DEER HERD UNIT MANAGEMENT PLAN
Deer Herd Unit # 13
La Sal
September 2020

BOUNDARY DESCRIPTIONS

Grand and San Juan counties - Boundary begins at the junction of I-70 and the Green River; south on the Green River to the Colorado River; north on the Colorado River to Kane Springs Creek; southeast along this creek to Hatch Wash; southeast along this wash to US-191; south on US-191 to the Big Indian Road; east on this road to the Lisbon Valley Road; east on this road to the Island Mesa Road; east on this road to the Colorado State Line; north on this line to I-70; west on I-70 to the Green River.

This boundary includes two subunits including:

Subunit 13A - La Sal, La Sal Mountains - **Grand and San Juan counties**—Boundary begins at I-70 and the Green River; south along the Green River to the Colorado River; north along this river to Kane Springs Creek; southeast along this creek to Hatch Wash; south east along this wash to US-191; south on US-191 to Big Indian Road; east on this road to Lisbon Valley Road; east on this road to Island Mesa Road; east on this road to the Utah-Colorado state line; north on this state line to the Dolores River; northwest along this river to the Colorado River; northeast along this river to the Utah-Colorado state line; north on this state line to I-70; west on I-70 to the Green River.

Subunit 13B - La Sal, Dolores Triangle - Grand County - Boundary begins at the Utah-Colorado state line and the Colorado River; south along the state line to the Dolores River; northwest along the Dolores River to the Colorado River; northeast along this river to the Utah-Colorado state line.

LAND OWNERSHIP

Subunit 13A - La Sal, La Sal Mountains

RANGE AREA AND APPROXIMATE OWNERSHIP

Ownership	Yearlong range		Summer Range		Winter Range	
	Area (acres)	%	Area (acres)	%	Area (acres)	%
Forest Service	0	0%	104267	57%	36273	12%
Bureau of Land Management	20389	46%	2302	1%	212749	73%
Utah State Institutional Trust Lands	1203	3%	29227	16%	16915	6%
Private	2417	5%	46231	25%	25542	9%
Department of Defense	32	<1%	0	0%	0	0%
National Parks	17900	41%	0	0%	0	0%
Utah Department of Transportation	0	0%	0	0%	70	<1%
Department of Natural Resources	2065	5%	0	0%	194	<1%
TOTAL	44007	100%	182027	100%	291743	100%

Subunit 13B - La Sal, Dolores Triangle

RANGE AREA AND APPROXIMATE OWNERSHIP

	Yearlong range		Summer Range		Winter Range	
Ownership	Area (acres)	%	Area (acres)	%	Area (acres)	%
Forest Service	0	0%	0	0%	0	0%
Bureau of Land Management	0	0%	0	0%	87718	87%
Utah State Institutional Trust Lands	0	0%	0	0%	9553	9%
Private	0	0%	0	0%	3514	4%
TOTAL	0	0%	0	0%	100785	100%

UNIT MANAGEMENT GOALS

Manage for realistic and attainable population management objectives that are below biological carrying capacity to maintain healthy and productive deer populations.

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 - Achieve a target population of 11,000 wintering deer (modeled number) during the five-year planning period.

Subunit	2015-2019 Objective	2020-2024 Objective
La Sal Mountains	13,000	8,000
Dolores Triangle	5,100	3,000
UNIT TOTAL	18,100	11,000

These objectives are not necessarily the carrying capacity nor long-term objectives. Deer populations will be assessed annually using the monitoring strategies outlined below to determine the current population status and their relationship to carrying capacity. Deer populations can be very dynamic depending on a number of factors that can change carrying capacity. Deer objectives can be adjusted based on range condition and trend assessments, as well as deer body condition, productivity and survival trends. Improvements in computer population modeling has provided better estimates of current deer numbers which will aid in setting population objectives that are more realistic and attainable.

La Sal Mountains – A reduction in population objective to 8,000 deer will be implemented in 2020.

The previous population objective was derived using harvest data from the 1980's when deer populations were at a high. Given current climate trends and low fawn productivity largely due to prolonged drought periods (Table 1 and Figure 1), the previous objective is likely not an attainable objective for the life of this plan. Projecting the population 5 years into the future using current computer modeling and averaging survival, harvest and classification data from the past 10 years yields a population estimate of 6,500 deer. Considering the moderate body condition score of deer this past winter (Table 2) and acknowledging that biological measurements may increase above the average values used in the model, it is suggested that an obtainable population objective for the La Sal Mountains would be 8,000 deer, which allows for herd growth of 2,900 deer over the next 5 years.

Dolores Triangle – A reduction in population objective to 3,000 deer will be implemented in 2020. This subunit is largely managed based on management actions and total population estimates from Colorado Division of Parks and Wildlife (CDPW). The Utah portion of the Dolores Triangle is a relatively small management unit and encompasses only a portion of the winter range for deer from Colorado's Unit #40. Utah's population estimate for the subunit is based on CDPW models of unit #40. Population trend estimates has shown that this subunit has never been closer than 52% of the previous objective of 5,100. Based on the CDPW unit #40 population objective, an obtainable population objective for the Dolores Triangle would be 3,000 deer, which allows for herd growth of 1,080 deer over the next 5 years. Given the very conservative permit levels that are issued for the Utah portion of the subunit, harvest will have negligible effects on this population.

Herd Composition

La Sal Mountains - Manage for a buck to doe ratio of 15-17 bucks per 100 does, in accordance with the statewide plan. Biologists will take into account current year buck/doe ratio, 3 year average buck/doe ratio and trend as well as fawn and adult survival when making permit recommendations.

Dolores Triangle - Manage for a buck to doe ratio of 25-35 bucks per 100 does, in accordance with the statewide plan. Biologists will take into account current year buck/doe ratio, 3 year average buck/doe ratio and trend as well as fawn and adult survival when making permit recommendations.

Harvest

La Sal Mountains - Continue General Season Unit by Unit buck deer hunt regulations, using archery, any weapon, and muzzleloader hunts. Antlerless removal may be implemented if needed to maintain the population below carrying capacity and to address specific localized crop depredation, range degradation or urban conflict concerns, using a variety of harvest methods and seasons.

Dolores Triangle - Continue Limited Entry buck deer hunting strategy to maintain herd composition objectives and quality hunting opportunities. Antlerless removal may be implemented if needed to maintain the population below carrying capacity and to address specific localized range degradation issues.

POPULATION MANAGEMENT STRATEGIES

Monitoring

Population Size -

La Sal Mountains - Population estimates will be made based on fall and spring herd composition

counts conducted by biologists, survival and body condition data from GPS collared deer, and hunter harvest data. These data will be used in computer models to determine a winter deer herd population size. The modeled population estimate for the winter of 2020 was 5,100 deer on the La Sal Mountains subunit.

Dolores Triangle - Deer population will be modeled by the Colorado Division of Parks and Wildlife as part of their Unit #40 deer herd. About 40% of this herd winters in Utah; therefore, 40% of Colorado's population estimate for Unit #40 was used as Utah's population estimate. The modeled population estimate for the winter of 2020 was 1,920 deer on the Dolores Triangle subunit.

Buck/doe ratios and Age Structure - Monitor age class structure of the buck population through the use of check stations, postseason classification, uniform harvest surveys and field bag checks.

Harvest - The primary means of monitoring harvest will be through the statewide uniform harvest survey and the use of check stations.

Research – Continue to utilize GPS data from remaining collared deer on the La Sal Mountains to collect annual adult survival rates and cause specific mortality. Continue GPS collar survival study on regional representative unit (San Juan) to collect annual adult and fawn survival rates, body condition scores and cause specific mortality. Seek out and support opportunities to capture additional deer on the La Sal Mountains to further investigate herd survival, body condition scores, cause specific mortality and movement. Also, consider cooperating with Colorado Division of Parks and Wildlife in initiating a black bear predation study.

Table 1. Population and Harvest Trend data for the La Sal Mountains (top) and Dolores Triangle (bottom).

Population Trends and Harvest for the La Sal, La Sal Mountains (13a) Deer Subunit

Year	Buck harvest	Permits	Post-Season F/100 doe	Post-Season B/100 doe	Post-Season Population	Objective	% of Objective
2015	521	1,800	46	18	7,000	13,000	54%
2016	588	1,800	47	17	7,100	13,000	55%
2017	589	1,800	24	11	5,300	13,000	41%
2018	527	1,600	22	17	5,100	13,000	39%
2019	463	1,600	34	17	5,100	13,000	39%
5 Year Avg	538	1,720	35	16	5,920		

Population Trends and Harvest for the La Sal, Dolores Triangle (13b) Deer Subunit

Year	Buck harvest	Permits	Post-Season F/100 doe	Post-Season B/100 doe	Post-Season Population	Objective	% of Objective
2015	15	20	64	45	2,300	5,100	45%
2016	18	20	40	24	1,900	5,100	37%
2017	14	20	56	42	-	5,100	-%

2018	18	20	28	28	1,920	5,100	38%
2019	16	17	41	33	1,920	5,100	38%
5 Year Avg	16	19	46	34	-		

Antlerless Harvest

Use antlerless harvest to locally reduce deer populations when range conditions, deer adult and fawn survival, fawn production, and deer body condition suggest it is necessary.

Use antlerless harvest in combination with the Urban Deer Rule to reduce nuisance and depredation by deer.

Predator Management

Manage predators according to the predator management policy (W1AG-04) where habitat is not limiting and predators are demonstrated to have negative impacts on the population. Indices such as doe and fawn survival, population growth rate, body condition scores, fawn production, and cause specific mortality will be used to determine if predator management is deemed necessary.

Private Lands Management

Support programs that increase tolerance for deer on private lands including CWMU, landowner permits, and Walk-In Access programs.

Address all depredation problems in a timely and efficient manner.

Disease Management

Investigate and manage diseases that threaten mule deer populations and continue monitoring for chronic wasting disease (CWD) as stated in the Statewide plan. The La Sal Mountains subunit is a CWD positive unit, displaying the highest prevalence rates in the state and has increased from 7.9% to 14.1% over the past 5 years (Figures 2 & 3).

CWD Strategies
- Utilize rotational hunter harvest surveillance, targeting this unit once every several years.
- Consider compulsory testing of hunter harvested deer to increase sample size.
- Consider managing the unit toward the lower end of the buck/doe objective to minimize increase of the disease.
- Consider late season buck hunts in focal hotspots on the unit to minimize disease transmission.
- Educate public and enforce rules regarding carcass importation and disposal from CWD positive areas.

Urban Deer Management

Work with municipalities on localized urban deer control management actions. Work cooperatively with municipalities in developing urban deer management plans, within the guidelines set by state law and agency policies.

HABITAT MANAGEMENT OBJECTIVES

Maintain or improve mule deer habitat on the unit by protecting, maintaining, and enhancing existing crucial habitats and mitigating losses due to natural and human impacts.

Minimize deer vehicle collisions along highways on the unit by working cooperatively with UDOT.

HABITAT MANAGEMENT STRATEGIES

Continue to improve, protect, and restore summer and winter range habitats critical to deer, such as aspen and sagebrush steppe communities. Cooperate with federal land management agencies and private landowners in carrying out habitat improvements such as pinion-juniper removal, reseedings, controlled burns, mechanical treatments, grazing management, water developments etc. on public and private lands. Habitat improvement projects will occur through the WRI process. Projects completed to date are summarized in Table 3.

Continue to work with and support Universities and land management agencies on habitat research projects. Continue to stay apprised on the joint sagebrush restoration project between BLM and DWR on Buck Hollow.

Continue to monitor permanent Range Trend studies located throughout the unit. Specific information about site locations and results for the La Sal Mountains can be found at: https://wildlife.utah.gov/pdf/range-trends/archive/2019_Southern_Region_Unit_Summary_Report.pdf And for the Dolores Triangle at: https://wildlife.utah.gov/pdf/range-trends/archive/2015_Northeastern_Region_Unit_Summary_Report.pdf

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.

Work with land management agencies in managing 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 annual grasses with desirable perennial vegetation. Seek opportunities to increase browse in burned areas of critical winter range.

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

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

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

Highway mortality will be monitored and the need for highway fences, passage structures, warning signs and other mitigation options will be evaluated.

RECREATION OBJECTIVES

Provide mule deer hunting that encourages a variety of hunting opportunities while maintaining population objectives.

RECREATION STRATEGIES

Consider early rifle hunt opportunities as hunter crowding and other concerns dictate.

Evaluate areas where extended archery hunts or HAMS hunts could occur.

Work with land managers to maintain access during hunting seasons where appropriate.

Figure 1. Drought Index, La Sal Unit. Top Graph Depicts the Entire Year, Bottom Graph Depicts Spring and Fall.
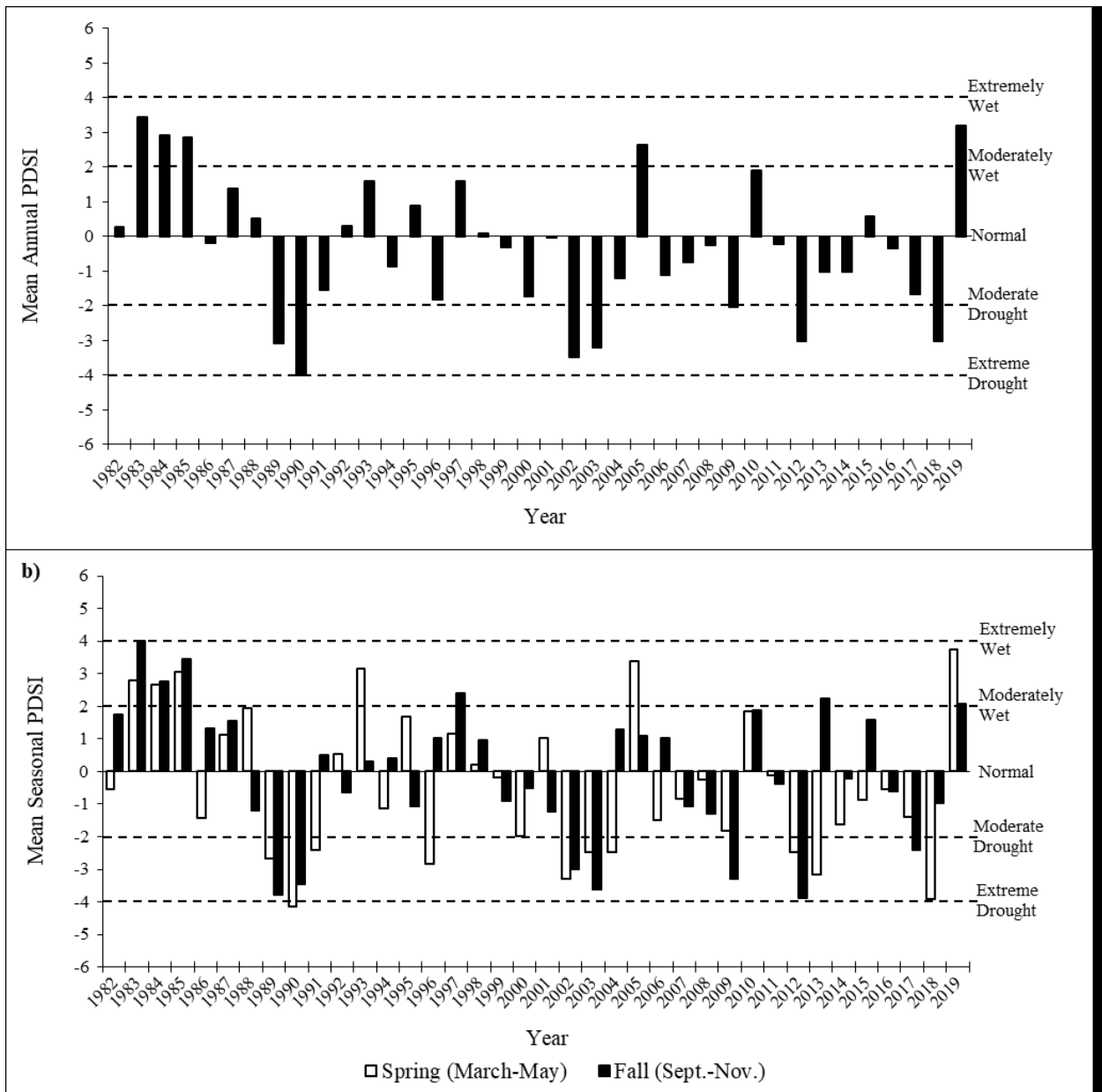
Table 2. Body Fat Comparisons of Captured Deer, 2014-2019.

	Percent (%) Ingesta Free Body Fat (IFBF)					
Unit	**Dec**	**Dec**	**Dec**	**Dec**	**Dec**	**Dec**

	2014	2015	2016	2017	2018	2019
Box Elder						8.79
Cache		11.02	9.59	13.65	10.32	13.71
North Slope					8.59	
South Slope	11.31	9.46	9.00	9.56	7.24	9.90
Oquirrh-Stansbury	10.52	8.43	9.56	8.79	7.39	8.46
Chalk Creek/Kamas					7.19	11.02
Wasatch-Manti		8.76	9.22	10.23	9.32	11.11
Wasatch East						11.51
South Manti			8.87			9.42
Book Cliffs				7.56	6.35	8.80
West Desert					6.33	8.04
Monroe	8.10	8.98	8.23	9.53	6.50	10.37
Beaver						7.75
Boulder						8.54
Panguitch					8.76	8.64
Pine Valley		7.42	6.68	6.54	6.91	6.86
Zion					8.48	9.04
La Sal						8.63
San Juan		9.35	9.25	7.60	7.77	9.50
Statewide	9.98	9.06	8.80	9.18	7.78	9.49

🟦	Unit High
🟨	Unit Low

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Figure 2. Chronic Wasting Disease (CWD) prevalence on positive units in Utah, 2002-2020.
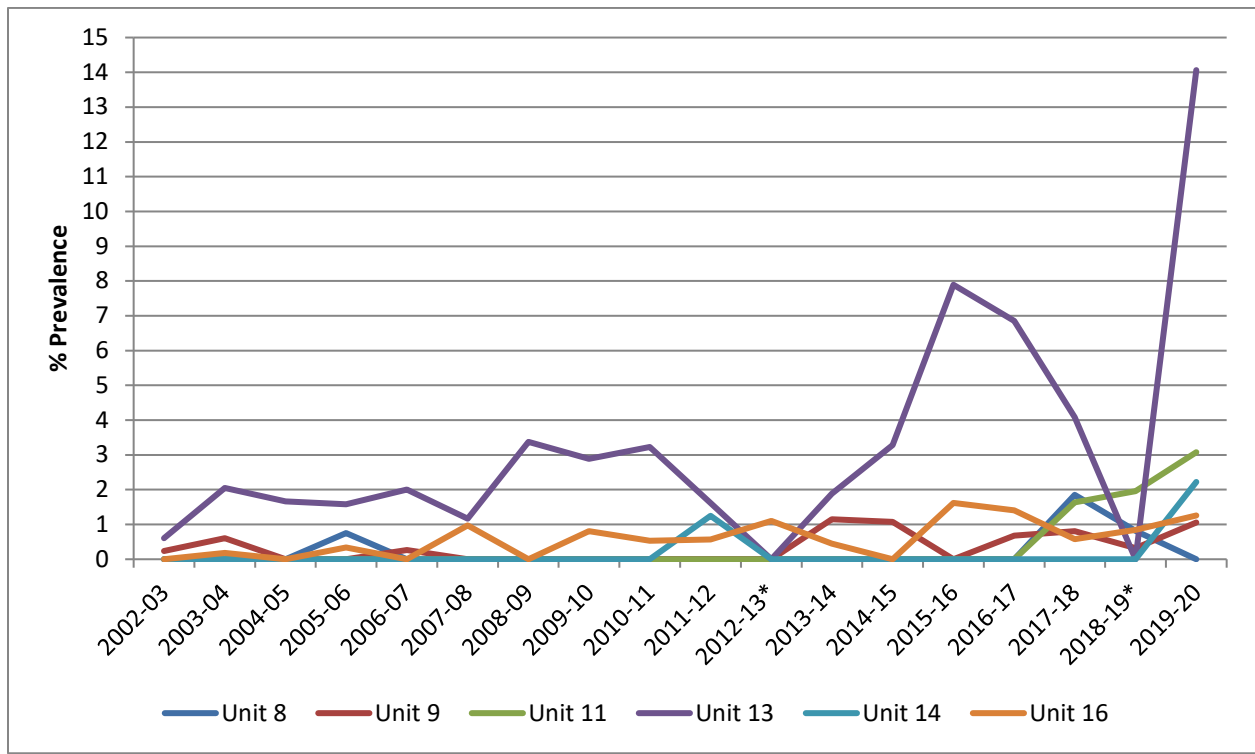
*Asterisk represents years with very low sample sizes, causing a reduction in prevalence rates.

Figure 3. Chronic Wasting Disease (CWD) Location in Utah, 2002-2020.
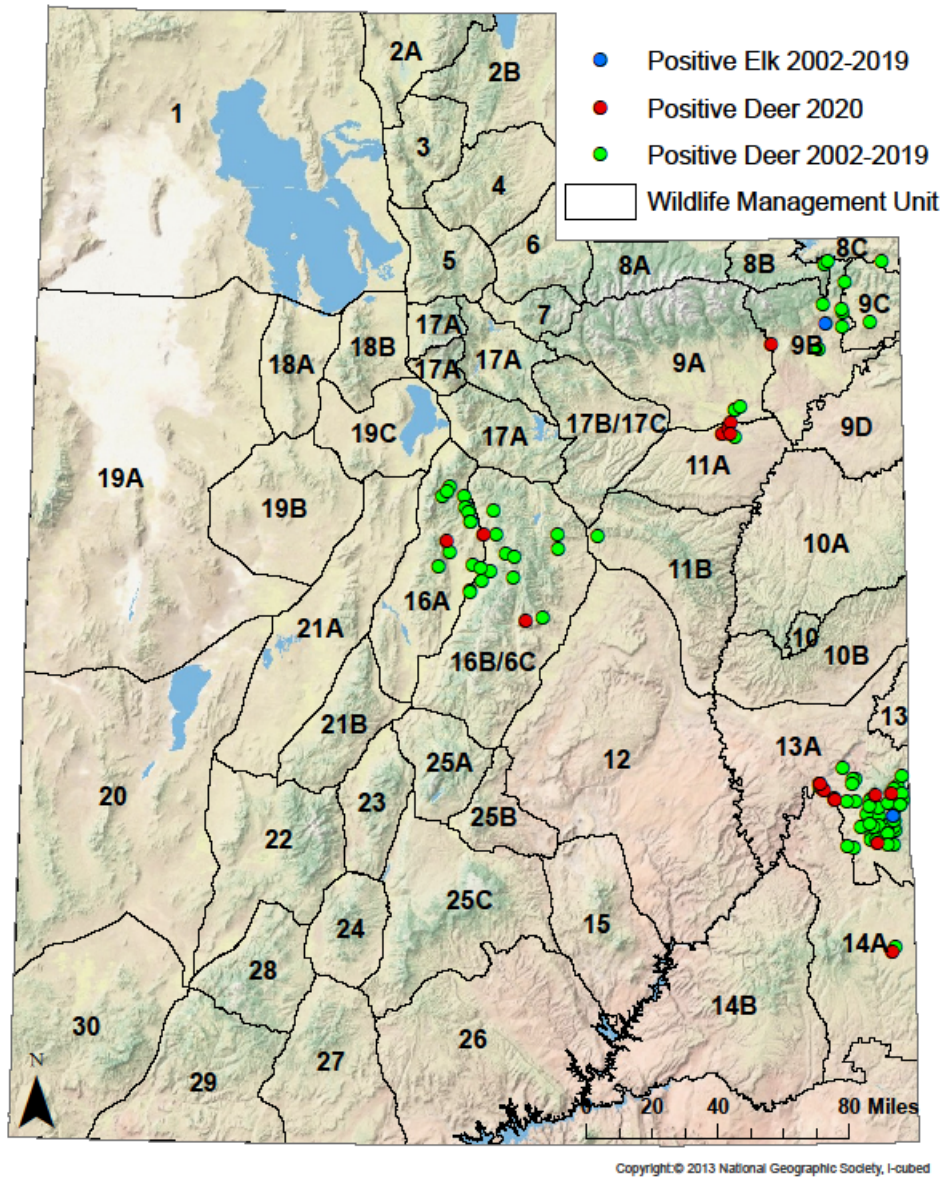
CWD Positive Deer & Elk 2002-2020

Table 3. Watershed Restoration Initiative Project Acreage Completed 2004-2020.

Treatment Action	Acres
Anchor Chain	614
Bullhog	6,953
Harrow	142
Forestry (Chipping/clearcutting)	181
Greenstripping	54
Herbicide	2,333
Lop-and-Scatter	10,194
Pond Improvement	54
Mowing	5
Planting/Transplanting	179
Prescribed Fire	1,896
Road Decommission	0.27
Seeding	1,253
Stream Corridor	79
Riparian Veg. Improvements	1,432
Total Acres Treated (may overlap)	**28,221**