Species Management Report and Plan ADF&G/DWC/SMR&P–2022–15

Brown Bear Management Report and Plan, Game Management Unit 14C:

Report Period 1 July 2014–30 June 2019, and

Plan Period 1 July 2019–30 June 2024

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Alaska Department of Fish and Game Division of Wildlife Conservation

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Species management reports and plans provide information about species that are hunted or trapped and management actions, goals, recommendations for those species, and plans for data collection. Detailed information is prepared for each species every 5 years by the area management biologist for game management units in their areas, who also develops a plan for data collection and species management for the next 5 years. This type of report is not produced for species that are not managed for hunting or trapping or for areas where there is no current or anticipated activity. Unit reports are reviewed and approved for publication by regional management coordinators and are available to the public via the Alaska Department of Fish and Game's public website.

This species management report and plan was reviewed and approved for publication by Jeff Selinger, Management Coordinator for the Division of Wildlife Conservation.

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Cover Photo: Brown bear with a cache at the Basher trailhead in Anchorage, AK. ©2016 ADF&G. Photo by Cory Stantorf.

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Purpose of this Report

This report provides a record of survey and inventory management activities for brown bear (*Ursus arctos*) in Game Management Unit 14C for the 5 regulatory years 2014–2018 and plans for survey and inventory management activities in the following 5 regulatory years 2019–2023. A regulatory year (RY) begins 1 July and ends 30 June (e.g., RY14 = 1 July 2014–30 June 2015). This report is produced primarily to provide agency staff with data and analysis to help guide game management but is also provided to inform the public of wildlife management activities taking place in Unit 14C. In 2016 the Alaska Department of Fish and Game's (ADF&G, the department) Division of Wildlife Conservation (DWC) launched this 5-year report to more efficiently report on trends and describe potential changes in data collection activities over the next 5 years. It replaces the brown bear management report of survey and inventory activities that was previously produced every 2 years.

I. RY14–RY18 Management Report

Management Area

Unit 14C is located in Southcentral Alaska and encompasses approximately 1,961 mi^2. The boundaries of Unit 14C closely approximate those of the Municipality of Anchorage (MOA), with the Knik River forming the norther border of the unit, the Chugach Mountains along the eastern border, and the Upper Cook Inlet (including Turnagain Arm) forming the western and southern boundaries. MOA is a mosaic of both undeveloped wildlife habitat and large areas of human development. Most of MOA is characterized by large tracts of natural lands, including Chugach State Park (CSP), Chugach National Forest, Anchorage Coastal Wildlife Refuge, and Joint Base Elmendorf-Richardson (JBER; a 131 mi^2 military base). However, even the highly developed portions of MOA support wildlife in vegetated greenbelts, stream corridors, and large municipal parks. As a result, bears occupy most areas of Unit 14C.

While brown bears are present across the entirety of Unit 14C, seasonal use of specific habitat types likely occurs in relation to availability of preferred forage items. In spring, brown bears largely forage on emergent vegetation present in subalpine meadows, avalanche chutes, and within snow-free patches of low-elevation shrubs and forests. Despite the majority of the unit consisting of mountainous glacial valleys, predominant habitat types include mixed forests (i.e., coniferous, and deciduous), dense conifer forests (e.g., *Tsuga* spp., *Picea* spp.), dense deciduous forests (e.g., *Betula* spp., *Populus* spp.), and subalpine shrubs (e.g., *Salix* spp., *Alnus* spp.). Moose also utilize many of these habitat types, and moose calves represent a primary food source for both brown and black bears during the months of May through July.

In addition to a variety of forest ecotypes, Unit 14C contains many riparian corridors with anadromous streams yielding runs of coho (silver), Chinook (king), sockeye, chum, and pink salmon. Coinciding with late summer salmon runs, berries, including low and highbush blueberry (*Vaccinium* spp.), low and highbush cranberry (*Vaccinium* spp., *Viburnum* spp.), crowberry (*Empetrum* spp.), raspberry (*Rubus arcticus* L. spp.), and devil's club berry (*Oplopanax horridus*) represent important forage items for brown bears as they enter hyperphagia prior to denning. Consequently, brown bears in Unit 14C have been observed

denning across a wide range of elevations and habitats; and predenning food items likely represent available forage near specific den locations.

Summary of Status, Trend, Management Activities, and History of Brown Bear in Unit 14C

Because Unit 14C has the highest human population in the entire state (approximately 40% of the Alaska human population), management of brown bears in Unit 14C involves a combination of population management through regulated hunting, public education on responsible living and recreating in bear country, participation in land management decisions affecting bear habitat, and responses to human-bear conflicts. Consequently, the Unit 14C brown bear population is affected by habitat fragmentation, urbanization, and associated human activities, despite most of the human development occurring within a relatively small portion of the unit. In particular, vehicle traffic along the Glenn Highway, running north from downtown Anchorage towards the western unit boundary, typically results in several bear-vehicle collisions each year. While the total number of bears struck by vehicles is significantly lower than the number of moose-vehicle collisions, this highway corridor has been shown to negatively affect genetic diversity of moose on either side of the highway (Wilson et al. 2015), and future large-mammal crossing points should be considered where feasible.

Regulated brown bear hunting in Unit 14 has been in place since before statehood through the Alaska Game Commission and continuously since the creation of the Division of Wildlife Conservation in 1960. However, in 1973 the Alaska Board of Fish and Game created individual Game Management Units (GMUs), splitting Unit 14C and the Anchorage area from Units 14A and 14B. In RY03, the Alaska Board of Game (BOG) aligned all brown bear hunting seasons in Unit 14C to take place between 1 September and 31 May of each year. In RY07, a new spring (1 January–31 May) brown bear drawing permit (DB470) was created for CSP, which in RY09 was further expanded to include the Eagle River drainage above Icicle Creek. Furthermore, a new archery drawing permit (DB468) was created in RY09 to provide additional opportunity within the Eklutna Lake Management Area of CSP. As of RY19, all fall brown bear hunting seasons were aligned to start on 1 September of each year and the bag limit was modified to 1 bear every regulatory year. Despite providing more liberal harvest opportunities, most of the brown bear hunting in Unit 14C exists outside of the Anchorage Management Area, where a limited trail network provides access to more remote portions of the unit. Consequently, hunter harvest has been relatively low and stable across the past 2 reporting periods (RY10–RY18).

To date, the largest study of the Unit 14C brown bear population took place between 2005 and 2006 with the intent of estimating brown bear numbers, and identifying habitat use, food selection, and movement corridors on JBER lands (Farley et al. 2008). Brown bears were captured using culvert barrel traps and helicopter darting and fitted with GPS neck collars to identify habitat use and movement patterns. Through DNA analysis of bear hair collected from captured bears and hair snares deployed throughout the study area, this research yielded a minimum number of 36 brown bears within the study area and identified the primary movement corridors as the anadromous streams (e.g., Ship Creek, Campbell Creek, and Eagle River) flowing from the Chugach Mountains down into the Anchorage Bowl.

Because of the proximity of brown bears and major human population centers within Unit 14C, most human-bear conflicts are caused by negligent storage of garbage, birdseed, and pet or livestock food. Consequently, ADF&G management staff and enforcement agency personnel devote a large portion of the summer and fall towards mitigating human-bear conflicts in Unit 14C.

Management Direction

Existing Wildlife Management Plans

Direction for the management of Unit 14C brown bear was outlined in the Southcentral Alaska Wildlife Management Plan (ADF&G 1976) and has been reviewed and modified through public comments, staff recommendations, and Board of Game actions over the years. A record of these changes can be found in the division's management report series. The plan portion of this report contains the current management plan for brown bear in Unit 14C.

Goals

The management goals in Unit 14C are to maintain a healthy brown bear population while providing an opportunity to hunt brown bears under aesthetically pleasing conditions and to provide an opportunity to enjoy brown bears through viewing and photography.

Codified Objectives

Amounts Reasonably Necessary for Subsistence Uses

Not applicable.

Intensive Management

None.

Management Objectives

1) Provide an opportunity to view and photograph brown bears.

2) Work with residents to reduce bear attractants and defense of life or property (DLP) kills.

3) Support a stable brown bear population by maintaining a mean annual human-caused mortality of up to 9 bears, with no more than 3 females > 2 years of age.

Management Activities

1. Population Status and Trend

Several factors preclude the employment of aerial survey techniques to determine population status and trend. These factors include but are not limited to terrain, foliage density, canopy density, and air space classification. Given these factors, Unit 14C will likely never be suitable

for aerial based population survey techniques. Until new ground or aerial techniques are developed, the monitoring of hunter harvest and other mortality (roadkill, agency kills, and defense of life or property kills [DLP]) will continue to be used as an index of the population status of brown bears in Unit 14C. Using a combination of brown bear captures and DNA hair snares, Farley et al. (2008) identified a minimum number of 36 brown bears using salmon streams within Elmendorf Air Force Base and Fort Richardson (now known as Joint Base Elmendorf-Richardson or JBER), the Eagle River drainage, and portions of the Anchorage Bowl. This was a minimum count, not a population estimate, but it does give an indication of density of brown bears that can occur seasonally in parts of Unit 14C.

2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1. Monitor mortality and harvest in Unit 14C annually.

Data Needs

Monitoring harvest data provides management biologists with a rough index of population status and a method to determine if we are meeting management objectives.

Methods

- We monitored brown bear mortality through hunter harvest reports. Skull measurements, age, and location data were collected at the time of sealing.
- We monitored all nonhunting mortality (vehicle, railroad strikes, DLPs, and agency kills) using department reporting requirements in concert with records from the Alaska Department of Public Safety and the Alaska Railroad.

Season and Bag Limit

Table 1. Season dates and bag limits for brown bear in Unit 14C, Alaska from regulatory years 2014–2018.

Area (permit no.)	Season date	Bag limit
Eklutna Management Area (DB468)	Day after Labor Day–31 May	1 Bear
Chugach State Park Management Area (DB470)	Day after Labor Day–31 May	1 Bear
Remainder of Unit 14C (General Season)	Day after Labor Day–31 May	1 Bear
JBER[1], Anchorage, and Birchwood Management Areas, remainder of Eklutna Lake and Eagle River Management Areas	No open season	–

[1] Joint Base Elmendorf-Richardson.

Results and Discussion

During RY14–RY18, there were 2 drawing permit hunts and a general season hunt for brown bear within Unit 14C.

Harvest by Hunters

During RY14–RY18, hunters harvested an average of 3 brown bears each year in Unit 14C. The total yearly harvest did not exceed 2 bears; except in RY17 when 5 brown bears were taken (Table 2). The yearly female brown bear harvest never exceeded 2 bears during any year within this reporting period (range 1–2; RY14–RY18).

Permit Hunts

Drawing permit hunt DB468 resulted in 1 brown bear harvested during this reporting period (RY14–RY18; Fig. 1). Several factors likely contribute to the low harvest success of this hunt, including the weapon restriction requirement (bow and arrow only) and the relatively small hunt area for this permit.

Hunters harvested a total of 1 brown bear per year under drawing permit DB470 during every year of RY15–RY18; no brown bears were harvested in RY14 (Table 2, Fig. 1).

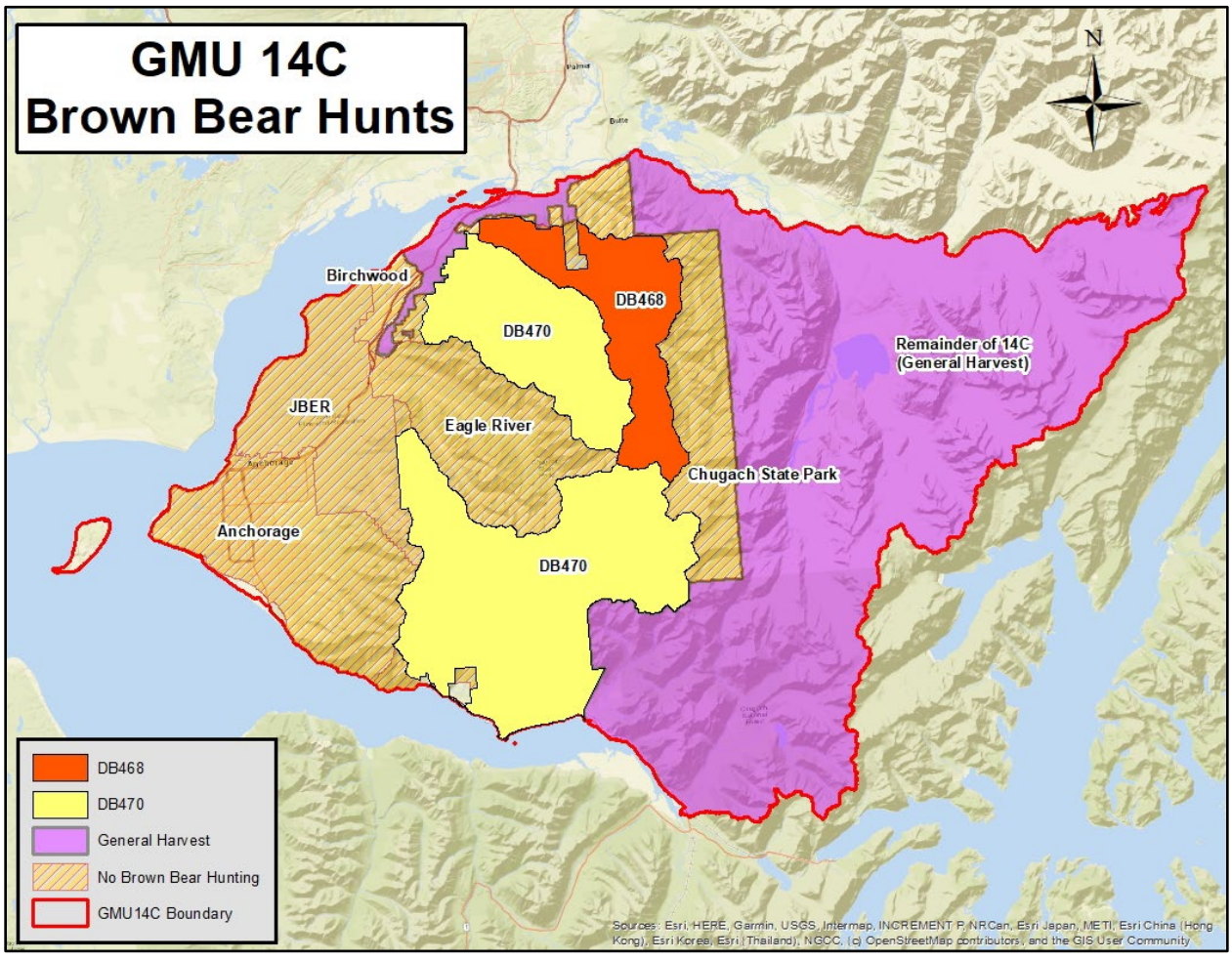

Figure 1. A map of the Unit 14C brown bear hunt areas, including general season, DB468, and DB470 drawing permit hunts, Southcentral Alaska.

Table 2. Harvest and hunter participation for regulatory years 2014–2018 for brown bear drawing and general season hunts in Unit 14C, Southcentral Alaska.

Area/hunt number	Regulatory year	Permits/tags issued	No. of hunters	Percent success	No. of females harvested	Total harvest[a]
Eklutna Lake Mgmt. Area DB468	2014	20	8	–	0	0
	2015	20	5	–	0	0
	2016	20	6	17%	0	1
	2017	20	8	–	0	0
	2018	20	10	–	0	0
Chugach State Park Mgmt. Area DB470	2014	15	6	–	0	0
	2015	15	5	20%	1	1
	2016	15	8	13%	1	1
	2017	15	11	9%	0	1
	2018	15	8	13%	1	1
Remainder of 14C General Season[b]	2014	–	–	–	1	2
	2015	–	–	–	0	1
	2016	–	–	–	0	0
	2017	–	–	–	2	4
	2018	–	–	–	0	1

[a] Total does not include bear of unknown sex.

[b] Hunters are not required to report whether they hunted if they did not harvest, so there is no percent success calculation.

General Season Hunt

Because hunters are not required to obtain harvest tickets to hunt brown bear in the huntable portion of Unit 14C that is outside of the drawing permit hunt boundaries (Fig. 1), we cannot determine hunter effort. Successful hunters harvested an average of 2 brown bears per year during RY14–RY18. General season hunters harvested 0–2 female brown bears during RY14–RY18 (Table 2, Fig. 1).

Hunter Residency and Success

Resident hunters comprised 92% (75 of 82) of the brown bear hunters during this reporting period (RY14–RY18; Table 3). Overall, there was a 16% average success rate among brown bear hunters during RY14–RY18 in Unit 14C.

Table 3. Hunter residency for all Unit 14C brown bear hunts, regulatory years 2014–2018, Alaska.

Regulatory year	Successful			Unsuccessful			Total hunters[a]
	Resident	Nonresident	Total (%)	Resident	Nonresident	Total (%)	
2014	2	0	2 (12)	14	0	14 (88)	16
2015	1	1	2 (20)	8	0	8 (80)	10
2016	1	1	2 (14)	11	1	12 (86)	14
2017	4	1	5 (22)	18	0	18 (78)	23
2018	0	2	2 (10)	16	1	17 (90)	19
Total	8	5	13	67	2	69	82

[a] Only represents information from draw permit hunters.

Other Mortality

During RY14–RY18, reported nonhunting mortality averaged 8 brown bears per year, with the highest total of 12 nonhunting mortalities reported in RY18 (Table 4). In RY18, there were 3 brown bears killed after the fatal attack off Hiland Road in Eagle River.

Table 4. Reported nonhunting brown bear mortality from Unit 14C, regulatory years 2014–2018, Alaska.

Regulatory year	DLP[a]	Agency kill	Vehicle	Other[b]	No. females	Total
2014	1	1	2	0	3	4
2015	2	1	2	1	1	6
2016	4	1	3	1	4	9
2017	0	7	0	0	2	7
2018	3	7	1	1	6	12
Total	10	17	8	3	16	38

[a] Defense of life or property.

[b] Includes known railroad strikes, reported illegal kills, reported natural kills, and unknown causes of death.

Alaska Board of Game Actions and Emergency Orders

2014–2017: No BOG action.

2018: At the RY18 Southcentral meeting (March 2019), in response to an ADF&G proposal, BOG changed all seasons in Unit 14C (including brown bear seasons DB468, DB470, and general season) that began "Day after Labor Day" to begin 1 September. This change went into effect in RY19.

Recommendations for Activity 2.1

Continue.

3. Habitat Assessment-Enhancement

No habitat assessment or enhancement projects for brown bear were conducted in Unit 14C during RY14–RY18.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

As the population of Anchorage continues to grow and development expands into green space, open communication between shareholders and landowners is becoming more and more critical. The Anchorage Bear Committee (ABC) was established by ADF&G in 2002 to help bring shareholders and agencies that operate in and around the Anchorage bowl together to build working relationships which help mitigate human-bear conflicts. This committee should be continued.

The availability of trash and other attractants for bears, coupled with a continued lack of interest from some members of the public to secure such attractants has perpetuated the problem of human-bear conflicts within the city limits. This continues to result in bears being drawn into close proximity to houses, schools, and neighborhoods, which results in human-bear conflicts. In 2008, as an addition to ABC, ADF&G organized the Anchorage Bear Education Committee to help maximize the public benefits of bears while minimizing human-bear conflicts. Along with ADF&G, the education committee has developed web pages, brochures, classroom presentations, bear safety presentations, bear awareness seminars, bear-resistant trash container demonstrations, electric fence setup demonstrations, coloring books, bear safety videos, and other informational and educational activities and products to promote safe activities, minimize food conditioning of bears, and encourage land management practices compatible with bear conservation and public safety. Department staff and Education Committee staff from other agencies provide educational opportunities throughout the year on being "bear aware" and a substantial amount of time is invested in maintaining public safety while bears are active within MOA. Many Anchorage residents are proficient at living in bear country, yet there are always new people moving to the area, and some longtime residents who seem unwilling to change their behavior with regard to attractants. New approaches for targeting a larger audience with bear safety messages should be identified to better reach the public.

Anchorage staff have historically entered reports of wildlife conflicts on datasheets, which were only intermittently entered into various databases. During RY14–RY18, a statewide wildlife

conflict database was implemented, allowing for much better tracking of wildlife conflicts. This system should be continued and improved. One improvement would be to modify the system so that maps could automatically be generated based on parameters entered by staff. So far, staff have been exporting data into ArcGIS and producing custom maps when needed, but real time mapping of this information would allow human-bear conflict "hot spots" to be identified on a more frequent basis and help focus the limited department resources on bear awareness education and conflict management in specific problem areas.

While multiple factors contribute to human-bear conflicts, the primary driver for human-bear conflicts in Anchorage is the amount of unsecured trash that is available to bears. In June 2019, MOA passed a new ordinance aimed at minimizing human-bear conflicts. This ordinance improved trash handling in a number of ways, including giving the Anchorage Assembly the ability to designate certain areas of town as Secure Trash Zones (STZs), in which all residential roll carts and dumpsters are required to be bear-resistant. In addition, under the new ordinance, only bear-resistant roll carts can be placed on the curb for collection the night before pickup. Regular carts cannot be placed out for collection until the morning of pickup (reducing the amount of time carts are on the curb and available to bears). To help change the public perspective on trash and how to safely handle trash in bear country, MOA should continue to evaluate and strengthen current trash ordinances and ensure that adequate enforcement measures are in place. While mandating bear-resistant tipper carts would be the best-case scenario for the entire MOA, the department recognizes that there could be issues (e.g., difficulty in obtaining and maintaining enough bear-resistant carts for the entire municipality) with such a mandate. We recommend that areas where the department is consistently documenting human-bear conflicts be classified as STZs by MOA.

Stricter animal fencing requirements should be implemented to help prevent bears from accessing livestock and poultry on private property. Currently within MOA there is no requirement for property owners to put up and maintain an electric fence around livestock and poultry enclosures. This has resulted in frequent calls about bears accessing backyard chickens, ducks, or livestock and occasionally results in bears being killed if deemed too great a threat to public safety. We recommend that the MOA address this issue through an amendment to the current policy on livestock and poultry, by requiring electric fences be placed around their pens and coops.

Data Recording and Archiving

- Brown bear harvest reports and sealing records are stored in ADF&G's Wildlife Information Network (WinfoNet) database.

- Management brown bear capture data is stored in the WinfoNet database. Field datasheets are stored in the Anchorage Region II ADF&G building in office 2004.

- Reports of brown bear (and other wildlife) conflicts are recorded and stored in the Wildlife Encounter database (https://www.adfg.alaska.gov/index.cfm?adfg=reportwildlifeencounter.main). Members of the public can enter reports on our website and staff enter reports and record actions taken using the staff entry form on our intranet.

Agreements

None.

Permitting

None.

Conclusions and Management Recommendations

It is unclear if the annual human-caused mortality objective was exceeded during RY14–RY16, as age was not determined for all female brown bears killed under roadkill, agency, DLP, or illegal take circumstances. However, when including both harvest and nonhunting mortality events, more than 9 brown bears, and more than or equal to 3 females > 2-years old were killed in both RY17 and RY18 (Objective 3; Tables 2 and 4). Moreover, total human-caused mortality increased annually during RY14–RY18. Unfortunately, we have no data concerning brown bear population numbers, vital rates, or population dynamics for Unit 14C. However, recent studies suggest that brown bears can be sustainably harvested at higher rates than previously recommended, and that brown bear populations can remain stable when adult females and their dependent cubs (i.e., cubs < 2-years old) are protected from human-harvest (Brockman et al. 2020).

As part of a brown bear movement study conducted within Unit 14C during 2005–2007, Farley et al. (2008) identified 36 brown bears using salmon streams within JBER, the Eagle River drainage, and portions of the Anchorage Bowl. While this study did not include captured individuals or DNA sampling from the entirety of Unit 14C, it revealed strong evidence of consistent movement patterns along salmon streams such as Ship Creek and both forks of Campbell Creek, along the JBER bluff and Eagle River Flats (Farley et al. 2008). This study also confirmed that the Glenn Highway significantly affects brown bear movement within the Anchorage Bowl and vehicle mortality events were reported in all but 1 regulatory year (RY17) of this reporting period. Furthermore, while all bears within MOA and particularly within the Anchorage Bowl may use human trails from time to time, individual variation suggests some bears may be more reliant on paved and unpaved human trails than others (Farley et al. 2008). As trail use and public interest in creation of new trails continues to increase within the MOA, new habitat development will likely increase the potential for human-bear conflicts within Unit 14C.

Nonetheless, despite identifying important movement corridors from bears captured and collared on the western half of Unit 14C, we still do not fully understand the movements of bears between the urban-wilderness interface across the entirety of MOA within Unit 14C. Consequently, until new population demographic data is obtained, we must rely on harvest numbers and nonhunting mortality to assess population trends in Unit 14C. We recommend continuation of the collection of age data of harvested individuals so that we can evaluate the type of harvest occurring in Unit 14C and possibly assess the impacts of harvest on the brown bear population.

Most human-bear conflicts in Unit 14C are related to improper storage of garbage, pet food, livestock feed, and unsecured livestock (i.e., chickens). In the 2015 Unit 14C management report

for brown bear, changes to the management of trash and the availability of bear-resistant cans and dumpsters from waste service providers were identified as critical methods of reducing human-bear conflicts (Saalfeld and Battle 2015). We recommend that the department work with MOA to continue to improve trash ordinances in order to help modify the refuse handling behavior of the public by encouraging more people to rent bear-resistant trash cans and dumpsters. While not within this reporting period, the communities of Girdwood (2019), and most recently Eklutna (2020), were converted into Secure Trash Zones requiring all residents in those areas to have bear-resistant trash cans and dumpsters. We support these trash management designations and recommend additional areas within MOA be considered for similar designations.

Education and enforcement of state wildlife regulations are critical steps toward achieving the goal of reducing human-bear conflicts in Unit 14C. We recommend that ADF&G continue to educate the public about bear safety and how to avoid human-bear conflicts in and around the Anchorage bowl. We also recommend that ADF&G and the Alaska Wildlife Troopers, as well as other enforcement agencies like the Anchorage Police Department, JBER Conservation Enforcement, and Chugach State Park continue collaborative efforts focused on the goal of minimizing the number of human-bear conflicts in Unit 14C.

II. Project Review and RY19–RY23 Plan

Review of Management Direction

MANAGEMENT DIRECTION

We are implementing 2 new management objectives with this plan. The first involves conflict resolution: "Mitigate human-brown bear conflicts through education, research, and management activities to promote public safety." In comparison to the prior objective "Work with residents to reduce bear attractants and defense of life or property (DLP) kills," we consider the new objective to be more reflective of the integrated conflict strategies currently in use.

The second new management objective focuses on harvest: "Maintain the population at a level that provides opportunities to hunt and view brown bears, while also minimizing conflicts with humans." In comparison to the old harvest objective, "Support a stable brown bear population by maintaining a mean annual human-caused mortality of up to 9 bears, with no more than 3 females > 2-years of age," the new objective reflects a more sustainable approach for tracking both harvest and nonhunting mortality of brown bears in Unit 14C. Furthermore, we expect this change to provide more flexibility for maintaining recent harvest trends, while also allowing for additional nonhunting mortality during high human-bear conflict years.

Without unit-specific demographic data to inform management decisions, we must rely on harvest, roadkill, and DLP information to define sustainable harvest practices. Because harvest was consistently low and stable across RY14–RY18, but nonhunting mortality included a higher number of bears with a high proportion of females, we will manage brown bears for a variety of user groups (i.e., hunters, wildlife photographs, etc.) and closely monitor the number of females harvested or killed through nonhunting mortality during RY19–RY23.

GOALS

The management goals in Unit 14C are to maintain a healthy brown bear population while providing an opportunity to hunt brown bears under aesthetically pleasing conditions and to provide an opportunity to enjoy brown bears through viewing and photography.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

Not applicable.

Intensive Management

None.

MANAGEMENT OBJECTIVES

The RY14–RY18 management objectives were as follows:

1) Provide an opportunity to view and photograph brown bears.

2) Work with residents to reduce bear attractants and defense of life or property (DLP) kills.

3) Support a stable brown bear population by maintaining a mean annual human-caused mortality of up to 9 bears, with no more than 3 females > 2 years of age.

Due in part to the lack of population vital-rate data on brown bears in Unit 14C, the new RY19–RY23 management objectives are as follows:

1) Provide an opportunity to view and photograph brown bears.

2) Mitigate human-brown bear conflicts through education, research, and management activities to promote public safety.

3) Maintain the population at a level that provides opportunities to hunt and view brown bears, while also minimizing conflicts with humans.

REVIEW OF MANAGEMENT ACTIVITIES

1. Population Status and Trend

Several factors preclude the employment of aerial survey techniques to determine population status and trend. These factors include but are not limited to terrain, foliage density, canopy density, and air space classification. Given these factors, Unit 14C will likely never be suitable for aerial-based population survey techniques. Until new ground or aerial techniques are developed, monitoring of hunter harvest and other mortality (roadkill, agency kills, and defense

of life or property) continues to provide our best information on the brown bear population in Unit 14C.

2. Mortality-Harvest Monitoring

ACTIVITY 2.1. Monitor mortality and harvest in Unit 14C annually.

Data Needs

No change from prior reporting period.

Methods

No change from RY14–RY18 reporting period.

3. Habitat Assessment-Enhancement

No change from RY14–RY18 reporting period.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

No change from RY14–RY18 reporting period.

Data Recording and Archiving

- Brown bear harvest reports and sealing records are stored in the ADF&G's Wildlife Information Network (WinfoNet) database.
- Management brown bear capture data is stored in the WinfoNet database. Field datasheets are stored in the Anchorage Region II ADF&G building in office 2004.
- Reports of brown bear (and other wildlife) conflicts are recorded and stored in the Wildlife Encounter database (https://www.adfg.alaska.gov/index.cfm?adfg=reportwildlifeencounter.main). Members of the public can enter reports on our website and staff enter reports and record actions taken using the staff entry form on our intranet.

Agreements

None.

Permitting

None.

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