RAC AGENDA – December 2018

Revised November 27, 2018

1. Welcome, RAC Introductions and RAC Procedure
   - RAC Chair
2. Approval of Agenda and Minutes
   - RAC Chair
3. Wildlife Board Meeting Update **INFORMATIONAL**
   - RAC Chair
4. Regional Update **INFORMATIONAL**
   - DWR Regional Supervisor
5. 2019 Black Bear Recommendations and Rule Amendments **ACTION**
   - Darren DeBloois, Mammals Program Coordinator
6. Pronghorn Unit Plans **ACTION**
   - Kent Hersey, Big Game Projects Coordinator
7. Moose Unit Plans **ACTION**
   - Kent Hersey, Big Game Projects Coordinator
8. CHA Rule Amendments **ACTION**
   - Avery Cook, Upland Game Projects Leader
9. Sage Grouse Translocation Proposal **ACTION**
   - Avery Cook, Upland Game Projects Leader

Meeting Locations

CR RAC – Dec. 4th 6:30 PM
Springville Civic Center
110 S. Main Street, Springville

NR RAC – Dec. 5th 6:00 PM
Brigham City Community Center
24 N. 300 W., Brigham City

SR RAC – Dec. 11th 6:00 PM –TIME CHANGE
Cedar City Middle School
2215 W. Royal Hunte Dr, Cedar

SER RAC – Dec. 12th 6:30 PM
John Wesley Powell Museum
1765 E. Main St., Green River

NER RAC – Dec. 13th 6:30 PM
Wildlife Resources NER Office
318 North Vernal Ave, Vernal

Board Meeting – Jan. 10th 9:00 am
DNR Boardroom
1594 West North Temple, SLC

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources

MICHAL D. FOWLKS
Division Director

M E M O R A N D U M

TO: Utah Wildlife Board/Regional Advisory Council Members

FROM: Darren DeBloois, Predatory Mammals and Furbearer Program Coordinator

DATE: November 19, 2018

SUBJECT: 2019 BLACK BEAR PERMIT RECOMMENDATIONS

The attached tables summarize the Utah Division of Wildlife Resources recommended bear hunting and restricted pursuit seasons and permit allocations for the 2019 black bear hunting season. These recommendations have been made taking into consideration bear harvest data from 2016-2018 and using the Utah Black Bear Management Plan guidelines. Adjustments to permits are within the parameters set out in the Utah Black Bear Management Plan and will help ensure healthy black bear populations while addressing local issues of concern including impacts to agricultural crops and livestock depredation and maintaining black bear hunting opportunities across the State.

Highlights:

1. The Utah Black Bear Management Plan V. 2.0 2011-2023 specifies that bear hunting recommendations will be presented at three-year intervals. This is due to black bear biology. Black bears are long lived and their annual reproduction rate is low compared to other species. Annual changes in management can mask population trends. The plan considers this and is designed to evaluate three years of harvest data and make adjustment every three years. As per the Black Bear Management Plan, these recommendations will be for the 2019 – 2021 seasons. We also propose that if any emergency biological situation arises, that the Division can recommend changes to the Board during that time or, the Division Director can implement an emergency hunt closure.
2. We will be recommending fall spot and stalk hunting opportunities on several units in addition to the La Sal and San Juan units (each with 65 permits). These hunts will take place beginning with the general muzzleloader deer season and running through the end of the general any weapon deer season. No dogs or bait is allowed. Success rates on the current spot and stalk seasons on the La Sal and San Juan run about 10 – 15%. These hunts will offer hunters a chance to hunt a bear during some fall big game seasons. We are proposing two strategies for these hunts, some harvest objective (HO) and some with

draw permits. Early baiting before the late fall (November) season will be eliminated so that baits will not be in the field during these hunts.

The units included in this recommendation are:

a. Cache/Ogden (5 permits)
b. Central Mtns, Manti-North (20 permits)
c. Central Mtns, Nebo (20 permits)
d. Chalk Creek/East Canyon/Morgan-South Rich (5 permits)
e. Kamas/North Slope, Summit (5 permits)
f. Plateau, Boulder/Kaiparowits (20 permits)
g. South Slope, Bonanza/Diamond Mtn/Vernal (quota of 3)
h. South Slope, Yellowstone (quota of 3)
i. Wasatch Mtns, Avintaquin/Currant Creek (quota of 3)

3. After discussions with the Black Bear Discussion group, we have made changes to the Book Cliffs, Bitter Creek-South season structure to allow hunting with dogs prior to opening of fall archery big game seasons (see hunt tables for dates).
4. We have made boundary changes in the Northern Region to allow HO hunting on units that are largely private land and are experiencing depredation concerns.
5. We are recommending changes to Rule 657-33 to address and clarify several things including:
    a. Clarification to hunting hours regulation. Hounds can not be rigged until legal hunting hours. This clarifies that having dogs trained in pursuit placed outside of a dog box, kennel, crate, or similar enclosure, while being transported in or on a motorized vehicle, for the purpose of locating or pursuing bear may only occur during legal hunting hours.
    b. Clarification on retrieving dogs that separate from a hunting party during a pursuit.
    c. Adding language to include new legal weapons proposed during big game recommendations (air guns firing arrows).
    d. Allowing landowners experiencing chronic crop depredation to designate a person that can take the bear causing damage.
6. We are recommending an increase in permits and harvest objectives of 145 permits in compliance with the Utah Black Bear Management Plan guidelines. This number includes 95 additional spot-and-stalk

permits on select units. Permit recommendations and season dates can be found in the hunt tables included in this packet.

R657. Natural Resources, Wildlife Resources.[]
R657-33. Taking Bear.
R657-33-1. Purpose and Authority.

(1) Under authority of Sections 23-14-18 and 23-14-[~~19,~~]19 of the Utah Code, the Wildlife Board has established this rule for taking and pursuing bear.

(2) Specific dates, areas, number of permits, limits and other administrative details which may change annually are published in the guidebook of the Wildlife Board for taking and pursuing bear.

R657-33-2. Definitions.

(1) Terms used in this rule are defined in Section 23-13-2.

(2) In addition:

(a) [~~"~~]"Accompany[~~"~~]" means at a distance within which visual contact and verbal communication are maintained without the assistance of any electronic device.

(b) "Bait" means any lure containing animal, mineral or plant materials.

(c) "Baiting" means the placing, exposing, depositing, distributing or scattering of bait to lure, attract or entice bear on or over any area.

(d) "Bear" means Ursus americanus, commonly known as black bear.

(e) "Canned hunt" means that a bear is treed, cornered, held at bay or its ability to escape is otherwise restricted for the purpose of allowing a person who was not a member of the initial hunting party to arrive and take the bear.

(f) [~~"~~]"Compensation[~~"~~]" means anything of economic value in excess of $100 that is paid, loaned, granted, given, donated, or transferred to a dog handler for or in consideration of pursuing bear for any purpose.

(g) [~~"~~]"Control permit[~~"~~]" means a permit issued in response to bear depredation to commercial crops pursuant to R657-33-23(4).

(h) "Cub" means a bear less than one year of age.

(i) [~~"~~]"Draw-lock[~~"~~]" means a mechanical device used to hold and support the draw weight of a conventional or compound bow at any increment of draw until released by the archer using a trigger mechanism attached to the device.

(j) [~~"~~]"Dog handler[~~"~~]" means the person in the field that is responsible for transporting, releasing, tracking, controlling, managing, training, commanding and retrieving the dogs involved in the pursuit. The owner of the dogs is presumed the dog handler when the owner is in the field during pursuit.

(k) "Evidence of sex" means the teats, and sex organs of a bear, including a penis, scrotum or vulva.

(l) "Green pelt" means the untanned hide or skin of a bear.

(m) [~~—"~~]"Harvest-objective hunt[~~"~~]" means any hunt that is identified as harvest-objective in the hunt table of the guidebook for taking bear.

(n) [~~—"~~]"Harvest-objective permit[~~"~~]" means any permit valid on harvest-objective units.

(o) [~~—"~~]"Harvest-objective unit[~~"~~]" means any unit designated as harvest-objective in the hunt table of the guidebook for taking bear.

(p) [~~"~~]"Immediate family member[~~"~~]" means a landowner[~~'~~]'s or lessee[~~'~~]'s spouse, child, son-in-law, daughter-in-law, father, mother, father-in-law, mother-in-law, brother, sister, brother-in-law, sister-in-law, stepchild, and grandchild.

(q)(i) "Limited entry hunt" means any hunt listed in the hunt table, published in the guidebook of the Wildlife Board for taking bear, which is identified as a limited entry hunt for bear.

(ii) The Wildlife Board may authorize certain limited entry hunts that span multiple seasons, identified in the guidebook for taking bear as multi-season limited entry hunts.

(iii) [~~"~~]"Limited entry hunt[~~"~~]" does not include harvest objective hunts or pursuit only.

(r) "Limited entry permit" means any permit obtained for a limited entry hunt, including conservation permits, expo permits, and sportsman permits.

(s) [~~"~~]"Private lands[~~"~~]" means any lands that are not public lands, excluding Indian trust lands.

(t) [~~"~~]"Public lands[~~"~~]" means any lands owned by the state, a political subdivision or independent entity of the state, or the United States, excluding Indian trust lands, that are open to the public for purposes of engaging in pursuit.

(u) "Pursue" means to chase, tree, corner or hold a bear at bay with dogs.

(v) [~~"~~]"Restricted pursuit unit[~~"~~]" means a bear pursuit unit where pursuit is allowed only by a dog handler who:

(i) possesses a pursuit permit issued for that particular pursuit unit;

(ii) possesses or is accompanied by a person who possesses a limited entry bear permit for the unit, and the pursuit occurs within the area and during the season established for the limited entry bear permit; or

(iii) is engaged in pursuit for compensation as provided in R657-33-26(2).

(w) "Rigged" for the purposes of this rule means the act of having dogs trained in pursuit placed outside of a dog box, kennel, crate, or similar enclosure, while being transported in or on a motorized vehicle, for the purpose of locating or pursuing bear.

(x)(i) "Valid application" means:

(A) it is for a species for which the applicant is eligible to possess a permit;

(B) there is a hunt for that species regardless of estimated permit numbers; and

(C) there is sufficient information on the application to process the application, including personal information, hunt information, and sufficient payment.

(ii) Applications missing any of the items in Subsection (i) may still be considered valid if the application is corrected before the deadline through the application correction process.

([~~x~~]y) "Waiting period" means a specified period of time that a person who has obtained a bear permit must wait before applying for any other bear permit.

([~~y~~]z) [~~"~~]"Written permission[~~"~~]" means written authorization from the owner or person in charge to enter upon private lands and must include:

(i) the name and signature of the owner or person in charge;

(ii) the address and phone number of the owner or person in charge;

(iii) the name of the dog handler given permission to enter the private lands;

(iv) a brief description of the pursuit activity authorized;

(v) the appropriate dates; and

(vi) a general description of the property.

R657-33-3. Permits for Taking Bear.

(1)(a) To harvest a bear, a person must first obtain a valid limited entry bear permit[~~or~~], a harvest objective bear permit, or a bear control permit for a specified hunt unit as provided in the guidebook of the Wildlife Board for taking bear.

(b) Any person who obtains a limited entry bear permit or a harvest objective bear permit which allows the use of dogs may pursue bear without a pursuit permit while hunting during the season and on the unit for which the take permit is valid, provided the person is the dog handler.

(2)(i) A person may not apply for or obtain more than one bear permit per year, except:

(ii) if the person is unsuccessful in the drawing administered by the division under R657-62, the person may purchase a permit available outside of the drawing; and

(iii) a person may acquire more than one bear control permit as described in R657-33-23(4).

(3) Any bear permit purchased after the season opens is not valid until three days after the date of purchase.

(4) Residents and nonresidents may apply for and receive limited entry bear permits, and may purchase harvest objective bear permits and bear pursuit permits.

(5)(a) A person must complete a mandatory orientation course prior to applying for or obtaining a limited entry, harvest objective, or bear pursuit permit.

(b) The orientation course is not required to receive a bear control permit under R657-33-23(4).

(6) To obtain a limited entry, harvest objective, or bear pursuit permit, a person must possess a valid Utah hunting or combination license.

R657-33-4. Permits for Pursuing Bear.

(1)(a) To pursue bear without a limited entry or harvest objective bear permit, the dog handler must:

(i) obtain a valid bear pursuit permit from a division office or through the drawing administered pursuant to R657-62; or

(ii) possess the documentation and certifications required in R657-33-26(2) to pursue bear for compensation.

(b) A bear pursuit permit or exemption therefrom does not allow a person to kill a bear.

(2) Residents and nonresidents may purchase bear pursuit permits consistent with the requirements of this rule and the guidebooks of the Wildlife Board.

(3) To obtain a bear pursuit permit, a person must possess a valid Utah hunting or combination license.

R657-33-5. Hunting Hours.

(1) Bear may be taken or pursued only between one-half hour before official sunrise through one-half hour after official sunset.

(2) Dogs may not be rigged from one-half hour after sunset to one-half hour before sunrise.

R657-33-6. Firearms[~~and~~], Archery Equipment, Crossbows, and Airguns.

(1) For limited entry and harvest objective hunts identified as an [~~"~~]"any legal weapon hunt[~~"~~]" in the Wildlife Board[~~'~~]'s guidebook for taking bear, a person may use the following to take bear:

(a) any firearm not capable of being fired fully automatic, except a firearm using a rimfire cartridge;

(b) archery equipment meeting the following requirements:

(i) the minimum bow pull is 30 pounds at the draw or the peak, whichever comes first;

(ii) arrowheads used have two or more sharp cutting edges that cannot pass through a 7/8 inch ring;

(iii) expanding arrowheads cannot pass through a 7/8 inch ring when expanded; and

(iv) arrows must be a minimum of 20 inches in length from the tip of the arrowhead to the tip of the nock; [~~and~~]

(c) a crossbow meeting the following requirements:

(i) a minimum draw weight of 125 pounds;

(ii) a positive mechanical safety mechanism; and

(iii) an arrow or bolt that is at least 16 inches long with:

(A) a fixed broadhead that is at least 7/8 inch wide at the widest point; or

(B) an expandable, mechanical broadhead that is at least 7/8 inch wide at the widest point when the broadhead is in the open position[~~.~~] [~~(3)~~]; and

(d) an airgun used to hunt big game must:

(i) be pneumatically powered;

(ii) be pressurized solely through a separate charging device; and

(iii) may only fire a bolt or arrow:

(A) no less than 16 inches long;

(B) with a fixed or expandable broadhead at least 7/8 inch wide at its widest position; and

(C) traveling no less than 400 feet per second at the muzzle.

(2) Arrows and bolts carried in or on a vehicle where a person is riding must be in an arrow quiver or a closed case.

([~~4~~]3)(a) A person who has obtained a limited entry bear archery permit may not use, possess, or be in control of a firearm, crossbow, [~~or~~]draw-lock, or airgun while in the field during an archery bear hunt.

(b) [~~"~~]"Field[~~"~~]" for purposes of this subsection, means a location where the permitted species of wildlife is likely to be found, but does not include a hunter[~~'~~]'s established campsite or the interior of a fully enclosed automobile or truck.

(c) The provisions of Subsection (a) do not apply to:

(i) a person lawfully hunting upland game or waterfowl;

(ii) a person licensed to hunt big game species during hunts that coincide with the archery bear hunt;

(iii) livestock owners protecting their livestock; or

(iv) a person licensed to carry a concealed weapon in accordance with Title 53, Chapter 5, Part 7 of the Utah Code, provided the person is not utilizing the concealed firearm to hunt or take protected wildlife.

R657-33-7. Traps and Trapping Devices.

(1) Bear may not be taken with a trap, snare or any other trapping device, except as authorized by the division.

(2) Bear accidentally caught in any trapping device must be released unharmed.

(3)(a) Written permission must be obtained from a division representative to remove the carcass of a bear from any trapping device.

(b) The carcass shall remain the property of the state of Utah and must be surrendered to the division.

R657-33-8. State Parks.

(1) Hunting of any wildlife is prohibited within the boundaries of all state park areas except those designated by the Division of Parks and Recreation in Section R651-614.

(2) Hunting with a rifle, handgun or muzzleloader in park areas designated open is prohibited within one mile of all area park facilities, including buildings, camp or picnic sites, overlooks, golf courses, boat ramps and developed beaches.

(3) Hunting with shotguns, crossbows, [~~and~~]archery tackle, and airguns is prohibited within one quarter mile of the above stated areas.

R657-33-9. Prohibited Methods.

(1) Bear may be taken or pursued only during open seasons and using methods prescribed in this rule and the guidebook of the Wildlife Board for taking and pursuing bear. Otherwise, under the Wildlife Resources Code, it is unlawful for any person to possess, capture, kill, injure, drug, rope, trap, snare, or in any way harm or transport bear.

(2) After a bear has been pursued, chased, treed, cornered, legally baited or held at bay, a person may not, in any manner, restrict or hinder the animal's ability to escape.

(3) A person may not engage in a canned hunt.

(4) A person may not take any wildlife from an airplane or any other airborne vehicle or device or any motorized terrestrial or aquatic vehicle, including snowmobiles and other recreational vehicles.

R657-33-10. Spotlighting.

(1) Except as provided in Section 23-13-17:

(a) a person may not use or cast the rays of any spotlight, headlight or other artificial light to locate protected wildlife while having in possession a firearm or other weapon or device that could be used to take or injure protected wildlife; and

(b) the use of a spotlight or other artificial light in a field, woodland or forest where protected wildlife are generally found is probable cause of attempting to locate protected wildlife.

(2) The provisions of this section do not apply to:

(a) the use of the headlights of a motor vehicle or other artificial light in a usual manner where there is no attempt or intent to locate protected wildlife; or

(b) a person licensed to carry a concealed weapon in accordance with Title 53, Chapter 5, Part 7 of the Utah Code, provided the person is not utilizing the concealed weapon to hunt or take wildlife.

R657-33-11. Party Hunting.

A person may not take a bear for another person.

R657-33-12. Use of Dogs.

(1) Dogs may be used to take or pursue bear only during authorized hunts as provided in the guidebook of the Wildlife Board for taking bear.

(2) A dog handler may pursue bear in a unit and during a season permitting the use of dogs, provided he or she possesses:

(a) a valid limited entry or harvest objective bear permit issued to the dog handler;

(b) a valid bear pursuit permit; or

(c) the documentation and certifications required in R657-33-26(2) to pursue bear for compensation.

(3) When dogs are used to pursue a bear, the licensed hunter intending to take the bear must be present when the dogs are released and must continuously participate in the hunt thereafter until the hunt is completed.

(4) When dogs are used to take a bear [~~and~~] during a restricted pursuit season or when there is not an open pursuit season, the dog handler must have:

(a) a limited entry or harvest objective bear permit authorizing the use of dogs issued to the dog handler for the unit being hunted;

(b)(i) a valid bear pursuit permit; and

(ii) be accompanied, as provided in Subsection (3), by a hunter possessing a limited entry or harvest objective bear permit authorizing the use of dogs for the unit being hunted; or

(c)(i) the documentation and certifications required in R657-33-26(2) to pursue bear for compensation; and

(ii) be accompanied, as provided in Subsection (3), by a paying client possessing a limited entry or harvest objective bear permit authorizing the use of dogs for the unit being hunted.

(5) A dog handler may pursue bear under:

(a) a bear pursuit permit only during the season and in the areas designated by the Wildlife Board in guidebook open to pursuit;

(b) a limited entry or harvest objective bear permit authorizing the use of dogs only during the season and in the area designated by the Wildlife Board in guidebook for that permit; or

(c) the pursuit for compensation provisions in this rule only during the seasons and in the areas designated by the Wildlife Board in guidebook open to pursuit.

(6) When dogs are used to pursue or take a bear, no more than eight dogs may be used in the field at one time while pursuing during the summer pursuit or restricted pursuit seasons as established by the Wildlife Board in guidebook.

(7) A dog handler pursuing bear may retrieve dogs that separate from the pack, provided the dog handler:

(A) takes reasonable steps to keep the pack together before and during pursuit;

(B) separates from the permit holder exclusively to retrieve stray dogs and does not attempt to actively pursue bear during the retrieval process; and

(C) immediately releases any bear incidentally treed or held at bay by the stray dogs.

R657-33-13. Certificate of Registration Required for Bear Baiting.

(1) A certificate of registration for baiting must be obtained before establishing a bait station.

(2) Certificates of registration for bear baiting are issued only to holders of limited entry permits authorizing the use of bait, as provided in the guidebook of the Wildlife Board for taking bear.

(3) A certificate of registration may be obtained from the division office within the region where the bait station will be established.

(4) A new certificate of registration must be obtained prior to moving a bait station. All materials used as bait must be removed from the old site prior to the issuing of a new certificate of registration.

(5) The following information must be provided to obtain a certificate of registration for baiting: a 1:24000 USGS quad map with the bait location marked, or the Universal Transverse Mercator (UTM) or latitude and longitude coordinates of the bait station, including the datum, type of bait used and written permission from the appropriate landowner for private lands.

(6)(a) Any person interested in baiting on lands administered by the Bureau of Land Management must verify that the lands are open to baiting before applying for and receiving a certificate of registration for bear baiting.

(b) Information on areas that are open to baiting on National Forests must be obtained from district offices.

(c) Areas generally closed to baiting stations by these federal agencies include:

(i) designated Wilderness Areas;

(ii) heavily used drainages or recreation areas; and

(iii) critical watersheds.

(d) The division shall send a copy of the certificate of registration to the private landowner or appropriate district office of the land management agency that manages the land where the bait station will be placed, as identified by the hunter on the application for a certificate of registration.

(e) Issuance of a certificate of registration for baiting does not authorize an individual to bait if it is otherwise unlawful to bait under the regulations of the applicable land management agency.

(7) A handling fee must accompany the application.

(8) Only hunters listed on the certificate of registration may hunt over the bait station and the certificate of registration must be in possession while hunting over the bait station.

(9) Any person tending a bait station must be listed on the certificate of registration.

R657-33-14. Use of Bait.

(1)(a) A person who has obtained a limited entry bear archery permit may use archery tackle only, even when hunting bear away from the bait station.

(b) A person who has obtained a limited entry bear permit for a season and hunt unit that allows baiting may use firearms and archery equipment as provided in R657-33-6.

(c) Bear lured to a bait station may only be taken using firearms and archery equipment approved by the Wildlife Board and described in the guidebook for taking bear.

(d) A person may establish or use no more than two bait stations. The bait stations may only be used during [~~an open season.~~]periods designated in the guidebook for taking bear.

(e) Bear lured to a bait station may not be taken with dogs.

(f) Bait may not be contained in or include any metal, glass, porcelain, plastic, cardboard, or paper.

(g) The bait station must be marked with a sign provided by the division and posted within 10 feet of the bait.

(h) A dog handler may not intentionally run dogs off of a bait station while pursuing bear.

(2)(a) Bait may be placed only in areas open to hunting and only during the open seasons.

(b) All materials used as bait must be removed within 72 hours after the close of the season or within 72 hours after the person or persons, who are registered for that bait station harvest a bear.

(3) A person may use nongame fish as bait, except those listed as prohibited in Rule R657-13 and the guidebook of the Wildlife Board for Taking Fish and Crayfish. No other species of protected wildlife may be used as bait.

(4)(a) Domestic livestock or its parts, including processed meat scraps, may be used as bait.

(b) A person using domestic livestock or their parts for bait must have in possession:

(i) a certificate of brand inspection, bill of sale, or other proof of ownership or legal possession.

(5) Bait may not be placed within:

(a) 100 yards of water or a public road or designated trail; or

(b) 1/2 mile of any permanent dwelling or campground[~~; or~~].

[~~(c) any area identified as potentially increasing nuisance bear activity by the division.~~]

[~~(6) Violations of this rule and the guidebook of the Wildlife Board for taking and pursuing bear concerning baiting on federal lands may be a violation of federal regulations and prosecuted under federal law.~~]

R657-33-15. Tagging Requirements.

(1) The carcass of a bear must be tagged in accordance with Section 23-20-30.

(2) The carcass of a bear must be tagged with a temporary possession tag before the carcass is moved from or the hunter leaves the site of kill.

(3) A person may not hunt or pursue bear after the notches have been removed from the tag or the tag has been detached from the permit.

(4) The temporary possession tag:

(a) must remain attached to the pelt or unskinned carcass until the permanent possession tag is attached; and

(b) is only valid for 48 hours after the date of kill.

(5) A person may not possess a bear pelt or unskinned carcass without a valid permanent possession tag affixed to the pelt or unskinned carcass. This provision does not apply to a person in possession of a properly tagged carcass or pelt within 48 hours after the kill, provided the person was issued and is in possession of a valid permit.

R657-33-16. Evidence of Sex and Age.

(1) Evidence of sex must remain attached to the carcass or pelt of each bear until a permanent tag has been attached by the division.

(2) The pelt and skull must be presented to the division in an unfrozen condition to allow the division to gather management data.

(3) The division may seize any pelt not accompanied by its skull.

R657-33-17. Permanent Tag.

(1) Each bear [~~must be~~]taken by the permit holder [~~to a conservation officer or~~]must be checked by a division [~~office~~]representative within 48 hours after the date of kill to have a permanent possession tag affixed to the pelt or unskinned carcass.

(2) A person may not possess a green pelt after the 48-hour check-in period, ship a green pelt out of Utah, or present a green pelt to a taxidermist if the green pelt does not have a permanent possession tag attached.

(3) The location of harvest and a tooth sample must be provided to the division during the check-in process.

R657-33-18. Transporting Bear.

Bear that have been legally taken may be transported by the permit holder provided the bear is properly tagged and the permittee possesses a valid permit.

R657-33-19. Exporting Bear from Utah.

(1) A person may export a legally taken bear or its parts if that person has a valid permit and the bear is properly tagged with a permanent possession tag.

(2) A person may not ship or cause to be shipped from Utah, a bear pelt without first obtaining a shipping permit issued by an authorized division representative.

R657-33-20. Donating.

(1) A person may donate protected wildlife or their parts to another person in accordance with Section 23-20-9.

(2) A written statement of donation must be kept with the protected wildlife or parts showing:

(a) the number and species of protected wildlife or parts donated;

(b) the date of donation;

(c) the permit number of the donor and the permanent possession tag number; and

(d) the signature of the donor.

(3) A green pelt of any bear donated to another person must have a permanent possession tag affixed.

(4) The written statement of donation must be retained with the pelt.

R657-33-21. Purchasing or Selling.

(1) Legally obtained tanned bear hides may be purchased or sold.

(2) A person may not purchase, sell, offer for sale or barter a green pelt, gall bladder, tooth, claw, paw or skull of any bear.

R657-33-22. Waste of Wildlife.

(1) A person may not waste or permit to be wasted or spoiled any protected wildlife or their parts in accordance with Section 23-20-8.

(2) The skinned carcass of a bear may be left in the field and does not constitute waste of wildlife, however, the division recommends that hunters remove the carcass from the field.

R657-33-23. Livestock and Commercial Crop Depredation.

(1) If a bear is harassing, chasing, disturbing, harming, attacking or killing livestock, or has committed such an act within the past 72 hours:

(a) the livestock owner, an immediate family member or an employee of the owner on a regular payroll, and not hired specifically to take bear, may kill the bear;

(b) a landowner or livestock owner may notify the division of the depredating bear and the division may:

(i) authorize a local hunter to take a bear using a valid permit; or

(ii) request that the offending bear be removed by Wildlife Services specialist, supervised by the USDA Wildlife Program; or

(c) the livestock owner may notify a Wildlife Services specialist of the depredation, and that specialist or another agency employee may take the depredating bear.

(2) Depredating bear may be taken at any time by a Wildlife Services specialist while acting in the performance of the person's assigned duties and in accordance with procedures approved by the division.

(3) A depredating bear may be taken by those persons authorized in Subsection (1)(a) with:

(a) any weapon authorized for taking bear; or

(b) snares only with written authorization from the director of the division and subject to all the conditions and restrictions set out in the written authorization.

(i) The option in Subsection (3)(b) may only be authorized in the case of chronic depredation verified by Wildlife Services or division personnel where numerous livestock have been killed by a depredating bear.

(4)(a) The division may issue one or more control permits to [~~an~~]the affected property owner [~~or~~]lessee[~~of private land~~], or a designee,:, to remove a bear causing damage to cultivated crops on cleared and planted land provided the following conditions are satisfied:

(i) the property owner or lessee does not receive monetary consideration from the designee for the opportunity to use the control permit

(ii) the landowner or lessee contacts the appropriate division office within 72 hours of the damage occurring or provides documentation of previous chronic damage incidents;

([~~ii~~]iii) the damaged cultivated crop is raised and utilized by the landowner or lessee for commercial gain and with a reasonable expectation of generating a profit;

([~~iii~~]iv) at least 5 acres of the private land is placed in agricultural use pursuant to Section 59-2-502 and eligible for agricultural use valuation as provided in Sections 59-2-503 and 59-2-504;

([~~iv~~]v) the division confirms that the private land where the cultivated crop occurs has experienced chronic recurring damage from bears, or that there will likely be chronic recurring damage if offending bears are not immediately removed;

([~~v~~]vi) the landowner[~~, an immediate family member, or an employee~~] or a designee, of the owner [~~on a regular payroll, and~~] not hired

specifically to take bear, receives the control permit from the division to remove the bear prior to initiating such action; and

([~~vi~~]vii) the bear removal is otherwise in accordance with Utah law.

(b) The division may issue control permits described in Subsection (4)(v) to identify restrictions necessary and to balance the threat to commercial crops on cleared and planted land and the wildlife resource, such as:

(i) locations on the landowner or lessee[~~'~~]'s private property where offending bears may be taken;

(ii) the total number of control permits that may be issued; and

(iii) reporting requirements to the division.

(c) Nothing herein mandates the division to issue control permits for a landowner or lessee to remove bears from their private property in lieu of:

(i) the landowner or lessee taking nonlethal preventative measures in protecting their private property; and

(ii) the division undertaking wildlife management techniques as they deem appropriate.

(5)(a) Any bear taken pursuant to Subsections (1)(a) and (4) shall:

(i) be delivered to a division office or employee within 48 hours; and

(ii) remain the property of the state, except the division may sell a bear damage permit to a person who has killed a depredating bear if that person wishes to maintain possession of the bear.

(b) A person may only retain one bear carcass annually under this Section.

(6)(a) Hunters interested in taking depredating bear as provided in Subsection (1)(b) may contact the division.

(b) Hunters will be contacted by the division to take depredating bear as needed.

R657-33-24. Questionnaire.

Each permittee who receives a questionnaire should return the questionnaire to the division regardless of success. Returning the questionnaire helps the division evaluate population trends, determine harvest success and other valuable information.

R657-33-25. Taking Bear.

(1)(a) A person who has obtained a bear permit, excluding limited entry archery bear permit, may use any legal weapon to take one bear during the season and within the hunt unit(s) specified on the permit.

(b) A person who has obtained a limited entry bear archery permit may use only archery tackle to take on bear during the season and within the hunt units(s) specified on the permit.

(c) Harvest objective permits may be purchased on a first-come, first-served basis as provided in the guidebook of the Wildlife Board for taking bear.

(2)(a) A person may not take or pursue a cub, or a sow accompanied by cubs.

(b) Any bear, except a cub or a sow accompanied by cubs, may be taken during the prescribed seasons.

(3) Limited entry permits may be obtained by following the application procedures provided in this rule and the guidebook of the Wildlife Board for taking and pursuing bear.

(4) Season dates, closed areas, harvest objective permit areas and limited entry permit areas are published in the guidebook of the Wildlife Board for taking and pursuing bear.

R657-33-26. Bear Pursuit.

(1)(a) Except as provided in rule R657-33-3(1)(b) and Subsection (2), bear may be pursued only by persons who have obtained a bear pursuit permit.

(b) The bear pursuit permit does not allow a person to:

(i) kill a bear; or

(ii) pursue bear for compensation.

(c) A person may pursue bear for compensation only as provided in Subsection (2).

(d) To obtain a bear pursuit permit, a person must possess a Utah hunting or combination license.

(2)(a) A person may pursue bear on public lands for compensation, provided the dog handler:

(i) receives compensation from a client or customer to pursue bear;

(ii) is a licensed hunting guide or outfitter under Title 58, Chapter 79 of the Utah Code and authorized to pursue bear;

(iii) possesses on his or her person the Utah hunting guide or outfitter license;

(iv) possesses on his or her person all permits and authorizations required by the applicable public lands managing authority to pursue bear for compensation; and

(v) is accompanied by the client or customer at all times during pursuit.

(b) A person may pursue bear on private lands for compensation, provided the dog handler:

(i) receives compensation from a client or customer to pursue bear;

(ii) is accompanied by the client or customer at all times during pursuit; and

(iii) possesses on his or her person written permission from all private landowners on whose property pursuit takes place.

(c) A person who is an employee or agent of the Division of Wildlife Services may pursue bear on public lands and private lands while acting within the scope of their employment.

(3) A pursuit permit is not required to pursue bear under Subsection (2).

(4)(a) A person pursuing bear for compensation under subsections (2)(a) and (2)(b) shall comply with all other requirements and restrictions in statute, rule and the guidebooks of the Wildlife Board regulating the pursuit and take of bear.

(b) Any violation of, or failure to comply with the provisions of Title 23 of the Utah Code, this rule, or the guidebooks of the Wildlife Board may be grounds for suspension of the privilege to pursue bear for compensation under this subsection, as determined by a division hearing officer.

(5) Except as provided in Subsection (6), a bear pursuit permit authorizes the holder to pursue bear with dogs on any unit open to pursuing bear during the seasons and under the conditions prescribed by the Wildlife Board in guidebook.

(6) The Wildlife Board may establish or designate in guidebook restricted pursuit units as determined necessary or convenient to better manage wildlife resources, including to protect wildlife, curtail over-utilization of resources, reduce conflict with other

recreational activities, reduce conflict with private and public land activities, and protect wildlife habitat.

(a) Bear may not be pursued on a restricted pursuit unit unless the dog handler:

(i) possesses a pursuit permit issued for the particular restricted pursuit unit;

(ii) possesses or is accompanied by a person who possesses a limited entry or harvest objective bear permit allowing the use of dogs, and the pursuit occurs within the area and during the season established by the respective permit; or

(iii) is engaged in pursuit for compensation as provided in Subsection (2), and pursuit occurs within the area and during the season established for the:

(A) paying client[~~'~~]'s limited entry or harvest objective bear permit allowing the use of dogs; or

(B) restricted pursuit unit.

(b) A pursuit permit issued for a restricted pursuit unit authorizes the holder to pursue bear on:

(i) the particular restricted pursuit unit for which the permit is issued; and

(ii) any other bear pursuit unit not designated as a restricted pursuit unit.

(c) Notwithstanding Subsection (6)(a)(i), when two or more dog owners are in the field pursuing bear together with a single pack of eight dogs or less on a restricted pursuit unit, only one must possess a restricted pursuit unit permit, provided the dog owners accompany the person possessing the restricted pursuit unit permit at all times.

(i) A dog [~~owner~~]handler pursuing bear on a restricted pursuit unit may leave the pursuit permit holder to retrieve dogs that separate from the pack, provided the dog [~~owner~~]handler;

(A) takes reasonable steps to keep the pack together before and during pursuit;

(B) separates from the pursuit permit holder exclusively to retrieve stray dogs and does not attempt to actively pursue bear during the retrieval process; and

(C) immediately releases any bear incidentally treed or held at bay by the stray dogs.

(7) Pursuit permits may be obtained at division offices, through the Internet and at license agents.

(a) The division may distribute pursuit permits for restricted pursuit units:

(i) through its offices, license agents, or online resources on a first-come, first-served basis; or

(ii) through a random drawing.

(8) A person may not:

(a) take or pursue a female bear with cubs;

(b) repeatedly pursue, chase, tree, corner or hold at bay the same bear during the same day;

(c) individually or in combination with another person, use more than eight dogs in the field to pursue a bear during the summer pursuit season as established by the Wildlife Board in guidebook; or

(d) possess a firearm or any device that could be used to kill a bear while pursuing bear.

(i) The weapon restrictions set forth in Subsection (d) do not apply to a person licensed to carry a concealed weapon in accordance with Title 53, Chapter 5, Part

7 of the Utah Code, provided the person is not utilizing or attempting to utilize the concealed weapon to injure or kill bear.

(9) If eligible, a person who has obtained a bear pursuit permit may also obtain a limited entry or harvest objective bear permit.

(10) Season dates, closed areas and bear pursuit permit areas are published in the guidebook of the Wildlife Board for taking and pursuing bear.

R657-33-27. Limited Entry Bear Permit Application Information.

(1) Limited entry bear permits are issued pursuant to R657-62-19.

R657-33-28. Waiting Period.

(1) Any person who obtains a limited entry permit may not apply for a permit in a division drawing for a period of two years.

(2) Individuals who obtain a conservation permit, sportsman permit, control permit, or harvest objective permit for bear are not subject to a waiting period.

R657-33-29. Harvest Objective General Information.

(1) Harvest objective permits are valid only for the open harvest objective management units and for the specified seasons published in the guidebook of the Wildlife Board for taking bear.

(2) Harvest objective permits are not valid in a specified unit after the harvest objective has been met for that harvest objective unit.

R657-33-30. Harvest Objective Permit Sales.

(1) Harvest objective permits are available on a first-come, first-served basis beginning on the date published in the guidebook of the Wildlife Board for taking bear.

(2) Any bear permit purchased after the season opens is not valid until three days after the date of purchase.

(3) A person must possess a valid hunting or combination license to obtain a harvest objective permit.

R657-33-31. Harvest Objective Unit Closures.

(1) Prior to hunting in a harvest objective unit, a hunter must call 1-888-668-5466 or visit the division's website to verify that the bear hunting unit is still open. The phone line and website will be updated each day by 12 noon. Updates become effective the following day thirty minutes before official sunrise.

(2) Harvest objective units are open to hunting until:

(a) the bear harvest objective for that harvest objective unit is met and the division closes the area; or

(b) the end of the hunting season as provided in the guidebook of the Wildlife Board for taking bear.

(3) Upon closure of a harvest objective unit, a hunter may not take or pursue bear except as provided in Section R657-33-26.

R657-33-32. Harvest Objective Unit Reporting.

(1) Any person taking a bear with a harvest objective permit must report to the division, within 48 hours, where the bear was taken and have a permanent tag affixed pursuant to Section R657-33-17.

(2) Failure to accurately report the correct harvest objective unit where the bear was killed is unlawful.

(3) Any conviction for failure to accurately report, or aiding or assisting in the failure to accurately report as required in Subsection (1) shall be considered probable cause evidence of a knowing, intentional or reckless violation for purposes of permit suspension.

R657-33-33. Fees.

The permit fees and handling fees must be paid pursuant to Rule R657-42-8(5).

R657-33-34. Drawings and Remaining Permits.

Remaining limited entry bear permits are issued pursuant to R657-62.

R657-33-35. Bonus Points.

Bonus points are accrued and used pursuant to R657-62-8 and R657-62-19.

R657-33-36. Refunds.

(1) Unsuccessful applicants will not be charged for a permit.

(2) The handling fees and hunting or combination license fees are nonrefundable.

R657-33-37. Duplicate License and Permit.

Whenever any unexpired license, permit, tag or certificate of registration is destroyed, lost or stolen, a person may obtain a duplicate in accordance with R657-42.

KEY: wildlife, bear, game laws
Date of Enactment or Last Substantive [~~Amendment~~]Change: March 26, 2018
Notice of Continuation: November **[~~28,~~]**29, 2017
Authorizing, and Implemented or Interpreted Law: 23-14-18; 23-14-19; 23-13-2

SPRING BLACK BEAR LIMITED ENTRY SEASON (No bait allowed)

Unit	Hunt	Resident Permits	Nonresident Permits	2019Season Dates	2020 - 2021 Season Dates
Beaver	BR7000	7	0	March 30 - May 31	Saturday closest to April 1 - May 31
Book Cliffs, Bitter Creek/South	BR7001	35	4	March 30 - May 31	Saturday closest to April 1 - May 31
Cache/Ogden		1	0	March 30 - May 31	Saturday closest to April 1 - May 31
Central Mtns, Manti-North	BR7003	16	1	March 30 - May 31	Saturday closest to April 1 - May 31
Central Mtns, Manti-South/San Rafael, North	BR7004	12	1	March 30 - May 31	Saturday closest to April 1 - May 31
Central Mtns, Nebo	BR7005	10	1	March 30 - May 31	Saturday closest to April 1 - May 31
Fillmore, Pahvant	BR7007	1	0	March 30 - May 31	Saturday closest to April 1 - May 31
Kamas/North Slope, Summit		1	0	March 30 - May 31	Saturday closest to April 1 - May 31
La Sal	BR7008	39	3	March 30 - May 31	Saturday closest to April 1 - May 31
Mt Dutton	BR7009	3	0	March 30 - May 31	Saturday closest to April 1 - May 31
Panguitch Lake/Zion	BR7010	8	0	March 30 - May 31	Saturday closest to April 1 - May 31
Paunsaugunt	BR7011	3	0	March 30 - May 31	Saturday closest to April 1 - May 31
Plateau, Boulder/Kaiparowits	BR7012	22	2	March 30 - May 31	Saturday closest to April 1 - May 31
Plateau, Fishlake/Thousand Lakes	BR7013	4	0	March 30 - May 31	Saturday closest to April 1 - May 31
San Juan	BR7014	39	3	March 30 - May 31	Saturday closest to April 1 - May 31
South Slope, Bonanza/Diamond Mtn/Vernal	BR7015	10	1	March 30 - May 31	Saturday closest to April 1 - May 31
Wasatch Mtns, West-Central	BR7016	31	2	March 30 - May 31	Saturday closest to April 1 - May 31

SUMMER BLACK BEAR LIMITED ENTRY SEASON (No dogs allowed, No Early Bait)

Unit	Hunt	Resident Permits	Nonresident Permits	2019 Season Dates	2020 - 2021 Season Dates
Beaver	BR7100	7	0	May 25 - June 28	Saturday before last full week in May - June 28
Book Cliffs, Bitter Creek/South	BR7101	9	1	May 25 - June 28	Saturday before last full week in May - June 28
Book Cliffs, Little Creek Roadless	BR7102	2	0	May 25 - June 28	Saturday before last full week in May - June 28
Cache/Ogden		1	0	May 25 - June 28	Saturday before last full week in May - June 28
Central Mtns, Manti-North	BR7104	11	1	May 25 - June 28	Saturday before last full week in May - June 28
Central Mtns, Manti-South/San Rafael, North	BR7105	12	1	May 25 - June 28	Saturday before last full week in May - June 28
Central Mtns, Nebo	BR7106	9	1	May 25 - June 28	Saturday before last full week in May - June 28
Chalk Creek/East Canyon/Morgan-South Rich		4	0	May 25 - June 28	Saturday before last full week in May - June 28
Kamas/North Slope, Summit		7	0	May 25 - June 28	Saturday before last full week in May - June 28
La Sal	BR7108	23	2	May 25 - June 28	Saturday before last full week in May - June 28
Mt Dutton	BR7109	3	0	May 25 - June 28	Saturday before last full week in May - June 28
Nine Mile	BR7110	11	1	May 25 - June 28	Saturday before last full week in May - June 28
North Slope, Three Corners/West Daggett	BR7111	3	0	May 25 - June 28	Saturday before last full week in May - June 28
Panguitch Lake/Zion	BR7112	4	0	May 25 - June 28	Saturday before last full week in May - June 28
Paunsaugunt	BR7113	3	0	May 25 - June 28	Saturday before last full week in May - June 28
Plateau, Boulder/Kaiparowits	BR7114	11	1	May 25 - June 28	Saturday before last full week in May - June 28
Plateau, Fishlake/Thousand Lakes	BR7115	3	0	May 25 - June 28	Saturday before last full week in May - June 28
San Juan	BR7116	23	2	May 25 - June 28	Saturday before last full week in May - June 28
South Slope, Bonanza/Diamond Mtn/Vernal	BR7117	8	0	May 25 - June 28	Saturday before last full week in May - June 28
South Slope, Yellowstone	BR7118	4	0	May 25 - June 28	Saturday before last full week in May - June 28
Wasatch Mtns, Avintaquin/Currant Creek	BR7119	5	0	May 25 - June 28	Saturday before last full week in May - June 28
Wasatch Mtns, West-Central	BR7120	19	2	May 25 - June 28	Saturday before last full week in May - June 28

FALL BLACK BEAR LIMITED ENTRY SEASON

Unit	Hunt	Resident Permits	Nonresident Permits	2019 Season Dates	2020 - 2021 Season Dates	Comments
Beaver	BR7200	4	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
Cache/Ogden		1	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	No Early Baiting before Nov. 2 opening date
Central Mtns, Manti-North	BR7203	9	1	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	No Early Baiting before Nov. 2 opening date
Central Mtns, Manti-South/San Rafael, North	BR7204	12	1	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
Central Mtns, Nebo	BR7205	3	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	No Early Baiting before Nov. 2 opening date
Fillmore, Pahvant	BR7207	1	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
Kamas/North Slope, Summit		5	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	No Early Baiting before Nov. 2 opening date
Monroe	BR7209	1	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
Mt Dutton	BR7210	2	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
Nine Mile	BR7211	23	2	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
North Slope, Three Corners/West Daggett	BR7212	2	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
Panguitch Lake/Zion	BR7213	8	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
Paunsaugunt	BR7214	3	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
Plateau, Boulder/Kaiparowits	BR7215	5	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	No Early Baiting before Nov. 2 opening date
Plateau, Fishlake/Thousand Lakes	BR7216	4	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
South Slope, Bonanza/Diamond Mtn/Vernal	BR7218	6	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
South Slope, Yellowstone	BR7219	4	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
Wasatch Mtns, Avintaquin/Currant Creek	BR7220	7	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
Wasatch Mtns, West-Central	BR7221	7	0	Aug. 17 - Sep. 22 & Nov 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	

ANY LEGAL WEAPON, NO DOGS ALLOWED FROM SEPT. 14-23

Unit	Hunt	Resident Permits	Nonresident Permits	Season Dates	2020 - 2021 Season Dates	Comments
La Sal	BR7208	5	0	Aug. 10 - Sep. 22 & Nov 2 - Nov. 14	Saturday before general archery deer opener through end of LE Early AW bull Season	No dogs Sep. 14 - 23 (LE Early AW bull). No Early Baiting before Nov. 2 opening date
San Juan	BR7217	5	0	Aug. 10 - Sep. 22 & Nov 2 - Nov. 14	Saturday before general archery deer opener through end of LE Early AW bull Season	No dogs Sep. 14 - 23 (LE Early AW bull). No Early Baiting before Nov. 2 opening date

ANY LEGAL WEAPON, NO DOGS ALLOWED FROM AUG.17-SEPT. 30

Unit	Hunt	Resident Permits	Nonresident Permits	Season Dates	2020 - 2021 Season Dates	Comments
Book Cliffs, Bitter Creek/South	BR7201	9	1	Aug. 3 - Nov. 14	1st Saturday in August - November 14	No Dogs Aug. 17 -Sept. 30

BLACK BEAR LIMITED ENTRY SEASON SPOT AND STALK (No dogs and no bait allowed)

Unit	Hunt	Resident Permits	Nonresident Permits	2019 Season Dates	2020 - 2021 Season Dates
Book Cliffs, Little Creek Roadless	BR7224	7	0	March 30 - May31	Saturday closest to April 1 - May 31
Book Cliffs, Little Creek Roadless	BR7225	7	0	Sep. 7 - Nov. 14	1st Saturday in September - November 14
Cache/Ogden		5	0	Sept. 25 - Oct. 27	Opening of general Muzz deer season through end of general AW deer season
Central Mtns, Manti-North		18	2	Sept. 25 - Oct. 27	Opening of general Muzz deer season through end of general AW deer season
Central Mtns, Nebo		18	2	Sept. 25 - Oct. 27	Opening of general Muzz deer season through end of general AW deer season
Chalk Creek/East Canyon/Morgan-South Rich		5	0	Sept. 25 - Oct. 27	Opening of general Muzz deer season through end of general AW deer season
Kamas/North Slope, Summit		5	0	Sept. 25 - Oct. 27	Opening of general Muzz deer season through end of general AW deer
La Sal	BR7226	59	6	Sept. 25 - Oct. 27	Opening of general Muzz deer season through end of general AW deer season
Plateau, Boulder/Kaiparowits		18	2	Sept. 25 - Oct. 27	Opening of general Muzz deer season through end of general AW deer season
San Juan	BR7227	59	6	Sept. 25 - Oct. 27	Opening of general Muzz deer season through end of general AW deer season

BLACK BEAR HARVEST OBJECTIVE SEASON (No bait allowed)

Unit	Harvest Objective	2019 Season Dates	2020 - 2021 Season Dates	Comments
Chalk Creek/East Canyon/Morgan-South Rich	3	March 30 - May31	Saturday closest to April 1 - May 31	
Chalk Creek/East Canyon/Morgan-South Rich	3	Aug. 17 - Sept. 22 & Nov. 2 - Nov. 14	3rd Saturday in August - 4th Sunday in September and 1st Saturday in November - November 14	
Nine Mile	20	March 30 - May31	Saturday closest to April 1 - May 31	
Nine Mile	10	Sep. 25 - Oct. 27	Opening of general Muzz deer season through end of general AW deer season	No dogs/No bait
North Slope, Three Corners/West Daggett	3	March 30 - May31	Saturday closest to April 1 - May 31	
North Slope, Three Corners/West Daggett	2	Sep. 25 - Oct. 27	Opening of general Muzz deer season through end of general AW deer season	No dogs/No bait
South Slope, Bonanza/Diamond Mtn/Vernal	3	Sept. 25 - Oct. 27	Opening of general Muzz deer season through end of general AW deer season	No dogs/No bait
South Slope, Yellowstone	5	March 30 - May31	Saturday closest to April 1 - May 31	
South Slope, Yellowstone	3	Sep. 25 - Oct. 27	Opening of general Muzz deer season through end of general AW deer season	No dogs/No bait
Wasatch Mtns, Avintaquin/Currant Creek	12	March 30 - May31	Saturday closest to April 1 - May 31	
Wasatch Mtns, Avintaquin/Currant Creek	3	Sep. 25 - Oct. 27	Opening of general Muzz deer season through end of general AW deer season	No dogs/No bait

MULTI-SEASON BLACK BEAR LIMITED ENTRY SEASON (Public draw)

Unit	Hunt	Resident Permits	Nonresident Permits	2019 Season Dates	2020 - 2021 Season Dates
Beaver	BR7318	2	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
Book Cliffs, Bitter Creek/South	BR7300	5	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, & Nov. 2 - Nov. 14 No Dogs Aug. 17 -Sept.	Same as LE seasons for this Unit
Book Cliffs, Little Creek Roadless	BR7301	2	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
Cache/Ogden		1	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, Sept 25 - Oct 27 & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
Central Mtns, Manti-North	BR7303	8	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, Sept 25 - Oct 27 & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
Central Mtns, Manti-South/San Rafael, North	BR7304	10	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
Central Mtns, Nebo	BR7305	3	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, Sept 25 - Oct 27 & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
Kamas/North Slope, Summit		3	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, Sept 25 - Oct 27 & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
La Sal	BR7307	9	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, Sept 25 - Oct 27 & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
Nine Mile	BR7317	5	0	May 25- June 28, Aug. 17 - Sep. 22, & Nov. 2 - Nov. 14 No dogs Sep 14-23	Same as LE seasons for this Unit
North Slope, West Daggett/Three Corners	BR7308	1	0	May 25- June 28, Aug. 17 - Sep. 22, & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
Panguitch Lake/Zion	BR7309	2	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
Plateau, Boulder/Kaiparowits	BR7310	6	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, Sept 25 - Oct 27 & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
Plateau, Fishlake/Thousand Lakes	BR7311	1	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
San Juan	BR7312	9	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, Sept 25 - Oct 27 & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
South Slope, Bonanza/Diamond Mtn/Vernal	BR7313	5	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, & Nov. 2 - Nov. 14 No dogs Sep. 14 - 23	Same as LE seasons for this Unit
South Slope, Yellowstone	BR7314	2	0	May 25- June 28, Aug. 17 - Sep. 22, & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
Wasatch Mtns, Avintaquin/Currant Creek	BR7315	2	0	May 25- June 28, Aug. 17 - Sep. 22, & Nov. 2 - Nov. 14	Same as LE seasons for this Unit
Wasatch Mtns, West-Central	BR7316	7	0	March 30 - May 31, May 25 - June 28, Aug. 17 - Sep. 22, & Nov. 2 - Nov. 14	Same as LE seasons for this Unit

BLACK BEAR PURSUIT SEASONS

Spring pursuit season: March 30 - May 31, 2019; March 28 - May 31, 2020; March 27 - May 31, 2021

General summer pursuit season: July 3 - Aug. 4, 2019; July 1 - Aug 1, 2020; July 7 - Aug 7, 2021

Fall pursuit season: Nov. 2 - Nov. 14, 2019; Nov 7 - Nov 14, 2020; Nov 6 - Nov 14, 2021

RESTRICTED BLACK BEAR SUMMER PURSUIT SEASON

Unit	Hunt	Resident Permits	Nonresident Permits	2019 Season Dates	2020 Season Dates	2021 Season Dates
Book Cliffs (early)	BR1008	25	3	July 8 - 19	July 6 - 17	July 5 - 16
Book Cliffs (late)	BR1011	25	3	July 22 - Aug 4	July 20 - Aug 2	July 19 - Aug 1
La Sal (early)	BR1009	14	1	July 8 - 19	July 6 - 17	July 5 - 16
La Sal (late)	BR1012	14	1	July 22 - Aug 4	July 20 - Aug 2	July 19 - Aug 1
San Juan (early)	BR1010	5	0	July 8 - 19	July 6 - 17	July 5 - 16
San Juan (late)	BR1013	5	0	July 22 - Aug 4	July 20 - Aug 2	July 19 - Aug 1

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources

MICHAL D. FOWLKS
Division Director

MEMORANDUM

Date: November 16, 2018

To: Wildlife Board and Regional Advisory Council Members

From: Kent Hersey, Big Game Projects Coordinator

Subject: Unit Management Plans for Pronghorn and Moose

The current statewide management plans for pronghorn and moose were approved by the Wildlife Board in fall 2017. In accordance with those plans, the Utah Division of Wildlife Resources has updated the unit management plans for each species. Below is a summary of the major updates to the unit management plans:

1) All unit plans have been updated to include the harvest management approved in the statewide plans.
    a. For pronghorn, we will manage all units for a 3-year average age of harvest between 2.0 and 3.0 years of age.
    b. For moose, we will manage all units for a 3-year average age of harvest between 3.75 and 4.25 years of age.
2) All the unit plans have been updated to include population objectives.
3) In addition to the transplant sites included in the statewide management plans, we recommend adding the following augmentation sites:
    a. Pronghorn:
        i. North Slope: Antelope Flat, Bare Top, Clay Basin, Conner Basin, Death Valley, and Goslin Mountain
    b. Moose:
        i. Kamas: Shingle Creek, Beaver Creek, and Norway Flats
        ii. North Slope: Dahlgren Creek, Dowd Mountain, Elk Park, Henry's Fork, Sheep Creek Lake, and Spirit Lake
        iii. South Slope: Charlie's Park, Leidy Peak/ Long Park Reservoir, and Mosby Mountain

If approved, UDWR will amend Table 4 in the statewide pronghorn plan and Table 5 in the statewide moose plan to include these release sites.

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit #11A
Nine Mile, Anthro-Myton Bench
November 2018

HERD UNIT BOUNDARY DESCRIPTION

Duchesne and Uintah counties - Boundary begins at Duchesne and US-191; southwest on US-191 to the Argyle Canyon road; southeast on this road to the Nine Mile Canyon road; east along this road to its end near Bulls Canyon; south from the end of this road to Nine Mile Creek; east along this creek to the Green River; north along this river to the Duchesne River; west along this river to US-40; west on US-40 to Duchesne. **Excluding all Indian Trust Lands within this boundary.** USGS 1:100,000 maps: Vernal, Seep Ridge, Duchesne, Price.

DESIGNATED PRONGHORN HABITAT LAND OWNERSHIP

HABITAT AND APPROXIMATE OWNERSHIP

	Yearlong range	
Ownership	**Area (acres)**	**%**
BLM	178,694	56
SITLA	22,583	7
DWR	3,322	1
PRIVATE	75,191	24
Ute Tribal Trust Lands	31,131	10
Forest Service	6,936	2
TOTAL	317,857	100

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, to include hunting and viewing. Balance the pronghorn population with human needs, such as authorized livestock grazing rights, private land development rights, and local economies. Maintain the population at a level that is within the long term habitat capability.

POPULATION MANAGEMENT OBJECTIVES

- ✓ Target Winter Herd Size - Achieve an estimated wintering population size of 1100 animals (approximately 700-800 aircraft-counted animals).

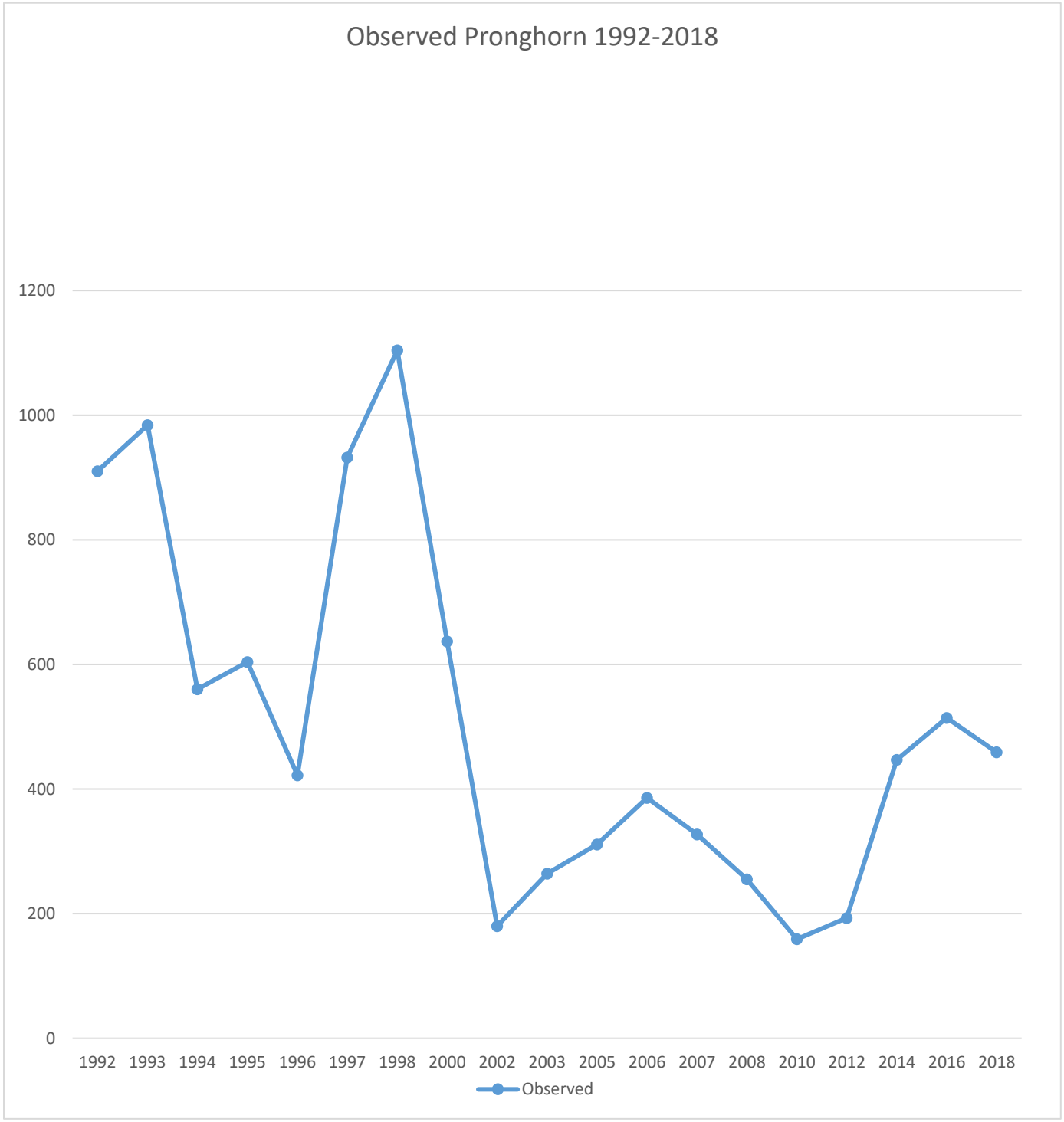
- ✓ Population Status - The pronghorn population had declined since reaching a peak of 1,104 animals counted in 1998. The 2010 annual aerial trend count survey produced only 159 pronghorn. Since 2010 the population has slowly been increasing to 459 in 2018.The following table and graph summarize the pronghorn population status.

- ✓ Hunting Strategies- Manage unit for a 3-year average age of harvested bucks between 2.0 to 3.0 years of age, while taking trends into account. Use archery and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.

Anthro Pronghorn Population Trend

	Observed	Bucks	Does	Estimated*	B / 100 D
1992	910	181	729	1300	25
1993	984			1405	
1994	560	172	388	800	44
1995	604			863	
1996	422	90	326	603	28
1997	932			1331	
1998	1104	340	764	1577	45
1999	no flight				
2000	637	163	474	910	34
2001	no flight				
2002	180	60	114	257	53
2003	264	64	189	377	34
2004	no flight				
2005	311	63	241	444	26
2006	386	49	337	551	15
2007	327	62	258	467	24
2008	255	72	175	364	41
2009	no flight				
2010	159	24	135	227	18
2011	no flight				
2012	193	46	147	276	31
2013	no flight				
2014	447	96	351	639	27
2015	no flight				
2016	514	107	407	734	26
2017	no flight				
2018	459	146	331	656	44

*assumes 70% sightability


Observed Pronghorn 1992-2018
1200
1000
800
600
400
200
0
1992
1993
1994
1995
1996
1997
1998
2000
2002
2003
2005
2006
2007
2008
2010
2012
2014
2016
2018
Observed

POPULATION MANAGEMENT STRATEGIES

- ✓ Population supplementation – The UDWR may supplement the existing pronghorn population by translocating animals from Parker Mountain, or other source herds based on availability. These transplants could occur until the estimated population meets or exceeds 80% of the population objective.

- ✓ Monitoring - Aerial and/or ground counts will be conducted annually to determine fawn recruitment, population status, buck/doe ratios, and range distribution. Aerial trend counts will be conducted every other year in late winter/early spring. Preseason herd classification will occur in July and August.

- ✓ Population – Hunts for bucks will be recommended annually as needed to meet management goals. Doe/fawn permits will be recommended when the population approaches objective or if habitat limitations arise. These recommendations will be reviewed by the Regional Advisory Councils and acted upon by the Utah Wildlife Board.

Limiting Factors

- ✓ Predation - Predation, especially by coyotes, can be limiting to pronghorn fawn survival and recruitment. Predator control work deemed prudent will be conducted within the guidelines of the DWR predator management policy.

- ✓ Habitat - Vegetative communities that dominate the areas of the herd unit frequented by pronghorn include salt desert shrub types on the lower elevation zones grading upward elevationally to Wyoming sage habitats. Annual precipitation generally varies from 6 to 8 inches in these vegetation types. Forb production is important for healthy fawn survival. Water distribution is limiting but has been augmented by the BLM, UDWR and other conservation interests through guzzlers or other efforts. The UDWR will continue to maintain and install new guzzlers throughout the unit.

- ✓ Depredation occurs to agricultural crops located principally in Antelope Canyon and Pleasant Valley. CWMU hunting and depredation based mitigation measures are used to control this segment of the pronghorn herd and provide a means for private landowners to benefit to offset agricultural impacts.

- ✓ Natural gas and oil production is rapidly increasing on pronghorn range with subsequent vegetative removal limiting both forage availability and habitat effectiveness. Habitat loss and disturbance associated with drilling and other energy extraction activities may be a significant factor affecting pronghorn populations on this unit.

- ✓ Interspecific competition - No significant, long-term limitations generated by interspecific competition are evident. Pronghorn and livestock can generally exhibit a symbiotic relationship. Direct competition for winter browse forage has occurred during the drought when vegetative production was severely reduced. Dependent upon season of use, vegetative disturbance by cattle grazing may enhance the production of annual forbs and shrubs. Conversely, the suppression of forbs and shrubs by pronghorn may enhance grass production. Pronghorn exhibit minimal use of grass in their diets. Presently, all pronghorn habitat is grazed by domestic livestock. Both cattle and sheep graze the unit during the winter period.

HABITAT MANAGEMENT OBJECTIVES

- ✓ Livestock grazing - Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons.

- ✓ Water development - Develop, repair and enhance water sources to improve pronghorn habitat and increase distribution.

- ✓ Vegetation - Support and encourage land management agencies and livestock producers in range improvement practices.

HABITAT MANAGEMENT STRATEGIES

- ✓ Water development - Due to low annual precipitation, ponds and other natural run-off catchments are limited in their duration. The construction and distribution of man-made guzzlers has provided a boon to pronghorn welfare and population distribution. Many of these structures have been repaired recently and are being maintained regularly to aid all wildlife in the salt desert shrub communities.

- ✓ Vegetation management - Low precipitation and the invasion threat of weedy species such as cheat grass, halogeton and Russian thistle limit possibilities for vegetation manipulation projects. The best approach for maintaining or altering vegetative community condition may be through properly targeting acceptable grazing utilization levels and seasons. Support for established domestic grazing under these parameters will continue.

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit 9cd
South Slope, Bonanza/Diamond Mtn.
November 2018

HERD UNIT BOUNDARY DESCRIPTION

Daggett and Uintah counties – The Diamond Mountain unit boundary begins at the Green River and the Utah-Colorado state line; west along this river to Gorge Creek; south along Gorge Creek to the summit and the head of Davenport Draw; south along the USFS-Private Land boundary on the west side of Davenport Draw and continuing south along this USFS boundary to the BLM Boundary on the Diamond Mountain rim; southeast along the Diamond Mountain rim to the Diamond Mountain road (Jones Hole Road); southwest along this road to the Brush Creek road; south along this road to the Island Park-Rainbow Park road; east along this road to the Dinosaur National Monument boundary; northeast along this boundary to the Utah-Colorado state line; north along this state line to the Green River. USGS 1:100,000 Maps: Dutch John. The Bonanza unit boundary begins at the Utah-Colorado state line and the White River; west along this river to the Green River; north along this river to the Colorado-Utah state line; south along this state line to the White River. It excludes all Native American trust land within this boundary. USGS 1:100,000 Maps: Vernal.

DESIGNATED PRONGHORN HABITAT LAND OWNERSHIP

HABITAT AND APPROXIMATE OWNERSHIP

	Yearlong range	
Ownership	**Area (acres)**	**%**
BLM	518,382	66
SITLA	72,503	9
DWR	14,594	2
PRIVATE	113,090	14
Ute Tribal Trust Lands	37,046	5
Forest Service	6,201	< 1
USFWS	2,737	< 1
NPS	22,802	3
TOTAL	787,355	100

Overall usable pronghorn habitat is limited to approximately 423,069 acres. This is only 54% of the total area of the units. Of that, approximately 76% is BLM property. Most of the usable pronghorn habitat is on BLM property in the Bonanza portion of the unit.

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, to include hunting and viewing. Balance the pronghorn population with human needs, such as authorized livestock grazing rights, private land development rights, and local economies. Maintain the population at a level that is within the long term habitat capability.

POPULATION MANAGEMENT OBJECTIVES

- ✓ Target Winter Herd Size - Achieve an estimated wintering population size of 1,200 animals (approximately 800 to 900 aircraft-counted animals). The management plan will be reviewed on five year intervals to assess herd parameters and the validity of management goals and objectives.

- ✓ Herd Composition – Maintain a three-year average age of 2-3 year old harvested bucks.

- ✓ Population Status - The pronghorn population declined starting in 2000, but has currently rebounded to the objective. The 2017 annual aerial trend count survey produced 846 pronghorn. The following table and graph summarize the pronghorn population status as reflected through annual aerial spring trend count surveys.

Bonanza/Diamond Pronghorn Population Trend

	Observed	Bucks	Antlerless	Estimated*	B / 100 A
1992	817			1167	
1993	no flight				
1994	854			1220	
1995	739			1055	
1996	867			1239	
1997	no flight				
1998				invalid data	
1999	no flight				
2000	891			1273	
2001	837	160	508	1195	32
2002	675	127	535	764	24
2003	836	184	611	1194	30
2004	no flight				
2005	768	117	454	1097	26
2006	464	97	358	736	27
2007	589	138	418	841	33
2008	no flight				
2009	475	78	321	678	24
2010	no flight				
2012	476	83	371	680	22
2013	294	69	225	420	31
2015	478	88	390	683	23
2017	846	200	646	1209	31

*assumes 70% sightability

POPULATION MANAGEMENT STRATEGIES

- ✓ Population supplementation – Pronghorn may be translocated into the unit if the population is below 75% of the objective based on availability.

- ✓ Monitoring - Aerial and/or ground counts will be conducted annually to determine fawn recruitment, population status, buck/doe ratios, and range distribution. Aerial trend counts will be conducted every other year in late winter/early spring. Preseason herd classification will occur in July and August.

- ✓ Population – Hunts for bucks and/ or doe/fawn pronghorn will be recommended annually as needed to meet management goals. Doe/fawn permits will be recommended when the herd is near objective or habitat concerns arise. These recommendations will be reviewed by the Regional Advisory Councils and acted upon by the Utah Wildlife Board.

Limiting Factors

- ✓ Predation - Predation, especially by coyotes, can be limiting to pronghorn fawn survival and recruitment. Predator control work deemed prudent will be conducted within the guidelines of the DWR predator management policy.

- ✓ Habitat - Vegetative communities that dominate the areas of the herd unit frequented by pronghorn include salt desert shrub types on the lower elevation zones grading upward elevationally to Wyoming sage habitats. Annual precipitation generally varies from 6 to 8 inches in these vegetation types. Forb production is important for healthy fawn survival. Water distribution can be limiting but has been provided by the BLM and other conservation interests through guzzlers or other devices. During the past decade of drought, the poor maintenance condition of many of these artificial water sources limited their effectiveness. Repairs have been made and are continuing.

- ✓ Depredation is limited on these units. Depredation based mitigation measures are used when needed to control this segment of the pronghorn herd and provide a means for private landowners to benefit to offset agricultural impacts.

- ✓ Landowners on the Diamond Mountain (9c) portion of this unit do not want pronghorn on their private land. Thirty five percent of Diamond Mountain is private land. To date, the pronghorn population has been prevented from expanding onto Diamond Mountain.

- ✓ Natural gas and oil production is rapidly increasing on pronghorn range with subsequent vegetative removal limiting both forage availability and habitat effectiveness. Habitat loss and disturbance associated with drilling and other energy extraction activities may be a significant factor affecting pronghorn populations.

- ✓ Interspecific competition - No significant, long-term limitations generated by interspecific competition are evident. Pronghorn and livestock can generally exhibit a symbiotic relationship. Direct competition for winter browse forage has occurred during the drought when vegetative production was severely reduced. Dependent upon season of use, vegetative disturbance by cattle grazing may enhance the production of annual forbs and shrubs. Conversely, the suppression of forbs and shrubs by pronghorn may enhance grass production. Pronghorn exhibit minimal use of grass in their diets. Presently, all pronghorn habitat is grazed by domestic stock.

HABITAT MANAGEMENT OBJECTIVES

- ✓ Livestock grazing - Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons.

- ✓ Water development - Develop, repair and enhance water sources to improve pronghorn habitat and increase distribution.

- ✓ Vegetation - Support and encourage land management agencies and livestock producers in range improvement practices.

HABITAT MANAGEMENT STRATEGIES

- ✓ Water development – Maintain existing structures and encourage the establishment of more where appropriate.

- ✓ Vegetation management - Low precipitation and the invasion threat of weedy species such as cheat grass, halogeton and Russian thistle limit possibilities for vegetation manipulation projects. The best approach for maintaining or altering vegetative community condition may be through properly targeting acceptable grazing utilization levels and seasons. Support for established domestic grazing under these parameters will continue.

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit 10a
Book Cliffs, Bitter Creek
November 2018

HERD UNIT BOUNDARY DESCRIPTION

Uintah and Grand counties - Boundary begins at the Utah-Colorado state line and the White River, south along this state line to the summit and north-south drainage divide of the Book Cliffs; west along this summit and drainage divide to Ten Mile Knoll and the Steer Ridge road; north along the Steer Ridge road and Steer Ridge to Willow Creek; north along Willow Creek to the Uintah-Ouray Indian reservation boundary; north along this boundary to the Uintah-Grand County line; west along this county line to the Green River; north along this river to the White River; east along this river to the Utah-Colorado state line. **Excluding all Indian Trust Lands within this boundary.** .USGS 1:100,000 Maps: Westwater, Seep Ridge, Huntington, Vernal and Price.

DESIGNATED PRONGHORN HABITAT LAND OWNERSHIP

HABITAT AND APPROXIMATE OWNERSHIP*

	Yearlong range	
Ownership	**Area (acres)**	**%**
BLM	85,509	69
SITLA	23,377	19
DWR	0	0
PRIVATE	3,657	3
Ute Tribal Trust Lands	12,196	9
TOTAL	124,739	100

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, to include hunting and viewing. Balance the pronghorn population with human needs, such as authorized livestock grazing rights, private land development rights, and local economies. Maintain the population at a level that is within the long-term habitat capability.

POPULATION MANAGEMENT OBJECTIVES

- ✓ Target Winter Herd Size - Achieve an estimated wintering population size of 600 animals (approximately 400 to 450 aircraft-counted animals) distributed across the principal areas of the unit: Archie Bench, East Bench to Seep Ridge and Wild Horse Bench. The management plan will be reviewed on five year intervals to assess herd parameters and the validity of management goals and objectives.

- ✓ Increase hunting opportunities for pronghorn using a variety of harvest strategies.

POPULATION MANAGEMENT STRATEGIES

- ✓ Population supplementation – Pronghorn may be translocated onto the unit if the population is below 75% of the objective based on availability.

- ✓ Manage all units/subunits for a 3-year average age of harvested animals between 2.0 to 3.0 years of age, while taking trends into account.

- ✓ Monitoring - Aerial and/or ground counts will be conducted annually to determine fawn recruitment, population status, buck/doe ratios, and range distribution. Aerial trend counts will be conducted every other year in late winter/early spring. Preseason herd classification will occur in July and August. Modeling may also be used to estimate pronghorn population numbers.

- ✓ Population - Hunts for bucks and/ or doe/fawn pronghorn will be recommended annually as needed to meet management goals. Doe/fawn permits will be issue when the population nears objective or if habitat concerns arise. These recommendations will be reviewed by the Regional Advisory Councils and acted upon by the Utah Wildlife Board.

Limiting Factors

- ✓ Predation - Predation, especially by coyotes, can be limiting to pronghorn fawn survival and recruitment. Predator control work deemed prudent will be conducted within the guidelines of the DWR predator management policy.

- ✓ Habitat - Vegetative communities that dominate the areas of the herd unit frequented by pronghorn include salt desert shrub types on the lower elevation zones grading upward elevationally to Wyoming sage habitats. Annual precipitation generally varies from 6 to 8 inches in these vegetation types. Forb production is important for healthy fawn survival. Water distribution can be limiting but has been provided by the BLM and other conservation interests through guzzlers or other devices. During the past decade of drought, the poor maintenance condition of many of these artificial water sources limited their effectiveness. Repairs have been made and are continuing.

  Natural gas and oil production is rapidly increasing on pronghorn range with subsequent vegetative removal limiting both forage availability and habitat effectiveness. Habitat loss and disturbance associated with drilling and other energy extraction activities may be a significant factor affecting pronghorn populations.

HABITAT MANAGEMENT OBJECTIVES

- ✓ Livestock grazing - Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons.

- ✓ Water development - Develop, repair and enhance water sources to improve pronghorn habitat and increase distribution.

- ✓ Vegetation - Support and encourage land management agencies and livestock producers in range improvement practices.

HABITAT MANAGEMENT STRATEGIES

- ✓ Water development - Due to low annual precipitation, ponds and other natural run-off catchments are limited in their duration. The construction and distribution of man-made guzzlers has provided a boon to pronghorn welfare and population distribution. Many of these structures have been repaired recently and are being maintained regularly to aid all wildlife in the salt desert shrub communities.

- ✓ Vegetation management - Low precipitation and the invasion threat of weedy species such as cheat grass, halogeton and Russian thistle limit possibilities for vegetation manipulation projects. The best approach for maintaining or altering vegetative community condition may be through properly targeting acceptable grazing utilization levels and seasons. Support for established

domestic grazing under these parameters will continue.

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit 8abc
North Slope, Summit / West Daggett / Three Corners
November 2018

HERD UNIT BOUNDARY DESCRIPTION North Slope, Summit #8 A

Summit County-Boundary begins at the Utah-Wyoming State line and SR-150; south on SR-150 to the Summit-Duchesne county line at Hayden Pass; east along this county line to the Burnt Fork-Sheep Creek drainage divide; north along this drainage divide to the Burnt Fork-Birch Creek drainage divide; north along this drainage divide to the Utah-Wyoming state line; west along this state line to SR-150.

HERD UNIT BOUNDARY DESCRIPTION North Slope, West Daggett / Three Corners

Daggett and Summit counties - Boundary begins at the Utah-Wyoming state line and Burnt Fork Creek; east along this state line to the Utah-Wyoming-Colorado state line (Three Corners); south along the Utah-Colorado state line to the Green River; west along this river to Flaming Gorge Reservoir; west along the west shore of Flaming Gorge Reservoir to Cart Creek; south along Cart Creek to US-191; south along US-191 to the Uintah-Daggett county line (summit of the Uinta Mountains); west along this summit to the head of Burnt drainage (Divide Pass / Island Lake) north along the Burnt Fork drainage (Burnt Fork Creek) to the Utah-Wyoming state line. USGS 1:100,000 Maps: Dutch John.

DESIGNATED PRONGHORN HABITAT LAND OWNERSHIP

HABITAT AND APPROXIMATE OWNERSHIP

	Yearlong range	
Ownership	**Area (acres)**	**%**
BLM	63,913	17
SITLA	25,594	7
DWR	3,954	1
PRIVATE	41,852	11
Forest Service	243,986	64
TOTAL	379,299	100

Overall usable pronghorn habitat is limited to approximately 110,356 acres. This is only 29% of the total area of the unit. Of that, approximately 53% is BLM property. Most of the usable pronghorn habitat is on BLM property in the Three Corners portion of the unit.

Pronghorn utilization on the Summit County portion of the unit is extremely sporadic and comprised of transient populations for the most part. Pronghorn routinely move back and forth between the North Slope Unit 8 A and Wyoming. When located on this sub-unit, the Pronghorn favor SITLA and Forest Service lands.

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, to include hunting and viewing. Balance the pronghorn population with human needs, such as authorized livestock grazing rights, private land development rights, and local

economies. Maintain the population at a level that is within the long-term habitat capability.

POPULATION MANAGEMENT OBJECTIVES

- ✓ Target Winter Herd Size - Achieve an estimated wintering population size of 950 animals (approximately 550 - 665 aircraft-counted animals). The management plan will be reviewed on five year intervals to assess herd parameters and the validity of management goals and objectives.

- ✓ Herd Composition – Maintain a three-year average age of 2-3 year old harvested bucks.

- ✓ Population Status - The pronghorn population is fairly stable after rebounding from drought years in the early 2000's. The 2018 annual aerial trend count survey produced 588 pronghorn. The following table and graph summarize the pronghorn population status as reflected through annual aerial spring trend count surveys.

West Daggett/3Corners Pronghorn
Population Trend

	Observed	Bucks	Does	Estimated*	B / 100 A
1992	545			779	
1993	no flight				
1994	306			437	
1995	387			553	
1996	231			330	
1997	529			756	
1998	647			924	
1999	no flight				
2000	368			525	
2001	no flight				
2002	274	61	213	391	29
2003	279	33	239	398	14
2004	no flight				
2005	489	80	409	698	20
2006	no flight				
2007	605	166	439	864	38
2008	597	100	474	853	21
2009	no flight				
2010	524	100	424	749	24
2012	433	78	355	619	22
2013	315	58	257	450	23
2014	342	67	275	489	24
2016	518	112	406	740	28
2018	588	164	424	840	39

*assumes 70% sightability

POPULATION MANAGEMENT STRATEGIES

- ✓ Population supplementation – If excess pronghorn are available, pronghorn may be translocated into the unit if the population is below 75% of the objective.

- ✓ Monitoring - Aerial and/or ground counts will be conducted annually to determine fawn recruitment, population status, buck/doe ratios, and range distribution. Aerial trend counts will be conducted every other year in late winter/early spring. Preseason herd classification will occur in July and August.

- ✓ Population – Hunts for bucks and/or doe/fawn pronghorn will be recommended annually as needed to meet management goals. Doe/fawn permits will be recommended when the population is near objective or if habitat concerns arise. These recommendations will be reviewed by the Regional Advisory Councils and acted upon by the Utah Wildlife Board.

Limiting Factors

- ✓ Predation - Predation, especially by coyotes, can be limiting to pronghorn fawn survival and recruitment. Predator control work deemed prudent will be conducted within the guidelines of the DWR predator management policy.

- ✓ Habitat - Vegetative communities that dominate the areas of the herd unit frequented by pronghorn include high desert shrub types on the lower elevation zones grading upward elevationally to Wyoming sage habitats with intermixed pinyon/juniper. Annual precipitation generally varies from 8 to 13 inches in these vegetation types. Forb production is important for healthy fawn survival. Water distribution can be seasonally limiting but has been provided by the BLM, DWR and other conservation interests through guzzlers or other devices.

- ✓ Depredation is limited and sometimes occurs to agricultural crops located principally in the Manila area. Depredation based mitigation measures are used to control this segment of the pronghorn herd and provide a means for private landowners to benefit to offset agricultural impacts.

- ✓ Natural gas and oil production on this unit is currently stable. However, as energy demand increases, it could trigger increasing demand on pronghorn range with subsequent vegetative removal limiting both forage availability and habitat effectiveness. Habitat loss and disturbance associated with drilling and other energy extraction activities may be a significant factor affecting pronghorn populations in the future.

- ✓ Interspecific competition - No significant, long-term limitations generated by interspecific competition are evident. Pronghorn and livestock can generally exhibit a symbiotic relationship. Direct competition for winter browse forage has occurred during the drought when vegetative production was severely reduced. Dependent upon season of use, vegetative disturbance by cattle grazing may enhance the production of annual forbs and shrubs. Conversely, the suppression of forbs and shrubs by pronghorn may enhance grass production. Pronghorn exhibit minimal use of grass in their diets. Presently, all pronghorn habitat is grazed by domestic stock.

HABITAT MANAGEMENT OBJECTIVES

- ✓ Livestock grazing - Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons.

- ✓ Water development - Develop, repair and enhance water sources to improve pronghorn habitat and distribution.

- ✓ Vegetation - Support and encourage land management agencies and livestock producers in range improvement practices.

HABITAT MANAGEMENT STRATEGIES

- ✓ Water development – Maintain existing water structures and encourage the establishment of more where appropriate.

- ✓ Vegetation management - The invasion threat of weedy species such as cheat grass, halogeton, annual koshia and Russian thistle somewhat limit possibilities for vegetation manipulation projects. However, some of the higher elevation areas could be improved to benefit pronghorn and other big game species such as deer and elk. Cooperative habitat projects with other agencies should be pursued in appropriate areas.

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit 9b
South Slope, Vernal
November 2018

HERD UNIT BOUNDARY DESCRIPTION

Uintah and Daggett counties—Boundary begins at the Dry Fork-Whiterocks drainage divide and the Daggett-Uintah county line (summit of the Uinta Mountains); east along the summit of the Uinta Mountains to US-191; north along US-191 to Cart Creek; north along Cart Creek to Flaming Gorge Reservoir; east along Flaming Gorge Reservoir to the Green River; east along the Green River to Gorge Creek; south along Gorge Creek to the summit and the head of Davenport Draw; south along the USFS-Private Land boundary on the west side of Davenport Draw and continuing south along this USFS boundary to the BLM boundary on the Diamond Mountain rim; southeast along the Diamond Mountain rim to the Diamond Mountain road (Jones Hole Road); southwest along this road to the Brush Creek road; south along this road to the Island Park/Rainbow Park road; east along this road to the Dinosaur National Monument boundary; northeast along this boundary to the Utah-Colorado state line; south along this state line to the Green River; south along this river to the Duchesne River; west along this river to the Uinta River; north along this river to Deep Creek; north along this creek to USFS Road 104 (Paradise Park Reservoir Road); north along this road to Paradise Park Reservoir and the Dry Fork-Whiterocks drainage divide; north along this drainage divide to the Daggett-Uintah county line (summit of the Uinta Mountains). **EXCLUDING ALL NATIVE AMERICAN TRUST LAND WITHIN THIS BOUNDARY**. USGS 1:100,000 Maps: Dutch John, Vernal.

DESIGNATED PRONGHORN HABITAT LAND OWNERSHIP

HABITAT AND APPROXIMATE OWNERSHIP

	Yearlong range	
Ownership	**Area (acres)**	**%**
BLM	88,614	53
State	24,834	15
US Fish and Wildlife	4,943	3
Private	37,105	22
Ute Tribal Trust Lands	12,628	8
TOTAL	168,124	100

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, to include hunting and viewing. Balance the pronghorn population with human needs, such as authorized livestock grazing rights, private land development rights, and local economies. Maintain the population at a level that is within the long-term habitat capability.

POPULATION MANAGEMENT OBJECTIVES

- ✓ Target Winter Herd Size - Achieve an estimated wintering population size of 425 animals (approximately 250 to 300 aircraft-counted animals) distributed across the principal areas of the unit (Ashley Oil Field, West of Asphalt Ridge). The management plan will be reviewed on five-year intervals to assess herd parameters and the validity of management goals and objectives.

- ✓ Increase hunting opportunities for pronghorn – Utilize a variety of harvest strategies such as archery and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.

POPULATION MANAGEMENT STRATEGIES

- ✓ Population supplementation – If excess pronghorn are available, pronghorn may be translocated into the unit if the population is below 75% of the objective.

- ✓ Manage all units/subunits for a 3-year average age of harvested animals between 2.0 to 3.0 years of age, while taking trends into account.

- ✓ Monitoring - Aerial and/or ground counts will be conducted annually to determine fawn recruitment, population status, buck/doe ratios, and range distribution. Aerial trend counts will be conducted every other year in late winter/early spring. Preseason herd classification will occur in July and August. Modeling may also be used to estimate pronghorn population numbers.

- ✓ Population - Hunts for bucks and/or doe/fawn pronghorn will be recommended annually as needed to meet management goals. Doe/fawn permits will be recommended when the population nears objective or when habitat concerns arise. These recommendations will be reviewed by the Regional Advisory Councils and acted upon by the Utah Wildlife Board.

Limiting Factors

- ✓ Predation - Predation, especially by coyotes, can be limiting to pronghorn fawn survival and recruitment. Predator control work deemed prudent will be conducted within the guidelines of the DWR predator management policy.

- ✓ Habitat - Vegetative communities that dominate the areas of the herd unit frequented by pronghorn include salt desert shrub types on the lower elevation zones grading upward elevationally to Wyoming sage habitats. Annual precipitation generally varies from 6 to 8 inches in these vegetation types. Forb production is important for healthy fawn survival. Water distribution can be limiting but has been provided by the BLM and other conservation interests through guzzlers or other devices. During the past decade of drought, the poor maintenance condition of many of these artificial water sources limited their effectiveness. Repairs have been made and are continuing.

  Natural gas and oil production is rapidly increasing on pronghorn range with subsequent vegetative removal limiting both forage availability and habitat effectiveness. Habitat loss and disturbance associated with drilling and other energy extraction activities may be a significant factor affecting pronghorn populations.

- ✓ Interspecific competition - No significant, long-term limitations generated by interspecific competition are evident. Pronghorn and livestock can generally exhibit a symbiotic relationship. Direct competition for winter browse forage has occurred during the drought when vegetative production was severely reduced. Dependent upon season of use, vegetative disturbance by cattle grazing may enhance the production of annual forbs and shrubs. Conversely, the suppression of forbs and shrubs by pronghorn may enhance grass production. Pronghorn exhibit minimal use of grass in their diets.

HABITAT MANAGEMENT OBJECTIVES

- ✓ Livestock grazing - Support proper domestic grazing on all identified pronghorn habitat within

approved grazing allotments and seasons.

- ✓ Water development - Develop, repair and enhance water sources to improve pronghorn habitat and distribution.

- ✓ Vegetation - Support and encourage land management agencies and livestock producers in range improvement practices.

HABITAT MANAGEMENT STRATEGIES

- ✓ Water development - Due to low annual precipitation, ponds and other natural run-off catchments are limited in their duration. The construction and distribution of man-made guzzlers has provided a boon to pronghorn welfare and population distribution. Many of these structures have been repaired recently and are being maintained regularly to aid all wildlife in the salt desert shrub communities.

- ✓ Vegetation management - Low precipitation and the invasion threat of weedy species such as cheat grass, halogeton and Russian thistle limit possibilities for vegetation manipulation projects. The best approach for maintaining or altering vegetative community condition may be through properly targeting acceptable grazing utilization levels and seasons. Support for established domestic grazing under these parameters will continue.

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit #22
Beaver Unit
2018

BOUNDARY DESCRIPTION

Iron, Garfield, Piute, Beaver, and Millard counties: Boundary begins at SR-130 and I-15; north on SR-130 to SR-21; north on SR-21 to SR-257; north on SR-257 to the Black Rock road; east on the Black Rock road to I-15; south on I-15 to I-70; east on I-70 to US-89; south on US-89 to SR-20; west on SR-20 to I-15; south on I-15 to SR-130.

LAND OWNERSHIP (Total Area: 885,765 acres; Pronghorn Habitat: 235,959 acres)

RANGE AREA AND APPROXIMATE OWNERSHIP

LAND OWNERSHIP	AREA (Acres)	PERCENT OWNERSHIP
Forest Service	296,725	33.5%
Bureau of Land Management	462,589	52.2%
Utah State Institutional Trust Lands	51,753	5.8%
Native American Trust Lands	205	0.0%
Private	72,205	8.1%
Department of Defense	0	0.0%
USFWS Refuge	0	0.0%
National Parks	0	0.0%
Utah State Parks	0	0.0%
Utah Division of Wildlife Resources	2,288	0.3%
TOTALS	885,765	100%

UNIT MANAGEMENT GOALS

Manage pronghorn to their population objective and within the carrying capacity of available habitats.

POPULATION MANAGEMENT OBJECTIVES

Objective 1: Wintering Herd Objective - Achieve a target population of 800 wintering pronghorn. Maintain a viable balance of bucks, does, and fawns in a properly functioning, healthy herd.

- **Strategies**
  - Conduct aerial surveys at least every other year to monitor population trends and herd composition.
  - Conduct late summer herd (pre-season) classification annually.
  - Use population models and sightability estimates to estimate populations and establish trends.
  - Use antlerless harvest to manage herds to population objectives and to address habitat issues or depredation concerns. Public hunts and Landowner mitigation permits may be used.
  - Implement research or increased monitoring of herd if unit is chronically below population

objectives to identify problems and recommend solutions.
- Investigate and manage diseases that threaten the pronghorn population.
- Predator control work will be within the guidelines of the UDWR predator management policy and the authorized plan of the administering land management agency.

HABITAT MANAGEMENT OBJECTIVES

Objective 1: Maintain or enhance the quantity and quality of pronghorn habitat.

- **Strategies**
  - Identify crucial pronghorn habitats and work with public land managers and private landowners to protect and enhance those areas.
  - Assist public land management agencies in monitoring the condition and trend of pronghorn habitats.
  - Work with public land management agencies to minimize, and where necessary, mitigate loss or degradation of pronghorn habitat.
  - Under the Utah Watershed Restoration Initiative, design, implement and monitor the effectiveness of habitat improvement projects to benefit pronghorn.
  - As part of the Utah Migration Initiative, identify migration routes and corridors along with barriers that impede pronghorn. Modify or mitigate any barriers that impede movement of pronghorn.
  - Encourage public land managers, permittees, and wildlife biologists to identify areas of potential conflict for the benefit of livestock and pronghorn.
  - Work with agency and industry representatives to design mitigation or habitat treatments that will offset the impacts of energy development or other surface disturbing actions in pronghorn habitat.
  - In conjunction with other land management agencies, develop and implement a maintenance schedule for existing water developments and develop new water sources as needed.
  - Work with CWMU operators to maintain and improve pronghorn habitat.

Recreation Goal: Provide opportunities for hunting and viewing of pronghorn.

Objective 1: Increase hunting opportunities for pronghorn using a variety of harvest strategies.

- **Strategies:**
  - Manage for a 3-year average age of harvested bucks between 2.0 to 3.0 years of age, while taking trends into account.
  - Use archery, rifle, and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.
  - Coordinate with UDWR's outreach section and work with media organizations to inform and educate the public about pronghorn and pronghorn management in Utah.

PRONGHORN UNIT MANAGEMENT PLAN
BOOK CLIFFS, CISCO UNIT 10B
NOVEMBER 2018

BOUNDARY DESCRIPTION

Grand County-- Boundary begins at the Utah-Colorado state line and the summit and drainage divide of the Book Cliffs; west along this summit and drainage divide to Diamond Ridge; southwest along Diamond Ridge and the Book Cliffs summit (north-south drainage divide) to the Uintah and Ouray Indian Reservation boundary (Hells Hole/head of Sego Canyon); west along this boundary to the Green River; south along this river to Swasey's Boat Ramp and the Hastings Road; south on this road to SR-19; south and east on SR-19 to Exit 164 on 1-70 near the town of Green River; east along I-70 to the Utah-Colorado state line; north along this state line to the summit and drainage divide of the Book Cliffs. EXCLUDES ALL NATIVE AMERICAN TRUST LAND WITHIN THE BOUNDARY. USGS 1:100,000 Maps: Huntington, Moab, Westwater.

LAND OWNERSHIP

LAND OWNERSHIP	AREA (Acres)	PERCENT OWNERSHIP
Private	24948	8%
Bureau of Land Management	261083	81%
DNR	468	0.1%
Department of Defense	565	0.1%
Utah State Institutional Trust Lands	35573	11%
TOTALS	**322651**	

HERD STATUS

This population of pronghorn resides in the Cisco Desert north of Interstate 70. A total of 150 pronghorn were transplanted on to this unit in 1983 from Parker Mountain, Utah. Since then the population has fluctuated significantly from 200 to 900 pronghorn depending on precipitation patterns (Table 1). There are depredation concerns on the western portion of the unit in the Green River Valley where pronghorn inhabit alfalfa and watermelon fields.

Table 1. Trends in Pronghorn Population and Classification on the Book Cliffs, Cisco Unit 1999-2018.

YEAR	COUNTED PRONGHORN	POPULATION ESTIMATE Using 80% Sightability	BUCKS/ 100 DOES	FAWNS/ 100 DOES	BUCK HARVEST	DOE HARVEST
1999	750	938	52	31	33	0
2000	536	670	34	23	33	0
2001	495	619	35	23	25	8
2002	343	429	36	4	24	7
2003	172	215	27	14	10	0
2004	339	424	35	52	9	0
2005	395	494	39	91	14	0
2006	366	457	44	39	22	0
2007	644	805	36	37	29	0
2008	500	625	35	37	33	0
2009			36	58	32	0
2010	311	390	24	44	29	0
2011	304	380	46	73	23	0
2012	369	450	28	25	25	2
2013			29	30	22	0
2014	445	550	47	78	26	15
2015			70	71	26	8
2016	598	750	50	67	31	10
2017			61	34	36	0
2018	706	880				
AVERAGE	**455**	**570**	**40**	**46**	**25**	**3**

MANAGEMENT GOALS AND OBJECTIVES

Population Management Goal: Manage pronghorn to their population objectives and within the carrying capacity of available habitats.

Objective 1: Manage the Book Cliffs, Cisco pronghorn population to a wintering population objective of 900 pronghorn. This is based on 80% sightability estimate of aerial surveys conducted in the spring.

Strategies

- Conduct aerial surveys every other year to monitor population trends and herd composition.
- Conduct late summer (pre-season) herd classifications annually.

- Use public antlerless harvest as well as mitigation/depredation/private lands hunts to manage herds to population objectives and to address depredation concerns particularly in the Green River Valley.

Objective 2: Manage for a 3-year average age of harvested animals between 2.0 to 3.0 years of age, while taking trends into account.

Strategies

- Increase hunting opportunities for pronghorn by maximizing permit numbers to reach harvest age objectives.
- Utilize a variety of harvest strategies such as archery and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.

Objective 3: Augment or reintroduce pronghorn populations as needed and as source populations allow.

Strategies

- No transplants or augmentations are proposed for this unit at this time.

Habitat Management Goal: Conserve and improve pronghorn habitat on the unit.

Objective 1: Maintain or enhance the quantity and quality of pronghorn habitat according to the statewide pronghorn plan.

Strategies:

- Work with public land management agencies to identify and monitor crucial pronghorn habitats.
- Encourage public land managers to minimize, and where necessary, mitigate loss or degradation of pronghorn habitat.
- Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons.
- Keep current pronghorn guzzlers functioning properly. Make improvements as necessary.

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit #21
Fillmore, Oak Creek South Unit
2018

BOUNDARY DESCRIPTION

Millard, Sevier, Sanpete, and Juab counties: Boundary begins at I-70 and I-15; north on I-15 to the Black Rock road; west on the Black Rock road to SR-257; north on SR-257 to US-50 and 6; east on US-50 and 6 to US-6; north on US-6 to SR-132; east on SR-132 to SR-28; south on SR-28 to US-89; south on US-89 to I-70; west on I-70 to I-15.

LAND OWNERSHIP (Total Area: 1,851,873 acres; Pronghorn Habitat: 135,628 acres)

RANGE AREA AND APPROXIMATE OWNERSHIP

OWNERSHIP	AREA (Acres)	PERCENT OWNERSHIP
Forest Service	465,388	48.2%
Bureau of Land Management	204,071	21.1%
Utah State Institutional Trust Lands	36,983	3.8%
Native American Trust Lands	1,357	0.1%
Private	243,213	25.2%
Department of Defense	0	0.0%
USFWS Refuge	0	0.0%
National Parks	0	0.0%
Utah State Parks	0	0.0%
Utah Division of Wildlife Resources	15,096	1.6%
TOTALS	1,851,873	100.0%

UNIT MANAGEMENT GOALS

Manage pronghorn to their population objective and within the carrying capacity of available habitats.

POPULATION MANAGEMENT OBJECTIVES

Objective 1: Wintering Herd Objective - Achieve a target population of 850 wintering pronghorn. Maintain a viable balance of bucks, does, and fawns in a properly functioning, healthy herd.

- **Strategies**
  - Conduct aerial surveys at least every other year to monitor population trends and herd composition.
  - Conduct late summer herd (pre-season) classification annually.
  - Use population models and sightability estimates to estimate populations and establish trends.
  - Use antlerless harvest to manage herds to population objectives and to address habitat

issues or depredation concerns. Public hunts and Landowner mitigation permits may be used.
- Implement research or increased monitoring of herd if unit is chronically below population objectives to identify problems and recommend solutions.
- Investigate and manage diseases that threaten the pronghorn population.
- Predator control work will be within the guidelines of the UDWR predator management policy and the authorized plan of the administering land management agency.

HABITAT MANAGEMENT OBJECTIVES

Objective 1: Maintain or enhance the quantity and quality of pronghorn habitat.

- **Strategies**
  - Identify crucial pronghorn habitats and work with public land managers and private landowners to protect and enhance those areas.
  - Assist public land management agencies in monitoring the condition and trend of pronghorn habitats.
  - Work with public land management agencies to minimize, and where necessary, mitigate loss or degradation of pronghorn habitat.
  - Under the Utah Watershed Restoration Initiative, design, implement and monitor the effectiveness of habitat improvement projects to benefit pronghorn.
  - As part of the Utah Migration Initiative, identify migration routes and corridors along with barriers that impede pronghorn. Modify or mitigate any barriers that impede movement of pronghorn.
  - Encourage public land managers, permittees, and wildlife biologists to identify areas of potential conflict for the benefit of livestock and pronghorn.
  - Work with agency and industry representatives to design mitigation or habitat treatments that will offset the impacts of energy development or other surface disturbing actions in pronghorn habitat.
  - In conjunction with other land management agencies, develop and implement a maintenance schedule for existing water developments and develop new water sources as needed.
  - Work with CWMU operators to maintain and improve pronghorn habitat.

Recreation Goal: Provide opportunities for hunting and viewing of pronghorn.

Objective 1: Increase hunting opportunities for pronghorn using a variety of harvest strategies.

- **Strategies:**
  - Manage for a 3-year average age of harvested bucks between 2.0 to 3.0 years of age, while taking trends into account.
  - Use archery, rifle, and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.
  - Coordinate with UDWR's outreach section and work with media organizations to inform and educate the public about pronghorn and pronghorn management in Utah.

PRONGHORN HERD UNIT DRAFT MANAGEMENT PLAN
Herd Unit #26
Kaiparowits
2018

BOUNDARY DESCRIPTION

Kane and Garfield counties.Boundary begins at the Paria River and the Utah-Arizona state line; north along the Paria River to SR-12; east on SR-12 to the Burr Trail at Boulder;southeast on the Burr Trail to Lake Powell; southwest along the shore of Lake Powell to the Utah-Arizona state line; west along this state line to the Paria River.

LAND OWNERSHIP (Total Area - 2,008,340 acres; Pronghorn Habitat - approx. 216,000 acres)

RANGE AREA AND APPROXIMATE OWNERSHIP*

Ownership	Yearlong range	
	Area (acres)	%
Grand Staircase/EscalanteNational Monument	127,360	59
Glen Canyon National Recreation Area	36,480	17
Utah State Institutional Trust Lands	51,840	24
TOTAL	215,680	100

The pronghorn habitat in the Kaiparowits unit is classified as year long range. These pronghorn don't seem to have different winter or summer ranges. There is a small portion of the pronghorn that migrate to the Paunsaugunt unit in the Telegraph Flat area for the winter. In addition, approximately 12,800 acres are identified as fair to good pronghorn habitat in Arizona adjacent to the Kaiparowits Unit.

UNIT MANAGEMENT GOALS AND OBJECTIVES

Manage pronghorn to their population objective and within the carrying capacity of available habitats.

POPULATION MANAGEMENT OBJECTIVE

Objective 1: Wintering Herd Objective - Achieve a target population of 650 wintering pronghorn. Maintain a viable balance of bucks, does, and fawns in a properly functioning, healthy herd.

- **Strategies**
  - Conduct aerial surveys at least every other year to monitor population trends and herd composition.
  - Conduct late summer herd (pre-season) classification annually.
  - Use population models and sightability estimates to estimate populations and establish trends.
  - Use antlerless harvest to manage herds to population objectives and to address habitat issues or depredation concerns. Public hunts and landowner mitigation permits may be used.

- Implement research or increased monitoring of herd if unit is chronically below population objectives to identify problems and recommend solutions.
- Investigate and manage diseases that threaten the pronghorn population.
- Augment pronghorn population as needed to meet the population objective.
- Coordinate with stakeholders to augment or reintroduce populations.
- Monitor the population response of pronghorn in augmentation areas.
- Predator control work will be within the guidelines of the UDWR predator management policy and the authorized plan of the administering land management agency.

Habitat Management Goal: Conserve and improve pronghorn habitat throughout the unit.

Objective 1: Maintain or enhance the quantity and quality of pronghorn habitat.

- **Strategies**
  - Identify crucial pronghorn habitats and work with public land managers and private landowners to protect and enhance those areas.
  - Assist public land management agencies in monitoring the condition and trend of pronghorn habitats.
  - Work with public land management agencies to minimize, and where necessary, mitigate loss or degradation of pronghorn habitat.
  - Under the Utah Watershed Restoration Initiative, design, implement and monitor the effectiveness of habitat improvement projects to benefit pronghorn.
  - As part of the Utah Migration Initiative, identify migration routes and corridors along with barriers that impede pronghorn. Modify or mitigate any barriers that impede movement of pronghorn.
  - Encourage public land managers, permittees, and wildlife biologists to identify areas of potential conflict for the benefit of livestock and pronghorn.
  - Work with agency and industry representatives to design mitigation or habitat treatments that will offset the impacts of energy development or other surface disturbing actions in pronghorn habitat.
  - In conjunction with other land management agencies, develop and implement a maintenance schedule for existing water developments and develop new water sources as needed.

Recreation Goal: Provide opportunities for hunting and viewing of pronghorn.

Objective 1: Increase hunting opportunities for pronghorn using a variety of harvest strategies.

- **Strategies:**
  - Manage for a 3-year average age of harvested bucks between 2.0 to 3.0 years of age, while taking trends into account.
  - Use archery, rifle, and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.
  - Coordinate with UDWR's outreach section and work with media organizations to inform and educate the public about pronghorn and pronghorn management in Utah.

PRONGHORN UNIT MANAGEMENT PLAN
LA SAL, POTASH/SOUTH CISCO UNIT 13
NOVEMBER 2018

BOUNDARY DESCRIPTION

Grand County—Boundary begins at I-70 and Green River; east along I-70 to the Utah-Colorado state line; south along the state line to the Colorado River; southwest along the Colorado River to the confluence with the Green River; north along the Green River to I-70. USGS 1:100,000 Maps: La Sal, Moab, San Rafael Desert.

LANDOWNERSHIP WITHIN PRONGHORN HABITAT

LANDOWNERSHIP	AREA (Acres)	PERCENT OWNERSHIP
Private	11498	0.03%
Bureau of Land Management	282408	77%
DNR	1432	< 0.01%
Department of Defense	1908	0.01%
Utah Department of Transportation	85	< 0.01%
Utah State Institutional Trust Lands	56441	15%
National Park Service	12672	0.03%
TOTALS	**366444**	

HERD STATUS

These populations of pronghorn reside in the Cisco and Moab deserts south of I-70; east and west of US-191, respectively, and are found throughout the sagebrush-steppe habitat areas on the unit. In 1983, a total of 150 pronghorn were transplanted north of I-70, adjacent to the unit, from Parker Mountain, Utah. Some of these pronghorn likely traveled south across I-70 and established on the South Cisco. Since then the population has fluctuated significantly from 35 to 535 pronghorn depending on precipitation patterns (Table 1). Buck harvest on the unit has varied from 0% to 100% success over the past 12 years, with varied hunter satisfaction as well. There are depredation concerns along the Green and Colorado River corridors on the unit, where pronghorn inhabit agricultural fields. There are also wildlife/vehicle collision concerns on this unit, primarily near Crescent Junction and US-191, due to gates being left open near highways.

MANAGEMENT GOALS AND OBJECTIVES

Population Management Goal: Manage pronghorn to their population objectives and within the carrying capacity of available habitats.

Table 1. Trends in Pronghorn Population and Classification on the La Sal, Potash/South Cisco Unit, 2007-2018.

YEAR	COUNTED PRONGHORN	POPULATION ESTIMATE Using 80% Sightability	BUCKS/ 100 DOES	FAWNS/ 100 DOES	BUCK HARVEST
2007	117	150	-	-	-
2008	107	135	-	-	0
2009	-	-	-	-	2
2010	26	35	-	-	1
2011	87	110	63	63	2
2012	124	155	39	11	4
2013	-	-	35	57	4
2014	185	230	36	58	5
2015	-	-	42	69	3
2016	427	535	45	63	7
2017	-	-	65	39	10
2018	298	375			
AVERAGE	**171**	**216**	**46**	**51**	**4**

Objective 1: Manage the La Sal, Potash/South Cisco pronghorn population to a wintering population objective of 700 pronghorn. This is based on an 80% sightability estimate of aerial surveys conducted in the spring.

Strategies

- Conduct aerial surveys at least every other year to monitor population trends and herd composition.
- Conduct late summer (pre-season) herd classifications annually.
- Use public antlerless harvest as well as mitigation/depredation/private lands hunts to manage herds to population objectives and to address depredation concerns.

Objective 2: Manage for a 3-year average age of harvested animals between 2.0 to 3.0 years of age, while taking trends into account.

Strategies

- Increase hunting opportunities for pronghorn by maximizing permit numbers to reach harvest age objectives.
- Utilize a variety of harvest strategies such as archery and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.

Objective 3: Augment or reintroduce pronghorn populations as needed and as source populations allow.

Strategies

- The Big Flat portion of the unit is on the statewide transplant list and could potentially be augmented, depending on management needs and source availability.

Habitat Management Goal: Conserve and improve pronghorn habitat on the unit.

Objective 1: Maintain or enhance the quantity and quality of pronghorn habitat according to the statewide pronghorn plan.

Strategies:

- Work with public land management agencies to identify, monitor and improve crucial pronghorn habitats.
- Encourage public land managers to minimize, and where necessary, mitigate loss or degradation of pronghorn habitat.
- Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons.
- Keep current pronghorn guzzlers functioning properly. Make improvements as necessary. Identify any new areas where guzzlers may benefit pronghorn.
- Work with public land management agencies to identify, monitor and modify ineffective allotment/right-of-way access.

PRONGHORN HERD UNIT DRAFT MANAGEMENT PLAN
Herd Unit #24/27
Mt Dutton/Paunsaugunt
2018

BOUNDARY DESCRIPTION

Garfield, Kane and Piute counties—Boundary begins at US-89 and SR-62; south on US-89 to US-89A in Kanab; south on US-89A to the Utah-Arizona state line; east on this state line to the Paria River; north along this river to SR-12; west on SR-12 to the Widtsoe-Antimony road; north on this road to SR-22; north on SR-22 to SR-62; west on SR-62 to US-89.

LAND OWNERSHIP (Pronghorn Habitat – 173,040 acres)

RANGE AREA AND APPROXIMATE OWNERSHIP*

Land Ownership Within Pronghorn Habitat	**Area (acres)**	**%**
Bureau of Land Management	44,021	25.43
Private Lands	32,716	18.90
State of Utah School and Institutional Trust Lands Admin. And other State Lands	33,167	19.48
U.S. Forest Service	63,136	36.48
TOTAL	173,040	100

UNIT MANAGEMENT GOALS AND OBJECTIVES

Manage pronghorn to their population objective and within the carrying capacity of available habitats.

POPULATION MANAGEMENT OBJECTIVE

Objective 1: Wintering Herd Objective - Achieve a target population of 700 wintering pronghorn. Maintain a viable balance of bucks, does, and fawns in a properly functioning, healthy herd.

- **Strategies**
  - Conduct aerial surveys at least every other year to monitor population trends and herd composition.
  - Conduct late summer herd (pre-season) classification annually.
  - Use population models and sightability estimates to estimate populations and establish trends.
  - Use antlerless harvest to manage herds to population objectives and to address habitat issues or depredation concerns. Public hunts and Landowner mitigation permits may be used.
  - Implement research or increased monitoring of herd if unit is chronically below population objectives to identify problems and recommend solutions.
  - Investigate and manage diseases that threaten the pronghorn population.
  - Predator control work will be within the guidelines of the UDWR predator management policy and the authorized plan of the administering land management agency.

Habitat Management Goal: Conserve and improve pronghorn habitat throughout the unit.

Objective 1: Maintain or enhance the quantity and quality of pronghorn habitat. Since 2011 the BLM and Forest Service have completed 18,713 acres of habitat treatments where pinyon and juniper trees were removed and seeded with grasses, forbs, and shrubs improving the forage quality of the pronghorn habitat in the John's Valley portion of the unit. In addition there have been 60 ponds cleaned and resealed to provide more water opportunities for wildlife and livestock to better disperse them on the landscape.

- **Strategies**
    - Identify crucial pronghorn habitats and work with public land managers and private landowners to protect and enhance those areas.
    - Assist public land management agencies in monitoring the condition and trend of pronghorn habitats.
    - Work with public land management agencies to minimize, and where necessary, mitigate loss or degradation of pronghorn habitat.
    - Under the Utah Watershed Restoration Initiative, design, implement and monitor the effectiveness of habitat improvement projects to benefit pronghorn.
    - As part of the Utah Migration Initiative, identify migration routes and corridors along with barriers that impede pronghorn. Modify or mitigate any barriers that impede movement of pronghorn.
    - Encourage public land managers, permittees, and wildlife biologists to identify areas of potential conflict for the benefit of livestock and pronghorn.
    - Work with agency and industry representatives to design mitigation or habitat treatments that will offset the impacts of energy development or other surface disturbing actions in pronghorn habitat.
    - In conjunction with other land management agencies, develop and implement a maintenance schedule for existing water developments and develop new water sources as needed.

Recreation Goal: Provide opportunities for hunting and viewing of pronghorn.

Objective 1: Increase hunting opportunities for pronghorn using a variety of harvest strategies.

- **Strategies:**
    - Manage for a 3-year average age of harvested bucks between 2.0 to 3.0 years of age, while taking trends into account.
    - Use archery, rifle, and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.
    - Coordinate with UDWR's outreach section and work with media organizations to inform and educate the public about pronghorn and pronghorn management in Utah.

PRONGHORN UNIT MANAGEMENT PLAN
NINE MILE, RANGE CREEK UNIT 11B
NOVEMBER 2018

BOUNDARY DESCRIPTION

Carbon, Emery, and Duchesne counties **-** Boundary begins on US-191 and the Argyle Canyon road; southeast on this road to the Nine Mile Canyon road; east along this road to its end near Bulls Canyon; south from the end of this road to Nine Mile Creek; east along this creek to the Green River; south along the Green River to Swasey's Beach and the Hastings Road; south along the Hastings Road to the Interstate 70 Frontage Road; southeast along the frontage road to Exit 164 on I-70; west on I-70 to SR-6; northwest on SR-6 to US-191; northeast on US-191 to the Argyle Canyon Road;**.** USGS 1:100,000 maps: Price, Huntington.

LAND OWNERSHIP

LAND OWNERSHIP	AREA (Acres)	PERCENT OWNERSHIP
Private	93697	29%
Bureau of Land Management	195797	61%
DNR	1166	0.3%
Department of Defense	92	0.1%
Utah State Institutional Trust Lands	27401	9%
TOTALS	**318778**	

This includes an additional 109,648 acres added from the previous plan on Whitmore Park and the West Tavaputs Plateau.

HERD STATUS

The bulk of this population of pronghorn resides in the sagebrush-steppe habitat between SR-6 and the western edge of the Tavaputs Plateau. There are also smaller isolated populations of pronghorn at higher elevations in Whitmore Park and atop the West Tavaputs Plateau. Pronghorn were first transplanted to this unit in 1982, with subsequent augmentations in 2005-08. Pronghorn transplanted on to the adjacent Anthro unit have begun colonizing the West Tavaputs Plateau and Whitmore Park in recent years. These areas are now included as pronghorn habitat with this plan. The population has varied from 70 to 310 pronghorn depending on prevailing precipitation patterns (Table 1).

Table 1. Trends in Pronghorn Population and Classification on the Nine Mile, Range Creek Unit, 1999-2018.

YEAR	COUNTED PRONGHORN	POPULATION ESTIMATE Using 80% Sightability	BUCKS/ 100 DOES	FAWNS/ 100 DOES	BUCK HARVEST	DOE HARVEST
1999	225	280	61	68	10	0
2000	183	230	52	31	9	0
2001	248	310	33	22	9	0
2002	146	180	23	38	11	0
2003	164	200	32	4	4	0
2004	164	200	22	7	3	0
2005	179	220	36	27	8	0
2006	193	240	33	90	8	0
2007	237	300	30	48	8	2
2008	63	80	29	29	13	2
2009	112	140	39	9	7	8
2010	105	140	36	31	7	2
2011	84	110	75	50	5	8
2012	150	190	21	32	4	3
2013	58	70	46	9	4	0
2014	164	210	43	37	5	3
2015	174	220	38	72	7	3
2016			21	45	7	4
2017	224	280	31	21	6	11
2018						
AVERAGE	**160**	**200**	**37**	**36**	**7**	**2**

MANAGEMENT GOALS AND OBJECTIVES

Population Management Goal: Manage pronghorn to their population objectives and within the carrying capacity of available habitats.

Objective 1: Manage the Nine Mile, Range Creek pronghorn population to a wintering population objective of 300 pronghorn. This is based on 80% sightability estimate of aerial surveys conducted in the spring. There are depredation concerns each year in the farmlands surrounding Wellington.

Strategies

- Conduct aerial surveys every other year to monitor population trends and herd composition.
- Conduct late summer (pre-season) herd classifications annually.

- Use public antlerless harvest as well as mitigation/depredation/private lands hunts to manage herds to population objectives and to address depredation concerns particularly in the Coal Creek area near Wellington.

Objective 2: Manage for a 3-year average age of harvested animals between 2.0 to 3.0 years of age, while taking trends into account.

Strategies

- Increase hunting opportunities for pronghorn by maximizing permit numbers to reach harvest age objectives.
- Utilize a variety of harvest strategies such as archery and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.

Objective 3: Augment or reintroduce pronghorn populations as needed and as source populations allow.

Strategies

- Augment pronghorn populations on the West Tavaputs Plateau as approved in Statewide Pronghorn Plan.

Habitat Management Goal: Conserve and improve pronghorn habitat on the unit.

Objective 1: Maintain or enhance the quantity and quality of pronghorn habitat according to the statewide pronghorn plan.

Strategies:

- Work with public land management agencies to identify and monitor crucial pronghorn habitats.
- Encourage public land managers to minimize, and where necessary, mitigate loss or degradation of pronghorn habitat.
- Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons.
- Keep current pronghorn guzzlers functioning properly. Make improvements as necessary.

PRONGHORN HERD UNIT DRAFT MANAGEMENT PLAN
Herd Unit #28/29
Panguitch Lake/Zion, North
2018

BOUNDARY DESCRIPTION

Garfield, Iron and Kane counties—Boundary begins at US-89 and SR-14; north on US-89 to SR-20; west on SR-20 to I-15; south on I-15 to SR-14; east on SR-14 to the USFS boundary; south and east on this boundary to US-89; north on US-89 to SR-14.

LAND OWNERSHIP (Pronghorn Habitat – 87,883 acres)

RANGE AREA AND APPROXIMATE OWNERSHIP*

Land Ownership Within Pronghorn Habitat	**Area (acres)**	**%**
Bureau of Land Management	76,307	86.8
Private Lands	3452	3.92
State of Utah School and Institutional Trust Lands Admin. And other State Lands	2670	3.03
U.S. Forest Service	8124	9.24
TOTAL	87,883	100

UNIT MANAGEMENT GOALS AND OBJECTIVES

Manage pronghorn to their population objective and within the carrying capacity of available habitats.

POPULATION MANAGEMENT OBJECTIVE

Objective 1: Wintering Herd Objective - Achieve a target population of 450 wintering pronghorn. Maintain a viable balance of bucks, does, and fawns in a properly functioning, healthy herd.

- **Strategies**
  - Conduct aerial surveys at least every other year to monitor population trends and herd composition.
  - Conduct late summer herd (pre-season) classification annually.
  - Use population models and sightability estimates to estimate populations and establish trends.
  - Use antlerless harvest to manage herds to population objectives and to address habitat issues or depredation concerns. Public hunts and landowner mitigation permits may be used.
  - Implement research or increased monitoring of herd if unit is chronically below population objectives to identify problems and recommend solutions.
  - Investigate and manage diseases that threaten the pronghorn population.
  - Predator control work will be within the guidelines of the UDWR predator management policy and the authorized plan of the administering land management agency.

Habitat Management Goal: Conserve and improve pronghorn habitat throughout the unit.

Objective 1: Maintain or enhance the quantity and quality of pronghorn habitat. Since 2011, 20,878 acres of habitat treatments have been conducted in pronghorn habitat. These projects consisted of pinon and juniper removal, and being reseeded with grasses, forbs, and shrubs. In 2018 the BLM is constructing numerous water troughs throughout these projects to better disperse wildlife and livestock.

- **Strategies**
    - Identify crucial pronghorn habitats and work with public land managers and private landowners to protect and enhance those areas.
    - Assist public land management agencies in monitoring the condition and trend of pronghorn habitats.
    - Work with public land management agencies to minimize, and where necessary, mitigate loss or degradation of pronghorn habitat.
    - Under the Utah Watershed Restoration Initiative, design, implement and monitor the effectiveness of habitat improvement projects to benefit pronghorn.
    - As part of the Utah Migration Initiative, identify migration routes and corridors along with barriers that impede pronghorn. Modify or mitigate any barriers that impede movement of pronghorn.
    - Encourage public land managers, permittees, and wildlife biologists to identify areas of potential conflict for the benefit of livestock and pronghorn.
    - Work with agency and industry representatives to design mitigation or habitat treatments that will offset the impacts of energy development or other surface disturbing actions in pronghorn habitat.
    - In conjunction with other land management agencies, develop and implement a maintenance schedule for existing water developments and develop new water sources as needed.

Recreation Goal: Provide opportunities for hunting and viewing of pronghorn.

Objective 1: Increase hunting opportunities for pronghorn using a variety of harvest strategies.

- **Strategies:**
    - Manage for a 3-year average age of harvested bucks between 2.0 to 3.0 years of age, while taking trends into account.
    - Use archery, rifle, and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.
    - Coordinate with UDWR's outreach section and work with media organizations to inform and educate the public about pronghorn and pronghorn management in Utah.

PRONGHORN HERD UNIT DRAFT MANAGEMENT PLAN
Herd Unit #25
Plateau
2018

BOUNDARY DESCRIPTION

Sevier, Wayne, Piute, and Garfield counties ---.Boundary begins at I-70 and US-89 north of Sigurd; south on US-89 to SR-24; south on SR-24 to SR-62; south on SR-62 to SR-22; south on SR-22 to the Widtsoe-Antimony road; South on the Widtsoe-Antimony road to SR-12; east on SR-12 to the Burr Trail at Boulder; east on the Burr Trail to the Notom road; north on the Notom road to SR-24; east on SR-24 to the Caineville Wash road; north on the Caineville Wash road to I-70; west on I-70 to US-89 north of Sigurd.

LAND OWNERSHIP (Total Area - 2,108,406 acres; Pronghorn Habitat - 448,225 acres)

RANGE AREA AND APPROXIMATE OWNERSHIP*

Ownership	Area (acres)	%
Bureau of Land Management and Grand Staircase/Escalante National Monument	525,924	25
National Parks, Monuments and Historic Sites	197,751	9
Private Lands	162,671	7
US Forest Service	1,048,252	50
State of Utah School and Institutional Trust Lands Admin. And other State Lands	166,166	8
Native American Reservations	28	.00001
Water	7614	.004
TOTAL	2,108,406	100

UNIT MANAGEMENT GOALS AND OBJECTIVES

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, including hunting and viewing. Balance pronghorn herd impacts with other uses, such as authorized livestock grazing privileges, private land development rights, and local economies. Maintain the population at a level that is within the long-term capacity of the available habitat to support.

POPULATION MANAGEMENT OBJECTIVES

Objective 1: Wintering Herd Objective- Achieve a target population objective of 1500 wintering pronghorn (based on annual aerial trend count) on the unit. This target may be managed down to 1200 pronghorn if range conditions dictate. Maintain a viable balance of bucks, does and fawns in a properly functioning, healthy herd.

STRATEGIES

Monitoring - Aerial and/or ground counts will be conducted annually to determine fawn recruitment, population status, buck/doe ratios, and range distribution. In December of 2017 75 GPS radio collars were put on Parker pronghorn to study adult survival and record pronghorn herd movements. These collars were put on both buck (35) and doe (40) pronghorn and the pronghorn were captured by aerial net-gunning from a helicopter at random locations across the Parker and the Row of Pines bench on the lower Mytoge Mountain.

Harvest - Regulated hunting for buck and/or doe pronghorn will be recommended annually as needed to meet management goals and objectives. These will be reviewed by the Regional Advisory Councils and acted upon by the Utah Wildlife Board.

Transplants - The Parker Mountain pronghorn herd is one of the most productive herds in our state. For many years pronghorn from the Parker have been used to augment existing herds or establish new herds in our state. Providing Parker pronghorn to other states have made it possible to acquire other species of wildlife and fish from these states. Since 1975 approximately 5000 Pronghorn have been transplanted from this unit. Twenty-one new herds have been created in Utah from Parker pronghorn transplants.

Transplants from the Parker Mountain will be conducted primarily as a means of supplementing and introducing pronghorn into areas as requests are received both within and outside the DWR. These relocation efforts will be considered only when the trapping will not interfere with population objectives for the Parker Mountain pronghorn herd. Prioritization of specific relocation projects will be made by the big game coordinator.

Trapping and moving pronghorn to other units in this state and to other states will occur as needed to meet management goals and objectives. Trapping is usually done in December. Transplanted pronghorn consist primarily of does and fawns.

Limiting Factors

< Predation - Predation, especially by coyotes, can be a problem for pronghorn fawns. Predator control work will be within the guidelines of the DWR predator management policy and the authorized plan of the administering land management agency.

< Habitat - Sagebrush Steppe habitat on the Parker Mountain consists of Black, Wyoming, Silver and Basin Big Sagebrush and associated grasses and forbs. Scattered pinyon and juniper woodlands are present and are not a pronghorn habitat concern currently. Large areas of aspen and spruce are present. Pronghorn regularly use these areas for foraging and bedding despite limited visibility. Forb production is especially important for healthy fawn survival. Water is fairly well distributed throughout the unit. Livestock water improvements have benefited pronghorn especially on the Parker Range. Winter habitat is the limiting factor for the pronghorn herd on this unit. This unit is comprised primarily of lands administered by the State of Utah School and Institutional Trust Lands Administration, Bureau of Land Management, US Forest Service and Grand Staircase/Escalante National Monument.

< Interspecific competition - Dietary overlap between domestic sheep and pronghorn does not appear to be affecting pronghorn reproduction on the Parker Mountain. Domestic sheep share most of the winter range for the Parker Mountain pronghorn herd.

No significant limitation generated by pronghorn/cattle interactions has been documented. In fact, they generally exhibit a symbiotic relationship. Disturbance by cattle grazing, etc. enhances the production of annual forbs and shrubs. Conversely, the suppression of forbs and shrubs by pronghorn enhances grass production. Pronghorn exhibit only a minimal use of grass

in their diets. Many studies have substantiated this relationship between cattle and pronghorn. Presently, all available pronghorn habitat is used for cattle production.

It is recognized that prairie dogs, a federally listed species, and Greater Sage-grouse, a state sensitive species both live on the Parker Mountain. There may be some dietary overlap between pronghorn and these species. Anything done to improve pronghorn habitat will likely benefit these species as well as livestock.

HABITAT MANAGEMENT OBJECTIVES

< Livestock grazing - Support and encourage regulated livestock grazing on all identified pronghorn habitat within approved grazing allotments.

< Water development - Work with land management agencies and livestock producers to enhance water sources and contribute to pronghorn habitat and gain optimum distribution.

< Vegetation - Actively participate in the development and execution of proposed habitat projects with PARM and other agencies and groups to improve wildlife habitat and increase forage.

HABITAT MANAGEMENT STRATEGIES

< Water development – Since 2010 roughly $100,000 in “WRI and Partner” funds have been spent repairing and lining ponds with clay (roughly 20 ponds) on the Parker Mountain. These projects have been carried out with cooperation and help from SITLA and the Parker Grazing Association. These projects have greatly enhanced the amount and availability of drinking water on the Parker Mountain. DWR Habitat funds and land management agency wildlife funds should be used to assist in repair or enhancement of all available water sources within pronghorn habitat.

< Vegetation management - Vegetative manipulation is crucial for optimum pronghorn production. Forbs provide most nutritional needs for lactating does. Pronghorn evolved with grazers (i.e. bison and/or elk). In the past 20 years PARM has treated several thousand acres of sagebrush steppe for ongoing studies on Sage-grouse and Utah Prairie Dogs. DWR and BLM have treated areas of encroaching pinyon/juniper on the northern portion of the Parker and the BLM is currently going through the NEPA process to treat the remainder of the Parker for conifer invasion. These habitat treatments also benefit livestock and pronghorn. The DWR supports the continued grazing by livestock producers in pronghorn habitat. Areas of concern on this unit are Terza flat and the winter range belt immediately west of the Fremont River valley. Range improvements for livestock and pronghorn are recommended to be cooperative projects.

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit #30
Pine Valley
2018

BOUNDARY DESCRIPTION

Iron and Washington counties—Boundary begins at I-15 and the Utah-Arizona state line; north on I-15 to SR-56; west on SR-56 to the Lund Highway; northwest along the Lund Highway to the Union Pacific railroad tracks at Lund; southwest on the Union Pacific railroad tracks to the Utah-Nevada state line; south on this state line to the Utah-Arizona state line; east on this state line to I-15.

LAND OWNERSHIP (Total Area – 1,665,937 acres; Pronghorn Habitat – 237,141 acres)

RANGE AREA AND APPROXIMATE OWNERSHIP*

Total Area (WMU) Land Ownership	Area (acres)	%
Bureau of Land Management	633,097	38.0025
National Parks, Monuments and Historic Sites	1	<0.0001
Private Lands	441,298	26.4895
State of Utah School and Institutional Trust Lands Admin. And other State Lands	90,631	5.4402
Native American Reservations	28,277	1.6974
Utah Division of Wildlife Resources	848	0.0509
U.S. Forest Service	463,005	27.7925
State Parks	8,781	0.5271
TOTAL	1,665,937	100

Land Ownership Within Pronghorn Habitat	Area (acres)	%
Bureau of Land Management	66,303	27.9592
Private Lands	153,976	64.9302
State of Utah School and Institutional Trust Lands Admin. And other State Lands	16,862	7.1106
TOTAL	237,141	100

UNIT MANAGEMENT GOALS AND OBJECTIVES

Manage pronghorn to their population objective and within the carrying capacity of available habitats

POPULATION MANAGEMENT OBJECTIVE

Objective 1: Wintering Herd Objective - Achieve a target population of 500 wintering pronghorn. This target may be managed down to 350 pronghorn if range conditions dictate. Maintain a viable balance of bucks, does, and fawns in a properly functioning, healthy herd.

- **Strategies**
  - Conduct aerial surveys at least every other year to monitor population trends and herd composition.
  - Conduct late summer (pre-season) herd classification annually.
  - Use population models and sightability estimates to estimate populations and establish trends.
  - Use antlerless harvest to manage herds to population objectives and to address habitat issues or depredation concerns. Public hunts and landowner mitigation permits may be used.

- Implement research or increased monitoring of herd if unit is chronically below population objectives to identify problems and recommend solutions.
- Investigate and manage diseases that threaten the pronghorn population.
- Predator control work will be within the guidelines of the UDWR predator management policy and the authorized plan of the administering land management agency.

Habitat Management Goal: Conserve and improve pronghorn habitat throughout the unit.

Objective 1: Maintain or enhance the quantity and quality of pronghorn habitat.

- **Strategies**
  - Identify crucial pronghorn habitats and work with public land managers and private landowners to protect and enhance those areas.
  - Assist public land management agencies in monitoring the condition and trend of pronghorn habitats.
  - Work with public land management agencies to minimize, and where necessary, mitigate loss or degradation of pronghorn habitat.
  - Under the Utah Watershed Restoration Initiative, design, implement and monitor the effectiveness of habitat improvement projects to benefit pronghorn.
  - As part of the Utah Migration Initiative, identify migration routes and corridors along with barriers that impede pronghorn. Modify or mitigate any barriers that impede movement of pronghorn.
  - Work with public land management agencies to ensure that any new fence construction within pronghorn habitat follows specifications published in the 2006 Pronghorn Management Guides or BLM Fencing Manual. Remove or modify any fences that no longer meet installation objectives.
  - Encourage public land managers, permittees, and wildlife biologists to identify areas of potential conflict for the benefit of livestock and pronghorn.
  - Work with agency and industry representatives to design mitigation or habitat treatments that will offset the impacts of energy development or other surface disturbing actions in pronghorn habitat.
  - In conjunction with other land management agencies, develop and implement a maintenance schedule for existing water developments and develop new water sources as needed.

Recreation Goal: Provide opportunities for hunting and viewing of pronghorn.

Objective 1: Increase hunting opportunities for pronghorn using a variety of harvest strategies.

- **Strategies:**
  - Manage for a 3-year average age of harvested bucks between 2.0 to 3.0 years of age, while taking trends into account.
  - Use archery, rifle, and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.
  - Coordinate with UDWR's outreach section and work with media organizations to inform and educate the public about pronghorn and pronghorn management in Utah.

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit 1
Box Elder
November, 2018

HERD UNIT BOUNDARY DESCRIPTION

Box Elder and Tooele counties - Boundary begins at the Utah-Idaho state line and I-15; south on I-15 to Salt Lake City I-80 junction; west on I-80 to the Nevada state line; north on the Utah-Nevada state line to the Idaho state line; east on the Idaho-Utah state line to I-15.

DESIGNATED PRONGHORN HABITAT LAND OWNERSHIP

APPROXIMATE HABITAT AND OWNERSHIP

summer	crucial		0
	substantial	BLM	458,452
		USFS	215
		Military	0
		Nat Parks, Monuments, etc.	2,088
		Private	839,594
		State Sovereign	7,823
		State Trust Land	69,986
		State Wildlife	1,134
year-long	crucial	BLM	268,831
		USFS	0
		Military	98,289
		Nat Parks, Monuments, etc.	127
		Private	134,665
		State Sovereign	4,572
		State Trust Land	49,589
		State Wildlife	4,531
	substantial		0
		TOTAL ACRES	1,939,896

POPULATION MANAGEMENT OBJECTIVES

- ✓

Unit	Objective	Estimate
1A West Box Elder	180	175
1B Snowville	400	400
1C Promontory	150	60
1D Puddle Valley	300	150
Total	1030	785

- ✓ Age Composition – Maintain a 3-year average age of harvested buck pronghorn between 2 to 3 years of age, while taking trends into account.

- ✓ Population Status – Two of our subunits, A and B, are at objective while the other two are significantly under the objective. The heavy winter of 2017 seemed to displace or reduce the population on the Promontory. Fires continue to be an issue. The area can also be limited by water, but there has been a lot of progress of distributing water over the landscape which has benefited the pronghorn greatly. Overall there was good growth throughout the unit until the 2017 winter.

POPULATION MANAGEMENT STRATEGIES

- ✓ Monitoring - Aerial and/or ground counts will be conducted to determine fawn recruitment, population status, buck/doe ratios, and range distribution. Aerial trend counts will be conducted in late winter/early spring every other year, preseason herd classification will occur annually in July and August. Current aerial surveys are conducted on a 1 mile grid, with Subunit 1C Promontory being surveyed entirely. About 60% of Subunit 1B Snowville is surveyed (80% of occupied habitat). Past surveys with ground truth follow up has shown alfalfa field sightability of less than 50%.

- ✓ Population - Hunts for bucks and/or doe/fawn pronghorn will be recommended annually as needed to meet management goals. Hunt recommendations will be reviewed by the Regional Advisory Councils and acted upon by the Utah Wildlife Board.

- ✓ Population supplementation – Population supplementation will only be considered for the Puddle Valley subunit (1D). Supplementation may occur when:

    - Fawn to doe ratios fall below 25 fawns/ 100 does and/ or
    - aerial trend counts of <100 animals

Limiting Factors

- ✓ Predation - Predation, especially by coyotes, can be limiting to pronghorn fawn survival and recruitment.

- ✓ Habitat – About 80% of this population is tied to agricultural fields, either CRP or alfalfa fields. In the last 10 years the Pilot Mtn pronghorn have transitioned from 10-20% cropland utilization to almost 90% dependence. Animals on most of this unit winter on salt desert shrubland. Rangeland habitat could use some work in the fire sites on BLM that now consist of pure crested wheatgrass or Russian thistle sites if non-rehabbed. There has been extensive spraying of 2,4D on 20,000 acres of fawning grounds in the Snowville Subunit. Year-round extensive ATV use has been identified as a potential limiting factor on the Snowville Subunit as far back as 1998.

- ✓ Interspecific competition - No significant, long-term limitations generated by interspecific competition are evident. Pronghorn and livestock can generally exhibit a symbiotic relationship. Direct competition for winter browse forage has occurred in other parts of the State during droughts when vegetative production was severely reduced, but there is no indication of that occurring in this unit. Dependent upon season of use, vegetative disturbance by cattle grazing may enhance the production of annual forbs and shrubs. Conversely, the suppression of forbs and shrubs by pronghorn may enhance grass production. Pronghorn exhibit minimal use of grass in their diets. Presently, all pronghorn habitat is grazed by domestic stock.

- ✓ Depredation **–**
    - Subunit 1A Pilot Mtn- Approximately 90% of antelope now use cropland. Since 2002 all landowners have been content with proactively mailed fee/free mitigation permits used to control crop loss. No payments are being made.
    - Subunit 1B Snowville- 35,000 acres of pronghorn CWMUs have virtually eliminated depredation complaints. All other depredation has been handled with proactive mitigation permits with no damage payments being made.
    - Subunit 1 C Promontory- 90% of this population is crop oriented. All depredation has been handled with public hunting or proactive landowner mitigation permits. No damage payments have been made.
    - Subunit 1D Puddle Valley- None

HABITAT MANAGEMENT OBJECTIVES

- ✓ Livestock grazing - Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons.

- ✓ Water development – Develop, repair and enhance water sources to improve pronghorn habitat and distribution were possible and prudent.

- ✓ Vegetation - Support and encourage land management agencies and livestock producers in range improvement practices and identify, with the Habitat Section, projects that could improve rangeland for pronghorn.

HABITAT MANAGEMENT STRATEGIES

- ✓ Water development - Due to low annual precipitation, ponds and other natural run-off catchments are limited in their duration. Development of longer duration sources of water my help distribute animals more uniformly across the landscape and decrease damage by pronghorn to agricultural interests. It is worth noting that some literature indicates that pronghorn may only need limited open water sources as they receive a large amount of water from forage. Their attraction to agricultural interests may have more to do with the green forbs (alfalfa) that are available in the fields than it does with the water sources there.

- ✓ Vegetation management – Low precipitation and the invasion threat of weedy species such as cheat grass, halogeton and Russian thistle limit possibilities for vegetation manipulation projects. The best approach for maintaining or altering vegetative community condition may be through properly targeting acceptable grazing utilization levels “green strips”. Manipulation by both mechanical means and grazing to encourage growth of forbs could help enhance pronghorn distribution across the landscape and encourage animals to graze in areas away from agricultural fields.

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit 18
Rush Valley
November 2018

HERD UNIT BOUNDARY DESCRIPTION

Tooele/Utah/Salt Lake Counties - Boundary begins at the junction of Highway I-80 and the north end of the Stanbury Mountains; south along the summits of the Stansbury, Onaqui and Sheeprock Mountains to Vernon Creek - Cherry Creek - Death Canyon road to SR-36; south on SR-36 to US-6; south and west on US-6 to CR-1812; east on CR-1812 to SR-132; east on CR-132 to I-15; north on I-15 to I-80; west on I-80 to the north end of the Stansbury Mountains. **Tooele, Rush Valley, Lyndyll, Provo, Nephi**.

DESIGNATED PRONGHORN HABITAT LAND OWNERSHIP

HABITAT AND APPROXIMATE OWNERSHIP*

	Yearlong range	
Ownership	**Area (acres)**	**%**
BLM	120,977	38.38
USFS	17,060	5.42
SITLA	28,840	9.15
MILITARY	62	.02
DNR	728	.23
PRIVATE	147,508	46.8
TOTAL	315,175	100

UNIT MANAGEMENT GOALS

- Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, to include hunting and viewing.
- Balance the pronghorn population with human needs, such as authorized livestock grazing rights, private land development rights, and local economies.
- Maintain the population at a level that is within the long term habitat capability.
- Manage for a 3-year average age of harvested animals between 2.0 to 3.0 years of age, while taking trends into account.

POPULATION MANAGEMENT OBJECTIVES

- Target Winter Herd Size - Achieve a target wintering population size of 400 pronghorn (fixed wing aircraft-counted number) distributed across the principle areas of the unit. The management plan will be reviewed on five-year intervals to assess herd parameters and the validity of management goals and objectives.

- Population Status - The pronghorn population has increased since reintroduction in the mid 1980's then peaked in 2008. Currently the population appears to be stable. The following table and graph summarize the pronghorn population status as reflected through aerial spring trend count surveys. Surveys are interrupted and/or are frequently unable to be scheduled due to airspace needs.

Spring flight trend counts:

YEAR	BUCKS	DOES	UNCLASS	TOTAL	BUCKS/100
2009	**65**	**295**		**360**	**22**
2010	**30**	**187**		**217**	16
2011	**92**	**171**		**263**	54
2012	**28**	**75**		**103**	37
2014	**54**	**198**		**252**	27

POPULATION MANAGEMENT STRATEGIES

- Population supplementation – population supplementation will be considered as part of this management plan when:
    - Fawn to doe ratios fall below 25 fawns/ 100 does and/ or
    - aerial trend counts of <50% of the population object

- Monitoring - Aerial and/or ground counts will be conducted annually to determine fawn recruitment, population status, buck/doe ratios, and range distribution. Aerial trend counts will be conducted in late winter/early spring, preseason herd classification will occur in July and August.

- Population - Management hunts for bucks and/or doe/fawn pronghorn will be recommended annually as needed to meet management goals. These recommended hunts will be reviewed by the Regional Advisory Councils and acted upon by the Utah Wildlife Board.

Limiting Factors

- Predation - Predation, especially by coyotes, can be limiting to pronghorn fawn survival and recruitment. Predator control work deemed prudent will be conducted within the guidelines of the DWR predator management policy/plan and the authorized plan of the administering land management agency.

- Habitat - Vegetative communities that dominate the areas of the herd unit frequented by pronghorn include salt desert shrub types on the lower elevation zones. Annual precipitation generally varies from 6 to 8 inches in these vegetation types. Forb production is important for healthy fawn survival. Water distribution can be limiting but has been provided by the BLM, DWR and other conservation interests through guzzlers or other devices. During the past decade of drought, the poor maintenance condition of many of these artificial water sources limited their effectiveness. Repairs have been made and are continuing.

- Interspecific competition - No significant, long-term limitations generated by interspecific competition are evident. Pronghorn and livestock can generally exhibit a symbiotic relationship. Direct competition for winter browse forage has occurred during the drought when vegetative production was severely reduced. Dependent upon season of use, vegetative disturbance by cattle grazing may enhance the production of annual forbs and shrubs. Conversely, the suppression of forbs and shrubs by pronghorns may enhance grass production. Pronghorns exhibit minimal use of grass in their diets. Presently, all pronghorn habitat is grazed by domestic stock.

- Development- Community development and land annexation is reducing availability of once hunted lands. As communities spread over the landscape and annex lands once hunted, new firearms restrictions are places on the lands reducing any hunting opportunity and depredation control.

HABITAT MANAGEMENT OBJECTIVES

- Livestock grazing - Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons.

- Water development - Develop, repair and enhance water sources to improve pronghorn habitat and distribution.

- Vegetation - Support and encourage land management agencies and livestock producers in range improvement practices.

HABITAT MANAGEMENT STRATEGIES

- Water development - Due to low annual precipitation, ponds and other natural run-off catchments are limited in their duration. The construction and distribution of man-made guzzlers has provided a boon to pronghorn welfare and population distribution. These structures can be repaired and increased to aid all wildlife in the salt desert shrub communities.

- Vegetation management - Low precipitation and the invasion threat of weedy species such as cheat grass, halogeton and Russian thistle limit possibilities for vegetation manipulation projects. The best approach for maintaining or altering vegetative community condition may be through properly targeting acceptable grazing utilization levels and habitat protection through the use of “green strips”. Support for established domestic grazing under these parameters will continue.

PRONGHORN UNIT MANAGEMENT PLAN
SAN JUAN, HATCH POINT UNIT 14
NOVEMBER 2018

BOUNDARY DESCRIPTION

Grand and San Juan counties--Boundary begins at the Colorado River and US-191 at Moab; south on US-191 to SR-46; east on SR-46 to the Utah-Colorado state line; south on this state line to US-491; west on US-491 to US-191; north on US-191 to SR-211; west on SR-211 to the Canyonlands National Park boundary; north on this boundary to the Colorado River; north on this river to US-191 at Moab. USGS 1:100,000 Maps: Blanding, La Sal, Moab.

LANDOWNERSHIP WITHIN PRONGHORN HABITAT

LANDOWNERSHIP	AREA (Acres)	PERCENT OWNERSHIP
Private	9326	6%
Bureau of Land Management	130917	81%
Utah Department of Transportation	56	< 0.1%
Utah State Institutional Trust Lands	20874	13%
TOTALS	**161173**	

HERD STATUS

The majority of pronghorn on this unit reside in the sagebrush-steppe habitat between Hatch Point and SR-211, west of US-191. There are also smaller isolated populations of pronghorn in the sagebrush-steppe habitat east of US-191. Pronghorn were first transplanted onto this unit in 1971, with 84 pronghorn from Lusk, WY. and 88 pronghorn from Daggett Co., UT. There have also been subsequent augmentations in 1986 with 150 pronghorn from Parker Mtn., UT and in 2014 with 74 pronghorn, also from the Parker Mtn. The population has fluctuated significantly from 66 to 240 pronghorn depending on precipitation patterns (Table 1). There are predation concerns on this unit, primarily because of the unique landscape features of the unit, with open mesa tops interlaced with timbered, ledgy, canyons. Buck harvest on the unit has been 100% success over the past 20 years, with high hunter satisfaction. There is very little agricultural production within pronghorn habitat on the unit, so there have been no agricultural depredation issues on the unit.

MANAGEMENT GOALS AND OBJECTIVES

Population Management Goal: Manage pronghorn to their population objectives and within the carrying capacity of available habitats.

Table 1. Trends in Pronghorn Population and Classification on the San Juan, Hatch Point Unit, 1999-2018.

YEAR	COUNTED PRONGHORN	POPULATION ESTIMATE Using 80% Sightability	BUCKS/ 100 DOES	FAWNS/ 100 DOES	BUCK HARVEST
1999	134	168	36	12	-
2000	164	205	56	14	3
2001	129	161	21	13	3
2002	89	111	29	0	3
2003	106	133	15	8	2
2004	93	116	19	31	2
2005	126	158	36	42	2
2006	127	159	45	43	2
2007	111	139	44	19	2
2008	144	180	41	20	2
2009	166	208	33	6	2
2010	123	154	22	13	2
2011	53	66	42	4	2
2012	106	133	23	14	2
2013	58	73	37	44	2
2014	100	125	24	59	3
2015	192	240	40	55	3
2016	191	239	44	24	4
2017	143	179	43	4	6
2018	161	201			
AVERAGE	**126**	**157**	**34**	**22**	**3**

Objective 1: Manage the San Juan, Hatch Point pronghorn population to a wintering population objective of 300 pronghorn. This is based on an 80% sightability estimate of aerial surveys conducted in the spring.

Strategies

- Conduct aerial surveys at least every other year to monitor population trends and herd composition.
- Conduct late summer (pre-season) herd classifications annually.
- Use public antlerless harvest as well as mitigation/depredation/private lands hunts to manage herds to population objectives and to address depredation concerns.

Objective 2: Manage for a 3-year average age of harvested animals between 2.0 to 3.0 years of age, while taking trends into account.

Strategies

- Increase hunting opportunities for pronghorn by maximizing permit numbers to reach harvest age objectives.
- Utilize a variety of harvest strategies such as archery and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.

Objective 3: Augment or reintroduce pronghorn populations as needed and as source populations allow.

Strategies

- This unit is on the statewide transplant list and could potentially be augmented, depending on management needs and source availability.

Habitat Management Goal: Conserve and improve pronghorn habitat on the unit.

Objective 1: Maintain or enhance the quantity and quality of pronghorn habitat according to the statewide pronghorn plan.

Strategies:

- Work with public land management agencies to identify, monitor and improve crucial pronghorn habitats.
- Encourage public land managers to minimize, and where necessary, mitigate loss or degradation of pronghorn habitat.
- Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons.
- Keep current pronghorn guzzlers functioning properly. Make improvements as necessary. Identify any new areas where guzzlers may benefit pronghorn.
- Work with public land management agencies to identify allotment boundary fencing that may need modified or updated to promote pronghorn movements.

PRONGHORN UNIT MANAGEMENT PLAN
SAN RAFAEL, NORTH Subunit
SAN RAFAEL, DESERT Subunit
Unit 12
NOVEMBER 2018

BOUNDARY DESCRIPTION

San Rafael North -- Carbon, Emery and Sevier counties--Boundary begins at SR-10 and US-6 at Price; east and south on US-6 to I-70; west on I-70 to SR-10; north on SR-10 to US-6. Excludes all CWMUs. USGS 1:100,000 Maps: Huntington, Manti, Price, Salina, San Rafael Desert.

San Rafael Desert (includes the Henry Mountain Hunt Unit) -- Emery, Garfield, Kane and Wayne counties--boundary begins at the junction of I-70 and the Green River; south along the Green River to the Colorado River; south along the Colorado River and the west shore of Lake Powell to SR-276 at Bullfrog; north along SR-276 to the Notom road; north along this road to SR-24; east on SR-24 to Caineville and the Caineville Wash road; north along the Caineville Wash road to the Cathedral Valley road; west on the Cathedral Valley road to Rock Springs Bench and the Last Chance Desert road; north on the Last Chance Desert road to the Blue Flats road; north and east on the Blue Flats road to the Willow Springs road; north on the Willow Springs road towards Windy Peak and the Windy Peak road; west on the Windy Peak road to SR-72; north on SR-72 to I-70; east on I-70 to the Green River. USGS 1:100,000 Maps: Escalante, Hanksville, Hite Crossing, Huntington, Loa, Salina, and San Rafael Desert.

LAND OWNERSHIP

SAN RAFAEL, NORTH	AREA (Acres)	PERCENT OWNERSHIP
Private	89,524	11.71
Bureau of Land Management	569,655	74.51
DNR	3,575	0.47
Department of Defense	0	0
Utah State Institutional Trust Lands	101,805	13.31
TOTALS	**764,559**	**100**

SAN RAFAEL, DESERT	AREA (Acres)	PERCENT OWNERSHIP
Private	19,490	1.62
Bureau of Land Management	1,044,177	86.63
DNR	4,002	0.33
Department of Defense	0	0
Utah State Institutional Trust Lands	132,064	10.95
Goblin Valley State Park	2,909	0.24
TOTALS	**1,205,266**	**100**

HERD STATUS

San Rafael North: The majority of pronghorn on this unit reside in the sagebrush steppe and salt-desert shrub habitat on the San Rafael area north of of I-70. Pronghorn were translocated to this unit in 1972 with an initial release of 157 animals. Subsequent releases added 72 more in 2005-2006. Pronghorn densities have increased to their highest number over the last two years flown with the highest densities being in the northwestern portion of the unit. The population has fluctuated significantly from 671 to 1522 pronghorn depending on precipitation patterns over the past ten years (Table 1). Agricultural properties between Cleveland to Wellington in this area provide plentiful water and forage that attract pronghorn herds and cause depredation concerns. Doe hunts are in place to reduce numbers in these areas.

Table 1. Trends in Pronghorn Population and Classification—San Rafael, North sub-unit 2008-2018.

YEAR	COUNTED PRONGHORN	POPULATION EST. 80% Sightability	BUCKS/ 100 DOES	FAWNS/ 100 DOES	BUCK HARVEST	DOE HARVEST
2008	875	1094	28	40	46	0
2009	Incomplete flight		31	20	58	0
2010	No flight		40	42	61	0
2011	537	671	24	34	45	0
2012	538	673	29	40	37	0
2013	281	351	26	38	38	0
2014	835	1043	24	46	41	0
2015	No flight		33	75	42	0
2016	1077	1346	47	60	44	0
2017	No flight		73	56	46	0
2018	1218	1522				

San Rafael Desert: The majority of pronghorn on this unit reside in the salt-desert shrub habitat on the San Rafael area south of I-70. Pronghorn translocations to this unit began in 1949 with an initial release of 35 animals. Four more translocations took place between 1984 and 2006 when 358 pronghorn were released. Pronghorn densities have been increasing but densities on this unit rise and fall with precipitation levels (Table 2). There are private lands on the southern portion of this unit but are not abundant and pronghorn have not been known to occupy private land. This is a large unit with quality habitat and it has great potential for higher numbers of pronghorn.

The Henry Mountain unit does not have a viable pronghorn population. The highest count to date is 37 in 2017. The unit is included in the San Rafael Desert boundary for hunting opportunity only and is not included in landownership tables.

Table 2. Trends in Pronghorn Population and Classification—San Rafael, Desert sub-unit 2007-2018.

YEAR	COUNTED PRONGHORN	POPULATION EST. 80% Sightability	BUCKS/ 100 DOES	FAWNS/ 100 DOES	BUCK HARVEST	DOE HARVEST
2008	280	350	28	40	11	0
2009	Incomplete flight		31	20	20	0
2010	No flight		39	42	20	0
2011	234	293	35	15	18	0
2012	123	154	22	4	4	0
2013	307	384	23	27	6	0
2014	227	284	27	24	5	0
2015	189	236	11	64	5	0
2016	No flight		26	43	9	0
2017	377	471	29	22	7	0
2018	No flight					

MANAGEMENT GOALS AND OBJECTIVES

Population Management Goal: Manage pronghorn to their population objectives and within the carrying capacity of available habitats.

Objective 1:
San Rafael North Subunit—Manage the population to a wintering population objective of 1200 pronghorn. This is based on an 80% sightability estimate of aerial surveys conducted in the spring.

San Rafael Desert Subunit— Manage the San Rafael Desert pronghorn population to a wintering population objective of 600 pronghorn. This is based on 80% sightability estimate of aerial surveys conducted in the spring.

As part of our Pronghorn Management process, we have reviewed and updated the pronghorn habitat layer. Due to the current distribution of pronghorn throughout suitable habitat, the habitat map has expanded to include these use areas. Analyzing potential pronghorn numbers to available habitat, we believe that the unit can sustain a population of 600 pronghorn.

Strategies

- Conduct aerial surveys every other year to monitor population trends and herd composition.
- Conduct late summer (pre-season) herd classifications annually.
- Use public antlerless harvest (including two doe permits) as well as mitigation/depredation/private lands hunts to manage herds to population objectives and to address depredation concerns.

- Monitor drought trends and decrease population numbers when needed using additional antlerless harvest to protect the range resource.
- Provide increased hunting opportunity on the Henry Mountains Unit, a low density pronghorn area.

Objective 2: Manage for a 3-year average age of harvested animals between 2.0 to 3.0 years of age, while taking trends into account.

Strategies

- Increase hunting opportunities for pronghorn by maximizing permit numbers to reach harvest age objectives.
- Utilize a variety of harvest strategies such as archery and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.

Objective 3: Augment or reintroduce pronghorn populations as needed and as source populations allow.

Strategies

- Augment pronghorn populations on low density areas when habitat and water sources are available to sustain higher densities, and as approved in Statewide Pronghorn Plan.

Habitat Management Goal: Conserve and improve pronghorn habitat.

Objective 1: Maintain or enhance the quantity and quality of pronghorn habitat according to the statewide pronghorn plan.

Strategies:

- Work with public land management agencies to identify and monitor crucial pronghorn habitats.
- Encourage public land managers to minimize, and where necessary, mitigate loss or degradation of pronghorn habitat.
- Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons.
- Keep current pronghorn guzzlers functioning properly. Make improvements as necessary.

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit 19
Snake Valley
November 2018

HERD UNIT BOUNDARY DESCRIPTION

Snake Valley

Tooele, Juab and Millard Counties - Boundary begins at Knolls on I-80; south cross country to the north end of the Dugway Mountains; south along the summits of the Dugway, Thomas, Big Drum and Little Drum Mountains toUS-6; west on US-6 to the Utah-Nevada State line; north along this state line to I-80; east on I-80 to Knolls. **USGS 1:100,000 Maps: Delta, Tule Valley, Fish Springs, Wildcat Mountain, Bonneville Salt Flats, Ely.** Boundary questions? Call DWR Springville, 801-491-5678.

DESIGNATED PRONGHORN HABITAT LAND OWNERSHIP

HABITAT AND APPROXIMATE OWNERSHIP*

	Yearlong range	
Ownership	**Area (acres)**	**%**
MILITARY	924469	26.4
BLM	2153542	61.5
SITLA	251648	7.2
USFWS REFUGE	14918	0.4
DWR	0	0
PRIVATE	113777	3.2
TRIBAL TRUST LANDS	45341	1.3
TOTAL	3503695	100

UNIT MANAGEMENT GOALS

- Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, to include hunting and viewing.
- Balance the pronghorn population with human needs, such as authorized livestock grazing rights, private land development rights, and local economies.
- Maintain the population at a level that is within the long term habitat capability.
- Manage for a 3-year average age of harvested animals between 2.0 to 3.0 years of age, while taking trends into account.

POPULATION MANAGEMENT OBJECTIVES

- Target Winter Herd Size - Achieve a target wintering population size of 900 pronghorn (fixed wing aircraft-counted number) distributed across the principle areas of the unit (Ibapah, Callao, Honey Comb Hills, Eskdale, Conger and Confusion Mts.). The management plan will be reviewed every

five years to assess herd parameters and the validity of management goals and objectives.

- Population Status - The pronghorn population has declined steadily since reaching a peak of 958 animals in 1999. The following table and graph summarize the pronghorn population status as reflected through aerial spring trend count surveys. Surveys are interrupted and/or are frequently unable to be scheduled due to airspace needs. This results in incomplete counts and makes it difficult to get accurate and complete population estimates. Some years Riverbed and Snake Valley classification counts are combined to provide a statistical sample size. Combining similar low counts of similar units helps better predict fawn survival and buck/doe ratios.

YEAR	BUCKS	DOES	UNCLASS	TOTAL	BUCKS/100
2004	89	254		343	35
2005	106	380		486	28
2006	76	293		369	26
2007	Incomplete count				
2008	Incomplete count				
2010	77	226		303	34
2012	45	162		207	28
2013	72	262	118	452	27
2014	78	135		213	58
2017	93	195		288	48

POPULATION MANAGEMENT STRATEGIES

- Population supplementation – Population supplementation will be considered as part of this management plan when
    - Fawn to doe ratios fall below 25 fawns/ 100 does and/ or
    - Aerial trend count falls < 300 animals

- Monitoring - Aerial and/or ground counts will be conducted annually to determine fawn recruitment, population status, buck/doe ratios, and range distribution. Aerial trend counts will be conducted in late winter/early spring, preseason herd classification will occur in July and August.

- Population - Management hunts for bucks and/ or doe/fawn pronghorn will be recommended annually as needed to meet management goals. These will be reviewed by the Regional Advisory Councils and acted upon by the Utah Wildlife Board.

Limiting Factors

- Predation - Predation, especially by coyotes, can be limiting to pronghorn fawn survival and recruitment. Predator control work deemed prudent will be conducted within the guidelines of the DWR predator management policy/plan and the authorized plan of the administering land management agency..

- Habitat - Vegetative communities that dominate the areas of the herd unit frequented by pronghorn include salt desert shrub types on the lower elevation zones. Annual precipitation

generally varies from 6 to 8 inches in these vegetation types. Forb production is important for healthy fawn survival. Water distribution can be limiting but has been provided by the BLM, DWR and other conservation interests through guzzlers or other devices. During the past decade of drought, the poor maintenance condition of many of these artificial water sources limited their effectiveness. Repairs have been made and are continuing.

- Interspecific competition - No significant, long-term limitations generated by interspecific competition are evident. Pronghorn and livestock can generally exhibit a symbiotic relationship. Direct competition for winter browse forage has occurred during the drought when vegetative production was severely reduced. Dependent upon season of use, vegetative disturbance by cattle grazing may enhance the production of annual forbs and shrubs. Conversely, the suppression of forbs and shrubs by pronghorns may enhance grass production. Pronghorns exhibit minimal use of grass in their diets. Presently, all pronghorn habitat is grazed by domestic stock.

HABITAT MANAGEMENT OBJECTIVES

- Livestock grazing - Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons.

- Water development - Develop, repair and enhance water sources to improve pronghorn habitat and distribution.

- Vegetation - Support and encourage land management agencies and livestock producers in range improvement practices.

HABITAT MANAGEMENT STRATEGIES

- Water development - Due to low annual precipitation, ponds and other natural run-off catchments are limited in their duration. The construction and distribution of man-made guzzlers has provided a boon to pronghorn welfare and population distribution. These structures can be repaired and increased to aid all wildlife in the salt desert shrub communities.

- Vegetation management - Low precipitation and the invasion threat of weedy species such as cheat grass, halogeton and Russian thistle limit possibilities for vegetation manipulation projects. The best approach for maintaining or altering vegetative community condition may be through properly targeting acceptable grazing utilization levels and habitat protection through the use of “green strips”. Support for established domestic grazing under these parameters will continue.

PRONGHORN HERD UNIT DRAFT MANAGEMENT PLAN
Herd Unit #20
Southwest Desert
2018

BOUNDARY DESCRIPTION

Beaver, Iron and Millard counties—Boundary begins at US-50/6 and the Utah-Nevada state line; east on US-50/6 to SR-257; south on SR-257 to SR-21; south on SR-21 to SR-130; south on SR-130 to I-15; south on I-15 to SR-56; west on SR-56 to the Lund Highway; northwest on the Lund Highway to the Union Pacific railroad tracks at Lund; southwest on the Union Pacific railroad tracks to the Utah-Nevada state line; north on this state line to US-50/6.

LAND OWNERSHIP (Total Area – 3,330,391 acres; Pronghorn Habitat – 2,083,252 acres)

RANGE AREA AND APPROXIMATE OWNERSHIP*

Total Area (WMU) Land Ownership	**Area (acres)**	%
Bureau of Land Management	2,603,395	78.1708
Private Lands	348,667	10.4693
State of Utah School and Institutional Trust Lands Admin. And other State Lands	312,515	9.3837
Utah Division of Wildlife Resources	10,260	0.3081
U.S. Forest Service	55,545	1.6678
State Parks	10	0.0003
TOTAL	3,330,391	100.0000

Land Ownership Within Pronghorn Habitat	**Area (acres)**	%
Bureau of Land Management	1,560,000	74.8829
Private Lands	271,637	13.0391
State of Utah School and Institutional Trust Lands Admin. And other State Lands	199,973	9.5991
Utah Division of Wildlife Resources	11	0.0005
U.S. Forest Service	51,631	2.4784
TOTAL	2,083,252	100.0000

UNIT MANAGEMENT GOALS AND OBJECTIVES

Manage pronghorn to their population objective and within the carrying capacity of available habitats.

POPULATION MANAGEMENT OBJECTIVE

Objective 1: Wintering Herd Objective - Achieve a target population of 3200 wintering pronghorn. This target may be managed down to 2000 pronghorn if range conditions dictate. Maintain a viable balance of bucks, does, and fawns in a properly functioning, healthy herd.

- **Strategies**
  - Conduct aerial surveys at least every other year to monitor population trends and herd composition.

- Conduct late summer (pre-season) herd classification annually.
- Use population models and sightability estimates to estimate populations and establish trends.
- Use antlerless harvest to manage herds to population objectives and to address habitat issues or depredation concerns. Public hunts and landowner mitigation permits may be used.
- Implement research or increased monitoring of herd if unit is chronically below population objectives to identify problems and recommend solutions.
- Investigate and manage diseases that threaten the pronghorn population.
- Work with CWMU operators to manage local populations to benefit public and private interests.
- Predator control work will be within the guidelines of the UDWR predator management policy and the authorized plan of the administering land management agency.

Habitat Management Goal: Conserve and improve pronghorn habitat throughout the unit.

Objective 1: Maintain or enhance the quantity and quality of pronghorn habitat.

- **Strategies**
  - Identify crucial pronghorn habitats and work with public land managers and private landowners to protect and enhance those areas.
  - Assist public land management agencies in monitoring the condition and trend of pronghorn habitats.
  - Work with public land management agencies to minimize, and where necessary, mitigate loss or degradation of pronghorn habitat.
  - Under the Utah Watershed Restoration Initiative, design, implement and monitor the effectiveness of habitat improvement projects to benefit pronghorn.
  - As part of the Utah Migration Initiative, identify migration routes and corridors along with barriers that impede pronghorn. Modify or mitigate any barriers that impede movement of pronghorn.
  - Work with public land management agencies to ensure that any new fence construction within pronghorn habitat follows specifications published in the 2006 Pronghorn Management Guides or BLM Fencing Manual. Remove or modify any fences that no longer meet installation objectives.
  - Encourage public land managers, permittees, and wildlife biologists to identify areas of potential conflict for the benefit of livestock and pronghorn.
  - Work with agency and industry representatives to design mitigation or habitat treatments that will offset the impacts of energy development or other surface disturbing actions in pronghorn habitat.
  - In conjunction with other land management agencies, develop and implement a maintenance schedule for existing water developments and develop new water sources as needed.
  - Work with CWMU operators to maintain and improve pronghorn habitat.

Recreation Goal: Provide opportunities for hunting and viewing of pronghorn.

Objective 1: Increase hunting opportunities for pronghorn using a variety of harvest strategies.

- **Strategies:**
  - Manage for a 3-year average age of harvested bucks between 2.0 to 3.0 years of age, while taking trends into account.
  - Use archery, rifle, and muzzleloader hunts to distribute hunters and provide additional hunting opportunities.
  - Coordinate with UDWR's outreach section and work with media organizations to inform and educate the public about pronghorn and pronghorn management in Utah.

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit 2
Cache, North Rich
November 2018

HERD UNIT BOUNDARY DESCRIPTION

Cache, Rich, Weber, and Box Elder counties - Boundary begins at the Utah-Idaho state line and I-15; south on I-15 to US-91; northeast on US-91 to SR-101; east on SR-101 to Hardware Ranch and USFS Road 054 (Ant Flat); south on USFS 054 to SR-39; east on SR-39 to SR-16; southeast on SR-16 to the Utah-Wyoming state line; north along this state line to the Utah-Idaho state line; west along this state line to I-15.

DESIGNATED PRONGHORN HABITAT LAND OWNERSHIP

APPROXIMATE HABITAT AND OWNERSHIP

summer	crucial		0
	substantial	BLM	103,795
		USFS	342
		Military	0
		Nat Parks, Monuments, etc.	0
		Private	80,980
		State Sovereign	0
		State Trust Land	30,302
		State Wildlife	0
year-long	crucial	BLM	31,346
		USFS	0
		Military	0
		Nat Parks, Monuments, etc.	0
		Private	12,004
		State Sovereign	0
		State Trust Land	4,601
		State Wildlife	1,734
	substantial		0
		TOTAL ACRES	265,104

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, to include hunting and viewing. Balance the pronghorn population with human needs, such as authorized livestock grazing rights, private land development rights, and local economies. Maintain the population at a level that is within the long-term habitat capability.

POPULATION MANAGEMENT OBJECTIVES

- ✓ Target Winter Herd Size - Achieve an estimated wintering population size of 800 pronghorn (using a fixed-wing aircraft trend count with a sightability factor) distributed across wintering areas on the Woodruff Coop, east of the Crawford Mountains, west of the towns of Woodruff and Randolph, and east of Bear Lake. A sub-objective of this population size objective will be to keep the portion of the population north and west of Woodruff to the Idaho State line at less than 500 wintering animals. The remaining 300 animals in the objective should be those wintering east of the Crawford Mountains and on the Woodruff Coop.

- ✓ Age Composition – Maintain a 3-year average age of harvested buck pronghorn between 2.0 to 3.0 years of age, while taking trends into account.

- ✓ Population Status – Antlerless harvest is used to maintain population growth, but continued immigration keeps the population higher than would be expected if the population were closed. In

spite of aggressive antlerless harvest, this population is still slightly increasing. Some wintering animals on the unit disperse to the Morgan/South Rich WMU and into Wyoming.

CURRENT POPULATION STATUS

- ✓ The latest population estimate is from a March 2018 flight and is estimated to be around 750 wintering animals, of which 500 animals were north and west of Woodruff and 250 were east of Highway 16 on the south end of the Crawford Mountains. The latest ratio estimates are from 2017 pre-season classification data and are 127 bucks/100 does and 68 fawns/100 does.

POPULATION MANAGEMENT STRATEGIES

- ✓ Monitoring - Aerial and/or ground counts will be conducted annually to determine fawn recruitment, population status, buck/doe ratios, and range distribution. Aerial trend counts will be conducted in late winter/early spring every other year, preseason herd classification will occur in July and August annually.

- ✓ Population - Hunts for bucks and/ or doe/fawn antelope will be recommended annually as needed to meet management goal.

Limiting Factors

- ✓ Predation - Predation, especially by coyotes, can be limiting to pronghorn fawn survival and recruitment. That does not seem to be the case on this unit. The population is growing despite generous antlerless harvest, so predation by non-humans does not appear to be limiting.

- ✓ Habitat – Animals in the area primarily use shrub-steppe habitat that borders on agricultural fields, with a minority of the population using shrub-steppe to mountain type habitats along the border between Cache and Rich Counties. Rangeland habitat in the area west of Woodruff and north to Highway 30 could benefit from the revitalization of forbs in the understory component of the habitat, but does not seem to be limiting.

- ✓ Interspecific competition - No significant, long-term limitations generated by interspecific competition are evident. Dependent upon season of use, vegetative disturbance by cattle grazing may enhance the production of annual forbs and shrubs. Conversely, the suppression of forbs and shrubs by pronghorn may enhance grass production. Presently, all pronghorn habitat is grazed by domestic stock.

- ✓ Depredation - Current cultivated crop depredation is minimal. Crop depredation issues will be handled with programs and practices outlined in the Big Game Depredation policy and through continued population management.

HABITAT MANAGEMENT OBJECTIVES

- ✓ Livestock grazing - Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons, especially Rich County CRM's rotational grazing plans in the northern part of the county.

- ✓ Water development - Develop, repair and enhance water sources to improve pronghorn habitat and distribution were possible and prudent.

- ✓ Vegetation - Support and encourage land management agencies and livestock producers in range improvement practices and identify, with the Habitat Section, projects that could improve rangeland for pronghorn.

HABITAT MANAGEMENT STRATEGIES

- ✓ Water development - Due to low annual precipitation, ponds and other natural run-off catchments are limited in their duration. Development of longer duration sources of water my help distribute animals more uniformly across the landscape and decrease damage by pronghorn to agricultural interests.

- ✓ Vegetation management – Manipulation by both mechanical means and grazing to encourage growth of forbs could help enhance pronghorn distribution across the landscape and encourage animals to graze in areas away from agricultural fields. This manipulation can be accomplished both by mechanical means and by prescriptive livestock grazing. All habitat projects should take into account impacts to the area's sage grouse population. Areas of focus for habitat treatment projects should be west of Highway 16 and north of Highway 39, and north of Highway 30 east of Bear Lake.

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit 4; Morgan-South Rich
November 2018

HERD UNIT BOUNDARY DESCRIPTION

Morgan, Rich and Summit counties - Boundary begins at the junction of I-80 and I-84 near Echo; east on I-80 to the Utah-Wyoming state line; north along this state line to SR-16; north on SR-16 to SR-39 near Woodruff; west along SR-39 to SR-167 (Trappers Loop road); south on SR-167 to SR-30 at Mountain Green; west on SR-30 to I-84; east on I-84 to I-80.

Habitat: Landownership within Unit 4 is dominated by private ownership. Approximately 85% of the unit is private. The majority of the population is on the Deseret Land and Livestock CWMU containing most of the BLM property in the unit. Dominant land use is domestic grazing and agriculture.

DESIGNATED PRONGHORN HABITAT LAND OWNERSHIP

	Yearlong range		Summer Range	
Ownership	**Area (acres)**	**%**	**Area (acres)**	**%**
BLM	4,888	43%	11,180	9%
Private	6,448	57%	106,515	91%
State Trust Lands	3	0.03%	0	0%
Native American Trust Lands	0	0%	0	0%
Utah Division of Wildlife Resources	4	0.04%	0	0%
TOTAL	11,343	100%	117,695	100%

Population: This population has historically been a healthy herd with population numbers averaging around 600. Fluctuation in numbers has been assumed due to the lack of knowledge on distribution and bottlenecks of this herd. Generally, it is assumed that this herd moves freely between units 2, 4 and Wyoming along the Bear River north of Evanston Wyoming and Interstate 80.

Historically the Morgan-South Rich pronghorn unit was managed by buck to doe ratios of the herd. Recent research has shown that after three years of age, average buck horn length does not increase. Management of pronghorn will now be evaluated by three year average age of harvested bucks. The harvest age objective is to be between 2-3 years of age.

Morgan-South Rich

	Spring trend				Preseason classification		
Year	n	Bucks	Does and fawns	Unclassified	n	Fawns / 100 does	Bucks / 100 does
2007	458	37	55	366	—	—	—
2008	—	—	—	—	—	—	—
2009	391	—	—	391	514	105	92
2010	—	—	—	—	631	101	144
2011	813	—	—	813	342	86	99
2012	470	148	307	15	354	84	84
2013	417	101	316	0	—	—	—
2014	727	218	491	18	—	—	—
2015	—	—	—	—	393	74	115
2016	260	—	—	260	340*	47	123

*Includes Cache, North Rich

UNIT MANAGEMENT GOALS

Follow Pronghorn Statewide Management Plan for goals and objectives

A. Achieve optimum populations of pronghorn in all suitable habitat within the unit

Objective 1: Increase unit populations as conditions allow

- Manage winter populations of 600 pronghorn
- Conduct aerial surveys to monitor population size, trend and composition
- Annually conduct preseason (late summer) survey for herd classification
- Initiate research on fawn survival rates and cause of mortality to help estimate population growth and sustainability

B. Provide high-quality opportunities for hunting and viewing

Objective 1: Increase hunting opportunities as populations allow

- Manage for 3-year average age of harvested bucks between 2-3 years of age
- Recommend antlerless harvest to reduce impacts from depredation, carrying capacity and population health
- Work with CWMU operators and presidents to increase hunting opportunity when warranted

C. Assure sufficient habitat is available to sustain healthy and productive populations

Objective 1: Maintain or enhance the quantity and quality of habitat for pronghorn

- Through the Utah Migration Initiative, identify crucial habitat for pronghorn in unit 4 emphasizing pronghorn distribution in relation to water, fences and roads
- Work with private land owners and government agencies to understand existing vegetative conditions and how this may be limiting to survival and reproduction
- Perform research to understand pronghorn movement and distribution between Cache (unit 2), Wyoming and unit 4
- Work with land management entities to modify any existing fence to standards that are conducive to pronghorn movement
- Initiate vegetative treatments and projects with private landowners to improve vegetative structure that may be limiting survival and reproduction

Objective 2: Educate public and private landowners on pronghorn populations and needs

- Work with CWMU operators and presidents to educate the needs for population health
- Work with Wildlife Migration Initiative to generate interest and education for pronghorn

PRONGHORN HERD UNIT MANAGEMENT PLAN
Herd Unit 19
Riverbed
November 2018

HERD UNIT BOUNDARY DESCRIPTION

Tooele, Juab and Millard Counties - Boundary begins at the junction of I 80 and the north end of the Stansbury Mountains; south along the summit of the Stansbury, Onaqui and Sheeprock mountains to Vernon Creek-Cherry Creek-Death Canyon road junction; east on the Death Canyon to SR-36; South on SR-36 to US-6; Southwest on US-6 to a point due south of Little Drum mountains; north along the summits of the Little Drum, Big Drum, Thomas and Dugway mountains to the north end of the Dugway Range; north cross country to Knolls on I 80 east on I 80 to the Stansbury Mountains. **USGS 1:100,000 Maps Delta, Fish Springs, Wildcat, Bonneville Salt Flats, Tooele, Rush Valley, Lyndyl.**

DESIGNATED PRONGHORN HABITAT LAND OWNERSHIP

HABITAT AND APPROXIMATE OWNERSHIP*

	Yearlong range	
Ownership	**Area (acres)**	**%**
BLM	964,056	83.74
USFS	313	.03
SITLA	93,054	8.08
DNR	866	.07
PRIVATE	90,999	7.9
Ute Tribal Trust Lands	1,920	.18
TOTAL	1,151,208	100

UNIT MANAGEMENT GOALS

- Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, to include hunting and viewing.
- Balance the pronghorn population with human needs, such as authorized livestock grazing rights, private land development rights, and local economies.
- Maintain the population at a level that is within the long-term habitat capability.
- Manage for a 3-year average age of harvested animals between 2.0 to 3.0 years of age, while taking trends into account.

POPULATION MANAGEMENT OBJECTIVES

- ✓ Target Winter Herd Size - Achieve a target wintering population size of 900 pronghorn (fixed wing aircraft-counted number) distributed across the principle areas of the unit (Skull Valley, Simpson Springs, Dugway Valley and Old Riverbed). The management plan will be reviewed on five year intervals to assess herd parameters and the validity of management goals and objectives.

- Population Status - The pronghorn population has declined steadily since reaching a peak of 936 animals in 2007. This spike in numbers maybe as a result of harassing pronghorn from Dugway Proving Grounds. Surveys are interrupted and/or are frequently unable to be scheduled due to airspace needs. This results in incomplete counts and makes it difficult to get accurate and complete population estimates. Some years Riverbed and Snake Valley classification counts are combined to provide a statistical sample size. Combining similar low counts of similar units helps better predict fawn survival and buck/doe ratios.

YEAR	BUCKS	DOES	UNCLASS	TOTAL	BUCKS/100
1995	140	357		497	39
1996	66	191		257	35
2001	231	635		866	36
2004	81	245		326	33
2007	340	596		936	57
2008	213	554		767	38
2017	incomplete				

POPULATION MANAGEMENT STRATEGIES

- ✓ Monitoring - Aerial and/or ground counts will be conducted annually to determine fawn recruitment, population status, buck/doe ratios, and range distribution. Aerial trend counts will be conducted in late winter/early spring, preseason herd classification will occur in July and August.

- ✓ Population - Management hunts for bucks and/ or doe/fawn pronghorn will be recommended annually as needed to meet management goals. These recommended hunts will be reviewed by the Regional Advisory Councils and acted upon by the Utah Wildlife Board.

- ✓ Population Supplementation – population supplementation will be considered as part of this management plan when:

    - Fawn to doe ratios fall below 25 fawns/100 does and/or
    - Aerial trend counts of < 50% of the population object

Limiting Factors

- ✓ Predation - Predation, especially by coyotes, can be limiting to pronghorn fawn survival and recruitment. Predator control work deemed prudent will be conducted within the guidelines of the DWR predator management policy/plan and the authorized plan of the administering land management agency.

- ✓ Habitat - Vegetative communities that dominate the areas of the herd unit frequented by pronghorn include salt desert shrub types on the lower elevation zones. Annual precipitation generally varies from 6 to 8 inches in these vegetation types. Forb production is important for healthy fawn survival. Water distribution can be limiting but has been provided by the BLM, DWR and other conservation interests through guzzlers or other devices. During the past decade of drought, the poor maintenance condition of many of these artificial water sources limited their effectiveness. Repairs have been made and are continuing.

- ✓ Interspecific competition - No significant, long-term limitations generated by interspecific competition are evident. Pronghorn and livestock can generally exhibit a symbiotic relationship. Direct competition for winter browse forage has occurred during the drought when vegetative production was severely reduced. Dependent upon season of use, vegetative disturbance by

cattle grazing may enhance the production of annual forbs and shrubs. Conversely, the suppression of forbs and shrubs by pronghorns may enhance grass production. Pronghorns exhibit minimal use of grass in their diets. Presently, all pronghorn habitat is grazed by domestic stock.

HABITAT MANAGEMENT OBJECTIVES

- ✓ Livestock grazing - Support proper domestic grazing on all identified pronghorn habitat within approved grazing allotments and seasons.

- ✓ Water development - Develop, repair and enhance water sources to improve pronghorn habitat and distribution.

- ✓ Vegetation - Support and encourage land management agencies and livestock producers in range improvement practices.

HABITAT MANAGEMENT STRATEGIES

- ✓ Water development - Due to low annual precipitation, ponds and other natural run-off catchments are limited in their duration. The construction and distribution of man-made guzzlers has provided a boon to pronghorn welfare and population distribution. These structures can be repaired and increased to aid all wildlife in the salt desert shrub communities.

- ✓ Vegetation management - Low precipitation and the invasion threat of weedy species such as cheat grass, halogeton and Russian thistle limit possibilities for vegetation manipulation projects. The best approach for maintaining or altering vegetative community condition may be through properly targeting acceptable grazing utilization levels and habitat protection through the use of “green strips”. Support for established domestic grazing under these parameters will continue.

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources

MICHAL D. FOWLKS
Division Director

MEMORANDUM

Date: November 16, 2018

To: Wildlife Board and Regional Advisory Council Members

From: Kent Hersey, Big Game Projects Coordinator

Subject: Unit Management Plans for Pronghorn and Moose

The current statewide management plans for pronghorn and moose were approved by the Wildlife Board in fall 2017. In accordance with those plans, the Utah Division of Wildlife Resources has updated the unit management plans for each species. Below is a summary of the major updates to the unit management plans:

1) All unit plans have been updated to include the harvest management approved in the statewide plans.
    a. For pronghorn, we will manage all units for a 3-year average age of harvest between 2.0 and 3.0 years of age.
    b. For moose, we will manage all units for a 3-year average age of harvest between 3.75 and 4.25 years of age.
2) All the unit plans have been updated to include population objectives.
3) In addition to the transplant sites included in the statewide management plans, we recommend adding the following augmentation sites:
    a. Pronghorn:
        i. North Slope: Antelope Flat, Bare Top, Clay Basin, Conner Basin, Death Valley, and Goslin Mountain
    b. Moose:
        i. Kamas: Shingle Creek, Beaver Creek, and Norway Flats
        ii. North Slope: Dahlgren Creek, Dowd Mountain, Elk Park, Henry's Fork, Sheep Creek Lake, and Spirit Lake
        iii. South Slope: Charlie's Park, Leidy Peak/ Long Park Reservoir, and Mosby Mountain

If approved, UDWR will amend Table 4 in the statewide pronghorn plan and Table 5 in the statewide moose plan to include these release sites.

MOOSE HERD UNIT MANAGEMENT PLAN
Herd Unit #8A, B, & C
North Slope; Summit and West Daggett-Three Corners
November 2018

HERD UNIT BOUNDARY DESCRIPTION-8A

Summit County-Boundary begins at the Utah-Wyoming State line and SR-150; south on SR-150 to the Summit-Duchesne county line at Hayden Pass; east along this county line to the Burnt Fork-Sheep Creek drainage divide; north along this drainage divide to the Burnt Fork-Birch Creek drainage divide; north along this drainage divide to the Utah-Wyoming state line; west along this state line to SR-150.

DESIGNATED MOOSE HABITAT LAND OWNERSHIP 8A

HABITAT AND APPROXIMATE OWNERSHIP

	Yearlong range	
Ownership	**Area (acres)**	**%**
BLM	0	0
SITLA	1497	1
DWR	0	0
PRIVATE	44,564	11
Forest Service	348,591	88
TOTAL	394,654	100

Summer range is abundant and in good to excellent condition. Winter range is in good condition with moose tending to use curl-leaf mountain mahogany (*Cerocarpus ledifolius*) stands to the exclusion of other habitat types. Moose use other species of browse during winter months, but when curl-leaf mountain mahogany is available, they prefer it.

HERD UNIT BOUNDARY DESCRIPTION Unit 8 B & C

Daggett and Summit counties - Boundary begins at the Utah-Wyoming state line and Burnt Fork Creek; east along this state line to the Utah-Wyoming-Colorado state line (Three Corners); south along the Utah-Colorado state line to the Green River; west along this river to Flaming Gorge Reservoir; west along the west shore of Flaming Gorge Reservoir to Cart Creek; south along Cart Creek to US-191; south along US-191 to the Uintah-Daggett county line (summit of the Uinta Mountains); west along this summit to the head of Burnt drainage (Divide Pass / Island Lake) north along the Burnt Fork drainage (Burnt Fork Creek) to the Utah-Wyoming state line. USGS 1:100,000 Maps: Dutch John.

DESIGNATED MOOSE HABITAT LAND OWNERSHIP 8 B & C

HABITAT AND APPROXIMATE OWNERSHIP

	Yearlong range	
Ownership	**Area (acres)**	**%**
BLM	63,913	17
SITLA	25,594	7
DWR	3,954	1
PRIVATE	41,852	11
Forest Service	243,986	64
TOTAL	379,299	100

Seasonally, moose are able to and do use most of the habitat in the unit. However, the majority of time is spent on approximately 60% of the total area of the unit. Of that, approximately 85% is USFS property. The majority of the usable moose habitat is on USFS property in the West Daggett portion of the unit.

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, to include hunting and viewing. Balance the moose population with human needs, such as authorized livestock grazing rights, agricultural interests, private land development rights, and local economies. Maintain the population at a level that is within the long term habitat capability.

POPULATION MANAGEMENT OBJECTIVES

- ✓ Target Winter Herd Size - Manage moose numbers to achieve a winter population of 200 moose (computer modeled population with an aerial census every three years) on the North Slope, Summit subunit and a winter population estimate of 150 moose (approximately 105 aircraft-counted animals) on the North Slope, West Daggett-Three Corners subunit. The management plan will be reviewed on five year intervals to assess herd parameters and the validity of management goals and objectives.

- ✓ Bull Age Harvest Composition – Based on a 3 year average, manage for the average age of bulls harvested to be 4 years old (3.75-4.25) as measured by cementum annuli from hunter submitted incisors. Trend may be considered.

- ✓ Population Status – The North Slope, Summit moose population appears to be slightly increasing. The 2013 aerial trend count survey produced 104 moose on the Summit subunit and an additional 174 near the Wyoming state line. The moose population on the North Slope, West Daggett-Three Corners subunit appears to be slightly declining since the last good flight in 2013. The 2013 annual aerial trend count survey produced 73 moose for Unit 8 b&c. See following tables for subunit classification data.

CLASSIFICATION NORTH SLOPE SUMMIT (8a)

Year	Bulls	Cows	Calves	Calves/ 100cows	Bulls/ 100Cows	Total Moose Classified
2004	53	65	32	49	82	150
2007	71	66	41	62	108	178
2011	17	51	24	47	33	92
2013	22	55	27	49	40	104

TOTAL MOOSE COUNTED BY YEAR NORTH SLOPE, SUMMIT(8a) AND WYOMING

	YEAR						
	1996	**1998**	**2001**	**2004**	**2007**	**2011**	**2013**
UTAH SUMMIT (8A)	182	229	243	150	181	92	104
WYOMING	393	289	334	270	314	232	174
TOTAL WYOMING AND UTAH SUMMIT	575	518	577	420	495	324	278

CLASSIFICATION NORTH SLOPE WEST DAGGETT-THREE CORNERS(8B&C)

Year	Observed	Bulls	Antlerless	Estimated*	Bull / 100 Cows
1987	35	8	27	50	50
1988	62	20	29	89	69
1992	91	27	64	130	61
1994	88	35	47	125	125
1996	103	32	43	147	71
1998	84	30	50	120	70
2001	109	53	49	155	156
2004	107	51	54	152	121
2007	103	46	55	147	115
2013	73	26	47	104	79
	*assumes 70% sightability				

POPULATION MANAGEMENT STRATEGIES

- ✓ Population supplementation – If needed, due to population declines, animals may be translocated from other source herds based on availability. Depending on availability of animals, the DWR may transplant up to 10 animals per year. These transplants could occur each year until the

estimated population meets/exceeds 80% of the population objective. Release sites would include but are not limited to Dahlgren Creek, Dowd Mountain, Elk Park, Henry's Fork, Sheep Creek Lake, and Spirit Lake.

- ✓ Monitoring - Aerial counts will be conducted on a three year statewide rotational basis to determine population status, bull/cow ratios, cow/calf ratios and range distribution. Opportunistic ground counts will be conducted annually to determine major changes in cow/calf ratios. Aerial trend counts will be conducted in late winter/early spring, annual preseason classification will occur in July and August.

- ✓ Population – Hunts for bulls and/ or cow moose will be recommended annually as needed to meet management goals. Unit will be managed for a 3-year average age of harvested bulls of 4.0 years of age (3.75-4.25) to ensure sufficient numbers of older age class bulls are in the herd. Permit numbers will be reviewed by the Regional Advisory Councils and acted upon by the Utah Wildlife Board.

Limiting Factors

- ✓ Predation – Predation by mountain lions and bears may be limiting to moose calf survival and recruitment. Appropriate predator management will be implemented through the Wildlife Board process for cougar and bear.

- ✓ Habitat - Moose are primarily browsers and depend on a diet of shrubs and young deciduous trees for much of the year. Moose are often associated with river bottoms, ponds, and lakes with an abundance of shrubby and aquatic vegetation. They are not exclusively tied to these habitat types and have done well in drier habitats which are dominated by mountain mahogany, serviceberry, quaking aspen, and burned over coniferous forests. Moose also use thick stands of conifer as shelter in the winter and for thermoregulation during the summer. The single biggest influence on the moose population is the quantity and quality of available habitat. Habitat can be degraded, fragmented, or lost to a variety of causes including human development and plant succession. Reductions in habitat can result in corresponding population declines. Improvements in habitat can mitigate losses and result in increased moose populations. Much of the available habitat on USFS properties is dense conifer stands. Forest fires and carefully planned logging can help remove coniferous trees and return the habitat to early successional stages which are beneficial for moose.

- ✓ Disease - Like all wild ungulates, moose are susceptible to a wide variety of viral, bacterial, and parasitic diseases. Although diseases caused by parasites are not always fatal, they may affect the animal physiologically and alter behavior enough to eventually cause death. Unfortunately, because of the large size of these animals and their remote locations, diagnoses have been very difficult to obtain. Some of the diseases and parasites either documented or considered a concern to Utah moose populations include winter ticks, bluetongue (BTV), epizootic hemorrhagic disease (EHD), chronic wasting disease, (CWD), elaeophorosis, infectious kerato-conjunctivitis (IKC), malignant catarrhal fever (MCF), and white muscle disease. Continued efforts to collect samples from hunter harvested moose will continue.

- ✓ Depredation - is limited, but sometimes occurs to agricultural crops located principally in the Browns Park area. Depredation based mitigation measures are used to control this segment of the moose population and provide a means for private landowners to benefit to offset agricultural impacts.

- ✓ Natural gas and oil production - on this unit is currently stable. However, as energy demand increases, it could trigger increasing demand on moose range with subsequent roads and disturbance limiting habitat effectiveness. Disturbance associated with drilling and other energy extraction activities may be a significant factor affecting moose populations in the future.

- ✓ Interspecific competition - No significant, long-term limitations generated by interspecific competition are evident. Moose are found in the same areas as mule deer, elk, cattle, sheep, and to a lesser extent bighorn sheep, mountain goats, and pronghorn. Although there is overlap in use areas, moose utilize a forage resource which is largely unavailable to other ungulates. Moose eat primarily browse and to a lesser extent grass and forbs. Moose also feed at a height which is well above the ability of other ungulates to reach, and live in a deep snow environment during critical winter months where few other ungulates can survive.

HABITAT MANAGEMENT OBJECTIVES

- ✓ Livestock grazing - Support proper domestic grazing on all identified moose habitat within approved grazing allotments and seasons.

- ✓ Water development - Develop, repair and enhance water sources in drier parts of moose range to improve moose habitat and distribution where needed.

- ✓ Vegetation - Support and encourage land management agencies and livestock producers in range and forest improvement practices.

HABITAT MANAGEMENT STRATEGIES

- ✓ Water development – Few improvements are needed due to existing water availability in utilized habitat. Guzzlers will be placed where they will be deemed beneficial for moose and other ungulate species.

- ✓ Vegetation management - Succession of forests from deciduous to conifer trees is the greatest threat to moose habitat on the unit. Some of the higher elevation areas could be improved to benefit moose and other big game species such as deer and elk. Forest fires and carefully planned logging can help remove coniferous trees and return the habitat to early successional stages which are beneficial for moose. Cooperative habitat projects with other agencies should be pursued in appropriate areas. Due to existing and continued pine beetle infestations killing numerous conifers, immediate steps should be taken to remove large areas of dead trees. Future large forest fires may eliminate existing browse species which could significantly impact available forage for moose.

Management Actions to Remove Population Barriers

The Utah Division of Wildlife Resources will attempt to change the population objective on this unit when the biological and social carrying capacity allow for an adjustment.

MOOSE HERD UNIT MANAGEMENT PLAN
Herd Unit 9
South Slope
November 2018

HERD UNIT BOUNDARY DESCRIPTION

Wasatch, Summit, Daggett, Uintah, Duchesne counties - Boundary begins at the junction of US-40 and SR-87 in Duchesne; north on SR-87 to SR-35; northwest on SR-35 to the Provo River; north along the Provo River to the North Fork Provo River; north along the North Fork Provo River to SR-150; north along SR-150 to the Summit/Duchesne county line (summit of the Uinta Mountains); east along the summit of the Uinta Mountains to US-191; north along US-191 to Cart Creek; north along Cart Creek to Flaming Gorge Reservoir; east along Flaming Gorge Reservoir to the Green River; east along the Green River to the Utah-Colorado state line; south along the Utah-Colorado state line to the White River; west along the Whiter River to the Green River; north along the Green River to the Duchesne River; west along the Duchesne River to US-40 at Myton; west along US-40 to SR-87 in Duchesne. Includes subunits 9a (Yellowstone), 9b (Vernal), 9c (Diamond Mountain) and 9d (Bonanza). **(EXCLUDING ALL INDIAN TRUST LANDS).**

DESIGNATED MOOSE HABITAT LAND OWNERSHIP
HABITAT AND APPROXIMATE OWNERSHIP

	Summer Range		Winter Range	
Ownership	**Area (acres)**	**%**	**Area (acres)**	**%**
Forest Service	857,114	79%	55,705	8%
Bureau of Land Management	77,627	7%	173,728	26%
Utah State Institutional Trust Lands	8,861	1%	25,800	4%
Native American Trust Lands	30,119	3%	228,531	34%
Private	88,798	8%	180,042	27%
Department of Defense	0	0	0	0
USFWS Refuge	0	0	125	#1%
National Parks	7,240	1%	9,486	1%
Utah State Parks	0	0	2,862	#1%
Utah Division of Wildlife Resources	11,398	1%	1237	#1%
TOTAL	1,081,157	100	677,516	100

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, to include hunting and viewing. Maintain the population at a level that is within the long term habitat capability.

POPULATION MANAGEMENT OBJECTIVES

Target Winter Herd Size - Achieve an estimated wintering population size of 300 animals distributed in the following subpopulations:

9a Yellowstone wintering subpopulation - 175 animals
9b,c,d Vernal, Diamond Mtn, Bonanza wintering subpopulation - 125 animals

Units will be surveyed by helicopter every three years to monitor population size if good counting conditions exist.

Bull Age Harvest Composition – Based on a 3 year average, manage for the average age of bulls harvested to be 4 years old (3.75-4.25) as measured by cementum annuli from hunter submitted incisors. Trend will be considered.

Population Status – In recent years, the moose population trend count has varied from a high of 159 animals in 2007 to 100 animals in 2013. The following table summarizes the moose population status as reflected through trend count surveys. Poor counting conditions has prevented aerial counts the last couple years.

Year	Estimated Population*	**Total Observed**	Yellowstone	Vernal/ Diamond
2001	65	**44**	31	12
2004	210	**145**	76	69
2007	230	**159**	97	62
2010	190	**133**	92	41
2013	145	**100**	73	27

* 70% Sightability

POPULATION MANAGEMENT STRATEGIES

- ✓ Population - Hunts for bulls and/or cows will be recommended annually as needed to meet management objectives. To distribute harvest and hunters, hunts will continue to be divided between two hunt units:
  - 1.Yellowstone subunit
  - 2.Vernal/Diamond Mtn./Bonanza subunits

- ✓ Monitoring - Aerial helicopter trend counts will be conducted every three years, if good counting conditions exist, to determine calf recruitment, population status, bull/cow ratios, and range distribution. Aerial trend counts will be conducted in January or February when the best counting conditions normally occur. Population modeling will also be used to estimate moose population numbers between aerial counts.

- ✓ Population supplementation – Moose may be translocated into a subunit if the population is below 80% of the subunit objectives. Supplementation will only occur when excess animals are available.

HABITAT MANAGEMENT STRATEGIES

- ✓ Livestock grazing - Support proper domestic grazing, particularly in riparian areas, on all identified moose habitat within approved grazing allotments and seasons.

- ✓ Vegetation - Support and encourage land management agencies and livestock producers in range improvement practices.

- ✓ Habitat Protection and enhancement - Identify critical moose habitats and work with land managers and private landowners to protect these areas. Identify any habitat enhancement projects that would significantly benefit moose and implement them through the State's Watershed Initiative process.

MOOSE HERD UNIT MANAGEMENT PLAN
Herd Unit 16/17
Central Mountains / Wasatch Mountains
November 2018

HERD UNIT BOUNDARY DESCRIPTION

Carbon, Duchesne, Emery, Juab, Millard, Salt Lake, Sanpete, Sevier, Summit, Utah and Wasatch counties—Boundary begins at the junction of I-15 and I-80 in Salt Lake City; east on I-80 to US-40; south on US-40 to SR-32; east on SR-32 to SR-35; southeast on SR-35 to SR-87; south on SR-87 to Duchesne and US-191; south on US-191 to US-6; southeast on US-6 to Price and SR-10; south on SR-10 to I-70; west on I-70 to US-50 at Salina; northwest on US-50 to I-15 at Scipio; north on I-15 to I-80 in Salt Lake City. EXCLUDING ALL NATIVE AMERICAN TRUST LAND WITHIN THIS BOUNDARY.

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, to include hunting and viewing. Maintain the population at a level that is within the long-term habitat capability.

POPULATION MANAGEMENT OBJECTIVES

Target Winter Herd Size - Achieve an estimated wintering population size of 500 animals distributed across the entire unit.

-Units will be surveyed by helicopter every three years to monitor population size.

Bull Age Harvest Composition – Based on a 3-year average, manage for the average age of bulls harvested to be 4 years old (3.75-4.25) as measured by cementum annuli from hunter submitted incisors. Trend will be considered.

Population Status – In recent years, the moose population trend count has varied from a high of 334 animals in 2008 to 236 animals in 2013. The following table summarizes the moose population status as reflected through trend count surveys. Poor counting conditions has prevented aerial counts the last couple years.

Year	Estimated Population*	**Total Observed**
2002	415	**289**
2005	360	**251**
2008	480	**334**
2011	475	**331**
2013	340	**236**

* 70% Sightability

The Central Mountains Manti/Nebo are part of the Wildlife Board approved Wasatch Mountains/Central Mountains moose hunt boundary. The Central Mountains represent a very small proportion of the

overall moose population on the hunt unit. Due to the sparse number of moose on the Central Mountains they aren't managed as an individual hunt unit. However, there is suitable moose habitat and the population is reproducing. If moose populations increase on the Central Mountains, the unit will be reevaluated on its ability to be its own moose unit.

POPULATION MANAGEMENT STRATEGIES

- ✓ Population - Hunts for bulls and/or cows will be recommended annually as needed to meet management objectives.

- ✓ Monitoring - Aerial helicopter trend counts will be conducted every three years, if counting conditions exist, to determine calf recruitment, population status, bull/cow ratios, and range distribution. Aerial trend counts will be conducted in January or February when good counting conditions exist. Population modeling will also be used to estimate moose population numbers between aerial counts.

- ✓ Population supplementation – Moose may be translocated into the unit if the population is below 80% of the unit objective and excess animals are available. Potential release sites include:

    - Payson Lakes
    - Fairview Canyon
    - Huntington Canyon
    - Pondtown-Upper Fish Creek
    - Potter's Pond
    - Skyline Drive-Ephraim Tunnel
    - Upper Ferron Creek
    - Upper Muddy Creek

HABITAT MANAGEMENT STRATEGIES

- ✓ Livestock grazing - Support proper domestic grazing, particularly in riparian areas, on all identified moose habitat within approved grazing allotments and seasons.

- ✓ Vegetation - Support and encourage land management agencies and livestock producers in range improvement practices.

- ✓ Habitat Protection and enhancement - Identify crucial moose habitats and work with land managers and private landowners to protect these areas. Identify any habitat enhancement projects that would significantly benefit moose and implement them through the State's Watershed Initiative process.

MOOSE UNIT MANAGEMENT PLAN
Moose Unit # 1
Box Elder
November 2018

BOUNDARY DESCRIPTION

Box Elder County - Boundary begins on the Utah-Idaho state line at SR-42; east on SR-42 to Curlew Junction and SR-30; south and west on SR-30 to the Utah-Nevada state line; north on this state line to the Utah-Idaho state line; east on this state line to SR-42.

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, including hunting and viewing. Consider impacts of the moose on other land uses and public interests, including private property rights, agricultural crops and local economies. Maintain the population at a level that is within the long-term capability of the available habitat to support.

Overall moose habitat is limited but in good condition. Winter range is in good condition with moose tending to use curlleaf mountain mahogany (*Cerocarpus ledifolius*) stands to the exclusion of other habitat types. Moose use other species of browse during winter months, but when curlleaf mountain mahogany is available, moose prefer it.

UNIT MANAGEMENT OBJECTIVES

Habitat

Maintain and/or enhance forage production through direct range improvements throughout the unit in moose habitat to achieve population management objectives, with special emphasis on aspen regeneration and curlleaf mountain mahogany stands.

Work with private and federal agencies to maintain and protect crucial and existing range from future losses.

Population

Target Winter Herd Size – manage moose numbers to achieve a winter population on the entire unit of 75 moose (computer modeled population with an aerial census every three years for ground truthing). The Box Elder Unit will have two subunit objectives: 35 on the Grouse Creek Mountains and 40 on the Raft River Mountains. The objective will be revisited after each flight. A committee will be formed before changing the objective.

Bull Age Harvest Composition – Average age of bulls harvested from the Box Elder unit will be 3.75 – 4.25 years old as measured by cementum anulli from hunter submitted incisors.

CURRENT STATUS OF MOOSE MANAGEMENT

Habitat

The primary limiting factor for moose in Utah and across their range is

the availability of suitable habitat. Moose are primarily browsers and depend on a diet of shrubs and young deciduous trees for much of the year. In more northern climes, moose are often associated with river bottoms, ponds, and lakes with an abundance of shrubby and aquatic vegetation. Although moose in Utah are also associated with riparian habitat types, they are not exclusively tied to them. Moose have done well in drier habitats in northern Utah which are dominated by mountain mahogany, Gambel oak, serviceberry, quaking aspen, and burned over coniferous forests. Moose also use thick stands of conifer as shelter in the winter and for thermoregulation during the summer. Winter weather and snow depth is not thought to be a seriously limiting factor to moose in Utah. Moose are well adapted, as a result of their long legs and heavy black fur, to live in some of the coldest climates in the world and tolerate deep snow and cold weather very well. In Utah, moose generally live at higher elevations throughout the year, although some moose are observed at lower elevation habitats even in summer. It is possible that moose are limited by prolonged hot weather in parts of Utah. The lack of success of transplants to central and southern Utah may well be due to summer climatic conditions and lack of high elevation habitat. Valerius Geist recognized two types of moose habitat, permanent and transient. Permanent habitats are those that persist through time and do not succeed to other vegetative communities. Examples of permanent habitat include riparian and high elevation shrub communities. Annual flooding, avalanches, or timberline conditions help maintain those more permanent moose habitat types. Transient habitat is more common and is usually associated with forest fires and timber harvesting which remove coniferous trees and revert the habitat to early seral stages dominated by shrubs and young deciduous tress. Throughout much of its range in North America, the moose is associated with short-lived subclimax plant communities that follow in the wake of forest fires. Habitat improvement projects which favor early seral stages and increased shrub growth can be very beneficial to moose. The use of fire can also be used to dramatically improve moose habitat.

RANGE AREA AND APPROXIMATE OWNERSHIP*

SEASON	VALUE	OWNERSHIP	ACRES
Year Round	crucial	BLM	70,710
		USFS	71,450
		Military	0
		Nat Parks,Monuments,etc.	0
		Private	200,330
		State Parks and Rec	0
		State Sovereign	0
		State Trust Land	13,510
		State Wildlife	0
		TOTAL ACRES	356,000

Population (Current (2016) Status)

The population is estimated to be around 20 wintering animals. The latest flight classified 11 bulls and 6 cows with no claves.

BARRIERS TO ACHIEVING UNIT MANAGEMENT OBJECTIVES

Habitat Overall habitat appears to be limiting on this unit. Continued efforts in habitat improvement should be pursued to keep and increase quality habitat.

Population If moose begin to show up near towns and homes with regularity, it may be necessary to revisit the population objective and/or implement antlerless moose hunts.

Other Barriers It is possible that disease and trace mineral deficiencies could have an effect on moose in this unit. At present, these issues do not seem to be limiting, but special attention should be paid if numbers suddenly begin to decline.

STRATEGIES FOR REMOVING BARRIERS AND REACHING UNIT MANAGEMENT OBJECTIVES

Habitat

Monitoring

Continue to monitor permanent range trend studies located throughout the winter range.

Management Actions to Remove Habitat Barriers

Potential habitat improvement projects include:

-Aspen Regeneration through prescribed fire on USFS property between Clear Creek and One Mile Canyon, and above Johnson Canyon.

-Beaver Reintroductions in the following drainages:

-Raft River Mtns: Johnson Canyon, Clear Creek Canyon, One Mile Canyon, Clark's Basin Creek
-Grouse Creek Mtns: Pine Creek, Red Butte Creek
-Goose Creek Area: Pole Creek, Birch Creek, Meadow Creek
-Cotton Thomas Basin: Mahogany Creek, Basin Creek

Population

Monitoring

Population Size - Utilizing harvest data, aerial trend counts, postseason classification and mortality estimates, a computer model will be developed to estimate winter population size

Bull Age Structure - Monitor age class structure of the bull population through the use of checking stations, uniform harvest surveys, postseason classification and aerial classification.

Harvest - The primary means of monitoring harvest will be through the statewide uniform harvest survey. Achieve the target population size by use of antlerless harvest using a variety of harvest methods and seasons. Bull harvest strategies will be developed through the RAC and Wildlife Board process to achieve management objectives for bull:cow ratios.

Management Actions to Remove Population Barriers

Fencing, depredation hunts, CWMU formation, reciprocal agreements among CWMUs, other actions to reduce/mitigate crop depredation.

The Division will attempt to increase the population objective on this unit when the biological and social carry capacity allow for an upward adjustment.

MOOSE UNIT MANAGEMENT PLAN
Moose Unit # 2
Cache
November 2018

BOUNDARY DESCRIPTION

Cache, Rich, Weber, and Box Elder counties - Boundary begins at the Utah-Idaho state line and I-15; south on I-15 to US-91; northeast on US-91 to SR-101; east on SR-101 to Hardware Ranch and USFS Road 054 (Ant Flat); south on USFS 054 to SR-39; east on SR-39 to SR-16; southeast on SR-16 to the Utah-Wyoming state line; north along this state line to the Utah-Idaho state line; west along this state line to I-15.

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, including hunting and viewing. Consider impacts of the moose on other land uses and public interests, including private property rights, agricultural crops and local economies. Maintain the population at a level that is within the long-term capability of the available habitat to support.

UNIT MANAGEMENT OBJECTIVES

Habitat

Maintain and/or enhance forage production through direct range improvements throughout the unit in moose habitat to achieve population management objectives, with special emphasis on riparian areas, aspen regeneration, and curlleaf mountain mahogany stands.

Work with private and federal agencies to maintain and protect crucial and existing range from future losses.

Population

Target Winter Herd Size – manage moose numbers to achieve a winter population of 300 moose (computer-modeled population with an aerial census every three years for ground truthing).

Bull Age Harvest Composition – 3-year average age of bulls harvested from the Cache unit will be 4 (3.75 – 4.25) years old as measure by cementum annuli from hunter submitted incisors.

CURRENT STATUS OF MOOSE MANAGEMENT

Habitat

Summer range is abundant and in good to excellent condition. Winter range is in good condition with moose tending to use curlleaf mountain mahogany (Cerocarpus ledifolius) stands to the exclusion of other habitat types. Moose use other species of browse during winter months, but when curlleaf mountain mahogany is available, moose prefer it.

Current moose habitat on the Cache unit does not appear to be limiting the population. However, continued involvement with land management agencies and private landowners in developing and implementing habitat improvement projects will ensure the continued success of the moose population. Areas of emphasis for creation and restoration should include curlleaf mountain mahogany, aspen, and riparian area habitat types up Blacksmith Fork Canyon,

Logan Canyon, Right Hand Fork Logan Canyon, Temple Fork, Temple Canyon, Cottonwood Canyon, Tony Grove Area, and Laketown Canyon.

RANGE AREA AND APPROXIMATE OWNERSHIP

SEASON	VALUE	OWNERSHIP	ACRES
summer	crucial	BLM	44,806
		USFS	187,897
		Military	0
		Nat Parks,Monuments,etc.	0
		Private	73,332
		State Parks and Rec	24
		State Sovereign	49
		State Trust Land	11,284
		State Wildlife	5,620
winter	crucial	BLM	46,550
		USFS	127,097
		Military	0
		Nat Parks,Monuments,etc.	0
		Private	87,534
		State Parks and Rec	0
		State Sovereign	0
		State Trust Land	9,759
		State Wildlife	10,861
		TOTAL ACRES	604,813

Population

The population is estimated to be around 200 wintering animals. The latest ratio estimates from a 2013-2014 flight are 103 bulls/100 cows and 36 calves/100 cows. Current 3-year average age of harvested bull is 4.7 years and the 10-year average is 4.2 years.

BARRIERS TO ACHIEVING UNIT MANAGEMENT OBJECTIVES

Habitat

Habitat does not seem to be limiting on this unit. However, continued efforts in habitat improvement should be pursued to keep quality habitat in abundance.

Population

If moose begin to show up in urban environments and neighborhoods with regularity, it may be necessary to revisit the population objective and/or implement antlerless permits.

Other Barriers

It is possible that disease, and trace mineral deficiencies are having an effect on moose in this unit. These issues do not seem to be limiting, but special attention should be paid if numbers suddenly begin to decline.

STRATEGIES FOR REMOVING BARRIERS AND REACHING UNIT MANAGEMENT OBJECTIVES

Habitat

Monitoring

Continue to monitor permanent range trend studies located throughout the winter range.

Actions to Remove Habitat Barriers

Discussion and implementation of curlleaf mountain mahogany, aspen, and riparian area preservation and regeneration efforts.

Population

Monitoring

Population Size - Utilizing harvest data, aerial trend counts, postseason classification and mortality estimates, a computer model has been developed to estimate winter population size.

Bull Age Structure - Monitor age class structure of the bull population using check stations, uniform harvest surveys, postseason classification and aerial classification.

Harvest - The primary means of monitoring harvest will be through the statewide uniform harvest survey. Achieve the target population size by use of antlerless harvest using a variety of harvest methods and seasons.

Actions to Remove Population Barriers

The Division will attempt to change the population objective on this unit when the biological and social carrying capacity allow for an adjustment.

MOOSE UNIT MANAGEMENT PLAN
Moose Unit # 3
Ogden
November 2018

BOUNDARY DESCRIPTION

Weber, Box Elder, Cache, and Morgan counties - Boundary begins at Hyrum and SR-101; east on SR-101 to the Ant Flat Road (at Hardware Ranch); south on this road to SR-39; west on SR-39 to SR-167 (Trappers Loop Road); south on SR-167 to I-84; west on I-84 to I-15; north on I-15 to Exit 364 and US-91: northeast on US-91 to SR-101; east on SR-101 to Hyrum.

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, including hunting and viewing. Consider impacts of the moose on other land uses and public interests, including private property rights, agricultural crops and local economies. Maintain the population at a level that is within the long-term capability of the available habitat to support.

Summer range is abundant and in good to excellent condition. Winter range is in good condition with moose tending to use curlleaf mountain mahogany (*Cerocarpus ledifolius*) stands to the exclusion of other habitat types. Moose use other species of browse during winter months, but when curlleaf mountain mahogany is available, moose prefer it. Observations during a census flight in February 2008, and again in March 2009 raised concerns about the condition of curlleaf mountain mahogany in the area from Broadmouth Canyon to South Fork. The plants in that area appeared to be over-browsed. It is possible that the numbers of moose wintering in that area of the unit are too high.

UNIT MANAGEMENT OBJECTIVES

Habitat

Maintain and/or enhance forage production through direct range improvements throughout the unit in moose habitat to achieve population management objectives, with special emphasis on aspen regeneration and curlleaf mountain mahogany stands.

Work with private landowners and federal agencies to maintain and protect critical and existing range from future losses.

Population

Target Winter Herd Size – manage moose numbers to achieve a winter population of 450 moose (computer modeled population with an aerial census every three years for ground truthing).

Bull Age Harvest Composition – Average age of bulls harvested from the Ogden unit will be 3.75 to 4.25 years old as measure by cementum annuli from hunter submitted incisors.

CURRENT STATUS OF MOOSE MANAGEMENT

Habitat

The primary limiting factor for moose in Utah and across their range is

the availability of suitable habitat. Moose are primarily browsers and depend on a diet of shrubs and young deciduous trees for much of the year. In more northern climes, moose are often associated with river bottoms, ponds, and lakes with an abundance of shrubby and aquatic vegetation. Although moose in Utah are also associated with riparian habitat types, they are not exclusively tied to them. Moose have done well in drier habitats in northern Utah which are dominated by mountain mahogany, Gambel oak, serviceberry, quaking aspen, and burned over coniferous forests. Moose also use thick stands of conifer as shelter in the winter and for thermoregulation during the summer. Winter weather and snow depth is not thought to be a seriously limiting factor to moose in Utah. Moose are well adapted, as a result of their long legs and heavy black fur, to live in some of the coldest climates in the world and tolerate deep snow and cold weather very well. In Utah, moose generally live at higher elevations throughout the year, although some moose are observed at lower elevation habitats even in summer. It is possible that moose are limited by prolonged hot weather in parts of Utah. The lack of success of transplants to central and southern Utah may well be due to summer climatic conditions and lack of high elevation habitat. Valerius Geist recognized two types of moose habitat, permanent and transient. Permanent habitats are those that persist through time and do not succeed to other vegetative communities. Examples of permanent habitat include riparian and high elevation shrub communities. Annual flooding, avalanches, or timberline conditions help maintain those more permanent moose habitat types. Transient habitat is more common and is usually associated with forest fires and timber harvesting which remove coniferous trees and revert the habitat to early seral stages dominated by shrubs and young deciduous tress. Throughout much of its range in North America, the moose is associated with short-lived subclimax plant communities that follow in the wake of forest fires. Habitat improvement projects which favor early seral stages and increased shrub growth can be very beneficial to moose. The use of fire can also be used to dramatically improve moose habitat.

RANGE AREA AND APPROXIMATE OWNERSHIP*

Season	Value	Ownership	Acres
summer	crucial	BLM	0
		USFS	42,892
		Military	0
		Nat Parks,Monuments,etc.	0
		Private	145,243
		State Parks and Rec	0
		State Sovereign	0
		State Trust Land	432
		State Wildlife	4,898
winter	crucial	BLM	0
		USFS	10,955
		Military	0
		Nat Parks,Monuments,etc.	0
		Private	92,131
		State Parks and Rec	0
		State Sovereign	0
		State Trust Land	7,681
		State Wildlife	12,643
		TOTAL ACRES	316,875

Population (Current (2018) Status)

The population is estimated to be around 520 wintering animals. The latest ratio estimates are from a February 2013 flight and are; 71 bulls/100 cows, and 36 calves/100 cows.

BARRIERS TO ACHIEVING UNIT MANAGEMENT OBJECTIVES

Habitat It is likely that habitat on portions of this unit has been over utilized. Without population reductions in those areas, moose may suffer declines in productivity and population numbers.

Population Maintaining this population at objective may prove difficult since most (81%) of the land in the unit is private. Since access to hunting is limited on those lands, control by that method may prove ineffective.

Other Barriers It is possible that disease, and trace mineral deficiencies are having an effect on moose in this unit. These issues do not seem to be limiting, but special attention should be paid if numbers suddenly begin to decline.

Public opinion has proved to be negative to the concept of reducing moose numbers on this unit. It may prove to be an insurmountable barrier to the population objective on the unit.

STRATEGIES FOR REMOVING BARRIERS AND REACHING UNIT MANAGEMENT OBJECTIVES

Habitat

Monitoring

Use GIS based and ground methods to access critical winter and summer habitats.

Actions to Remove Habitat Barriers

Discussion and implementation of curlleaf mahogany preservation and regeneration efforts.

Population

Monitoring

Population Size - Utilizing harvest data, and aerial trend counts, a computer model has been developed to estimate winter population size

Bull Age Structure - Monitor age class structure of the bull population through the use of hunter submitted teeth.

Harvest - The primary means of monitoring harvest will be through the statewide uniform harvest survey. Achieve the target population size by use of antlerless harvest using a variety of harvest methods and seasons. Bull harvest strategies will be developed through the RAC and Wildlife Board process to achieve management objectives for average age of harvest.

Management Actions to Remove Population Barriers

This moose unit may be split into 2 subunits, targeting harvest in areas were moose numbers are high, and alleviate pressure in areas were moose numbers are low.

MOOSE HERD UNIT MANAGEMENT PLAN
Herd Unit 4
Morgan-South Rich
November 2018

BOUNDARY DESCRIPTION

Morgan, Rich and Summit counties - Boundary begins at the junction of I-80 and I-84 near Echo; east on I-80 to the Utah-Wyoming state line; north along this state line to SR-16; north on SR-16 to SR-39 near Woodruff; west along SR-39 to SR-167 (Trappers Loop road); south on SR-167 to SR-30 at Mountain Green; west on SR-30 to I-84; east on I-84 to I-80.

CURRENT STATUS OF MOOSE MANAGEMENT

Habitat: Landownership within Unit 4 is dominated by private ownership. Approximately 85% of the unit is private with approximately 75% of that private land enrolled within the CWMU program. Dominant land use is domestic grazing and agriculture in the valleys.

RANGE AREA AND APPROXIMATE OWNERSHIP*

	Yearlong range		Summer Range		Winter Range	
Ownership	**Area (acres)**	**%**	**Area (acres)**	**%**	**Area (acres)**	**%**
Forest Service	0	0	21700	7.3	15943	6.4
Bureau of Land Management	0	0	5023	1.7	22523	9
Utah State Institutional Trust Lands	0	0	632	.2	3123	1.2
Native American Trust Lands	0	0	0	0	0	0
Private	0	0	265436	89	192549	78
Water	0	0	324	0	198	<1
Utah State Parks	0	0	0	0	0	0
Utah Division of Wildlife Resources	0	0	5194	1.7	12196	5
TOTAL	0	0	298309	100	246532	100

Population: The Morgan-South Rich moose unit was counted in February 2016. The population was estimated at 345 moose (285 actual moose counted). The previous count before that was in 2009 with an estimated population of 450, showing a decrease in population. In 2016, the bull cow ratio was 73 bulls per 100 cows and cow calf ratio 31calves per 100 cows. The three year average (2015-17) age of bulls harvested is 4.7.

Unit 4 (Morgan/South Rich)

	bull harvest	avg. bull age	cow harvest
2008	38	4.4	16
2009	36	4.9	0
2010	32	4.7	0
2011	25	4.3	0
2012	28	4.3	0

2013	27	4.2	0
2014	27	4.5	0
2015	29	5.1	0
2016	28	4.6	0
2017	29	4.4	0

UNIT MANAGEMENT GOALS

Follow Moose Statewide Management Plan for goals and objectives

A. Achieve optimum populations of moose in all suitable habitat within the unit
   Objective 1: Increase unit populations as conditions allow
   - Manage winter populations of 500 moose
   - Survey unit by helicopter to monitor population size and composition
   - Recommend antlered and antlerless harvest to control and maintain population at desired densities
   - Perform research to understand possible limiting factors of unit impacts to survival and reproduction

B. Provide high-quality opportunities for hunting and viewing
   Objective 1: Increase hunting opportunities as populations allow
   - Manage for 3-year average age of 3.75 – 4.25 on harvested bulls
   - Recommend antlerless harvest to reduce impacts from depredation, carrying capacity and population health
   - Work with CWMU operators and presidents to increase hunting opportunity when warranted

C. Assure sufficient habitat is available to sustain healthy and productive populations
   Objective 1: Maintain or enhance the quantity and quality of habitat for moose
   - Identify crucial moose habitat (winter, summer and transitional range) through the Utah Migration Initiative within the Lost River and Upper Ogden river drainages
   - Perform research using resource selection of moose within crucial habitat to understand why and how moose use the landscape within this range
   - Work with private land owners to understand existing vegetative conditions and how this may be limiting to survival and reproduction
   - Initiate vegetative treatments and projects with private landowners to improve vegetative structure that is limiting survival and reproduction. Focus of treatments will be determined by moose habitat use; however, efforts may be focused in riparian and mountain shrub zones.

   Objective 2: Educate public and private landowners on moose populations and needs
   - Work with CWMU operators and presidents to educate the needs for population health
   - Work with Wildlife Migration Initiative to generate interest and education for moose

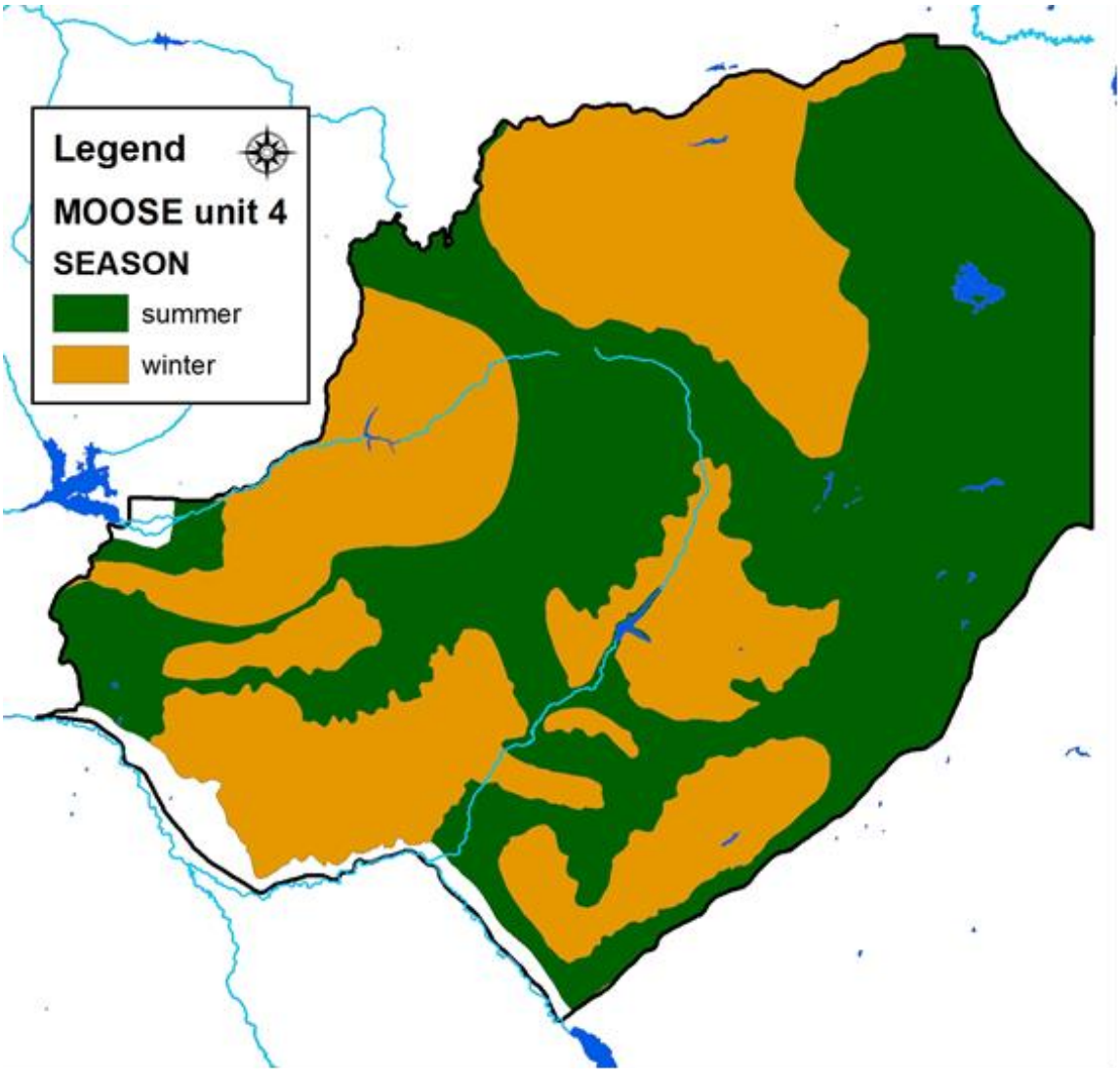


Figure 1: Moose seasonal ranges within Unit 4. Research within summer range is needed to understand habitat use to help determine limiting factors for survival and reproduction.

MOOSE HERD UNIT MANAGEMENT PLAN
Moose Herd Unit # 5
East Canyon
November 2018

BOUNDARY DESCRIPTION

Morgan, Summit, Salt Lake and Davis counties - Boundary begins at the junction of I-80 and I-84 (Echo Junction); southwest on I-80 to I-15; north on I-15 to its junction with I-84 near Ogden; east on I-84 to Echo Junction and I-80.

CURRENT STATUS OF MOOSE MANAGEMENT

Habitat: Landownership within Unit 5 is dominated by private ownership. Approximately 78% of the unit is private with approximately 20% of that private land is enrolled within the CWMU program. This unit can be separated into two subunits for moose. The Morgan and Summit county portion and the Davis county portion. The Morgan/Summit county portion is more rural with the dominant land use as grazing and agriculture. The Davis county portion is next to major human populations along the Wasatch Front at a wildland urban interface.

Davis and Salt Lake County subunit - 5A - This part of the unit contains most of the public lands within the unit. The winter ranges are adjacent to the heavily populated "Wasatch Front" and are becoming limited due to the impact of urban development. This portion of the unit will be managed for lower densities of moose to minimize vehicle collisions and impacts to urban areas.

Morgan & Summit County subunit - 5B - A majority of the land within this portion of the unit is privately owned. Private landowners and local interest groups must be involved in management recommendations. Without their support and cooperation, management objectives may not be realized and moose population control may not be possible.

RANGE
AREA AND APPROXIMATE OWNERSHIP*

	Yearlong range		Summer Range		Winter Range	
Ownership	Area (acres)	%	Area (acres)	%	Area (acres)	%
Forest Service	0	0	30715	26	0	8
Bureau of Land Management	85	1	0	0	32	<1
Utah State Institutional Trust Lands	0	0	0	0	0	0
Private	11388	90	87887	74	24646	99
Utah State Parks	0	0	0	0	0	0
Utah Division of Wildlife Resources	1122	9	77	<1	72	<1
TOTAL	12595	100	118679	100	24750	100

Population: The last aerial trend count was in February 2016. The population was estimated and modeled to be approximately 265 (221 actual moose counted). The previous count before that was in 2011 with an estimated population of 280 moose, indicating a stable population. In 2016, the bull cow ratio was 51 bulls per 100 cows and cow calf ratio 33 calves per 100 cows. The three year average (2015-17) age of bulls harvested is 3.9.

Unit 5 (East Canyon)

	bull harvest	avg. bull age	cow harvest
2008	22	4.6	17
2009	18	3	0
2010	16	4.7	0
2011	18	3.2	0
2012	17	4.2	0
2013	14	3	0
2014	14	3.4	0
2015	11	4.6	0
2016	9	3.8	7
2017	10	3.9	0

UNIT MANAGEMENT GOALS

Follow Moose Statewide Management Plan for goals and objectives

A. Achieve optimum populations of moose in all suitable habitat within the unit
   Objective 1: Increase unit populations as conditions allow
   - Manage winter populations of 300 moose
   - Survey unit by helicopter to monitor population size and composition
   - Recommend antlered and antlerless harvest to control and maintain population at desired densities
   - Perform research to understand possible limiting factors of unit impacts to survival and reproduction

B. Provide high-quality opportunities for hunting and viewing
   Objective 1: Increase hunting opportunities as populations allow
   - Manage for 3-year average age of 3.75 – 4.25 on harvested bulls
   - Recommend antlerless harvest to reduce impacts from depredation, carrying capacity and population health
   - Work with CWMU operators and presidents to increase hunting opportunity when warranted

C. Assure sufficient habitat is available to sustain healthy and productive populations
   Objective 1: Maintain or enhance the quantity and quality of habitat for moose
   - Identify crucial moose habitat (winter, summer and transitional range) through the Utah Migration Initiative
   - Perform research using resource selection of moose within crucial habitat to understand why and how moose use the landscape within this range
   - Work with private land owners to understand existing vegetative conditions and how this may be limiting to survival and reproduction
   - Initiate vegetative treatments and projects with private landowners and federal land management agencies to improve vegetative structure that is limiting survival and reproduction. Focus may be on aspen forests, riparian and mountain shrub zones

   Objective 2: Educate public and private landowners on moose populations and needs
   - Work with private and government agencies to educate the needs for moose population health
   - Work with Wildlife Migration Initiative to generate interest and education for moose

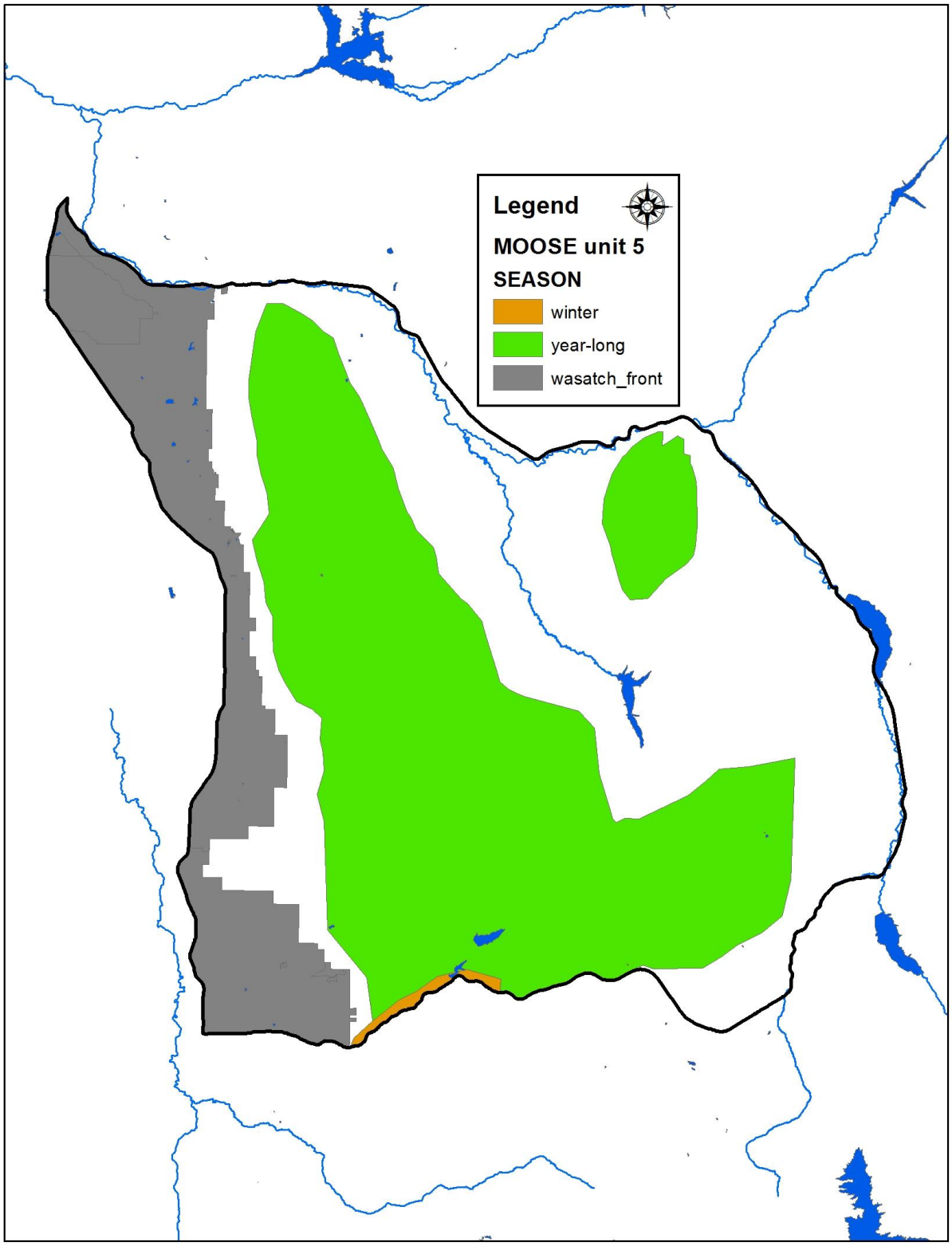


Figure 1: Moose range within Unit 5.

MOOSE UNIT MANAGEMENT PLAN
Moose Unit # 6
CHALK CREEK
November 2018

BOUNDARY DESCRIPTION

Summit and Duchesne counties: Boundary begins at the junction of I-84 and I-80 near Echo; northeasterly on I-80 to the Utah-Wyoming state line; southeast along this state line to SR-150; south on SR-150 to Pass Lake and the Weber River Trail head; west on this trail to Holiday Park and the Weber River road; west on this road to SR-32; northwest on SR-32 to I-80 and Wanship; north on I-80 to I-84 near Echo.

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities including hunting and viewing. Consider impacts of moose on other land uses and public interests, including private property rights, agricultural interests and local economies. Maintain the population at a level that is within the long-term capability of the available habitat.

Summer range is abundant and in good to excellent condition. Winter range is in good condition with moose tending to use curl-leaf mountain mahogany (*Cerocarpus ledifolius*) stands to the exclusion of other habitat types. Moose use other species of browse during winter months, but when curl-leaf mountain mahogany is available they prefer it.

UNIT MANAGEMENT OBJECTIVES

Habitat

Maintain and/or enhance forage production through direct range improvements throughout the unit in moose habitat to achieve population management objectives. Special emphasis should be placed on aspen regeneration and rehabilitation of curl-leaf mountain mahogany stands.

Work with private and federal agencies to maintain and protect critical and existing habitats from future losses.

Population

Target Winter Herd Size: manage moose numbers to achieve a winter population of 400 moose (computer–generated modeled population with an aerial census every three years for ground truthing).

Bull Age Harvest Composition: Three year average age of bulls harvested from the Chalk Creek Unit will be 4 years old (3.75-4.25) as measured by cementum annuli from hunter submitted incisors.

CURRENT STATUS OF MOOSE MANAGEMENT

Habitat

The primary limiting factor for moose in Utah and across their range is the availability of suitable habitat. Moose are primarily browsers and depend on a diet of shrubs and young deciduous trees for much of the year. In more northern climes, moose are often associated with river bottoms, ponds, and lakes with an abundance of shrubby and aquatic vegetation. Although moose in Utah are also associated with riparian habitat types, they are not exclusively tied to them. Moose have

done well in drier habitats in northern Utah which are dominated by mountain mahogany, Gambel oak, serviceberry, quaking aspen, and burned over coniferous forests. Moose also use thick stands of conifer as shelter in the winter and for thermoregulation during the summer. Winter weather and snow depth is not thought to be a seriously limiting factor to moose in Utah. Moose are well adapted, as a result of their long legs and heavy black fur, to live in some of the coldest climates in the world and tolerate deep snow and cold weather very well. In Utah, moose generally live at higher elevations throughout the year, although some moose are observed at lower elevation habitats even in summer. It is possible that moose are limited by prolonged hot weather in parts of Utah. The lack of success of transplants to central and southern Utah may well be due to summer climatic conditions and lack of high elevation habitat.

Valerius Geist recognized two types of moose habitat, permanent and transient. Permanent habitats are those that persist through time and do not succeed to other vegetative communities. Examples of permanent habitat include riparian and high elevation shrub communities. Annual flooding, avalanches, or timberline conditions help maintain those more permanent moose habitat types. Transient habitat is more common and is usually associated with forest fires and timber harvesting which remove coniferous trees and revert the habitat to early seral stages, dominated by shrubs and young deciduous tress. Throughout much of its range in North America, the moose is associated with short-lived sub-climax plant communities that follow in the wake of forest fires. Habitat improvement projects which favor early seral stages and increased shrub growth can be very beneficial to moose. The use of fire can also be used to dramatically improve moose habitat.

RANGE AREA AND APPROXIMATE OWNERSHIP

SEASON	VALUE	OWNERSHIP	ACRES
Summer	crucial	BLM	65
		USFS	0
		Military	0
		National Parks, Monuments, etc.	0
		Private	72,631
		State Parks and Recreation	0
		State Sovereign	0
		State Trust Land	459
		State Wildlife	297
Winter	crucial	BLM	191
		USFS	34,031
		Military	0
		National Parks, Monuments, etc.	0
		Private	274,659
		State Parks and Recreation	296
		State Sovereign	0
		State Trust Land	0
		State Wildlife	2,127
		TOTAL ACRES	**384,756**

POPULATION

The most recent computer modeled population estimate, coming from the 2013 population trend

survey, is 350 wintering animals. The latest ratio estimates from the January 2013 Chalk Creek survey is 87 bulls per 100 cows and 40 calves per 100 cows. The following table indicates the changing rates of production on the unit.

Moose Classification-Chalk Creek Unit # 6

Year	Bulls	Cows	Calves	Calves/ 100cows	Bulls/ 100Cows
2004	184	215	79	37	86
2007	155	203	85	42	76
2011	94	128	34	27	73
2013	108	123	50	40	87

BARRIERS TO ACHIEVING UNIT MANAGEMENT OBJECTIVES

Habitat

At this point habitat does not to seem to be limiting factor on this unit, however, continued efforts in habitat improvement and rehabilitation should be pursued to keep quality habitat in abundance.

Population

It may be necessary to revisit the population objective if moose begin to show up in urban environments and neighborhoods with regularity.

Other Barriers

Disease - Like all wild ungulates, moose are susceptible to a wide variety of viral, bacterial, and parasitic diseases. Although diseases caused by parasites are not always fatal, they may affect the animal physiologically and alter behavior enough to cause death. Unfortunately, because of the large size of these animals and their remote locations, diagnoses have been very difficult to obtain. Some of the diseases and parasites either documented or considered a concern to Utah moose populations include bluetongue (BTV), epizootic hemorrhagic disease (EHD), chronic wasting disease, (CWD), elaeophorosis, infectious kerato-conjunctivitis (IKC), malignant catarrhal fever (MCF), and white muscle disease. Continued efforts to collect samples from hunter-harvested moose will continue.

STRATEGIES FOR REACHING UNIT MANAGEMENT OBJECTIVES

Habitat Monitoring

Continue to monitor permanent range trend studies located throughout the winter range. New locations for permanent range trend studies should be investigated in order to better understand changing climatic and range conditions.

Population Monitoring

Population Size: a computer-generated model has been developed utilizing hunter harvest data, aerial trend counts, postseason classification and mortality estimates to estimate winter

population size.

Bull Age Structure: age structure of the bull moose population will be monitored with checking stations, uniform harvest surveys, field checks, postseason classification and aerial classification.

Harvest: the primary means of tracking harvest will be through the statewide uniform harvest survey. Bulls will be managed to achieve the average age objective. The target population size will be achieved by the use of antlerless harvest, utilizing a variety of hunt strategies and season dates. All hunt strategies will be developed through the RAC and Wildlife Board process.

Management Actions to Remove Population Barriers

Fencing, depredation hunts and other actions will be used to reduce or mitigate crop depredation or habitat degradation.

Increase population objective on this unit when the biological and social carrying capacity allow for an upward adjustment.

MOOSE UNIT MANAGEMENT PLAN
Moose Unit # 7
KAMAS
November 2018

BOUNDARY DESCRIPTION

Summit and Wasatch counties--Boundary begins at I-80 and SR-32 at Wanship; south on SR-32 to Oakley and CR-2596 (Weber Canyon road); east on this road to Holiday Park and the Weber River Trail; east on this trail to SR-150 near Pass Lake; south and west on SR-150 to USFS 037 (Soapstone Basin); south along this road to SR-35; west on SR-35 to Francis and SR-32; west on SR-32 to US-40 near Jordanelle Dam; north on US-40 to I-80; north and east on I-80 to SR-32.

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities including hunting and viewing. Consider impacts of moose on other land uses and public interests, including private property rights, agricultural interests and local economies. Maintain the population at a level that is within the long-term capability of the available habitat to support.

Summer range is abundant and in good to excellent condition. Winter range is in good condition with moose tending to use curl-leaf mountain mahogany (*Cerocarpus ledifolius*) stands to the exclusion of other habitat types. Moose use other species of browse during winter months, but when curl-leaf mountain mahogany is available, they prefer it.

UNIT MANAGEMENT OBJECTIVES

Habitat

Maintain and/or enhance forage production through direct range improvements throughout the unit to achieve population management objectives. Special emphasis will be placed on aspen regeneration projects and rehabilitation of curl-leaf mountain mahogany stands.

Work with private and federal agencies to maintain and protect critical and existing habitats from future losses.

Population

Target Winter Herd Size: manage moose numbers in order to achieve a winter population 125 moose (computer-modeled population with an aerial census every three years for ground truthing).

Bull Age Harvest Composition: average age of bulls harvested from the Kamas unit will be 4 years old (3.75-4.25) as measured by cementum annuli from hunter submitted incisors.

STATUS OF MOOSE MANAGEMENT

Habitat

The primary limiting factor for moose in Utah and across their range is the availability of suitable habitat. Moose are primarily browsers and depend on a diet of shrubs and young deciduous trees for much of the year. In more northern climes, moose are often associated with river bottoms, ponds, and lakes with an abundance of shrubby and aquatic vegetation. Although moose in Utah are also associated with riparian habitat types, they are not exclusively tied to them. Moose have done well in drier habitats in northern Utah, which are dominated by mountain mahogany, Gambel oak, serviceberry, quaking aspen, and burned over coniferous forests. Moose also use thick stands of conifer as shelter in the winter and for

thermoregulation during the summer. Winter weather and snow depth is not thought to be a seriously limiting factor to moose in Utah. Moose are well adapted, because of their long legs and heavy black fur, to live in some of the coldest climates in the world and tolerate deep snow and cold weather very well. In Utah, moose generally live at higher elevations throughout the year, although some moose are observed at lower elevation habitats even in summer. It is possible that moose are limited by prolonged hot weather in parts of Utah. The lack of success of transplants to central and southern Utah may well be due to summer climatic conditions and lack of high elevation habitat.

Valerius Geist recognized two types of moose habitat, permanent and transient. Permanent habitats are those that persist through time and do not succeed to other vegetative communities. Examples of permanent habitat include riparian and high elevation shrub communities. Annual flooding, avalanches, or timberline conditions help maintain those more permanent moose habitat types. Transient habitat is more common and is usually associated with forest fires and timber harvesting which remove coniferous trees and revert the habitat to early seral stages, dominated by shrubs and young deciduous tress. Throughout much of its range in North America, the moose is associated with short-lived sub-climax plant communities that follow in the wake of forest fires. Habitat improvement projects that favor early seral stages and increased shrub growth can be very beneficial to moose. The use of fire can also be used to dramatically improve moose habitat.

RANGE AREA AND APPROXIMATE OWNERSHIP

Season	Value	Ownership	Acres
Winter	crucial	BLM	40
		USFS	126,878
		Military	0
		National Parks, Monuments, etc.	0
		Private	24,989
		State Parks and Recreation	0
		State Sovereign	0
		State Trust Land	280
		State Wildlife	1,135
Year-long	crucial	BLM	0
		USFS	0
		Military	0
		National Parks, Monuments, etc.	0
		Private	363
		State Parks and Recreation	0
		State Sovereign	0
		State Trust Land	0
		State Wildlife	0
		TOTAL ACRES	153,685

POPULATION

The Kamas unit moose population remains stable. The most recent computer modeled population estimate, coming from the 2013 population trend survey, is 68 wintering animals. The latest ratio estimates from this survey are 87 bulls per 100 cows and 59 calves per 100 cows. The following table indicates the changing rates of production on the unit.

Moose Classification-Kamas Unit 7

Year	Bulls	Cows	Calves	Calves/ 100cows	Bulls/ 100Cows	Total Moose Classified
2007	24	23	5	22	104	52
2011	19	22	13	59	86	54
2013	17	22	14	59	87	53

BARRIERS TO ACHIEVING UNIT MANAGEMENT OBJECTIVES

Habitat

At this point habitat does not to seem to be limiting factor on the unit, however, continued efforts in habitat improvement and rehabilitation will be pursued to keep quality habitat in abundance.

Population

It may be necessary to revisit the population objective if moose begin to show up in urban environments and neighborhoods with regularity.

Other Barriers

Disease - Like all wild ungulates, moose are susceptible to a wide variety of viral, bacterial, and parasitic diseases. Although diseases caused by parasites are not always fatal, they may affect the animal physiologically and alter behavior enough to cause death. Unfortunately, because of the large size of these animals and their remote locations, diagnoses have been very difficult to obtain. Some of the diseases and parasites either documented or considered a concern to Utah moose populations include bluetongue (BTV), epizootic hemorrhagic disease (EHD), chronic wasting disease, (CWD), elaeophorosis, infectious kerato-conjunctivitis (IKC), malignant catarrhal fever (MCF), and white muscle disease. Continued efforts to collect samples from hunter-harvested moose will continue.

STRATEGIES FOR REACHING UNIT MANAGEMENT OBJECTIVES

Habitat Monitoring

Continue to monitor permanent range trend studies located throughout the winter range. New locations for permanent range trend studies should be investigated in order to better understand changing climatic and range conditions.

Population Monitoring

Population Size: a computer-generated model has been developed utilizing hunter harvest data, aerial trend counts, postseason classification and mortality estimates to estimate winter population size.

Population supplementation – If needed, due to population declines, animals may be translocated from other source herds. Depending on availability of animals, the DWR may transplant up to 10 animals per year. These transplants may occur each year until the estimated population meets/exceeds 80% of the estimated population objective. Release sites would include Shingle Creek, Beaver Creek and the Norway Flats area.

Bull Age Structure: age class structure of the bull moose population will be monitored with checking stations, uniform harvest surveys, field checks, postseason classification and aerial classification.

Harvest: the primary means of tracking harvest will be through the statewide uniform harvest survey. Bulls will be managed to achieve the average age objective. The target population size will be achieved by the use of antlerless harvest, utilizing a variety of hunt strategies and season dates. All hunt strategies will be developed through the RAC and Wildlife Board process.

Management Actions to Remove Population Barriers

Fencing, depredation hunts and other actions will be used to reduce or mitigate crop depredation or habitat degradation.

Increase population objective on this unit when the biological and social carrying capacity allow for an upward adjustment.

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources

MICHAL D. FOWLKS
Interim Division Director

MEMORANDUM

Date: November 6, 2018

To: Wildlife Board and Regional Advisory Council Members

From: Avery Cook, Upland Game Project Leader

Subject: COMMERCIAL HUNTING AREA RECOMMENDATIONS

The Utah Division of Wildlife Resources is recommending the following changes to the Commercial Hunting Area rule (R657-22).

Summary of Recommended Changes:

- Allow new applications to be submitted year-round and update maximum processing time to 60 days. Dates for annual reports and renewals will not change.
- Update map requirements to allow the use of digital mapping technology.
- Require maps for both new and renewal applications.
- Require annual reporting of number of birds released and killed as totals per season rather than by date.
- Require annual reporting of number of birds lost to unusual mortality events due to sickness, disease, diet or unknown cause and reporting of the event within 72 hours.
- Change minimum boundary marking interval from 300 feet to 300 yards.
- Remove the requirement for CHAs to be in a single contiguous tract, and add a requirement for all tracts of a CHA to be located within a 10 mile diameter circle.
- Increase the acreage cap from 1,920 acres (3 square miles) to 5,760 (9 square miles).
- Add *Mycoplasma gallisepticum*, *Mycoplasma synoviae*, and Avian Influenza to the list of disease tests required before release if birds are not sourced from an NPIP facility.
- Remove the unused option for a 15 day season extension.
- Make shooting hours consistent regardless of location.

Rule Change Recommendations:

- See attached redline document.

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R657. Natural Resources, Wildlife Resources.[]
R657-22. Commercial Hunting Areas.
R657-22-1. Purpose and Authority.

Under authority of Section 23-17-6, this rule provides the procedures and requirements for establishing, maintaining, and operating a CHA.

R657-22-2. Definitions.

(1) Terms used in this rule are defined in Section 23-13-2.

(2) In addition:

(a) "CHA" means Commercial Hunting Area.

(b) "Commercial hunting area" means a parcel of land where pen-raised or propagated game birds are released for the purpose of allowing hunters to take them for a fee.

(c) "Game bird" means, for the purpose of this rule only, all species or sub-species of partridge, pheasant, and quail authorized for release on a CHA.

(d) "Operator" means a person, group, or business entity, including their agents, employees and contractors, that manages, owns, administers, or oversees the activities and operations of a CHA. Operator further includes any person, group or business entity that employs or contracts another to serve or act as an operator.

R657-22-3. Application for a Certificate of Registration.

(1)(a) A certificate of registration is required before any person may operate a CHA.

(b) An application for a CHA certificate of registration must be completed and returned to the regional office where the proposed CHA is located[~~by May 1.~~].

(2)(a) Any application that does not clearly and legibly verify ownership or lease by the applicant as required in Subsection (3), of all property for which the application applies shall be returned to the applicant.

(b) Discovery of property after issuance of the CHA certificate of registration, which is not approved by its owner or lessee to be included in the CHA, shall immediately void the CHA certificate of registration.

(3)(a) The application must be accompanied by:

(i) [~~County Recorder Plat maps, or equivalent maps, dated by receipt of purchase within 30 days of submitting the CHA application,~~]Detailed maps depicting boundaries, game bird holding facilities and ownership of all [~~property~~]parcels within the CHA; and

[~~(ii) U.S. Geological Survey topographical maps, no smaller scale than 7 1/2 minutes, with the proposed boundaries clearly marked;~~](ii) Large scale maps depicting the location of the CHA relative to the nearest city or town;

(iii) evidence of ownership of the property, such as a copy of a title, deed, or tax notice that provides evidence the applicant is the owner of the property described; or

(iv) a lease agreement for the period of the CHA certificate of registration, listing the name, address and telephone number of the lessor, that provides evidence the applicant is the lessee of the hunting or shooting rights of the property described;

(v) the address of any propagation or game bird holding facility not located on the CHA property; and

(vi) the annual CHA certificate of registration fee for the first year of operation.

(4) The division may return any application that is incomplete, completed incorrectly, or that is not accompanied by the information required in Subsection (3).

(5)(a) Review and processing of the application may require up to [~~45~~]60 days.

(b) More time may be required to process an application if the applicant requests authorization from the Wildlife Board for a variance to this rule.

(6) Applications are not accepted for a CHA that is within 1/4 mile of any existing state wildlife or waterfowl management area without requesting a variance from the Wildlife Board.

(7) The division may deny any application or impose provisions on the CHA certificate of registration that are more restrictive than this rule in the interest of wildlife or wildlife habitat.

(8) Commercial Hunting Area certificates of registration are effective from the date issued through June 30 of the third consecutive year.

(9) The annual CHA certificate of registration fee for the second and third years of operation must be submitted when invoiced.

(10) Rights granted by a CHA certificate of registration are not transferable or assignable.

R657-22-4. Renewal of Certificate of Registration.

(1) A certificate of registration may be renewed by completing a renewal application and paying a CHA certificate of registration renewal fee.

(2)(a) Renewal applications must be completed and submitted to the division regional office in which the CHA is located by May 1 immediately prior to the June 30 expiration date identified on the current CHA certificate of registration.

(b) Any application that does not clearly and legibly verify ownership or lease by the applicant as required in Subsection (3), of all property for which the application applies shall be returned to the applicant.

(c) Discovery of property during the CHA certificate of registration period, which is not approved by its owner or lessee to be included in the CHA, shall immediately void the CHA certificate of registration.

(3)(a) The renewal application must be accompanied by:

(i) a lease agreement extending through the period of the CHA certificate of registration being applied for listing the name, address and telephone number of the lessor, that provides evidence the applicant is the lessee of the hunting or shooting rights of the property described;

(ii) an annual report as provided in Subsection R657-22-6(2); and

[~~(iii) any change in property ownership differing from ownership identified in the CHA certificate of registration immediately preceding the current application, including updated maps as provided in Subsection R657-22-3(3)(a) if the CHA boundaries change.~~](iii) Detailed maps depicting boundaries, game bird holding facilities and ownership of all parcels within the CHA; and

(iv) Large scale maps depicting the location of the CHA relative to the nearest city or town;

R657-22-5. Conditions for Approval Initial and Renewal Applications.

(1) Initial and renewal applications may be denied by the division if the applicant or operator, or any of its agents or employees:

(a) violated any provision of this rule , the Wildlife Resources Code, a CHA certificate of registration, or the CHA application;

(b) obtained or attempted to obtain a CHA certificate of registration by fraud, deceit, falsification, or misrepresentation;

(c) is employed, contracted through writing or verbal agreement, assigned, or requested to apply and act as the operator by a person, group, or business entity that will directly or indirectly benefit from the CHA, but would otherwise be ineligible under this rule or by virtue of suspension under Section 23-19-9 to operate a CHA if they applied directly as the operator; or

(d) engaged in conduct that results in the conviction of, a plea of no contest to, a plea held in abeyance, or a diversion agreement to a crime of moral turpitude, or any other crime that when considered with the functions and responsibilities of a CHA operator bears a reasonable relationship to the operator[~~'~~]'s or applicant[~~'~~]'s ability to safely and responsibly operate a CHA.

(2) Initial and renewal applications may be denied by the division if CHA operations may present unacceptable risk to wildlife populations.

(3) If an application is denied, the division shall state the reasons in writing within 30 days of denial.

R657-22-6. Records and Reports[~~--- Annual Report~~].

(1) The operator of a CHA shall maintain complete and accurate records of:

(a) the number, species, and source of any game birds purchased or propagated;

(b) health certificates for all game birds purchased from outside the state of Utah;

(c) the number, species and [~~date~~]season the game birds are released; and

(d) the number, species and [~~date~~]season of game birds taken within the CHA boundary, including wild game birds[~~; and~~]

(e) the number, species and date of unusual mortality events due to sickness, disease, diet or unknown cause; and

(f) copies of the bill of sale issued to hunters and any other person who purchases game birds.

(2) Each operator must submit an annual report on a form provided by the division within 30 days of the close of the season or at the time of renewal, including:

(a) the number of game birds by species that were released and the total number of game birds taken by hunters or sold;

(b) the date, source, and number of the game birds purchased; and

(c) the number of game birds by species held in possession [~~on April 15.~~]for carryover breeding stock at the close of the season.

(3) All records must be maintained on the hunting premises or the principal place of business for three years and must be available for inspection by the division.

(4) Falsifying or fabricating any record or report is prohibited and may result in forfeiture of CHA opportunities.

(5) The operator of a CHA shall notify the Division of any large mortality events due to sickness, disease, diet or unknown cause within 72 hours of the event.

R657-22-7. Boundary Marking.

(1) The CHA area must be posted:

(a) at least every 300 [~~feet~~]yards along the outer boundary of all hunted areas; and

(b) on all corners, streams, rivers, drainage divides, roads, gates, trails, rights-of-way, dikes, canals, and ditches crossing the boundary lines.

(2) Each sign used to post the property must be at least 8-1/2 by 11 inches and must clearly state:

(a) the name of the CHA as designated on the CHA certificate of registration;

(b) the words "No Trespassing"; and

(c) wording indicating the sign is located on the CHA boundary.

(3)(a) If the CHA operator fails to renew a CHA certificate of registration or a renewal application is denied, all signs shall be immediately removed.

(b) The division may remove and dispose of any signs that are not removed within 30 days after the termination of the CHA certificate of registration.

(4) Commercial hunting area activities may only be conducted on property properly posted and specifically authorized in the CHA certificate of registration.

(5) Commercial hunting area operators may not post or otherwise restrict public access on public roads, right-of-ways, or easements within the CHA.

R657-22-8. Acreage Requirements.

(1)(a) The minimum acreage accepted for a CHA is 160 acres in a single[~~, connected~~] contiguous tract.

(b) Disjunct areas may be included under a single CHA COR if each area is 160 acres or larger and all areas can be contained within an circular area 10 miles in diameter.

(b) The maximum acreage accepted for a CHA is [~~1,920~~]5,760 acres[~~ in a single, connected tract~~].

(2) A CHA may not be established closer than 1/4 mile of a wildlife management area, [~~or~~]waterfowl management area, or migratory bird refuge unless otherwise allowed by a variance of the Wildlife Board.

[~~(3) The Wildlife Board may allow a variance to the acreage requirements provided in Subsection (1) if no more than 1,920 acres are to be used for hunting at any one time.~~]

R657-22-9. Bill of Sale Required.

(1) The operator of a CHA shall issue a bill of sale to each person who has taken a game bird from the CHA.

(2) The bill of sale shall be issued prior to the transportation of any bird from the CHA.

(3) The bill of sale must include:

(a) the person's name;

(b) the date the game birds were taken or purchased;

(c) the species, number of game birds, and sex of the game birds; and

(d) the name of the CHA where the game birds were taken or purchased.

R657-22-10. Importation.

(1) A CHA certificate of registration allows the importation of live game birds provided the operator first obtains a valid certificate of veterinary inspection covering each imported game bird, and further receives an import permit from the Utah Department of Agriculture and Food consistent with the requirements of Rule R58-1.

(2) The health certificate must contain an entry permit number from the Department of Agriculture as provided in Section R58-1-4.

R657-22-11. Disease Protocol.

(1) The division may:

(a) investigate any reported disease and take any necessary action to control a contagious or infectious disease affecting domestic animals, wildlife, or public health; or

(b) order a veterinarian or certified pathologist's report of a suspected disease at the operator's expense, and may order quarantine, immunization, testing, or other sanitary measures.

(2)(a) The division may order the destruction and disposal of any game bird found to have an untreatable disease which poses a potential threat or health risk to domestic poultry, humans, or wildlife, as determined by the division, the Department of Agriculture, or the Department of Health.

(b) Actions taken pursuant to Subsection (a) shall be:

(i) at the operator's expense; and

(ii) accomplished by following procedures acceptable to the division that ensure the disease is not transmitted to wildlife, domestic animals, or humans.

(3)(a) Commercial hunting area operators must take reasonable precautions to prevent and control the spread of infectious diseases among pen-raised game birds under their control including the requirements as provided in Subsection (b) and Section R657-22-10.

(b) Commercial hunting area operators must obtain a statement from a veterinarian before release that the birds have[~~been tested for~~] tested negative for *Mycoplasma gallisepticum*, *Mycoplasma synoviae*, Avian Influenza virus and *Salmonella pullorum* or come from a source flock that participates in the National Poultry Improvement Plan (NPIP).

(c) Commercial hunting area operators who have a current CHA certificate of registration must comply with the requirement in Subsection (b) within six months from the effective date of this rule.

R657-22-12. Authorized Species.

The only game birds that may be released or propagated under the authority of a CHA certificate of registration are species or subspecies of partridge, pheasant, or quail[~~, including any subspecies.~~] specifically authorized on a certificate of registration.

R657-22-13. Inspection of Game Birds, Premises, and Records.

(1)(a) Certificates of registration are issued upon the express condition that the operator agrees to permit the division and public health and safety officials to enter and inspect the premises, facilities, and all required records and health certificates to ensure the CHA is in compliance with this rule and other applicable laws.

(b) Commercial hunting area operators must allow the division and public health and safety officials reasonable access to conduct the inspections authorized in Subsection (1)(a).

(2) Inspections shall be made during reasonable hours.

R657-22-14. Restrictions on Release and Harvest.

(1)(a) Except as provided in Subsection R657-22-16(2)(e), game birds raised or held in possession under this rule may be released only on the CHA property.

(b) Each game bird released must be healthy, capable of flight, [~~and~~]free of disease[~~.~~] and suitable for human consumption.

(c) A person may not retard or restrict a game bird's ability to fly or run [~~by clipping, brailling, blinding, pinioning, harnessing, or drugging.~~]during hunting activities in any manner other than dizzying or tucking heads under wings before release.

(2) [~~At least~~]A minimum of 100 game birds of each authorized species[~~, or as approved by the Wildlife Board, or otherwise stated on the CHA certificate of registration~~], shall be released on the CHA during the current operating year.

(3)(a) Operators may not allow the harvest of more than 85% of each species released, except as provided in Subsection (b).

(b) There is no limit to the percentage of game birds that may be harvested that are not, in the opinion of the division, established as a wild population in the vicinity of the CHA. Any variance to Subsection (a) shall be indicated on the CHA certificate of registration.

(4) Only those game birds obtained from the following sources may be released or held in possession on a CHA:

(a) an aviculturist, certified as provided in Rule R657-4;

(b) a CHA, certified under this rule; or

(c) a source located outside of Utah provided the game birds are imported as provided in Rule R58-1.

(5) Protected wildlife not authorized for release on the CHA may be hunted only during their respective seasons as provided in the rules and proclamations of the Wildlife Board.

R657-22-15. Recapture.

(1)(a) Trapping game birds alive or retrapping game birds that have been released is permitted only:

(i) within the CHA area boundaries;

(ii) from September 1 through April 2; and

(iii) for wild species listed on the CHA certificate of registration as not established in the area.

(b) Any game bird that escapes from the CHA becomes the property of the state of Utah and may not be recaptured.

(2) Any game bird trapped alive may not be recounted or added to the total number of birds released when computing the number which may be taken as provided in Subsection R657-22-14(3).

R657-22-16. Propagation.

(1) The CHA certificate of registration allows the propagation of those species of game birds held in possession as indicated on the CHA certificate of registration.

(2) Any game birds held in possession under this rule must be released on the CHA or may be sold:

(a) to a private wildlife farm, certified as provided in Rule R657-4;

(b) a CHA, certified under this rule;

(c) to a person located outside of Utah;

(d) to a person for consumption; or

(e) for use in training dogs or the sport of falconry as provided in Rule R657-46.

[~~(3)(a) If a CHA game bird is held in possession at any location other than that listed on the application or transferred~~

~~alive to any other location, prior authorization must be obtained from the division or must be authorized on the CHA certificate of registration.~~]

([~~b~~]3) Authorization for the possession of live game birds for any primary purpose other than being released to allow hunters to take them for a fee may be obtained under the provisions of Rule R657-4 or Rule R657-46.

R657-22-17. Season Dates.

(1)[~~(a)~~] Hunting on CHA areas is permitted from September 1 through March 31.

[~~(b) The Wildlife Board may authorize a variance to the dates provided in Subsection (a) if:~~]

[~~(i) wild game birds do not nest within the location of the CHA or surrounding areas; and~~]

[~~(ii) there are no detrimental effects to other species of wildlife.~~]

(2) If September 1 falls on a Sunday, the season will open on August 31.

[~~(3) The director may extend the season up to fifteen days, provided wild nesting game birds are not adversely affected.~~]

R657-22-18. Hunting Hours and Hunter Requirements.

(1) Game birds may be taken on a CHA only one-half hour before sunrise through one-half hour after sunset[~~, except on a CHA located adjacent to a state wildlife or waterfowl management area, game birds may be taken one-half hour before sunrise through sunset~~].

(2) Any person hunting within the state on any CHA must meet [~~hunter education~~]requirements as provided in Section 23-17-6.

R657-22-19. Suspension.

The division may suspend a CHA certificate of registration for a CHA as authorized under Section 23-19-9 and Rule R657-26.

KEY: game birds, wildlife, wildlife law
Date of Enactment or Last Substantive Amendment: May 8, 2007
Notice of Continuation: May 3, 2017
Authorizing, and Implemented or Interpreted Law: 63G-4-203; 23-17-6

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources

MICHAL D. FOWLKS
Interim Division Director

MEMORANDUM

Date: November 6, 2018

To: Wildlife Board and Regional Advisory Council Members

From: Avery Cook, Upland Game Project Leader

Subject: SAGE-GROUSE TRANSPLANT LOCATION APPROVAL

The Utah Division of Wildlife Resources is requesting a 5 year extension of the previously approved sage-grouse transplant release location of the Sheeprock Mountains Sage-grouse Management Area. Source populations include the Parker Mountain Sage-grouse Management Area and the Box Elder Sage-grouse Management Area and will include a maximum of 40 sage-grouse per year.

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