

FIGURE 3.4-1 BATHURST CARIBOU SEASONAL RANGES, 2025

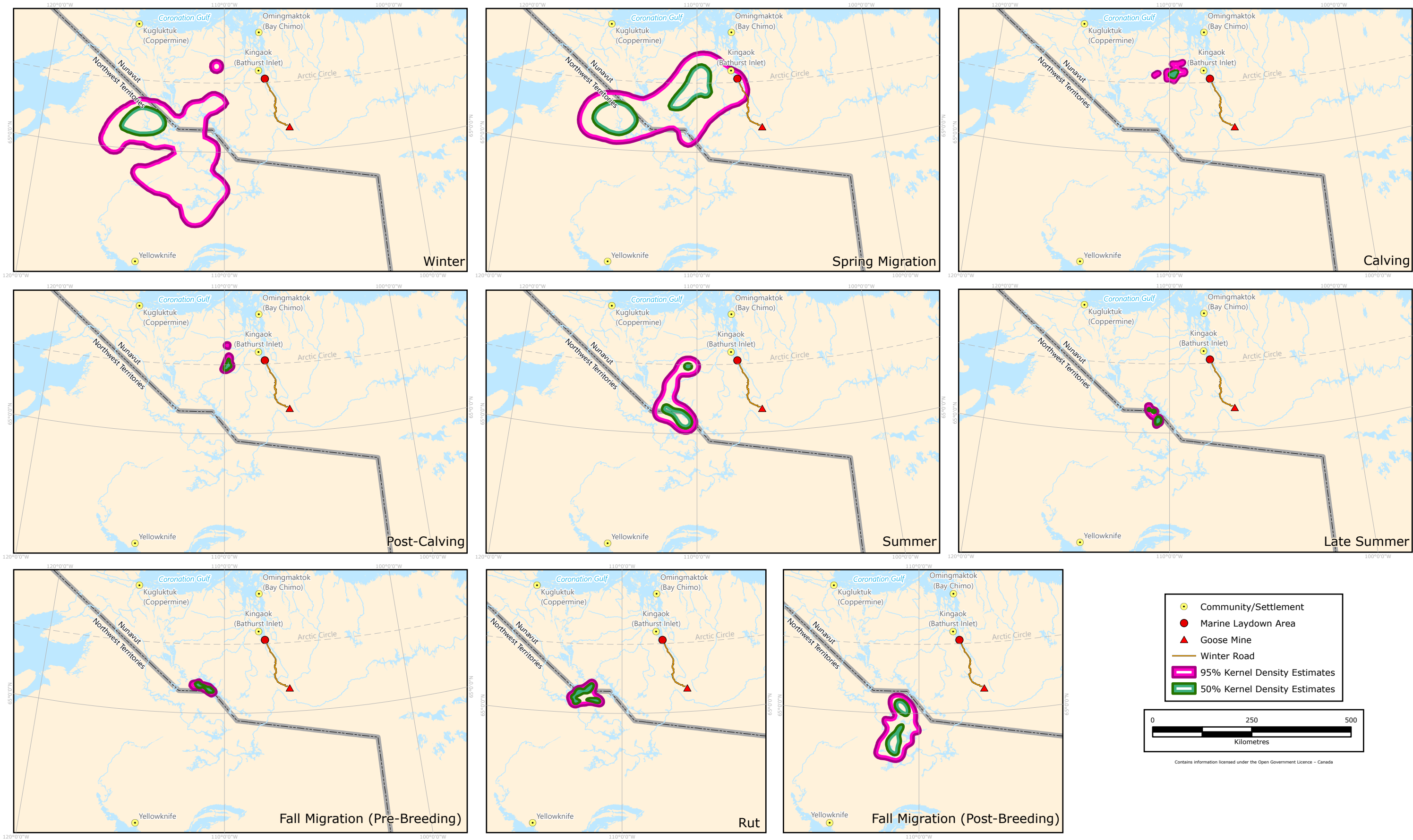


FIGURE 3.4-2 BEVERLY/AHIAK CARIBOU SEASONAL RANGES, 2025

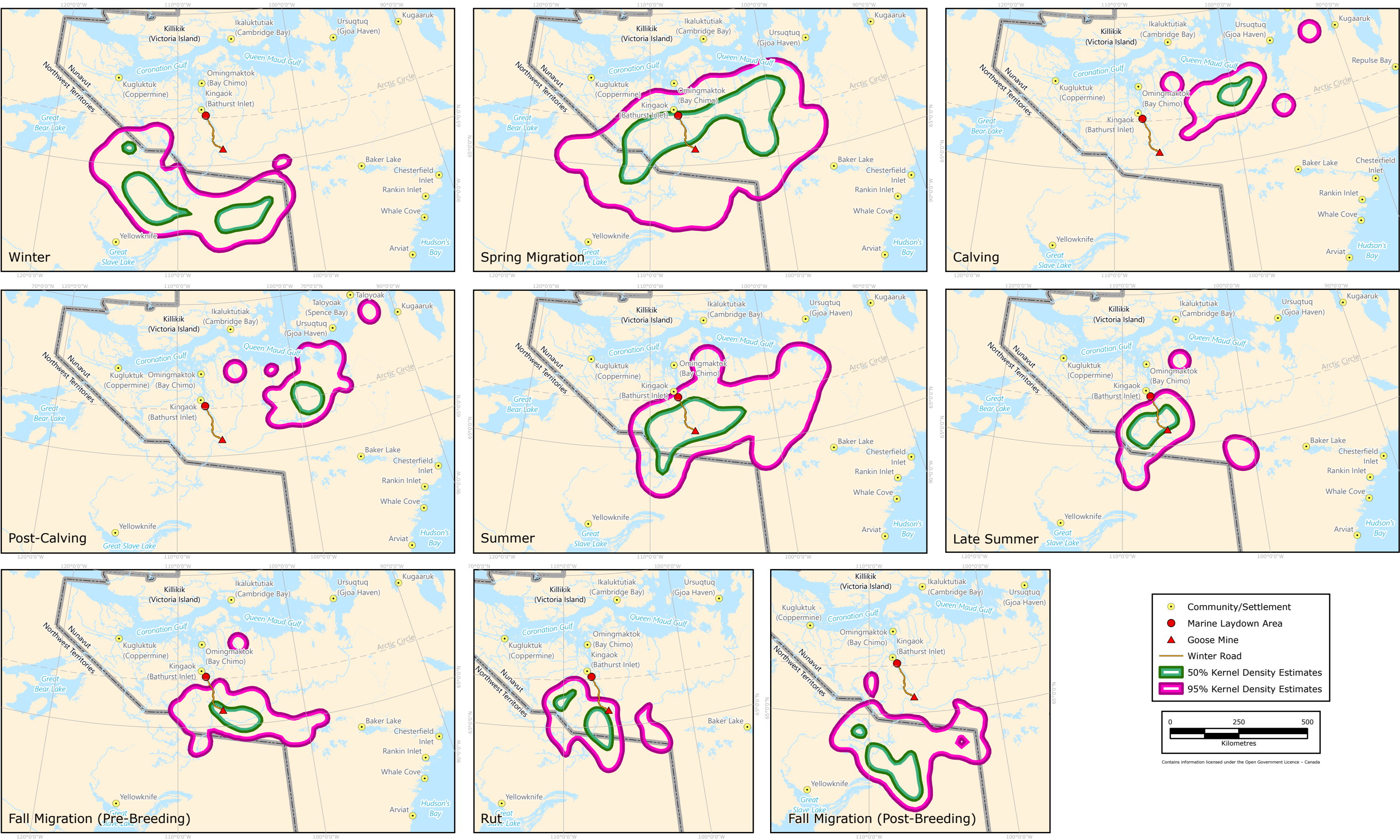


TABLE 3.4-2 OVERLAP OF THE GOOSE PROJECT PDAS (GOOSE AND MLA COMBINED) WITH BATHURST AND BEVERLY/AHIK SEASONAL RANGE UTILIZATION DISTRIBUTIONS, 2025

Season ^a	Bathurst		Beverly/Ahiak	
	50% UD	95% UD	50% UD	95% UD
Winter	0.000%	0.000%	0.000%	0.000%
Spring Migration	0.000%	0.010%	0.007%	0.016%
Calving	0.000%	0.000%	0.000%	0.000%
Post-Calving	0.000%	0.000%	0.000%	0.000%
Summer	0.000%	0.000%	0.115%	0.027%
Late Summer	0.000%	0.000%	0.295%	0.069%
Fall Migration (Pre-Breeding)	0.000%	0.000%	0.426%	0.060%
Rut	0.000%	0.000%	0.000%	0.070%
Fall Migration (Post-Breeding)	0.000%	0.000%	0.000%	0.000%

Note:

^a See Table 3.4-1 for definitions of season for each herd.

Results of the range analyses for the 2025 calving season show that the calving range 50% UD polygon centroid for the Bathurst herd was 195.75 km from the nearest edge of the Goose Mine PDA and 90.78 km from the nearest edge of the MLA PDA. The calving range 50% UD polygon centroid for the Beverly/Ahiak herd was 346.68 km from the nearest edge of the Goose Mine PDA and 349.10 km from the nearest edge of the MLA PDA. In comparison to the 2015 FEIS, these values have stayed consistent with no major shifts in calving centroid towards the Goose Project. Minor (10 to 15 km) shifts in calving range centroids occur annually, but calving range fidelity has overall remained high with no consistent shift. As there has not been a shift in the calving grounds towards the Goose Project and there continues to be no overlap with the calving grounds, no additional mitigation was required in 2025.

3.5 CARIBOU BEHAVIOUR MONITORING

The objective of behaviour monitoring is to test the FEIS prediction that caribou may be disturbed by activities at the Goose Project, principally noise. This program will determine what behavioural responses caribou display in reaction to potential stressors (e.g., aircraft, vehicles, blasting), as described in Section 7.3.2.2 of the WMMP Plan (B2Gold Nunavut 2024).

3.5.1 METHODS

Behaviour surveys consisted of scan surveys every 3 minutes over a 30-minute survey period. Details recorded in each survey interval include a tally of individuals (or a subset of the group for groups >50 animals) exhibiting each behaviour type from the list of standardized behaviours (e.g., feeding, lying down, standing, alert, walking, and trotting/running) and any potential stressors or disturbances, including vehicles, aircraft, or predators. Location, time, distance from caribou to the observer (e.g., range finder), dominant group composition, temperature, wind speed, weather observations, and road structure values (height/slope) were also recorded, where applicable. In certain cases where caribou moved out of sight during the survey, survey periods were less than 30 minutes (i.e., caribou were surveyed until they could no longer be observed).

Caribou behaviour surveys were conducted in accordance with the *Caribou Behaviour Monitoring SOP* (B2Gold Nunavut 2025j).

3.5.2 RESULTS AND DISCUSSION

A total of 33 caribou behaviour surveys were completed in 2025. Between May 2 and December 29, 2025, 26 caribou behaviour surveys were completed at the Goose Mine (Figure 3.5-1; Table 3.5-1). The remaining seven caribou behaviour surveys were completed along the WIR between April 4 and April 17, 2025 (Figure 3.5-2). Group sizes surveyed at the Goose Mine ranged from one to 3,000 individuals. Of the 26 surveys completed at the Goose Mine, 13 surveys included potential disturbance events, which were recorded alongside caribou behaviours. Distances from caribou to the observers ranged from 20 to 3,000 m (Table 3.5-1). Note that surveys were intentionally biased to include a roughly equal number of surveys with and without potential disturbances, though this does not reflect that 50% of caribou are expected to experience a disturbance near the Goose Mine.

Along the WIR, caribou groups surveyed ranged in size from 9 to 150 individuals, and distances from caribou to observers ranged from 100 to 1,000 m (Table 3.5-1; Photo 3.5-1). All the surveys included potential disturbance events (in some cases the potential disturbance was from the survey vehicle, when a 15-minute wait period was not possible), which were recorded alongside caribou behaviours. Following potential disturbance events, caribou in all WIR surveys returned to baseline behaviours within four survey intervals (12 minutes or less), with the majority of caribou in each group returning to baseline behaviours within two intervals (6 minutes or less).

The goal of the behaviour monitoring program is to complete a minimum of 10 behaviour samples per year. In 2025, 33 behaviour surveys were completed, 13 were completed in 2024, and nine were completed in 2023. Cumulative results presented for 2025 are qualitative due to the low sample size (55 samples over 3 years); however, these data will be incorporated with additional data collected in the future to determine potential trends in caribou response to stressors.

FIGURE 3.5-1 CARIBOU BEHAVIOUR SURVEY LOCATIONS AT GOOSE MINE, 2025

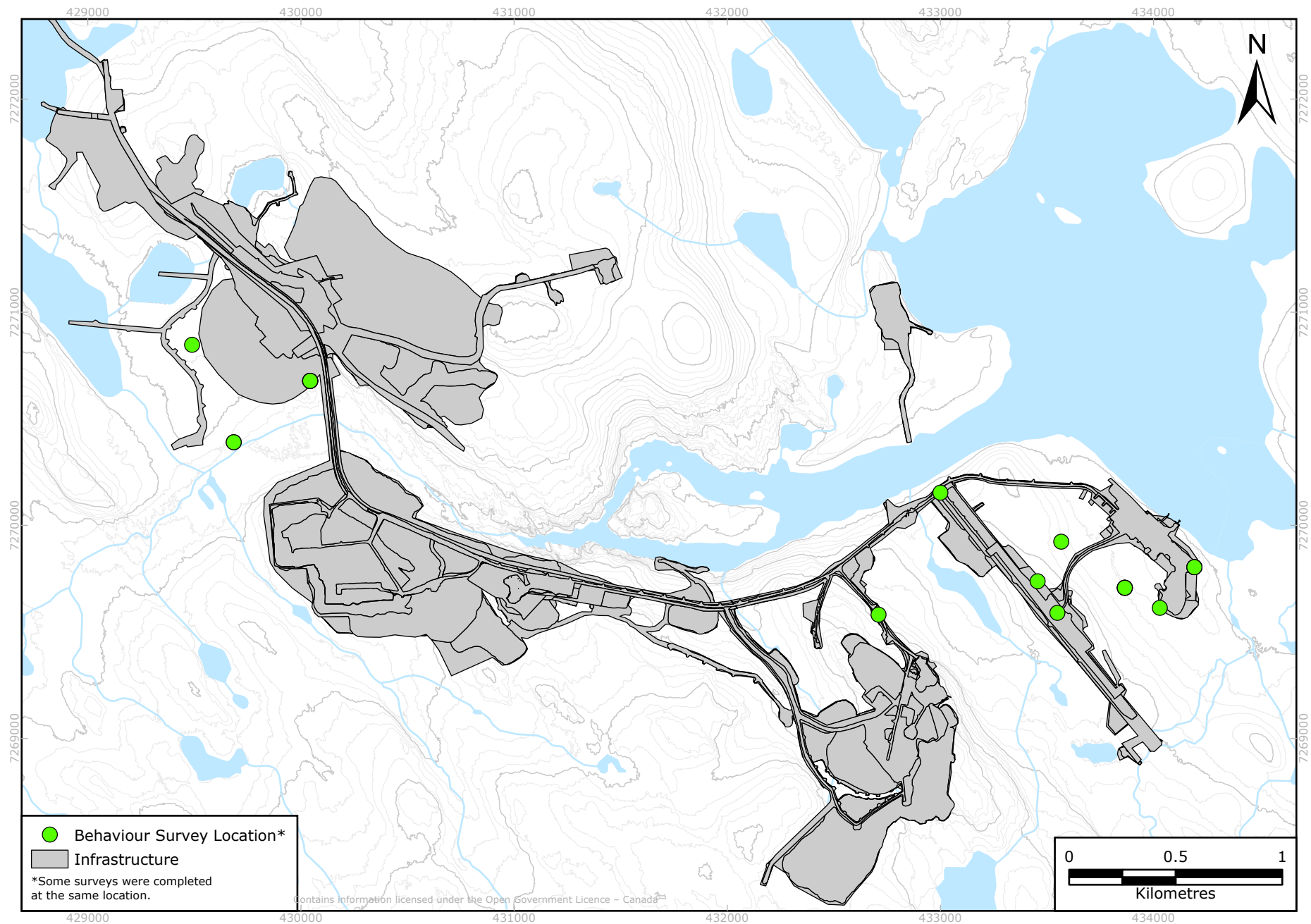


TABLE 3.5-1 CARIBOU BEHAVIOUR SURVEYS, 2025

Date	Location	Number of Caribou	Distance from Caribou to Surveyor (m)	Number of Potential Disturbances
April 4	WIR - P6	9	100	6
April 10	WIR - Bathurst Lake	30	200-500	1
April 14	WIR - Bathurst Inlet	100 (surveyed 30)	200	1
April 16	WIR - L5	150 (surveyed 30)	200	3
April 16	WIR - L11	14	200	3
April 17	WIR - P3	125	700-1,000	3
April 17	WIR - L15	30	200	3
May 2	South of Umwelt Pit	1	20	0
May 3	South of Umwelt Pit	1	67	2
May 5	Umwelt Pit/Grouse Neck	1	105	1
May 6	South of Umwelt Pit	1	20-50	1
May 6	Umwelt Pit/Grouse Neck	1	40.5	0
May 7	Umwelt Pit/Grouse Neck	1	50	1
May 9	South of Umwelt Pit	1	20-50	1
May 28	NW side of Umwelt Pit	30	1,500	1
July 24	Sandvik laydown near Echo Pit turnoff	2	30	3
July 28	North apron on airstrip	2	100	2
July 28	Edge of Goose main road and northeast edge of airstrip	2	40	1
July 31	Umwelt dewatering pumping point	1	50	0
August 7	End of SWP road near BRP-02 discharge, between SWP/Umwelt	1	50	0
October 12	Land between heli pads and air strip (north end)		200	0

Date	Location	Number of Caribou	Distance from Caribou to Surveyor (m)	Number of Potential Disturbances
October 17	Exploration incinerator	400	600	0
October 17	Exploration incinerator	600	500	0
October 18	Exploration incinerator	800	800	0
October 18	Exploration incinerator	8	800	0
October 20	Exploration incinerator	3,000	2,000	0
October 21	Airstrip apron	75-100	3,000	0
October 29	Between airstrip and exploration camp	1	75	1
October 30	Between airstrip and exploration camp	1	63	1
October 31	Between airstrip and exploration camp	1	27	2
November 6	Between airstrip and exploration camp	1	50	1
November 12	Near major drilling laydown	1	200	0
December 29	Between airstrip and exploration camp	1	150	0

FIGURE 3.5-2 CARIBOU BEHAVIOUR SURVEYS ALONG THE WINTER ICE ROAD, 2025

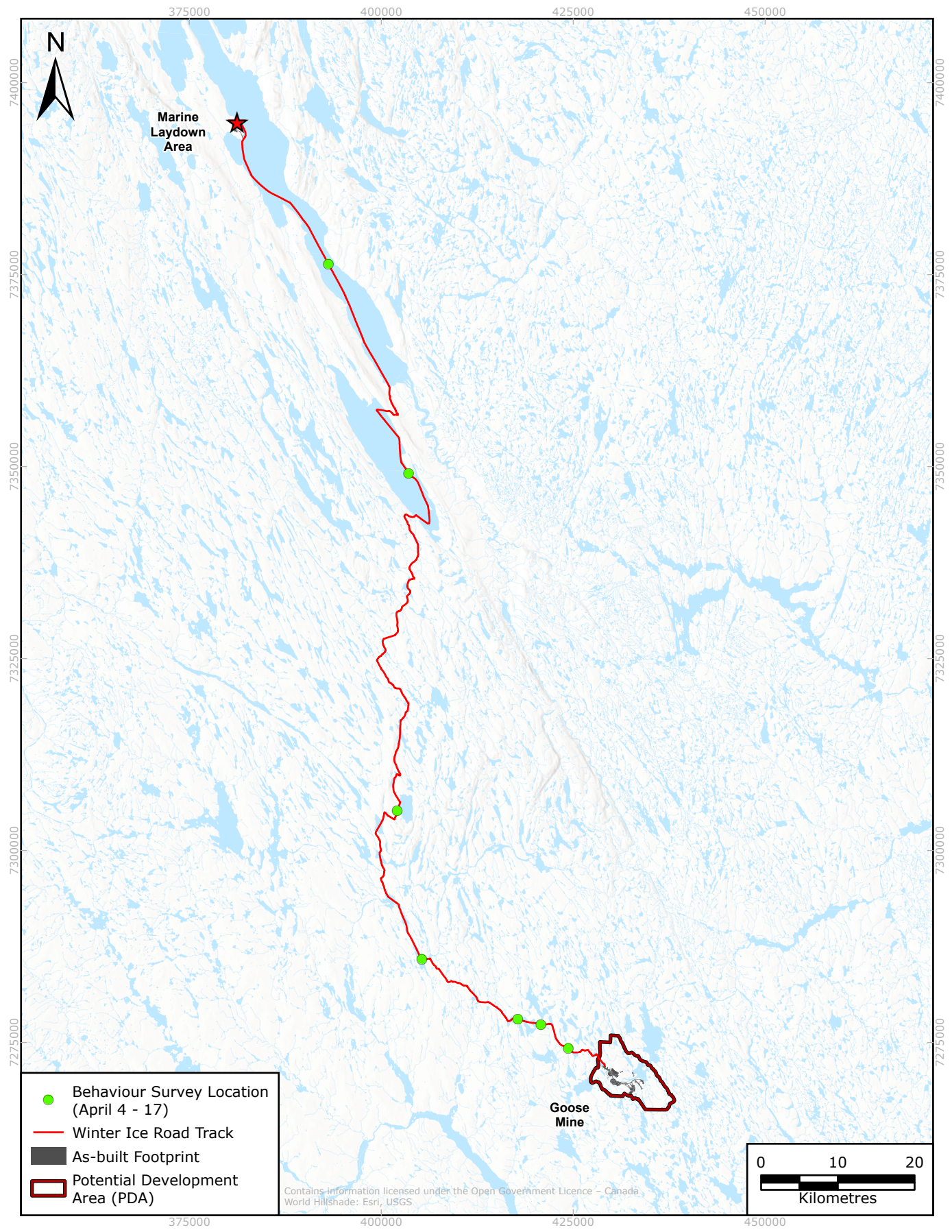




Photo 3.5-1 Caribou included in a behaviour surveys completed at WIR L15, April 17, 2025.

3.6 ONSITE CAMERA MONITORING

The objective of the Onsite Camera Monitoring Program is to monitor caribou (and other wildlife) activities around site infrastructure, as described in Section 7.3.1.5 of the WMMP Plan (B2Gold Nunavut 2024). Results from this monitoring program may be used to inform adaptive management actions to reduce interactions between wildlife and mine facilities or infrastructure.

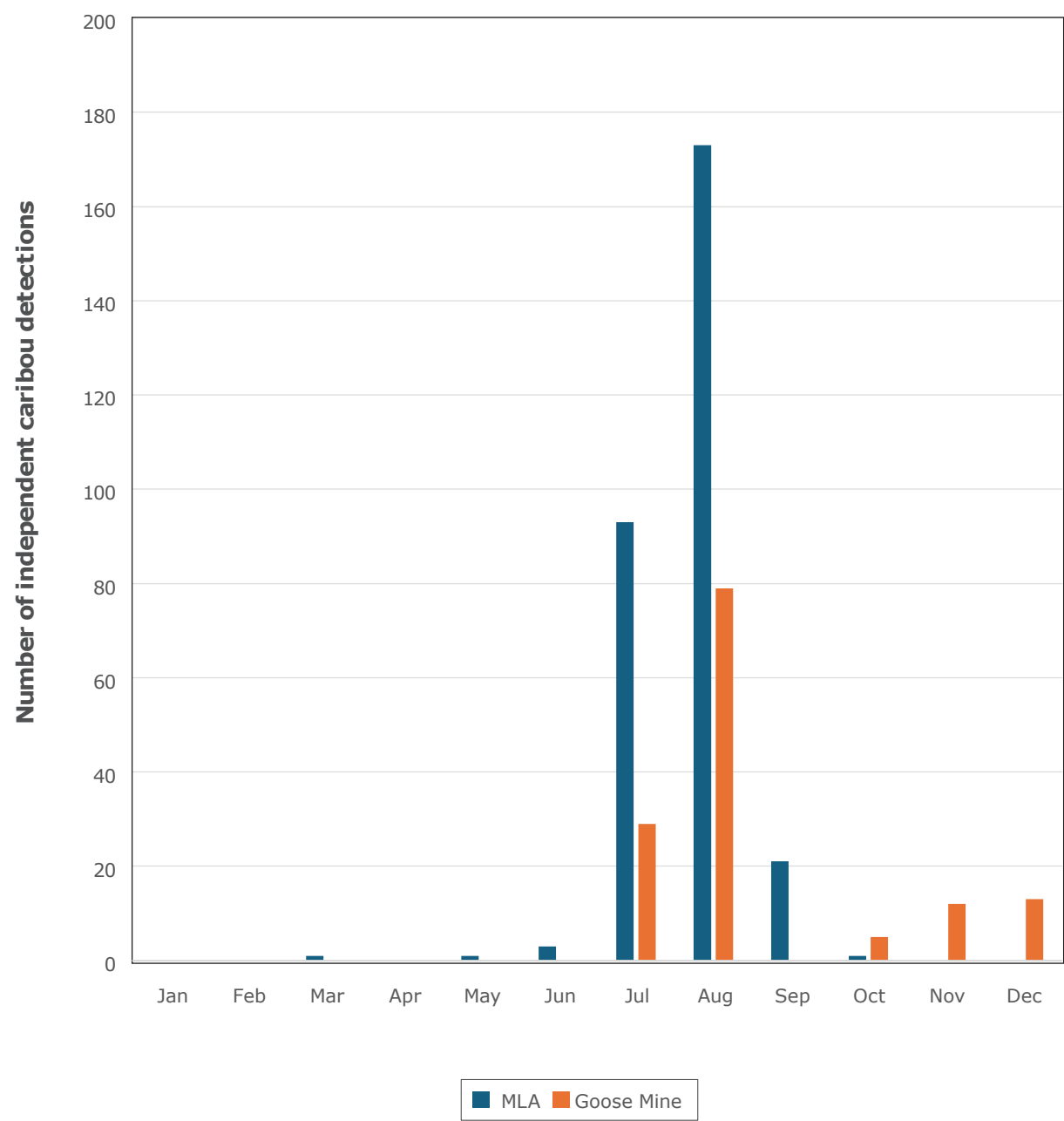
3.6.1 METHODS

Wildlife cameras were deployed at the Goose Mine, the MLA, and WIR in 2025. The 2025 onsite camera monitoring program methods are described in Section 2.8.1.

3.6.2 RESULTS AND DISCUSSION

Caribou were recorded at all three MLA camera stations and at six of 12 cameras at the Goose Mine. There were no caribou detections during calving (Figure 3.6-1), and caribou were predominately detected during summer months, with 87% of all detections occurring in July and August. Detections during the rut and winter seasons all occurred at BR04, excluding one detection at BR75. There were two detections during spring migration, both at MLA, and eighteen detections during fall migration (see Table 3.4-1 for season definitions).

FIGURE 3.6-1 MONTHLY WILDLIFE CAMERA DETECTIONS OF CARIBOU, 2025



The most common location caribou were detected was camera BR73, near the MLA kitchen, with 55% of the total caribou detections. Camera BR73 recorded caribou walking around camp facilities, feeding on nearby vegetation (13% of detections), and resting (2% of detections). A maximum group size of 11 caribou was recorded at BR73, with a mean group size of 2 caribou. Caribou were also detected frequently at BR04 and BR85 with over 40 detections each, and BR02, BR74, BR75, and BR77 with 20 or more detections at each station. Caribou were recorded feeding on vegetation at BR02, BR04, BR74, and BR75 in addition to BR73, and were only recorded travelling through at BR77, BR78, BR82, and BR85. The presence of juvenile caribou was only recorded twice, with both detections occurring on July 18 within the same minute at BR02 and BR77 by the Goose camp incinerator, representing a single juvenile travelling through the area.

Onsite camera monitoring in place by B2Gold Nunavut was effective at monitoring caribou activities around site infrastructure. Caribou were recorded interacting with infrastructure on three occasions at the onsite monitoring cameras in 2025 (Figure 2.8-2), once when two caribou were observed in proximity to vehicles at BR73, and twice at BR78 when a caribou was observed walking into camp near the kitchen and near a staff member. The caribou at BR73 appeared calm and unphased by the interaction, while one of the caribou at BR78 appeared to be running in some images and changed direction, potentially to avoid staff. All other caribou were recorded passing through, feeding on the tundra nearby, or bedded down resting on the tundra nearby. No adaptive management measures were triggered by this program.

Example images are provided in Photos 3.6-1 to 3.6-3.



Photo 3.6-1 Caribou recorded on BR04, near Goose grey water discharge, August 21, 2025.



Photo 3.6-2 Caribou recorded on BR02, near the Goose camp incinerator, July 16, 2025.



Photo 3.6-3 Caribou group recorded on BR73, by the MLA exploration kitchen, August 20, 2025.

3.7 REGIONAL CAMERA MONITORING

The objective of the regional camera monitoring program is to evaluate if caribou and other wildlife are avoiding the Goose Project and to complete analyses every 3 years, as described in Section 8.3.2.2 of the WMMP Plan (B2Gold Nunavut 2024). Analysis was completed in 2024, and data will continue to be collected annually from cameras, with the next analysis scheduled for 2027 (every 3 years).

3.8 REGIONAL COLLAR MONITORING

Regional collar monitoring is conducted every 3 years to evaluate if caribou are avoiding the Goose Mine or WIR due to disturbance, as described in Section 7.3.2.4 of the WMMP Plan (B2Gold Nunavut 2024). The FEIS and EC Addendum predicted that caribou would avoid Goose Mine to some degree and this analysis will test for 1) a change in distribution, and 2) the magnitude of that change should it be detected.

This analysis was completed in 2024, with the next analysis scheduled for 2027. The methods used for the analysis in 2024 was not successful in providing an estimated zone of influence (ZOI) with the available data; however, the WMMP Plan (B2Gold Nunavut 2024) includes re-assessment of the potential ZOI every 3 years. With this in mind, new data sources for environmental covariates to improve base habitat models will be investigated for the 2027 analysis. Additionally, new methods beyond those used by Boulanger et al. (2012) will be investigated for potentially improved explanatory power relating to ZOIs around the Goose Project for caribou.

3.9 INCIDENTAL OBSERVATIONS

All personnel are responsible for recording wildlife sightings in the camp's wildlife log (Appendix G). These logs provide an indication of the wildlife species that occur in proximity to and interact with the Goose Project infrastructure, as described in Section 7.3.1.4 of the WMMP Plan (B2Gold Nunavut 2024).

Personnel were onsite at the Goose Mine camp and MLA year-round in 2025 (Table 3.9-1). The average monthly occupancy at the Goose Mine throughout the 2025 season was 794 people, with a peak of 882 people in July. At the MLA, the average was 128 people, with a peak of 281 people in March.

TABLE 3.9-1 AVERAGE NUMBER OF ONSITE PERSONNEL IN 2025

Month	Number of Personnel Onsite	
	MLA	Goose
January	167	682
February	213	713
March	281	753
April	197	766
May	71	779

Month	Number of Personnel Onsite	
	MLA	Goose
June	73	869
July	71	882
August	91	860
September	112	857
October	74	849
November	76	818
December	111	695

3.9.1 METHODS

All personnel at the Goose Project receive training that includes the requirement to report observations of wildlife occurring around or interacting with the Goose Mine to the Environment Department. Incidental observation reports include location (GPS coordinates), date, time, species, number observed, behaviour, and any other descriptive information regarding the sighting. Incidental observations were also recorded by wildlife biologists onsite supporting monitoring programs completed in 2025.

Incidental observations were recorded in accordance with and using the data sheet provided in the *Incidental Wildlife Observations SOP* (B2Gold Nunavut 2025k).

3.9.2 RESULTS AND DISCUSSION

Caribou observations recorded in the Goose Project's wildlife logs and by onsite wildlife biologists in 2025 are summarized by season and general location in Table 3.9-2. Overall, there were a total of 96 incidental observations of caribou, totaling an estimated 4,281 animals (Appendix G). Caribou were most frequently recorded during the winter (January 1 to April 14) and summer (July 21 to August 31), with 2,095 sightings (accounting for 49% of observation events) and 915 individuals (21% of individuals observed), respectively.

In total, onsite personnel observed caribou on 90 separate occasions, with a total estimate of 4,066 individual caribou. This does not suggest that 4,066 unique individuals were observed, as animals were likely observed on more than one occasion. Overall, there were 6 separate incidental observations of caribou made by biologists, totaling an estimated 215 animals.

The estimated number of individuals does not indicate the exact number of individual animals present, as general estimates were given for large groups and animals may have been observed on more than one occasion. Observation events from both the MLA Forward Camp (KM 100) and Goose Forward Camp (KM 30), both located along the WIR, were included under the totals for the WIR. Additionally, the 2025 incidental sightings reported in this section do not include the 29 sightings recorded by wildlife monitors along the WIR, as these are described in Section 3.3.2.1.

TABLE 3.9-2 SUMMARY OF INCIDENTAL OBSERVATIONS OF CARIBOU RECORDED BY B2GOLD NUNAVUT STAFF AND ONSITE BIOLOGISTS DURING EACH SEASON IN 2025

Season	Dates	Goose Site		MLA Site		WIR ^a	
		Observation Events	Estimated Number of Individuals	Observation Events	Estimated Number of Individuals	Observation Events	Estimated Number of Individuals
Winter	January 1–April 14 ^b	1	5	0	0	23	2090
Spring Migration	April 15–June 4	10	421	7	287	2	101
Calving	June 5–June 15	2	2	2	14	0	0
Post-Calving	June 16–July 20	11	18	4	21	0	0
Summer	July 21–August 31	17	678	8	37	1	200
Fall Migration	September 1–October 31	5	404	0	0	0	0
Winter	November 1–December 31 ^c	2	2	0	0	1	1
Total		48	1530	21	359	27	2392

Notes:

^a Includes both the MLA and Goose Forward Camps.

^b The caribou winter season is defined as November 1 to April 14; however, the Goose Project WMMP reporting year is January 1 to December 31. As a result, only incidental sightings from January 1 to April 14, 2025, are included in this report.

^c Winter sightings in November and December 2025 are included in this report, but do not cover the entire 2025 to 2026 winter season, as the WMMP reporting year ends on December 31, 2025.

Incidental observations of caribou were most common at Goose Mine, with 48 sightings (accounting for 50% of observation events) and 1,530 individuals (36% of individuals observed). Observations of caribou at Goose Mine were made during all seasons. Group size ranged from 1 to 500 animals, but most observations were group sizes of 20 or less (81% of observations).

Caribou were observed near the MLA 21 times (359 animals), with observations mainly made during spring migration and summer season (71% of observations). Group sizes ranged from 1 to 100, with 71% (n=15) of these observations being made of 10 or fewer caribou. The MLA accounted for the least number of observation events and individuals recorded, representing 21% of the total observation events and 8% of total caribou observed.

Caribou were observed along the WIR 27 times (2,392 animals), 24 of which were during the winter season (before April 15) and the remaining three during spring migration (after April 15). Group sizes ranged from 1 to 800, with 70% (n=19) of these observations being made of groups of 75 or less caribou.

During the winter season in 2025, there were 24 sightings of caribou recorded between March 1 and April 14. All of these sightings, with the exception of one sighting at the Goose Mine on March 1, occurred along the WIR. The largest group of caribou observed during the winter was recorded on April 8, when a group of 800 animals was observed near P13A of the WIR. Additional sightings during winter along the WIR made by dedicated biologists monitoring the WIR for caribou are not included in this section and are summarized in Section 3.3.2.1.

During spring migration, there were 19 sightings of caribou between April 16 and June 2, 10 of which were observed near Goose Mine, seven at the MLA, and the remaining two from the WIR. The largest group of caribou observed during spring migration was of approximately 150 individuals near the WIR on May 5. Additional sightings during the spring migration were recorded along the WIR by the dedicated caribou biologists and are reported in Section 3.3.2.1.

During the calving season, caribou were observed on four occasions, none of which were of females. A single caribou was observed near Goose Mine on June 11 and again June 14. At the MLA, a group of two caribou were observed feeding on June 7, and a group of 12 caribou were seen feeding south of MLA camp on June 8. No other caribou were observed during the calving season.

During the post-calving season, there were 15 separate sightings of 39 caribou, all of which were groups of less than 10 individuals. All of the sightings were of adult caribou, with the exception of one observation of a female and calf observed grazing near Goose Mine on July 19. Most observations were made at Goose Mine (73% of observations), and the remaining sightings occurred at the MLA (27% of observations).

During the summer, there were a total of 26 caribou sightings, totalling 915 individuals between July 26 to August 28. The largest group was composed of 500 individuals and was observed on August 16 at Goose Mine.

During fall migration, there were five sightings of caribou, all near the Goose Mine between September 5 and October 29. All sightings were of a single individual, with the exception of one group of 400 caribou on September 21. The sightings of the one animal were of the same individual that had a noticeable limp and suspected brucellosis.

A higher number of incidental observation events were made in 2025 compared to previous years (2018 to 2023), but lower than 2024 (Table 3.9-3). However, fewer animals were recorded in 2025 ($n = 4,281$) compared to 2019 ($n = 14,976$), 2023 ($n = 27,510$) and 2024 ($n = 6,829$; Table 3.9-3).

Between 2018 and 2025, winter and summer are the only seasons when caribou are consistently observed by mine personnel (at the MLA or Goose Mine; Figure 3.9-1). During the calving season in 2025, there were four sightings of caribou moving past the area; two at MLA (June 7 and 8, two and 12 individuals) and two at Goose (June 11 and 14, one individual each). No caribou were observed during the calving season in 2018, 2020, and 2021. All caribou observed during the calving season in 2019 (four observation events), 2022 (one observation event of nine individuals), 2023 (one observation event of one individual), and 2024 (one observation event of six individuals) were between 1 and 4 km from Goose camp. Although the sightings of caribou in 2019 were of large groups (greater than 100 or greater than 1,000), they were actively travelling past the area (presumably migrating to the calving area). The incidental observations made from 2018 to 2025 support that the Goose Project does not overlap with the calving grounds.

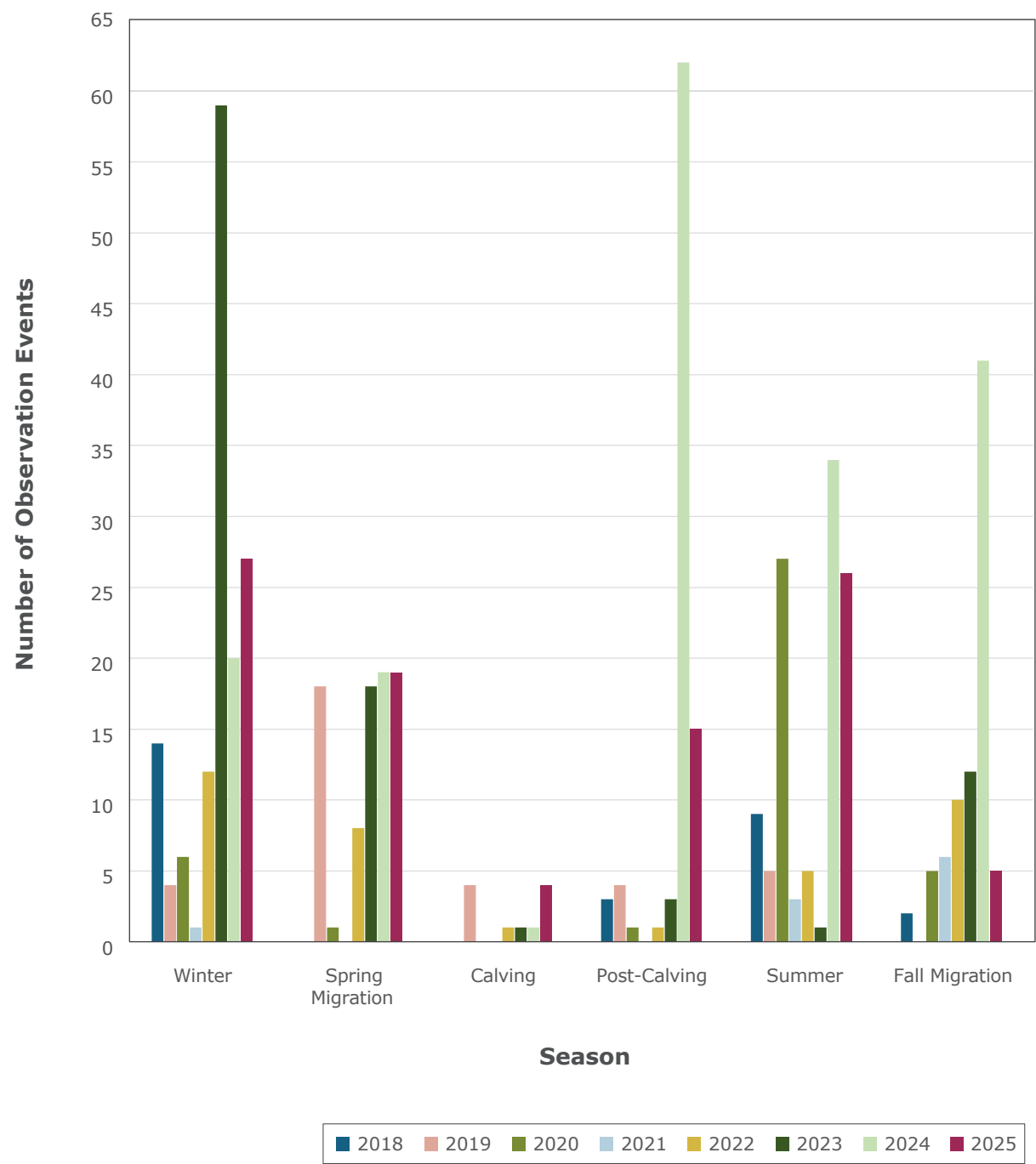
TABLE 3.9-3 SUMMARY OF INCIDENTAL OBSERVATIONS OF CARIBOU DURING EACH SEASON, 2018 TO 2025

Season	Number of Sightings								Estimated Number of Individuals							
	2018	2019	2020	2021	2022	2023	2024 ¹	2025	2018	2019	2020	2021	2022	2023	2024 ^a	2025
Winter	14	4	6	1	12	59	20	24	1,603	252	21	1	1,510	25,953	1,084	2,098
Spring Migration	0	18	1	0	8	18	19	19	0	13,310	2	0	950	9,511	372	809
Calving	0	4	0	0	1	1	1	4	0	1,400	0	0	9	1	6	16
Post-Calving	3	4	1	0	1	3	71	15	7	7	1	0	1	3	3,122	39
Summer	9	5	27	3	5	1	34	26	128	7	3,071	157	261	1	1,906	915
Fall Migration	2	0	5	6	10	12	41	5	21	0	16	918	939	41	306	404
Total	28	35	40	10	37	94	186	96	1,759	14,976	3,111	1,076	3,670	27,510	6,829	4,281

Note:

^a The total number of observation events and estimated number of individuals does not include three observation events (three animals) where a date was not recorded.

FIGURE 3.9-1 NUMBER OF INCIDENTAL OBSERVATIONS OF CARIBOU BY SEASON, 2018 TO 2025



4. MUSKOX MONITORING AND MITIGATION

Muskox inhabit Arctic tundra environments and occur in varying densities throughout Nunavut. Muskox are not migratory, but may vary in group size throughout the year, with larger herds forming through the winter. Although muskox are not listed as a species of conservation concern, federally or in Nunavut, they are monitored at the Goose Project.

4.1 FEIS PREDICTIONS

The predicted residual effects of the Goose Project on muskox as identified in the FEIS included:

- Habitat loss (not significant, low magnitude);
- Disturbance (not significant, low magnitude); and
- Reduction in reproductive productivity (not significant, low magnitude).

Mitigation and management measures to reduce the potential for these effects to result in residual effects on muskox are discussed in Section 8 of the WMMP Plan (B2Gold Nunavut 2024).

4.2 MUSKOX BEHAVIOUR MONITORING

The muskox behaviour monitoring program is aimed at identifying if muskox display any behavioural responses in reaction to potential stressors at the Goose Mine, including aircraft, vehicles, and blasting, as described in Section 8.3.2.3 of the WMMP Plan (B2Gold Nunavut 2024).

4.2.1 METHODS

Behaviour monitoring for muskox is conducted by wildlife monitors if muskox are observed within 1 km of the Goose Project. Surveys are conducted using the scan sampling method to characterize the predominant behaviour of muskox in relation to the Goose Project activities. Surveys are conducted following the behaviour monitoring methods outlined for caribou in Section 3.5.1 and in the *Caribou Behaviour Monitoring SOP* (B2Gold Nunavut 2025j).

4.2.2 RESULTS AND DISCUSSION

Muskox were observed within 1 km of the Goose Project on five occasions in 2025 (see Section 4.5). However, because muskox were observed moving through the area and not lingering, no behaviour surveys were completed in 2025.

4.3 ONSITE CAMERA MONITORING

The objective of the Onsite Camera Monitoring Program is to monitor caribou (and other wildlife) activities around site infrastructure, as described in Section 7.3.1.5 of the WMMP Plan (B2Gold Nunavut 2024). Results from this monitoring program may be used to inform adaptive management actions to reduce interactions between wildlife and mine facilities or infrastructure.

4.3.1 METHODS

Wildlife cameras were deployed at the Goose Mine, the MLA, and WIR in 2025. The 2025 onsite camera monitoring program methods are described in Section 2.8.1.

4.3.2 RESULTS AND DISCUSSION

No muskox were recorded by onsite cameras in 2025. No additional mitigation was required for muskox in 2025.

4.4 REGIONAL CAMERA MONITORING

The objective of the regional camera monitoring program is to evaluate if muskox are avoiding the Mine site, as described in Section 8.3.2.2 of the WMMP Plan (B2Gold Nunavut 2024). Analysis was completed in 2024, and data will continue to be collected annually from cameras, with further analysis scheduled for 2027 (every 3 years).

4.5 INCIDENTAL OBSERVATIONS

All personnel are responsible for recording wildlife sightings in the camp's wildlife logs (Appendix G). These logs provide an indication of the wildlife species that occur in proximity to and interact with the Goose Project infrastructure, as described in Section 8.3.1.2 of the WMMP Plan (B2Gold Nunavut 2024). Section 3.9 summarizes the number of personnel onsite collecting incidental sightings.

4.5.1 METHODS

All personnel at the Goose Project are expected to report observations of wildlife occurring around or interacting with the Goose Mine to the Environment Department. Incidental observation reports include location (GPS coordinates), date, time, species, number observed, behaviour, and any other descriptive information regarding the sighting.

Incidental observations were recorded in accordance with and using the data sheet provided in the *Incidental Wildlife Observations SOP* (B2Gold Nunavut 2025k).

4.5.2 RESULTS AND DISCUSSION

In 2025, there were eight separate incidental observations of muskox, totaling an estimated 152 animals (Table 4.5-1; Appendix G). Five of these observations were made by site personnel at the Goose Mine with observations occurring on June 26 (one sighting of 20 individuals), August 10 and 19 (two sightings of lone individuals), September 26 (one sighting of 18 individuals), and October 3 (one sighting of 18 individuals). Two observations were made by helicopter pilots near the Goose Mine on September 18 and 19 (20 and 24 individuals, respectively).

The largest group observed was of 50 individuals on August 7 near the WIR south of Bathurst Lake. This sighting was recorded by onsite biologists while in the helicopter completing regional remote camera servicing (Photo 4.5-1).

TABLE 4.5-1 INCIDENTAL OBSERVATIONS OF MUSKOX AT THE GOOSE PROJECT, 2018 TO 2025

Month	Number of Sightings	Estimated Number of Individuals
2018	10	90
2019	3	17
2020	12	289
2021	0	0
2022	5	111
2023	5	5
2024	29	220
2025	8	152



Photo 4.5-1 Muskox incidentally recorded while servicing regional camera stations within the RSA, July 8, 2025.

Overall, muskox detections at the Goose Project in 2025 are consistent with previous years, ranging from zero sightings (2021) to 29 (2024) sighting events. In 2025, fewer wildlife biologists were onsite completing regional monitoring programs compared to 2024, when several programs were completed and accounted for approximately 79% of observation events and 87% of individuals incidentally recorded. As such, the higher number of muskox observations recorded in 2024 ($n = 29$) may be attributed to increased monitoring effort rather than an increase of individuals in the RSA (Table 4.5-1).

5. GRIZZLY BEARS, WOLVERINE, AND OTHER MAMMALS

Grizzly bear and wolverine are considered a species of Special Concern by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and on Schedule 1 of the *Species at Risk Act* (SARA; COSEWIC 2003, 2012; Government of Canada 2026). Additionally, in Nunavut, grizzly bears are territorially listed as vulnerable (S3), suggesting they are at moderate risk of extirpation (CESCC 2022). Other carnivore species known to occur in the area include Arctic and red fox species, and grey wolf. These species are included as focal species at the Goose Project due to their at-risk status, cultural importance, and potential for attraction to infrastructure or humans. Other mammals that are observed incidentally, such as moose, are also reported in this section (Section 5.4 and/or 5.6).

5.1 FEIS PREDICTIONS

The predicted residual effects of the Goose Project on grizzly bear and wolverine as identified in the FEIS included:

- Habitat loss (not significant, low magnitude);
- Disturbance (not significant, low magnitude)
- Attraction (not significant, low magnitude); and
- Reduction in reproductive productivity (not significant, low magnitude).

Additionally, the predicted residual effects of the Goose Project on wolves as identified in the FEIS included:

- Habitat loss (not significant, low magnitude); and
- Disturbance (not significant, low magnitude).

Mitigation and management measures to reduce the potential for these effects to result in residual effects on grizzly bear, wolverine, and wolves are discussed in Section 9 of the WMMP Plan (B2Gold Nunavut 2024).

5.2 WASTE MANAGEMENT AND MONITORING

Waste management and monitoring completed in 2025 is presented in Section 2.6. One wolverine was observed walking around the incinerator at MLA Forward on January 25, 2025; however, no mitigation actions were required. No other sightings of grizzly bears, wolverine, or wolves or their sign were recorded at waste management facilities in 2025. Interactions between foxes and waste management facilities are provided in Section 2.6.

5.3 BUILDING AND SKIRTING MONITORING

Building and skirting monitoring completed in 2025 is presented in Section 2.7. One wolverine was noted near the incinerator in January; however, no mitigation actions were required. No other sightings of grizzly bears, wolverine, or wolves, or their sign were recorded attempting to access facilities in 2025. Interactions between foxes and buildings/skirting are provided in Section 2.7.

5.4 ONSITE CAMERA MONITORING

The objective of the Onsite Camera Monitoring Program is to monitor caribou (and other wildlife) activities around site infrastructure, as described in Section 7.3.1.5 of the WMMP Plan (B2Gold Nunavut 2024). Results from this monitoring program may be used to inform adaptive management actions to reduce interactions between wildlife and mine facilities or infrastructure.

5.4.1 METHODS

Wildlife cameras were deployed at the Goose Mine, the MLA, and WIR in 2025. The 2025 onsite camera monitoring program methods are described in Section 2.8.1.

5.4.2 RESULTS AND DISCUSSION

A summary of all wildlife species detected during the onsite camera monitoring program are presented in Section 2.8.2 (Table 2.8-2). In 2025, red fox ($n = 218$ detections) and grey wolf ($n = 1$ detection) were detected onsite through the camera monitoring program (Figure 5.4-1). Wolverine and grizzly bear were not detected by onsite cameras in 2025, indicating that deterrence efforts (e.g., improved waste management) from 2024 have continued to be effective.

Red foxes were recorded most frequently near the Goose waste incinerator on cameras, BR77 ($n = 39$ detections; Photo 5.4-1), and BR79 ($n = 119$ detections; Photo 5.4-2), and were also recorded on cameras BR02, BR04, BR05, BR73, BR74, BR75, BR78, BR82, and BR85 (Table 2.8-2). Red foxes were recorded to be interacting with camp facilities 22 times (Figure 2.8-2), most frequently interacting with the incinerator building or waste bins outside at BR77 (13 detections), as well as at BR75, BR78, and BR79. Most often, this involved foxes climbing over, sitting on, or investigating waste bins or being near staff members or vehicles. On January 25, 2025 at BR77, a red fox was photographed being deterred out of the incinerator building by a staff member (Photo 5.4-1). There was one instance of a fox recorded as feeding on May 14, 2025, at BR83, but the food item could not be identified. Red fox were detected most frequently in winter, with 79% of detections occurring in January, February, and March (Figure 5.4-1).

One grey wolf was detected by onsite cameras. It was located at BR82 by the landfill, and was observed to be walking through, not interacting with the landfill, although only a single image was captured (Photo 5.4-3).

Onsite camera monitoring in place by B2Gold Nunavut was effective at monitoring carnivore activity around site infrastructure. In 2025, onsite monitoring cameras recorded red fox interacting with site infrastructure in a manner that may reflect attraction or access to food sources. Red fox were recorded by cameras near site infrastructure and were recorded and on one occasion eating an unknown item. Although it was not possible to confirm if the food and object were non-natural food sources, red fox were recorded around camp in search of food. Adaptive management measures triggered by this program in conjunction with incidental observations in 2025 included use of deterrents to reinforce negative stimuli in the waste management area for foxes investigating the area.

FIGURE 5.4-1 MONTHLY WILDLIFE CAMERA DETECTIONS OF RED FOX ONSITE, 2025

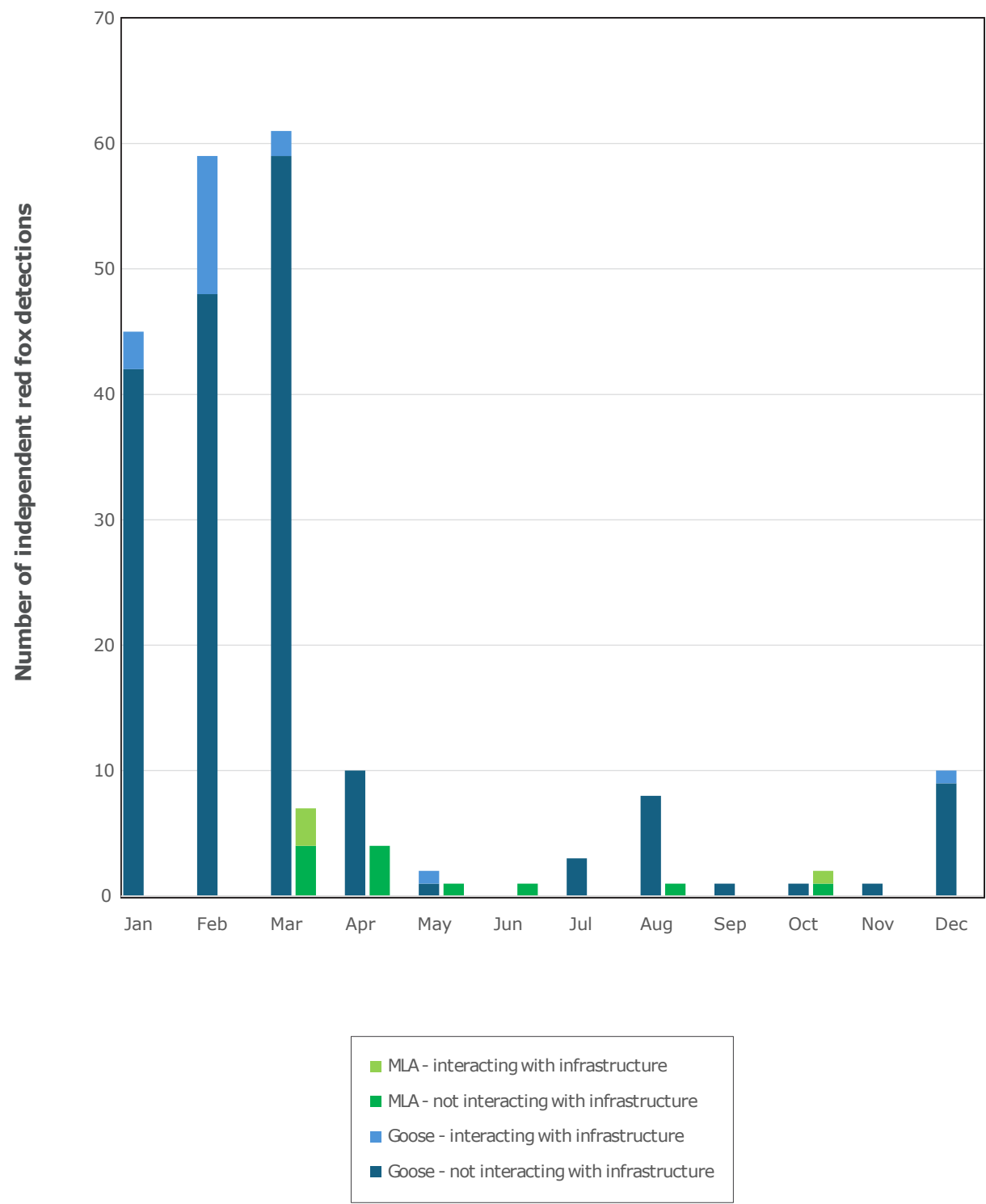




Photo 5.4-1 Red fox recorded on Camera BR77 near the Goose Mine waste incinerator, January 25, 2025.



Photo 5.4-2 Red fox recorded on Camera BR79, March 17, 2025.



Photo 5.4-3 Grey wolf recorded on Camera BR82, at Goose Mine landfill, July 4, 2025.

5.5 REGIONAL CAMERA MONITORING

The objective of the regional camera monitoring program is to evaluate if grizzly bears and other carnivores are avoiding the Goose Mine every three years, as described in Section 8.3.2.2 of the WMMP Plan (B2Gold Nunavut 2024). Analysis was completed in 2024, and data will continue to be collected annually from cameras, with the next analysis scheduled for 2027 (every 3 years).

5.6 INCIDENTAL OBSERVATIONS—TERRESTRIAL MAMMALS

All personnel are responsible for recording wildlife sightings in the camp's wildlife logs (Appendix G). These logs provide an indication of the wildlife species that occur in proximity to and interact with the Goose Project infrastructure, as described in Section 9.3.1.2 of the WMMP Plan (B2Gold Nunavut 2024). Section 3.9 summarizes the number of personnel onsite collecting incidental sightings.

5.6.1 METHODS

All personnel at the Goose Project are expected to report observations of wildlife occurring around or interacting with the site to the Environment Department. Incidental observation reports include location (GPS coordinates), date, time, species, number observed, behaviour, and any other descriptive information regarding the sighting.

Incidental observations were recorded in accordance with and using the data sheet provided in the *Incidental Wildlife Observations SOP* (B2Gold Nunavut 2025k).

5.6.2 RESULTS AND DISCUSSION

In 2025, B2Gold Nunavut staff and onsite biologists completing monitoring surveys recorded a total of 191 incidental observations of terrestrial mammals (excluding caribou), totaling an estimate of 275 individuals of grizzly bear, wolf, wolverine, Arctic fox, Arctic hare, moose, red fox, and unidentified fox species (Table 5.6-1; Appendix G). Of those, 168 observations were made by

onsite personnel, with 60% of observations made at Goose Mine (n=100), 22% made at MLA (n=37), and 18% made along the WIR (n=30). A total of 26 incidental observations were made wildlife monitoring programs; 23 along the WIR, two within the RSA, and one at Goose Mine. In addition to observations of wildlife, wildlife signs were recorded in 2025, including one observation of fox tracks and one observation of grizzly bear tracks and scat.

Fox were the most commonly observed species, accounting for 56% of observation events (n = 107) and 44% of estimated individuals recorded (n = 120; Table 5.6-1). Observations included Arctic fox (eight observation events), red fox (11 observation events), and unidentified fox species (88 observation events). Of the 107 fox sightings, 55% were made from Goose Mine (n=59), 27% at MLA (n=29), and 18 % along the WIR (n=20; Photo 5.6-1). The number of observations of fox are likely not a reflection of unique individuals, as some sightings are likely re-sightings of the same individuals. Hazing was required for fox species on 21 occasions. One red fox was hazed seven times in the M14 underground portal and as a result, required the animal to be euthanized, which is further discussed in Section 9.

TABLE 5.6-1 SUMMARY OF INCIDENTAL OBSERVATIONS OF TERRESTRIAL MAMMALS IN 2025

Species	Scientific Name	General Locations	Observation Events ^a	Estimated Number of Individuals ^b
Arctic Fox	<i>Vulpes lagopus</i>	Goose/WIR/MLA	8	8
Arctic Hare	<i>Lepus arcticus</i>	Goose/WIR	9	9
Grey Wolf	<i>Canis lupus</i>	Goose/WIR/MLA/RSA	36	86
Grizzly Bear	<i>Ursus arctos</i>	Goose/MLA	10	21
Moose	<i>Alces alces</i>	MLA/WIR/RSA	17	27
Red Fox	<i>Vulpes vulpes</i>	Goose/WIR	11	11
Wolverine	<i>Gulo gulo</i>	Goose/WIR/MLA	12	12
Unidentified Fox ^c	<i>Vulpes</i> sp.	Goose/WIR/MLA	88	101
Total			191	275

Notes:

^a Observations of wildlife sign are not included as observation events.

^b Note that it is not possible to identify individuals and it is likely that some of the same animals observed were observed on multiple occasions.

^c Observations were recorded as "fox"; therefore, species (i.e., red fox or Arctic fox) is unidentified.

Wolves were the second most commonly recorded species, accounting for 19% of observation events (n=36) and 31% of estimated individuals recorded (n=86; Table 5.6-1). Observations of individual wolves comprised 64% of wolf observation events, with groups of two to seven individuals accounting for the remaining observations. Of the observations, wolves were most frequently observed at Goose Mine (58%) followed by the WIR (28%; Photo 5.6-2), MLA (11%) and the RSA (3%). Hazing was required for wolves at Goose Mine on four occasions and is further discussed in Section 9.



Photo 5.6-1 Red fox observed along the WIR at P10, April 4, 2025.



Photo 5.6-2 Arctic wolf observed along the WIR on Bathurst Inlet, April 12, 2025.

Grizzly bear and wolverine are both assessed as Special Concern by COSEWIC and are listed on Schedule 1 of SARA (Government of Canada 2026). They are also both territorially ranked as vulnerable (NatureServe 2026). Grizzly bear were observed 10 times, totaling an estimated 21 animals (Table 5.6-1). This does not mean 21 different animals were observed, as some sightings are likely re-sightings of the same individuals. Grizzly bear observation events were only made at Goose Mine and occurred in June (four sightings), July (five sightings), and August (one sighting). Observations of individual grizzly bear comprised 60% of observation events ($n = 6$), with sow and cubs accounting for the remaining observations ($n = 4$). Sow and cubs were recorded four times; with three observations made near the main camp, Echo Pit, and airstrip, and the fourth observed at a drill site approximately 20 km away from Goose Mine. A sow with cubs has been observed every year during monitoring since 2021. Hazing was required for grizzly bear on five occasions at Goose Mine and is further described in Section 9.

Wolverine were observed 12 times, all being of one individual (Table 5.6-1). Wolverine sightings occurred in January (four sightings), February (three sightings), March (two sightings), April (two sightings), and December (one sighting). Of the 12 wolverine observation events, 67% were made along the WIR ($n=8$), with the remaining made at Goose Mine ($n=2$), at MLA ($n=2$). Hazing was required for wolverine on four occasions along the WIR and at MLA and are further described in Section 9. Mitigative measures were determined to be successful at excluding and deterring wolverine and as a result, no hazing of wolverine occurred after March in 2025.

Moose were observed 17 times, totaling an estimated 27 animals (Table 5.6-1) between January 30 and August 6, 2025. Of the 17 moose observation events, 52% were made along the WIR ($n=14$), and one observation was made at Goose Mine, one at MLA, and one within the RSA during wildlife regional monitoring. This was the first sighting of a moose as far south as the Goose Mine. This individual was observed on August 1 between the dewatering road and Umwelt Pit and was observed walking and running until it left the area after 5 minutes. Arctic hare were also incidentally observed 10 times (Table 5.6-1). Nine of the observations were of deceased individuals and are further discussed in Section 9.

6. MIGRATORY BIRDS

Migratory birds include waterbirds and upland birds. Waterbirds are defined as birds that primarily forage within waterbodies. The Arctic waterbird community is comprised of geese, Tundra Swan, several species of dabbling and diving ducks, gulls, Arctic Tern (*Sterna paradisaea*), four species of Loons (*Gavia sp.*), and Sandhill Crane (*Antigone canadensis*). Upland birds are defined as birds that primarily forage and nest in upland areas. The Arctic upland bird community is comprised of songbirds, shorebirds, Ptarmigan, and Jaegers (*Stercorarius sp.*).

6.1 FEIS PREDICTIONS

The predicted residual effects of the Goose Project on migratory birds as identified in the FEIS included:

- Habitat loss (not significant, low magnitude); and
- Disturbance (not significant, low magnitude).

Mitigation and management measures to reduce the potential for these effects to result in residual effects on migratory birds are discussed in Sections 11 and 12 of the WMMP Plan (B2Gold Nunavut 2024).

6.2 PRE-CLEARING SURVEYS

Where possible, construction activities are scheduled to occur outside of the Arctic bird breeding season of May 15 and August 15. If avoidance is not possible, then pre-clearing bird nest surveys are conducted as detailed in Section 10.3.1.2 of the WMMP Plan (B2Gold Nunavut 2024).

Pre-clearing surveys are aimed at identifying active bird nests that are at risk of disturbance from construction activities and thereby trigger appropriate management as described in Section 11.2.2 of the WMMP Plan (B2Gold Nunavut 2024).

During 2025, ground clearing was required during the bird breeding season between May and July; therefore, pre-clearing surveys were completed.

6.2.1 METHODS

Pre-clearing surveys are conducted prior to construction occurring during the bird breeding season to ensure all nests in the area are located and occupancy status is confirmed. Straight line transects stratifying the proposed disturbance area were walked by two observers looking for birds and signs of nesting. For areas with ponds and lakes, transect lines were concentric circles around the waterbody.

Where potential nesting was noted, observers slowly and carefully searched the immediate area for a nest. Observers were vigilant to not disturb the nest or linger too long in the nesting area, as to not disturb the nesting bird. A setback buffer was established around any active nests and potentially active nesting locations. Buffer size followed those described in Table 6.2-1, with the nesting location in the centre of the buffer. Follow up surveys of identified nests were completed weekly for all buffered nests to determine when young left the nest. The buffer was removed and the area cleared if the nest stage was determined to be fledged (nest empty, no young in area, no signs of predation), depredated (nest disturbed, egg/nesting fragments), or abandoned.

TABLE 6.2-1 RECOMMENDED NEST BUFFER SIZES

Bird Group	Recommended Buffer Size^a
Gulls and Terns	300 m
Ducks	150 m
Geese	500 m
Loons, Tundra Swan, and Sandhill Crane	50 – 100 m
Songbirds	100 m
Shore Birds	100 – 300 m
Ground-Nesting Raptors	1.5 km ^b

Notes:

^a If the suggested buffer could not be implemented for logistical reasons, the Environment Manager ensured that a minimum buffer of at least 30 m was enforced.

^b If 1.5 km is not feasible, a minimum buffer of 100 m was set up around the nest site.

General survey information recorded included date, start and end time, start and end location, temperature, wind, and cloud cover. Where potential or active nests were identified, the transect, bird group, species, nest clue, nest stage, nest content (number of eggs or young), nest location, and associated buffer were recorded.

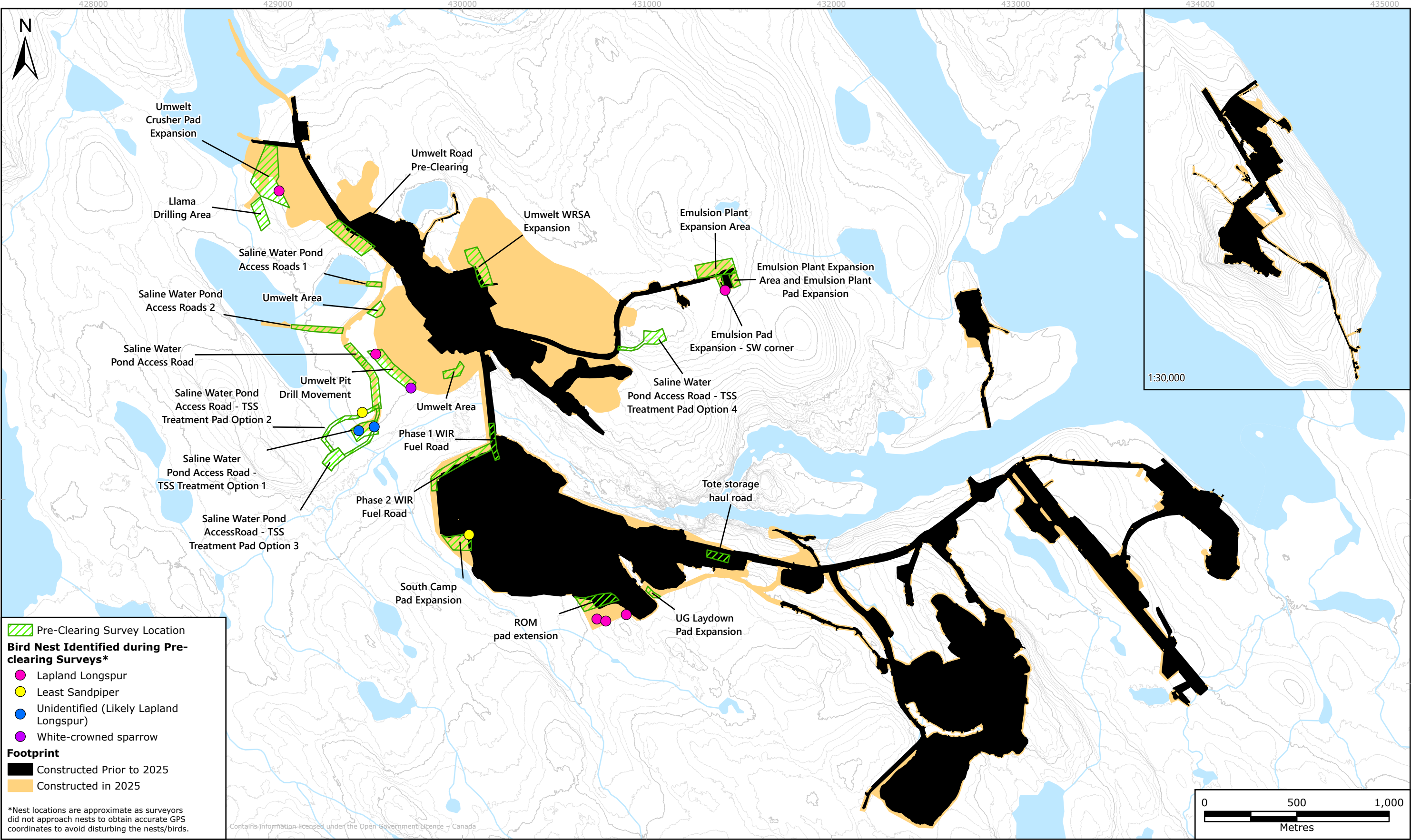
Bird pre-clearing surveys were conducted in accordance with and using the data sheet provided in the *Pre-Clearing Nest Surveys for Land Clearing Pre-construction, Construction SOP* (B2Gold Nunavut 2025I), including recommended buffer size and mitigative measures for all identified nests.

6.2.2 RESULTS AND DISCUSSION

During the breeding season, 25 pre-clearing surveys for migratory birds (including ground-nesting raptors) were completed at the Goose Mine between May 22 and July 30, 2025 (Figure 6.2-1; Table 6.2-2). In all cases, surveys were conducted the same day as, or one day prior to, ground clearing. A total of 11 active nests were identified during 8 of the 25 pre-clearing surveys. Two locations had more than one nest identified: three nests identified at the ROM Pad Extension on June 17, and two nests at the Umwelt Pit Drill Movement on July 15 (Tables 6.2-2 and 6.2-3).

In addition to the 11 nests observed during pre-clearing surveys, six nests were incidentally identified in 2025, all located at Goose Mine (Table 6.2-3). Setback buffers were applied to all active nests, ranging from 15 to 100 m (Table 6.2-2). Setback buffers were reduced by direction of a Qualified Professional to ensure buffers remained sufficient to prevent any disturbance to the active nest. Nest buffer distances may be adjusted by Qualified Professionals from the recommended sizes following a risk-based approach that considers multiple factors, including if the nest is established in an active work site, species specific tolerance levels, if the work completed is likely to result in a low-level of disturbance, if the activity required is critical to the project, and if the nest is continuously monitored while work is completed.

FIGURE 6.2-1 PRE-CLEARING BIRD SURVEY LOCATIONS, 2025



**TABLE 6.2-2 BIRD PRE-CLEARING SURVEYS COMPLETED AT THE GOOSE PROJECT,
MAY 22 TO JULY 30, 2025**

Date	Survey Location	Nest Found
May 22	Umwelt Haul Road Pre-Clearing	No
June 6	UG Laydown Pad Expansion	No
June 7	Umwelt Crusher Pad Expansion	Yes
June 11	Llama Drilling Area	No
June 12	Emulsion Plant Expansion Area	Yes
June 15	Umwelt Pit Road (revision)	No
June 17	Umwelt Pit Area	Yes
June 17	ROM Pad Extension	No
June 20	Saline Water Pond Access Road	No
June 21	Saline Water Pond Access Road	No
June 24	Saline Water Pond Bird Survey	No
June 24	Saline Water Pond Bird Survey	No
June 26	Saline Water Pond Access Road - TSS Treatment Pad Option 1	Yes
June 27	Saline Water Pond Access Road - TSS Treatment Pad Option 2	Yes
June 28	Saline Water Pond Access Road - TSS Treatment Pad Option 3	Yes
June 28	Saline Water Pond Access Road - TSS Treatment Pad Option 4	No
July 3	Emulsion Plant	No
July 9	Emulsion Plant	No
July 11	Phase 1 WIR Fuel Road	No
July 11	Emulsion Pad Expansion – South-west Corner	No
July 12	South Camp Pad Expansion	Yes (Photo 6.2-1)
July 13	Phase 2 WIR Fuel Road	No
July 15	Umwelt Pit Drill Movement	Yes
July 18	Umwelt WRSA Expansion	No
July 30	Tote Storage Haul Road	No

TABLE 6.2-3 ACTIVE NESTS IDENTIFIED, MAY 1 TO JULY 15, 2025

Date Identified	General Location	Species	Buffer (m)	Pre-Clearing or Incidental	Construction Activity Mitigation
June 4	Equipment Laydown Near AN Storage	American Robin	50	Incidental	Construction continued outside of buffer
June 7	Umwelt Crusher Pad	Lapland Longspur	50	Pre-Clearing	Construction continued outside of buffer
June 11	Echo Pits in Whitewater Laydown	American Robin	50	Incidental	Construction continued outside of buffer
		American Robin	50	Incidental	Construction continued outside of buffer
June 12	Emulsion Plant Expansion Area	Lapland Longspur	50	Pre-Clearing	Construction continued outside of buffer
June 17	ROM Pad Extension	Lapland Longspur	50	Pre-Clearing	Construction continued outside of buffer
		Lapland Longspur	50	Pre-Clearing	Construction continued outside of buffer
		Lapland Longspur	50	Pre-Clearing	Construction continued outside of buffer
June 20	Powerhouse Stack	American Robin	15	Incidental	Construction continued outside of buffer
June 26	Saline Water Pond Access Road - TSS Treatment Option 1	Unidentified (Likely Lapland Longspur)	100	Pre-Clearing	Construction relocated to avoid nests
June 27	Saline Water Pond Access Road - TSS Treatment Pad Option 2	Least Sandpiper	100	Pre-Clearing	Construction relocated to avoid nests
June 28	Saline Water Pond Access Road - TSS Treatment Pad Option 3	Unidentified (Likely Lapland Longspur)	100	Pre-Clearing	Construction relocated to avoid nests
July 4	Six Pack Laydown Trailers	American Robin	25	Incidental	Construction continued outside of buffer
July 12	Dorm 15	American Robin	30	Incidental	Construction continued outside of buffer
July 12	South Camp Pad Expansion	Least Sandpiper	100	Pre-Clearing	Construction postponed to after August 15
July 15	Umwelt Pit Drill Movement	White-crowned Sparrow	50	Pre-Clearing	Construction postponed to after August 15
		Lapland Longspur	50	Pre-Clearing	Construction postponed to after August 15



Photo 6.2-1 Least Sandpiper nest containing four chicks identified during pre-clearing surveys at the South Camp Pad Extension, July 12, 2025.

Construction works were postponed or relocated until after the breeding bird window for six of the eleven nests identified during pre-clearing surveys. For all remaining nests (five observed during surveys and six observed incidentally), the buffers remained in place until after the breeding bird window or until the nest was no longer active. Construction activities were completed outside of these buffered areas and nests were periodically monitored. Pre-clearing surveys were effective at ensuring all nests were located in areas where disturbance was planned during the bird breeding season.

6.3 WATERBIRD MONITORING IN PONDS

Monitoring the quality of water in onsite ponds will be completed to determine if they meet wildlife guidelines. If water quality does not meet wildlife guidelines, then these ponds will be monitored to determine if waterbirds are using the TSF or other onsite ponds as described in Section 11.3.1.1 of the WMMP Plan (B2Gold Nunavut 2024). Observations of waterbirds in onsite ponds where the water quality does not meet wildlife water quality guidelines may trigger mitigation to exclude the wildlife from the ponds, as described in Section 11.3.1.1 of the WMMP Plan (B2Gold Nunavut 2024). As processing operations began in the second half of 2025, the TSF or other onsite pond construction is in the early stages. As a result, waterbird monitoring in ponds was not completed in 2025, but is anticipated to begin once the ponds are established and water quality is monitored.

6.4 WATERBIRD POPULATION MONITORING

Regional population monitoring for waterbirds is completed every three years to evaluate whether waterbirds may be disturbed or otherwise affected by the Goose Project, resulting in reduced density or breeding, as described in Section 11.3.2.2 of the WMMP Plan (B2Gold Nunavut 2024). Regional population surveys were completed in 2024 (during the second year of construction), with the next regional survey scheduled for 2027. If results indicate fewer waterbirds near the Goose Project over time, this will trigger a review of site activities to identify if there are adaptive management actions that can reduce any potential disturbance to waterbirds.

6.5 UPLAND BREEDING BIRD POPULATION MONITORING

Regional population monitoring for upland birds is completed every two years to determine if upland birds are avoiding the Goose Project, as described in the WMMP Plan (B2Gold Nunavut 2024). Regional surveys were completed in 2024 during the second year of construction, with the next regional survey scheduled for 2026. If results indicate that fewer upland birds occur near the Goose Project, a review of site activities will be triggered to identify if there are adaptive management actions that can reduce any potential disturbance to upland birds.

6.6 MARINE BIRD POPULATION MONITORING—BATHURST INLET

Regional population monitoring for marine birds is completed every three years to evaluate potential effects of the Goose Project on the local population of marine birds, as described in Section 13.3.2.2 of the WMMP Plan (B2Gold Nunavut 2024). Marine bird surveys are completed as part of the regional waterbird surveys monitoring program (Section 6.4). The first survey occurred in 2024 during the second year of construction, with the next regional survey scheduled for 2027.

6.7 INCIDENTAL OBSERVATIONS OF MIGRATORY BIRDS

All personnel are responsible for recording wildlife sightings in the camp's wildlife logs (Appendix G). These logs provide an indication of the wildlife species that occur in proximity to and interact with the Goose Project infrastructure, as described in Sections 11.3.1.4 and 12.3.1.3 of the WMMP Plan (B2Gold Nunavut 2024). Section 3.9 summarizes the number of personnel onsite collecting incidental sightings.

6.7.1 METHODS

All personnel at the Goose Project are expected to report observations of wildlife occurring around or interacting with the Goose Mine to the Environment Department. Incidental observation reports include location (GPS coordinates), date, time, species, number observed, behaviour, and any other descriptive information regarding the sighting.

Incidental observations were recorded in accordance with and using the data sheet provided in the *Incidental Wildlife Observations SOP* (B2Gold Nunavut 2025k).

6.7.2 RESULTS AND DISCUSSION

In 2025, there were 11 incidental observations of migratory birds, totaling an estimated 80 individuals and six nests (Table 6.7-1; Appendix G). All incidental observation in 2025 were made by site personnel, with 73% of observations made at Goose Mine (n = 8), 18% made at the MLA (n = 2), and 9% made along the WIR (n = 1). This included six occasions where site staff observed and reported active American Robin (*Turdus migratorius*) nests. Details on the buffers established and monitoring completed for all active nests is presented in Section 6.2.2.

Observations by staff also include two unidentified Ptarmigan found deceased at the Goose Mine; one due to collision with site infrastructure and one by unknown natural causes, which are both further discussed in Section 9. The remaining observation events included two observations of groups of Sandhill Cranes (n = 65) and one observation of an unidentified duck species (n = 1). Observations of migratory birds were made in January (n = 1, of an unidentified duck species), May (n = 3), June (n = 3), July (n = 4), and August (n = 1). The highest number of individuals was recorded in May, which represented 81% of individuals observed (65 individuals) and lowest in January and September, which is consistent with observations made in 2024.

In 2023 and 2025, incidental observations of migratory birds were limited to observations made by site staff. However, various regional monitoring programs were completed in 2024 and accounted for 97% of migratory bird incidental observation events, attributing to an increased number of migratory bird observations, but was not a reflection of an increase in migratory bird presence at the site. When excluding incidental sightings by biologists completing regional monitoring programs in 2024, the number of incidental observations is consistent across years. The number of observation events made by site personnel in 2025 (n = 11) is consistent with 2024 (n = 12) and 2023 (n = 9). The highest number of individuals incidentally recorded occurred in 2023, where 250 individual migratory birds were observed.

TABLE 6.7-1 INCIDENTAL OBSERVATIONS OF MIGRATORY BIRDS IN 2025

Species	Scientific Name	Observation Events	Estimated Number of Individuals
American Robin	<i>Turdus migratorius</i>	6	12 ^a
Sandhill Crane	<i>Antigone canadensis</i>	2	65
Unidentified Duck	-	1	1
Unidentified Ptarmigan	<i>Lagopus sp.</i>	2	2
Total	11		80

Notes:

^a Species with nests incidentally observed. Eggs observed in active nests are not included in the total number of individuals observed.

7. RAPTOR MITIGATION AND MONITORING

Arctic-breeding raptors nest either on steep faces of rock outcrops, or on the ground. Four species of cliff-nesting raptors may breed in the wildlife RSA: Peregrine Falcon (*Falco peregrinus tundrius*), Gyrfalcon (*Falco rusticolus*), Rough-legged Hawk (*Buteo lagopus*), and Golden Eagle (*Aquila chrysaetos*). Three ground-nesting raptor species may occur in the wildlife RSA: Snowy Owl (*Bubo scandiacus*), Short-eared Owl (*Asio flammeus*), and Northern Harrier (*Circus cyaneus*).

7.1 FEIS PREDICTIONS

The predicted residual effects of the Goose Project on raptors as identified in the FEIS included:

- Habitat loss (not significant, low magnitude);
- Disturbance (not significant, low magnitude);
- Direct mortality and injury (not significant, low magnitude);
- Attraction (not significant, low magnitude); and
- Reduction in reproductive productivity (not significant, low magnitude).

Mitigation and management measures to reduce the potential for these effects to result in residual effects on raptors are discussed in Section 10 of the WMMP Plan.

7.2 PRE-CLEARING SURVEYS FOR GROUND-NESTING RAPTOR NESTS

Where possible, construction activities are scheduled to occur outside of the raptor breeding season of April 15 to August 15. If avoidance is not possible, then pre-clearing raptor nest surveys are conducted, as described in Section 10.3.1.2 of the WMMP Plan (B2Gold Nunavut 2024) and the *Pre-clearing Nest Surveys for Land Clearing Pre-construction, Construction SOP* (B2Gold Nunavut 2025I). Pre-clearing surveys are aimed at identifying active raptor ground nests that are at risk of disturbance from construction activities, and thereby trigger appropriate management as described in Section 10.2.2.2 of the WMMP Plan (B2Gold Nunavut 2024).

7.2.1 METHODS

Pre-clearing surveys are conducted prior to construction occurring during the raptor breeding season to ensure all nests in the area are located (e.g., in case of new nest construction) and occupancy status is confirmed. Straight line transects stratifying the proposed disturbance area were walked by two observers looking for birds and signs of nesting, as described in Section 6.2.1.

Where potential nests are noted, observers slowly and carefully search the immediate area for a nest, and a setback buffer is established around any active nests and potentially active nesting locations identified. Buffer size follows those described in Table 6.2-1, with the nesting location in the centre of the buffer. Follow up surveys are completed weekly, following methods described in Section 6.2.1.

Bird pre-clearing surveys were conducted in accordance with and using the data sheet provided in the *Pre-clearing Nest Surveys for Land Clearing Pre-construction, Construction SOP* (B2Gold Nunavut 2025I), and described in further detail in Section 6.2.1, including recommended buffer size and mitigative measures for all identified nests.

7.2.2 RESULTS AND DISCUSSION

Pre-clearing surveys for birds completed in 2025 are described in Section 6.2. No raptor nests were identified during pre-clearing surveys in 2025, and therefore no mitigation or buffers were required.

One incidental Common Raven nest was identified incidentally on May 1, 2025, at the MLA tank farm. A setback of 30 m was implemented around the nest and monitored until June 15 once the eggs were no longer visible and the nest was confirmed to be inactive.

Pre-clearing surveys were effective at ensuring all nests in the area were located where disturbance was planned during the bird breeding season.

7.3 PIT AND QUARRY WALL NEST MONITORING

The pit and quarry wall nest monitoring program is designed to identify active raptor nests at risk of disturbance from blasting activities, and to implement mitigation to exclude raptors prior to nest building, as described in Section 10.3.1.1 of the WMMP Plan (B2Gold Nunavut 2024).

Nest monitoring at pit and quarry sites is conducted prior to and during the raptor nesting period if blasting is planned, to ensure that adults are excluded and cannot build nests.

In 2025, pit and quarry wall nest monitoring was completed during the raptor breeding season between April and August at three sites. Raptors were observed traveling through the area on two occasions; however, no signs of breeding were observed.

7.3.1 METHODS

Monitoring of pit and quarry walls for raptors is scheduled to be completed weekly during the raptor breeding period between April 15 to August 15 as per the WMMP Plan (B2Gold Nunavut 2024). Pit wall monitoring was completed by two observers: one observer scanned the sky and surrounding area for raptors, while the other scanned the pit or quarry wall for presence of raptors or raptor nests. Surveys lasted for 20 to 30 minutes at pre-determined vantage points and, if needed, observers rotated around the pit to see the entirety of the site. Observers looked for behaviour or visual signs of potential nesting activity, including raptor presence, copulation, raptors carrying nesting material, raptors carrying food for nestlings, raptors displaying defensive or territorial behaviours, raptors perching on pit walls, and visually identifiable stick nests.

General survey information recorded included date, start and end time, pit or quarry name, location, temperature, wind, and cloud cover. Observations of raptors were also recorded, including potential species, behaviour, nesting cues, nest stages, nest contents, location in pit, deterrents used, and success of deterrents.

Pit and quarry wall nest monitoring surveys were conducted in accordance with and using the data sheet provided in the *Pit and Quarry Wall Raptor Nest Monitoring SOP* (B2Gold Nunavut 2025m), including mitigation measures for all raptors.

7.3.2 RESULTS AND DISCUSSION

Pit and quarry wall nest monitoring was completed in 2025 at the Echo Pit, Llama Lake, and Umwelt Pit, as these sites currently have walls tall enough to potentially support cliff nests (Figure 7.3-1).

A total of 49 surveys were completed at the sites between April 13 and August 16, 2025.

A summary of the number of surveys conducted each month at the pits can be found in Table 7-3.1.

TABLE 7.3-1 PIT AND QUARRY WALL NEST MONITORING SURVEYS COMPLETED AT EACH SITE, 2025

Month	Number of Surveys		
	Echo Pit	Llama Lake	Umwelt Pit
April	6	1	4
May	6	-	1
June	9	-	4
July	7	-	6
August	3	-	2
Total	31	1	17

Two raptors were observed during the 2025 surveys, both on April 28, 2025. One unidentified Falcon (*Falco sp.*) was observed flying over the Echo Pit and one Common Raven was observed flying over the Umwelt Pit, neither of which landed on pit walls.

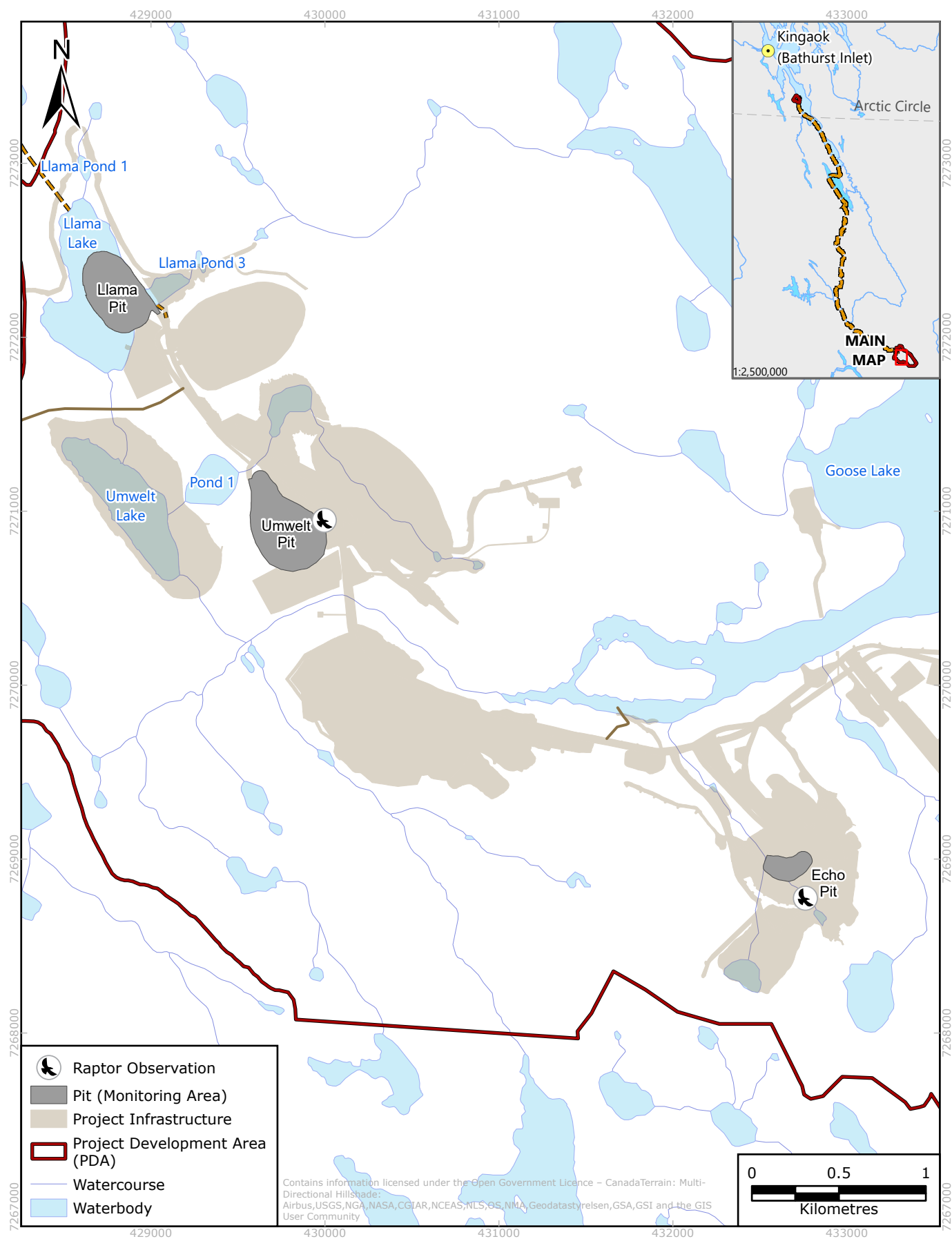
An additional five observations of raptors were recorded incidentally near/around the pit and quarry wall. Two Gyrfalcon (May and September) and two unidentified raptors (August and September) were recorded flying near Echo Pit, each on separate occasions. Additionally, one Common Raven was observed near Echo Pit on May 1, 2025, and was deterred using a bear banger (see Section 9 for further details).

As the raptors were observed flying over the pits and no nesting behaviour (e.g., carrying nesting materials, defensive displays etc.) was recorded, no mitigations were required. Pit and quarry wall raptor nest monitoring surveys were effective at monitoring for the Echo Pit, Llama Lake, and Umwelt Pit as no nests or nesting individuals were observed, and no additional mitigation measures were required in 2025.

7.4 REGIONAL SURVEYS FOR RAPTOR NESTS

Regional surveys for raptor nests are completed every three years to determine if raptors may be disturbed by site activities, resulting in lower nesting success, as described in Section 10.3.2.2 of the WMMP Plan (B2Gold Nunavut 2024). The first regional surveys for raptor nests occurred in 2024 during the second year of construction, with the next regional survey scheduled for 2027. Results indicating lower breeding success by raptors near the Goose Project will trigger a review of site activities to identify if there are adaptive management activities that can reduce any potential disturbance to raptors.

FIGURE 7.3-1 PIT AND QUARRY WALL NEST MONITORING LOCATIONS, 2025



7.5 INCIDENTAL OBSERVATIONS OF RAPTORS

All personnel are responsible for recording wildlife sightings in the camp's wildlife logs (Appendix G). These logs provide an indication of the wildlife species that occur in proximity to and interact with the Goose Project infrastructure, as described in Section 10.3.1.4 of the WMMP Plan (B2Gold Nunavut 2024). Section 3.9 summarizes the number of personnel onsite collecting incidental sightings.

7.5.1 METHODS

All personnel at the Goose Project are expected to report observations of wildlife occurring around or interacting with the Goose Mine to the Environment Department. Incidental observation reports include location (GPS coordinates), date, time, species, number observed, behaviour, and any other descriptive information regarding the sighting.

Incidental observations were recorded in accordance with and using the data sheet provided in the *Incidental Wildlife Observations SOP* (B2Gold Nunavut 2025k).

7.5.2 RESULTS AND DISCUSSION

In 2025, there were 20 incidental observations of raptors, totaling an estimated 22 individuals (Table 7.5-1; Appendix G). Fifteen of the observations were made by onsite personnel, with 11 observations at Goose Mine and four observations at MLA. This included one occasion where site staff observed and reported an active Common Raven nest. Details on the buffers established and monitoring completed for all active nests is presented in Section 7.2.2. Observations by site staff also include one Rough-legged Hawk that was reported as deceased by natural causes and one Common Raven that required mitigative actions to deter the individual. Hazing and mortalities are further described in Section 9.

Incidental observations made by onsite biologists during wildlife monitoring programs accounted for the remaining five observations, all of which were of Golden Eagles along the WIR (Table 7.5-1; Appendix G).

Overall, the most frequently observed species was Golden Eagle (5 individuals), Gyrfalcon (4 individuals), followed by Peregrine Falcon and Rough-legged Hawk (3 individuals).

In 2025, incidental observations of raptors were largely limited to those made by site staff, as fewer wildlife biologists were onsite to complete regional monitoring programs, compared to 2024. In 2024, several wildlife regional monitoring programs were required and accounted for 92% of raptor incidental observation events. As a result, the higher number of raptors in 2024 is largely attributed to these programs and not a reflection of a decrease in raptor presence around Goose Mine and MLA in 2025. The number of observation events by site staff (i.e., excluding sightings during regional monitoring programs) in 2025 ($n = 15$) was higher compared to 2024 ($n = 6$) and 2023 ($n = 5$).

TABLE 7.5-1 INCIDENTAL OBSERVATIONS OF RAPTORS IN 2025

Species	Scientific Name	Observation Events	Estimated Number of Individuals
Bald Eagle	<i>Haliaeetus leucocephalus</i>	1	1
Common Raven	<i>Corvus corax</i>	2	2
Golden Eagle	<i>Aquila chrysaetos</i>	5	5
Gyr Falcon	<i>Falco rusticolus</i>	3	4
Peregrine Falcon	<i>Falco peregrinus</i>	2	3
Rough-legged Hawk	<i>Buteo lagopus</i>	3	3
Unidentified Eagle	-	1	1
Unidentified Hawk	-	1	1
Unidentified Raptor	-	2	2
Total	20		22

8. MARINE MAMMAL AND SHIPPING MITIGATION AND MONITORING

Management and monitoring activities for marine mammals that occurred in 2025 included the following:

- Marine shipping monitoring and management for marine mammals and marine birds; and
- Incidental observations of marine mammals.

In 2025, B2Gold Nunavut did not construct the on-ice airstrip at the MLA, and construction of the WIR on Bathurst Inlet was completed prior to February 15; therefore, no pre-construction surveys for seal lairs were required, but are also discussed below.

8.1 FEIS PREDICTIONS

Ringed seal was chosen as a representative species for the marine mammal community in the FEIS because TK and baseline surveys indicated that this species was the primary species to occupy habitats within the assessment area of the FEIS. With implementation of mitigative measures, no predicted residual effects on ringed seals were identified in the FEIS. Mitigation and management measures to reduce potential effects on ringed seals are discussed in Section 14 of the WMMP Plan.

8.2 MARINE SHIPPING MITIGATION AND MONITORING

NIRB Conditions #58 and #64 require B2Gold Nunavut to mitigate impacts and disturbance to marine mammals and marine birds during shipping.

The objectives of the marine mammal and seabird monitoring program during shipping include the following:

- Vessel crew record incidental observations of seabirds and marine mammals in the Northwest Passage;
- Document and report measures taken to mitigate impacts to marine mammals and large groups of seabirds, if required; and
- Document and report ship strikes of marine mammals or seabirds, if they occurred.

B2Gold Nunavut distributes a marine shipping SOP and Shipping Management Guidelines brochure to the shipping companies to review prior to transit to Bathurst Inlet to ensure captains and crew are aware of B2Gold Nunavut's Project Conditions (Appendix A).

8.2.1 METHODS

8.2.1.1 VESSEL TRACKS

B2Gold Nunavut provided a list of vessel names and dates of delivery for shipments to the Goose Project's MLA. Each vessel is required by Transport Canada to transmit Automatic Identification System (AIS) data via a transceiver on board. These data are used by other vessels and Vessel Traffic Services to monitor vessel movements. ERM acquired archived AIS data from Vesseltracker, a commercial AIS supplier that aggregates AIS data from satellite and shore-based stations.

These data vary in frequency based on distance from shore, location of shore-based stations, and position of satellites. In some cases, AIS position data are available on an hourly or sub-hourly basis, but in other cases, position data can be 12-h or more between fixes. Tracks for the vessel names and dates provided by B2Gold Nunavut were downloaded from Vesseltracker (Vesseltracker 2025) and plotted using ArcGIS Pro 3.5.4. Only vessels traveling to the Goose Project's MLA are presented in this report.

8.2.1.2 MARINE MAMMAL AND SEABIRD OBSERVATIONS

Prior to the 2025 shipping season, B2Gold Nunavut provided an SOP to the shipping contractors, which describes the management and monitoring requirements for the Goose Mine (B2Gold Nunavut 2025n).

During 2025, incidental marine mammal and seabird sightings were required to be recorded by crew members on the vessels. Data collected included the following:

- Date and time of sighting;
- Vessel information, such as name, speed, heading, and location;
- Environmental information, such as wind and visibility; and
- Sightings information, including the species, distance from vessel, number of individuals, behaviour, whether there was a ship strike, and any mitigation action.

8.2.2 RESULTS AND DISCUSSION

8.2.2.1 VESSEL ACTIVITY AND EFFORT

During 2025, there were 8 vessel sailings servicing the Goose Project, summarized in Table 8.2-1, Figure 8.2-1, and Figure 8.2-2. There was 1 trip that traveled from the west to the MLA in September, and the remaining 7 travelled from the east to the MLA in August and September. Vessel tracks broadcast using AIS vessel positioning were downloaded from Vesseltracker (2025) and plotted using ArcGIS Pro 3.5.4 (Figures 8.2-1 and 8.2-2).

TABLE 8.2-1 VESSELS TRAVELING TO THE MLA, AUGUST AND SEPTEMBER 2025

Vessel Name	Vessel Type	Shipping Route	Date Arrived in MLA	Date Departed MLA
Annette A Desgagnés	Cargo	Eastern Route	August 19	August 23
Rossi A Desgagnés	Fuel	Eastern Route	August 20	September 22
CB Baltic	Fuel	Eastern Route	August 28	September 15
Miena Desgagnés	Cargo	Eastern Route	August 30	September 4
Taagborg	Cargo	Eastern Route	August 31	September 11
Donald C Trauscht	Fuel	Western Route	September 6	September 11
Annette A Desgagnés	Cargo	Eastern Route	September 22	September 26
Qamutik	Cargo	Eastern Route	September 25	September 25

FIGURE 8.2-1 VESSEL TRACKS DURING SHIPPING SEASON, AUGUST 2025 ARRIVALS

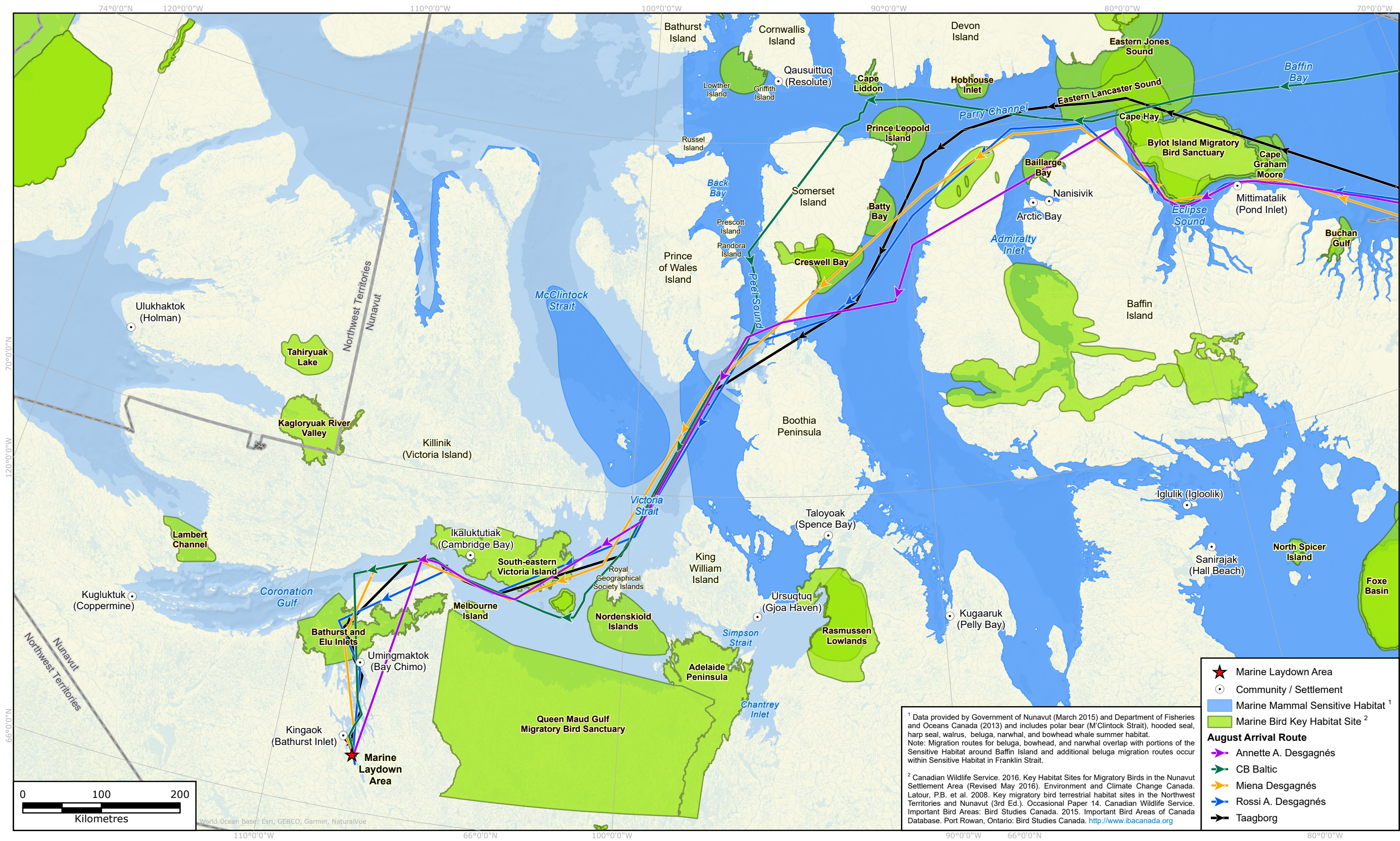
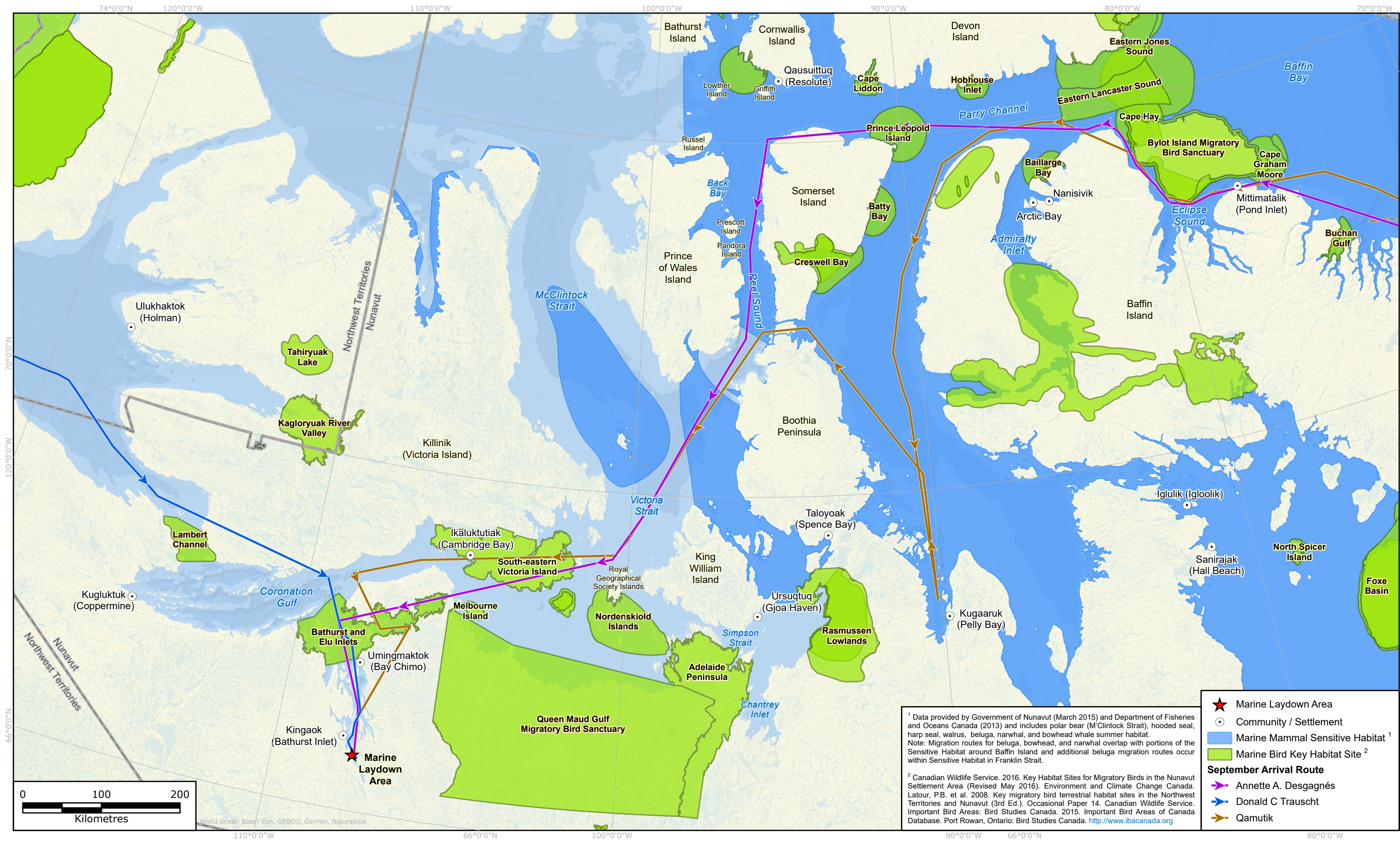


FIGURE 8.2-2 VESSEL TRACKS DURING SHIPPING SEASON, SEPTEMBER 2025 ARRIVALS



During 2025, marine mammal and/or seabird sightings were recorded by crew members on 6 of the 8 vessels (all but the CB Baltic and Qamutik) between August 10 and October 2.

Vessel crew onboard ships servicing the Goose Project are required to collect incidental sightings of marine mammals and seabirds during their voyage. However, some vessels conducted dedicated surveys while transiting, which is not a requirement for the Goose Project. In addition to recording incidental sightings, 119 surveys (52 seabird surveys and 67 marine mammal surveys) were completed, totaling approximately 34 h of observation time (approximately 22 h dedicated to seabird surveys and 12 h to marine mammal surveys) while travelling along the shipping route. Of the 52 seabird surveys, 43 were completed while the vessel was moving and the remaining 9 while the vessel was anchored. Similarly, 45 of the 67 marine mammal surveys were completed while the vessel was moving, and the remaining 22 while the vessel was anchored. Marine mammals or seabirds were recorded during 31 of the 119 surveys (28 seabird surveys and 3 marine mammal surveys). None of the sightings indicated requirements for management activity.

8.2.2.2 MARINE MAMMAL SIGHTINGS

During 2025, 8 separate marine mammal sightings were recorded by crew members between August 13 and September 19. Five marine mammal species were observed over the 8 separate sightings: One sighting of a killer whale (*Orcinus orca*), five sightings of four seal species, and two sightings of unidentified seal species (Table 8.2-2; Figure 8.2-3; Appendix H). The sighting of a killer whale occurred in August east of Iqaluit, Baffin Island (see Inset 2 Figure 8.2-3). Killer whales are ranked as Special Concern by COSEWIC (Government of Canada 2026).

TABLE 8.2-2 OBSERVATIONS OF MARINE MAMMALS DURING SHIPPING IN AUGUST THROUGH SEPTEMBER 2025

Marine Mammal Species Group	Common Name	Scientific Name	Number of Sightings	Number of Individuals
Cetacean	Killer whale ^a	<i>Orcinus orca</i>	1	1
Pinnipeds	Bearded seal	<i>Balaenoptera physalus</i>	2	2
	Harp seal	<i>Pagophilus groenlandicus</i>	1	1
	Ringed seal ^a	<i>Pusa hispida</i>	1	15
	Harbour seal	<i>Phoca vitulina</i>	1	1
	Unidentified seal species	NA	2	20

Notes:

^a COSEWIC status "Special Concern."