

Alaska Department of Fish and Game
Draft Comments

Wildlife Proposal 22-07

This proposal would close federal public lands on Admiralty Island draining into Chatham Strait between Point Marsden and Point Gardner to deer hunting by non-federally qualified users (NFQU) from September 15 – November 30 (Figure 1). Federally qualified users (FQU) would be able to continue to hunt in this area through January 31.



Figure 1. Map of the western Admiralty Island proposal and boundaries of the ADF&G Wildlife Analysis Areas for deer hunter data used to analyze effects of the proposal.

Background

The proposal by the Southeast Alaska Subsistence Regional Advisory Council (SERAC) states that over the past years it has become more challenging for FQUs from Angoon to meet their subsistence needs for deer due to increasing competition from NFQUs. To reduce competition and conserve the deer population, the proposal asked the Federal Subsistence Board to close federal lands on most of western Admiralty Island to NFQU deer hunters from September 15 – November 30.

GMU 4 encompasses the ABC Islands (Admiralty, Baranof, and Chichagof) and the surrounding archipelago. All residents of Southeast Alaska (GMUs 1-5) excluding residents of Juneau and Ketchikan are eligible to harvest deer in GMU 4 under federal subsistence regulations. The current federal deer season for this area is August 1 to January 31 with a bag limit of 6 deer (bucks only August 1 – September 14). The current State season is August 1 to December 31 with a bag limit of 6 deer (bucks only August 1 – September 14). In 2019, the Alaska Board of Game (BOG) increased the deer bag limit in GMU 4 from 4 to 6 deer because there is such a healthy population of deer within this GMU.

In 1992, the Alaska Board of Game established an annual amount reasonably necessary for subsistence (ANS) for deer in GMU 4 of 5,200-6,000 deer. ANS differs from the undefined term “subsistence need” used in Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA). Under Alaska law ANS is the harvestable portion of a game population that is sufficient to provide a reasonable opportunity for subsistence uses. “Reasonable opportunity” is that which allows a normally diligent hunter a reasonable expectation of success. The BOG establishes an ANS for a game population through review of long-term population and harvest information. A portion of the state-designated Juneau Nonsubsistence Area extends into GMU 4 on northern and eastern Admiralty Island.

These comments analyze indices of deer abundance, deer hunter effort, and harvest in GMU 4. Deer abundance trends are derived from annual deer pellet group transects, aerial alpine surveys, and spring mortality surveys. Hunter effort and harvest are derived from the annual deer hunter survey (1997-2010), and mandatory deer harvest ticket reports (2011 - present). Collectively, these data gathered by the Alaska Department of Fish and Game (ADF&G) are the only annually collected, objective, and quantitative information on deer abundance, hunter effort, and harvest available for Southeast Alaska

GMU 4-Wide Population and Harvest

Monitoring deer abundance in forested habitat is challenging as deer cannot be directly counted through ground or aerial surveys, so we currently look at several types of survey data. Since the 1980s ADF&G has used spring pellet group counts to monitor broad ($\geq 30\%$) changes in deer abundance. Spring pellet group surveys are conducted in numerous US Forest Service Value Comparison Units across Southeast Alaska after snow melts and before spring green-up.

GMU 4 consistently has the highest pellet group counts in Southeast Alaska (Figure 2). Pellet group counts < 1.0 group/plot generally correspond to low density populations, 1.0 - 1.99 group/plot to moderately dense populations and > 2.0 group/plot correspond to high density populations. Pellet group counts in GMU 4 are usually well above the high-density threshold and are often double the counts in other GMUs. Although the specific area affected by this proposal is rarely sampled, this broad index of deer abundance suggests the GMU 4 population remains at high levels with no indication of depleted populations or conservation concerns.

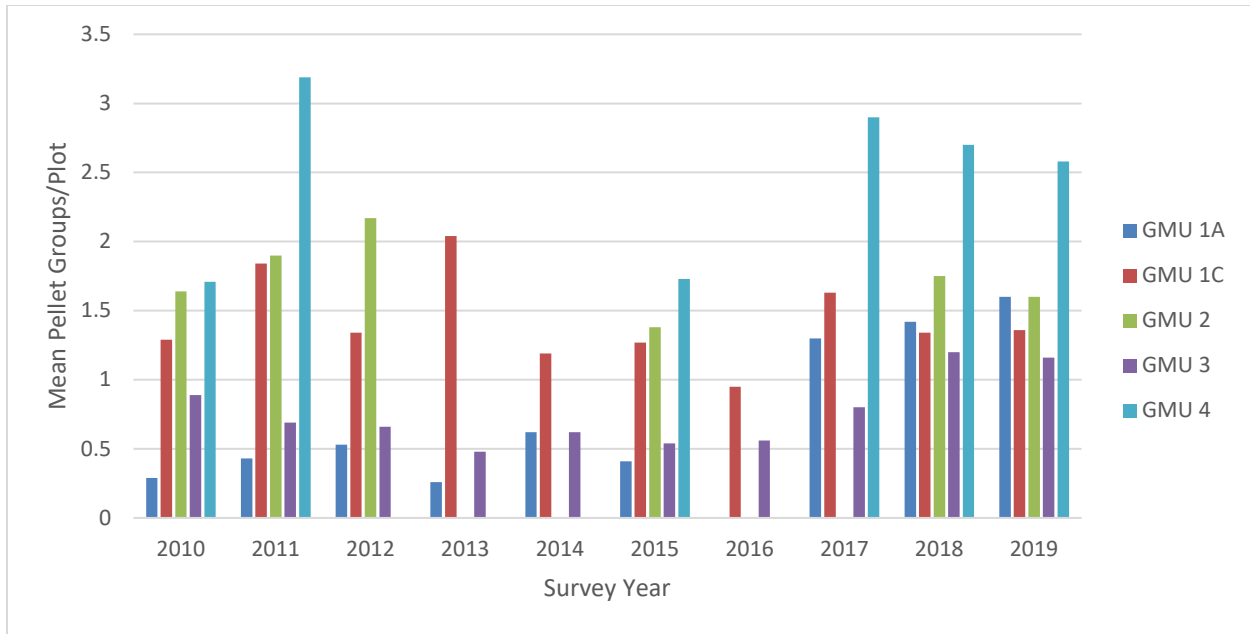


Figure 2. Mean number of deer pellet groups/plot for Southeast Alaska by GMU, 2010-2019.

In 2013, ADF&G began evaluating mid-summer aerial counts of deer in alpine habitat as an index of deer abundance. Surveys were conducted for 2 locations in GMU 4, Southern Admiralty Island (2015-2017) and Northeast Chichagof Island (2017-2018). The findings of those surveys were summarized as deer counted per hour of survey time (Figure 3). Southern Admiralty had the highest deer/hour of any survey area in Southeast Alaska. Estimates from Northeast Chichagof were similar to Prince of Wales Island (POW) and higher than all other survey areas except Southern Admiralty and POW.

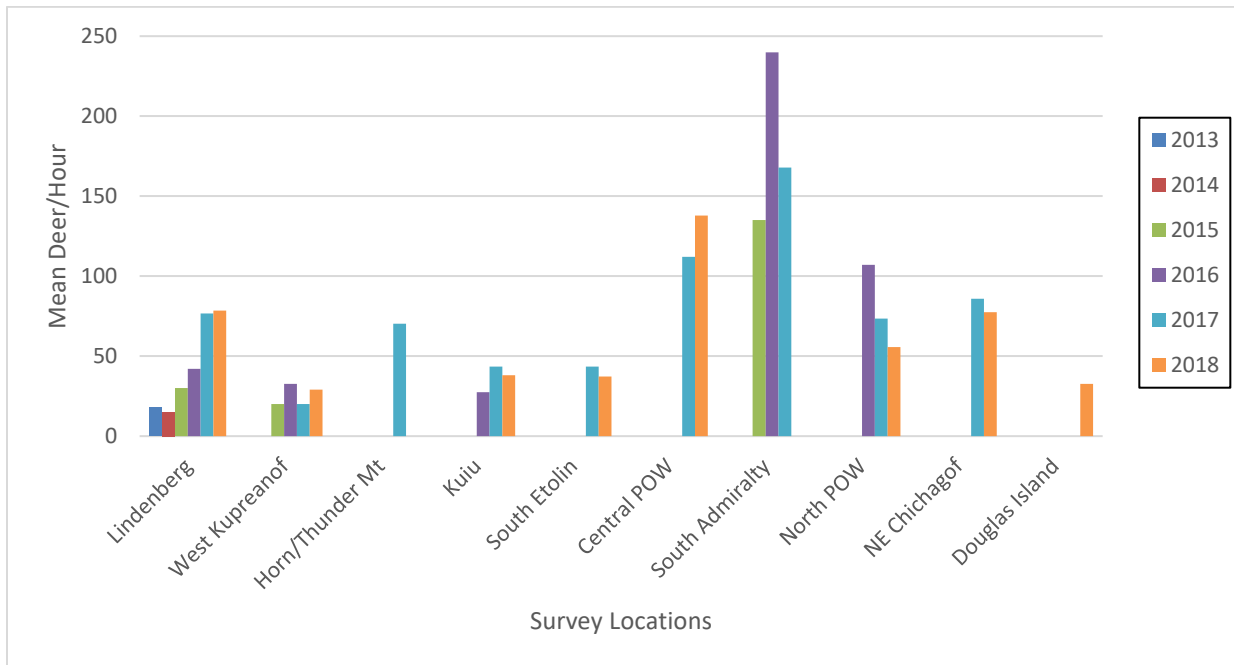


Figure 3. Mean number of deer counted per hour during mid-summer aerial alpine deer surveys in Southeast Alaska, 2013-2018.

Management biologists in GMU 4 began conducting beach mortality transects in the early 1990s. Although these mortality surveys are a relatively insensitive indicator of population trend, they are an indicator of mortality resulting from severe winters which is the most limiting factor for Sitka black-tailed deer populations in GMU 4. In addition to the total count of carcasses per mile, the proportion of adult male, adult female and fawn mortalities also indicates winter severity. Usually fawns die first, followed by adult males and then adult females. The winter of 2006/2007 was the most severe on record, and in some parts of GMU 4 managers estimated up to 75% of deer died. Note the very high number of carcasses found during spring 2007 surveys (Figure 4). In the years since then, few carcasses were found indicating high overwinter survival and no winter related population declines.

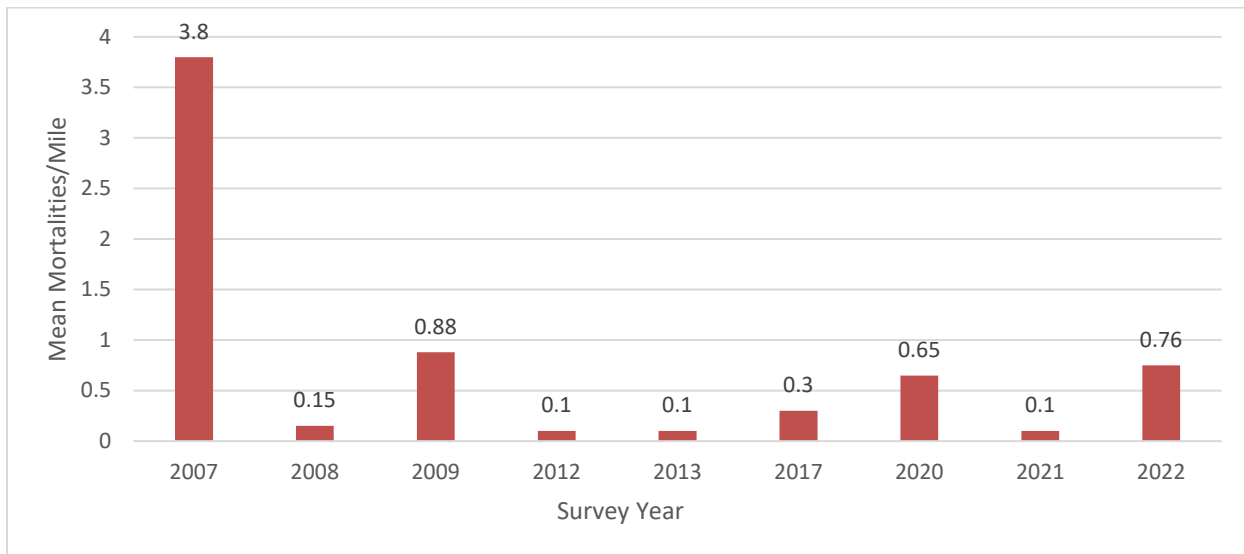


Figure 4. Mean number of winter-killed deer per mile of beach surveyed during spring in GMU 4.

Taken together, these indices of deer abundance (pellet group surveys, alpine counts, mortality transects) indicate the GMU 4 deer population is high and stable. None of these indices suggests a decline in deer abundance or a conservation concern for the GMU 4 deer population.

Hunter Effort and Harvest

GMU 4 managers also use harvest as an indicator of trend in the deer population. ADF&G estimates hunter effort and harvest using information provided by hunters. To hunt deer in Southeast Alaska all hunters must obtain harvest tickets. Prior to 2011, ADF&G mailed survey forms to one third of the hunters in each community who obtained harvest tickets. Since 2011 harvest tickets have come with a mandatory reporting requirement. People who obtain harvest tickets are required to report whether they (or a proxy or federal designated hunter) hunted or not. Those who did hunt are required to report where they hunted, days of hunting effort, and information about deer they harvested.

From 1997-2021 the estimated average annual harvest in GMU 4 has been 5,680 deer taken by 3,275 hunters (Figure 5). Currently, GMU 4 supports the highest deer harvest in the state with harvest remaining stable with between 5,000-7,000 deer harvested annually. The exception being the severe winter of 2006/2007 when high harvest was followed by significant overwinter

mortality of deer throughout GMU 4. This resulted in a precipitous decline in harvest from 7,734 deer in 2006 to 1,933 deer in 2007. Based on harvest and other indicators of deer abundance, managers believe the deer population had fully recovered by the 2013 season.

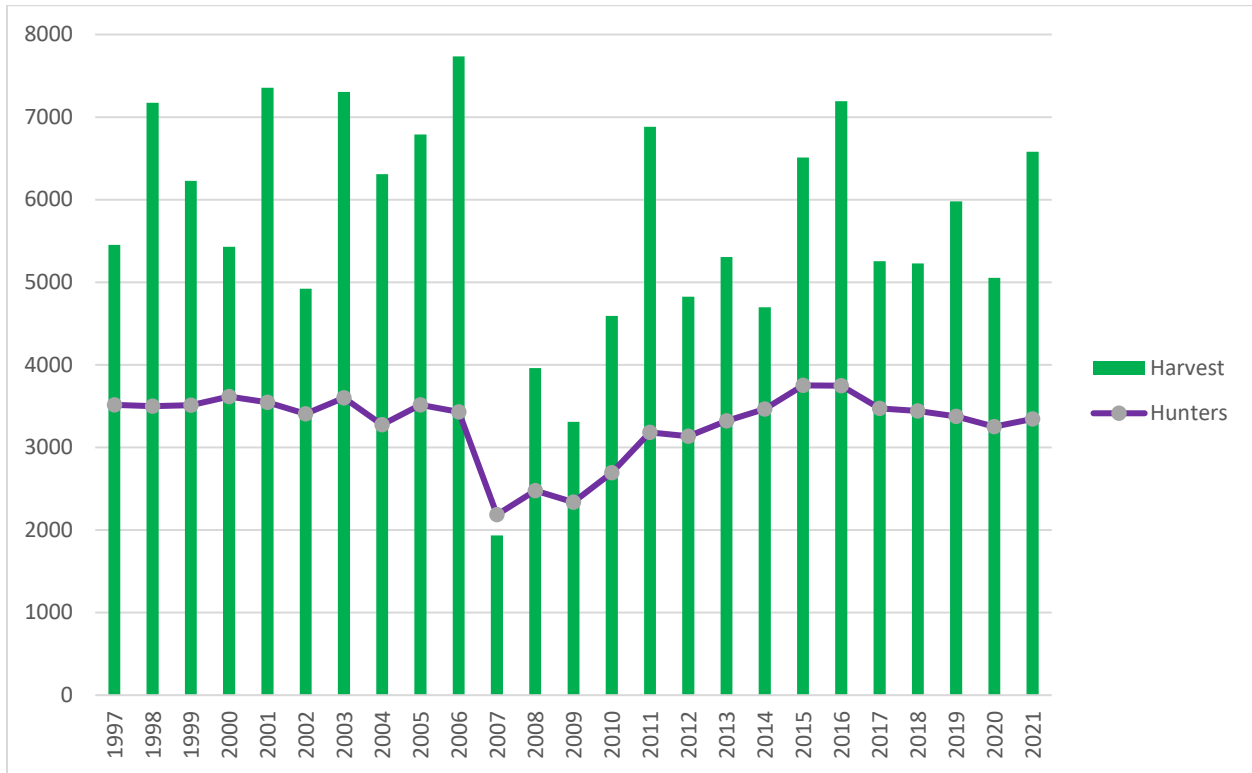


Figure 5. Numbers of people hunting deer and estimated deer harvest for GMU 4, RY97-RY21.

Data Summaries for the Impacted Area

The following analyses present data summarized for FQUs and NFQUs in the 6 ADF&G Wildlife Analysis Areas (WAAs 4041-4044, 4054 and 4055) that intersect with the area this proposal covers (Figure 1). WAA boundaries generally correspond with watersheds and are the finest scale at which data can be meaningfully summarized. For this proposal, WAA boundaries directly correspond to the proposal area.

Long-term records indicate a declining trend in harvest for both FQUs and NFQUs (Figure 6). From 1997 to 2006, FQUs harvested on average 157 deer annually. Harvest declined with the severe winter of 2006/2007. Since 2013, when ADF&G considered the deer population recovered, FQUs have harvested an average of 58 deer annually. This represents an approximate 65% decline. There is a similar pattern for NFQUs, who averaged 200 deer annually from RY97 to RY06. Since RY13, that average has declined to 115 deer annually.

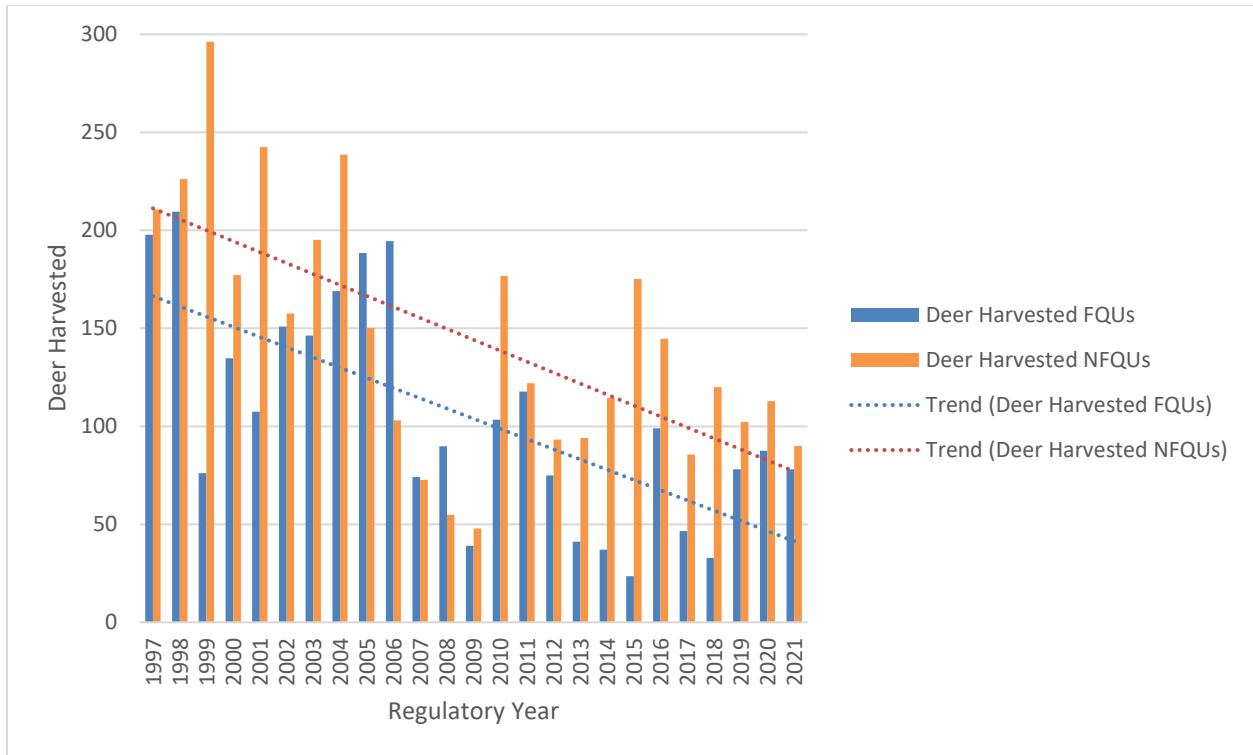


Figure 6. Trends of estimated deer harvest by FQU and NFQUs, western Admiralty Island, RY97-RY21.

To evaluate potential reasons for the decline in deer harvest we examined trends in the numbers of FQU and NFQU hunters and days of hunting effort by those hunters. Since 1997, the number of FQUs and NFQUs have both declined (Figure 7). From 1997-2006 the number of FQUs averaged 72 hunters and NFQUs averaged 143 hunters. The severe winter of 2006/2007 resulted in a decline in the deer population and hunting activity for several years. By 2013 ADF&G considered the deer population recovered. From RY13-RY21 the numbers of FQUs averaged only 37 hunters, a decline of 50 percent. For that same period the number of NFQUs averaged 98 hunters, a decline of 30 percent.

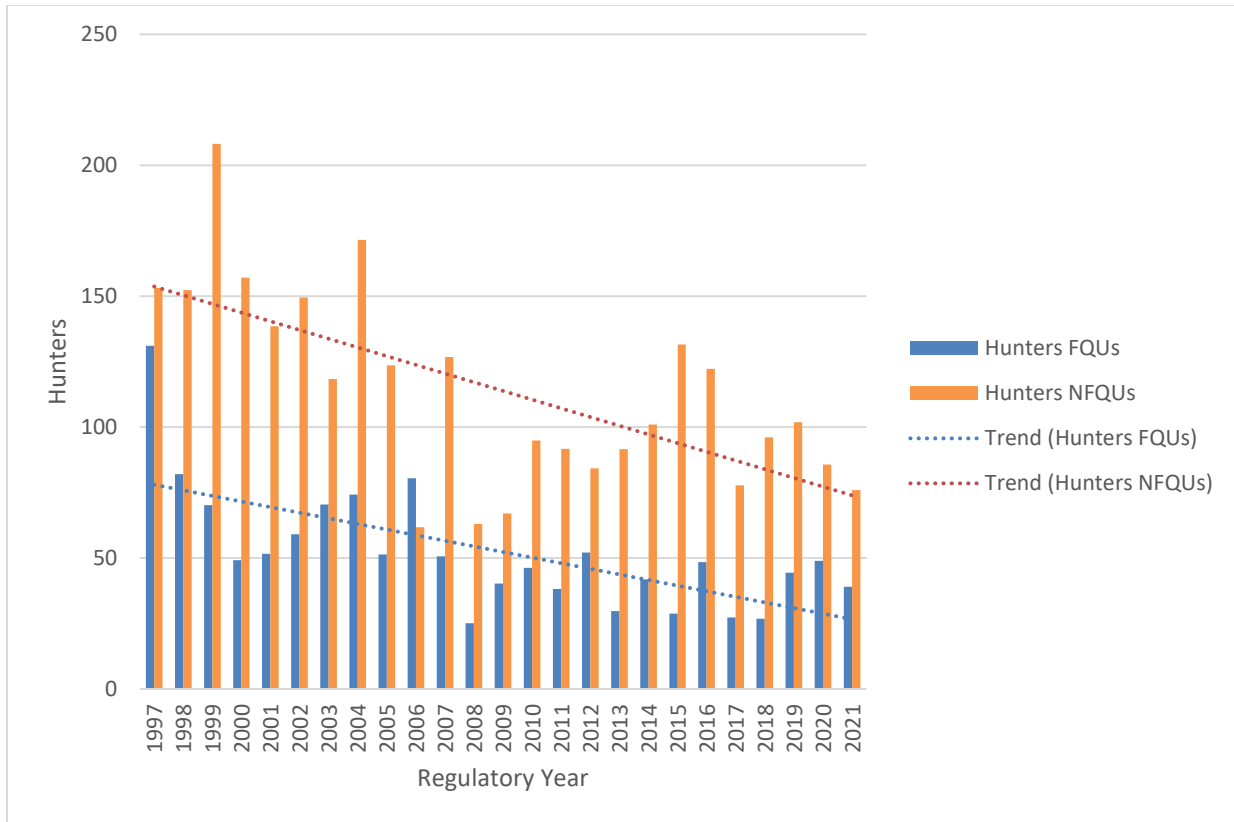


Figure 7. Trends in number of FQUs and NFQUs, western Admiralty Island, RY97-RY21.

In Angoon specifically, there has been a declining trend in the number of residents who have obtained deer harvest tickets (Figure 8). In RY21, only 58 Angoon residents obtained deer harvest tickets, half the number of RY97.

Trends in days hunted are similar to trends for number of FQUs and NFQUs (Figure 8). Days of hunting effort by FQUs and NFQUs both declined, but the decline for FQUs has been greater. FQUs spent as many as 631 days afield in RY97 and as few as 33 days in RY15. Decreasing numbers of hunters and days hunted indicate reduced effort for both NFQU and FQUs for this area of GMU 4

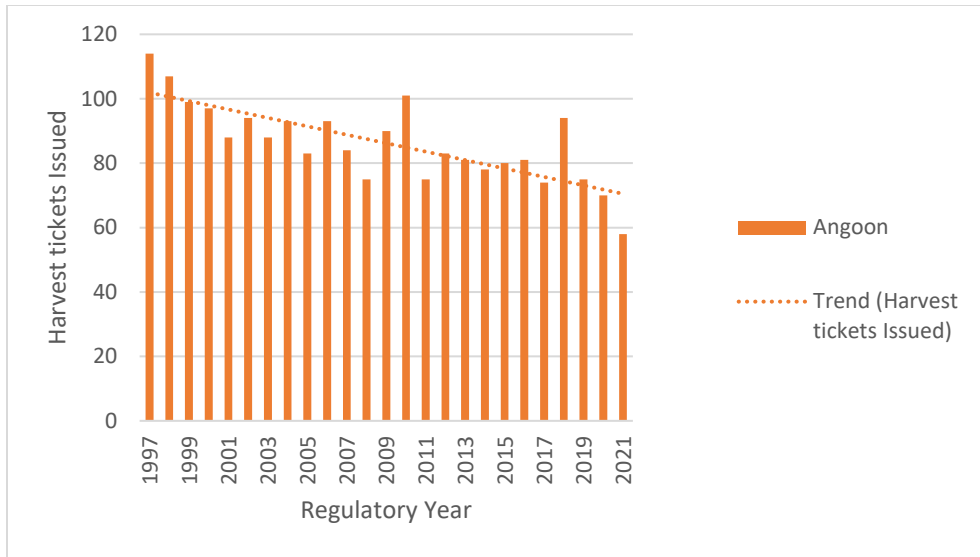


Figure 8. Deer Harvest Tickets Issued in Angoon RY97-RY21.

Trends in Hunter Efficiency

Hunter efficiency, or the days of hunting effort required to harvest 1 deer, is another indicator of the availability of deer to GMU 4 hunters. FQUs are consistently more efficient than NFQUs in time it takes to harvest a deer (Figure 9). Since 1997 FQUs hunting in the proposal area have required an average of only 2.0 days of hunting effort to harvest 1 deer, whereas NFQUs have required 3.5 days of effort.

Compared to deer hunter effort required to harvest a deer elsewhere in the state this is an extremely efficient hunt. In comparison, hunters on Prince of Wales Island (GMU 2) average 3.9 days of hunting per deer harvested, Kodiak (GMU 8) averages 3.6 days/deer, GMU 1A (Ketchikan) averages 5.4 days/deer, GMU 3 (Petersburg/Wrangell) averages 6.3 days/deer, and in GMU 1C (Juneau) hunters average 8.1 days/deer (ADF&G 2013-2019). The effort required to harvest one deer in GMU 4 is lower than anywhere in Alaska.

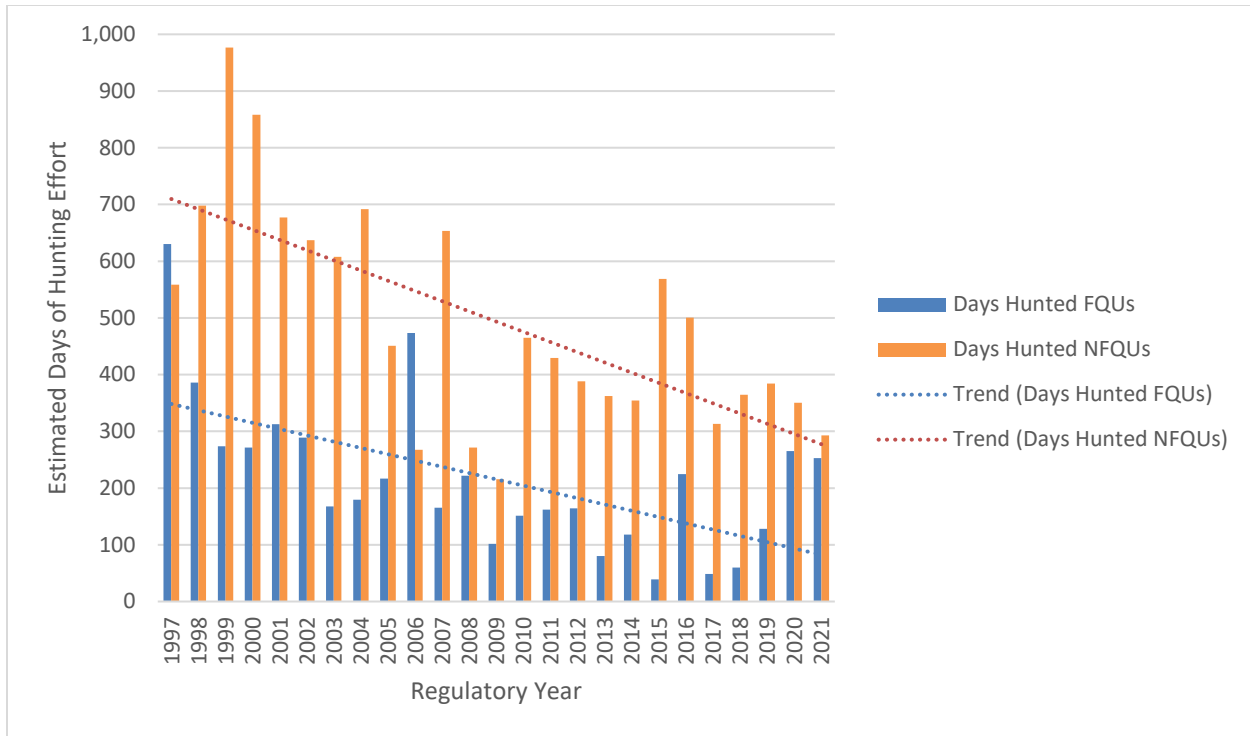


Figure 9. Trends in estimated days of hunting effort by FQUs and NFQUs, western Admiralty Island, RY97-RY21.

Trends in Hunter Efficiency

Hunter efficiency, or the days of hunting effort required to harvest 1 deer, is another indicator of the availability of deer to GMU 4 hunters. FQUs are consistently more efficient than NFQUs in time it takes to harvest a deer (Figure 10). Since 1997 FQUs hunting in the proposal area have required an average of only 2.1 days of hunting effort to harvest 1 deer, whereas NFQUs have required 3.4 days of effort.

Compared to deer hunter effort required to harvest a deer elsewhere in the state this is an extremely efficient hunt. In comparison, hunters on Prince of Wales Island (GMU 2) average 4.1 days of hunting per deer harvested, Kodiak (GMU 8) averages 3.6 days/deer, GMU 1A (Ketchikan) averages 4.8 days/deer, GMU 3 (Petersburg/Wrangell) averages 6.0 days/deer, GMU 6D (Prince William Sound) averages 2.9 days/deer and in GMU 1C (Juneau) hunters average 7.9 days/deer. The effort required to harvest one deer in GMU 4 (2.3 days/deer) is lower than anywhere in Alaska (ADF&G RY2013-RY2021).

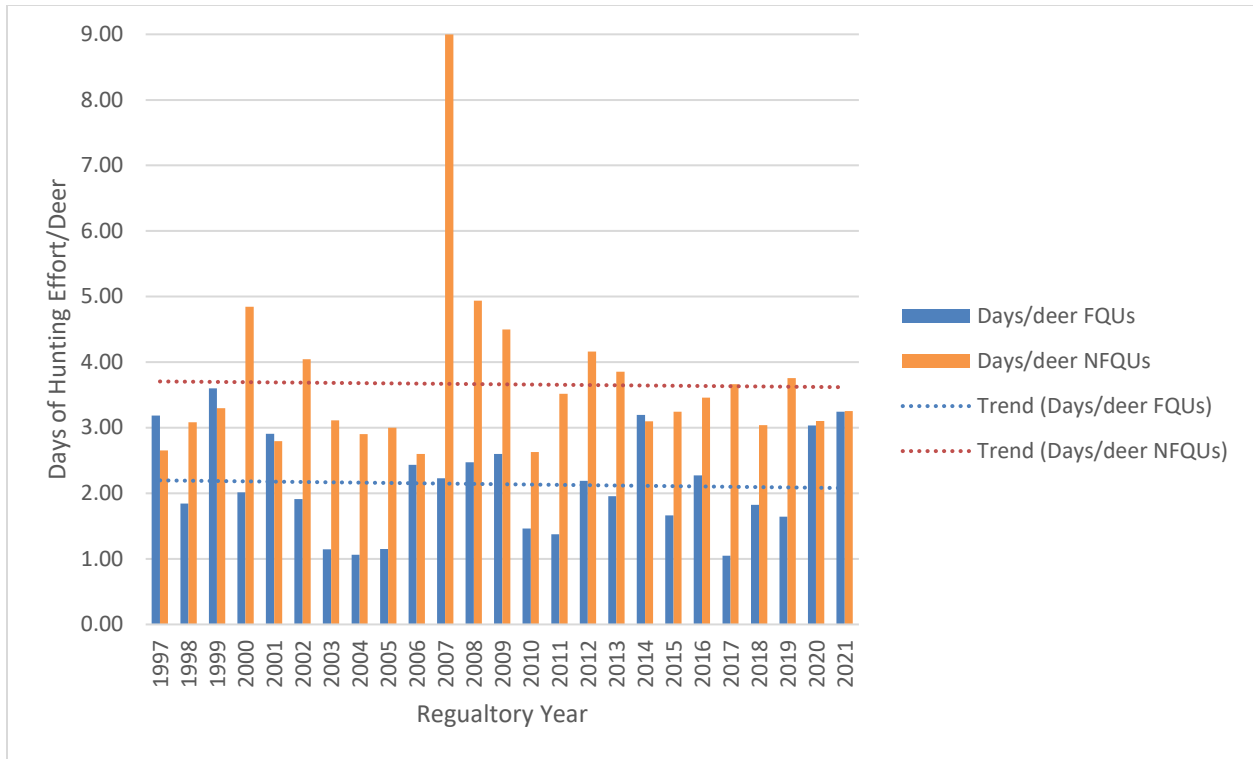


Figure 10. Trends in estimated days of hunting effort required by FQUs and NFQUs to harvest one deer, western Admiralty Island, RY97-RY21.

The number of deer harvested per hunter is another gauge of deer abundance and hunting success. Over the long term this metric has declined for both groups of hunters with the decline for FQUs greater than for NFQUs. However, since RY13 when ADF&G considered the deer population recovered from the severe winter of 2006/2007, the number of deer harvested per NFQU has remained steady and averaged about 1.3 deer/hunter. In contrast, the number of deer harvested per FQUs has trended upwards suggesting that FQUs are experiencing increasing success (Figure 11).

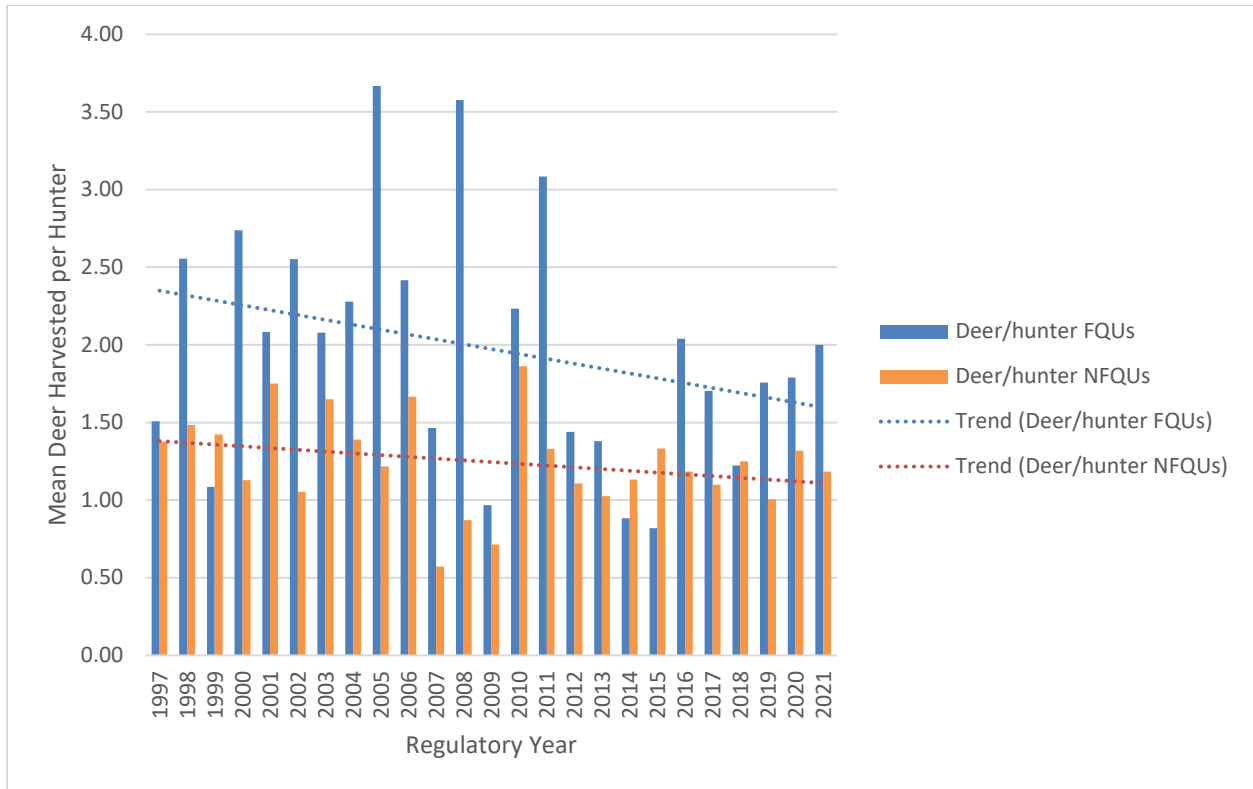


Figure 11. Trends in mean numbers of deer harvested per FQU and NFQU hunters, western Admiralty Island, RY97-RY21.

Hunt Chronology

Mid-October through November is the most popular time for all hunters to pursue deer in GMU 4. Deer activity coinciding with the rut as well as winter snows that push deer to beaches make for more successful hunting than earlier in the season. Hunters report hunting effort and harvest by month, so data can only be summarized by month. The period, September – November, encompasses 63% of hunters, 67% of days hunted, and 62% of the harvest for FQUs hunting in Unit 4. Figures for NFQUs are higher at 69%, 75% and 72% respectively (Table 1).

Table 1. Unit 4 Deer Hunting Chronology of Harvest and Effort for FQUs and NFQUs as both numbers and percentage of total.

FQUs RY13-RY21						
	<u>Hunters</u>		<u>Days Hunted</u>		<u>Deer Harvested</u>	
		<u>%</u>		<u>%</u>		<u>%</u>
August	2,129	8	3,678	6	1,840	6
September	2,485	10	4,402	8	2,481	8
October	4,259	17	8,470	15	4,596	14
November	9,310	36	24,488	44	12,740	40
December	5,470	21	11,674	21	7,725	24
January	1,901	8	3,439	6	2,561	8
Total	25,554		56,151		31,943	
NFQUs RY13-RY21						
August	1,778	9	3,661	6	1,214	6
September	1,648	8	4,256	6	1,458	7
October	3,314	16	8,905	14	2,442	13
November	9,357	45	34,940	55	10,125	52
December	4,571	22	12,053	19	4,314	22
Total	20,668		63,815		19,553	

Analysis

The analyses presented here are based on several different metrics that came from the only annually collected, objective, and quantitative information available on deer abundance, hunter effort and harvest in the area affected by this proposal. Deer abundance data is monitored by ADF&G through the reporting of effort and harvest data from hunters, including those from Angoon,

The proposal asserts that the deer population on western Admiralty Island is “depleted” and that in recent years FQUs have had increasing difficulty meeting their subsistence needs for deer because of increasing competition with NFQUs. Because the term “subsistence need” is not defined and ANILCA does not require the federal program to quantify historical levels of harvest for subsistence uses, there is no way to objectively verify when those needs are being met. Our analysis focuses on measures of deer abundance and trend in GMU 4 and on trends in effort and harvest by FQUs and NFQUs in the proposal area. Conditions that would support the assertion that NFQUs are hindering deer harvest by FQUs would include increasing numbers of hunters, days of hunting effort, and harvest by NFQUs that coincide with declining harvest by FQUs while the number of FQU hunters and effort by those hunters remained stable or increased.

ADF&G monitors abundance and trend of deer at the scale of the GMU or subunit, so we can only note that the available data indicate GMU 4 deer populations are currently at high and stable

levels. Winter severity, particularly deep and lingering snowpack is the biggest limiting factor for Sitka black-tailed deer in GMU 4. The last winter with above average snowfall occurred in 2011/2012. Since then, winters have been average to mild with little overwinter mortality as corroborated by ADF&G's spring mortality surveys. Pellet group and aerial alpine deer counts also support the conclusion that deer remain abundant throughout GMU 4.

The proposal also asserts that FQUs on western Admiralty Island are having an increasingly difficult time meeting their subsistence needs. The term "subsistence need" as used in Title VIII of ANILCA has no quantitative benchmark analogous to ANS in state regulations. Consequently, there is no way of verifying whether the existing federal regulations are adequately providing for subsistence harvest or not. Because the proposal notes that increasing competition from NFQUs is making subsistence harvest more difficult and because no similar proposal has been submitted before, we can presume that in the past FQUs were able to provide for subsistence uses. Therefore, to evaluate the need for this restriction of NFQU opportunity we investigated harvest and measures of hunter effort for trends of increasing effort and harvest by NFQUs.

We found that the numbers of FQUs and NFQUs hunting deer in this area has declined, but that decline in participation was much greater among FQUs. This decline in hunter participation appears related to the severe winter of 2006/2007. The average number of FQUs hunting deer in this area before RY07 was approximately 50% greater than the average from RY13 to present. We have also seen an historic decline in the number of Angoon residents who acquire deer harvest tickets. Numbers of NFQUs hunting deer in this area also declined, but by only 30%. Days of hunting effort showed a similar trend. The number of days hunted by FQUs has declined from the 1997-2006 average of 320 days per year to an average of only 135 days per year since 2013, a decrease of approximately 60%. The decline in hunting effort by NFQUs for the same periods is approximately 40%. This finding directly contradicts the assertion in the proposal that increasing competition from NFQUs is hindering harvest by FQUs. In fact, total deer hunting effort and the potential for competition between FQUs and NFQUs in this area has substantially declined.

To evaluate whether FQUs are having an increasingly difficult time harvesting deer we looked for trends in the number of days of hunting effort required to harvest 1 deer and number of deer harvested per hunter. Since RY97 days of hunting effort to harvest 1 deer has been stable for both FQUs and NFQUs. Although FQUs are now harvesting fewer deer per hunter than they did prior to RY2007, since RY2013, deer harvested per FQU has been trending upward suggesting FQUs, including Angoon hunters, are enjoying increasing success.

If harvesting deer was becoming more difficult for FQUs, we would expect to see an increase in the number of days of hunting effort required to harvest a deer and a decline in the number of deer harvested per FQU hunter. However, these measures of hunter success based on hunt reports provided by FQUs, including residents of Angoon, indicate that deer hunting conditions on western Admiralty Island remain very good and that in recent years FQUs have enjoyed greater hunting success.

Summary

The proposal asserts that the deer population on western Admiralty Island is depleted and that in recent years FQUs have had difficulty meeting their subsistence needs because of increasing competition from NFQUs. Our analysis of the deer population, hunter effort and harvest trends found no support for either contention. Instead, the available indicators support that deer remain abundant throughout GMU 4. On western Admiralty Island it is unlikely that hunter harvest has reduced deer abundance because total hunting effort is relatively light, and over the last 2 decades hunter effort and harvest have declined.

We could find no support for the contention that competition from NFQUs has increased or that NFQUs are hindering harvest by FQUs. In fact, over the past 2 decades, rather than increasing, the number of NFQUs and days of hunting effort by NFQUs has declined. Further, days of hunting effort by FQUs required to harvest a deer remains very low and the number of deer harvested per FQU has been increasing.

The analysis conducted by ADF&G indicates a decline in the number of deer harvested by FQUs on western Admiralty Island. However, that decline is attributable to a decline in the number of FQUs and days of effort by those hunters. Over the last 20 years the number of FQUs and days of hunting effort by those hunters has declined by half. Deer remain abundant and competition from NFQUs is stable or declining, so we conclude that the decline in federal subsistence harvest of deer results from a decline in participation and effort by FQUs, not depleted deer populations or increasing competition from NFQUs.

Impact on Subsistence Users

The closure of this area may reduce some competition on federal public lands between FQUs and NFQUs between September 15 and November 30. However, NFQUs would still be able to hunt adjacent state-owned tidelands below mean high tide, state public uplands, and private property. .

Impact on Other Users

Opportunity for NFQUs to harvest deer on federal public lands on western Admiralty Island would be severely reduced. Seventy-two percent of the NFQU harvest from this area occurs during the period targeted for closure by this proposal.

State Customary and Traditional Use Findings

The Alaska Board of Game has made positive customary and traditional use findings for deer in GMU 4.

Amounts Reasonably Necessary for Subsistence

Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The board does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources. The ANS for deer in GMU 4 is 5,200–6,000 deer.

Contrary to its name, ANS does not indicate subsistence “need”. Instead, ANS provides the board with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. The ANS for deer in GMU 4 was established in 1992. Hunting

regulations can be re-examined if harvests for customary and traditional uses consistently falls below ANS. However, harvest may decline for many reasons, and in this case it appears to result from declining participation and effort by FQUs in the Angoon area.

Opportunity Provided by the State

The State hunting season and bag limit for deer in GMU 4 including western Admiralty Island is:

<u>GMU 4 Remainder</u>	<u>Bag Limit 6 deer</u> <i>(bucks only to Sep 14th)</i>	<u>Resident</u> <u>Open Season</u> <i>Aug 1 – Dec 31</i> <i>(Harvest ticket)</i>	<u>Nonresident</u> <u>Open Season</u> <i>Aug 1 – Dec 31</i> <i>(Harvest ticket)</i>
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Conservation Issues

There are no conservation issues for the deer population in GMU 4. Following a decade of mild winters, the available population indices suggest the GMU 4 deer population remains high and stable. Deer harvest remains within the historical range and state ANS is met in most years. Population indices and measures of hunter effort and success indicate that GMU 4 has the highest population of deer and highest hunting success of anywhere in the state.

Based on the information provided to ADF&G by GMU 4 deer hunters, population indices, anecdotal reports by local hunters and field observations by management biologists we conclude that there is no conservation concern for the GMU 4 deer population.

Enforcement Issues

Passage of this proposal will create increasingly complex regulations for NFQUs. Enforcement will be challenging because NFQU’s will remain eligible to hunt deer on state-owned tidelands, lands below the line of mean high tide, and on other state and private property. The tideline is not marked, so NFQUs and enforcement officers will have difficulty determining when deer are above or below that line of mean high tide.

Position

ADF&G **OPPOSES** this proposal as originally submitted as well as with the changes suggested by the SERAC during their meeting in October 2021. There is no evidence that hunting by NFQUs has negatively affected FQUs overall ability to harvest deer. There is no conservation concern and therefore no biological justification for this proposal. Adopting this proposal would deprive NFQUs of sustainable deer hunting opportunity contrary to terms laid out in Title VIII of ANILCA. This proposal would also unnecessarily restrict Alaskans, including former residents of the area who have had to move away for a variety of reasons. They would then be put into a situation where they would be restricted in their ability to practice their traditional and cultural way of life.

Approximately 90% of land in GMU 4 is federally managed, and current federal regulations provide greater opportunity to federally qualified deer hunters compared to NFQUs. FQUs are eligible to hunt an entire month longer than NFQUs with a season extending through the month of January as well as a liberal designated hunter program.

In *Alaska v. Federal Subsistence Bd.*, 544 F.3d 1089, 1100 (9th Cir. 2008), the Ninth Circuit ruled that, under ANILCA, the Federal Subsistence Board may regulate subsistence use but is prohibited from limiting nonsubsistence use. A bag limit reduction for NFQUs for deer in GMU 4 is inconsistent with ANILCA under applicable case law on federal preemption. As directed by Congress in Section 802 of ANILCA, subsistence uses of wildlife shall be the priority consumptive use on federal public lands “when it is necessary to restrict taking in order to assure the continued viability of a fish or wildlife population or the continuation of subsistence uses of such population.” Section 815 of ANILCA authorizes federal restrictions on nonsubsistence uses on the public lands only if “necessary for the conservation of healthy populations of fish and wildlife” or if necessary to “continue subsistence uses.” Based on ADF&G’s analysis of the only annually collected, objective, and quantitative data available, none of those reasons apply. There is no conservation concern for the Admiralty Island deer population, and no restrictions on NFQU bag limit are needed to continue subsistence uses of deer. Data largely provided by FQUs residing in Angoon clearly indicate that the decline in harvest by that user group resulted from substantially lower participation and effort by FQU deer hunters.

Data Tables

Table 2. Summary Table Federally Qualified Deer Hunters, WAAs 4041, 4042, 4043, 4044, 4054, and 4055.

Regulatory Year	No. of Hunters	Hunt Days	Total Harvest	Deer/Hunter	Days/Deer
1997	131	630	198	1.51	3.19
1998	82	386	210	2.55	1.84
1999	70	274	76	1.08	3.60
2000	49	272	135	2.74	2.02
2001	52	312	108	2.08	2.91
2002	59	289	151	2.55	1.91
2003	70	168	146	2.08	1.15
2004	74	179	169	2.28	1.06
2005	51	217	189	3.67	1.15
2006	81	474	195	2.42	2.43
2007	51	166	74	1.46	2.23
2008	25	222	90	3.58	2.47
2009	40	101	39	0.97	2.60
2010	46	151	103	2.23	1.46
2011	38	162	118	3.08	1.38
2012	52	164	75	1.44	2.19
2013	30	80	41	1.38	1.96
2014	42	118	37	0.88	3.19
2015	29	39	24	0.82	1.66
2016	49	225	99	2.04	2.27
2017	27	49	47	1.70	1.05
2018	27	60	33	1.22	1.82
2019	44	128	78	1.76	1.64
2020	49	266	88	1.79	3.03
2021	39	253	78	2.00	3.24

Table 3. Summary Table NFQ Deer Hunters, WAAs 4041, 4042, 4043, 4044, 4054 and 4055.

Regulatory Year	No. of Hunters	Hunt Days	Total Harvest	Deer/Hunter	Days/Deer
1997	153	559	211	1.38	2.65
1998	152	698	226	1.49	3.09
1999	208	977	296	1.42	3.30
2000	157	858	177	1.13	4.85
2001	139	677	243	1.75	2.79
2002	150	637	158	1.05	4.05
2003	118	608	195	1.65	3.11
2004	172	692	239	1.39	2.90
2005	124	451	150	1.22	3.00
2006	62	268	103	1.67	2.60
2007	127	653	73	0.57	9.00
2008	63	271	55	0.87	4.94
2009	67	216	48	0.71	4.50
2010	95	465	177	1.86	2.63
2011	92	429	122	1.33	3.52
2012	84	388	93	1.11	4.16
2013	92	363	94	1.03	3.86
2014	101	355	114	1.13	3.10
2015	132	569	175	1.33	3.25
2016	122	500	145	1.18	3.46
2017	78	313	86	1.10	3.66
2018	96	365	120	1.25	3.04
2019	102	384	102	1.00	3.76
2020	86	350	113	1.32	3.10
2021	76	293	90	1.18	3.26

Alaska Department of Fish and Game
Draft Comments

Wildlife Proposal 22-08

This proposal would reduce the bag limit for non-federally qualified users (NFQU) to 2 bucks within the Northeast Chichagof Controlled Use Area (NECCUA, Figure 1).

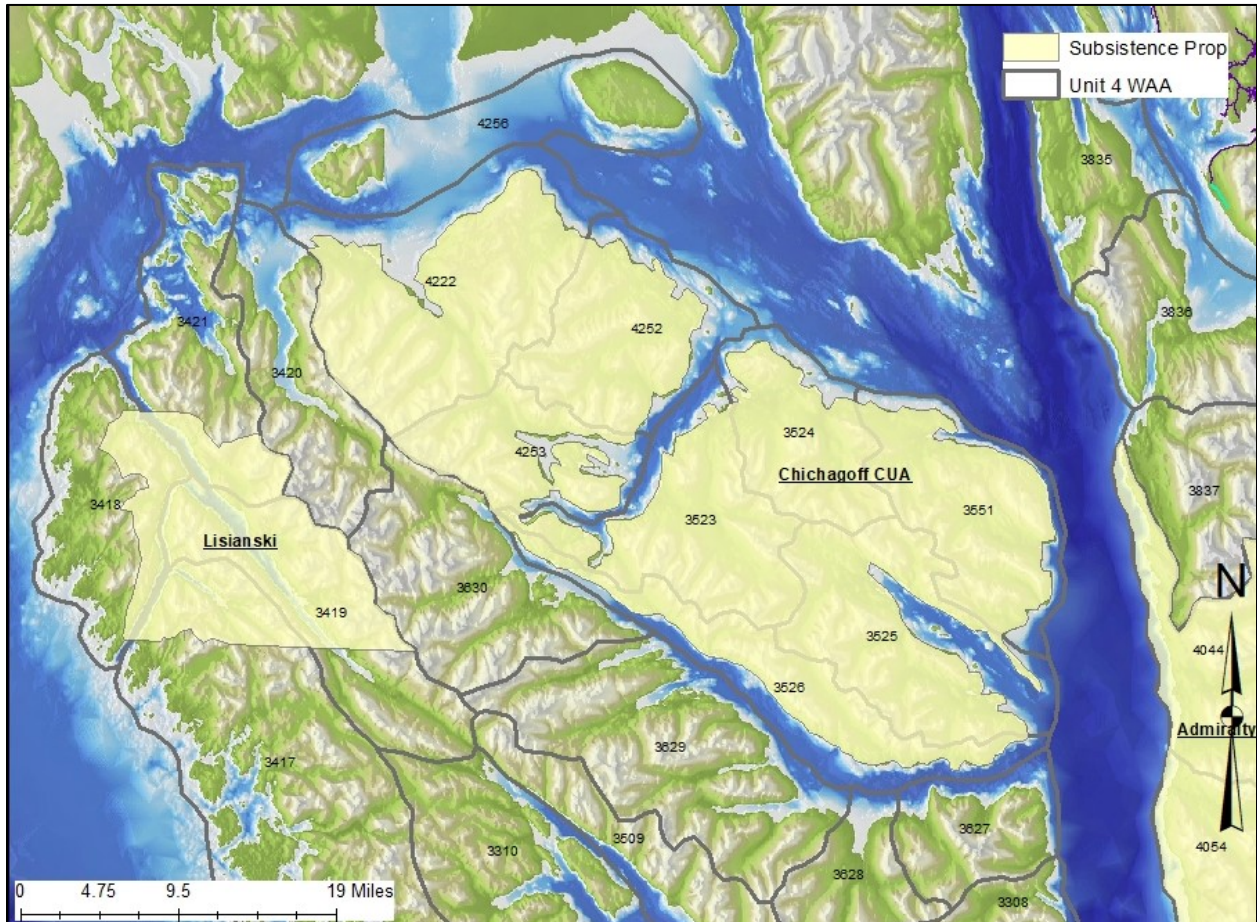


Figure 1. Map of the NECCUA proposal and boundaries of the ADF&G WAAs for deer hunter data used to analyze effects of the proposal.

Background

The proposal by the Southeast Alaska Subsistence Regional Advisory Council (SERAC) states that over the past years it has become more challenging for federally qualified users (FQU) from Hoonah to meet their subsistence needs for deer due to increasing competition from NFQUs. To reduce competition and conserve the deer population, the proposal asked the Federal Subsistence Board to reduce the bag limit for deer for NFQUs within the NECCUA to two male deer.

Game Management Unit 4 (GMU 4) encompasses the ABC Islands (Admiralty, Baranof and Chichagof) and the surrounding archipelago. All residents of Southeast Alaska (GMUs 1-5) excluding residents of Juneau and Ketchikan are eligible to harvest deer in GMU 4 under federal subsistence regulations. Currently within the NECCUA, the federal deer season is August 1 to

January 31 with a bag limit of 6 deer (bucks only August 1 – September 14). Under the State season, NFQUs have a bag limit of 3 deer east of Port Frederick and 6 deer west of Port Frederick (bucks only August 1 – September 14). This proposal does not affect the current FQU bag limit for deer within the NECCUA. In 2019, the Alaska Board of Game (BOG) increased the deer bag limit in GMU 4 from 4 to 6 deer (except the NECCUA east of Port Frederick which remained 3 deer) because of high population indices in the GMU.

Under State regulations the NECCUA east of Port Frederick and north of Tenakee Inlet is treated separately from the remainder of GMU 4 with a more conservative bag limit. This area has been extensively logged and features a network of logging roads that facilitate access for hunting. It is also more prone to heavy snow than other areas of Unit 4 and much of the deer winter range has been altered by clearcut logging.

In 1992, the BOG established a positive customary and traditional use finding for deer in GMU 4 and established an annual amount reasonably necessary for subsistence (ANS) of 5,200-6,000 deer. ANS differs from the undefined term “subsistence need” used in Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA). Under Alaska law ANS is the harvestable portion of a game population that is sufficient to provide a reasonable opportunity for subsistence uses. “Reasonable opportunity” is that which allows a normally diligent hunter a reasonable expectation of success. The BOG establishes an ANS for a game population through review of long-term population and harvest information. A portion of the state-designated Juneau Nonsubsistence Area extends into GMU 4 on northern and eastern Admiralty Island.

Indices of deer abundance, deer hunter effort and harvest in GMU 4 and within the NECCUA are all important aspects to consider when reviewing this proposal. Deer abundance and trend are derived from annual deer pellet group transects, aerial alpine surveys, and spring mortality surveys. Hunter effort and harvest data are derived from the annual deer hunter survey (1997-2010) and mandatory deer harvest ticket reports (2011 - present). Collectively, these data gathered by the Alaska Department of Fish and Game (ADF&G) are the only annually collected, objective, and quantitative information on deer abundance, hunter effort and harvest available for Southeast Alaska.

GMU 4-Wide Population and Harvest

Monitoring deer abundance in forested habitat is challenging as deer cannot be directly counted through ground or aerial surveys. We present several types of survey data. Since the 1980s ADF&G has used spring pellet group counts to monitor broad ($\geq 30\%$) changes in deer abundance. Spring pellet group surveys are conducted in numerous US Forest Service Value Comparison Units across Southeast Alaska after snow melts and before spring green-up.

GMU 4 consistently has the highest pellet group counts in Southeast Alaska (Figure 2). Pellet group counts < 1.0 groups/plot generally correspond to low density populations, $1.0 - 1.99$ groups/plot to moderately dense populations and > 2.0 groups/plot correspond to high density populations. Pellet group counts in GMU 4 are usually well above the high-density threshold and are often double the counts in other GMUs. Although the area affected by this proposal is rarely sampled, this broad index of deer abundance suggests the GMU 4 population remains at high levels with no indication of depleted populations or conservation concerns.

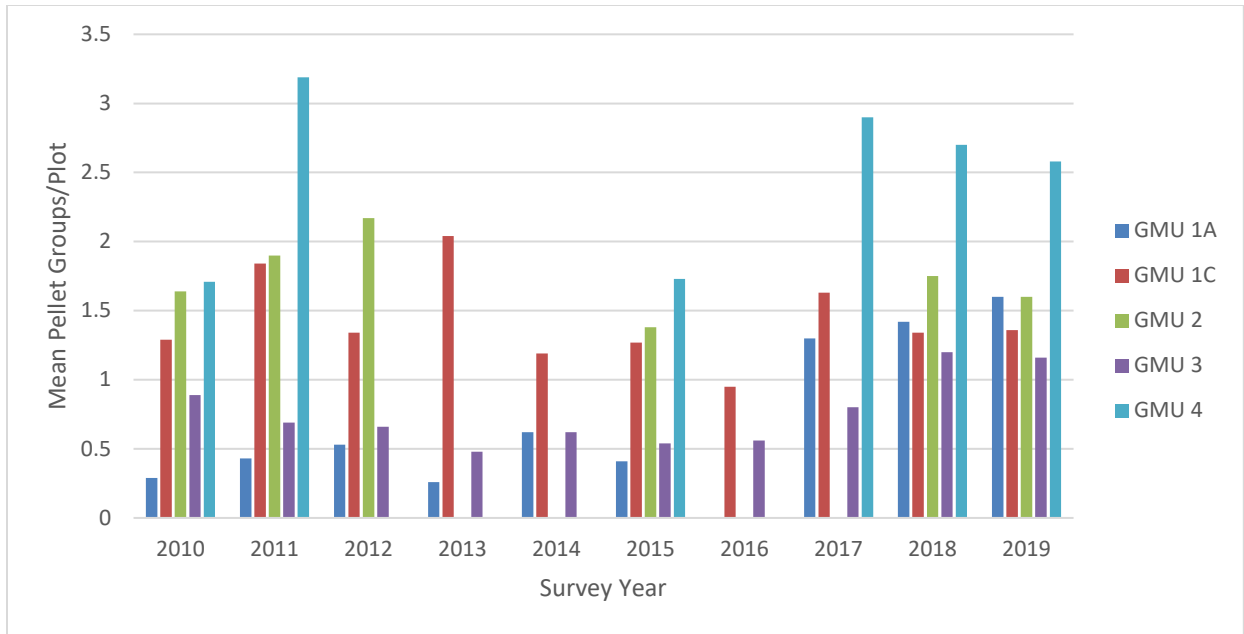


Figure 2. Mean number of deer pellet groups/plot for Southeast Alaska by GMU, 2010-2019.

In 2013 ADF&G began evaluating mid-summer aerial counts of deer in alpine habitat as an index of deer abundance. Surveys were conducted for 2 locations in GMU 4, Southern Admiralty Island (2015-2017) and Northeast Chichagof Island (2017-2018). The findings of those surveys were summarized as deer counted per hour of survey time (Figure 3). Southern Admiralty had the highest deer/hour of any survey area in Southeast Alaska. Estimates from Northeast Chichagof were similar to Prince of Wales Island (POW) and higher than all other survey areas except Southern Admiralty and POW.

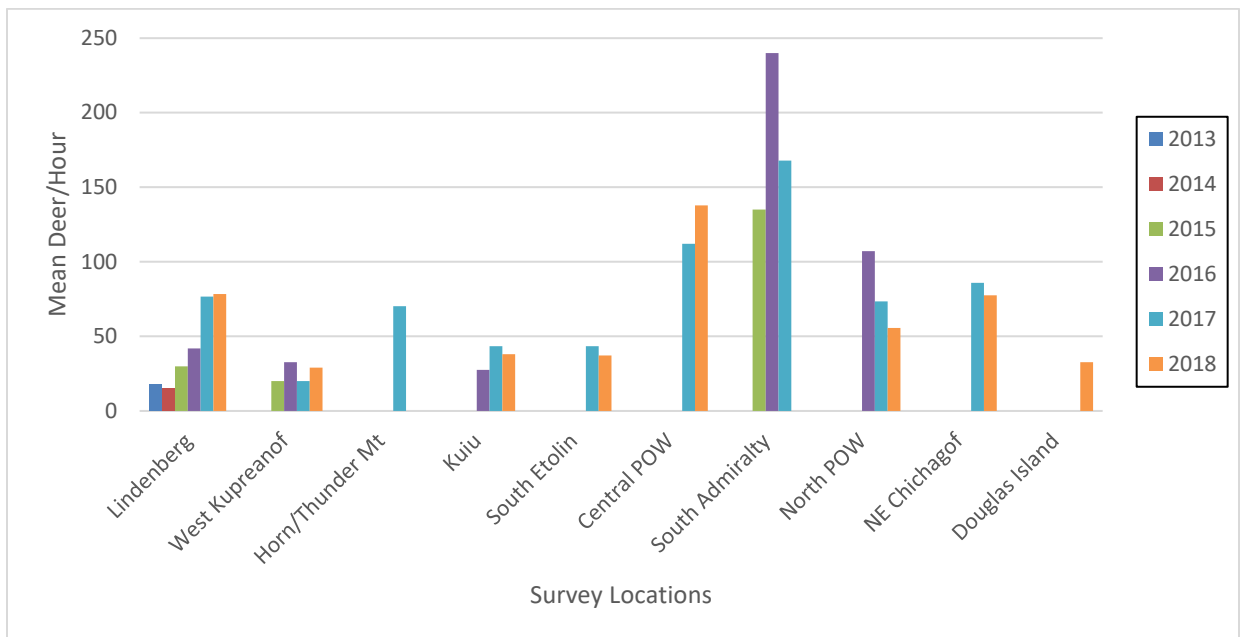


Figure 3. Mean number of deer counted per hour during mid-summer aerial alpine deer surveys in Southeast Alaska, 2013-2018.

Management biologists in GMU 4 began conducting beach mortality transects in the early 1990s. Although these mortality surveys are a relatively insensitive indicator of population trend, they are an indicator of mortality resulting from severe winters, which is the most limiting factor for Sitka black-tailed deer populations in GMU 4. In addition to the total count of carcasses per mile, the proportion of adult male, adult female and fawn mortalities also indicates winter severity. Usually fawns die first, followed by adult males and then adult females. The winter of 2006/2007 was the most severe on record, and in some parts of GMU 4 managers estimated up to 75% of deer died. Note the very high number of carcasses found during spring 2007 surveys (Figure 4). In the years since then, few carcasses were found indicating high overwinter survival and no winter related population declines.

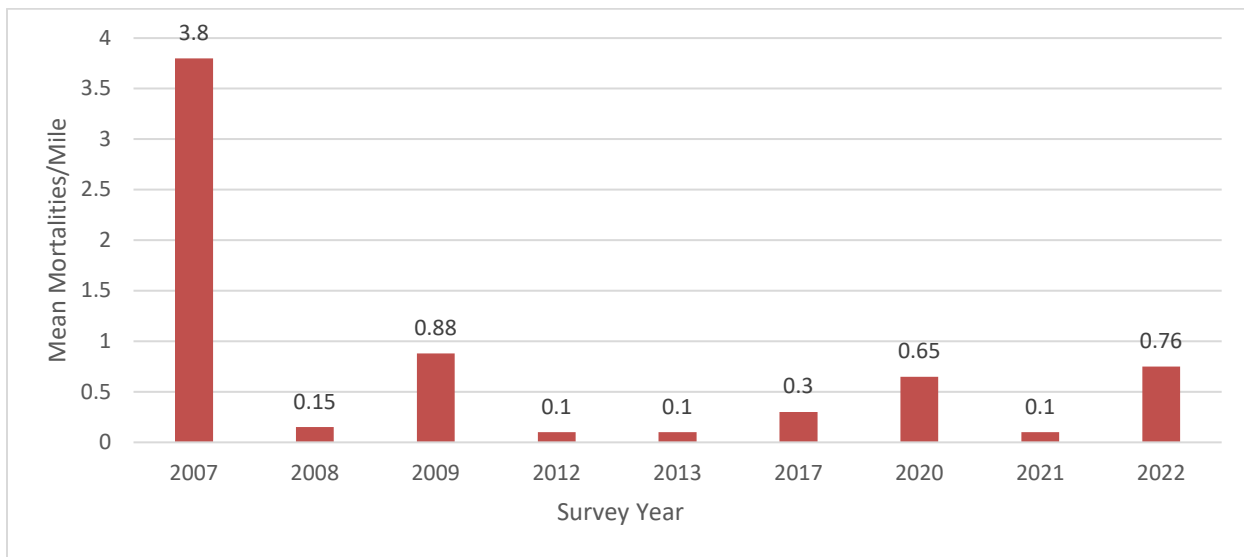


Figure 4. Mean number of winter-killed deer per mile of beach surveyed during spring in GMU 4.

Taken together, these indices of deer abundance (pellet group surveys, alpine counts, mortality transects) indicate the GMU 4 deer population is high and stable. None of these indices suggests a decline in deer abundance or a conservation concern for the GMU 4 deer population.

Hunter Effort and Harvest

GMU 4 managers also use harvest as an indicator of trend in the deer population. ADF&G estimates hunter effort and harvest using information provided by hunters. To hunt deer in Southeast Alaska all hunters must obtain harvest tickets. Prior to 2011, ADF&G mailed survey forms to one third of the hunters in each community who obtained harvest tickets. Since 2011 harvest tickets have come with a mandatory reporting requirement. People who obtain harvest tickets are required to report whether they (or a proxy or federal designated hunter) hunted or not. Those who did hunt are required to report where they hunted, days of hunting effort, and information about deer they harvested.

Since 1997 the estimated average annual harvest in GMU 4 has been 5,680 deer taken by 3,275 hunters (Figure 5). Currently, GMU 4 supports the highest deer harvest in the state with harvest remaining stable with between 5,000-7,000 deer harvested annually. The exception being the severe winter of 2006/2007 when high harvest was followed by significant overwinter mortality of deer in GMU 4. This resulted in a precipitous decline in harvest from 7,734 deer in 2006 to

1,933 deer in 2007. Based on harvest and other indicators of deer abundance, managers believe the deer population had fully recovered by the 2013 season.

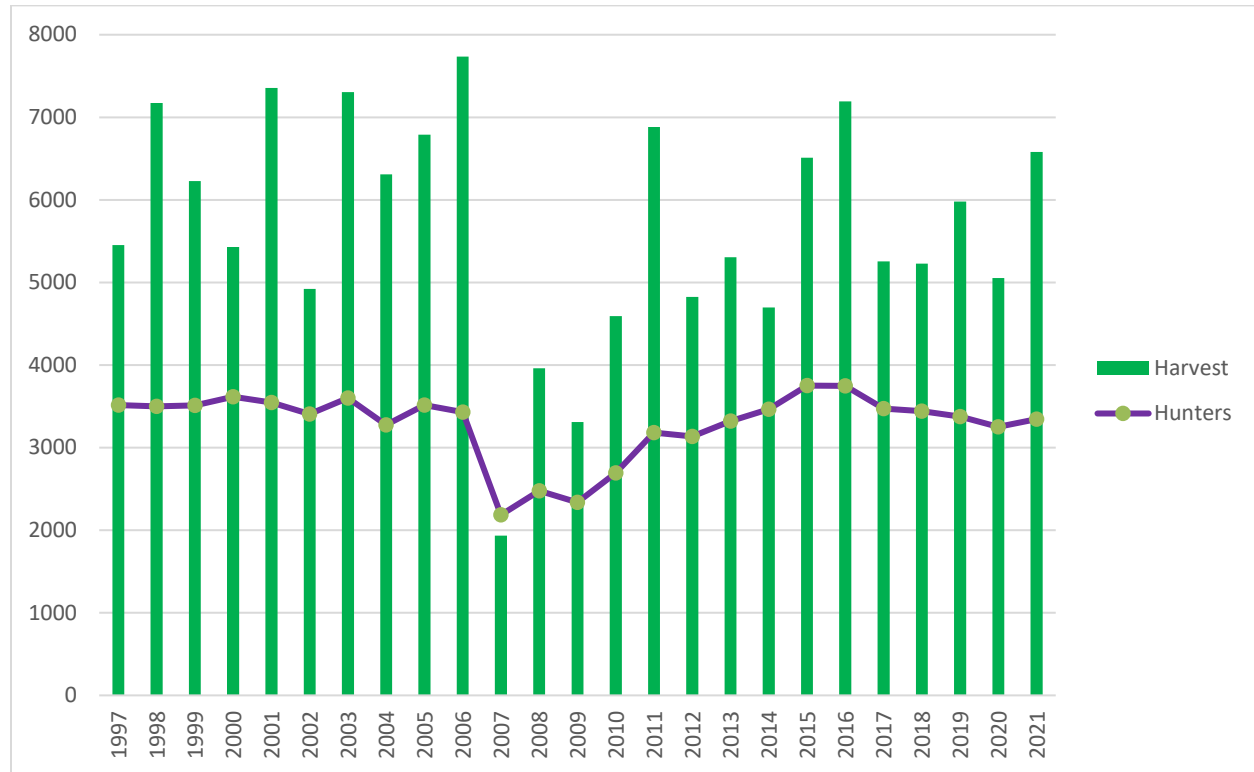


Figure 5. Numbers of people hunting deer and estimated deer harvest for GMU 4, RY97-RY21.

Data Summaries for Impacted Area

The following analyses present data summarized for FQUs and NFQUs in the 8 ADF&G Wildlife Analysis Areas (WAAs 3523-3526, 3551, 4222, 4252 and 4253) that intersect with the area this proposal covers (Figure 1). WAA boundaries generally correspond with watersheds and are the finest scale at which data can be meaningfully summarized. For this proposal, WAA boundaries directly correspond to the proposal area.

Long-term records indicate a declining trend in harvest for FQUs and a stable trend for NFQUs (Figure 6). From 1997 to 2006, FQUs harvested an average of 747 deer annually. Harvest by FQUs declined following the severe winter of 2006/2007. Since 2013, when ADF&G considered the deer population recovered, average annual harvest by FQUs grew to an average of 392 deer annually but remains about 50% lower than prior to RY07. Harvest by NFQUs also declined following the winter of 2006/2007 but has returned to approximately 90% of pre-2007 levels (Figure 6).

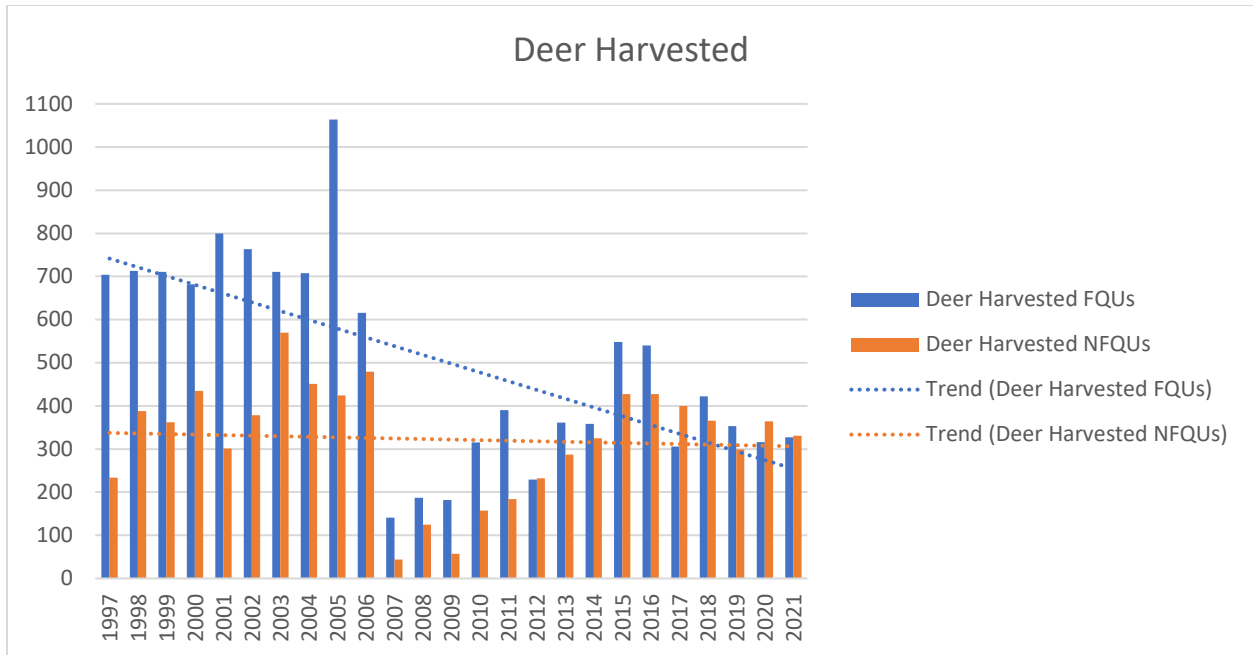


Figure 6. Trends of estimated deer harvest by FQUs and NFQUs, NECCUA, RY97-RY21.

To evaluate potential reasons for the decline in deer harvest by FQUs we examined trends in the numbers of FQU and NFQU hunters and days of hunting effort by those hunters. The number of FQUs hunting in the NECCUA has declined approximately 50% since the late 1990s. Prior to the winter of 2006/2007 an average of 333 FQUs took to the field. The number of FQUs participating in this hunt never fully recovered and since 2013 has only averaged 240 hunters. The number of NFQUs hunting in the NECCUA also declined after the winter of 2006/2007 but returned to pre-2006 levels by 2012 (Figure 7).

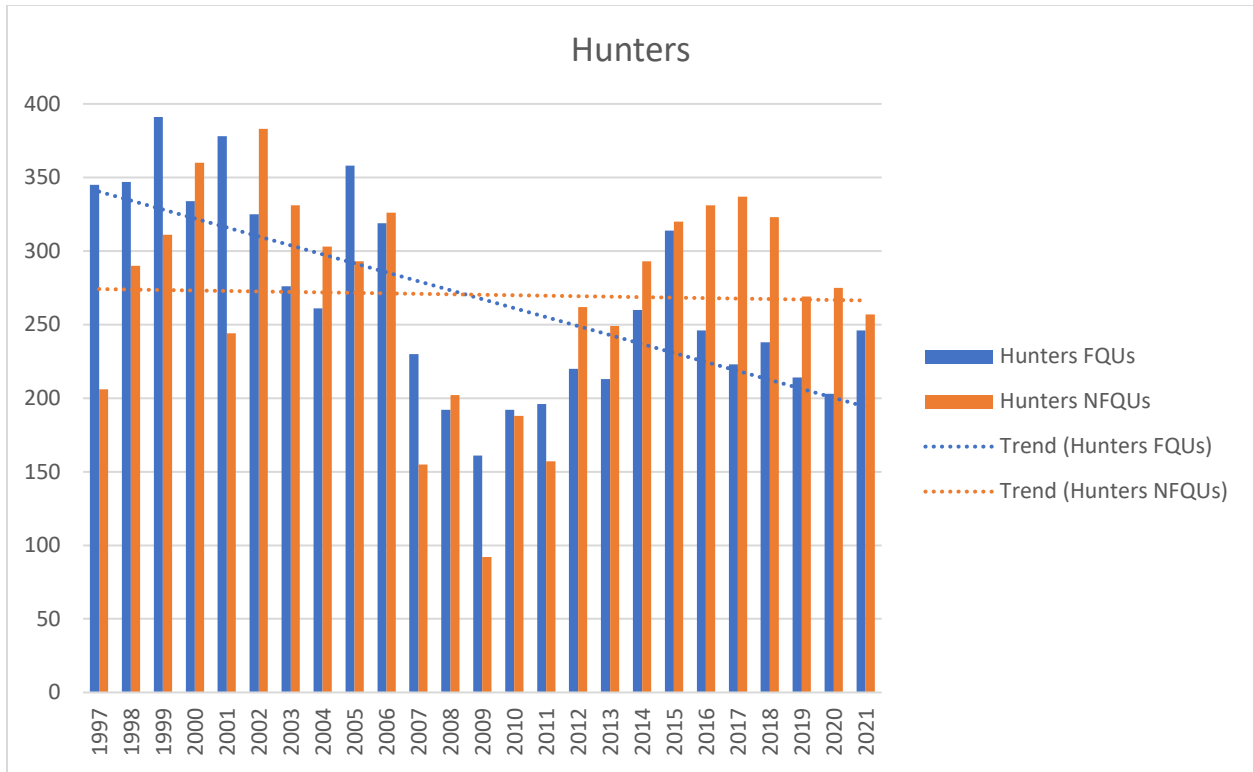


Figure 7. Trends in number of FQUs and NFQUs, NECCUA, RY97-RY21.

In Hoonah specifically, there has been a declining trend in the number of residents who have obtained deer harvest tickets (Figure 8). In the late 1990's and early 2000's it was common for 400 or more Hoonah residents to obtain deer harvest tickets. Now that number is closer to 300, and in RY21 only 265 Hoonah residents obtained deer harvest tickets.

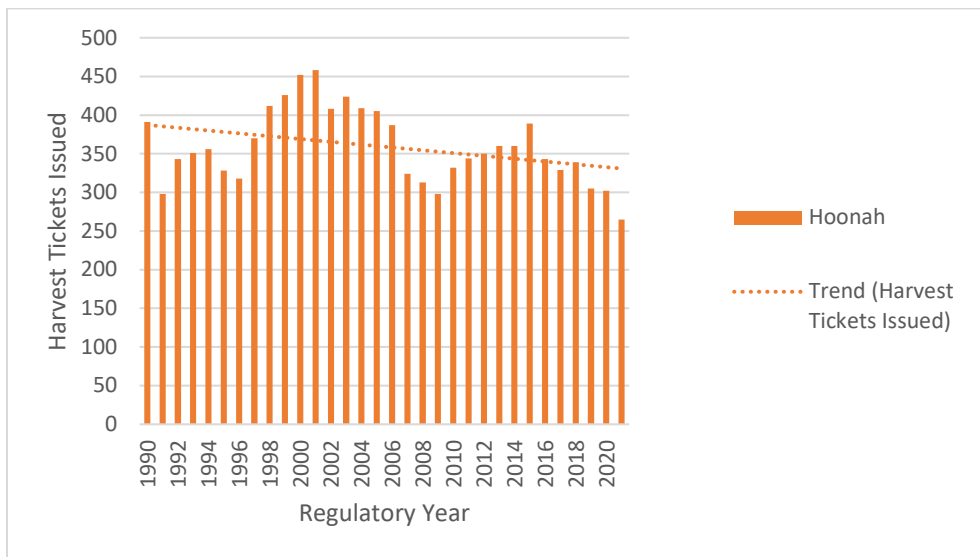


Figure 8. Deer harvest tickets issued to Hoonah residents RY97-RY21.

Trends in days hunted approximate the trends for number of hunters for both user groups. Since 1997 the number of days of hunting effort by FQUs has declined by over 50% while days of

hunting effort by NFQUs has remained stable (Figure 9). Similar to the number of hunters, days of hunting effort by FQUs never recovered from the steep decline following the winter of 2006/2007. The number of hunters along with the number of days hunted both indicate decreased deer hunting effort for this area of GMU 4 by FQU hunters.

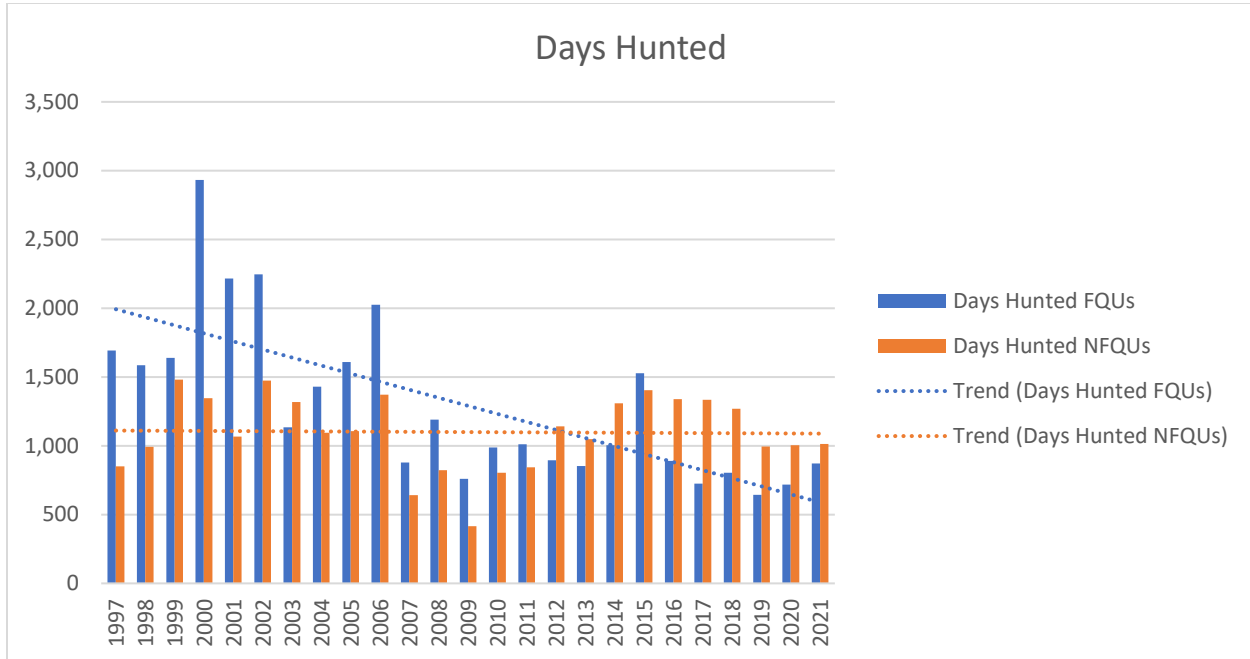


Figure 9. Trends in estimated days of hunting effort by FQUs and NFQUs, NECCUA, RY97-RY21.

Trends in Hunter Efficiency

Hunter efficiency, or the days of hunting effort required to harvest 1 deer, is another indicator of deer availability to GMU 4 hunters. FQUs in the NECCUA are consistently more efficient than NFQUs (Figure 10). Since 2013, NFQUs required an average of 3.3 days to harvest 1 deer, but FQUs required only 2.3 days to harvest one deer. This metric is trending slightly down for FQUs (becoming more efficient) and has been below 2.0 days/deer for 3 of the past 6 seasons.

Compared to deer hunting effort required to harvest a deer elsewhere in the state, this is an extremely efficient hunt. Hunters in GMU 4 require approximately 2.3 days/deer. In comparison, hunters on Prince of Wales Island (GMU 2) average 4.1 days of hunting per deer harvested, Kodiak (GMU 8) averages 3.6 days/deer, GMU 1A (Ketchikan) averages 4.8 days/deer, GMU 3 (Petersburg/Wrangell) averages 6.0 days/deer, GMU 6 (Prince William Sound) averages 2.9 days/deer, and in GMU 1C (Juneau) hunters average 7.9 days/deer (ADF&G RY2013-RY2021). Hunters in GMU 4 experience the most efficient deer hunting of anywhere in Alaska. FQU hunters in the NECCUA mirror Unit 4 when it comes to days/deer.

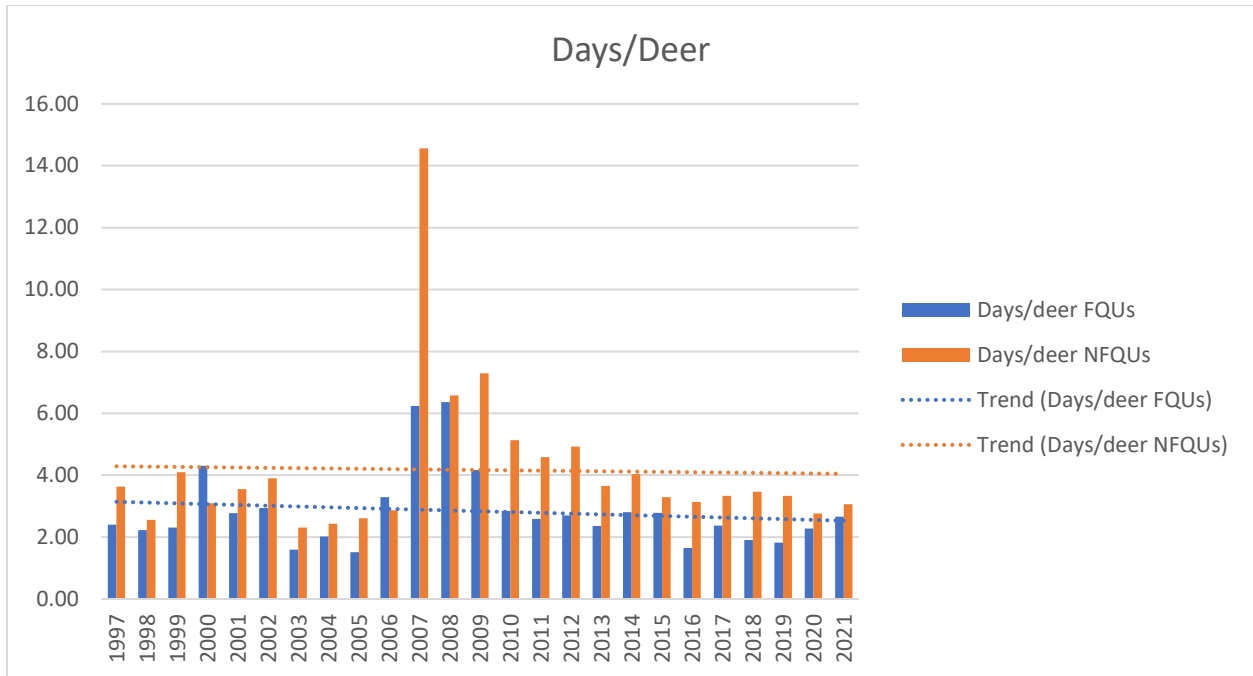


Figure 10. Trends in estimated days of hunting effort by FQUs and NFQUs required to harvest 1 deer, NECCUA, RY97-RY21.

The number of deer harvested per hunter is another gauge of deer abundance and hunting success. Since 1997 the number of deer harvested per NFQU has averaged 1.2. FQUs report harvesting about 1.9 deer/hunter. Prior to the winter of 2006/2007 FQU hunters averaged 2.2 deer/hunter. Since RY13, FQU hunters are only harvesting 1.6 deer/hunter. NFQU deer/hunter numbers have generally returned to pre-RY07 levels. Although the deer/hunter numbers for FQU hunters is trending down, this is more a function of fewer hunters spending less days afield than it is an indicator of hunting efficiency. Particularly in light of days/deer and that NFQU harvests have nearly reached pre-RY07 levels (Figure 11).

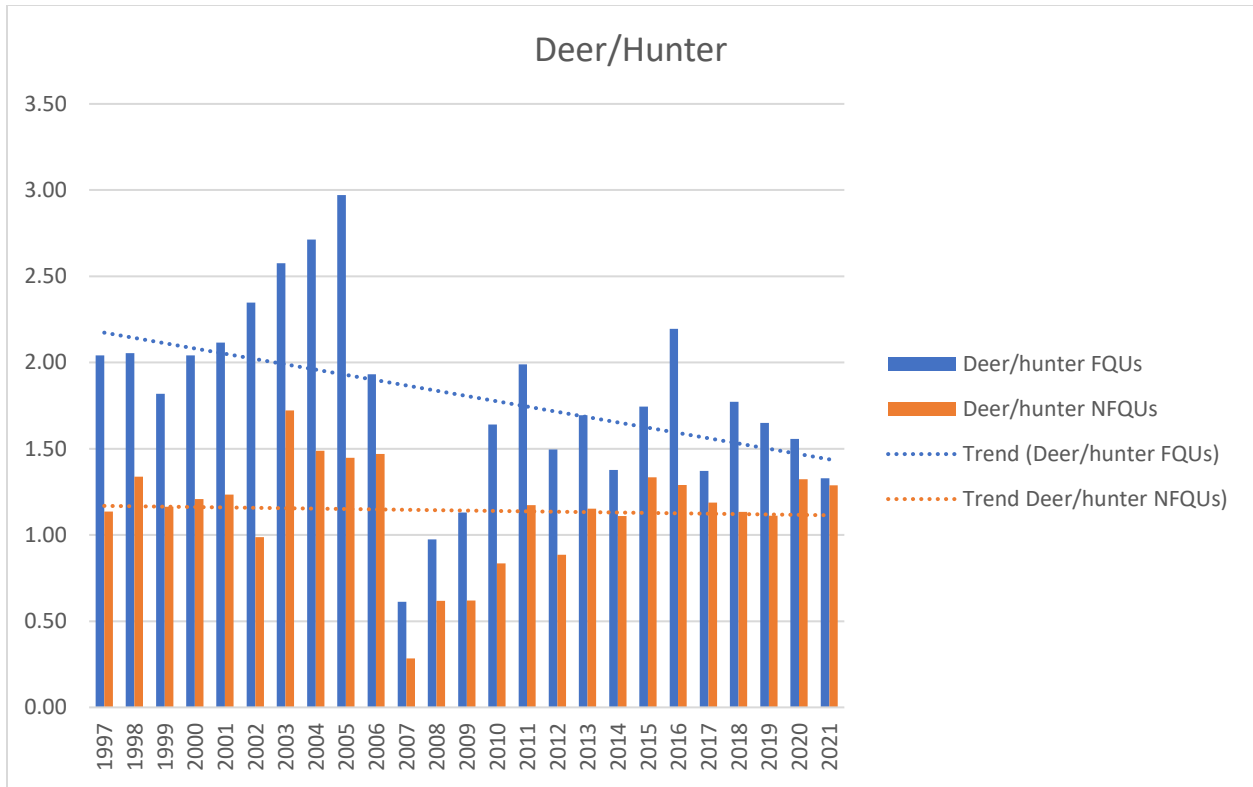


Figure 11. Trends in mean number of deer harvested per FQU and NFQU, NECCUA, RY97-RY21.

Within the NECCUA, the bag limit for NFQUs is 6 deer west of Port Frederick and 3 deer east of Port Frederick. This proposal seeks to reduce that bag limit to 2 bucks for the entire NECCUA. ADF&G collects data on the number of deer individual hunters report taking relative to the bag limit in areas they report hunting. Within GMU 4, 83% of NFQUs take 2 or fewer deer (Figure 12, ADF&G RY19-RY21). Nine percent of NFQUs take 3 deer and 5% take 4 deer. The percentage of hunters who took 5 or 6 deer (legal as of RY19) was 1.5% for both.

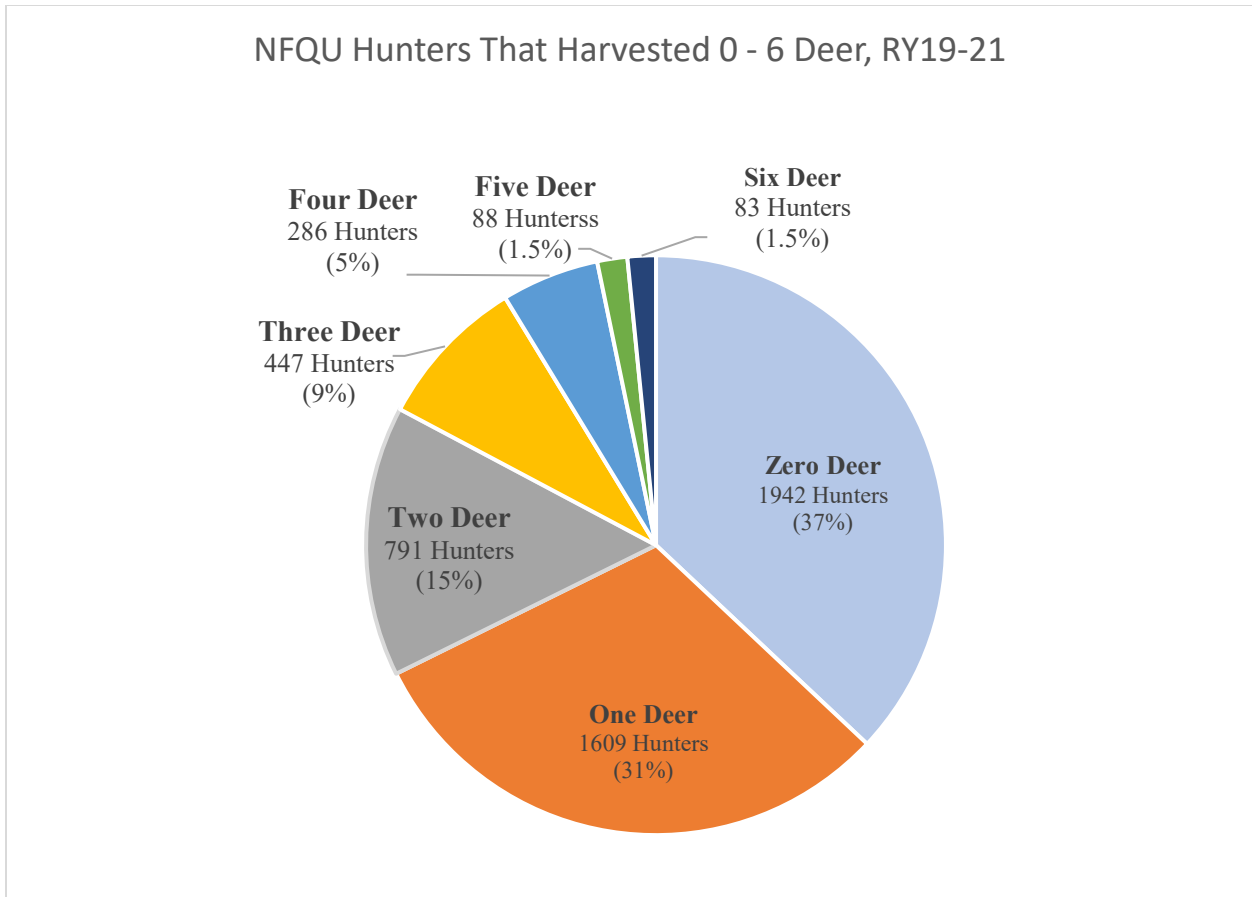


Figure 12. Percentages of NFQUs who report harvesting 0, 1, 2, 3, 4, 5, or 6 deer in GMU 4, RY19-RY21.

Under federal regulations, FQU hunters were able to harvest six deer prior to RY19 when the State bag limit was raised to six. On average, more FQU hunters take multiple deer than NFQU hunters. For example, since RY13, 13% of FQU hunters take more than four deer (Figure 13).

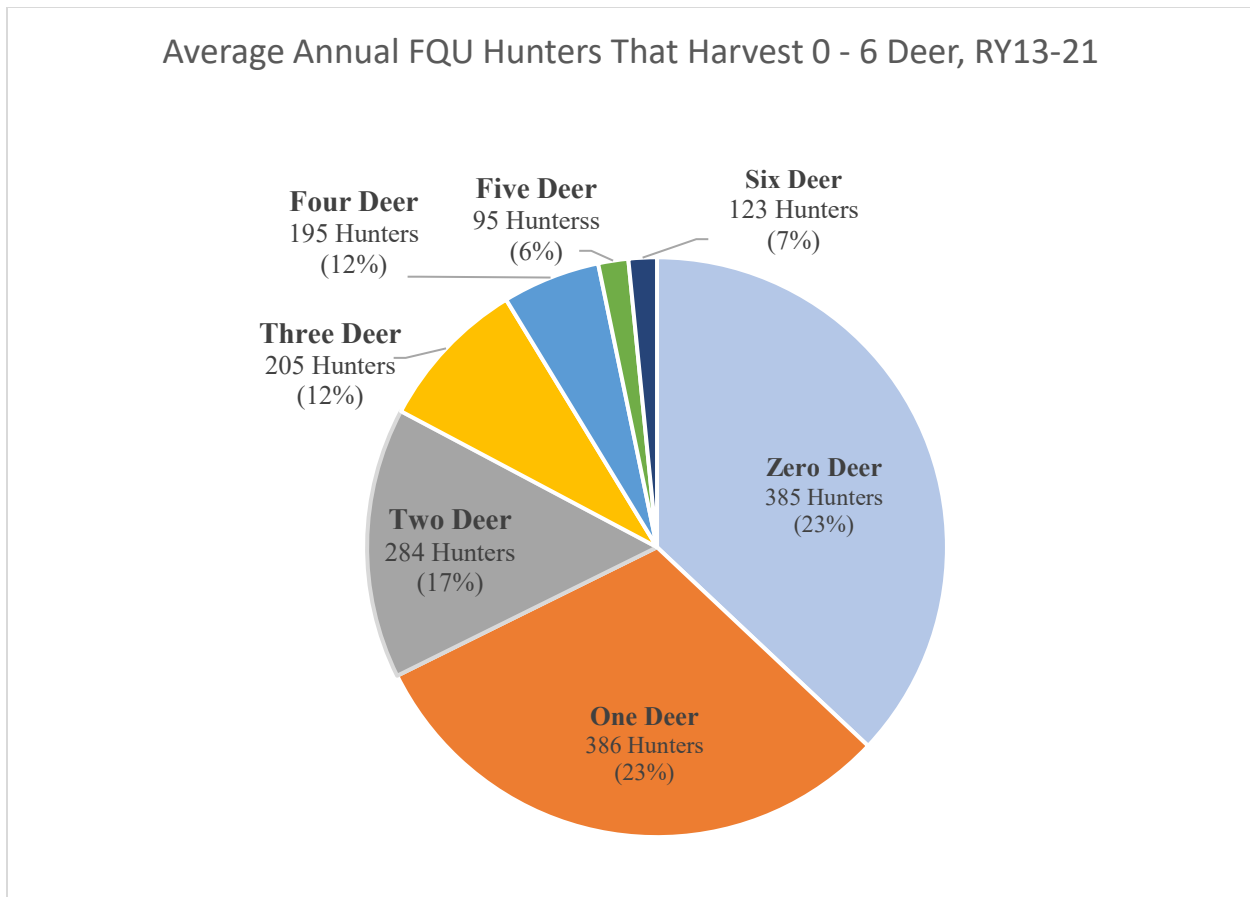


Figure 13. Percentages of FQUs who report harvesting 0, 1, 2, 3, 4, 5 or 6 deer in GMU 4, RY13-RY21.

Doe harvest accounts for approximately 25% of both the FQU and NFQU annual harvest. Since RY13, FQUs have averaged approximately 86 does annually and NFQUs about 92. These calculations do not include RY07-RY12 when doe harvests were restricted to facilitate recovery of the deer herd following the winter of 2006/2007.

Analysis

The analyses presented here are based on several different metrics that come from the only annually collected, objective, and quantitative information available on deer abundance, hunter effort and harvest in the area affected by this proposal. Deer abundance is monitored by ADF&G through the reporting of effort and harvest data from hunters, including those from Hoonah.

The proposal asserts that the deer population within the NECCUA is “depleted” and that in recent years FQUs have had increasing difficulty meeting their subsistence needs for deer because of increasing competition from NFQUs. The term, “subsistence need”, as used in Title VIII of ANILCA has no quantitative benchmark analogous to ANS in state regulations. ANILCA also does not require the federal program to quantify historical levels of harvest for subsistence uses. Consequently, there is no objective way of verifying whether the existing federal regulations continue to provide for adequate subsistence harvest opportunity. Therefore, our analysis focuses on measures of deer abundance and trend in GMU 4 and on trends in effort and harvest by FQUs and NFQUs in the proposal area. Conditions that would support the assertion

that NFQUs are hindering deer harvest by FQUs would include increasing numbers of hunters, days of hunting effort, and harvest by NFQUs that coincide with declining harvest by FQUs while the number of FQU hunters and effort by those hunters remained stable or increased.

ADF&G monitors deer abundance at the scale of the GMU or subunit, so we can only note that the available data indicate GMU 4 deer populations are currently at high and stable levels. Winter severity, particularly deep and lingering snowpack, is the biggest limiting factor for Sitka black-tailed deer in GMU 4. The last winter with above average snowfall occurred in 2011/2012. Since then, winters have been average, to mild, with little overwinter mortality as corroborated by ADF&G's spring mortality surveys. Pellet group and aerial alpine deer counts also support the conclusion that deer remain abundant in GMU 4.

The proposal is predicated on the idea that FQUs in the NECCUA area are having an increasingly difficult time meeting their subsistence needs. Because no similar proposal has been submitted before, we can presume that previously FQUs were able to meet their needs. Therefore, to evaluate the need for this restriction of NFQUs opportunity we evaluated harvest and measures of hunter effort for trends of increasing effort and harvest by NFQUs.

We found that harvest by FQUs and NFQUs declined in response to the severe winter of 2006/2007. Since then, harvest by NFQUs has recovered to pre-2007 levels, but harvest by FQUs remains much lower than before RY07. To investigate reasons for declining harvest after the deer population recovered, we examined numbers of FQUs and NFQUs participating in this hunt and days of hunting effort by both groups of hunters. We found that since RY07 the number of individual FQUs hunting within the NECCUA has declined by 50%, whereas the number of NFQUs has returned to pre-2007 levels. Days of hunting effort by FQUs also declined while days of hunting effort by NFQUs returned to pre-2007 levels. This finding directly contradicts the assertion in the proposal that increasing competition from NFQUs is hindering harvest by FQUs. In fact, total deer hunting effort and the potential for competition between hunters in this area has substantially declined.

To evaluate whether FQUs are having an increasingly difficult time harvesting deer we looked for trends in the number of days of hunting effort required to harvest one deer and number of deer harvested per hunter. Since RY13, FQUs require 2.3 days of hunting effort per deer compared to 3.3 days of effort for NFQUs. Since RY13 days of hunting effort required to harvest a deer has been trending down for FQUs, including Hoonah hunters, and has been below 2.0 days/deer for 3 of the past 6 seasons.

If harvesting deer was becoming more difficult for FQUs, we would expect to see an increase in the number of days of hunting effort required to harvest a deer and a decline in the number of deer harvested per FQU hunter. While there has been a decline in the number of deer/hunter (2.2 to 1.6 between RY97-RY06 and RY13-RY20), there hasn't been a corresponding increase in days/deer. These measures of hunter success based on hunt reports provided by FQUs, including residents of Hoonah, indicate that deer hunting conditions in the NECCUA remain very good and that in recent years FQUs have enjoyed very good hunting success.

Potential effects of the proposed change on the deer population or FQU harvest are difficult to project. NFQ hunters take on average 92 does annually in the NECCUA. By applying the percentage of NFQUs who take 0, 1, 2, 3, 4, 5 or 6 (only hunters west of Port Frederick can harvest more than three) deer to previous harvests by NFQUs in the NECCUA, the average annual reduction in NFQU harvest would be approximately 20 deer west of Port Frederick and 40 deer east of Port Frederick. However, those calculations do not take into account deer harvested below mean high tide and on other State and private lands, or whether hunters would harvest additional bucks if does were not legal. Because NFQUs take an average of only 1.2 deer per hunter, and harvest 75% bucks, the proposed regulatory change is unlikely to affect the deer population or result in any substantial increases in opportunity for FQUs.

Summary

The proposal asserts that the deer population within the NECCUA is depleted and that in recent years FQUs have had difficulty meeting their subsistence needs because of increasing competition from NFQUs. Our analysis of the deer population, hunter effort and harvest trends found no support for either contention. Instead, the available information indicates that deer remain abundant throughout GMU 4. Within the NECCUA it is unlikely that hunter harvest has reduced deer abundance because total hunting effort is relatively light, and over the last 2 decades total hunter effort and harvest have both declined.

We could find no support for the contention that competition from NFQUs has increased or that NFQUs are hindering harvest by FQUs. In fact, the number of NFQUs and days of hunting effort by NFQUs has remained stable over the past 2 decades. Further, days of hunting effort required to harvest one deer remains very low.

The analysis conducted by ADF&G indicates a long-term decline in the number of deer harvested by FQUs within the NECCUA. However, that decline is attributable to a decline in the number of FQUs and days of effort by those hunters. Over the last 20 years the number of FQUs and days of hunting effort by those hunters has declined by more than half. Deer remain abundant and competition from NFQUs is unchanged, so we conclude that the decline in federal subsistence harvest of deer results from a decline in participation and effort by FQUs, not depleted deer populations or increasing competition from NFQUs.

Impact on Subsistence Users

The reduction in the bag limit of NFQUs would not have any impact on FQUs given the data showing how many deer NFQUs typically harvest.

Impact on Other Users

Opportunity for NFQUs to harvest deer on federal public lands in the NECCUA would be reduced. Bag limits west of Port Frederick would decline from 6 deer per hunter to 2 bucks. East of Port Frederick the NFQU bag limit would be reduced from 3 deer to 2 bucks. However, NFQUs would still be able to harvest the larger number of deer under state hunting regulations on adjacent state-owned tidelands below mean high tide, state public uplands, and private property.

State Customary and Traditional Use Findings

The Alaska Board of Game has made positive customary and traditional use findings for deer in GMU 4.

Amounts Reasonably Necessary for Subsistence

Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The board does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources. The ANS for deer in GMU 4 is 5,200–6,000 deer.

Contrary to its name, ANS does not indicate subsistence “need”. Instead, ANS provides the board with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. The ANS for deer in GMU 4 was established in 1992. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently falls below ANS. However, harvest may decline for many reasons, and in this case it appears to result from declining participation and effort by FQUs in the Hoonah area

Opportunity Provided by the State

The State season and bag limit for the NECCUA in GMU 4 is:

GMU 4 <i>NECCUA</i> East of Port Frederick	<u>Bag Limit 3 deer</u> (bucks only to Sep 14 th)	<u>Resident</u> <u>Open Season</u> Aug 1-Dec 31 (Harvest ticket)	<u>Nonresident</u> <u>Open Season</u> Aug 1-Dec 31 (Harvest ticket)
GMU 4 <i>Remainder</i>	<u>Bag Limit 6 deer</u> (bucks only to Sep 14 th)	<u>Resident</u> <u>Open Season</u> Aug 1-Dec 31 (Harvest ticket)	<u>Nonresident</u> <u>Open Season</u> Aug 1-Dec 31 (Harvest ticket)

Conservation Issues

There are no conservation issues for the deer population in GMU 4. Following a decade of mild winters, the available population indices suggest the GMU 4 deer population remains high and stable. Deer harvest remains within the historical range and state ANS is met in most years. Population indices and measures of hunter effort and success indicate that GMU 4 has the highest population of deer and highest hunting success of anywhere in the state.

Based on the information provided to ADF&G by GMU 4 deer hunters, population indices, anecdotal reports by local hunters and field observations by management biologists we conclude that there is no conservation concern for the GMU 4 deer population.

Enforcement Issues

Passage of this proposal will create increasingly complex regulations for NFQUs. Enforcement will be challenging because NFQU’s will remain eligible to hunt deer (including does) on state-owned tidelands below the line of mean high tide and on other state and private property. The

tideline is not marked, so NFQUs and enforcement officers will have difficulty determining when deer are above or below that line of mean high tide.

Position

ADF&G **OPPOSES** this proposal because there is no evidence that hunting by NFQUs has affected FQUs ability to harvest deer. There is no conservation concern and therefore no biological justification for reducing the bag limit of NFQUs. Adopting this proposal would deprive NFQUs of sustainable deer hunting opportunity contrary to terms in Title VIII of ANILCA. This proposal would also unnecessarily restrict Alaskans, including former residents of Hoonah who would be prohibited from practicing their traditional and cultural way of life.

Approximately 90% of land in GMU 4 is federally managed, and current federal regulations provide greater opportunity for FQUs compared to NFQUs. FQUs are eligible to hunt an entire month longer than NFQUs with a season extending through January. In the NECCUA, east of Port Frederick (where 70% and 80% of FQU and NFQU harvest occurs, respectively), FQUs have a much more liberal bag limit (6 deer compared to 3 deer for NFQUs) as well as a very liberal designated hunter program.

In *Alaska v. Federal Subsistence Bd.*, 544 F.3d 1089, 1100 (9th Cir. 2008), the Ninth Circuit ruled that, under ANILCA, the Federal Subsistence Board may regulate subsistence use but is prohibited from limiting nonsubsistence use. A bag limit reduction for NFQUs for deer in GMU 4 is inconsistent with ANILCA under applicable case law on federal preemption. As directed by Congress in Section 802 of ANILCA, subsistence uses of wildlife shall be the priority consumptive use on federal public lands “when it is necessary to restrict taking in order to assure the continued viability of a fish or wildlife population or the continuation of subsistence uses of such population.” Section 815 of ANILCA authorizes federal restrictions on nonsubsistence uses on the public lands only if “necessary for the conservation of healthy populations of fish and wildlife” or if necessary to “continue subsistence uses.” Based on ADF&G’s analysis of the only annually collected, objective, and quantitative data available, none of those reasons apply. There is no conservation concern for the NECCUA deer population, and no restrictions on NFQU bag limit are needed to continue subsistence uses of deer. Data largely provided by FQUs residing in Hoonah clearly indicate that the decline in harvest by that user group results from declining participation and effort by FQU deer hunters.

Data Tables

Table 1. Number of GMU 4 NFQUs that harvest 0, 1, 2, 3, 4, 5, or 6 deer.

Reg Year	Total Hunters	Zero Deer	One Deer	Two Deer	Three Deer	Four Deer	Five Deer	Six Deer
2013	1660	579	520	286	170	100	0	0
2014	1808	762	534	287	148	78	0	0
2015	1875	588	559	340	232	155	0	0
2016	1872	596	589	325	220	141	0	0
2017	1783	663	558	303	168	90	0	0
2018	1779	645	550	327	173	83	0	0
2019	1750	664	569	274	124	76	26	18
2020	1793	697	504	253	171	108	29	30
2021	1719	587	541	267	152	104	33	35
Average*	1782	642	547	296	173	104	29	28

*Five and six deer average calculations based on RY19-RY21 only.

Table 2. Number of GMU 4 FQUs who harvest 0, 1, 2, 3, 4, 5, or 6 deer.

Reg Year	Total Hunters	Zero Deer	One Deer	Two Deer	Three Deer	Four Deer	Five Deer	Six Deer
2013	1644	408	402	291	174	184	91	95
2014	1662	536	375	280	178	157	66	71
2015	1903	412	472	328	235	243	104	108
2016	1883	340	386	281	235	322	123	196
2017	1717	462	400	305	217	175	76	83
2018	1684	414	441	302	215	144	80	88
2019	1646	277	404	278	198	201	121	167
2020	1464	402	339	251	186	138	64	86
2021	1624	270	320	272	217	202	127	216
Average	1692	391	393	288	206	196	95	123

Table 3. Summary Table Federally Qualified Deer Hunters, WAAs 3523-3526, 3551, 4222, 4252, and 4253.

Regulatory Year	No. of Hunters	Hunt Days	Buck Harvest	Doe Harvest	Total Harvest	Deer/Hunter	Days/Deer
1997	345	1692	545	159	704	2.04	2.40
1998	347	1586	545	168	713	2.05	2.22
1999	391	1640	483	228	711	1.82	2.31
2000	334	2933	517	165	682	2.04	4.30
2001	378	2215	531	269	800	2.12	2.77
2002	325	2246	710	53	763	2.35	2.94
2003	276	1134	528	183	711	2.58	1.59
2004	261	1429	513	195	708	2.71	2.02
2005	358	1609	707	357	1064	2.97	1.51
2006	319	2026	466	150	616	1.93	3.29
2007	230	879	115	26	141	0.61	6.23
2008	192	1190	177	10	187	0.97	6.36
2009	161	759	182	0	182	1.13	4.17
2010	192	989	283	32	315	1.81	2.84
2011	196	1010	378	12	390	1.99	2.59
2012	220	894	296	33	329	1.50	2.70
2013	213	853	267	94	361	1.69	2.36
2014	260	1004	275	83	358	1.38	2.80
2015	314	1527	435	113	548	1.75	2.79
2016	246	889	463	77	540	2.20	1.65
2017	223	726	235	71	306	1.37	2.37
2018	238	803	324	98	422	1.77	1.90
2019	214	643	283	70	353	1.65	1.82
2020	203	719	228	88	316	1.56	2.28
2021	246	871	249	78	327	1.33	2.66

Table 4. Summary Table NFQU Deer Hunters WAAs 3523-3526, 3551, 4222, 4252, and 4253.

Regulatory Year	No. of Hunters	Hunt Days	Buck Harvest	Doe Harvest	Total Harvest	Deer/Hunter	Days/Deer
1997	206	850	201	33	234	1.14	3.63
1998	290	993	275	113	388	1.34	2.56
1999	311	1482	226	136	362	1.16	4.09
2000	360	1345	363	72	435	1.21	3.09
2001	244	1067	219	82	301	1.23	3.54
2002	383	1475	300	77	378	0.99	3.90
2003	331	1318	435	135	570	1.72	2.31
2004	303	1095	333	118	451	1.49	2.43
2005	293	1106	309	115	424	1.45	2.61
2006	326	1372	386	93	479	1.47	2.86
2007	155	641	39	5	44	0.28	14.57
2008	202	823	125	0	125	0.62	6.58
2009	92	416	57	0	57	0.62	7.30
2010	188	805	157	0	157	0.84	5.13
2011	157	843	172	11	183	1.17	4.58
2012	262	1142	218	14	232	0.89	4.92
2013	249	1048	212	75	287	1.15	3.65
2014	293	1310	248	77	325	1.11	4.03
2015	320	1405	313	114	427	1.33	3.29
2016	331	1339	327	100	427	1.29	3.14
2017	337	1334	274	126	400	1.19	3.34
2018	323	1270	305	61	366	1.13	3.47
2019	269	995	231	68	299	1.11	3.33
2020	275	1005	243	121	364	1.32	2.76
2021	257	1014	246	85	331	1.29	3.06

Alaska Department of Fish and Game
Comments

Wildlife Proposals (WP) 22-9/10

WP22-09 would close federal public lands on Chichagof and Yakobi islands draining into Lisianski Inlet, Lisianski Strait, and Stag Bay south of the latitude of Mite Cove (58° 4' N) and north of the latitude of Lost Cove (57° 52' N) to deer hunting by non-federally qualified users (NFQU) from October 15 to December 31 (Figure 1). WP22-10 would reduce the bag limit for NFQUs from 6 to 4 deer.



Figure 1. Map of the ADF&G Wildlife Analysis Areas for deer hunter data used to analyze effects of the proposals. Note the proposal area shown is for WP 22-09. Boundaries were not defined for WP 22-10.

Background

Proposal WP22-09 by the Southeast Alaska Subsistence Regional Advisory Council (SERAC) states that over the past years it has become more challenging for federally qualified users (FQU) hunting in the Pelican area to meet their subsistence needs for deer due to increasing competition from NFQUs. To reduce competition and conserve the deer population, the proposal asked the Federal Subsistence Board to close federal lands on portions of Chichagof and Yakobi Islands to

NFQU deer hunters from October 15 – December 31. Proposal WP22-10 by a member of the public states that FQUs who reside in Pelican are not meeting their subsistence needs because of brown bear predation on Sitka black-tailed deer and ongoing competition for deer from NFQUs.

Game Management Unit 4 (GMU 4) encompasses the ABC Islands (Admiralty, Baranof, and Chichagof) and the surrounding archipelago. All residents of Southeast Alaska (GMUs 1-5) excluding residents of Juneau and Ketchikan are eligible to harvest deer in GMU 4 under federal subsistence regulations. The current federal deer season for this area is August 1 to January 31 with a bag limit of six deer (bucks only August 1 – September 14). The current state season is August 1 to December 31 with a bag limit of 6 deer (bucks only August 1 – September 14). This proposal does not affect the current FQU season or bag limit for FQUs in the proposal area. In 2019, the Alaska Board of Game (BOG) increased the state deer bag limit in GMU 4 from 4 to 6 deer because of high population indices in the GMU.

In 1992, the BOG established a positive customary and traditional use finding for deer in GMU 4 and established an annual amount reasonably necessary for subsistence (ANS) of 5,200-6,000 deer. ANS differs from the undefined term “subsistence need” used in Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA). Under Alaska law ANS is the harvestable portion of a game population that is sufficient to provide a reasonable opportunity for subsistence uses. “Reasonable opportunity” is that which allows a normally diligent hunter a reasonable expectation of success. Because actual harvest depends on several factors including the number of people who hunt and effort by those hunters, harvest relative to the ANS should not be viewed as an indicator of successful management. Instead, measures of individual hunter success such as days of hunting effort required to harvest one deer and deer harvested per hunter should also be considered.

GMU 4-Wide Population and Harvest

Monitoring deer abundance in forested habitat is challenging because deer cannot be directly counted through ground or aerial surveys. We present several types of survey data. Since the 1980s The Alaska Department of Fish and Game (ADF&G) has used spring pellet group counts to monitor broad ($\geq 30\%$) changes in deer abundance. Spring pellet group surveys are conducted in numerous US Forest Service Value Comparison Units across Southeast Alaska after snow melts and before spring green-up.

GMU 4 consistently has the highest pellet group counts in Southeast Alaska (Figure 2). Pellet group densities < 1.0 groups/plot generally correspond to low density populations, $1.0 - 1.99$ groups/plot to moderately dense populations and > 2.0 groups/plot correspond to high density populations. Pellet group counts in GMU 4 are usually well above the high-density threshold and are often double the counts in other GMUs. This broad index of deer abundance suggests the GMU 4 population remains at high levels with no indication of depleted populations or conservation concerns.

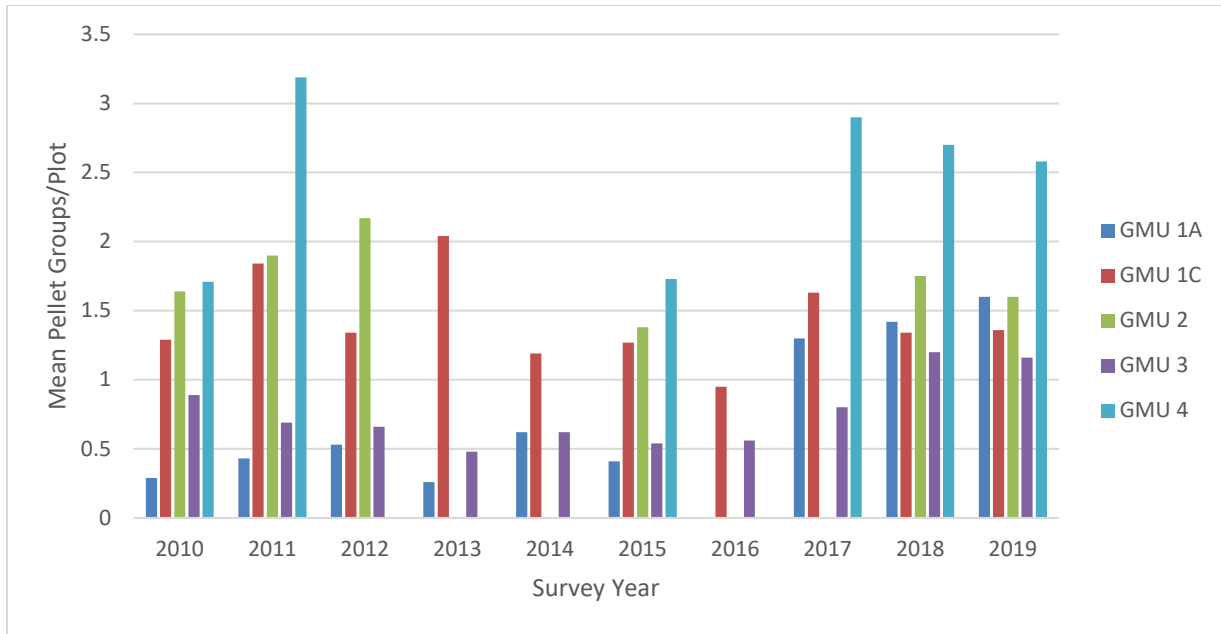


Figure 2. Mean number of deer pellet groups/plot for Southeast Alaska by GMU, 2010-2019.

In 2013 ADF&G began evaluating mid-summer aerial counts of deer in alpine habitat as an index of deer abundance. Surveys were conducted for 2 locations in GMU 4, Southern Admiralty Island (2015-2017) and Northeast Chichagof Island (2017-2018). The findings of those surveys were summarized as deer counted per hour of survey time (Figure 3). Southern Admiralty had the highest deer/hour of any survey area in Southeast Alaska. Estimates from Northeast Chichagof were similar to Prince of Wales Island (POW) and higher than all other survey areas except Southern Admiralty and POW.

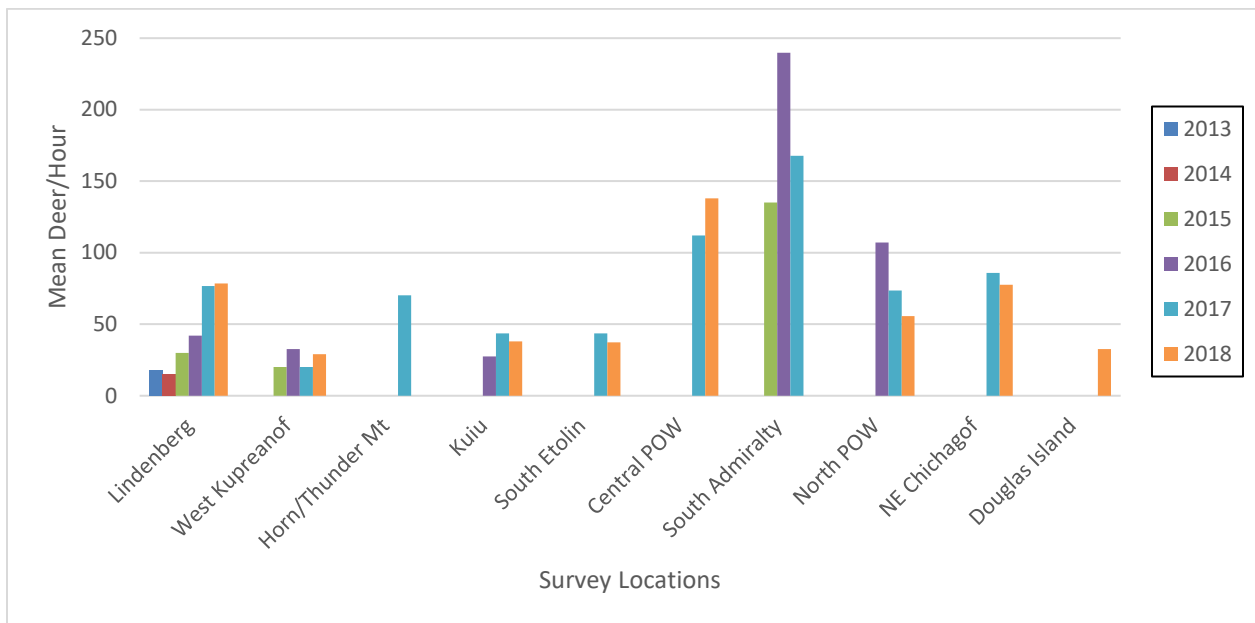


Figure 3. Mean number of deer counted per hour during mid-summer aerial alpine deer surveys in Southeast Alaska, 2013-2018.

Management biologists in GMU 4 began conducting beach mortality transects in the early 1990s. Although these mortality surveys are a relatively insensitive indicator of population trend, they are an indicator of mortality resulting from severe winters which is the most limiting factor for Sitka black-tailed deer populations in GMU 4. In addition to the total count of carcasses per mile, the proportion of adult male, adult female and fawn mortalities also indicates winter severity. Usually fawns die first, followed by adult males and then adult females. The winter of 2006/2007 was the most severe on record, and in some parts of GMU 4 managers estimated up to 75% of deer died. Note the very high number of carcasses found during spring 2007 surveys (Figure 4). In the years since then, few carcasses were found indicating high overwinter survival and no winter related population declines.

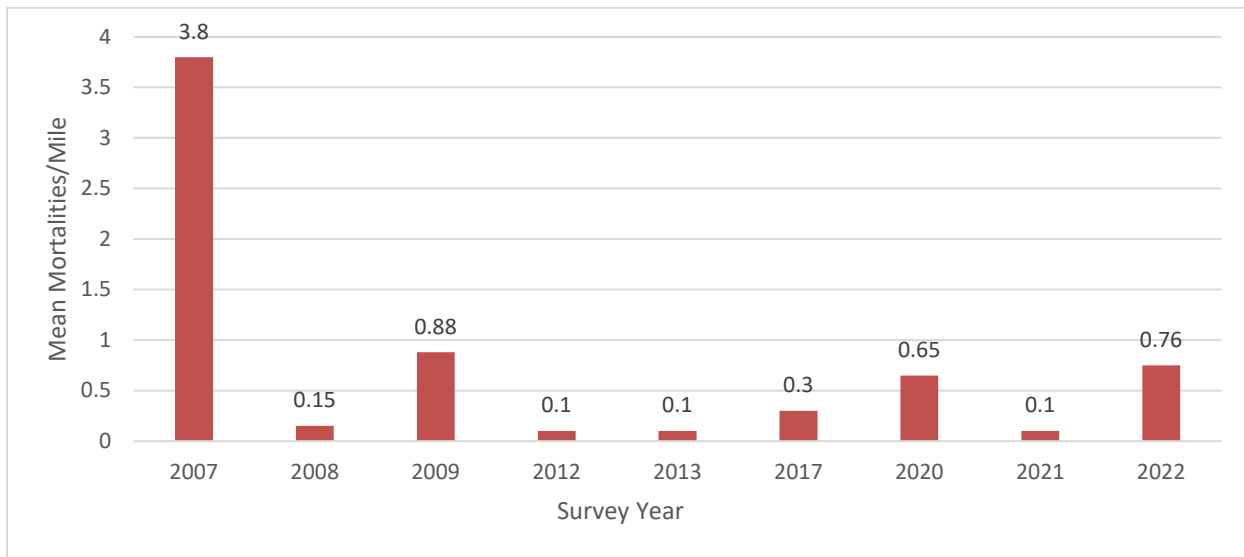


Figure 4. Mean number of winter-killed deer per mile of beach surveyed during spring in GMU 4.

Taken together, these indices of deer abundance (pellet group surveys, alpine counts, mortality transects) indicate the GMU 4 deer population is high and stable. None of these indices suggests a decline in deer abundance or a conservation concern for the GMU 4 deer population.

Hunter Effort and Harvest

GMU 4 managers also use harvest as an indicator of trend in the deer population. ADF&G estimates hunter effort and harvest using information provided by hunters. To hunt deer in Southeast Alaska all hunters must obtain harvest tickets. Prior to 2011, ADF&G mailed survey forms to one third of the hunters in each community who obtained harvest tickets. Since 2011 harvest tickets have come with a mandatory reporting requirement. People who obtain harvest tickets are required to report whether they (or a proxy or federal designated hunter) hunted or not. Those who did hunt are required to report where they hunted, days of hunting effort, and information about deer they harvested.

Since 1997 the estimated average annual harvest in GMU 4 was 5,680 deer taken by 3,275 hunters (Figure 5). Currently, GMU 4 supports the highest deer harvest in the state with harvest remaining stable with between 5,000-7,000 deer harvested annually. The exception being the

severe winter of 2006/2007 when high harvest in 2006 was followed by significant overwinter mortality of deer through-out GMU 4. That resulted in a precipitous decline in harvest from 7,734 deer in RY06 to 1,933 deer in RY07. Based on harvest and other indicators of deer abundance, managers believe the Unit 4 deer population had fully recovered by the RY13 season.

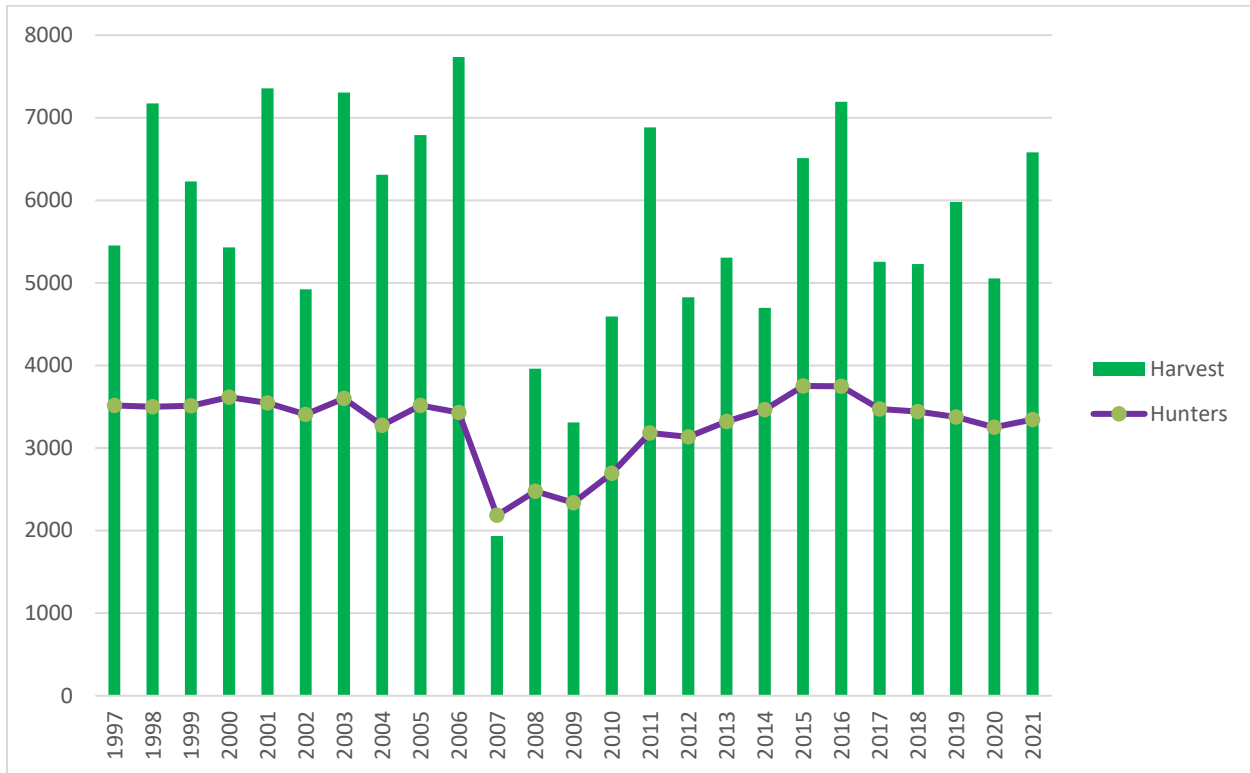


Figure 5. Numbers of people hunting deer and estimated deer harvest for GMU 4, RY97-RY21.

Data Summaries for the Area Affected by This Proposal

The proponent for WP22-10 identified Lisianski Strait and Lisianski Inlet but did not specify specific boundaries for the proposal area. Therefore, the data from the same WAAs are used in the analysis for WP22-09 and WP22-10 (Figure 1). The following analyses present data summarized for FQUs and NFQUs in WAAs 3417, 3418, 3419, 3421. WAAs are the finest scale at which data can be meaningfully summarized.

Prior to RY07, FQUs harvested an average of 202 deer annually. Harvest declined following the severe winter of 2006/2007, and since 2013, when ADF&G considered the deer population recovered, annual harvests have averaged 132 deer, about 70 fewer deer per year than the average prior to RY07. Prior to RY07 NFQUs harvested an average of about 107 deer annually, and since RY13, that average has returned to pre-RY07 levels. Prior to RY07 FQUs accounted for 65% of the harvest. That percentage has since declined to approximately 55% (Figure 6).

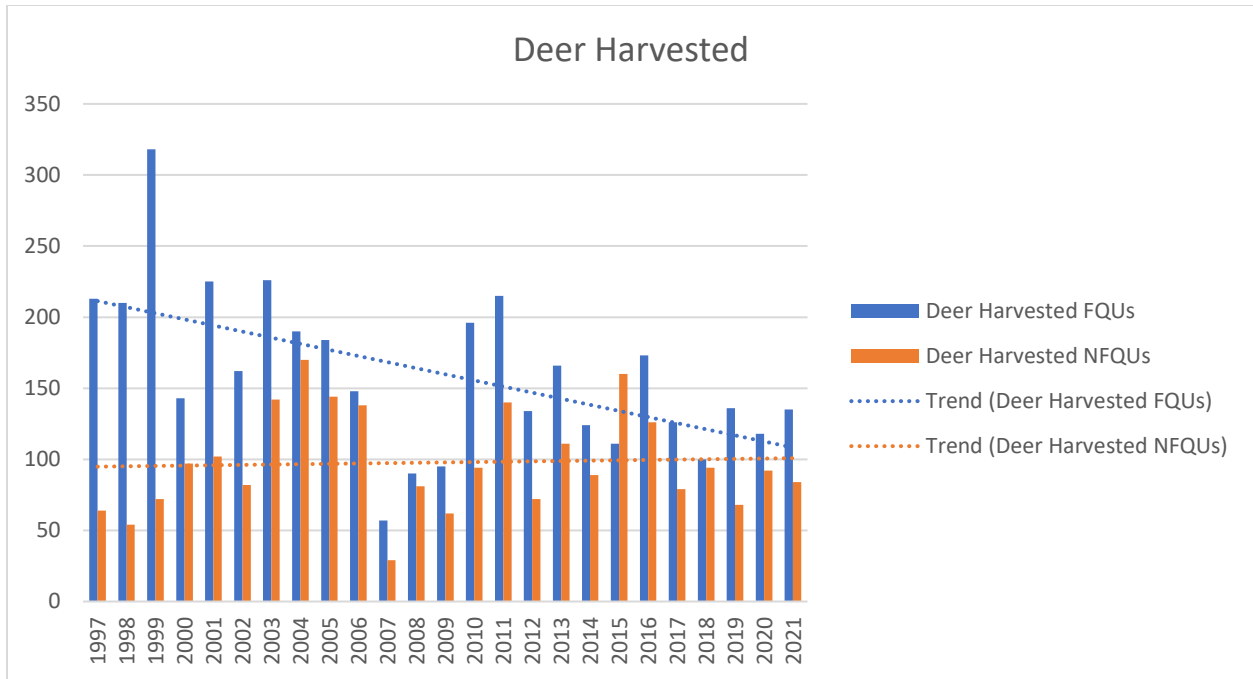


Figure 6. Estimated deer harvest and trend by FQUs and NFQUs, Lisianski area, RY97-RY21.

To evaluate potential reasons for the decline in deer harvest by FQUs we examined trends in the numbers of FQU and NFQU hunters and days of hunting effort by those hunters. Since 1997, the number of NFQUs using this area has remained stable and averaged 60 hunters per year, while the number of FQUs has declined from a high of 121 hunters in RY97 to about 59 in recent years (Figure 7).

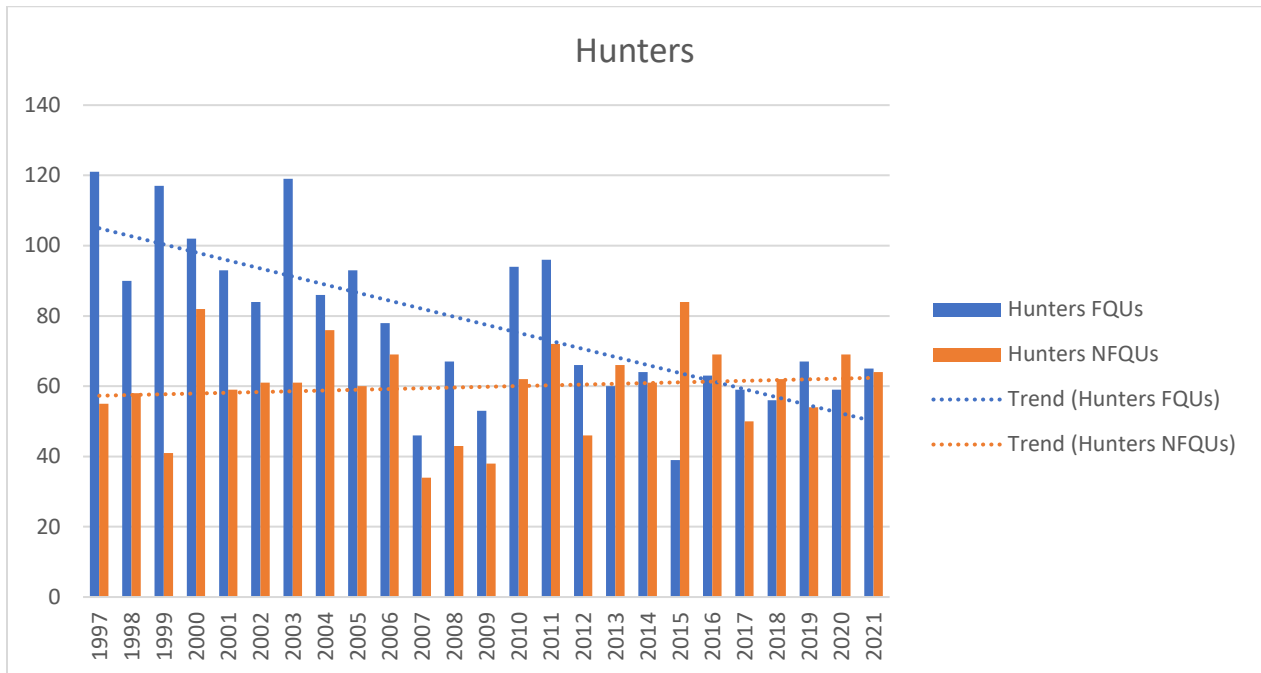


Figure 7. Trends in number of FQUs and NFQUs, Lisianski area, RY97-RY21.

In Pelican specifically, there has been a declining trend in the number of residents who have obtained deer harvest tickets (Figure 8). Currently, only about half the number of Pelican residents obtain deer harvest tickets compared to the early 1990's (Figure 8)..

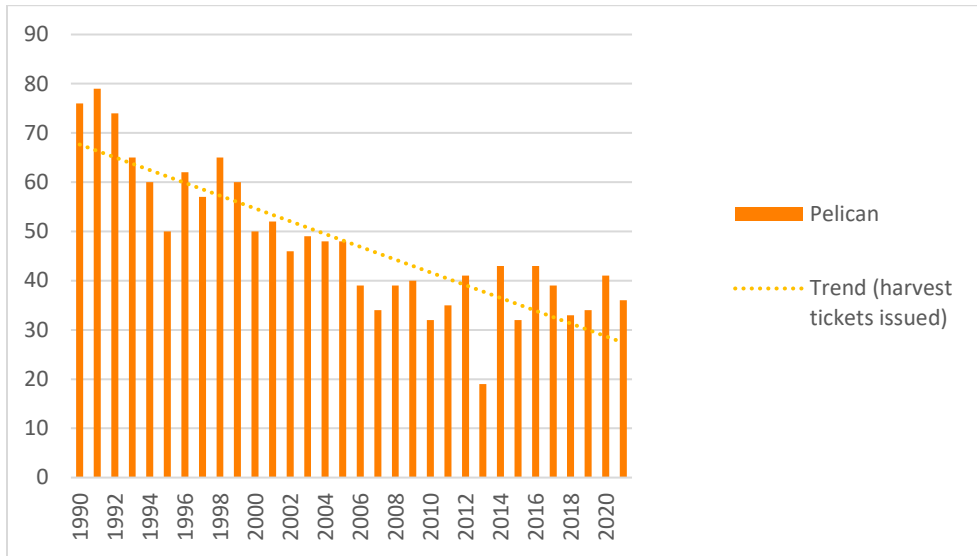


Figure 8. Deer harvest tickets issued to Pelican residents RY97-RY21.

Trends in days hunted mirror trends in numbers of hunters (Figure 9). FQUs and NFQUs both show downward trends, but the trend for FQUs is much more pronounced. Days hunted for FQUs has been roughly half of what it was prior to RY07. The number of hunters along with the number of days hunted both indicate decreased deer hunting effort for this area of GMU 4.

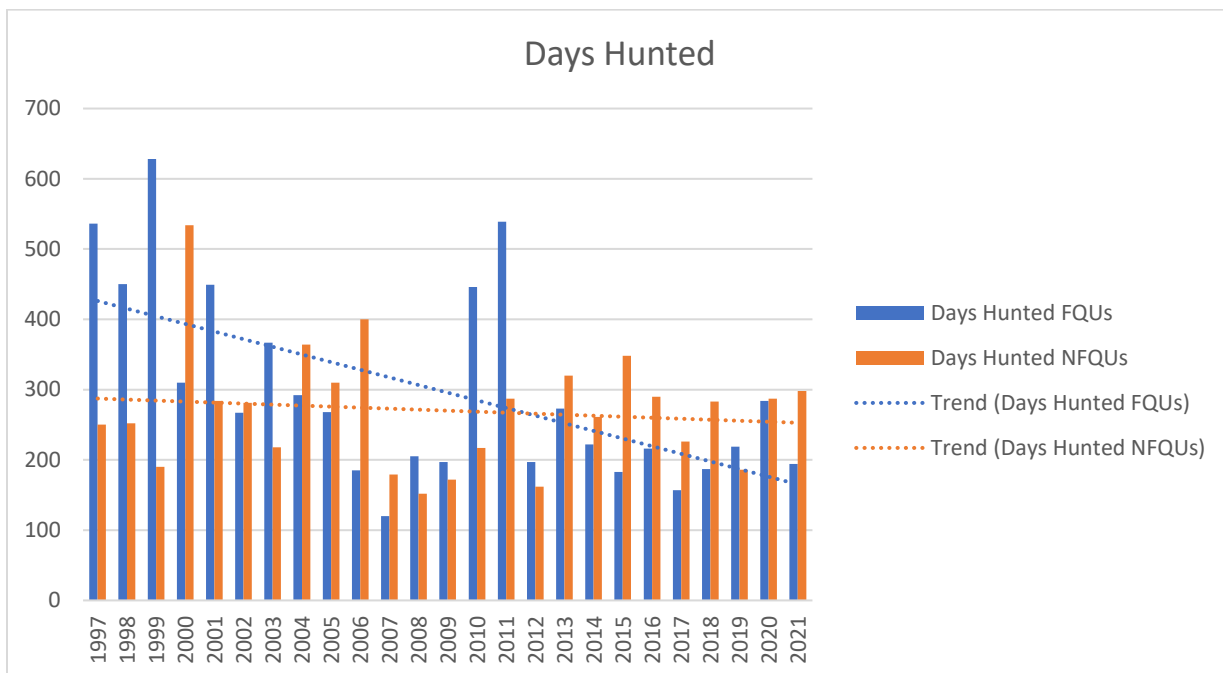


Figure 9. Trends in estimated days of hunting effort by FQUs and NFQUs, Lisianski area, RY97-RY21.

Trends in Hunter Efficiency

Hunter efficiency, or the days of hunting effort required to harvest 1 deer, is another indicator of the availability of deer to GMU 4 hunters. FQUs in the Lisianski area are consistently more efficient at harvesting deer than NFQUs. Since 1997 FQUs have required an average of only 1.9 days to harvest 1 deer while NFQUs have required an average of 2.8 days of hunting effort to harvest 1 deer. This metric is trending slightly down for FQUs (becoming more efficient) and has been below 2 days/deer for 9 of the past 10 seasons. (Figure 10).

Deer hunting in GMU 4 is extremely efficient compared to deer hunter effort required to harvest a deer elsewhere in the state. In comparison, hunters on Prince of Wales Island (GMU 2) average 4.1 days of hunting per deer harvested, Kodiak (GMU 8) averages 3.6 days/deer, GMU 1A (Ketchikan) averages 4.8 days/deer, GMU 3 (Petersburg/Wrangell) averages 6.0 days/deer, GMU 6D (Prince William Sound) averages 2.9 days/deer and in GMU 1C (Juneau) hunters average 7.9 days/deer. The effort required to harvest one deer in GMU 4 (2.3 days/deer) is lower than anywhere in Alaska (ADF&G RY2013-RY2021). FQU hunters in the Lisianski area have an even better days/deer average than Unit 4 as a whole.

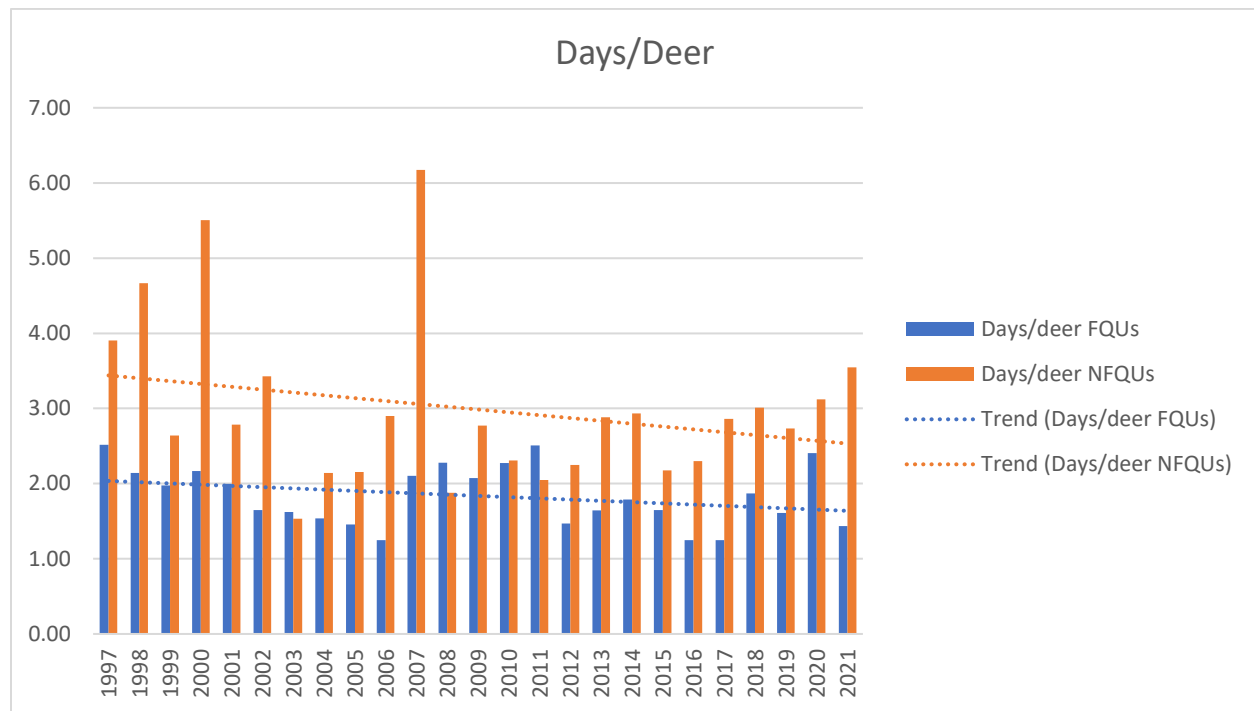


Figure 10. Trends in estimated days of hunting effort required by FQUs and NFQUs to harvest one deer, Lisianski area, RY97-RY21.

The number of deer harvested per hunter is another gauge of deer abundance and hunting success. Since 1997 the average number of deer harvested per NFQU has remained stable at about 1.6 deer/hunter (Figure 11). The number of deer harvested per FQU has remained stable to slightly improving, averaging approximately 2.2 deer per hunter. This metric, along with days/deer suggests that FQUs are enjoying as good as, if not better hunting success now than at any time over the past 2-3 decades.

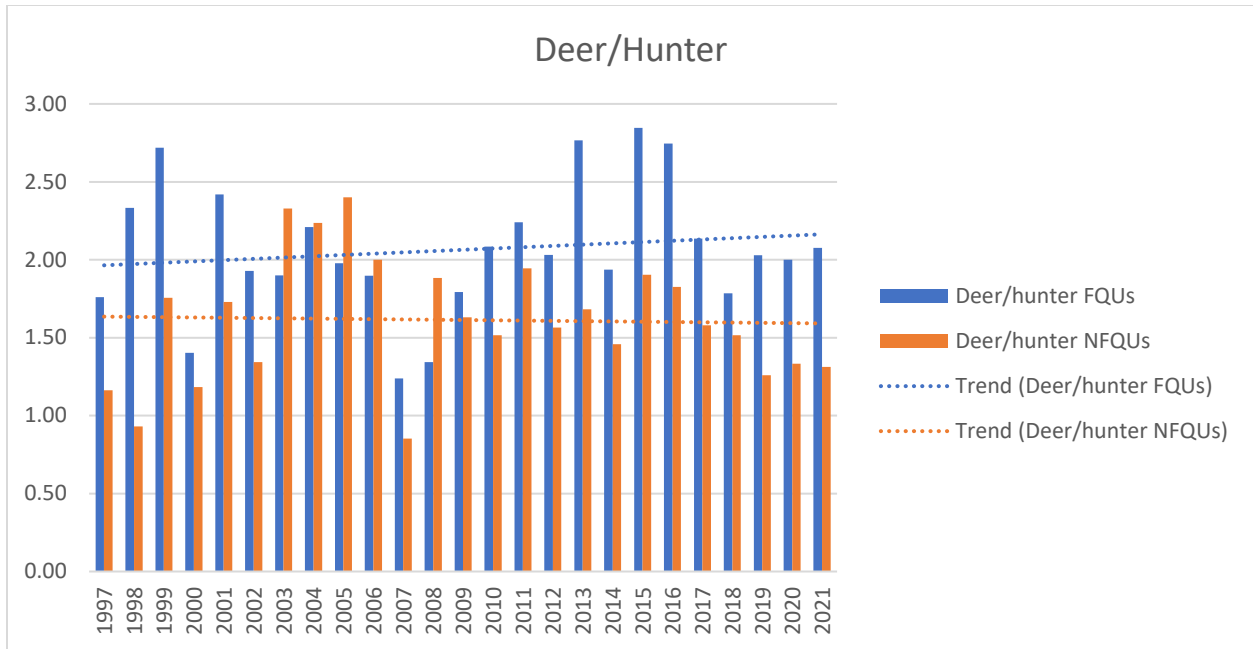


Figure 11. Trends in mean number of deer harvested per FQU and NFQU hunters, Lisianski area, RY97-RY21.

Hunt Chronology

Mid-October through December is the most popular time for hunters to pursue deer in GMU 4. Deer activity coinciding with the rut as well as winter snows that push deer to lower elevations and beaches, make for more successful hunting than earlier in the season. Hunters report hunting effort and harvest by month, so data can only be summarized by month. For NFQUs the period, October - December, encompasses use by 83% of hunters, 88% of days hunted, and 87% of harvest. For FQUs those numbers are slightly lower at 74%, 80%, and 78%, respectively (Table 1).

Table 1. Unit 4 Deer Hunting Chronology of Harvest and Effort for FQUs and NFQUs as both numbers and percentage of total.

FQUs RY13-RY21						
	<u>Hunters</u>		<u>Days Hunted</u>		<u>Deer Harvested</u>	
		<u>%</u>		<u>%</u>		<u>%</u>
August	2,129	8	3,678	6	1,840	6
September	2,485	10	4,402	8	2,481	8
October	4,259	17	8,470	15	4,596	14
November	9,310	36	24,488	44	12,740	40
December	5,470	21	11,674	21	7,725	24
January	1,901	8	3,439	6	2,561	8
Total	25,554		56,151		31,943	
NFQUs RY13-RY21						
August	1,778	9	3,661	6	1,214	6
September	1,648	8	4,256	6	1,458	7
October	3,314	16	8,905	14	2,442	13
November	9,357	45	34,940	55	10,125	52
December	4,571	22	12,053	19	4,314	22
Total	20,668		63,815		19,553	

Proposal WP22-10 seeks to reduce the bag limit from 6 deer to 4 deer in the Lisianski area. ADF&G collects data on the number of deer individual hunters report taking relative to the bag limit in areas they report hunting. Within GMU 4, 83% of NFQUs take 2 or fewer deer (Figure 12, ADF&G RY19-RY21). Nine percent of NFQUs take 3 deer and 5% take 4 deer. The percentage of hunters who took 5 or 6 deer (legal as of RY19) was 1.5% for both.

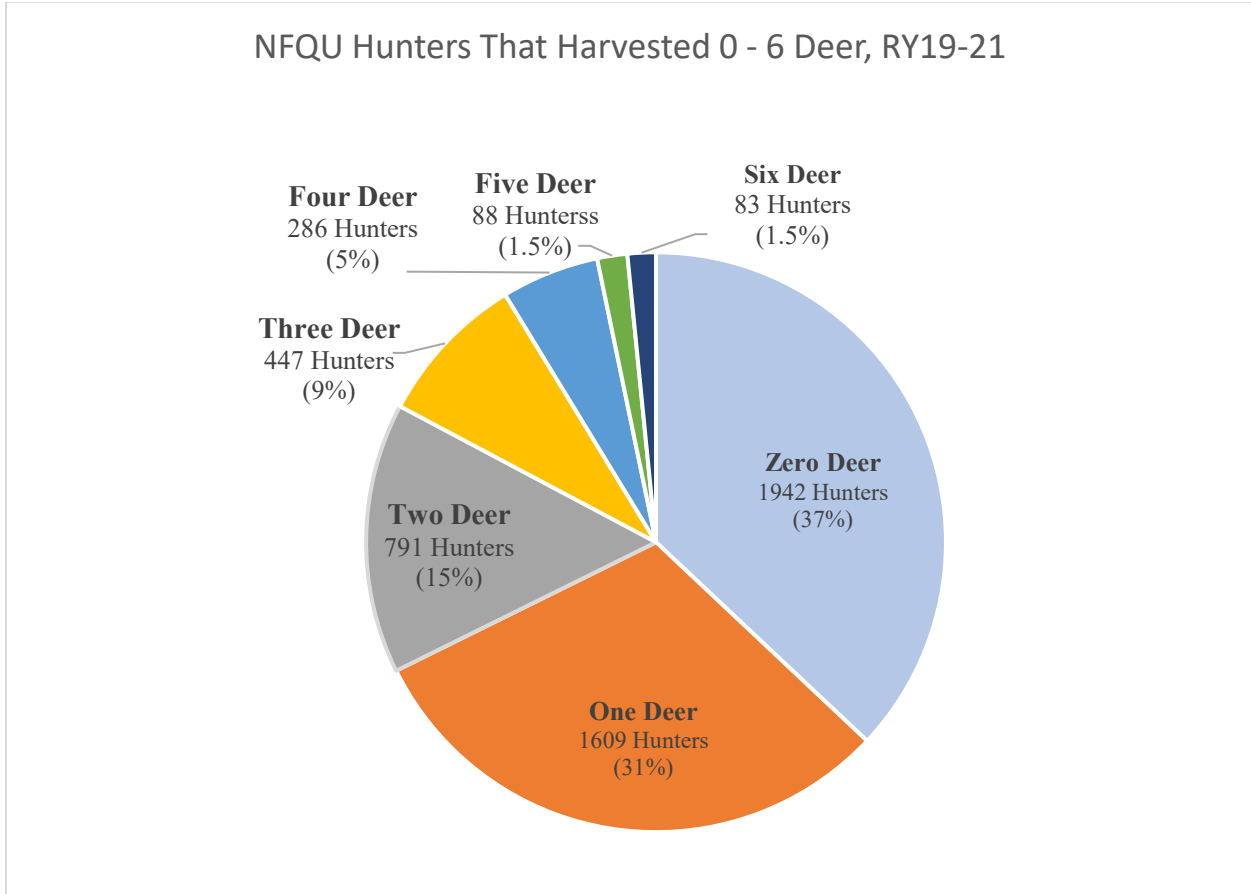


Figure 12. Percentages of NFQUs who report harvesting 0, 1, 2, 3, 4, 5 or 6deer in GMU 4, RY19-RY21.

Under federal regulations, FQU hunters were able to harvest six deer prior to RY19 when the State bag limit was raised to six. On average, more FQU hunters take multiple deer than NFQU hunters. For example, since RY13, 13% of FQU hunters take more than four deer (Figure 13).

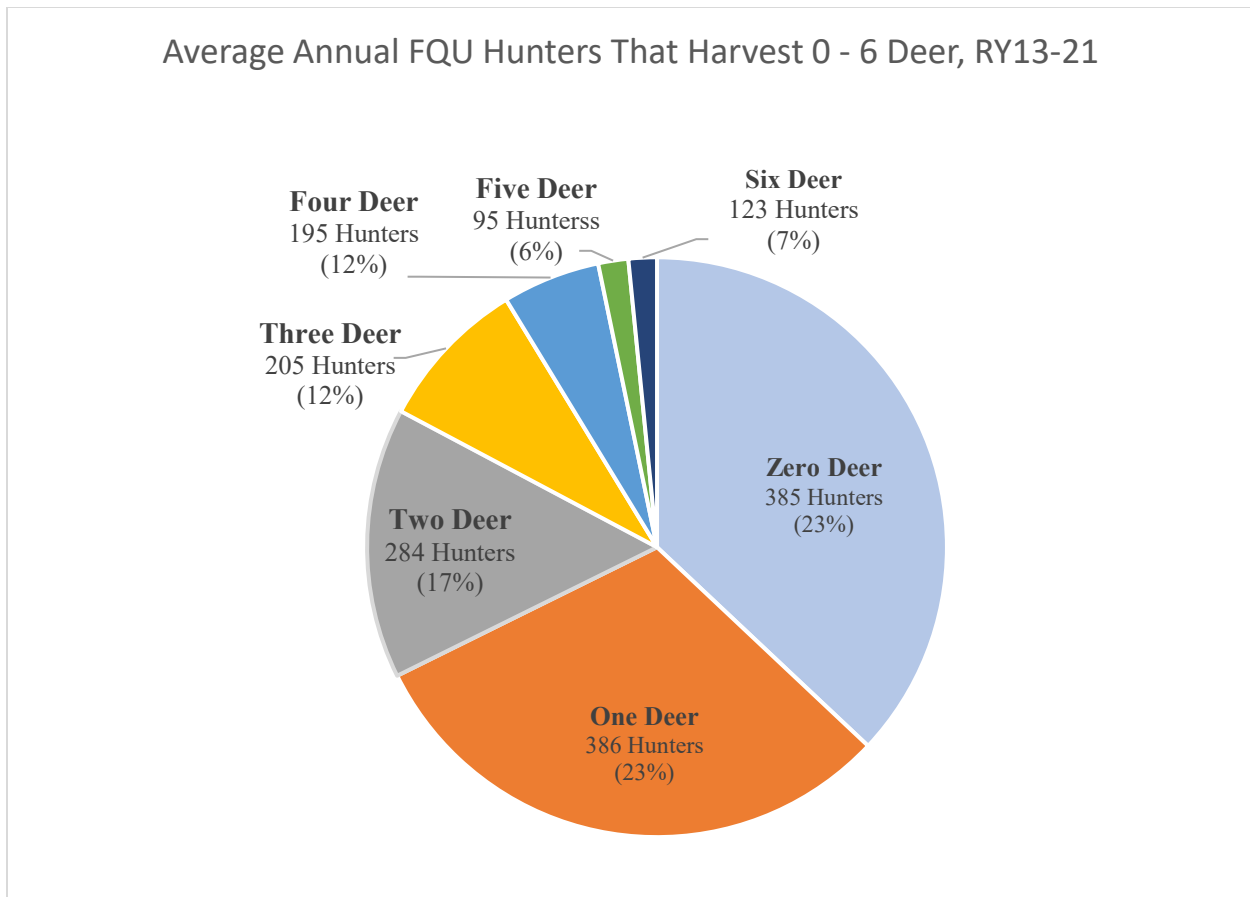


Figure 13. Percentages of FQUs who report harvesting 0, 1, 2, 3, 4, 5 or 6 deer in GMU 4, RY13-RY21.

Analysis

The analyses presented here were based on the only annually collected, objective, and quantitative information available on deer abundance, hunter effort, and harvest in the area affected by this proposal. Deer abundance is monitored by ADF&G through the reporting of effort and harvest data from hunters, including those from Pelican.

These proposals assert that FQUs have had increasing difficulty meeting their subsistence needs for deer. The term, “subsistence need”, as used in Title VIII of ANILCA has no quantitative harvest benchmark. ANILCA also does not require the federal program to quantify historical levels of harvest for subsistence uses. Consequently, there is no objective way of verifying whether the existing federal regulations continue to provide for adequate subsistence opportunity or if current harvest meets the subsistence needs of FQUs. Therefore, our analysis focuses on measures of deer abundance and trend in GMU 4 and on trends in effort and harvest by FQUs and NFQUs in the proposal area. Conditions that would support the assertion that NFQUs are hindering deer harvest by FQUs would include increasing numbers of hunters, days of hunting effort, and harvest by NFQUs that coincide with declining harvest by FQUs while the number of FQU hunters and effort by those hunters remained stable or increased.

ADF&G monitors abundance and trend of deer at the scale of the GMU or subunit, so we can only note that the available data indicate that GMU 4 deer populations are currently at high and

stable levels. Winter severity, particularly deep and lingering snowpack is the biggest limiting factor for Sitka black-tailed deer in GMU 4. The last winter with above average snowfall occurred in 2011/2012. Since then, winters have been average to mild with little overwinter mortality as corroborated by ADF&G's spring mortality surveys. Pellet group and aerial alpine deer counts also support the conclusion that deer remain abundant throughout GMU 4.

The existing evidence suggests predation has little effect on the GMU 4 deer population. Wolves and black bears are absent, so unlike other GMUs in the region, brown bears are the only large land predator in GMU 4. Brown bears occur at high densities throughout Unit 4, and they have been documented to prey on young fawns. However, a few weeks after the early June fawning period, fawn remains are no longer found in brown bear scats. Once fawns become mobile at 2-3 weeks of age, it appears bears either lose interest or are unable to catch them. Further, deer pellet survey data, aerial alpine survey data, and hunter harvest data all indicate that GMU 4 supports higher deer densities than adjacent GMUs inhabited by wolves and black bears.

Although brown bears have been reported to prey on older fawns and adult deer, the available evidence suggests that it is very rare and occurs opportunistically. McCarthy (1989) analyzed scats from bears on Admiralty Island and found deer remains in up to 10% of spring scats. The author did not distinguish whether those remain were from young fawns or scavenged carcasses of winter-killed deer. During mid-summer up to 14% of scats from bears using high elevation habitat (>400m) contained some deer remains, but deer was absent from summer scats of bears using low elevation habitat. Deer was not found in bear scats collected during late-summer and fall.

Studies of radio collared deer on Admiralty (Schoen and Kirchhoff 1990) and Chichagof (McCoy et al. 2015) islands in GMU 4 further support that brown bears rarely kill deer. Neither study reported any predation-related mortalities. In general, during fall when snow pushes deer to lower elevations and salmon runs have ended, most brown bears have moved to higher elevation denning areas. Although some bears may remain at lower elevations and feed on remains of hunter-killed deer, there is no evidence that brown bears have any appreciable effect on deer distribution during hunting season or on deer abundance at any time of year. In fact, ADF&G biologists, hunters, and guides working in GMU 4 commonly report seeing deer and brown bears in close proximity with the deer exhibiting no apparent concern.

The proposals suggest that brown bear predation and competition with NFQUs is making subsistence harvest more difficult for FQUs in the Pelican area. Because no similar proposals have been submitted before, we presume that in the past FQUs were able to provide for subsistence uses. Therefore, to evaluate the need for this restriction of NFQU opportunity we investigated harvest and measures of hunter effort for trends of increasing effort and harvest by NFQUs.

We found that since 1997 the total number of individuals hunting deer in the Lisianski area has declined by about 25%. That decline is primarily due to a roughly 50% decline in the number of FQUs hunting deer in this area. Since the late 1990s total days of deer hunting effort in this area also declined, while NFQU hunting pressure has remained relatively unchanged. Again, total hunter effort in this area has declined with most of that decline resulting from decreasing hunting

effort by FQUs residing in Pelican. This finding directly contradicts the assertion in the proposal that increasing competition from NFQUs is hindering harvest by FQUs. In fact, total deer hunting effort and the potential for competition between FQUs and NFQUs in this area has substantially declined.

To evaluate whether FQUs are having an increasingly difficult time harvesting deer we looked for trends in the number of days of hunting effort required to harvest one deer and number of deer harvested per hunter. In recent years the days of hunting effort required to harvest one deer has trended downward for both groups of hunters. Since RY13 FQUs have required an average of only 1.9 days of hunting effort to harvest one deer, whereas NFQUs have required 2.8 days of hunting effort to harvest 1 deer. During the same period the days of hunting effort required to harvest a deer for all GMU 4 hunters was 2.3 days/deer, so the 1.9 days of hunting effort required for FQUs in the proposal area represents extremely efficient hunting. Numbers of deer harvested per FQU hunter has been stable to slightly trending upwards, averaging 2.06 deer/hunter from RY97-RY06 and 2.24 deer/hunter from RY13-RY21.

If harvesting deer was becoming more difficult for FQUs, we would expect to see an increase in the number of days of hunting effort required to harvest a deer and a decline in the number of deer harvested per FQU hunter. However, these measures of hunter success based on hunt reports provided by FQUs, including residents of Pelican, indicate that deer hunting conditions in the Lisianski area remain very good and that in recent years FQUs have enjoyed great hunting success.

Under the expanded state bag limit (RY19 - RY21), an average of 62 NFQUs hunted deer in the Lisianski area. By applying the percentage of NFQUs who harvested 5 (1.5%) or 6 (1.5%) deer in GMU 4 ADF&G estimates that the new state bag limit resulted in the harvest of 3 additional deer per year by NFQUs. It can be inferred that this would be the annual reduction in harvest under a four deer bag limit. However, these calculations do not take into account deer harvested below mean high tide and on other State and private lands. Because NFQUs take an average of only 1.6 deer per hunter, any bag limit reduction is unlikely to have any effect on the deer population or increase harvest opportunity for FQUs. Proposal WP22-10 would only serve to potentially eliminate opportunity for an average of two NFQUs per season who choose to take more than 4 deer.

Summary

These proposals asserts that FQUs have had increasing difficulty meeting their subsistence needs for deer because of brown bear predation and ongoing competition with NFQUs. The data and analyses conducted by ADF&G finds no support for those contentions. The available information indicates that brown bears are ineffective predators on deer and that deer remain abundant throughout GMU 4. In the Lisianski area it is unlikely that hunter harvest has reduced deer abundance because total hunting effort is relatively light, and over the last two decades hunter effort and harvest have declined.

We could find no support for the contention that competition from NFQUs has increased or that NFQUs are hindering harvest by FQUs. In fact, rather than increasing, the number of NFQUs and days of hunting effort by NFQUs has held steady for 2 decades. Further, days of hunting

effort required to harvest a deer remains very low and the number of deer harvested per FQU hunter has been increasing.

Harvest data indicate there has been a decline in the number of deer harvested by FQUs in the Lisianski area. However, that decline is attributable to a decline in the number of FQUs and days of effort by those hunters. Over the last 20 years both metrics have declined by over 50%. Deer remain abundant, federal regulations provide a six-month open season, and “competition”, or hunting effort by NFQUs, has been stable for two decades. Therefore, we conclude that the decline in federal subsistence harvest of deer in the Lisianski area results from a decline in participation and effort by FQUs, not from depleted deer populations, predation by brown bears, or increasing competition from NFQUs.

Impact on Subsistence Users

The closure of this area may reduce some competition on federal public lands between FQUs and NFQUs between October 15 and December 15. However, NFQUs would still be able to hunt state owned tidelands below mean high tide, state uplands, and private property.

Impact on Other Users

Opportunity for NFQUs to harvest deer on federal public lands in the Pelican area would be severely reduced. Nearly 90% of all NFQU harvest and effort in this area occurs during the period targeted by WP22-09. The bag limit reduction proposed in WP22-10 would reduce some opportunity for NFQUs. Few if any NFQUs take more than 4 deer.

State Customary and Traditional Use Findings

The Alaska Board of Game has made positive customary and traditional use findings for deer in GMU 4.

Amounts Reasonably Necessary for Subsistence

Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The board does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources. The ANS for deer in GMU 4 is 5,200–6,000 deer.

Contrary to its name, ANS does not indicate subsistence “need”. Instead, ANS provides the board with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. The ANS for deer in GMU 4 was established in 1992. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently falls below ANS. However, harvest may decline for many reasons, and in this case it appears to result from declining participation and effort by FQUs in the Lisianski area.

Opportunity Provided by the State

The State hunting season and bag limit for deer in GMU 4 including the Lisianski Area is:

GMU 4 Remainder	<u>Bag Limit 6 deer</u> (bucks only to Sep 14 th)	<u>Resident</u> <u>Open Season</u> Aug 1-Dec 31 (Harvest ticket)	<u>Nonresident</u> <u>Open Season</u> Aug 1-Dec 31 (Harvest ticket)
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Conservation Issues

There are no conservation issues for the deer population in GMU 4. Following a decade of mild winters, the available population indices suggest the GMU 4 deer population remains high and stable. Deer harvest remains within the historical range and state ANS is met in most years. Population indices and measures of hunter effort and success indicate that GMU 4 has the highest population of deer and highest hunting success of anywhere in the state.

Based on the information provided to ADF&G by GMU 4 deer hunters, population indices, reports by local hunters and field observations by management biologists, we conclude that there is no conservation concern for the GMU 4 deer population.

Enforcement Issues

Passage of these proposals will create increasingly complex regulations for NFQUs. Enforcement will be challenging because NFQU’s will remain eligible to hunt deer on state-owned tidelands below the line of mean high tide and other state and private property. The tideline is not marked, so NFQUs and enforcement officers will have difficulty determining when deer are above or below that line of mean high tide.

Position

ADF&G **OPPOSES** proposals WP22-09 and WP22-10. There is no evidence hunting by NFQUs as cited in WP22-09 or that brown bear predation as cited in WP22-10 has affected the ability of FQUs to harvest deer. Although the number of FQUs hunting and total harvest by those hunters has declined, the remaining FQUs hunting in this area are enjoying greater success. Adopting this proposal would deprive NFQUs of sustainable deer hunting opportunity contrary to terms in Title VIII of ANILCA.

Approximately 90% of land in GMU 4 is federally managed, and current federal regulations already provide greater opportunity to FQUs compared to NFQUs. FQUs are eligible to hunt an entire month longer than NFQUs with a season extending through the month of January as well as a liberal designated hunter program.

In *Alaska v. Federal Subsistence Bd.*, 544 F.3d 1089, 1100 (9th Cir. 2008), the Ninth Circuit ruled that, under ANILCA, the Federal Subsistence Board may regulate subsistence use but is prohibited from limiting nonsubsistence use. A bag limit reduction for NFQUs for deer in GMU 4 is inconsistent with ANILCA under applicable case law on federal preemption. As directed by Congress in Section 802 of ANILCA, subsistence uses of wildlife shall be the priority consumptive use on federal public lands “when it is necessary to restrict taking in order to assure the continued viability of a fish or wildlife population or the continuation of subsistence uses of such population.” Section 815 of ANILCA authorizes federal restrictions on nonsubsistence uses

WP22-09/10

9/30/2022

on the public lands only if “necessary for the conservation of healthy populations of fish and wildlife” or if necessary to “continue subsistence uses.” Based on ADF&G’s analysis of the only annually collected, objective, and quantitative data available, none of those reasons apply. There is no conservation concern for the Lisianski area deer population, and no restrictions on NFQU bag limit are needed to continue subsistence uses of deer. Data largely provided by FQUs residing near Pelican clearly indicate that the decline in harvest by that user group resulted from substantially lower participation and effort by FQU deer hunters.

WP22-09/10

9/30/2022

Literature Cited

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Data Tables

Table 1. Summary Table Federally Qualified Deer Hunters, WAAs 3417, 3418, 3419, 3421.

<u>Regulatory Year</u>	<u>No. of Hunters</u>	<u>Total Hunt Days</u>	<u>Total Harvest</u>	<u>Deer per Hunter</u>	<u>Days per Deer</u>
1997	121	536	213	1.8	2.5
1998	90	50	210	2.3	2.1
1999	117	628	318	2.7	2.0
2000	102	310	143	1.4	2.2
2001	93	449	225	2.4	2.0
2002	84	267	162	1.9	1.6
2003	119	367	226	1.9	1.6
2004	86	292	190	2.1	1.5
2005	93	268	184	2.0	1.5
2006	78	185	148	1.9	1.3
2007	46	120	57	1.2	2.1
2008	67	205	90	1.3	2.3
2009	53	197	95	1.8	2.1
2010	94	446	196	2.1	2.3
2011	96	539	215	2.2	2.5
2012	66	197	134	2.0	1.5
2013	60	273	166	2.8	1.6
2014	64	222	124	1.9	1.8
2015	39	183	111	2.9	1.7
2016	63	216	173	2.8	1.3
2017	59	157	126	2.1	1.3
2018	56	187	100	1.8	1.9
2019	67	219	136	2.0	1.6
2020	59	284	118	2.0	2.4
2021	65	194	135	2.1	1.4

WP22-09/10
9/30/2022

Table 2. Summary Table Non-Federally Qualified Deer Hunters, WAAs 3417, 3418, 3419, 3421.

<u>Regulatory Year</u>	<u>No. of Hunters</u>	<u>Total Hunt Days</u>	<u>Total Harvest</u>	<u>Deer per Hunter</u>	<u>Days per Deer</u>
1997	55	250	64	1.2	3.9
1998	58	252	54	0.9	4.7
1999	41	190	72	1.8	2.6
2000	82	534	97	1.2	5.5
2001	59	284	102	1.7	2.8
2002	61	281	82	1.3	3.4
2003	61	218	142	2.3	1.5
2004	76	364	170	2.2	2.1
2005	60	310	144	2.4	2.1
2006	69	400	138	2.0	2.9
2007	34	179	29	0.9	6.2
2008	43	152	81	1.9	1.9
2009	38	172	62	1.6	2.8
2010	62	217	94	1.5	2.3
2011	72	287	140	1.9	2.1
2012	46	162	72	1.6	2.3
2013	66	320	111	1.7	2.9
2014	61	261	89	1.5	2.9
2015	84	348	160	1.9	2.2
2016	69	290	126	1.8	2.3
2017	50	226	79	1.6	2.9
2018	62	283	94	1.5	3.0
2019	54	186	68	1.3	2.7
2020	69	287	92	1.3	3.1
2021	64	298	84	1.3	3.5