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).

FQUs RY13-RY21						
			Days		Deer	
	Hunters	<u>%</u>	Hunted	<u>%</u>	Harvested	<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	

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

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.

<u>Analysis</u>

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. McCarthey (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 to harvested per 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>	Resident	Nonresident	
	(bucks only to Sep	Open Season	Open Season	
	14^{th}	Augl-Dec 31	Augl-Dec 31	
		(Harvest ticket)	(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 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 stateowned 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

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.

Literature Cited

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<u>Data Tables</u>

Regulatory	No. of	<u>Total</u>	Total	Deer per	Days per
<u>Year</u>	Hunters	<u>Hunt Days</u>	<u>Harvest</u>	<u>Hunter</u>	Deer
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

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

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

<u>Regulatory</u>	<u>No. of</u>	<u>Total Hunt</u>	<u>Total</u>	<u>Deer per</u>	Days per
<u>Year</u>	<u>Hunters</u>	<u>Days</u>	<u>Harvest</u>	<u>Hunter</u>	<u>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