

**DEER HERD UNIT MANAGEMENT PLAN**  
**Deer Herd Unit # 9**  
**South Slope**  
**October, 2016**

**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 White 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.

**LAND OWNERSHIP**

**RANGE AREA AND APPROXIMATE OWNERSHIP**

Ownership	Yearlong range		Summer Range		Winter Range	
	Area (acres)	%	Area (acres)	%	Area (acres)	%
Forest Service	69	0%	873,235	76%	39,946	7%
Bureau of Land Management	33,042	6%	94,873	8%	183,516	31%
Utah State Institutional Trust Lands	16,195	3%	8,848	1%	36,543	6%
Native American Trust Lands	102,738	20%	35,291	3%	200,458	34%
Private	342,288	66%	108,133	9%	107,791	18%
USFWS Refuge	5,737	1%	0	0%	0	0%
National Parks	9,576	2%	7,925	1%	11,706	2%
Utah State Parks	346	<1%	0	0%	4,050	1%
Utah State Lands & Forestry	69	<1%	0	0%	0	0%
US Bureau of Reclamation	659	<1%	0	0%	0	0%
Utah Division of Wildlife Resources	897	<1%	13,716	1%	2,994	1%
<b>TOTAL</b>	<b>950,681</b>	<b>100%</b>	<b>1,140,008</b>	<b>100%</b>	<b>731,950</b>	<b>100%</b>

## **UNIT MANAGEMENT GOALS**

Manage the deer population at a level capable of providing a broad range of recreational opportunities, including hunting and viewing.

Balance deer herd goals and objectives with impacts on human needs, such as private property rights, agricultural crops and local economies.

## **POPULATION MANAGEMENT OBJECTIVES**

Target Winter Herd Size – Manage for a target population of 28,000 wintering deer (modeled number) during the five-year planning period unless range conditions become unsuitable, as evaluated by DWR. Range trend data coupled with annual browse monitoring will be used to assess habitat condition. Biologists will continue to carefully monitor winter ranges and make recommendations to improve and protect winter habitat. Should over-utilization and range damage by deer occur, recommendations will be made to reduce deer populations to sustainable levels in localized areas.

**Long Term Target Winter Herd Size** – population size of 28,000 wintering deer (modeled number) distributed in the following subpopulations:

- 9a	Yellowstone subpopulation:	13,000
- 9b,c&d	Vernal/Bonanza and Diamond Mountain subpopulations:	15,000

- **Herd Composition** – The Yellowstone and Vernal/Bonanza subunits are General Season subunits and will be managed for a 3-year average postseason buck to doe ratio in accordance to the statewide deer plan. 9a is managed for 18-20 bucks per 100 does. 9b,d is managed for 15-17 bucks per 100 does).

The Diamond Mountain subunit 9c will be managed as a Limited Entry hunting unit, with a 3 year average postseason buck to doe ratio objective ranging from 25 to 35 bucks per 100 does.

**Harvest** – Continue general season unit by unit buck deer hunt management, using archery, any weapon and muzzleloader hunts. Buck permits will be adjusted to maintain buck-doe ratio objectives. Antlerless permits will be issued to address specific localized range degradation concerns or crop depredation.

## **POPULATION MANAGEMENT STRATEGIES**

### **Monitoring**

**Population Size** - Winter population size will be estimated using a model that was developed to utilize harvest data, postseason and spring classifications and radio collar based survival estimates. Annual survival rates for adult does and doe fawns will be monitored by capturing and radio collaring at least 20 doe fawns each December across the unit and monitoring survival rates into adult hood. A minimum of 50 collared adult females will be maintained across the unit to monitor adult survival.

**Harvest** - The primary means of monitoring harvest will be through the statewide uniform harvest survey. We recognize that buck harvest may be above or below what is expected due to climatic and productivity variables. Buck harvest strategies will be developed through the RAC and Wildlife Board process to achieve management objectives for buck:doe ratios.

### **Strategies to address Limiting Factors:**

Crop Depredation - Minimize depredation as prescribed by state law and DWR policy.

Habitat - Public land winter range availability, landowner acceptance and winter range forage conditions will determine herd size. Excessive habitat utilization will be addressed with antlerless deer hunts to lower populations in localized areas.

Predation - DWR will follow the strategies outlined in the predator management policy.

Highway Mortality - Highway mortality is a significant factor in reduced population growth in deer. Work should continue in cooperation with UDOT, Uintah and Duchesne counties, universities, local conservation groups, and landowners to minimize highway mortality by identifying locations of high deer-vehicle collisions and erecting sufficient wildlife crossing structures in those locations. Evaluate the effectiveness of the crossing structures over time and implement new technologies to improve future wildlife crossing structures.

Disease - The impact of disease on deer herds is difficult to assess. Monitoring will continue for diseases that have been found in the state including bluetongue, epizootic hemorrhagic disease (EHD), pneumonia, enterotoxemia and chronic wasting disease (CWD). CWD has been documented on the Vernal and Diamond Mountain subunits. Since 2002 when CWD monitoring was initiated, samples from deer have tested positive for CWD out of 4790 samples tested from across the North Slope and the South Slope units. Between 2008 and 2015 there were no new positive samples found until 1 positive was detected in 2015. 1900 elk samples have been tested since 2002 with only one positive result in 2014.

Illegal Harvest - Support law enforcement efforts to educate the public concerning poaching and reduce illegal taking of deer.

## **HABITAT MANAGEMENT OBJECTIVES**

Protect, maintain, and/or improve deer habitat through direct range improvements to support and maintain herd population management objectives.

Work with private landowners and federal, state, and local governments to maintain and protect critical and existing ranges from future losses and degradation through grazing management and OHV and Travel Plan modifications.

Work with federal, private, and state partners to improve crucial deer habitats through the Watershed Restoration Initiative (WRI) process. Priority will be given to areas affected by the 2003 sagebrush die off and burned areas that are now dominated by cheat grass.

Work with federal and state partners in fire rehabilitation on crucial deer habitat through the WRI process.

Maintain and protect critical winter range from future losses. Preserve, protect and/or acquire critical winter range when the opportunity arises.

Minimize and mitigate impacts from energy development activities. Minimize deer vehicle collisions along highways on the unit.

## **HABITAT MANAGEMENT STRATEGIES**

Continue to improve, protect, and restore sagebrush steppe habitats critical to deer. Cooperate with federal land management agencies and private landowners in carrying out habitat improvements such as pinion-juniper removal, reseeding, controlled burns, grazing management, water developments, etc. on public and private lands. Habitat improvement

projects will occur on both winter ranges as well as summer range. Priority will be given to areas affected by the 2003 sagebrush die off and burned areas that are now dominated by cheat grass.

Continue to monitor permanent range trend studies located throughout the unit.

Conduct cooperative seasonal range assessments to evaluate forage condition and utilization. Determining opportunities for habitat improvements will be an integral part of these surveys. This will also be pivotal in determining if antlerless harvest is necessary.

Work toward long term habitat protection and preservation through the use of agreements with federal agencies and local governments and the use of conservation easements on private lands.

Support, cooperate with, and provide input to land management planning efforts dealing with actions affecting habitat security, quality and quantity.

Work with land management agencies and energy companies to minimize and mitigate impacts of energy development activities. Oil and gas specific habitat biologists will lead this effort. Continue to monitor deer survival on this unit through radio telemetry studies. Use telemetry data to determine potential habitat improvement projects.

Manage vehicle access on DWR lands to limit human disturbance during times of high stress, such as winter and fawning.

Manage riparian areas in critical fawning habitat to furnish water, cover and succulent forage from mid to late summer.

Protect deer winter ranges from wildfire by reseeding burned areas, creating fuel breaks and vegetated green strips and reseed areas dominated by cheat grass with desirable perennial vegetation.

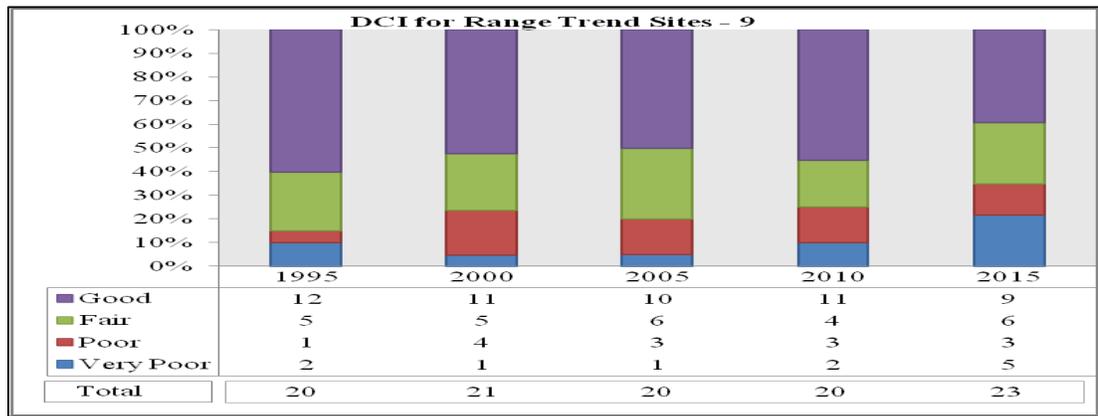
Reduce expansion of pinion-juniper and other woodlands into sagebrush habitats and improve habitats dominated by pinion-juniper woodlands by completing habitat restoration projects like lop & scatter, bullhog, and chaining.

Manage conifer encroachment on important summer ranges by utilizing prescribed fire. Seek opportunities to increase browse in burned areas of critical winter range.

Utilize antlerless deer harvest to improve or protect forage conditions when vegetative declines are attributed to deer over utilization.

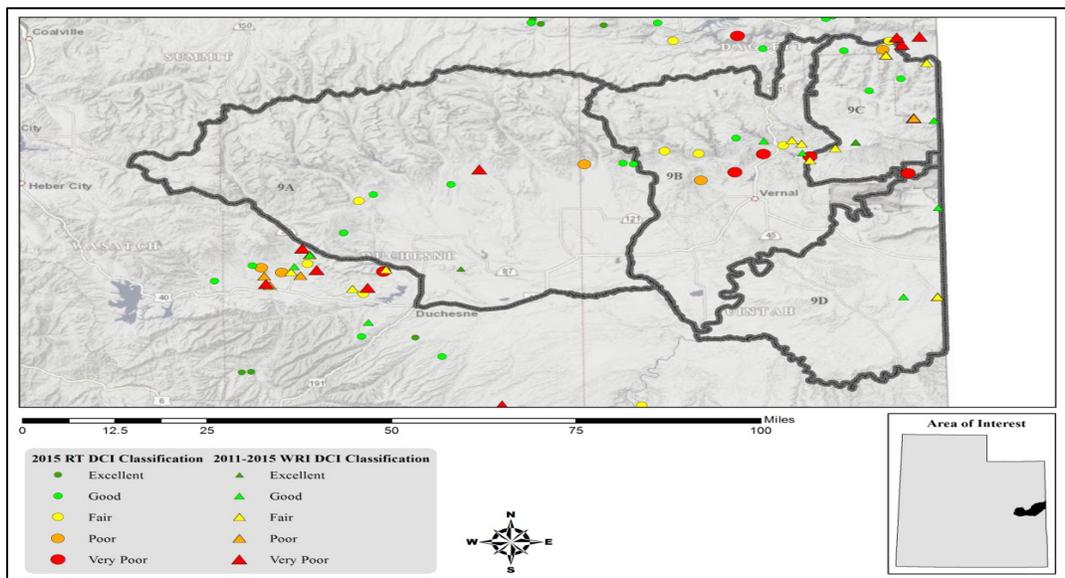
## **PERMANENT RANGE TREND SUMMARIES**

The following graph shows the trend of deer winter range condition on Unit 9, as indicated by DWR permanent Big Game Range Trend studies:



Deer winter range Desirable Components Index (DCI) summary by year of Range Trend sites for Unit 9, South Slope.

Based upon the 2015 range trend studies the overall condition of the South Slope deer unit is currently considered to be declining slightly. The most critical winter range areas are the Wyoming Big Sagebrush areas which are currently only in Fair-Poor condition. These are the areas with the lowest potential and are reflective of the sagebrush die-off that occurred in 2003. These low potential sites are located on the most critical winter range where deer are pushed to on hard winters. Serious range condition problems exist in some of this zone, particularly on the South Slope, Vernal Subunit (9b). This map shows the distribution of the poor rated range trend monitoring sites across the South Slope in red.



2015 Desirable Components Index (DCI) ranking distribution by study site for WMU 9, South Slope. Triangle shaped points indicate Watershed Initiative treatment sites.

Those areas where the range condition is currently in the Poor or Very Poor condition need to be addressed and utilization minimized until range condition can be improved.

## APPENDIX

### Subunit Boundary descriptions:

#### Unit 9a South Slope, Yellowstone Subunit

**Wasatch, Summit, Duchesne, Uintah counties** -- Boundary begins at SR-87 and US-40 in Duchesne; north on SR-87 to SR-35; northwest on SR-35 to the Provo River; north along this river to North Fork Provo River; north along this river to SR-150; east and north on SR-150 to the Summit-Duchesne county line (summit of the Uinta Mountains) at Hayden Pass; east along the summit of the Uinta Mountains to the Dry Fork-Whiterocks drainage divide; south atop this divide to USFS Trail #025; southwest on this trail to Whiterocks Lake and the East Fork of the Whiterocks River; south along this river to the Whiterocks River; south along this river to the Uinta River; south along this river to the Duchesne River; west along this river to US-40 at Myton; west on US-40 to SR-87 in Duchesne.

#### Unit 9b South Slope, Vernal Subunit

**Daggett and Uintah 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; north along this river to the Uinta River; north along this river to Whiterocks river; north along this river to the East Fork of the Whiterocks River; north along this river to Whiterocks Lake and USFS Trail #025; northeast on this trail to the Dry Fork-Whiterocks drainage divide; north atop this divide to the Daggett-Uintah county line (summit of the Uinta Mountains).

#### Unit 9c South Slope, Diamond Mountain Subunit

**Daggett and Uintah counties** -- Boundary begins at the Utah-Colorado state line and the Green River at Browns Park; west along this river to Gorge Creek; south along this creek to the summit and the head of Davenport Draw and the USFS boundary; south on this boundary on the west side of Davenport Draw and continuing south on this boundary to the BLM boundary on the Diamond Mountain Rim; east and south along this rim to the Diamond Mountain road (Jones Hole Road); south and west on this road to the Brush Creek road; south on this road to the Island Park/Rainbow Park road; east on this road to the Dinosaur National Monument boundary; north and east on this boundary to the Utah-Colorado state line; north on this state line to the Green River.

#### Unit 9d South Slope, Bonanza Subunit

**Uintah County** -- 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.