

Mule Deer Quota Recommendation Form

Unit Group: 011-013

Date Prepared: 3/30/21

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)		Spring Ratio (obs)	Modeled Buck Ratio		Post Hunt Buck Ratio Obj.	Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn		Post Season	Pre Season		
	2018-19	62	183		80	325		445	147	592	34	44		
2019-20	0	0	0	0	262	96	358			37	37	47	37	1,200
2020-21	0	0	0	0	223	55	278			25	38	45	35	1,400

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	15%		0%	48%		54%		50%	0	100%	0%	50%
2019	7%		67%	66%				50%	2	67%	0%	45%
2020	22%		0%	67%				53%	0	100%		63%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	15	2	2	2	50	3						20	3	5
2020	25	3	5	2	50	4						30	2	
2021	20	2	10	2	65	5						30	2	
Tag Trend	Stable	Stable	Stable	Stable	Stable	Stable	=	=	=	=	=	stable	stable	INC

Quota Rationale

Harvest in 2020 was up and continues to stay within objective.

Reporting Biologist: _____

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 014

Date Prepared: 3/30/21

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)		Spring Ratio (obs)	Modeled Buck Ratio		Post Hunt Buck Ratio Obj.	Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	Post Season	Pre Season		
2018-19	33	88	40	161	69	25	94	38	45	36	38	49		600
2019-20				0	79	24	103	--	--	30	41	49		550
2020-21				0	21	9	30	--	--	43	44	52		475

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	0%		29%	19%		50%		27%	0	0%	100%	58%
2019	11%		14%	40%				28%	1	100%	N/A	37%
2020	10%		40%	46%				18%		0%		65%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		NDOW Recommendation		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	8	2	4	2	20	2	30	2				20	2	0
2020	10	2	5	2	15	2						20	1	0
2021	10	2	5	2	20	2						10	0	4
Tag Trend	INC	=	INC	=	DEC	=	DEC	DEC	=	=	=	=	DEC	=

Quota Rationale

Population estimate for this herd shows a continued decline due to average fawn ratios and depressed overall numbers of deer. A conservative approach is taken due to both harvest and success rates continuing to be well below the long-term averages for this herd. Hunters report seeing fewer deer and report struggling to locate mature deer.

Reporting Biologist: _____

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 015

Date Prepared: 3/30/21

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)		Spring Ratio (obs)	Modeled Buck Ratio		Post Hunt Buck Ratio Obj.	Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn		F:Ad	Post Season		
2018-19				0	204	65	269	--	--	32	42	52	32	240
2019-20				0	79	27	106	--	--	34	43	51	32	235
2020-21				0	102	28	130			27	45	51	32	225

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	50%		33%			29%		65%	1	100%	100%	56%
2019	22%		17%			29%		57%	0	100%	0%	50%
2020	20%		60%			21%		50%		0%	0%	30%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR				
2019	5	2	3	2	35	3						10	1	1
2020	5	2	5	2	35	3						10	1	1
2021	5	2	5	2	35	3						10	1	
Tag Trend	=	=	INC	=	=	=	=	=	=	=	=	=	=	=

Quota Rationale

Quotas for this hunt unit are expected to increase as success rates have dropped in this interstate deer unit over the past few years. The number of interstate deer moving to Nevada's winter ranges is highly dependent upon the severity of the winter. This can have an affect on success rates for hunters.

Reporting Biologist: _____

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 021

Date Prepared: 3/30/21

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)		Spring Ratio (obs)	Modeled Buck Ratio		Post Hunt Buck Ratio Obj.	Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	Post Season	Pre Season		
2018-19				0	260	87	347			33	33	46	27	445
2019-20				0	143	58	201			41	33	47	30	490
2020-21				0	524	128	652			34	35	41	30	450

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	17%		50%			79%		62%	3	100%	N/A	67%
2019	13%		43%			69%		62%	0	100%	N/A	60%
2020	7%		50%			67%		55%		0%		67%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	25	3	2	2	40	3						20	1	0
2020	15	2	5	2	40	3						15	1	0
2021	15	2	5	2	40	3						15	1	
Tag Trend	DEC	DEC	INC	=	=	=	=	=	=	=	=	DEC	=	=

Quota Rationale

This interstate deer herd continues to have good hunter success rates and provides a good quality hunting experience. Fawn/Adult ratio was average this year. Similar quotas to the 2020 season are expected to be recommended for 2021.

Reporting Biologist: _____

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 022

Date Prepared: 3/30/21

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)		Spring Ratio (obs)	Modeled Buck Ratio		Post Hunt Buck Ratio Obj.	Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	Post Season	Pre Season		
2018-19				0	68	20	88	--	--	29	28	40	35	550
2019-20				0	71	24	95	--	--	34	31	44	32	570
2020-21					66	17	83			26	34	45	31	537

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	21%		0%	54%				32%	0	50%	N/A	54%
2019	25%		43%	52%				59%	0	N/A	100%	53%
2020	36%		29%	48%				51%		100%	100%	50%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		NDOW Recommendation		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	5	2	2	2	35	3	35					20	1	1 NR
2020	15	2	5	2	35	4						15	1	1
2021	10	2	5	2	45	4						20	1	1
Tag Trend	INC	=	INC	=	=	INC	DEC	=	=	=	=	DEC	=	DEC

Quota Rationale

Despite, substantial wildfires destroying a considerable amount of deer habitat in hunt unit 022, hunters continue to have good success over the past two years. Average fawn recruitment should result in similar quotas being recommended for this hunt unit in 2021.

Reporting Biologist: _____

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 031

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019	51	171	75	297	618	217	835	30	44	34	35	32	44	2,214
2019-2020	25	126	73	224	798	254	1,052	20	58	48	32	30	42	2,144
2020-2021	58	230	97	385	728	254	982	25	42	34	35	28	39	2,002

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	16%		53%	57%				38%	3	57%	92%	67%
2019	28%		43%	55%				45%	0	71%	81%	75%
2020	17%		67%	58%				43%	8	80%	62%	78%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	25	2	15	2	180	8						70	8	16
2020	10	2	10	2	170	13						75	6	16
2021	18	2	5	2	140	7						65	8	
Tag Trend	DEC	=	DEC	=	DEC	DEC	=	=	=	=	=	=	INC	DEC

Quota Rationale

Overall we are seeing a slight decrease in the recommendations this year. This unit is still recovering from a fire that removed much of the vegetation in this unit. With the open winter during survey, deer were very difficult to locate dropping the number of deer surveyed. Population is holding stable at this point.

Reporting Biologist: Partee

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 032

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad		F:Ad	Postseas	
2018-2019	13	70	35	118	233	71	304	19	50	42	30	34	46	990
2019-2020	14	64	31	109	63	24	87	22	48	40	38	37	48	954
2020-2021	35	127	58	220	272	108	380	28	46	36	40	34	46	940

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	6%		29%	22%				29%	11	50%	67%	38%
2019	1%		20%	23%				26%	11	N/A	62%	41%
2020	3%		14%	21%				22%	16	N/A	100%	46%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	130	15	8	2	130	10						85	5	8
2020	90	7	5	2	90	7						100	3	4
2021	60	6	7	2	85	9						55	0	
Tag Trend	=	DEC	DEC	=	DEC	INC	=	=	=	=	=	DEC	DEC	DEC

Quota Rationale

Low success on rifle last year will impact tag quotas. Used statewide average success rate for rifle which will reduce tag numbers. Quota recommendation is based on post-season target ratio of 32 bucks: 100 does. This unit is modeled with 034. Seeing a population drop for this year with an adjustment in the model to reflect the population better.

Reporting Biologist: Partee

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 033

Date Prepared: 3/30/21

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)		Spring Ratio (obs)	Modeled Buck Ratio		Post Hunt Buck Ratio Obj.	Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	Post Season	Pre Season		
2018-19	82	236	108	426	11	4	15	35	46	36	37	45	36	400
2019-20	0	0	0	0	0	0	0	#DIV/0!	#DIV/0!	36	37	47	35	400
2020-21					0	0	0				37	45	35	400

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	25%		43%	44%		90%		45%	0	57%	N/A	57%
2019	10%		0%	48%				40%	0	100%	N/A	57%
2020	25%		14%	59%				52%	0	0%		60%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	2	2	2	2	20	2			N/A	N/A	N/A	8	1	0
2020	5	2	5	2	20	2			N/A	N/A	N/A	10	1	0
2021	10	2	5	2	35	2						15		
Tag Trend	INC	=	INC	=	=	=	=	=	=	=	=	INC	=	=

Quota Rationale

The Sheldon unit 033 is part of a larger unit group with units 011-013. Harvest success for 2020 increased from previous years and 4 point percentage also increased.

Reporting Biologist: _____

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 034

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019	13	70	35	118	233	71	304	19	50	42	30	34	46	289
2019-2020	14	64	31	109	63	24	87	22	48	40	38	37	48	282
2020-2021	35	127	58	220	272	108	380	28	46	36	40	28	46	235

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	33%		50%	42%				32%	0	N/A	86%	70%
2019	10%		33%	30%				50%	3	100%	57%	70%
2020	0%		66%	26%				43%	0	0%	88%	90%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	10	2	5	2	30	3						10	1	7
2020	10	2	5	2	30	3						10	1	
2021	7	2	2	2	30	2						8	2	
Tag Trend	DEC	=	=	=	INC	=	=	=	=	=	=	DEC	INC	DEC

Quota Rationale

Low success in 2019. Used statewide average success rate for rifle which dropped recommended tags. Quota recommendation is based on post-season target ratio of 30 bucks: 100 does. This unit is modeled with 032

Reporting Biologist: Partee

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 035

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad		F:Ad	Postseas	
2018-19	37	98	54	189	79	24	103	38	55	40	30	33	45	837
2019-2020	24	77	43	144	140	40	180	31	56	43	29	31	43	786
2020-2021	22	66	28	116	167	59	226	33	42	32	35	31	42	744

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	13%		16%	34%				29%	7	100%	33%	64%
2019	9%		41%	38%				43%	10	67%	100%	60%
2020	6%		29%	43%				30%	10	67%	33%	61%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR				
2019	40 (100)	4 (10)	15 (20)	2	100 (130)	8 (10)						35	4	3
2020	80	9	5	2	75	4						35	4	
2021	60	7	7	2	75	5						35	3	
Tag Trend	INC	INC	DEC	=	INC	=	=	=	=	=	=	DEC	=	DEC

Quota Rationale

Population estimate has been reduced slightly. Recommended tag quota remains the same for most hunts with a slight drop in the archery for this year. Targeting 30 for post-hunt buck ratio.

Reporting Biologist: Partee

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 041, 042

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)		Spring Ratio (obs)	Modeled Buck Ratio		Post Hunt Buck Ratio Obj.	Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	Post Season	Pre Season		
2018-19				0			0	--	--	--				750
2019-20				0			0	--	--	--				700
2020-21				0			0	--	--	--				700

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	0%		50%	43%				18%	1		100%	57%
2019	9%		25%	34%				23%	2	100%		53%
2020	7%		25%	48%				30%	5	100%		79%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	15	2	10	2	30	3						15	1	0
2020	15	2	10	2	25	3						15	1	0
2021	15	2	10	2	25	3						15	1	0
Tag Trend	=	=	=	=	DEC	=	=	=	=	=	=	=	=	=

Quota Rationale

This herd is not surveyed or modeled. NDOW Hunt Guidelines state that this unit group is to have a Resident ALW success rate of greater or equal to 45%. Last year was 48% with 3 year average of 42%. For 2021 recommend 2020 quotas for all hunts.

Reporting Biologist: Neill

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 043-046

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios		Spring Ratio (F:Ad)	Modeled Buck Ratio		Post Hunt Buck Ratio (Obs)	Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn		Post Season	Pre Season		
2018-19				0	340	109	449	--	--	32	28	40	30	1,967
2019-20	14	55	14	83	230	59	289	25	25	26	28	38	30	1,779
2020-21				0	476	124	600	--	--	26	29	39	30	1,662

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	17%		30%	42%		53%		29%	14	50%		59%
2019	7%		32%	31%		44%		39%	9	50%	0%	51%
2020	15%		32%	39%		38%		25%	12	20%	0%	68%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1331		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR				
2019	70	7	20	2	100	8			40	3		110	4/2	1
2020	60	6	20	2	90	6			40	3		70	4/1	1
2021	60	6	20	2	90	6			40	3		40		
Tag Trend	=	=	=	=	=	=	=	=	=	=	=	DEC	DEC	DEC

Quota Rationale

Continued declining population trend, since 2013. Overall, this herd has diminished by 51% 2013 to 2021 (3,500 to 1,700 mule deer). Poor recruitment rates from 2013 to current (2013-current avg. is 29 fawns: 100 adults). NDOW Harvest Guidelines suggest post-season buck ratio range of 25 to 35. Recommend post-season buck ratio of 30, which falls in the middle of guidelines. Recommend Hunt 1331 split to be 70% Early & 30% Late. Recommend increase Resident Archery tags to 60 and non-resident 6, low success rates allow increased opportunity (overall total 10 bucks harvested from both archery hunts 2020). Increase resident Muzzleloader tags to 20, low success rates allow increased opportunity (5 bucks harvested from this hunt 2020).

Reporting Biologist: Neill

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 051

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019	76	302	146	524	280	73	353	25	48	39	26	30	40	2,324
2019-2020	50	123	61	234	406	141	547	41	50	35	35	30	43	2,326
2020-2021	51	114	54	219	613	287	900	45	47	33	47	28	40	2,085

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	22%		68%	43%			46%	33	90%	100%	63%	
2019	19%		8%	46%			46%	27	82%	67%	59%	
2020	12%		24%	41%			51%	19	57%	93%	59%	

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	70	8	10	2	180	10					30	65	11	15
2020	60	6	15	2	190	14					30	75	7	
2021	55	6	15	2	170	15					25	70	8	
Tag Trend	DEC	DEC	DEC	DEC	DEC	INC	=	=	=	=	DEC	DEC	DEC	DEC

Quota Rationale

Population has had a slight drop which is reflective in the tag recommendations. Rifle success is back with the statewide average for the three year average. Archery success dropped slightly for last year but is within the three year average for statewide success. Targeting a post hunt ratio objective of 30

Reporting Biologist: Partee

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 181-184

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)		Spring Ratio (obs)	Modeled Buck Ratio		Post Hunt Buck Ratio Obj.	Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	Post Season	Pre Season		
2018-19	60	196	69	325	72	20	92	31	35	28	33	48	30	1,282
2019-20				0	65	20	85	--	--	31				
2020-21				0	105	33	138	--	--	31	31	42	30	1,226

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	13%		36%	42%				42%	2			45%
2019	4%		53%	41%				57%				54%
2020	22%		55%	29%				30%				52%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	55	6	15	2	135	9						65	6	
2020	60	6	20	2	120	9						60	6	
2021	60	6	20	2	150	15						55	6	
Tag Trend	INC	=	INC	=	INC	INC	=	=	=	=	=	DEC	=	=

Quota Rationale

Used a post-season buck ratio objective of 30. Increased archery tags due to low success. Used 11% success rate to match demand of 56 applicants from 2018.

Reporting Biologist: Salisbury

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 192

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept) Res.
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Post season	Pre season	
2018-19	30	80	31	141	230	72	302	38	39	28	31	33	49	537
2019-20	43	144	50	237	84	20	104	30	35	27	24	35	43	501
2020-21	22	50	28	100	204	68	272	44	56	39	33	38	50	537

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	20%	30%	7%	50%				74%	1	0%	N/A	72%
2019	23%	33%	32%	46%				33%	1	100%	N/A	85%
2020	24%	32%	19%	57%				31%	1		N/A	71%

Recommended (Current Year) Tag Quota

Year	Early Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late Archery Hunt 1341		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR				
2019	25	5	15	4	35	4			20	3	0	20	0	0
2020	10	2	5	2	40	3			15	2	0	15		
2021	15	2	10	2	55	4			20	2		25		
Tag Trend	INC	INC	INC	INC	=	=	=	=	=	INC	=	=	=	=

Quota Rationale

This population has remained fairly stable over the last several years. Changes in quotas are due mostly to demand/success formulas.

Reporting Biologist: Lackey

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 194, 196

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept) Res.
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad		F:Ad	Post season	
2018-19	88	215	92	395	649	153	802	41	43	30	24	36	46	1,105
2019-20	95	374	115	584	315	57	372	25	31	25	18	37	44	988
2020-21	31	124	40	195	425	74	499	25	32	26	17	34	41	875

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	8%	57%	33%	88%				65%	1	100%	N/A	96%
2019	31%	67%	43%	78%				58%	0	100%	N/A	86%
2020	25%	62%	40%	86%				61%	0	100%	N/A	80%

Recommended (Current Year) Tag Quota

Year	Early Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late Archery Hunt 1341		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR				
2019	15	3	5	2	70	5			15	3		30	2	0
2020	20	2	5	2	80	7			25	3		10		
2021	10	2	5	2	60	3			10	2		30		
Tag Trend	=	INC	INC	=	INC	=	=	=	=	INC	=	INC	=	=

Quota Rationale

This population has remained fairly stable over the last several years. Changes in quotas are due mostly to demand/success formulas.

Reporting Biologist: Lackey

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 195

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Post season	Pre season	
2018-19				N/A			N/A	--	--	--	--			500
2019-20				N/A			N/A							500
2020-21				N/A			N/A							500

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	67%		100%	61%				43%	1	N/A	N/A	67%
2019	36%		43%	48%				35%	0	N/A	N/A	60%
2020	50%		64%	49%				18%		N/A	N/A	59%

Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	10	2	5	2	20	2						10	0	0
2020	5	2	5	2	25	2						10		
2021	5	2	5	2	25	2						10		
Tag Trend	INC	=	INC	=	=	=	=	=	=	=	=	INC	=	=

Quota Rationale

This unit is not surveyed and there is no modeled population estimate. The rule of 17 is used to estimate population size.

Reporting Biologist: Lackey

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 291

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Post season	Pre season	
2018-19				N/A			N/A	--	--	--	--			600
2019-20				N/A			N/A							600
2020-21				N/A			N/A							600

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	0%		50%	81%				38%	1	100%	N/A	89%
2019	27%		29%	68%				33%	0	0%	N/A	70%
2020	14%		37%	71%				50%		100%	N/A	78%

Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	10	2	5	2	50	2						20	2	0
2020	15	2	5	2	45	4						20		
2021	15	2	5	2	45	3						20		
Tag Trend	INC	=	INC	=	DEC	DEC	=	=	=	=	=	=	=	=

Quota Rationale

This unit is not surveyed and there is no modeled population estimate. The rule of 17 is used to estimate population size.

Reporting Biologist: Lackey

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 201,204

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)		Spring Ratio (obs)	Modeled Buck Ratio		Post Hunt Buck Ratio Obj.	Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	Post Season	Pre Season		
2018-19	87	479	121	687				18	25		16	25	20	569
2019-20				0			0	--	--	--				
2020-21				0			0	--	--	--				

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	14%	10%	50%	65%				32%				
2019	13%	11%	50%	58%				27%	0			83%
2020	33%	50%	60%	68%				38%	0			75%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late Archery Hunt 1341		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	7	2	2	2	20	2			2	2		6		
2020	7	2	2	2	20	2			2	2		6		
2021	5	2	5	2	20	2			5	2		6		
Tag Trend	DEC	=	INC	=	=	=	=	=	INC	=	=	=	=	=

Quota Rationale

Reporting Biologist: Salisbury

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 202,205,206

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)		Spring Ratio (obs)	Modeled Buck Ratio		Post Hunt Buck Ratio Obj.	Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn		F:Ad	Post Season		
2018-19	87	479	121	687				18	25		18	27	10	463
2019-20				0			0	--	--					
2020-21				0			0	--	--					450

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018		100%	71%	56%				40%	2			47%
2019		11%	27%	58%				32%				57%
2020		0%	40%	52%				35%				56%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late Archery Hunt 1341		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR				
2019	7	2	3	2	50	4						25	2	
2020	7	2	3	2	50	4						25	2	
2021	5	2	5	2	35	2						15		
Tag Trend	DEC	=	INC	=	DEC	DEC	=	=	=	=	=	DEC	DEC	=

Quota Rationale

Population estimate is a portion of interstate deer herd with California. Quotas are recommended thru demand and success rates.

Reporting Biologist: Salisbury

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 203

Date Prepared: 2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)		Spring Ratio (obs)	Modeled Buck Ratio		Post Hunt Buck Ratio Obj.	Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	Post Season	Pre Season		
2018-2018													25	500
2019-2020	--	--	--	0	--	--	0	--	--	--				
2020-2021	--	--	--	0	--	--	0	--	--	--				450

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)	Junior Hunt Success (%)
	E	L		E	M	L						
2018	30%	15%		55%				36%				74%
2019	8%	4%		42%				52%				58%
2020	38%	16%		65%				39%				75%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late Archery Hunt 1341		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019	25	3			55	4			25	3		20	2	
2020	25	3			55	4			25	3		20	2	
2021	15	2			30	2			15	2		20	2	
Tag Trend	DEC	DEC	=	=	DEC	DEC	=	=	DEC	DEC	=	=	=	=

Quota Rationale

Population estimate is a portion of interstate deer herd with California. Quotas are recommended thru demand and success rates.

Reporting Biologist: Salisbury

Supervisor: Munson

Mule Deer Quota Recommendation Form

Unit Group: 271-272

Date Prepared: 4/1/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019				0			0	--	--	--	--			
2019-2020				0			0	--	--	--	--			
2020-2021				0			0	--	--	--	--			

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-legal-weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	33		18	43				32	1	100	
2019-2020	11		20	22				52		100	
2020-2021	11		11	39				55	0	100	

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	10	2	10	2	30	3						15	1	
2020-2021	10	2	10	2	25	2						10	1	
2021-2022	10	2	10	2	25	2						10	1	
Tag Trend	=	=	=	=	DEC	DEC	=	=	=	=	=	DEC	=	=

Quota Rationale

This unit is managed using a demand/success framework. Harvest metrics last season indicate no change in quota is warranted for the upcoming season.

Reporting Biologist: Sallee

Supervisor: Bennett

Mule Deer Quota Recommendation Form

Unit Group: 161-163

Date Prepared: 3/31/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019	80	262	117	459	898	239	1,137	31	45	34	27	32	44	4,100
2019-2020	58	202	85	345			0	29	42	33	--	33	42	3,800
2020-2021					227	52	279	--	--	--	23	34	43	3,600

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	13		15	33		48		36	19		
2019-2020	13		15	33		48		34	10		
2020-2021	18		26	25		35		30	29		

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	160	20	35	4	350	25			50	5		140		3
2020-2021	140	15	35	4	350	30			45	4		140	16	0
2021-2022	140	15	25	3	290	15			35	2		140	19	7
Tag Trend	DEC	DEC	=	=	DEC	DEC	=	=	DEC	DEC	=	=	INC	DEC

Quota Rationale

Due primarily to drought conditions in this Unit, fawn ratios observed during the spring mule deer surveys were depressed. Hunt success during the early and late ALW hunts were lower in comparison to previous years meaning we did not achieve our desired harvest. However, this population is decreasing due to poor fawn recruitment causing fewer bucks to be available on the landscape. This population is contracting, and therefore merits a reduction in recommended tags.

Reporting Biologist: Burkett

Supervisor: Bennett

Mule Deer Quota Recommendation Form

Unit Group: 171-173

Date Prepared: 3/28/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019	112	310	152	574	464	130	594	36	49	36	28	35	49	3,700
2019-2020				0			0	--	--	--	--	35	45	3,500
2020-2021	120	360	138	618	271	76	347	33	38	29	28	34	45	3,400

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-legal-weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	14		34	35		43		29	27		100
2019-2020	8		18	21		34		30	21	100	
2020-2021	9		25	22		41		36	31	67	

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	200	20	75	8	375	25			130	10		140	16	3
2020-2021	180	20	70	6	375	30			105	8		140	14	3
2021-2022	200	20	70	7	280	30	190	15	45	2		175	11	0
Tag Trend	DEC	=	DEC	DEC	=	INC	=	=	DEC	DEC	=	=	DEC	=

Quota Rationale

This Unit group is moving to an early, middle, and late season structure to avoid hunter congestion and achieve our objective buck ratio. Due to the new structure design, we can allow for a modest increase in ALW quotas because of success rates. A moderate increase to the junior hunt season will also occur because of a reconfiguring of the demand/success models. The net harvest should not increase from previous years, but also allow for the same or slightly higher number of hunters in the field. Our models predict a slight contraction of this population that is derived from a reduced fawn to adult ratios observed on aerial survey.

Reporting Biologist: Burkett

Supervisor: Bennett

Mule Deer Quota Recommendation Form

Unit Group: 211_212_213

Date Prepared: 3/26/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019				0			0	--	--	--	--			
2019-2020				0			0	--	--	--	--			
2020-2021				0			0	--	--	--	--			

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-legal-weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	40		40	49				35			
2019-2020	0		63	41				47			
2020-2021	13		38	58				46			

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	15	2	8	2	50	5						20		
2020-2021	15	2	8	2	50	5						20	2	
2021-2022	15	2	8	2	50	5						20	3	
Tag Trend	=	=	=	=	=	=	=	=	=	=	=	=	INC	=

Quota Rationale

Currently, no formal surveys are conducted in Unit 21. Past survey efforts have not resulted in sufficient sample sizes for use in monitoring population dynamics. Harvest metrics, coupled with annual precipitation data, help derive quota recommendations by the department. Harvest metrics indicate similar harvest. There will be no change in quota recommendation.

Reporting Biologist: Burkett

Supervisor: Bennett

Mule Deer Quota Recommendation Form

Unit Group: 221-223

Date Prepared: 4/1/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019	134	458	207	799	1,200	305	1,505	29	45	35	25	35	42	4,300
2019-2020	57	148	59	264			0	39	40	29	--	30	41	4,200
2020-2021	120	549	206	875	664	137	801	22	38	31	21	37	46	3,800

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	21		64	49	45	59		35	21	50	
2019-2020	15		33	31	38	76		45	22	80	
2020-2021	23		44	34	38	52		43	34	47	

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	65	8	25	2	250	20	150	10	25	2		190	19	
2020-2021	75	8	20	2	250	20	150	10	25	2		190	18	
2021-2022	65	6	15	2	220	15	130	10	25	2		170	18	
Tag Trend	INC	=	DEC	=	=	=	=	=	=	=	=	=	DEC	=

Quota Rationale

We observed a low spring Fawn to Adult ratio, indicating an increase in over-winter fawn loss relative to previous years. This reduced recruitment of fawns into the adult population led to a decrease in our population estimate for the Area. The reduced population will lead to lower numbers of deer available for harvest this upcoming hunting season. Due to the reduced population and lower availability, we recommend a quota decrease across weapon types.

Reporting Biologist: Sallee

Supervisor: Bennett

Mule Deer Quota Recommendation Form

Unit Group: 231

Date Prepared: 4/1/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019	172	596	238	1,006	886	247	1,133	29	40	31	28	31	38	3,700
2019-2020	70	598	219	887			0	12	37	33	--	37	46	3,600
2020-2021	144	527	200	871	912	173	1,085	27	38	30	19	36	46	3,300

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	31		61	70			2.4	55	8	50	76
2019-2020	32		32	54				65	9	57	54
2020-2021	26		57	58				48	9		53

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	45	5	25	2	150	15						85	5	66
2020-2021	45	5	25	2	150	15						85	5	61
2021-2022	40	4	20	2	140	6						70	9	69
Tag Trend	DEC	DEC	DEC	=	DEC	DEC	=	=	=	=	=	DEC	INC	INC

Quota Rationale

We observed a low spring Fawn to Adult ratio, indicating an increase in over-winter fawn loss relative to previous years. This reduced recruitment of fawns into the adult population led to a decrease in our population estimate for the Area. The reduced population will lead to lower numbers of deer available for harvest this upcoming hunting season. Due to the reduced population and lower availability, we recommend a quota decrease across weapon types.

Reporting Biologist: Sallee

Supervisor: Bennett

Mule Deer Quota Recommendation Form

Unit Group: 241-245

Date Prepared: 4/1/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019	144	324	124	592	382	131	513	44	38	26	34	47	58	1,400
2019-2020				0			0	--	--	--	--	44	56	1,400
2020-2021	53	117	83	253	325	74	399	45	47	49	23	43	52	1,300

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-legal-weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	67		0	70				70	1	33	67
2019-2020	55		100	73				90	3	75	37
2020-2021	50		75	56				75	0	67	

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	15	2	6	2	95	10						30	4	17
2020-2021	15	2	6	2	100	10						30	4	23
2021-2022	15	2	7	2	120	10						40	6	12
Tag Trend	=	=	=	=	INC	=	=	=	=	=	=	=	=	INC

Quota Rationale

This population underwent a slight decline last year due to low recruitment caused by severe drought conditions. However, the buck to doe ratio remains above the objective and harvest metrics remain high, indicating a large population of bucks is available for harvest. The department recommends a slight increase in quota to reduce the buck to doe ratio down within the management objective.

Reporting Biologist: Sallee

Supervisor: Bennett

Mule Deer Quota Recommendation Form

Unit Group: 251-254

Date Prepared: 3/26/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019				0			0	--	--	--	--			
2019-2020				0			0	--	--	--	--			
2020-2021				0			0	--	--	--	--			

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-legal-weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	50		67	19				47			
2019-2020	10		50	14				56			
2020-2021	29		40	25				80			

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	10	2	5	2	40	5						30	2	
2020-2021	8	2	5	2	30	5						20	2	
2021-2022	8	2	5	2	30	5						20	3	
Tag Trend	DEC	=	=	=	DEC	=	=	=	=	=	=	DEC	=	=

Quota Rationale

Currently, no formal surveys are conducted in Unit 25. Past survey efforts have not resulted in sufficient sample sizes for use in monitoring population dynamics. Harvest metrics, coupled with annual precipitation data, help derive quota recommendations by the department. Harvest metrics warrant a similar quota to last year.

Reporting Biologist: Burkett

Supervisor: Bennett

Mule Deer Quota Recommendation Form

Unit Group: 261-269

Date Prepared: 4/20/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019				0			0	--	--	--	--			
2019-2020				0			0	--	--	--	--			
2020-2021				0			0	--	--	--	--			

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	8		55	81				43		100	
2019-2020	47		53	68				58		100	
2020-2021	69		75	67				40		100	

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	15	2	15	2	70	5						35	3	
2020-2021	15	2	16	2	75	5						35	3	
2021-2022	15	2	16	2	75	2						35	3	
Tag Trend	=	=	INC	=	INC	=	=	=	=	=	=	=	=	=

Quota Rationale

MA 26 is managed using a demand/success framework. Harvest metrics last season indicate no change in quota is warranted for the 2021 hunt seasons.

Reporting Biologist: Cummings

Supervisor: Bennett

Mule Deer Quota Recommendation Form

Unit Group: 061, 062, 064, 066-068

Date Prepared: _____

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2019-2020	330	942	648	1,920			0	35	69	51	39	36	51	9,200
2020-2021	372	1,208	834	2,414	2,728	1,166	3,894	31	69	53	43	34	49	7,300

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2019-2020	16%	n/a	31%	35%	n/a	52%	3.4	41	250	50%	43%
2020-2021	14%	n/a	38%	34%	n/a	45%	3.2	45	254	49%	80%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR				
2019-2020	310	35	90	10	950	75	n/a	n/a	120	10	450	450		8
2020-2021	263	29	70	8	788	48	n/a	n/a	91	5	236	320	45	4
Tag Trend	DEC	DEC	DEC	DEC	DEC	DEC	=	=	DEC	DEC	DEC	DEC	INC	DEC

Quota Rationale

The Area 6 mule deer population estimate has decreased in response to comparatively high overwinter adult and fawn mortality experienced during the harsh winter of 2018-2019. The 2020 post season observed buck to doe ratio of 31 bucks:100 does was below what was expected based on harvest data, but is well within harvest objective guidelines. Decreased hunter success two of the last three years has tempered the magnitude of quota recommendation declines which are based on the demand-success formula. Antlerless harvest is still necessary to manage this population within the carrying capacity of compromised winter range. Currently, biologists are recommending management of the Area 6 deer population at a level of about 7,000 - 7,500 adult animals until improvements in habitat are realized. Quota recommendations are based on a post-season buck ratio objective of 33 bucks:100 does, which is at the upper end of management guidelines.

Reporting Biologist: Allen

Supervisor: Donham

Mule Deer Quota Recommendation Form

Unit Group: 065 Alternative Unit

Date Prepared: 4/8/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019	82	231	118	431			0	35	51	38	--	42	55	800
2019-2020	n/a	n/a	n/a	0			0	#####	#####	#####	--	n/a	n/a	650
2020-2021	n/a	n/a	n/a	0			0	#####	#####	#####	--	n/a	n/a	650

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	7%		60%	75%				65%	0	50%	n/a
2019-2020	30%		56%	64%				49%	0	100%	n/a
2020-2021	44%		20%	61%				38%	0	50%	n/a

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	25	3	10	2	60	4						25		
2020-2021	10	2	5	2	55	5						20		
2021-2022	5	2	5	2	45	5						15		0
Tag Trend	DEC	=	=	=	DEC	=	=	=	=	=	=	DEC	=	=

Quota Rationale

Percentage of 4pt or better bucks in the harvest for 2020 was well below average, and below the harvest management objective of 50%-75%. Recommended tag reductions are aimed at improving % of bucks harvested supporting 4pts or greater to remain within guideline objectives.

Reporting Biologist: Jeffress

Supervisor: Donham

Mule Deer Quota Recommendation Form

Unit Group: 071-079, 091

Date Prepared: _____

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019	688	1,987	788	3,463	3,405	693	4,098	35	40	29	20	40	48	11,300
2019-2020	226	808	406	1,440	975	335	1,310	28	50	39	34	37	49	11,400
2020-2021				0	1,930	616	2,546	--	--	--	32	35	46	11,100

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	33%	57%	61%	68%		88%		57%	83	87%	67%
2019-2020	21%	45%	37%	53%		78%		61%	195	78%	75%
2020-2021	22%	38%	45%	47%		67%		54%	194	76%	100%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	200,20	20,2	60	5	550	50			140	15	275	300		
2020-2021	280,30	30,3	85	9	850	70			220	20	275	350	30	3
2021-2022	280,30	30,3	85	7	850	60			200	15	290	380	45	
Tag Trend	=	=	=	DEC	=	DEC	=	=	DEC	DEC	INC	INC	INC	DEC

Quota Rationale

This deer herd is relatively stable. Fawn ratios have increased the past two years. The buck ratio continues to be strong and this is reflected in quotas remaining similar to last year. Quota recommendations are based on a post season buck ratio objective of 30 bucks/100 does. Antlerless quotas will remain consistent, and are intended to maintain a relatively stable population.

Reporting Biologist: Huebner

Supervisor: Donham

Mule Deer Quota Recommendation Form

Unit Group: 081

Date Prepared: _____

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019				0			0	--	--	--	--			900
2019-2020				0			0	--	--	--	--			900
2020-2021				0			0	--	--	--	--			

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	33%		70%	78%				87%		100%	100%
2019-2020	67%		58%	61%				84%		100%	
2020-2021	40%		79%	82%				78%		100%	0%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	10	2	15	2	55	5						20		
2020-2021	6	2	20	2	60	5						30		2
2021-2022	15	2	20	2	65	4						35		
Tag Trend	INC	=	=	=	INC	DEC	=	=	=	=	=	INC	=	DEC

Quota Rationale

Formal composition surveys are not conducted in this unit. Quota recommendations are based on a 3-year average Hunter Success Objective of 40%-55%, and a Percent of Harvested Bucks with 4pts or Better of 50%-75%. Both of these metrics are above objective, and indicate that an increase in the tag quota is appropriate.

Reporting Biologist: Huebner

Supervisor: Donham

Mule Deer Quota Recommendation Form

Unit Group: 101-109

Date Prepared: 4/5/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad		F:Ad	Postseas	
	2018-2019	438	1,180		515	2,133		4,930	1,034	5,964	37	44	32	
2019-2020	278	859	351	1,488	Covid	Covid	0	32	41	31	#VALUE!	37	45	13,700
2020-2021	536	1,629	868	3,033	4,259	1,482	5,741	33	53	40	35	35	48	13,000

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
	2018-2019	20%		24%	37%	42%					
2019-2020	11%	9%	20%	22%	21%	53%	35%	154	42%	72%	
2020-2021	13%	32%	31%	20%	21%	51%	36%	160	57%	53%	

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	500,20	50, 2	90	8	700	45	650	45	150	10	225	450	69	29
2020-2021	520, 20	60, 2	80	9	700	45	700	45	140	9	240	450	63	19
2021-2022	500, 20	50, 2	80	9	850	65	850	65	150	10	160	490	58	32
Tag Trend	DEC	=	DEC	INC	INC	INC	INC	INC	=	=	DEC	INC	DEC	INC

Quota Rationale

An adjustment to the Area 10 population model was necessary to account for increased overwinter mortality experienced during the severe winter of 2018-2019. While the published population estimate shows a slight drop, this is solely due to the model adjustment. The population actually showed above average growth because of the strong recruitment rate observed this spring. The 3 lowest annual total buck harvests since 1976 have occurred in the last 4 years (2017 season, 2019 season, and 2020 season). The 2021 quota recommendations show modest increases to account for the relatively high observed post-season buck ratio, to account for the below average success rates the past 2 seasons, and in response to the above average recruitment rate.

Reporting Biologist: Roberts

Supervisor: Donham

Mule Deer Quota Recommendation Form

Unit Group: 111-113

Date Prepared: 4/12/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2015-2016				0	3,061	918	3,979	--	--	--	30	30	41	4,500
2016-2017	628	1,656	728	3,012	1,905	580	2,485	38	44	32	30	38	50	5,200
2017-2018	442	1,365	595	2,402	1,806	546	2,352	32	44	33	30	35	46	5,000
2018-2019				0	2,066	442	2,508	--	--	--	21	32	40	4,500
2019-2020	325	1,153	403	1,881	1,709	367	2,076	28	35	27	21	32	40	4,200
2020-2021	255	983	452	1,690	1,210	380	1,590	26	46	37	31	28	41	3,600

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	44%	NA	58%	55%	NA	72%	NA	33%	53	83%	100%
2019-2020	33%	NA	48%	44%	NA	56%	NA	36%	28	65%	NA
2020-2021	25%	NA	50%	45%	NA	70%	NA	29%	28	44%	NA

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	30	4	25	2	275	10	0	0	30	2	0	150	19	0
2020-2021	30	4	10	2	280	20	0	0	30	2	0	160	11	0
2021-2022	30	3	15	2	270	20	0	0	30	2	0	120	12	0
Tag Trend	=	DEC	INC	=	DEC	=	=	=	=	=	=	DEC	INC	=

Quota Rationale

The 111-113 mule deer population estimate has been decreased in response to decreasing sample sizes on survey, despite similar effort, declining observed post-season buck ratios, and low fawn recruitment in 2019 and 2020. Recommended quotas are similar to last year due to increased fawn recruitment in 2021 and decreased hunter success in 2019 and 2020.

Reporting Biologist: Menghini

Supervisor: Donham

Mule Deer Quota Recommendation Form

Unit Group: 114-115

Date Prepared: 4/12/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019				0	511	121	632	--	--	--	24	34	43	1,300
2019-2020				0	450	104	554	--	--	--	23	36	45	1,200
2020-2021					298	84	382				28	30	40	1,100

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	17%	NA	63%	45%	NA	40%	NA	62%	24	67%	100%
2019-2020	10%	NA	40%	30%	NA	25%	NA	64%	23	100%	43%
2020-2021	13%	NA	58%	60%	NA	80%	NA	53%	29	100%	83%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	60	7	20	2	45	2	0	0	4	2	15, 40	30	5	7
2020-2021	70	8	15	2	60	4	0	0	5	2	10, 40	30	3	6
2021-2022	70	7	20	2	60	4	0	0	5	2	40, 10	30	3	6
Tag Trend	=	DEC	INC	=	=	=	=	=	=	=	INC	=	=	=

Quota Rationale

2021 Recommended Quotas: Hunt 1331 - 115 Late Resident- 5 Tags; Non-Res- 2 Tags

Due to low sample sizes, formal composition surveys are not conducted on a regular basis in Units 114-115. Quotas recommendations are developed by monitoring trends in harvest metrics. Harvest Success and Percent of Harvested Bucks with 4pts or Better are both within guideline objectives As a result, quota recommendations are similar to last year, with a slight increase in muzzleloader tags.

Previously there were September and December antlerless deer hunts on the Baker Ranch. The September season coincided with fall crop harvest on the ranch, and it was difficult to safely get hunters on the ranch. The September season was moved to late December to avoid this conflict, creating two seasons in December.

Reporting Biologist: Menghini

Supervisor: Donham

Mule Deer Quota Recommendation Form

Unit Group: 121

Date Prepared: 4/12/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019	221	760	383	1,364	607	228	835	29	50	39	38	31	44	2,700
2019-2020				0	825	139	964	--	--	--	17	33	43	2,800
2020-2021	76	505	254	835	710	257	967	15	50	44	36	24	38	2,100

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2015-2016	43%	63%	60%	65%		85%		31%	8	14%	50%
2016-2017	43%	50%	57%	75%		93%		36%	1	75%	100%
2017-2018	50%	75%	17%	67%		80%		36%	5	100%	100%
2018-2019	48%	100%	60%	71%		100%		27%	10	60%	40%
2019-2020	40%	30%	24%	62%		79%		27%	12	50%	83%
2020-2021	20%	33%	46%	46%		77%		28%	11	50%	67%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	45,10	5,2	25	3	120	6			15	2		75	8	6
2020-2021	30, 6	6, 2	25	2	160	15			15	2		80	5	3
2021-2022	15,5	2,2	10	2	85	2			8	2		45	8	5
Tag Trend	DEC	DEC	DEC	=	DEC	DEC	=	=	DEC	=	=	DEC	INC	INC

Quota Rationale

The Unit 121 mule deer population estimate has been decreased in response to decreasing sample sizes on survey, despite similar effort, declining observed buck ratios, and poor fawn recruitment in 2020. Recommended quotas are noticeably lower than last year in response to the decline in population.

Reporting Biologist: Menghini

Supervisor: Donham

Mule Deer Quota Recommendation Form

Unit Group: 131,132,133,134

Date Prepared: 4/12/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019	202	519	270	991	826	270	1,096	39	52	37	33	40	50	5,000
2019-2020	0	0	0	0	605	166	771	#DIV/0!	#####	#####	27	41	49	4,500
2020-2021	0	0	0	0	482	121	603	#DIV/0!	#####	#####	25	40	48	4,300

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	58%	0%	67%	54%	0%	48%	3.0	43%	8	100%	100%
2019-2020	33%	0%	46%	48%	0%	53%	3.1	45%	8	36%	40%
2020-2021	49%	0%	49%	31%	0%	34%	3.0	32%	20	57%	58%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	60	7	35	4	300	20	0	0	35	3	0	150	13	15
2020-2021	70	8	45	5	325	25	0	0	35	3	0	170	13	12
2021-2022	60	6	35	4	300	20	0	0	30	2	0	170	16	8
Tag Trend	DEC	DEC	DEC	DEC	DEC	DEC	=	=	DEC	DEC	=	=	INC	DEC

Quota Rationale

An adjustment to the Area 13 population model was necessary to account for increased overwinter mortality experienced during the severe winter of 2018-2019, and a 3-year decline in fawn recruitment rates. Area 13 was not scheduled for post season surveys the last 2 years, and is scheduled to be surveyed in the fall 2021. Based on fawn recruitment and harvest data, the current population model indicates the post season buck ratio is within management objectives. Percent of Harvested Bucks with 4pts or Better was below the statewide average at 32% and below the management objective of 50% to 75%. The Hunter Success Objective of 40%-55% was not met in the ALW hunts, but the 3-year average is within objective. The current quota recommendation is based on achieving a post-season buck ratio within objective.

Reporting Biologist: Clint Garrett

Supervisor: Tom Donham

Mule Deer Quota Recommendation Form

Unit Group: 141,142,143,144,145

Date Prepared: _____

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019	263	796	437	1,496	1,560	448	2,008	33	55	41	29	35	45	4,500
2019-2020	0	0	0	0	1,050	274	1,324	#####	#####	#####	26	33	43	4,100
2020-2021	0	0	0	0	1,357	377	1,734	#####	#####	#####	28	30	41	3,900

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	25%	0%	44%	57%	0%	55%	2.7	31%	26	60%	100%
2019-2020	15%	0%	31%	48%	0%	60%	2.7	30%	29	69%	75%
2020-2021	20%	0%	59%	43%	0%	58%	2.7	30%	25	50%	54%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	225	25	30	3	300	20	0	0	35	3	0	180	16	16
2020-2021	250	30	20	2	240	15	0	0	25	2	0	200	14	14
2021-2022	200	25	20	2	230	15	0	0	25	2	0	190	12	14
Tag Trend	DEC	DEC	=	=	DEC	=	=	=	=	=	=	DEC	DEC	=

Quota Rationale

An adjustment to the Area 14 population model was necessary to account for increased overwinter mortality experienced during the severe winter of 2018-2019, and a 3-year decline in fawn recruitment rates. Area 14 was not scheduled for post season surveys the last 2 years, and is scheduled to be surveyed in the fall 2021. Based on fawn recruitment and harvest data, the current population model indicates the post season buck ratio is within management objectives. Percent of Harvested Bucks with 4pts or Better has been consistent the last 3 years, and is below the statewide average, which is typical for Area 14. The current quota recommendation is designed to meet a post hunt management objective of 30 bucks:100 does.

Reporting Biologist: Clint Garrett

Supervisor: Tom Donham

Mule Deer Quota Recommendation Form

Unit Group: 151-156

Date Prepared: 4/5/2021

Herd Results

Year	Fall Survey			Total	Spring Survey		Total	Postseason Ratios (observed)			Spring Ratio (obs)	Modeled Buck Ratio		Pop Est (Sept)
	Buck	Doe	Fawn		Adult	Fawn		Buck	Fawn	F:Ad	F:Ad	Postseas	Preseas	
2018-2019				0	673	265	938	--	--	--	39	30	47	2,200
2019-2020	109	390	172	671	499	127	626	28	44	34	25	32	46	2,000
2020-2021	81	258	148	487	547	162	709	31	57	44	30	31	40	2,100

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)	Any-Legal-Weapon Success (%)			Avg Age	4-Point or Better (%)	Total Antlerless Harvest	NR Guided Success (%)	Comp Tag Success (%)
	E	L		E	M	L					
2018-2019	28%		57%	49%		60%	3.7	37%	8		
2019-2020	15%		11%	46%		88%	3.7	34%	7	80%	67%
2020-2021	10%		50%	49%		67%	3.8	43%	12	100%	75%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery Hunt 1341		Muzzleloader Hunt 1371		Early ALW Hunt 1331		Mid ALW Hunt 1331		Late ALW Hunt 1311		Antlerless Hunt 1181	Junior Hunt 1107	NR Guided Hunt 1235	Comp Tags
	RES	NR	RES	NR	RES	NR	RES	NR	RES	NR	RES	RES		
2019-2020	80	10	10	2	160	10	0	0	15	2	0	75		6
2020-2021	45	5	10	2	130	9	0	0	9	2	0	70		4
2021-2022	60	10	10	2	160	15			15	2	0	65		5
Tag Trend	INC	INC	=	=	INC	INC	=	=	INC	=	=	DEC	=	INC

Quota Rationale

The observed fall buck ratio of 31 was near the targeted post-season management objective of 30 bucks:100 does. Improved fawn recruitment and continuation of strong harvest metrics are all encouraging. A modest increase in tag quota is designed to maintain the post-season buck ratio at the current management objective of 30 bucks:100 does. The Area 15 mule deer herd is currently stable.

Reporting Biologist: S. Hale

Supervisor: T. Donham