

Plains Bison Management Report and Plan, Game Management Unit 19:

Report Period 1 July 2018–30 June 2023, and
Plan Period 1 July 2023–30 June 2028

Joshua M. Peirce



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This species management report and plan was reviewed and approved for publication by Jason Caikoski, Management Coordinator of Region III for the Division of Wildlife Conservation.

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Purpose of this Report

This report provides a record of survey and inventory management activities for plains bison (*Bison bison*) in Game Management Unit 19 during the 5 regulatory years 2018–2022, along with plans for the next 5 regulatory years, 2023–2027. A regulatory year (RY) begins on 1 July and ends on 30 June (e.g., RY18 = 1 July 2018–30 June 2019). This report is primarily produced to provide agency staff with data and analysis to help guide and record agency efforts. It is also made available to the public to inform them about wildlife management activities. The Alaska Department of Fish and Game's (ADF&G, the department) Division of Wildlife Conservation (DWC, the division) publishes these reports on a 5-year cycle to document trends and describe potential changes in data collection activities for bison.

I. RY18–RY22 Management Report

Management Area

Unit 19 consists of 5 administrative units for wildlife management purposes: Units 19A, 19B, 19C, 19D, and 19E. Unit 19 covers approximately 36,486 mi² within Interior Alaska. It includes all drainages into the Kuskokwim River, roughly upstream from Lower Kalskag. Plains bison only inhabit portions of Units 19C and 19D, and are found primarily in the vicinity of the Farewell Airport (Fig. 1). Habitat includes rugged higher elevation areas within the Alaska Range, riparian corridors, and lower-elevation flats.

Summary of Status, Trend, Management Activities, and History of Bison in Unit 19

The original plains bison were transported to Delta Junction in 1928 from the National Bison Range in Montana (Burris and McKnight 1973, Paul 2009). The Farewell bison herd was established by the department by translocating 18 bison from the Delta bison herd using an Air National Guard C-123 aircraft on 10–11 August 1965. The transplants consisted of 1 bull calf, 4 yearling bulls, 3 female calves, 2 yearling females, and 8 adult females. An additional 20 bison were translocated from the Delta herd on 14–15 August 1968 to supplement the new Farewell herd. This second transplant consisted of 5 bull calves, 3 two-year-old bulls, 2 female calves, 1 yearling female, and 9 adult females. From 1968 to 1999, the Farewell herd continued to grow, reaching a population size of approximately 350 animals (Paul 2009).

The herd generally ranged across the 1977 Bear Creek burn area from 1968 until the early 2000s; however, as forest succession converted the post-burn area forage, bison began to focus along the South Fork of the Kuskokwim River and the Farewell area. The bison's summer range was investigated by Waggoner and Hinkes (1986) and bison were found primarily along the rivers and floodplains within the Alaska Range. Their summer diet was 94% willow (*Salix* spp.) and fall diet 60% willow and 40% silverberry (*Elaeagnus commutata*) and buffaloberry (*Shepherdia canadensis*).

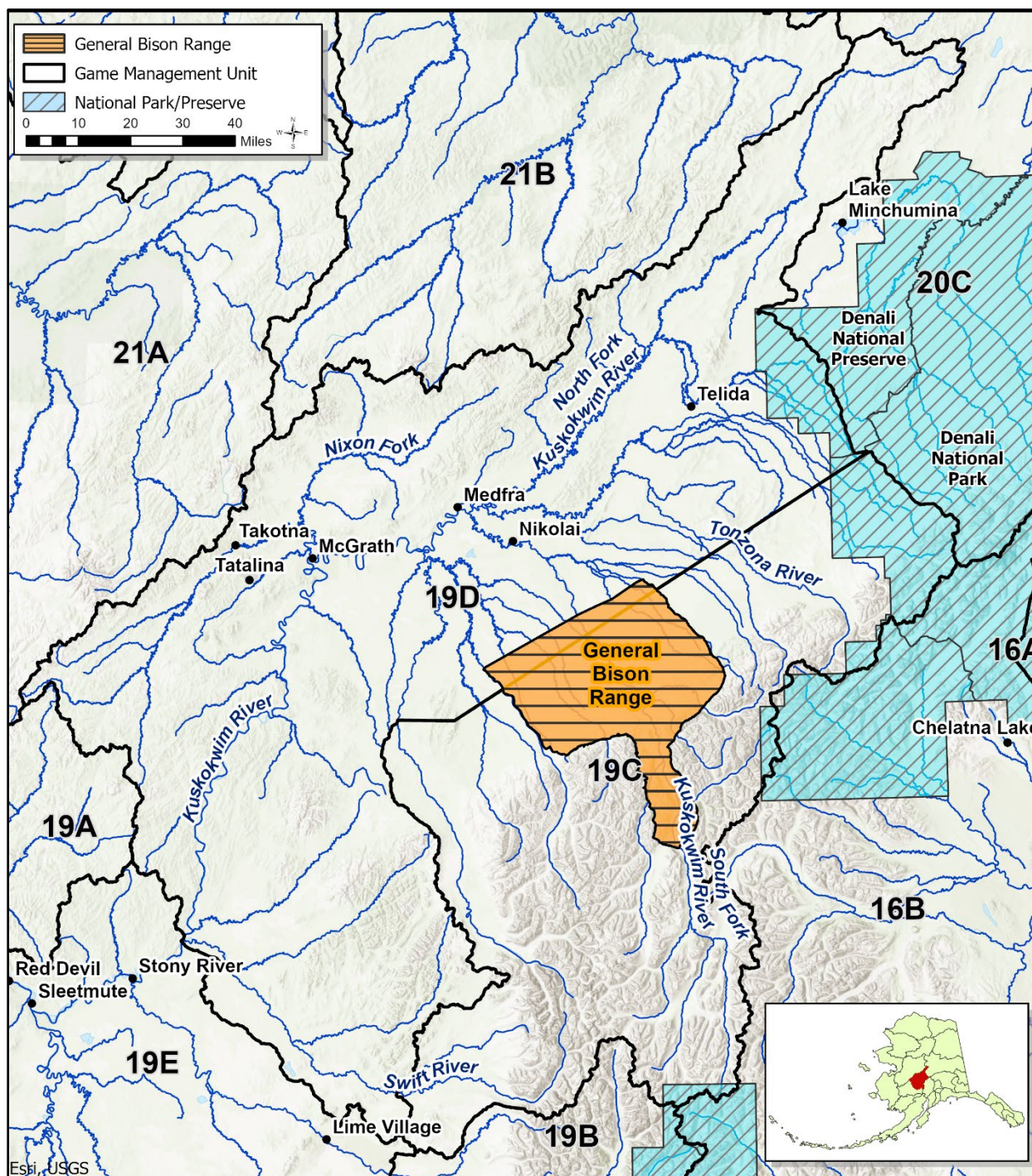


Figure 1. Typical range of the Farewell bison herd within Unit 19 during regulatory years 2018–2022, Interior Alaska.

Summer habitat is not a limiting factor for bison; however, forage availability during the winter is limited in years of deep snow (Waggoner and Hinkes 1986). Campbell and Hinkes (1983) investigated winter diets and habitat use after the Bear Creek burn in 1977 and found sedges to be an important component of the winter diet. The post-fire habitat was rich in this type of forage, and open sedge and grasslands hold less snow and encourage bison movements.

Campbell and Hinkes estimated the preburn carrying capacity of the area to be approximately 100 animals; however, the 1977 burn expanded available winter habitat considerably. Upland sedge and grassland habitats such as that found in the Bear Creek burn area require a frequent fire regime of approximately every 5–10 years. By 2010 the Bear Creek burn area was 33 years-old and had senesced considerably. In spring 2010 the Turquoise Lake fire reburned an important portion of the Bear Creek burn area, which had a positive impact on bison numbers. The Turquoise Lake burn area, now 14 years-old, has also tapered off in productivity. The more recent Pitka Fork burn in 2017 was on the western periphery of the herd's range, but the bison only used this area for a few years post-burn.

The first hunt for Farewell bison was held in 1972. The number of drawing permits issued annually has ranged from 10 to 80, depending on herd size. Drawing permits are issued through a state-sponsored lottery system in which applicants apply for their preferred hunt, pay a nonrefundable fee, and await draw results published by the State. Historically, interest has been high, with thousands of people applying for the hunts each year.

Management Direction

The Farewell bison herd is managed on the sustained yield principle, and the department is authorized to issue up to 100 permits.

EXISTING WILDLIFE MANAGEMENT PLANS

There are no previous wildlife management plans applicable to the Farewell bison herd.

GOALS

- G1. Maintain a population of sufficient size to reduce the genetic risks (such as inbreeding) associated with small populations.
- G2. Maintain a sustainable harvest.
- G3. Maintain and enhance bison habitat in cooperation with land management agencies.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

The Board of Game has not made a positive customary and traditional use finding for Farewell bison.

Intensive Management

Plains bison have not been designated as a candidate species for intensive management by the Board of Game.

MANAGEMENT OBJECTIVES

- M1. Maintain a population of at least 300 bison after the March hunt and precalving (G1).
- M2. Issue a number of hunting permits to maintain a harvest that is within the sustained yield principle (G1 and G2).
- M3. Maintain at least 50% of the bison winter range in sedge, grasslands, and shrubs (G3).

MANAGEMENT ACTIVITIES

1. Population Status and Trend

ACTIVITY 1.1. Deploy up to 20 radio collars on Farewell bison every other year (M1 and M2).

Data Needs

Radio collars are used to monitor herd distribution, movements, and population size. This provides the primary means to locate bison to conduct minimum population counts, calving counts, and distributions. Due to the grouping behavior of bison, radiocollared individuals aid in locating other unmarked members of the herd.

Methods

One or more fixed-wing aircraft and a helicopter will be used to locate, immobilize, and collar individual bison using approved ADF&G capture protocols. Blood, feces, and hair samples may be collected to test for pregnancy, disease, and genetics.

Results and Discussion

Department staff radiocollared 15 adult female bison in April 2019 and 10 adult female bison in April 2021. As of 30 June 2024, there were 36 bison with active radio collars.

Recommendations for Activity 1.1

Continue. Radiocollaring adult cows at 2-year intervals ensures that there are an adequate number of radiocollared animals in the herd to enable effective population counts and surveys.

ACTIVITY 1.2. Conduct aerial surveys of bison (M1 and M2).

Data Needs

Aerial surveys assess herd distribution, population status, and herd composition (M1 and M2). These data are critical for making informed management decisions regarding herd status and harvest. Aerial surveys allow the department to estimate herd size, composition, and distribution. Results of these surveys help determine the number of draw permits to make available the following regulatory year.

Methods

Department staff conduct aerial surveys, primarily during the summer months. Surveys provide the percentage of calves in the population and minimum population counts. They are flown using fixed-wing aircraft (PA-18 or similar). We will continue to use radiotelemetry as the primary means of locating groups of bison.

Results and Discussion

The population objective of at least 300 bison (after the March hunt and precalving) was achieved every year during RY18–RY22 (summers 2019–2023). However, bison numbers declined from 495 to 384 over this period and calving ranged from 12% to 21% (Table 1). The decrease in total animals was due to the particularly difficult winter of 2022–2023.

Table 1. Unit 19 Farewell bison aerial composition surveys and high count of total bison observed, regulatory years 2018–2022 (summers 2019–2023), Interior Alaska.

Survey date	Bison >6 months old	Calves ≤6 months old		Bison observed
		Number	Percent	
Summer 2019	392	103	21	495
Summer 2020	361	60	14	421
Summer 2021	387	95	20	482
Summer 2022	392	62	14	454
Summer 2023	339	45	12	384

Recommendations for Activity 1.2

Continue.

2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1. Monitor harvest through mandatory permit reporting (M1 and M2).

Data Needs

Mandatory harvest reporting provides harvest, sex, location, effort in field, and transportation information. These data are used in conjunction with survey data to help manage bison in Unit 19. Through comparisons of calving counts, minimum population counts, and harvest mortality, draw permits can be adjusted to adhere to sustained yield principles.

Methods

Hunters are required to report details concerning their hunt such as success, date of harvest, days hunted, transportation, sex, and general location. These data are stored on WinfoNet (ADF&G's Wildlife Information Network).

Seasons and Bag Limit

During RY18–RY22, the season for Unit 19 bison was 22 August–10 October under DI351 and 1–31 March under DI352. Residents had a bag limit of 1 bison every 10 regulatory years by drawing permit only and nonresidents had 1 bison per life by drawing permit only.

During RY21–RY22, DI352 was restricted to bulls only.

Results and Discussion

Harvest by Hunters

Annual harvest ranged from 21 to 30 bison during RY18–RY22 (Table 2). The range of harvest is primarily due to differences in the number of permits issued; however, hunter participation and weather also affects the number of animals harvested. In general, hunters prefer to take bulls because they are larger and have more meat and trophy potential. However, misidentification or low numbers of bison sighted per hunter can result in higher female harvest. Historically, a much higher percentage of cows is taken in the spring, and in RY21, harvest was restricted to bulls-only during the DI352 hunt.

Permits Hunts

A single Governor’s permit was issued in RY18 and in RY19 (SI352). This program allowed a sportsmen’s group to auction a permit and keep 10% of the proceeds, with the remainder going to the department. Both hunters were successful.

Harvest Chronology

Bison harvest data were organized into 10-day increments in both the spring and fall hunt periods (Table 3). For both, most of the harvest takes place within the first 20 days.

Hunter Residency and Success

Historically, and during this reporting period (RY18–RY22), the majority of permittees for the Farewell bison hunts were Alaska residents (Table 4). Of the permit winners who hunted during this reporting period, 17 were nonresidents, 1 was a local resident of Unit 19, and 124 were nonlocal residents (Table 4).

The average annual success rate during this reporting period was 84% for the fall hunt (DI351) and 93% for the spring hunt (DI352; Table 2). The slightly higher success rate in spring was likely due to better access using snowmachines. Overall, 20% of all permit winners did not hunt during the reporting period (Table 2) and 89% of permit winners who hunted were successful (Table 4).

Transport Methods

This hunt is in a remote area that can be difficult to access. Airplanes were the primary means of transport, and snowmachines, which are used during the spring hunt, were the second most common (Table 5). Rafts are used by hunters primarily on float trips within select drainages in the Farewell area.

Table 2. Unit 19 Farewell bison harvest data by permit hunt during regulatory years 2018–2022, Interior Alaska.

Hunt number	Regulatory year	Permits issued	Did not hunt (%)		Unsuccessful hunters ^a (%)		Successful hunters ^a (%)		Bulls (%)		Cows (%)		Unk	Total harvest
DI351 (Fall)	2018	20	5	(25)	4	(27)	11	(73)	10	(91)	1	(9)	0	11
	2019	20	6	(30)	1	(7)	13	(93)	10	(77)	3	(23)	0	13
	2020	25	5	(25)	3	(15)	17	(85)	17	(100)	0	(0)	0	17
	2021	20	4	(20)	2	(13)	14	(87)	14	(100)	0	(0)	0	14
	2022	20	3	(15)	3	(18)	14	(82)	13	(93)	1	(7)	0	14
DI352 (Spring)	2018	21 ^b	4	(20)	1	(6)	16 ^b	(94)	11 ^b	(69)	5	(31)	0	16
	2019	16 ^b	3	(20)	0	(0)	13 ^b	(87)	9 ^b	(69)	4	(31)	0	13
	2020	15	1	(7)	1	(7)	13	(93)	6	(46)	7	(54)	0	13
	2021	10	1	(10)	1	(11)	8	(89)	8	(100)	0 ^c	(43)	0	8
	2022	10	3	(30)	0	(0)	7	(100)	7	(100)	0 ^c	(19)	0	7

^a Successful and unsuccessful hunter information includes only those permittees who hunted.

^b One SI352 permit was issued, and the hunter harvested a bull.

^c During RY21–RY22, DI352 was restricted to bulls only.

Table 3. Unit 19 Farewell bison harvest chronology by season, month, and day during regulatory years 2018–2022, Interior Alaska.

Regulatory year	Fall										Spring					
	22–31 Aug		1–10 Aug		11–20 Aug		21–30 Aug		1–10 Oct		1–10 Mar		11–20 Mar		21–31 Mar	
	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)
2018	6	(55)	1	(9)	3	(27)	1	(9)	0	(0)	8	(50)	5	(31)	3	(19)
2019	5	(38)	5	(38)	2	(15)	1	(8)	0	(0)	8	(62)	3	(23)	2	(15)
2020 ^a	6	(38)	6	(38)	2	(13)	1	(6)	1	(6)	8	(62)	3	(23)	2	(15)
2021	8	(57)	2	(14)	1	(7)	2	(14)	1	(7)	4	(50)	3	(38)	1	(13)
2022	5	(36)	1	(7)	5	(36)	0	(0)	3	(21)	2	(29)	2	(29)	3	(43)

^a One DI351 report did not include date of harvest and is not included in this table.

Table 4. Unit 19 Farewell bison hunter residency and success during regulatory years 2018–2022, Interior Alaska.

Regulatory year	Successful						Unsuccessful						Total hunters
	Local ^a resident	Nonlocal ^b resident	Non- resident	Unk	Total	(%)	Local ^a resident	Nonlocal ^b resident	Non- resident	Unk	Total	(%)	
2018	0	24	3	0	27	(84)	0	5	0	0	5	(16)	32
2019	0	23	3	0	26	(96)	0	0	1	0	1	(4)	27
2020	0	27	3	0	30	(88)	0	4	0	0	4	(12)	34
2021	0	18	4	0	22	(88)	0	2	1	0	3	(12)	25
2022	1	18	2	0	21	(88)	0	3	0	0	3	(13)	24

^a Local residents are hunters who live in Unit 19.

^b Nonlocal residents are residents of Alaska who do not live in Unit 19 communities.

Table 5. Unit 19 Farewell bison harvest by primary transport method, regulatory years 2018–2022, Interior Alaska.

Regulatory year	Airplane (%)		4-wheeler (%)		Snowmachine (%)		Boat (%)		<i>n</i>
2018	14	(44)	3 ^a	(9)	14	(44)	1	(3)	32
2019	13	(48)	1	(4)	12	(44)	1	(4)	27
2020	14	(41)	6	(18)	9	(26)	5	(15)	34
2021	10	(40)	4	(16)	9	(36)	2	(8)	25
2022	16	(67)	2	(8)	6	(25)	0	(0)	24

^a Includes 1 hunter who used an off-road vehicle.

Other Mortality

Based on anecdotal information from pilots and hunters, and information gathered during telemetry flights for bison, it appears wolf and grizzly bear predation on the Farewell bison herd remains low. This is consistent with previous reports (Whitman 1998).

Heavy snowfall and prolonged winters can influence bison body condition and recruitment, contributing to natural mortality.

Alaska Board of Game Actions and Emergency Orders

The Board of Game implemented meat on the bone requirements prior to 1 October beginning in RY20. No emergency orders were issued during RY18–RY22.

Recommendations for Activity 2.1

Continue. Issuing drawing permits and evaluating results of harvest reports has been a successful way to monitor and manage harvest. This practice helps to provide maximum hunting opportunity while ensuring sustainable harvest.

ACTIVITY 2.2. Determine the number of drawing permits annually (M2).

Data Needs

Determining the number of permits annually ensures overharvest does not occur and provides optimal harvest opportunity.

Methods

The number of draw permits is determined based on population size, the number of calves, overwinter mortality, and average harvest data.

Results and Discussion

The herd was stable to declining during the reporting period (RY18–RY22), and the number of permits was reduced from 40 to 30 for RY21–RY22. The bag limit for DI352 was also changed to bulls-only. This approach maximized any-bison opportunity in the fall, when most harvested animals are bulls. However, during the DI352 hunt, there is a much higher percentage of cows taken. Approximately 9,000 drawing permit applications were received for the combined fall and

spring hunts in RY23, indicating continued strong hunter interest, which greatly exceeds the number of permits available.

Recommendations for Activity 2.2

Continue.

3. Habitat Assessment and Enhancement

ACTIVITY 3.1. Conduct a controlled burn in cooperation with other agencies to return bison habitat to an early successional stage every 5 to 10 years (M3).

Data Needs

In order to conduct controlled burns, plans need to be created in cooperation with land management agencies such as the Department of Natural Resources or the Bureau of Land Management. These plans require data for habitat and vegetation mapping as well as bison movements. Post-fire, bison habitat selection will be monitored to determine if there is preferential selection of burned areas.

Methods

In cooperation with these land management agencies, the department selects mature vegetation in areas that are important bison summer and winter foraging habitat for controlled burns every 5–10 years, as funding and resources allow.

Results and Discussion

There were no controlled burns in Unit 19 conducted within RY18–RY22 due to limited staff and funding.

Recommendations for Activity 3.1

Regional wildlife management staff will continue to collaborate with other land management agencies and the division's fire management coordinator to plan and conduct controlled burns within the range of the Farewell bison herd. Successful burns allow for high herd productivity, which enables more hunting opportunity.

ACTIVITY 3.2. Assess habitat during aerial surveys (M3).

Data Needs

Assessing habitat during surveys will provide data on herd health and growth capacity. Information gathered from these surveys will help determine management decisions regarding controlled burns. Minimum population surveys provide the department with the opportunity to examine and evaluate bison habitat.

Methods

Habitat observations are performed during aerial surveys, as described in Activity 1.2.

Results and Discussion

Aerial surveys continue to document an increase in shrubby vegetation as well as tree growth in areas that have not burned since 2012.

Recommendations for Activity 3.2

Department staff should continue to assess habitat during aerial surveys and field operations. We continue to observe increases in both shrubby vegetation and young trees, which diminish bison habitat within portions of the Farewell herd range. Herd productivity and hunting opportunities are directly related to habitat condition and we will work to continue promoting opportunities for burns in the Farewell area.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

No nonregulatory management problems were identified for RY18–RY22.

Data Recording and Archiving

- Harvest, capture, and survey data will be stored in WinfoNet under Harvest Information and Survey and Inventory Tools.
- All hard copy data sheets, paper files, etc. are found in the McGrath regional office.
- Capture records, survey memorandums, reports, and other pertinent electronic survey and inventory information will be archived in WinfoNet.

Agreements

There are no agreements.

Permitting

None.

Conclusions and Management Recommendations

Based on aerial surveys conducted during RY18–RY22, bison were stable to slightly declining. The department achieved population objective M1 of 300 posthunt, precalving bison during the reporting period (Table 1). As of 30 June 2024, there were 36 radiocollared animals and plans to deploy 15 additional radio collars in April 2025. This will help maintain a sufficient sample to monitor herd distribution and population size.

We met objective M2, to maintain harvest within the sustained yield principal during RY18–RY22. We issued 30–40 permits per year with the majority of the permits issued in the fall (Table 2).

It is unclear whether objective M3, to maintain at least 50% of the bison winter range in sedge, grasslands, and shrubs, was met. To further assess this, ground vegetation surveys would need to

be conducted. However, funding and staff time are limited to aerial assessments of habitat at this time. Little is known about the current carrying capacity, but controlled burns will likely be necessary in the near future to promote new successional growth to provide adequate winter forage. In 2010, the Turquoise Lake fire burned almost 92,000 acres. This burn area was used by bison during RY18–RY22, but its quality for bison forage is beginning to decline. The June 2017 Pitka Fork fire burned about 16,800 acres east of the Windy Fork, which is generally the western boundary of the Farewell herd. While bison used this burn area during RY18–RY22, they have already begun to shift their foraging activities further east.

By RY22, the herd appeared to number close to 400 adult bison, which was a slight decrease from the beginning of the reporting period. Winter severity has the biggest impact on bison survival and recruitment, and in years of deep snow there can be high overwinter mortality.

We recommend continued herd monitoring for the next reporting period, as well as deployment of additional radio collars. This herd is important not only because of the unique hunting opportunity it provides but also because of its potential importance to bison conservation.

II. Project Review and RY23–RY27 Plan

Review of Management Direction

MANAGEMENT DIRECTION

The Farewell bison herd is managed on the sustained yield principle, and the department is authorized to issue up to 100 permits.

GOALS

No change in goals from RY18–RY22.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

The Board of Game has not made a positive customary and traditional use finding for Farewell bison.

Intensive Management

Plains bison has not been designated as a candidate species for intensive management by the Board of Game.

MANAGEMENT OBJECTIVES

- M1. Maintain a population of at least 400 adult bison after the March hunt and precalving (G1). This change from the prior reporting period objective of 300 bison is intended to reduce the genetic risks of a small population, such as inbreeding.
- M2. Issue a number of hunting permits to maintain a harvest that is within the sustained yield principle (G1 and G2).
- M3. Maintain at least 50% of the bison winter range in sedge, grasslands, and shrubs (G3).

REVIEW OF MANAGEMENT ACTIVITIES

1. Population Status and Trend

ACTIVITY 1.1. Deploy up to 20 radio collars on Farewell bison every other year (M1 and M2).

Data Needs

No changes from reporting period RY18–RY22.

Methods

No changes from reporting period RY18–RY22.

ACTIVITY 1.2. Conduct aerial surveys of bison (M1 and M2).

Data Needs

No changes from reporting period RY18–RY22.

Methods

No changes from reporting period RY18–RY22.

2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1 Monitor harvest through mandatory permit reporting (M1 and M2).

Data Needs

No changes from reporting period RY18–RY22.

Methods

No changes from reporting period RY18–RY22.

ACTIVITY 2.2. Determine the number of drawing permits annually (M2).

Data Needs

No changes from reporting period RY18–RY22.

Methods

No changes from reporting period RY18–RY22.

3. Habitat Assessment and Enhancement

ACTIVITY 3.1. Conduct a controlled burn in cooperation with other agencies to reset bison habitat to an early successional stage every 5–10 years (M3).

Data Needs

No changes from reporting period RY18–RY22.

Methods

No changes from reporting period RY18–RY22.

ACTIVITY 3.2. Assess habitat during aerial surveys (M3).

Data Needs

No changes from reporting period RY18–RY22.

Methods

No changes from reporting period RY18–RY22.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

No nonregulatory problems have been identified for RY23–RY27.

Data Recording and Archiving

No changes from reporting period RY18–RY22.

Agreements

None.

Permitting

None.

References Cited

- Burris, O. E., and D. E. McKnight. 1973. Game transplants in Alaska. Alaska Department of Fish and Game, Division of Game, Wildlife Technical Bulletin 4, Juneau.
- Campbell, B. H., and M. Hinkes. 1983. Winter diets and habitat use of Alaska bison after wildfire. Wildlife Society Bulletin 11(1):16–21.
- Paul, T. W. 2009. Game transplants in Alaska. Alaska Department of Fish and Game, Division of Wildlife Conservation, Technical Bulletin No. 4, 2nd edition, Juneau.
- Waggoner, V., and M. Hinkes. 1986. Summer and fall browse utilization by an Alaskan bison herd. Journal of Wildlife Management 50(2):322–324.
- Whitman, J. S. 1998. Unit 19 bison. Pages 16–24 [In] M. V. Hicks, editor. Bison survey-inventory management report 1 July 1995–30 June 1997. Alaska Department of Fish and Game, Division of Wildlife Conservation, Federal Aid in Wildlife Restoration Study 9.0, Juneau.

