

Furbearer Management Report and Plan, Game Management Unit 14C:

Report Period 1 July 2012–30 June 2017, and

Plan Period 1 July 2017–30 June 2022

Kyle Smith



Furbearer Management Report and Plan, Game Management Unit 14C:

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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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Purpose of this Report

This report provides a record of survey and inventory management activities for furbearers in Game Management Unit 14C for the 5 regulatory years 2012–2016 and plans for survey and inventory management activities in the next 5 regulatory years, 2017–2021. 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 and record agency efforts but is also provided to the public to inform it of wildlife management activities. 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 report more efficiently on trends and to describe potential changes in data collection activities over the next 5 years. It replaces the furbearer management report of survey and inventory activities that was previously produced every 3 years.

I. RY12–RY16 Management Report

Management Area

Unit 14C (Fig. 1) is located in Southcentral Alaska and encompasses approximately 1,912 mi². The boundaries of Unit 14C closely approximate those of the Municipality of Anchorage (MOA). MOA is a mosaic of wildlife habitat and human development. Most of MOA is characterized by large tracts of natural lands, including Chugach State Park, Chugach National Forest, the Anchorage Coastal Wildlife Refuge, and Joint Base Elmendorf-Richardson. Furbearer habitat features within 14C include rugged mountains, spruce forests, and coastal wetlands.

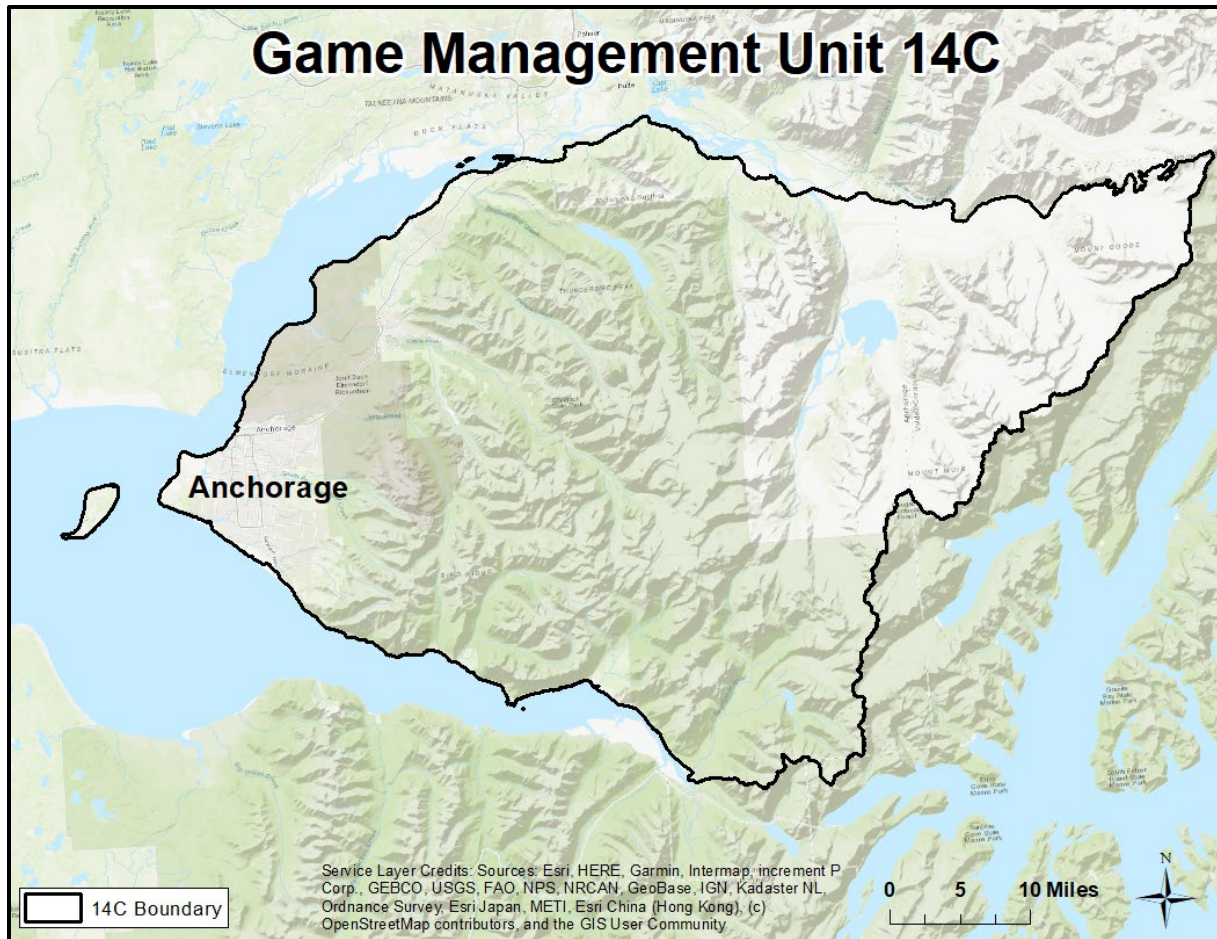


Figure 1. Game Management Unit 14C boundaries, Southcentral Alaska.

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

Unit 14C supports a wide array of furbearer species, including beaver (*Castor canadensis*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), lynx (*Lynx canadensis*), marten (*Martes americana*), mink (*Neovison vison*), muskrat (*Ondatra zibethicus*), river otter (*Lontra canadensis*), weasel or ermine (*Mustela* spp.), and wolverine (*Gulo gulo*). Density of individual species is variable, depending upon a variety of ecological factors and levels of harvest. Historical information on population status and trends is mostly anecdotal. Harvest information for beavers, lynx, marten, river otters, and wolverines is monitored through the sealing process. Additional information on trapping conditions, trapper effort, and trends in furbearer abundance and distribution are collected using a yearly statewide trapper questionnaire. Trapper questionnaire reports (i.e., harvest during regulatory years) were written for all years during the reporting period except RY14; however, the report does not specifically address just Unit 14C in most cases. Habitat for these furbearer species can be found throughout urban municipal parks, Chugach State Park, Chugach National Forest, and other state and military lands (Saalfeld and Battle 2013). Access to hunting and trapping areas is primarily via foot, as many public lands restrict motorized travel, which impacts hunter and trapper participation and effort (Saalfeld and

Battle 2013). In addition, trapping and hunting are prohibited or severely limited in the Anchorage Management Area (approximately 157 mi²) which includes the metropolitan area of Anchorage, the largest area of human development (Saalfeld and Battle 2013).

Beavers can be found throughout Unit 14C in most major river and creek drainages including the Knik river on the northern border and within the Twentymile River drainage on the southern border. Harvest fluctuates on a yearly basis due to fur prices, trapper interest, and nuisance reports.

Coyote densities are unknown in Unit 14C but anecdotal reports of encounters and sightings from the public indicate they are found throughout the unit including within the Anchorage bowl. Harvest and trapper effort are also unknown, with no reported harvest from RY12–RY16 in the ADF&G Trapper questionnaire statewide annual reports (Parr 2016, Parr 2017, Parr 2018, Schumacher 2013).

Ermine can be found throughout most of Unit 14C; however, actual population densities have not been recorded or studied. Ermine are most commonly seen and reported around outbuildings, such as sheds and wood piles.

Lynx abundance likely decreased during RY12–RY16 based on limited reports of sightings from the public and the cyclical population decline of local snowshoe hare populations. In 1987 the Alaska Board of Game (BOG) adopted the lynx tracking harvest strategy (Golden 1999) to manage lynx trapping seasons in several units in Interior and Southcentral Alaska that are connected by the road system. Under this system, BOG delegated authority to ADF&G to close, shorten, or lengthen lynx hunting and trapping seasons within a set framework based on current population trends without going through the BOG process. This strategy led to shortened seasons in RY12 and RY13, while RY14–RY16 seasons were closed.

Marten population densities in Unit 14C are unknown but are believed to be stable. Over the course of the reporting period, from RY12–RY16, the annual harvest of marten was 10 per year which is below the 10-year average of 16 marten per year. The cause of the decline in harvest is unknown and may include many factors including fur prices, trapper participation, and weather conditions. Unit 14C is generally considered marginal marten habitat due to the high level of human settlement disturbing continuous coniferous forests (Saalfeld and Battle 2013).

Little is known about mink populations in Unit 14C. Given the ample waterways throughout the unit, there is suitable habitat for this species.

Muskrats continue to be found throughout the lowland portions of Unit 14C, primarily along the northern and western boundaries away from the Chugach mountains. Reported harvest was variable but present each year on ADF&G Trapper Questionnaire Reports (Parr 2016, Parr 2017, Parr 2018, Schumacher 2013).

Red foxes can be found throughout Unit 14C, but population densities are unknown. Anecdotal reports are provided from members of the public and received by biologists and staff at the Region II ADF&G office in Anchorage. During RY12–RY16, no harvests were reported in the ADF&G Alaska Trapper Reports (Parr 2016, Parr 2017, Parr 2018, Schumacher 2013).

The North American river otter population in Unit 14C is unknown, but given the many lakes, streams, and rivers throughout the unit there appears to be suitable habitat. The annual harvest of otters remains stable at 3 per year, which is consistent with long term averages.

Wolverines are found throughout much of the mountainous terrain in the Unit. Harvest levels for this reporting period remain similar to previously reported harvest in the past of 1 wolverine per year (Saalfeld and Battle 2013). The last complete wolverine Sample-Unit Probability Estimator (SUPE)-based survey for Unit 14C was conducted in 2008. It generated an overall Unit 14C population estimate of 18 wolverines, which yielded a density estimate of 5 wolverines/1,000 km² (4.9 wolverines/386 miles²; Earl Becker, Research Coordinator, and Howard Golden, Furbearer Research Biologist, ADF&G, Anchorage, Results of recent wolverine survey of GMU 14 C memorandum, 16 April 2008). During RY12–RY16 a collaborative project to research wolverine abundance in relation to helicopter-skiing permit areas was completed. As part of the study, a 2009 partial SUPE in the upper part of Turnagain Arm in Unit 14C revealed a density estimate of 5.0 wolverines/1,000 km² (Golden et al. 2017).

Management Direction

EXISTING WILDLIFE MANAGEMENT PLANS

- Direction for the management of Unit 14C furbearers was outlined in the Southcentral Wildlife Management Plan, specifically in the Cook Inlet Furbearer Management Plan (ADF&G 1976). Over the years, however, the Board of Game has modified this plan through regulatory action.
- Living with Wildlife in Anchorage: A Cooperative Planning Effort (ADF&G 2000).

GOALS

The management goals for Unit 14C are to maintain stable populations of furbearer species and provide for both consumptive and nonconsumptive uses such as trapping, hunting, viewing, and photographing.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

All furbearers named in 5 AAC 99.025(13) have a positive customary and traditional (C&T) use finding. The amounts necessary for subsistence (ANS) for furbearers was set to 90% of the harvestable portion.

Intensive Management

Not applicable.

MANAGEMENT OBJECTIVES

None.

MANAGEMENT ACTIVITIES

1. Population Status and Trend

ACTIVITY 1.1. Record observations of furbearers seen incidentally during research and/or surveys for other species and anecdotal reports from the public.

Data Needs

Incidental observations are insufficient for estimating the population or detecting changes that would trigger management action but may be considered as an index to current population trends. Statistical estimates of furbearers derived from a sample-based estimator including a measure of the precision would be needed to detect change in the population. Anecdotal reports are tracked to assess any needs for mitigation of conflict animals.

Methods

GPS locations and characteristics were recorded for furbearer sign observed during aerial survey flights. Most observations occurred during moose surveys or Dall sheep research, when sightability increased due to favorable snow conditions. Anecdotal reports were recorded to the maximum level of detail available.

Results and Discussion

A new online wildlife reporting system is now available that allows the public to report sightings of furbearers along with their location to ADF&G staff. This allows us to better track furbearer reports throughout the year. These reports include contact information which allows ADF&G staff to follow-up with the person that reported the sighting.

Recommendations for Activity 1.1.

Continue to actively seek information from trappers and others that observe furbearers.

2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1. Monitor harvest through sealing records.

Data Needs

Monitoring harvest data provides management biologists with a rough index of population status.

Methods

ADF&G collected harvest data by sealing hides of beaver, lynx, marten, river otter, and wolverine taken by trappers and hunters. Sealers recorded location, date of harvest, method of take, transportation mode, and sex. In addition, lynx, otter, and beaver hides were measured. Sealing must occur by either an authorized ADF&G staff member or a state-appointed sealer

within 30 days of the close of the season. These data are entered into ADF&G's Wildlife Information Network (WinfoNet) database. Harvest data were summarized by regulatory year.

Hunting Season and Bag Limit

Species	Regulatory year(s)	Season	Bag limit
Coyote	2012	10 Aug–25 May	No limit
	2013–2016	1 Jul–30 Jun	No limit
Red fox	2012–2016	1 Sep–15 Feb	2 per season
Lynx	2012–2013	1 Dec–31 Jan	2 per season
	2014–2016	No open season	
Wolverine	2012–2016	1 Sep–31 Jan	1 per season

Trapping Season and Bag Limit

Species	Season	Bag Limit
Beaver (in listed open areas)	1 Dec–15 Apr	20 per season
Coyote	10 Nov–28 Feb	No limit
Red fox (within Chugach State Park)	10 Nov–28 Feb	1 per season
Red fox (except Chugach State Park)	10 Nov–28 Feb	No limit
Lynx 2012–2013	15 Dec–31 Jan	No limit
Lynx 2014–2016	No open season	
Marten	10 Nov–31 Dec	No limit
Mink/weasels	10 Nov–31 Jan	No limit
Muskrat	10 Nov–15 May	No limit
North American river otter	10 Nov–28 Feb	No limit
Wolverine	10 Nov–31 Jan	2 per season

Results and Discussion

Harvest by Hunters-Trappers

BEAVER

Harvest during this reporting period (RY12–RY16) was highly variable, ranging from 5–43 beavers per regulatory year (Table 1). The average harvest for this reporting period of 22 beavers per year is slightly higher than the most recent average of 18 beavers from RY07–RY16. Traps

were the most common method of take. Beavers reported as shot were killed under nuisance permits for Joint Base Elmendorf–Richardson (JBER), U.S. Department of Agriculture (USDA)-Wildlife Services, or ADF&G personnel.

Table 1. Unit 14C beaver harvest from fur sealing records, regulatory years 2012–2016, Alaska.

Regulatory year	Reported harvest			Method of take			Total harvest	No. of successful trappers and hunters
	Male	Female	Unk	Trap/snare	Shot ^a	Unk		
2012	1	4	0	5	0	0	5	2
2013	2	1	18	20	1	0	21	6
2014	12	13	18	35	6	2	43	10
2015	2	1	29	24	8	0	32	8
2016	2	2	6	7	3	0	10	6
2012–2016 Average	4	4	14	18	4	<1	22	6

Note: Averages are rounded to the nearest whole number.

^a Taken under conditions of a nuisance permit issued by ADF&G.

LYNX

Harvest remained very low in Unit 14C during RY12–RY16 with only 6 lynx taken, all during RY13 (Table 2). The population is believed to have reached its cyclic peak from 2012–2013 and then began its decline due to limited amounts prey species, primarily snowshoe hare. The average is currently 1 lynx per year from RY07–RY16.

Table 2. Unit 14C lynx harvest from fur sealing records, regulatory years 2012–2016, Alaska.

Regulatory year	Age composition				Method of take				Total harvest	No. of Successful hunters and trappers
	Juv ^a (%)	Adult	Unk		Trap or snare	Shot	Roadkill	Unk		
2012	0 (0)	0	0	0	0	0	0	0	0	0
2013	0 (–)	3	3	3	5	1	0	0	6	5
2014 ^b	–	–	–	–	–	–	–	–	–	–
2015 ^b	–	–	–	–	–	–	–	–	–	–
2016 ^b	–	–	–	–	–	–	–	–	–	–
2012–2016 Average	0 (–)	2	2	2	3	<1	0	0	3	3

Note: Averages are rounded to the nearest whole number.

^a Lynx measuring ≤ 34 inches in length.

^b Season closed.

MARTEN

Harvest during RY12–RY16 ranged from a low of 2 marten in RY14 to a high of 19 marten during RY15 (Table 3). Harvest averaged 10 marten per regulatory year, which was lower than the average of 16 marten per regulatory year from RY07–RY16. Marten prices were high during RY11 and RY12, then declined during RY13–RY16, possibly leading to lower trapping effort.

Table 3. Unit 14C marten harvest from fur sealing records, regulatory years 2012–2016, Alaska.

Regulatory year	Reported harvest				Method of take			Total successful	
	Male	Female	(%)	Unk	Trap or snare	Shot	Unk	Harvest	Trappers and hunters
2012	3	4	(57)	0	7	0	0	7	3
2013	3	5	(63)	0	8	0	0	8	2
2014	0	0	(–)	2	2	0	0	2	1
2015	2	1	(–)	16	19	0	0	19	3
2016	8	0	(–)	5	12	1	0	13	3
2012–2016 Average	3	2	(60)	5	10	<1	0	10	2

Note: Averages are rounded to the nearest whole number.

RIVER OTTER

Average harvest during RY12–RY16 has remained stable at 3 otters per regulatory year (range 0–5 otters; Table 4) compared to the average of 3 otters during RY07–RY16.

Table 4. Unit 14C North American river otter harvest from fur sealing records, regulatory years 2012–2016, Alaska.

Regulatory year	Reported harvest			Method of take			Total successful	
	Male	Female	Unk	Trap or snare	Shot	Unk	Harvest	Trappers and hunters
2012	2	1	0	3	0	0	3	2
2013	0	3	0	3	0	0	3	3
2014	3	2	0	4	0	1	5	3
2015	3	2	0	5	0	0	5	3
2016	0	0	0	0	0	0	0	0
2012–2016 Average	2	2	0	3	0	<1	3	2

Note: Averages are rounded to the nearest whole number.

WOLVERINE

Harvest during RY12–RY16 ranged from 0–4 wolverines per regulatory year (Table 5). The average harvest was 2 wolverines per year from RY07–RY16.

OTHER SPECIES

Limited incomplete harvest data can be found in the Trapper Questionnaire Statewide Annual Report series by regulatory year for coyote, red fox, mink, muskrat, and weasels due to the absence of sealing requirements and minimal harvest and effort (Parr 2016, Parr 2017, Parr 2018, Schumacher 2013).

Other Mortality

ADF&G receives occasional reports of roadkill lynx or coyote.

Table 5. Unit 14C wolverine harvest from fur sealing records, regulatory years 2012–2016, Alaska.

Regulatory year	Reported harvest				Method of take			Total harvest	Successful trappers/hunters
	Male	Female	(%)	Unk	Trap or snare	Shot	Unk		
2012	1	1	(–)	1	3	0	0	3	3
2013	1	3	(75)	0	4	0	0	4	3
2014	0	0	(0)	0	0	0	0	0	0
2015	0	0	(0)	0	0	0	0	0	0
2016	1	0	(0)	0	1	0	0	1	1
2012–2016 Average	1	1	(–)	<1	2	0	0	2	1

Note: Averages are rounded to the nearest whole number.

Alaska Board of Game Actions and Emergency Orders

- RY12–RY13 lynx seasons were changed by emergency order (EO) to 1 Dec–31 Jan for hunting and 15 Dec–31 Jan for trapping (EO 02-01-12).
- Beginning in RY13 there was no closed hunting season and no bag limit for coyote.
- Lynx seasons for RY14–RY16 were closed for both hunting and trapping (EO 02-02-14, EO 02-02-15, 02-02-16).

Recommendations for Activity 2.1.

Continue to passively monitor furbearer populations by taking thorough reports from trappers, making note of track observations during aerial surveys, and monitoring sealing reports.

3. Habitat Assessment-Enhancement

There were no habitat-related activities conducted in Unit 14C during RY12–RY16.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Data Recording and Archiving

- Original data sheets are stored in file cabinets located in the Unit 14C area management biologist’s office in the Region II ADF&G office in Anchorage. Scanned copies are stored electronically on the Anchorage ADF&G server (O:/DWC/common/Anch_Wildlife_Management).
- Sealing certificates for Unit 14C furbearers are stored electronically in WinfoNet.

Agreements

None.

Permitting

DWC has collection permits for DWC staff biologists to obtain specimens and samples from various species throughout the year if needed.

Conclusions and Management Recommendations

The lack of data on population density, composition, and productivity of furbearers makes it difficult to identify sustainable harvest levels in Unit 14C. However, harvests of most furbearer species are low compared to other units and should not negatively impact the resource. These low levels of harvest appear to be within the sustainable limits and no changes to seasons or bag limits are recommended.

II. Project Review and RY17–RY21 Plan

Review of Management Direction

MANAGEMENT DIRECTION

Management biologists in Unit 14C continue to manage for conservation, while enhancing Alaska's wildlife and habitats to provide for a wide range of public uses and benefits. This includes maintaining and enhancing opportunities to hunt, trap, and view furbearers while also providing opportunities for people to gain knowledge of and appreciation for wildlife, its management, and ways to safely and ethically interact with it. The current management directions and goals continue to appropriately direct management of furbearers in Unit 14C.

GOALS

The management goals for Unit 14C are to maintain stable populations of furbearer species, and to provide for both consumptive and nonconsumptive uses such as trapping, hunting, viewing, and photographing.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

All furbearers named in 5 AAC 99.025(13) have a positive C&T finding and the ANS for those furbearers is 90% of the harvestable portion.

Intensive Management

Not applicable.

MANAGEMENT OBJECTIVES

None.

REVIEW OF MANAGEMENT ACTIVITIES

1. Population Status and Trend

ACTIVITY 1.1. Record observations of furbearers seen incidentally during research and/or surveys for other species and anecdotal reports from the public.

Data Needs

Incidental sightings during surveys for other species may be used as index data to monitor changes in furbearer populations and harvest pressure. Anecdotal reports from the public will be used to monitor the need for any potential mitigation of conflict animals.

Methods

GPS locations and characteristics may be recorded for furbearer sign observed during aerial survey flights. Most incidental observations occur during surveys or research work for other species and happen throughout the year. Anecdotal reports are recorded to the maximum level of detail available.

2. Mortality-Harvest Monitoring

ACTIVITY 2.1. Monitor harvest through sealing records.

Data Needs

Harvest must be assessed to understand the potential impact on furbearer populations and densities.

Methods

Collect harvest data by sealing hides of beaver, lynx, marten, river otter, and wolverine taken by trappers and hunters. Continue to record location and date of harvest, method of take, transportation mode, and sex. In addition, lynx, otter, and beaver hides are measured. Sealing must occur by either an authorized ADF&G staff member or a state-appointed sealer within 30 days of the close of the season. These data will be entered into WinfoNet and summarized by regulatory year.

3. Habitat Assessment-Enhancement

There are no habitat-related activities planned in Unit 14C during RY17–RY21.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Data Recording and Archiving

- Original data sheets are stored in file cabinets located in the Unit 14C area management biologist's office in the Region II ADF&G office in Anchorage. Scanned copies are stored electronically on the Anchorage ADF&G server (O:/DWC/common/Anch_Wildlife_Management).
- Sealing certificates for Unit 14C furbearer harvest are stored electronically in WinfoNet.

Agreements

None.

Permitting

DWC has collection permits for DWC staff biologists to obtain specimens and samples from various species throughout the year if needed.

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