands, the land management agency will be responsible for conducting any project monitoring, maintaining monitoring reports and records, and reporting the results to the committee. Feedback from local landowners and land managers will be solicited to help the committee determine if the project is accomplishing the desired results. All monitoring data will be submitted to the committee and administrative assistant.



# MANAGEMENT STRATEGIES

Management strategies were developed to achieve the committee's objectives. Strategies primarily involve resolving big game conflicts through habitat manipulation, fencing, and game damage projects; or achieving big game management objectives through information and education, research and monitoring, or conservation easements. Most HPP projects will fall into one of the following management strategy categories.

1. HABITAT MANIPULATION: Improving habitat on private and public lands attracts big game away from impact areas; improves big game distribution; holds big game for longer periods of time on public lands; or improves forage abundance, availability, or palatability such that it reduces competition between big game and livestock.
2. FENCING PROJECTS: Repair of existing fences and/or construction of new fences help alleviate ongoing big game damage, and offset the financial burden to landowners. Fence projects should result in the reduction of damage claims, overall habitat improvement, and improved distribution of big game. Fences will be wildlife-friendly to HPP specifications. Maintenance will be responsibility of the landowner.
3. GAME DAMAGE PROJECTS: Providing stackyards for landowners otherwise ineligible for them and using hunt coordinators and forage purchases address pending damage problems that CPW may be financially liable for.
4. INFORMATION AND EDUCATION: Producing and distributing informative materials helps public land agencies and private land managers educate the public and provides information about the programs, agencies, conflicts and user responsibilities. Travel management may include signage or education on closures or activities that will benefit big game.
5. RESEARCH & MONITORING: Projects will include, but not be limited to, those focusing on habitat condition, populations, inventory and movement patterns; or those that assist CPW in meeting management objectives. While these types of projects may be funded, the committee's primary focus will be on conflict resolution between big game and livestock.
6. CONSERVATION EASEMENTS: Conservation easements help protect a property's conservation values, particularly agricultural productivity, wildlife habitat, and hunting access. Improving access to public and private lands improves harvest of big game animals in impact areas, and helps disperse problem animals.

# BUDGET GUIDELINES

The operating budget for the State HPP program is based on 5% of total annual revenues for big game license sales in the HPP areas. The HPP State Council allocates funding to the individual HPP committees, and additional funds are available through the State Council and the HPP Coordinator for special projects or unforeseen opportunities that are beyond the capacity of the local committee. These funds supplement the existing budget and allow committees to occasionally participate in larger-scale special projects.

The Gunnison Basin HPP Committee was developed to best meet the goals and objectives outlined earlier in the plan, while maintaining the flexibility to deal with emergencies and take advantage of opportunities. It is important to acknowledge that the budget is intended to be flexible. While these are desired allocations based upon the priority level for different types of projects, the committee retains the ability to shift funds as needed between categories to meet the needs of the area in resolving big game conflicts.

Habitat Manipulation.....	55%
Fencing & Game Damage.....	25%
Information & Education.....	5%
Conservation Easements.....	5%
Research.....	10%
<b><u>TOTAL ALLOCATION</u></b> .....	<b>100%</b>

## CURRENT & FORESEEABLE ISSUES

The committee anticipates that multiple factors will influence big game populations and distribution in the future, which will drive conflicts with agriculture and may change management objectives. These may include, but are not limited to, the following:

### RECREATION

Many forms of outdoor recreation take place on public lands in the Gunnison area in important big game habitats, and have increasingly become year-round activities. Recreation on winter range is particularly concerning and may have larger-scale impacts on big game at the population level. As recreational access on public lands continues to expand and the number of users increases, wildlife conflicts may be exacerbated in existing areas and begin to occur in new areas.

## DEVELOPMENT

The Gunnison Basin HPP area continues to experience housing and road development as the human population increases. Much of this development is occurring in big game winter range, and replaces former agricultural fields as well as impacting riparian areas and other big game habitat resources. Additionally, increased traffic on roadways will continue to affect migration patterns and impact population numbers. Habitat fragmentation and loss as a result of development will continue to change big game movement and distribution in existing and new areas.

## INDUSTRY

Oil and gas development have not occurred on a significant scale within this HPP area. Historically, mining operations were prominent in the Gunnison Basin, and more recently logging has become commonplace; however these industries are not considered to be a major source of conflicts with big game. However, changes to these industries may result in the area being more heavily utilized, with the potential to displace big game and create conflicts in new areas.

## GUNNISON SAGE GROUSE

This HPP area currently has the largest population of Gunnison Sage Grouse that require additional levels of monitoring and project compliance to minimize potential impacts. The committee recognizes the importance of this issue in the Gunnison basin and will ensure that any HPP projects are not detrimental to Gunnison Sage Grouse.

## CHRONIC WASTING DISEASE

Chronic Wasting Disease (CWD) has not yet been detected within the Gunnison Basin HPP area. However, given the prevalence of the disease within Colorado and its evident spread towards the southwest, it is possible that CWD will become endemic in this area in the future. CWD and other big game diseases may impact CPW management objectives for deer and elk.