

1 SUBMISSION BY GOVERNMENT OF NUNAVUT

2 . LEE: you. So I'll wait for the
3 presentation to come up. you.

1 So I'm not sure -- is it tab 6? It's in the
2 binder, the presentation -- tab 7.
3 So to be clear, I'll be making this presentation
4 because, as Drikus said, unfortunately, Mitch Campbell,
5 who was the polar bear biologist, was unable to attend.
6 But I participated in this survey with Marcus and
7 Mitch Campbell, who also participated asked if I could
8 give the presentation.

9 I have provided parts of this presentation before
10 in discussions with the communities prior to the survey
11 taking place. So for some of you the slides should be
12 familiar. Okay. Next slide, please.

13 So some background that Marcus wanted to provide
14 was that the last western-based aerial survey took
15 place -- the results were provided in 2011, and at that
16 time Stapleton et al -- it would be Atkinson, Stephen
17 Atkinson -- presented a result or an estimate of about
18 1,000 polar bears for that population that you see
19 outlined by that red line.

20 At one of the last public hearings Nick Lunn, who
21 is here for Environment Canada, presented their most
22 recent analysis of Western Hudson Bay for a certain
23 period, and their analysis was quite complex. It
24 involved all of the mark recapture data that they

25 conduct, and it showed at that time that it had been

1 stable for the period, not necessarily the last decade,
2 because the time period has changed since then. And,
3 of course, with IQ and local observations.

4 I was involved with Gabriel Nirlungyak in 2007
5 when we had a public hearing in Arviat. And all the
6 elders there, including many who passed away since
7 then, have increasingly and consistently stated that
8 they had been seeing more bears, and I suspect that
9 we'll hear that today.

10 So one of the major concerns was that previous
11 studies relied primarily on capturing bears, and a
12 of concerns were expressed by Inuit about the effects
13 of the drugs. Next slide, please.

14 So based on those concerns, NTI had passed a
15 resolution for less intrusive methods, and the
16 government of Nunavut responded by implementing these
17 aerial surveys. So in the past they relied more
18 exclusively on physical mark recapture, meaning that
19 every bear, almost every bear in Western Hudson Bay was
20 tranquilized and measured. And the GN decided to
21 utilize a different method and to do an aerial survey,
22 and that's why I was involved.

23 Because, as many of you know, Mitch Campbell the

24 regional biologist and I have been doing caribou
25 surveys for the last ten years in the Kivalliq Region,

1 so ikus asked us to help him with doing an aerial
2 survey. Next slide, please.

3 This is just a presentation, a figure of the 2011
4 results, and it gives you an indication of where the
5 bears were seen during this survey. Next slide,
6 please.

7 I already mentioned this, but this was the
8 analysis that Environment Canada had done, so here it's
9 more specific. It provides the exact period, 1987 to
10 2011. Nick is here, so if there are any questions on
11 this, especially the results -- I didn't review this
12 for this hearing -- I would defer to Nick. But,
13 essentially as long as that's estimated, it had
14 estimated 806 bears in 2011. I'm just pausing for the
15 interpreter. Okay. s.

16 I already mentioned this. The main point I would
17 say about using aerial surveys is that it doesn't
18 provide the same type of information that physical mark
19 recapture does. Physical mark recapture, because
20 you're measuring the bears and you're collecting
21 different type of information, that information could
22 be used often to predict the productivity of the

23 population. We can measure some of these aspects with
24 aerial surveys, but they're arguably not as robust as
25 doing physical mark recapture. So there is a trade-off

1 when we do the aerial surveys. But the government of
2 Nunavut and NTI felt that it was valuable because Inuit
3 had expressed such concerns about the physical mark
4 recapture. Next slide, please.

5 So in response to many concerns, especially
6 because Arviat was potentially facing a quota
7 reduction -- and I think their quota was -- the
8 government of Nunavut initiated an aerial survey to
9 examine the population status. So I helped
10 Mitch Campbell with the actual design of the survey,
11 and we tried to ensure that the survey design was as
12 similar to the last survey, 2011, so that the results
13 could be as comparable as possible. Next slide,
14 please.

15 For the collection of IQ and hunter observations,
16 I know that Arviat has conducted a number of projects
17 previously. Certainly Gabriel and I interviewed some
18 hunters, but also the Arviat HTO did their own IQ
19 study, and that was presented at one time to the NWMB.
20 For this particular survey, Mitch Campbell and I,
21 prior to the survey, visited all of the communities,

22 and we tried to incorporate as many of the concerns and
23 recommendations that they had about the survey design.
24 Of course, we weren't able to implement all of
25 their recommendations, but some of the recommendations

1 we tried to implement was to ensure as many ions were
2 surveyed. So, offshore, that required using different
3 equipment. We also had as many transects inland as
4 possible where the density was questioned, and we also
5 decreased the distance between transects for some of
6 the areas, based on information we received. Next
7 slide, please.

8 One of the other major pieces of information that
9 we used were movements from satellite collared bears.
10 So just to be clear, these bears are not collared by
11 the vernment of Nunavut. They're part of, I believe,
12 the Environment Canada program, and, thankfully, they
13 shared that information with us readily. So we were
14 able to use this information to sure that the
15 timing of the survey was adequate, that we maximized
16 the window where we could observe the bears on the
17 coast and, where it became less problematic, to site
18 them as they moved -- especially the females -- moved
19 inland. Again, also trying to sure that it was as
20 similar as possible to the last survey. Next slide.

21 So based on that, these are -- each of the lines
22 that you see are lines that either a fixed wing or a
23 Twin Otter in that top area, purple, flew. In the
24 medium or moderate and high density we flew those lines
25 with helicopters. One was an EC135 which

1 Mitch Campbell and Marcus Dyck navigated, and the other
2 one was a Long Ranger which I navigated. So you can
3 see that the coverage was extensive from almost
4 Chesterfield Inlet all the way down to and across the
5 border of Manitoba into Ontario.
6 I also wanted to mention that, for the Nunavut
7 portion, Mitch Campbell and I had just completed a
8 musk ox survey. So those transects can be considered
9 to extend almost to three hundred kilometres
10 further inland, and we did not observe any polar bears
11 on that musk ox survey. The polar bear survey was
12 conducted right after the musk ox survey -- like,
13 immediately after. Next slide, please.
14 This just gives you a comparison between the
15 survey conducted in 2011 and 2016, and you can see that
16 they're quite similar, as similar as possible in terms
17 of the design. Next slide, please.
18 Okay. So the timing of the survey was conducted
19 in late August. I know that this was also a concern

20 raised by many of the communities, and it's certainly
21 one that the government of Nunavut is continuing to try
22 to seek solutions, including potentially other types of
23 aerial surveys in the fall that Manitoba routinely
24 conducts.

25 But in order to compare the results of this survey

1 with the last survey, we decided to continue with a
2 survey at the same time period, and, also, we felt
3 confident with the timing because the maximum or the
4 highest density of bears still appear to occur in the
5 Wapusk or Manitoba portion, which is where we were
6 surveying and where we focussed most of our attention.

7 With respect to denning bears, I'm not sure if
8 he's going to go into that, but I'll just mention that
9 one of the issues potentially with denning bears was
10 that we would not actually count them. Our protocol
11 was that whenever we came across a den we examined it.

12 So we went down, and in some cases we actually landed.
13 But in most cases we could see into the den, and in all
14 cases that I was on we were able to detect if the den
15 was occupied or not.

16 And except for one occasion in the helicopter that
17 I was navigating, we always sighted in good conditions.
18 There was one morning near the Ontario border where we

19 encountered poor weather, and that only occurred for
20 maybe 30 to 45 minutes. It still allowed visibility
21 for the rear observers, for the front observer,
22 which was me -- and certainly not the pi -- we had
23 to focus on the safety. But other than for that one
24 instance, the condition, the sighting conditions for
25 the entire survey was excellent and was one of the

1 reasons we were able to complete the survey in such an
2 efficient and short period of time. Next slide,
3 please.
4 So as I mentioned, in the Nunavut portion
5 following the musk ox survey, because we had the
6 aircraft there, we had a number of Inuit observers with
7 us: Mark Robert, Kelly Owlijoot which was the previous
8 technician for Merch (phonetic), Leo Ikakhik also an
9 observer. And we also had observers from Manitoba,
10 since we were surveying in Manitoba. Then we had
11 Mitch Campbell in that really nice helicopter at the
12 bottom, that EC135, Eurocopter which they use for
13 search and rescue and all sorts of things. And that's
14 me in the middle there. And it's a really nice
15 helicopter. I didn't mind being in that helicopter at
16 all. So we had four observers per helicopter, and we
17 observed all the bears that we encountered. Okay.

18 Next slide, please.
19 Oh, I think I mentioned Louie Tattuinee on the
20 bottom left. Lee Ikakhik on the right. In the top
21 picture I know one of them is Marcus, and I think it's
22 Louie in the back. Next slide, please.
23 And this just gives you an idea of what we
24 actually did. So the helicopter from the shoreline
25 would fly inland, and the observer on the right would

1 observe out to -- in some cases, the Inuit. This is
2 one of the reasons why Mitch and I prefer using Inuit
3 observers; their sight and their search image is
4 incredible. They're picking out polar bears like
5 or three kilometres in the distance. It's for some
6 of the analysis to be quite challenging, but it's still
7 incredible in terms of how they're able to actually
8 observe the bears. The poorest sightabilities actually
9 came from the pi and myself. The best sightability
10 came from the Inuit observers.
11 So we would fly inland, depending on which
12 stratum. -- if it was high density, up to 100
13 kilometres inland; then turn, travel about four to five
14 kilometres between transect spacing, again depending on
15 the stratum; then travel all the way back and past the
16 shore onto the coastal floodplain because that was

17 recommended by the HTOs; and then continue that way.

18 s.

19 And this gives you just an example in the tidal
20 flats. Marcus has circled a bear in the bottom that
21 you can see. And one of the reasons we flew over
22 water -- and this required specialized equipment by the
23 helicopter because, again, Inuit were mentioning that
24 there might be bears in the water, so that's another
25 example.

1 With regard to vegetation, this -- the slide shows
2 you how much more complex and difficult it becomes to
3 see bears as we go inland. And this is one of the
4 reasons we tried to do the survey when bears were as
5 close -- were just coming off the ice and were as close
6 to the coastal area as possible. Of course, females
7 will travel inland, and we tried to observe them as
8 much as possible.

9 And, in fact, in this analysis we implemented a
10 satellite imagery to help with the covariates with the
11 analysis to account for the complexity in the
12 vegetation. In order to that estimate comparable
13 to the previous estimate, which didn't incorporate
14 satellite imagery, we applied the same method to the
15 2011 survey, and that's why the results of the 2011

16 survey are slightly lower when we're comparing these
17 estimates.
18 Just if you could go back. The other major issue
19 was glare. So this is reflection off the Hudson Bay.
20 Initially, both Marcus and Mitch wanted this
21 investigated. I wasn't sure if this would actually be
22 an important factor, but we included it in the
23 analysis, and glare came out to be one of the most
24 important factors because it essentially limited the
25 ability of observers to see bears. So when there was

1 glare, we accounted for that in the analysis. Next
2 slide, please. s.
3 Another major problem, which is why we
4 incorporated the satellite imagery for the vegetation
5 analysis or structure was you can see or I can tell you
6 that that's a bear in the bottom there, and that's near
7 the coast.
8 And some bears had different behaviours. A of
9 the male bears that I encountered were in very good
10 condition wouldn't move from their spot. Like, these
11 are the largest bears that I had ever seen, and they
12 would not move. Other bears, especially females with
13 cubs of year or cubs, would move into vegetation, and
14 unless you actually saw those bears or they moved, it

15 would be very difficult to detect them, which is one of
16 the reasons we tried to account for that in the
17 analysis. Next slide, please.

18 I already mentioned that we examined every den.
19 So we can go to the next slide.

20 And I think that's it. Sorry, keep going. More
21 than 130 hours of flying. Next slide.
22 These are the participants. I already mentioned
23 them. Next slide.

24 Just an example of what we saw along the coast,
25 different bears. On the bottom left you can see what I

1 mean. That bear didn't move when we flew over it.
2 It's quite comfortable. And, I mean, I think that's
3 one of the benefits of the aerial survey is that, yes,
4 some bears reacted, but it's not the same as
5 tranquilizing them. And we certainly -- at least I
6 certainly made an effort not to harass them. We flew
7 over them once, and that was it. Next slide, please.

8 More examples of the aerial survey. Next.
9 On the bottom right, that is obviously a female
10 bear with cubs of year. I can tell you for the
11 portion of the survey that I flew, that was actually
12 quite rare. In most cases, I only saw a female with
13 one cub of year, and we didn't really see that many

14 yearlings. Next slide, please.

15 Just gives you an example of the different

16 terrain. This is mostly in Manitoba, obviously. Next

17 slide.

18 That gives you some of the complexity of what I

19 was talking about when a bear goes into that

20 vegetation. They can be quite easy to miss. Next

21 slide.

22 Bear swimming. Next slide.

23 Okay. So this is the results. I guess this is

24 quite important. In total, the observers saw 339, and

25 then based on all of the factors that I mentioned --

1 the sightability to the distance between transects, the

2 stratum, the vegetation, the satellite imagery -- we

3 used that in the analysis to develop the final estimate

4 which will hopefully be in the next slide. Keep going.

5 I guess it's final. I'll get to the final

6 estimate. This slide is actually quite important, the

7 litter size. So the number of cubs of year in 2011 is

8 showing an increase in 2016, the yearlings is showing

9 about the same number, but the proportion of total

10 observations for cub of year is showing an increase,

11 and it's one of the reasons in the report we explicitly

12 state that productivity, measuring productivity was not

13 an objective of this study. Because if you looked at
14 that only, you could interpret that productivity was
15 increasing, but in fact, I would think that could be highly
16 suspect because it wasn't an explicit objective. The
17 main objective that Mitch, Marcus, and I feel
18 comfortable with is the actual population estimate. We
19 didn't actually measure all or have a design that was
20 to look at litter size or look at productivity of the
21 population. Next slide.
22 The body condition was variable across Western
23 Hudson Bay. I didn't see any bears that were in
24 extremely poor condition. Because I was mostly
25 surveying near Ontario where a lot of the last ice for

1 that year remained, I saw bears in that condition in
2 the top slide, which is, as I mentioned, some of the
3 largest bears I had seen.
4 But, again, I don't want to give you the
5 impression that this gives you an indication of the
6 productivity of the population, because that would be
7 misleading. Instead, this gives you a snapshot of the
8 condition of the bears we observed for that year in
9 that sample of the study period. Next slide.
10 Okay. So this is the result. This is the
11 population estimate. So if you recall, we observed

12 about 300 bears, and based on all of the other factors
13 the analysis estimated about 842 bears with an error or
14 a confidence interval of 562 to 1,121.
15 I don't really want to get into the confidence
16 interval unless people have specific questions about
17 it, but, essentially, it's indicating that the estimate
18 is not absolute, it's not completely certain. We
19 believe that's a confident estimate of the bears, and
20 it's consistent with the Environment Canada results and
21 also the previous survey estimate, and that's what led
22 Marcus and the GN to conclude that the population was
23 stable. Next slide.
24 So the previous estimate was a little over 1,000,
25 the new estimate was 800, a little over 800, even

1 though the difference between the estimates is lower
2 because of that -- those lines that you see above and
3 below each point, and the uncertainty associated with
4 each estimate, we can't actually detect if there's been
5 that decline. So we just assume that the population is
6 stable. Next.
7 I've pretty much gone through all of that, I
8 guess, low densities. We again observed low densities
9 in August, which is not surprising to any of the
10 communities. Next slide, please.

11 One item that I didn't touch on was that, compared
12 to other aerial surveys that have been done for
13 Foxe Basin, for example, and even, I guess, Southern
14 Hudson Bay the last time it was done, the cub of year
15 and yearling variables are much lower for Western
16 Hudson Bay. Even though it wasn't a specific objective
17 of the study, when you compare them to other aerial
18 surveys, Western Hudson Bay has lower values. Next
19 slide, please.
20 So I guess this is more of, not necessarily as
21 relevant here, but essentially some of the next steps
22 that are required in the next survey that's done, which
23 is to obviously collect more Inuit knowledge, consider
24 the sea ice, because that's always mentioned, and,
25 also, some of these trade-offs we've mentioned about

1 not doing physical mark recapture. Next slide.
2 Okay. I'm not going to mention this. Next slide.
3 That's it. Thank you for your patience and time.
4 THE CHAIR: Thank you very much, David Lee.
5 ikus, how much time is your second presentation
6 going to take?
7 MR. GISSING: You, man.
8 Our second presentation was going to be our
9 submission to the Board, that we submitted to the

10 Board.
11 What I would recommend in the interests of time is
12 that we maybe skip the background because it's very
13 similar to a of the information in our background
14 that we do to design was the same as David Lee just
15 presented. So I would suggest that in our second
16 presentation we just go with the conclusions and our
17 recommendations to the Board, if that's okay with you.
18 Everybody's got access to these, so people can read the
19 background if they want to.

20 THE CHAIR: No, that's fine, ikus. But
21 we'll carry on, then, with the GN until we finish the
22 GN. Then we'll take a break and have questions after
23 that. you.

24 MS. SMITH: you. I'll just read off the
25 off the current status portion, if you want to bring

1 that up, John.
2 So current status. A new collaborative aerial
3 survey study was conducted between the 12th and 22nd of
4 August, 2016, to reassess the abundance of the Western
5 Hudson Bay polar bear subpopulation.

6 THE CHAIR: Karen.

7 MS. SMITH: Yes?

8 THE CHAIR: I just want to give people an

9 indication where that is. So it's tab 3, I believe, in
10 the binder so everybody can find it, tab 3.

11 MS. SMITH: od.

12 THE CHAIR: Yeah, just give them a minute.

13 s.

14 MS. SMITH: And just for the translators,

15 we're just moving down through the document to the

16 current status portion, if that helps. I'll give John
17 a chance. Here we go.

18 So moving on to Point 2, the new subpopulation
19 estimate was assessed at 842 bears, and as David Lee
20 mentioned with the confidence interval, between 562 and
21 1,121. During August of 2016, during the time of the
22 survey, very few bears were sighted in Nunavut, with
23 the vast majority summering in Manitoba.

24 As with the last survey, indicators of
25 reproductive performance were poor in Western

1 Hudson Bay during 2016 when compared to any other
2 subpopulation in the Hudson Bay complex. For example,
3 polar bear cubs of the year and yearlings presented a
4 small proportion of the total observations.

5 The new population estimate is lower than that of
6 the previous aerial survey, but not significantly,

7 since confidence intervals overlap. The current
8 estimate is not significantly different from the 2011
9 aerial survey estimate of 949 bears, based upon similar
10 transect sampling methods and analysis of covariates.
11 So moving to the consultation portion. Community
12 consultations were held with HTO representatives from
13 Rankin Inlet, Arviat, Whale Cove, and
14 Chesterfield Inlet between the 4th and 7th of July in
15 2017. Also included were participants from NTI and the
16 Kivalliq Wildlife Board. During those meetings,
17 results from the 2016 aerial survey were discussed, in
18 addition to the GN recommendation of no change to the
19 current TAH of 28 bears, given the results of the
20 study.

21 Several communities indicated their support for a
22 fall coastal survey to assess bear distribution that
23 could assist in presenting problem bear occurrences, as
24 well as support for more detailed traditional knowledge
25 study.

1 The Arviat HTO requested that polar bear tag
2 credits be zeroed so that full allocation of tags
3 becomes available for the polar bear harvest but also
4 for potential polar bear problems.
5 The vernment of Manitoba was provided with the

6 2016 Western Hudson aerial survey report and notified
7 of the GN's TAH recommendations of no change to the
8 current TAH of 28 bears, with a recommendation to the
9 NWMB to reset credits in the TAH.

10 The report has also been provided to ECCC and
11 Parks Canada. Government of Manitoba and ECCC
12 officials have been encouraged to participate in the
13 NWMB's decision-making process and to provide any
14 additional information, concerns, or recommendations
15 they consider relevant in the interests of helping the
16 Board an informed decision.

17 So the recommendations that we provided at the
18 September regular meeting in 2017, the DoE recommends
19 no change to the current Western Hudson Bay total
20 allowable harvest of 28 bears, DoE recommends a reset
21 to the TAH by zeroing out existing polar bear tag
22 credits so that all communities harvesting from Western
23 Hudson Bay will be in a position to have their full
24 allocation available to cover any harvested bears and
25 problem bears, if necessary. So the next page.

1 So this recommendation was derived by taking
2 various sources into consideration and by carefully
3 evaluating additional important relevant information as
4 follows. The GN aerial survey results of 2011 and 2016

5 are both very similar in that they are not
6 statistically significantly different. That means that
7 although a decline of approximately 18 percent in the
8 population was observed, results and comparisons of
9 both studies indicate that the Western Hudson Bay polar
10 bear population has remained relatively stable. The
11 ECCC analysis indicated that the Western Hudson Bay
12 subpopulation has remained relatively stable over the
13 past decade, whereas the declining trend was apparent
14 between 1987 and 2004.

15 Sea ice freeze-up and breakup patterns over the
16 past decade have not indicated any significant trends;
17 however, when a larger time frame from 1979 to 2012 is
18 considered, breakup and freeze-up of sea ice has been
19 occurring three weeks earlier and three weeks later, on
20 average, respectively.

21 Average body condition or body mass of solitary
22 adult female polar bears has been declining since 1980.
23 As body condition declined over this period, so did
24 recruitment rates or litter production. Similar
25 observations were made during both aerial surveys where

1 both cubs of the year and yearling observations were
2 lower as compared to any other seasonal ice-free polar
3 bear population with available data.

4 The mean combined annual Nunavut-Manitoba removal
5 for the Western Hudson Bay subpopulation was
6 approximately 32 bears. That includes harvest season
7 from 2003-2004 to 2015-2016. Manitoba in the past has
8 retained eight tags for potential defence-of-life and
9 property kills. The removal for the same period was
10 2.8 bears per year.

11 DoE will continue to work with communities to
12 ensure that public safety is maintained and bear-human
13 interactions are minimized through a strong emphasis on
14 polar bear deterrent efforts. DoE recommends that, as
15 per section 5.7.6 of the NLCA, the TAH should be
16 distributed among the communities that share the
17 Western Hudson Bay polar bear subpopulation as
18 identified by the regional wildlife organization and
19 that consideration should also be given to communities
20 that endure a higher level of polar bears that become a
21 risk to public safety and property.

22 DoE believes the recommendation to maintain the
23 current TAH of 28 bears balances the best current
24 available scientific information and Inuit observations
25 to ensure that the harvest does not cause a

1 conservation concern for the Western Hudson Bay polar
2 bear subpopulation over the short and long term.

3 And just an additional point as to where we are
4 now, that the NWMB recommended an increase of six to
5 the TAH, and this decision was accepted by the Minister
6 of Environment.
7 you.

8 THE CHAIR: you very much, Karen.
9 So, with that, we're going to take a 15-minute
10 coffee break, but just so you all know, everybody's
11 going to have an opportunity to ask questions of the
12 vernment of Nunavut. So when your turn comes, I'll
13 let you know. All right?

14 So let's take 15 minutes for coffee.

15 (ADJOURNMENT)

16 THE CHAIR: Okay. you, everyone, for
17 coming back. We will carry on.
18 So the next process we're going to now have is
19 people have the opportunity to ask questions of the GN
20 on their presentation to the Board. So first up to ask
21 questions will be Board members. So I'll open it up to
22 Board members for questions to the vernment of
23 Nunavut. Charlie.

24 NUNAVUT WILDLIFE MANAGEMENT BOARD QUESTIONS AND COMMENTS

25 MR. INUARAK: you, man.

1 These are my questions, a few of them, to the

2 Department of Environment for your research survey
3 using, numbers, of course, when you said in August the
4 survey was conducted. And I'd like to know, you said
5 you did this survey in August, so is this the month
6 that it was done and completed?

7 THE CHAIR: you, Charlie.

8 ikus or David Lee.

9 . LEE: Qujannamiik, Charlie.

10 If the question was that the survey was completed
11 in August, yes. That's the only question I received
12 through interpretation.

13 THE CHAIR: you, David.

14 . LEE: It took about weeks in
15 Manitoba and about three or four days in Nunavut.

16 THE CHAIR: you, David.

17 Charlie.

18 MR. INUARAK: you, man.

19 od answer. Towards the fall time, perhaps, this
20 survey, what was the duration of the survey towards the
21 fall? Beginning at what month? Can you identify? How
22 long was the survey, or was it a year-long survey, or
23 was it a number of months? That's what I want to know.

24 THE CHAIR: you, Charlie.

25 David.

1 . LEE: you, man.
2 you, Charlie. So, again, I apologize if I
3 didn't understand your question.
4 There was no survey conducted in the fall. HTOs
5 have requested a survey. The Manitoba government does
6 conduct a survey in the fall, and I think it typically
7 takes about one week, although I am not familiar with
8 their survey. Nick may be more familiar with it.
9 But to answer your question, all of these surveys
10 are very short -- like, days. They're not long
11 surveys. They happen over a short period of time, and
12 so they're not comparable to Inuit qaujimajatuqangit
13 which obviously is observations over the whole year.
14 And that's why I think one of the things that the
15 government is looking into is more IQ and more --
16 potentially a survey in the fall comparable to the one
17 Manitoba does. This survey wasn't done in the fall.
18 THE CHAIR: you, David Lee.
19 Charlie.
20 MR. INUARAK: you, man.
21 you for your answer, and I thought I would
22 hear perhaps difference compared to IQ. I thought I
23 would hear different compared to IQ. I wanted to
24 clarify this before we start.
25 My other question; you said background, your

1 researcher survey. So how long after from that
2 beginning? You are comparing 2011 and 2016 and said
3 there wasn't much difference, not much change in the
4 numbers. So the polar bears -- and I grew up with
5 polar bear hunters. Fall time was the season to hunt
6 polar bears, but it changed from year to year. Some
7 years there was a huge population in bears. Other
8 years there wasn't as much. This fluctuated, so
9 perhaps it may be different, or it could be the same as
10 to what your presentation.

11 According to your survey, because you are
12 researchers, I'd like to know when do they wander more
13 on the land, and when do they go to their huts, and
14 when would do they mate? Those are indicators that
15 reveal true nature, and this is what we want to take
16 out of this meeting, hearing.

17 So according to your research, are they in danger,
18 would you say? Are they dwindling in numbers? Are
19 they safe, according to your research?
20 you, man.

21 THE CHAIR: you, Charlie.

22 David Lee.

23 . LEE: you, man.
24 you, Charlie. Again, there are s of
25 questions in there so, with respect -- I agree with you

1 completely, Charlie. With respect to the biology, when
2 they're going to dens, the condition of the bears, the
3 fluctuation and their population size from year to
4 year, that information is very important. And I would
5 defer a of that either to ikus or to Nick Lunn,
6 who is the researcher for Environment Canada that has
7 looked at that, has studied that for the past over
8 decades, maybe three decades in Wapusk, Manitoba, where
9 and those females den.

10 I can't speak to that. I'm not -- except for this
11 most recent aerial survey, all that I did was count the
12 number of bears on those lines, so I can't provide you
13 with that specific information.

14 But one thing that I can mention is that Western
15 Hudson Bay is a unique population, in my opinion,
16 because of the army base that was established in
17 Churchill, the community there, ecotourism.

18 And, also, there's more information to be provided
19 by the Elders from Arviat. That's where I gained the
20 most amount of information, Elders such as
21 Ollie Ittinuar, who were special constables. And they
22 always said when they were growing up in Western
23 Hudson Bay they rarely came across bears. Then they
24 increased, and there was a peak -- at least, there
25 appears to have reached a peak and then declined

1 slightly. And that's what Environment Canada detected
2 was a slight decline.

3 And now based on just these aerial surveys
4 and, in part, some of the Environment Canada studies,
5 they appear to be stable right now. I can't predict
6 what it will be like in the future. I don't know.

7 Qujannamiik.

8 THE CHAIR: you, David Lee. ikus,

9 would you like to add to that?

10 I just want to mention to Charlie, we are going to
11 have Environment Canada give a presentation very soon.
12 In fact, we're going to move it up to the next
13 presentation.

14 But ikus, if you would add -- and you will.

15 . LUNN: Tomorrow? Will we give our
16 presentation tomorrow?

17 THE CHAIR: I was going to move you, talk to
18 you and maybe move you up right after, right next, if
19 you're ready or not.

20 . LUNN: We're probably not right ready.

21 THE CHAIR: Okay.

22 . LUNN: But we can have that discussion.

23 THE CHAIR: We'll have that discussion.

24 Anyway, ikus, go ahead.

25 MR. GISSING: you, man.

1 Yeah, I don't really have a to add to what
2 David just said. That's also our government position
3 when it comes to the Western Hudson Bay that we believe
4 the population over the short-term, looking at the
5 aerial surveys, the one that was conducted in 2011 and
6 then the one in 2016, that because of the overlap in
7 confidence levels, the population seems to be still
8 stable. And that's our position at this time is that
9 we believe.

10 But as David mentioned, we don't know what's going
11 to happen over the long term, and the vernment of
12 Nunavut is committed to continue to monitor this
13 population on a frequent basis. And if we detect that
14 there's a conservation concern or that the harvesting
15 might be creating a conservation concern, that we will
16 adjust or bring forward to the Board adjusted total
17 allowable harvest recommendations.

18 So, at this time, we believe it's stable.

19 THE CHAIR: Okay. you, ikus.

20 od, Charlie? David K.

21 MR. KRITTERDLIK: you, man. I'm
22 going to speak in English to be more understandable.
23 In the presentation, population survey, there was
24 a mention or something that says there's a disagreement

25 between scientific and IQ. And what we've been -- I

1 guess the majority of us have been trying to neutralize
2 that, the big difference between IQ and scientific
3 technical information. And, to date, all the
4 management plans are leaning towards scientific and
5 technical information. We are going by that, a
6 management plan that is leaning towards one side rather
7 than IQ information.

8 And I think, as the Board for the whole of
9 Nunavut, that any organization that deals in Nunavut is
10 trying to neutralize the difference between scientific
11 technology and IQ. Even both of our governments,
12 federal and territorial, are trying to recognize that.

13 But the management plans are not, and we got to
14 keep working on that, because during the information,
15 we heard that there's no sign of decline in polar bear
16 population. On another page it says there's a note
17 that says 18 percent decline in the population, and
18 what ikus was just saying was that the population is
19 stable.

20 That's where local questions come up. How do we
21 know? How do we know? There are different groups of
22 polar bear populations in this area. Those are the
23 kinds of things that Inuit want to know. We want to

24 work with -- they want to work with scientific and

25 technical knowledge, along with their IQ, but it

1 takes -- it's kind of hard more for the Elders to

2 understand the technology that's being used to manage

3 our wildlife or environment. And the Board, I'm sure,

4 we want to neutralize everything whenever we have to

5 a decision on issues in regard to wildlife.

6 And I guess one thing that I wanted to mention is

7 that Charlie was asking, how long was the scientific

8 study, or how long did the survey take? And we heard

9 one month, in August, probably ten days, more days in

10 Manitoba, four days in Nunavut. Those are the kind of

11 things that we're dealing with, the harvesters in

12 Kivalliq. And we're trying to equalize or somehow

13 trying to equalize the knowledge to come up with an

14 acceptable management plan.

15 But the information that we get from our survey

16 which was done in one month in ten days is what's

17 making up the management plan. Why not look at the

18 information that we get, the IQ information that we get

19 from the communities on the western coast of Hudson Bay

20 12 months of the year, not only a month or ten days?

21 That's something that the Board has been looking at.

22 We're trying to decisions on the information

23 that we are getting from our government, our
24 communities, our co-managers. And that's something
25 that a majority of the communities in Nunavut have been

1 saying: Look, we got this information. Why don't we
2 add that into our management plan? Those are the kind
3 of questions that we have and for the information that
4 we have.

5 And the recommendation right now from GN is that
6 total allowable harvest remains at 28, and that is
7 leaning strongly on the scientific information,
8 technology information, and there's a more coming
9 from the communities or IQ.

10 you.

11 THE CHAIR: you very much, David, for
12 those comments. I didn't really hear a question, but
13 it's very good information.

14 Environment, would you like to comment? If not,
15 we'll move on.
16 ikus?

17 MR. GISSING: I could just -- maybe I should
18 a comment on that. I think we're all struggling
19 with it. The Board, as well as the vernment of
20 Nunavut, made a commitment to incorporate traditional
21 knowledge in decision-making.

22 And, true, our submission to the Board was purely
23 based on the scientific information, and as I mentioned
24 earlier, in 2011 there was an aerial survey that
25 identified a population estimate of 1,030, and the 2016

1 one identified a population of 842. So it does
2 indicate -- if you just look at those numbers, it
3 shows a decline, but if you look at the confidence
4 levels -- and, again, it's from a scientific point of
5 view. And it's very challenging, as mentioned, to
6 explain this to Elders.

7 But based on the confidence, overlap in confidence
8 levels, there is still overlap. So at this time it's
9 very difficult to say the population is definitely
10 declining. So that's why I mentioned that the
11 government position is that it's stable. And this is
12 true. This is just on scientific information.

13 As we've mentioned before, the Board made a
14 decision that incorporated, I believe, traditional
15 knowledge that was collected during your regular
16 meeting, and that was submitted to the minister. And
17 in our internal deliberations, we did take into account
18 the traditional knowledge that was collected during
19 your regular meeting and as part of our community
20 consultations, and that was the reason for accepting

21 the Board decision.

22 THE CHAIR: Okay. you, ikus.

23 Caleb.

24 MR. SANGOYA: you, man.

25 In the beginning when we're having a hearing here,

1 the only person I recognize is Jackie Napayok. The
2 rest of them from Arviat, Whale Cove, Chester, they're
3 all new to me.

4 In the past, man, when we were here in
5 Rankin, the Inuit traditional knowledge during the
6 hearing, whether that could be included, is what we
7 wanted to see with respect to polar bears and their
8 food, the sea mammals, the things that were discussed
9 here. The Elders that were here, Henry Kaunak
10 (phonetic) and Joe Karetak from the '60s. There used

11 to be a of seals around here. Right now the polar
12 bear, when there is a quota system, the seals are being
13 eaten by polar bears, and there are more polar bears
14 now that are being born, and then the seals were in
15 decline by the polar bears.

16 Following the Inuit traditional knowledge, when we
17 first had a hearing here with respect to the polar
18 bears, the scientific studies, whether that could be
19 included in the report is what we wanted to see. I

20 know NTI and the government's recommendation, the seal
21 population is not being included, and why is that? If
22 it's not included, we're not including their food,
23 we're only hearing a portion of it. And it seems like
24 only what we've seen is what they're reporting on.
25 I really would like to see more studies done with

1 respect to the decline on seals by polar bears or what
2 was the cause. Is it more hunters harvesting seals, or
3 is it because of the polar bear population? If we're
4 discussing polar bears, you have to include their food
5 and what they're eating. I wanted to see that. I
6 expected to see that. What Inuit want to see, what
7 they want to hear, are they not important? This is
8 where they live, and the researchers are only here for
9 or three days, but these people live here, and they
10 would like to see those included in the studies.

11 My question to David or ikus.

12 THE CHAIR: you, Caleb.

13 ikus.

14 MR. GISSING: you, man.

15 Yeah, we made a commitment to continue to do
16 traditional knowledge studies, and we are still
17 committed to doing that.

18 The problem we encounter when it comes to

19 traditional knowledge studies is that we have to do it
20 for a of populations in Nunavut. So what we're
21 trying to do is, every time we do a scientific study,
22 we try to do jointly with that -- when we do a
23 scientific study, we try to do a traditional knowledge
24 study at the same time so to be able to bring forward
25 information to the Board at the same time.

1 In Western Hudson Bay we know that there was
2 previous traditional knowledge studies, and as part of
3 our consultations and as per this hearing, and I'm sure
4 at your regular meeting, the information has been
5 consistent that we receive from the communities that
6 the traditional knowledge people believe there's more
7 bears, there's more bear-human conflict in the
8 communities and that people do not believe the
9 population is in decline. So that's the traditional
10 knowledge that we've collected over time. But NTI
11 might be able to provide more of that information to
12 you.

13 When it comes to long-term studies, again it's
14 very challenging because we have to do all the
15 populations in Nunavut. We can't just focus all our
16 time on one population. But I believe Environment
17 Canada, maybe Nick during his presentation, will be

18 able to explain the work that they're doing in the
19 Western Hudson Bay. This is one of the populations
20 that have been studied the longest, and Environment
21 Canada has had a long-term monitoring program in the
22 Western Hudson Bay that's been stretching over many,
23 many years that's been able to identify trends over
24 time on issues like condition and more focussing on the
25 ecosystem, is my understanding. And I think a of

1 that information might be useful to the Board as well
2 when Environment Canada presents their information.

3 I hope that I'm on the right track.

4 THE CHAIR: you, ikus.

5 And I do think what Caleb was getting at, too, is
6 the food source of the polar bear and the population of
7 seals and how you could work collaboratively with DFO
8 or whoever's mandate it is to study seals and see if
9 that has an effect on polar bears, too, since it's
10 their food source.

11 MR. GISSING: Again, it's capacity. You know,
12 in Nunavut we have not looked at that. That's looking
13 at more long-term ecological studies, and because of
14 all the pressures, we have to prioritize where we
15 our money and time. And, at this time, a of our
16 scientific focus is on population inventories for polar

17 bears and caribou and those things.
18 But we are looking at different models where we're
19 working with academia. We are starting that for
20 caribou, and hopefully that can be expanded into other
21 species over time to expand our capacity, but at this
22 time, we just don't have that capacity.
23 But where there is opportunities for collaboration
24 like you mentioned with DFO, if we are aware of them
25 doing studies in an area on polar bears or the

1 ecosystem, like looking at the seal populations, our
2 biologists definitely try and collaborate with them.

3 THE CHAIR: you, ikus.

4 Caleb.

5 MR. SANGOYA: you, man.

6 My question was Inuit traditional knowledge that
7 were being discussed here during the first hearing, is
8 NTI not holding the Inuit traditional knowledge? With
9 NTI or the government, it's not written here, so it's
10 not included. So if it's like that, Inuit traditional
11 knowledge, if it's not being included with respect to
12 polar bears, there's always going to be a problem.

13 They always say there's going to be a decline, but we
14 do know, because their food source is declining, they
15 move to a different area, and then they go into the

16 communities. If there's food out there, they would not
17 come into the communities.

18 So my question: Is Inuit traditional knowledge
19 not important enough? And it's not written in the
20 agenda or recommendation.

21 THE CHAIR: you, Caleb.

22 ikus, you can defer this to somebody if you
23 want.

24 MR. GISSING: you, man.

25 I would hope that NTI would be able to answer that

1 because I know that they did a traditional knowledge
2 study on the Western Hudson Bay. We as a government
3 did not do one in the last number of years. But I hope
4 NTI has a response to that.

5 THE CHAIR: Paul, go ahead.

6 MR. IRNGAUT: you.

7 you, Caleb, for your question. Nunavut
8 Tunngavik's position is we do use Inuit traditional
9 knowledge, and we believe it needs to be used.

10 The organizations, the HTOs and the regional
11 wildlife organizations, what they would like to see, we
12 are always in support of them. When I report later, I
13 will include IQ. Briefly, however, I can say to you
14 right now that we believe Inuit traditional knowledge

15 is very important.

16 THE CHAIR: you, Paul.

17 Any other questions from Board members? Jorgen

18 and then -- Attima, go ahead.

19 MR. HADLARI: you, man.

20 I don't have a question, more of a comment. From

21 the Nunavut government and the federal government and

22 NTI, that researchers are here, and the Inuit that were

23 included when they were doing research, I would like to

24 hear from them, and they're not here, so we're only

25 hearing one side. I'm not happy with that, but that's

1 where we are right now I know if we hear Inuit

2 traditional knowledge. But when they're not here, we

3 can't hear from them.

4 you.

5 THE CHAIR: you, Attima. od point.

6 Jorgen.

7 MR. BOLT: you, man.

8 Just a couple questions. In your presentation

9 there, Lee, you got a couple photos here, a photo

10 of a bear in the trees there, its challenges there or

11 something like that. How far inland is that photo

12 taken? How far inland?

13 And another question is, what percentage of trees

14 are obstructing your view -- what percentage of your
15 surveys are in the trees, tidal flats, open barren
16 ground? I'd just like to know what percentage of what
17 you call, I guess, rogue vegetation, if you will, that
18 will not help you see the bears? What percentage of
19 time are you in the tree line? And I'd just like to
20 know how far that photo was in there.
21 you, man.

22 THE CHAIR: you, Jorgen.

23 David Lee.

24 . LEE: you, man.

25 you, Jorgen. For that specific photo, I

1 can't give you an exact estimate, but I can tell you
2 that, for the portion that I covered in Manitoba, you
3 can encounter that type of vegetation or trees
4 obstructing your view as soon as one kilometre to
5 kilometres inland. So that's why it's very vital for
6 the timing to sure that we are capturing most of
7 the bears as soon as they hit the coast.

8 And the behaviour of the bears in that area is
9 that most of the males, as you saw in the photos, are
10 actually along the coast, and it's primarily the
11 females that are moving inland. And we were very
12 fortunate that, through the satellite telemetry and the

13 timing, that we captured most of those females on the
14 coast as they were moving inland. So that's how we
15 were able to get around that problem, some of it, but
16 not all of it.

17 Certainly, there were females inland, and we
18 didn't see them all. It's for certain, and that's why
19 we tried to account for it using a number of different
20 methods. One was to decrease the actual distance that
21 you saw bears on each side.

22 So on the coast, the visibility could extend out
23 to kilometres, whereas once we headed inland, we
24 only estimated the number of bears what we consider the
25 effective strip width to about 800 metres, so much

1 closer to the helicopter, to sure that we were not
2 making that assumption for bears that were in covered
3 areas.

4 There's still problems because there are still
5 trees underneath us, and certainly bears could have
6 been hiding -- our view could have been obstructed. So
7 it is an issue, but we did the best we can. And the
8 fact that the estimate is still close to the previous
9 estimate gave Marcus and Mitch and me some confidence
10 in the estimate, but that's why there's some
11 uncertainty with it.

12 s.

13 THE CHAIR: you, David Lee.

14 Any other questions from the Board? David, go
15 ahead.

16 MR. KRITTERDLIK: you.

17 I just want to a short question. There was a
18 mention of Manitoba survey, and I'm just wondering what
19 the purpose of that survey was for.

20 you.

21 THE CHAIR: you, David.

22 ikus.

23 MR. GISSING: you, man.

24 I'm going to have to ask David if he wouldn't mind
25 answering this question. I'm not too familiar. I know

1 they do a coastal survey every year, and I suppose it's
2 just to pick up trends, but David might have a better
3 answer.

4 THE CHAIR: ahead, David.

5 . LEE: I'm going to apologize and
6 actually defer to Nick.

7 THE CHAIR: Okay. Nick, go ahead.

8 . LUNN: Yeah, thank you.

9 The purpose of the Manitoba survey, as ikus
10 said, it's just to get a trend of bears along the

11 coast. It's typically flown the very beginning of
12 September, just the coastal area from the Manitoba-
13 Ontario border up to the Nunavut-Manitoba border. So
14 it's just to get a count of how many bears they see.
15 And that gives them an indication of number of bears
16 that they might encounter in town later on, so from
17 their problem bear program.
18 Their survey isn't to get an estimate of numbers
19 of bears. It's not to say there are 'X' number of
20 bears in Western Hudson Bay. It's just to get an idea
21 from year to year how many bears are they seeing and
22 what might they expect in October and November in
23 Churchill for problem bears.
24 THE CHAIR: you, Nick.
25 Charlie.

1 MR. INUARAK: you, man.
2 My other question: When you did your survey with
3 helicopters and airplane, whether you can say the polar
4 bears, when they're moving from one area to another --
5 how many hours a day did you do your survey daily?
6 THE CHAIR: you, Charlie.
7 David Lee.
8 . LEE: you, Dan. you,
9 Charlie.

10 So typically we would try to get in the air by
11 8 a.m. each morning, and we could survey until about
12 4 p.m., not too much past 4. I can't remember the
13 exact times, but we wanted to sure that the light
14 conditions were not too low that would have affected
15 the visibility, if that was the question. So if you
16 count the hours, about eight to nine hours per day.

17 Qujannamiik.

18 THE CHAIR: you, David.

19 Charlie.

20 MR. INUARAK: you, man.
21 you for that answer. The hunters that are
22 out hunting for polar bear, they go really early in the
23 morning because they're wanting to harvest a polar bear
24 as soon as it gets bright out as soon as they could
25 see. And then late at night I know they always look at

1 their watches, and they're walking because they know.
2 I know the surveys that you've done, if you could
3 utilize Inuit, I would prefer that during the survey
4 they are included.
5 And when we're talking about numbers, whether it's
6 in decline or if they're stable, when you're following
7 the polar bears' movements all day, you could see them
8 all day. And at night I know the males, they sleep

9 during the day, they don't walk during the day, the big
10 males. They are nocturnal, more nocturnal, trying to
11 find a mate. During the day -- they are up during the
12 daylight hours, but during non-mating season, they
13 sleep more during the day.

14 My other question: When you're doing your survey
15 and you give the results to Environment Canada and
16 they're going to decide, we would like to see more
17 relevant information from the government so we could
18 decisions properly, because it is expensive when
19 we have a meeting in Nunavut, and we cannot
20 decisions with faulty information.

21 I know the Nunavut government, they do community
22 visits, and they learn more and more about wildlife and
23 most polar bears and caribou. I know if you asked the
24 minister to do more with respect to surveys, it would
25 not only be used by the government but used by

1 everybody else.

2 I would like to see that more often, man.

3 THE CHAIR: you, Charlie.

4 ikus, would you like to some comments?

5 MR. GISSING: Not really. I thought it was more
6 of a statement.

7 THE CHAIR: Yeah. Okay. There's no more --

8 oh, Jorgen, go ahead.

9 MR. BOLT: you, .

10 Just a quick question. You mentioned some islands
11 there on your surveys. What did you find? When you
12 said you were also told to be looking for bears in the
13 water, what percentage of the total of your survey, how
14 many bears did you see in the water and on the islands
15 there?

16 you, .

17 THE CHAIR: you, Jorgen.

18 David Lee.

19 . LEE: you, man.

20 you, Jorgen.

21 So we can't deviate too much from the transect
22 lines, but to address the HTOs' concerns to include
23 islands, whenever we could, we extended the line into
24 Hudson Bay to at least reach islands, and, also, we
25 extended into Hudson Bay over water. So that

1 previously wasn't done in other surveys.

2 And with respect to your other question about how
3 many bears we saw in the water, I didn't see that many.
4 And I'm not familiar with all of the observations in
5 the other helicopter, but I don't think there were that
6 many observations.

7 And I'll just respond to Charlie's comment because
8 it speaks to what Jorgen just asked. I completely
9 agree with Charlie. I mean, I work for NTI, so this is
10 my own opinion. It's very difficult for me actually
11 respond to Charlie because I consider him one of the
12 most knowledgeable hunters and Elders. So I've been
13 with Charlie out on the land, and I know everything
14 he's saying is accurate. So I agree. I can't contest
15 anything that you're saying, Charlie.
16 I know the GN has their own way of doing studies,
17 and one of the reasons I was involved in the survey was
18 to sure that Inuit were involved in the survey,
19 and, thankfully, the GN has tried to involve as many
20 Inuit. I know it's not perfect. They're still only
21 observers, and it's still a scientific method, but
22 there's been improvement since I've started working
23 with the GN on those issues.
24 And I guess the last item I'd mention specifically
25 on that point is we had Leo Ikakhik in the survey

1 plane, and there was one island near Arviat. I'm sure
2 the Inuit from Arviat know that there are bears always
3 on that island during summer. And we didn't
4 actually -- it wasn't included in the transect, but Leo
5 insisted we survey that island. So we deviated off the

6 transect line, and we made a new transect to cover that
7 island, and we saw many bears on that island. So it
8 just reaffirms Inuit knowledge.

9 Qujannamiik.

10 THE CHAIR: you, David.

11 Okay. No other questions.

12 Is there any questions from the staff of NWMB?

13 Vickie.

14 NUNAVUT WILDLIFE MANAGEMENT BOARD STAFF QUESTIONS AND

15 COMMENTS

16 MS. SAHANATIEN: you, . I have a

17 couple of questions.

18 The first one, if we can go back to the slide
19 presentation of this morning that was a community
20 consultation, the slide presentation, and there was one
21 slide right at the end that we didn't get a chance to
22 look at, and it was about the polar bear-human conflict
23 numbers. Keep going. There. And if someone from DoE
24 could just run us through that, that would be helpful.
25 That provides additional context about public safety

1 concerns.

2 you.

3 THE CHAIR: you, Vickie.

4 ikus.

5 MR. GISSING: .

6 I haven't looked at that slide. Is there any
7 specific questions that Vickie might have on that
8 slide? I know she requested it from our polar
9 deterrence specialist, and that's the information he
10 provided as it relates to polar bear-community conflict
11 in a community. Is there any specific questions?

12 THE CHAIR: you, ikus.

13 Vickie.

14 MS. SAHANATIEN: No specific questions. I just
15 wanted you to run over it and explain the numbers to
16 the audience. I think it's important contextual
17 information.

18 you.

19 THE CHAIR: you, Vickie.

20 ikus.

21 MR. GISSING: Well, I think people can read it,
22 but I could read it for them if they want. But, you
23 know, it's just the deterrent actions by WWF funded on
24 polar bears, and it's the numbers of bears encountered
25 by year, and as you could see, it fluctuates between

1 years and years. And, you know, 2014 there was 248; 2 2015, 90; 2016, 205. And -- but I just need to
3 caution -- I would like to caution people about the
4 numbers of bear-human conflict numbers.

5 And we've looked at this across Nunavut over the
6 years, and Vickie was in that position herself before,
7 and the statistics on collection of bear-human conflict
8 in communities are not always done by the same
9 individuals on a statistical manner. And I think we
10 need to be careful making conclusions based on the
11 numbers. And they fluctuate over years to years.
12 In Arviat, however, I must say it's been done
13 consistently. It's been done by WWF. And we have the
14 same conservation officers, so it's been collected
15 statistically accurate, I would say, over time. But it
16 fluctuates. Like, this year. We don't have the
17 numbers for last year, but I know that this last fall
18 the numbers are way down compared to previous years
19 because we had early freeze-up. So it fluctuates based
20 on freeze-up as well.
21 So some years when there's late freeze-up -- and
22 Arviat just happened to be on the coast line, and it
23 happens to be on a migration route of polar bears.
24 There's always going to be polar bears in that
25 community because polar bears move up the coast, as you

1 know, to look for ice. And if it freezes up early,
2 they will get onto ice before they get to Arviat or
3 Rankin or Whale Cove.

4 So I don't think I can any conclusions from
5 those statistics that you read there. Some years it's
6 up, some years it's down, and I think that's consistent
7 in all the communities in Nunavut from the statistics
8 that I've looked at.

9 And again, Vickie, you are much more familiar with
10 bear-human conflict based on the work you did for us
11 when you worked for us. So maybe you can take some
12 conclusions from it, but I can't.

13 THE CHAIR: you, ikus.
14 Vickie.

15 MS. SAHANATIEN: Okay. you, .
16 you, ikus. I think it's an important
17 contextual piece there to understand the level of
18 interaction that can happen in communities with the
19 polar bears. And I'm assuming this is primarily Arviat
20 information. And there are other communities that have
21 issues as well.

22 So just an additional piece that I think is
23 important because a number of the submissions and also
24 comments at our regular meeting from Kivalliq Wildlife
25 Board was that public safety was a very important

1 concern for people in the communities, and I think it's
2 important that we know the level, the potential level

3 and index of activity.

4 If I may ask another question. This one is to

5 clarify just for our information as well. So when

6 Karen was going over the briefing note and the updating

7 of the status of the information and then also your

8 recommendations, in the recommendations you stated that

9 you are recommending a total allowable harvest of 28

10 bears, and I just wanted to recognize the current level

11 is 34 based on our decision in December.

12 So just so we all understand why you would be

13 recommending, I guess, at this time to return back to

14 28 -- is that what you're doing? You're recognizing

15 that it was. And just to clarify that are for us, and,

16 I guess, any other information that would help us

17 understand that.

18 you.

19 THE CHAIR: you, Vickie.

20 ikus.

21 MR. GISSING: you, .

22 Yeah, that's what s this public hearing so

23 challenging is that we're having a public hearing after

24 decision was made, and the minister considered all

25 available information when the Board -- including

1 recommendations from the Board and why the Board

2 recommended that increase to 34, and the minister
3 accepted it.

4 And per response from the minister back to the
5 Board is that, unless the Board comes back with a new
6 recommendation after this meeting, that that number
7 will sit until the new population inventory or the
8 Board s a new decision. So we are not recommending
9 a change to the increase to 34.

10 THE CHAIR: you, ikus, for that
11 clarification.

12 Vickie.

13 MS. SAHANATIEN: you, .
14 you, ikus. And just one additional
15 question. Again, this is more of a contextual-type
16 question based on the presentation about the survey
17 results.

18 So we can see that the cubs of the year, there was
19 a proportion, a number given, the mean cub numbers that
20 you observed during the surveys and past surveys and
21 then also the numbers of yearlings that were observed
22 in the 2016 survey and past surveys. And it appears
23 that the recruitment isn't so great into the yearling,
24 and it doesn't appear that we have numbers of
25 recruitment into the adults because of the type of

1 survey that's being used.
2 I'm just wondering if we should have any concerns
3 about the low level of recruitment in Western Hudson
4 Bay compared to the other subpopulation numbers that
5 were provided.
6 you.

7 THE CHAIR: you, Vickie.

8 David Lee.

9 . LEE: I know that's a very valid
10 concern, Vickie. Unfortunately, I'm not a polar bear
11 biologist, so unfortunately, I think that response
12 really needs to come from Marcus or perhaps ikus.

13 But what I can say is what I mentioned in the
14 presentation; specific to this study, the objective was
15 not to look at the reproduction capacity or the
16 productivity of this population. I assume other
17 parties -- perhaps Environment Canada -- will present
18 that information. But appreciating that that
19 information is available, I'll repeat that, compared to
20 other populations, it shows lower values when it comes
21 to reproductive capacity or productivity.

22 s.

23 THE CHAIR: you, David.

24 ikus, additional statement.

25 MR. GISSING: I'd just like to add. I agree

1 with everything David said, but to add to that, as
2 David mentioned, that was not the objective of the
3 study. It was aerial survey, and it does not identify
4 survival rates. To come up with accurate survival
5 rates, as you know, you need to look at mark recapture
6 projects and long-term projects, not just a single-year
7 project. And maybe Environment Canada presentation, I
8 assume, would touch on that when they give it today or
9 tomorrow.

10 We have -- in previous surveys -- one thing that
11 we picked up from previous surveys was that -- and one
12 that comes to mind is a recent one in Baffin Bay where
13 we did a biopsy darting over three years. And in some
14 years they had the same observations was very few
15 recruitment, just from the air, just from physical
16 observations like David and them made. And then the
17 next year there was better ice conditions, and then
18 there was a of cubs again.

19 And there was -- and, as you know, the results
20 from the Baffin Bay is likely one of the -- currently
21 one of the most productive populations. But in the one
22 year they had the same observation. And I think we
23 need to be careful by making conclusions just based on
24 physical observations from the air.
25 And that's one of the reasons why I think the

1 Board may -- and I don't want to speak for the Board --
2 but why GN was conservative in our recommendation to
3 the Board in maintaining their harvest level, and why
4 we -- where we supported a conservative increase in
5 harvest that would not result in a major conservation
6 concern over the short term is because we do not have
7 those survival rates. And aerial surveys will not give
8 it to us. But by doing the aerial surveys more
9 frequently, as we are planning, -- we only have done
10 now, and we are planning to do these on an every-
11 five-year basis -- we hopefully over time will pick up
12 a trend that populations are increasing and declining,
13 and we would be able to much more informed
14 management decisions based on that.
15 But, at the same time, we're very fortunate in
16 Western Hudson Bay that there is a long-term study

17 conducted by Environment Canada that does look at
18 survival rates.
19 THE CHAIR: you, ikus.
20 Vickie.
21 MS. SAHANATIEN: Yes, thank you, ikus.
22 you, . And those are all the
23 questions we have.
24 THE CHAIR: Okay. you, Vickie. Our
25 last for the NWMB is our legal counsel. Michael, any

1 questions? No. All right. you very much to the
2 Board and for your questions.

3 Next on the list for questions to the GN is NTI.

4 Any questions, Paul or David?

5 NUNAVUT TUNNGAVIK INCORPORATED QUESTIONS AND COMMENTS

6 MR. IRNGAUT: As you know, I'm kind of in
7 between right now, so if I ask a question, I'm damned
8 if I do and I'm damned if I don't.

9 I guess my only question is, as you know, GN is a
10 public government. It should represent both non-Inuit
11 and Inuit, and that should reflect in their surveys
12 that they do, in their reports. I know they try hard
13 to have Inuit observers on board when they do their
14 surveys, but that's just a small portion of the survey
15 or the results that they come up with.

16 So with the methods that they use, it's mostly
17 scientific methods that they use. So I guess just a
18 comment that it's very hard to support their findings
19 when they only take one side.

20 As David said earlier, you guys have to a
21 decision. I don't know -- and this is strictly coming
22 off from my own thoughts -- is that maybe we need to
23 look at it differently, of course, get the scientific
24 method used, but at the same time have the Inuit method

25 being used. And I know David tried that during their

1 surveys, going off the transect and everything, and
2 looking at the islands, too.

3 But when it comes to the final report, it's always
4 scientific information that's spun out. Even though
5 it's a public government, maybe we need to have a
6 better look at this method that they use. I know it's
7 hard for the government because they have to look at
8 both sides too.

9 So I guess my question is: With only scientific
10 information that they're relying on, why just 28?

11 Looking at 28 TAH? That's strictly science-based
12 recommendation from GN. Is that right?

13 THE CHAIR: you, Paul.

14 ikus.

15 MR. GISSING: you, .

16 First, I am -- yes, the recommendation to the
17 Board of 28 was purely based on the results of the
18 survey, because we as the GN did not conduct a
19 traditional knowledge study at the time for the
20 population, so we did not have traditional knowledge
21 that we could bring to the Board.

22 However, we did do community consultations, and
23 part of the community consultations we did provide the

24 Board with the consultation record that identified the
25 information collected during the community

1 consultations. But the community consultations was
2 quite rushed before this meeting. As you know, there
3 was quite an urgency for making this decision.
4 So we anticipated that the Board would use the
5 information we provided in our consultation record as
6 well as collect information during the regular meeting,
7 and we thought that you might have a public hearing
8 like you're doing now to collect more traditional
9 knowledge which, again, traditional knowledge from my
10 perspective and the government's perspective is not
11 necessarily just traditional knowledge IQ report. It's
12 also traditional knowledge shared by Elders and hunters
13 during these meetings.
14 So when the Board made a decision based on our
15 recommendation and submitted it to the minister, and
16 you identified in that, you know, you considered the
17 information they collected during your regular meeting,
18 including public safety and all the other concerns,
19 that the minister considered that information and
20 accepted the Board decision.
21 So I would argue and disagree a little bit with
22 our co-management partner NTI that we do consider

23 traditional knowledge. If we didn't consider it, we
24 would not have accepted a Board decision. That's one
25 part of it.

1 But, also, as David identified, when we do our
2 scientific studies now, in the design of the studies we
3 consult in advance of doing the studies. So we collect
4 traditional knowledge and hunter information in the
5 design of all our studies now, and we sure that we
6 have HTO representatives on all our aircraft and
7 collaborating on all our studies, if it's polar bears
8 or caribou or any studies.

9 I think -- and Paul and I had a quick chat earlier
10 on, and I think an oversight we made as a government at
11 this public hearing -- and maybe the Board, as well,
12 and the regional Inuit organization and HTOs -- is that
13 we did not invite those observers that were on the
14 aircraft to this meeting. It would have been really
15 good if they were at this meeting to share their
16 information. Because you as the Board is hearing
17 information from David, who was the lead on the
18 aircraft, but there was a number of Inuit on those
19 aircraft and hunters on those aircraft, and it would be
20 good, maybe, for public hearings in the future that we
21 bring those observers to your meeting so they could

22 share their observations during the surveys well.
23 So, in short, I believe we as a government take
24 traditional knowledge serious, and that's why there's
25 such, I think, at a national, international level where

1 people do not understand traditional knowledge and the
2 value of traditional knowledge and incorporating Inuit
3 observations in our decision-making process, concerns
4 about decisions Board , there's a of concerns
5 about this decision that the minister accept it. And
6 again, it's because I think a misunderstanding or not
7 appreciation of the Nunavut Land Claims Agreement and

8 that we have to incorporate traditional knowledge, and
9 I believe we do. That's my opinion.

10 you.

11 THE CHAIR: you, ikus.

12 Paul.

13 MR. IRNGAUT: you, .

14 And thanks, ikus, for your comments.

15 I do believe -- and thanks, David -- for reminding
16 me that there might be some people here in town that
17 were on the survey that we could bring in later today.

18 There might be a couple people that were on the survey.
19 So we'll try and contact them later today to see if

20 they can come to the meeting and give you insight into
21 what they observed.
22 The minister, well, he accepted your
23 recommendation or your decision of 34, and now they're
24 recommending a reduction, well, to 28. That was the
25 original.

1 So I guess my question is, why not the 34 that the
2 minister accepted, or am I completely off here?
3 THE CHAIR: you, Paul.
4 And GN can give us clarification on that.
5 MS. SMITH: you, man.
6 Yeah, Paul, I think it could have been a little
7 confusing just on kind of how this went, but what I
8 read was what the GN originally submitted to the Board
9 in September just to give context to this meeting. So
10 that was our original recommendation, which was then
11 turned over to the Board, that then recommended 34, and
12 our minister accepted. So there's no further
13 recommendation from the GN at this time to change that.
14 And we stand at 34.
15 you.
16 THE CHAIR: you for that.
17 Paul? Okay. NTI, no further questions?
18 Kivalliq Wildlife Board, any questions to the GN?

19 Any questions from Kivalliq Wildlife Board?

20 MR. GREENE: The chair of Kivalliq Wildlife

21 Board, Stanley, is in Whale Cove, so there's no

22 questions from Kivalliq Wildlife Board.

23 THE CHAIR: Okay. you. Next up is

24 Arviat HTO, questions for the vernment of Nunavut.

25 ARVIAT HTO QUESTIONS AND COMMENTS

1 MR. KABLUTSIAK: Yes, I'd like to ask you, when you

2 did your survey in the summer, why didn't you bring

3 along the folks that were on the aircraft with you guys

4 doing the survey? The ones who came from the

5 communities, why aren't they with you here from Arviat?

6 you.

7 THE CHAIR: you, Paul.

8 ikus.

9 MR. GISSING: s, .

10 As I've mentioned, we identify that as a mistake

11 as well. I think it would have been good. And

12 hopefully, as Paul identified, we could bring in the

13 observers that is in from Rankin, yeah, and they could

14 hopefully provide the information from the surveys. We

15 will try to bring them in.

16 THE CHAIR: Yeah, thank you.

17 I think that's a very important point, and it's

18 something we should consider in future at all these
19 hearings.

20 Thomas.

21 MR. ALIKASWA: you, .

22 My question is regarding from Chester towards
23 Manitoba, it seems there might have been a more
24 survey done only on the shoreline, and I've hunted and
25 guided hunters for caribou, and we've travelled about

1 150 kilometres outside of Arviat towards the south, and
2 we see bears down there. We don't even reach them. We
3 can only reach them when they're on the shoreline.

4 So how far in and out of the shoreline did you
5 guys travel? How far inland, how far away from the
6 shore is what I'd like to understand, the distance.

7 THE CHAIR: you, Thomas.

8 David.

9 . LEE: Than you, man.

10 you, Thomas.

11 Firstly, I'm sorry for any confusion that I may
12 have caused. The design on the survey was to sure
13 that we did go inland because all the communities
14 identified that. So for the high density we travelled
15 up to 100 kilometres inland, and even for the Nunavut
16 portion, as I mentioned, because we had a musk ox

17 survey right before, like, right before the polar bear
18 survey, we actually surveyed inland almost up to the
19 NWT border.
20 So it doesn't mean we didn't see polar bears
21 inland. I was just trying to say that observing those
22 bears inland becomes more difficult in Manitoba because
23 of the trees. But we still went way inland to
24 sure that we covered that area.
25 I'm sorry, if I didn't express that we went

1 inland. We did go inland.
2 Qujannamiik.
3 THE CHAIR: you, David.
4 Nick, go ahead.
5 MR. ARNAUKJUAQ: you, .
6 I've got , in fact.I will go with the first
7 one. The recommend of no change for 28 polar bears,
8 what happened this year in 2017, when there were 36
9 allocated polar bear tags? I'm wondering if the
10 vernment Department of Environment is aware of this
11 where they're recommending 28 polar bears. That will
12 be my first question.
13 you.
14 THE CHAIR: you, Nick.
15 ikus.

16 MR. GISSING: Yeah, I think we already answered
17 that that was our previous recommendation to the Board,
18 and the Board did not support 28. They proposed 34.
19 And then we issued 34 tags. So that's the reason it's
20 not going to change unless the Board s a new
21 decision.

22 THE CHAIR: you, ikus.
23 Nick.

24 MR. ARNAUKJUAQ: Yeah, thank you.
25 Well, I'll give you the facts about Arviat. If

1 you're not aware, the federal government, I think, is
2 more understanding about the Inuit.
3 In Arviat back in the '80s and '90s we used to
4 have 20 tags, polar bear tags. And about that time
5 there were increase in numbers of polar bears, so they
6 gave us five additional red tags. And from there I
7 don't know what happened to have our polar bear tags
8 way down.

9 And I will point this out because we're right next
10 to Churchill, and they consider Churchill as polar bear
11 capital of the world. So this is how it's worked out.
12 Because there are so many polar bears in Churchill,
13 here in the Kivalliq we do have so many polar bears,
14 but our tags given to us are so few.

15 And the decision made on the numbers is not right.
16 There used to be 20, 25 in Arviat. If we can give like
17 these back, and I can say as soon as the tags are
18 handed out, the bears are caught asap, no trouble. And
19 the surrounding communities really don't have issues.
20 And Arviat has so many bears. We all know this. It's
21 our experience, but all along they're being cut while
22 they're increasing in number.
23 And that's it. you.
24 THE CHAIR: you, Nick.
25 ikus, would you like to respond?

1 MR. GISSING: you, .
2 The only response I really have to that is that
3 just to explain that when the Board s the decision
4 it's for that subpopulation for Western Hudson Bay. So
5 when the Board made a decision of 34, that was for all
6 the Western Hudson Bay communities.
7 We as the government know the NWMB does not have a
8 say in how it's allocated between the communities.
9 That's going to the RWO, and the RWO decides how to
10 distribute the 34 tags to the various communities.
11 I think that was the concern that Arviat feels
12 they're not getting enough tags from the allocation,
13 and that's really an issue with the RWO.

14 THE CHAIR: you, ikus.
15 Nick, any further questions? That's all for now?
16 No further questions from Arviat?
17 MR. ALIKASWA: I would say why there are so many
18 polar bears today, not just in Arviat, no doubt in
19 Churchill, or even is it because there's dog owners in
20 Churchill that are increasing the polar bears coming
21 into the towns just in order to entertain tourists?
22 So I think the dog owners in Churchill should also
23 be dealt with. Perhaps they're drawing in more bears
24 this way. And then when they come into the
25 communities, the polar bears, they first go to the

1 dump, and then from there they walk amongst the houses.
2 Our polar bear tags, everybody says regarding
3 those that we need them back to the larger numbers.
4 Some of them are shot and killed automatically and
5 taken by the HTO and then, based on a draw, handled
6 that way.
7 But there's other uses for Inuit regarding polar
8 bears, but I'm just going to finish here.
9 THE CHAIR: you, Paul.
10 GN, any comments?
11 MR. GISSING: you, .
12 Just the comments, and I hope I did not

13 misunderstand the question/comments that was posed to
14 the GN.
15 The first one, as I understand it, they feel the
16 observation in the communities, that there are more
17 bears, not less bears. And I think that's consistent
18 if you look at in the long term. Our understanding,
19 from what I've heard, during from my time in Nunavut
20 and meeting with people and talking to people in
21 communities, like wildlife officers and people that's
22 been there for a long time, is that if you take it over
23 a 30-year period there seems to be a significant
24 increase in polar bears from what was the '70s or '60s
25 compared to what there is today. And I think a of

1 people are comparing it to over a long period of time
2 that there's a been a significant increase in bears'
3 observations in the communities. I don't think anybody
4 dises that. I think that's supported by science as
5 well. And, again, somebody like Nick or David Lee can
6 correct me if I'm wrong, but that's my impression.
7 That's across Nunavut.
8 What we've heard in consultations is people that
9 were born in the '60s or '50s and they look back at
10 their life, when they were young, they didn't see polar
11 bears. Today they see polar bears all over the place,

12 and I think we've heard this at a of our meetings,
13 and I think the issue now is that we have a of
14 polar bears in the communities, and we're looking at
15 these numbers that we're talking about here now is
16 short term, what's happened over the last four or five
17 years or ten years. We're not looking at it long term.
18 And the issue about dogs attracting bears into the
19 communities, I know that this is a concern in Western
20 Hudson Bay, especially up around the tourism activities
21 in Churchill, and that people believe, especially in
22 the Nunavut communities, is that what's happening in
23 Churchill is making bears used to humans and making
24 bears more dangerous.
25 I'm not very -- I can't really talk to that, but

1 I've heard that as well. And I have brought this up
2 with the Manitoba director in discussions that people
3 are concerned about this, and I'm not sure if they're
4 addressing it.
5 But what I can tell you is that in Nunavut we are
6 trying to address it through our bear-human conflict
7 work where we are trying to provide advice and support
8 to dog owners how to cache meat and meat into
9 containers that bears can't get to as a way to reduce
10 attractants in communities and to reduce bear

11 attractants to communities.
12 Unfortunately, Arviat is right on the coast, and I
13 think bears are always going to move up the coast, and
14 we are looking at different ways of trying to get bears
15 out of that community. I know our conservation officer
16 in Arviat, Joe Junior, is very active in trying to lure
17 bears outside of the community. And we're trying
18 different things. He's catching them, as you know, and
19 relocating them and all in an attempt to reduce
20 bear-human conflict in that community.

21 THE CHAIR: you, ikus.

22 Any further questions, Arviat? Thomas.

23 MR. ALIKASWA: you, .

24 I have one question I remembered to ask.

25 Looking at the Western Hudson Bay, it's written

1 that it starts from around Chesterfield Inlet up to
2 Churchill and then through the shoreline and then the
3 other one regarding Foxe Basin, Baker Lake through
4 Chester and north. So the tags that are given to the
5 communities regarding Chester and Baker Lake, who gives
6 these out in the Foxe Basin region, tags from them --
7 or is it Western Hudson Bay quota tags?
8 So I'd like to know where they're allocated from.
9 I think they should be divided according to Foxe Basin.

10 you, .

11 THE CHAIR: you, Thomas.

12 ikus.

13 MR. GISSING: I'll seek assistance from David if
14 I misunderstood this question. But Western Hudson Bay
15 total allowable harvest goes to the RWO that's
16 responsible for the Western Hudson Bay communities.

17 Foxe Basin, where there's overlap between RWOs, it will
18 be the RWOs that will decide on allocation is my
19 understanding. We as a GN are not getting involved in
20 that allocation. So it will go to the RWO. If there's
21 a community that falls within the Kivalliq Region, then
22 the Kivalliq Region will be part of that decision on
23 the allocation of Foxe Basin tags, if I understood the
24 question. I might have misunderstood the question.

25 THE CHAIR: you, ikus.

1 Thomas, did you get your answer? Okay. Anything
2 further from Arviat? Okay. One more, Nick. ahead.

3 MR. KABLUTSIAK: you, man.

4 With that survey that was done about the numbers
5 that were counted, 18 polar bears in Nunavut, would
6 that be correct information? you.

7 THE CHAIR: you, Nick.

8 David Lee.

9 . LEE: you, man.
10 you, Nick. I think that's accurate. I'll
11 have to look at the numbers, Nick. So just to be
12 clear, that's the number that were counted observed,
13 but that's not the number that goes into the final
14 estimate. The 18 actually gets extrapolated to a
15 larger number to cover the entire area that we think
16 exist in Nunavut for areas that we didn't actually see.
17 So even though 18 is the number observed, similar
18 to -- there were about 300 bears observed in total, but
19 the final estimate came out to a bit over 800. So
20 that's how -- I just want to sure that there isn't
21 confusion. 18 isn't the exact number. It gets
22 inflated to a number that we think represents as close
23 a number we think exist in Nunavut for that time -- for
24 that time.
25 Qujannamiik.

1 THE CHAIR: you, David.
2 Okay. I think now we'll break for lunch, and then
3 when we come back from lunch Whale Cove will be up next
4 for questions to the GN. So we'll be back here at
5 1:15. All right? you very much.
6 (Proceedings ended 11:50 a.m.)

8 (Proceedings to recommence at 1:15 p.m.)

10 (Proceedings recommenced at 1:15 p.m.)

11 THE CHAIR: Welcome back, everyone. I hope
12 you had a good lunch, and we're right on time to
13 continue.

14 We are a little bit behind just, so everybody is
15 aware of that, but that's just typical for these types
16 of meetings that we have, and it will happen. I just
17 want to let everybody know that if we need to meet
18 tonight after our supper we will do that. We have the
19 opportunity to do that too. So if we need to do that,
20 we'll do that. We'll advise you.

21 So next up for questions to the GN is the HTO of
22 Whale Cove. It's your floor, George. ahead.

23 WHALE COVE HTO QUESTIONS AND COMMENTS

24 MR. ENUAPIK: you, .

25 So my question is, why was the survey done only in

1 the summertime, the aerial survey? Why was it done
2 only in the summertime?

3 THE CHAIR: you. Simon.

4 David Lee.

5 . LEE: you.

6 And thank you, Simon. So that's a question that
7 comes up from the HTOs because they prefer the surveys
8 to be done in the fall.

9 One reason we did it in the summer was the last
10 survey was done in the summer and we wanted to be able
11 to compare the numbers from the last survey in 2011 to
12 the new one to sure what the population was doing.

13 The other reason it was done in the summer is
14 because the design is to try to observe as many bears
15 as possible as soon as they come off the sea ice onto
16 land, and because we have a number of the bears that
17 are collared, we have a general idea of when to go and
18 survey the bears as soon as they come to the land.

19 And I guess the last one of the other major
20 reasons is that that's a design that has worked in the
21 past, and we weren't in the position -- or at least the
22 GN -- I just assisted -- weren't in a position to try a
23 new design. But there have been some discussions about
24 doing a fall survey in the future. But it would
25 complement this one. It wouldn't be in place of a --

1 unless we were able to discuss more ideas like some of

2 the members have discussed, like Charlie, about
3 including more ideas on how to survey.
4 I mean, ideally we would have a totally Inuit-led
5 survey where one reason we do the aerial survey is
6 because it's a method that's accepted by Manitoba, and
7 we're surveying a majority of the bears in Manitoba.
8 So that's another reason why we went with that method.
9 you.

10 THE CHAIR: you, David.

11 Jackie, go ahead.

12 MR. NAPAYOK: My only question is I had asked
13 before, does Churchill, Manitoba, region where they
14 have their cubs -- I have asked this before --
15 whereabouts do they have their cubs or give birth? And
16 the answer I received was, we don't have the answer at
17 this time. Do you have the answer at this time now?

18 THE CHAIR: you, Jackie.

19 David Lee.

20 . LEE: you, man.

21 And thank you, Jackie. I'm sorry that answer
22 wasn't provided to you before. I just want to
23 acknowledge you as a really well-respected Elder.
24 So I will defer on the denning areas. Although I
25 know where they are, they're in Wapusk park in

1 Manitoba, but I'd like to defer to Nick because he
2 works on that area exclusively.
3 But before you press the trigger there, Nick,
4 there's another area which is on the Ontario border,
5 and we also increased our survey coverage area in that
6 area because Manitoba Conservation had identified that
7 there had been more -- according to them -- more bears
8 denning in that area, so we tried to capture those
9 bears -- well, not physically capture, but survey those
10 bears in that area.

11 And then I'll just defer the first part to Nick.

12 s.

13 THE CHAIR: you, David.

14 Nick, go ahead.

15 . LUNN: Yes, the main areas that we
16 know polar bears den are in Wapusk National Park, and
17 that's about a 12,000 square kilometre area centred
18 sort of just south of Churchill, and bears will den
19 anywhere from, you know, maybe 10, 15 kilometres from
20 the coast all the way up to maybe 100 kilometres inland
21 from the coast and down to the Nelson River, so that
22 coast, that Wapusk National Park area.

23 Another area that we know bears are denning, as
24 David just alluded to, there's a small number of bears
25 denning closer to the Ontario-Manitoba border. How

1 many bears are denning in there we're not quite
2 certain. That's the sort of work that people are
3 starting to look into. But the main areas are that
4 little small area and then Wapusk National Park 12,000
5 square kilometre area. you.

6 THE CHAIR: you, Nick.

7 Jackie.

8 MR. NAPAYOK: Back in 1974, I moved here to
9 Arviat, and in 1970 there weren't too many bears, but
10 they increased in number in about 1974. And where they

11 came from, there's different population of bears, and
12 so we were able to identify bears from Churchill area
13 that often went towards Arviat. And the ones from the
14 Igulik area, the ice and when it's a north wind, the
15 large, huge ice -- we believe that brought many more
16 bears from the Baffin area or towards the Coral Harbour
17 area from Igulik area.

18 So now there's increased number of bears in
19 Churchill because of the dump and probably even
20 reaching up to the Thompson area. There hasn't been
21 much fluctuation with the Churchill area bears.

22 But I'm trying to sense here. I think
23 Churchill has a of beluga whales, white -- not
24 narwhals, but beluga whales -- and the big river there,
25 they give birth and calf on the river, and I think

1 that's what the polar bears are feeding on. Has there
2 been any study on this or acknowledged this before?

3 THE CHAIR: you, Jackie.

4 David Lee.

5 . LEE: you again, Jackie, for that
6 information.

7 So what you stated is consistent with the
8 interviews that Gabriel and I did about not being many
9 bears and then a more bears in the '70s.

10 For your question on beluga, I'll just mention
11 that when we were surveying -- we saw bears on rocks,
12 surrounded by thousands of beluga, and I was personally
13 quite amazed to see that. In Churchill, I spoke to
14 Jackie Badstone, and he said he's observed bears taking
15 beluga. And, finally, I noticed there was a television
16 program, a film program where they documented by video
17 a bear taking a beluga calf.

18 So I'm not aware of any systematic scientific
19 study. I'm just aware of anecdotal information. But
20 I'll again defer to Nick since he's worked in that area
21 much more than I have.

22 s.

23 . LUNN: Yeah, I'm not aware of any
24 systematic study of polar bears taking beluga or the
25 number of beluga in Hudson Bay, but as David said,

1 there's s of anecdotal information of bears on rocks
2 and in the tidal flats ambushing and catching beluga
3 whales. So we know they do do it, but in terms of
4 numbers, there's no sort of science study that I'm
5 aware of that people have looked at that specifically.

6 THE CHAIR: you, Nick and David.
7 Jackie.

8 MR. NAPAYOK: And I don't know myself
9 personally, but my daughter lives there, and she shares
10 this information with me, so I'm always asking about
11 wildlife there. So that was just a question I
12 pondered. you.

13 THE CHAIR: you, Jackie. Any other
14 questions from Whale Cove? Simon.

15 MR. ENUAPIK: you, . I want to
16 ask Ian this quota stating 34. Can we increase this?
17 you, .

18 THE CHAIR: you, Simon. I'll direct
19 that to the GN first.

20 ikus, the floor is yours. You can defer if you
21 want.

22 MR. GISSING: I might defer to the NWMB.
23 The answer to that is you can submit -- anybody
24 can submit to the Board a recommendation to increase or
25 reduce the population. If you have new information --

1 or not the population; the total allowable harvest. So
2 if you believe you have new information that the Board
3 should consider in the total allowable harvest, that
4 can be submitted to the Board.

5 Just additional. We as the GN at this time is not
6 proposing an increase in the total allowable harvest.

7 THE CHAIR: you, ikus.

8 And speaking on behalf of the Board, you're
9 absolutely right. And, Simon, that's why we're here
10 for the next days is to listen to all the evidence
11 and a decision. you.

12 Any other questions from Whale Cove? No? Okay.
13 you very much.

14 We'll move on to the next community.

15 Rankin Inlet, any questions for the GN? No?

16 My list is different, a little bit. If there's

17 none from Rankin Inlet --

18 MR. AGGARK: Maybe we're invisible?

19 THE CHAIR: No, no, not at all.

20 MR. AGGARK: When David was there with the
21 radio collars on the bears; for example, in Churchill
22 the ones that are placed with collars, how far do they
23 go? How far do they walk, according to the radio

24 collars?

25 THE CHAIR: you, Harry.

1 David Lee.

2 . LEE: s.

3 And thank you, Harry. I'll have to defer to Nick,

4 if he knows. If not, I know the person looking after

5 the information. I can the request.

6 I don't analyze any of that information, and I'm

7 not responsible for it. We only used it for the

8 purpose of knowing when to actually conduct the survey.

9 So I'll defer to Nick. s.

10 THE CHAIR: you, David Lee.

11 Nick.

12 . LUNN: Yeah, thank you very much.

13 I'm going to some slides up maybe tomorrow

14 about movements of bears. The collared females

15 basically move right across the bay, so bears that were

16 collared in Churchill, their tracks will go all the way

17 across to the Quebec side, they'll go up to sort of the

18 bottom end of South Hampton Island, and they'll go all

19 the way into Ontario and James Bay. The sort of

20 general area, the home range size of bears is on the

21 average of about 300,000 square kilometres they're

22 travelling in the wintertime now, and that's up from

23 about 240, 250,000 about decades ago. So they

24 cover a large area of the bay.

25 But bears that we collar in Churchill in Wapusk

1 National Park, they pretty much come right back to

2 Wapusk National Park the following summer. So they

3 spend -- they use the entire bay and then come back.

4 And then amongst individuals, you'll get some

5 bears, individuals, that will use a of the bay and

6 some bears that will use just a very, very small part

7 of the bay. And we don't have answers on why they do

8 that, but some females will spend most of the winter

9 maybe just moving up and down the coast offshore and

10 others that will go right across. Individuals do

11 different things, but, by and large, they're using all

12 of Hudson Bay.

13 THE CHAIR: you, Nick.

14 Harry. Any other questions, Chesterfield Inlet?

15 Okay. you, gentlemen.

16 We'll move on, then. Baker Lake, any questions

17 from Baker Lake? Hugh?

18 BAKER LAKE HTO QUESTIONS AND COMMENTS

19 MR. NATEELA: Matnaa, sivautaaq.

20 I'm just wondering if the government has

21 considered using a different monitoring method. We've

22 heard stories of where collars have negative impacts on
23 some of the animals and collaring some of the bears to
24 try and monitor, but then understand there were some
25 negative impacts. Just wondering if the government has

1 thought of or considered going into using microchips,
2 like something that won't really interfere too much,
3 maybe, with the bears' hunting abilities. Just one
4 question.

5 THE CHAIR: you, Hugh.

6 ikus, I'll pass it on to you.

7 MR. GISSING: Maybe this is a question that
8 Environment Canada could answer, because they're doing
9 more the radio collaring. We in Nunavut currently have
10 no collars in the Western Hudson Bay. But I know that
11 the biologist, the polar bear biologists are looking at
12 different ways -- ear tags and ear collars -- little
13 ear monitors and different methods.

14 So maybe Nick can elaborate on that, if he can, or
15 David Lee.

16 THE CHAIR: you, ikus.

17 Nick, go ahead.

18 . LUNN: you very much.

19 I'll answer what I can, and David might have other
20 information that he can add.

21 ting collars on bears is not something that
22 scientists do just for the sake of ting collars on
23 bears. It's usually to answer a specific question that
24 we've been asked, such as: Where do bears go? How far
25 do they travel?

1 So to get that sort of information, are they going
2 across the bay, the only way we can get those sorts of
3 answers currently are by ting things such as radio
4 collars on. And we them on a very small number of
5 bears. We would collar maybe 10 or 12 bears a year.
6 And I'll get into more in my presentation. But that's
7 the sort of number. When we start talking about areas
8 and how much bears move, it's based on the movements of
9 10 to 12 bears.
10 Right now it's only adult females. We can't
11 collars on adult males. Their skull width is much
12 bigger than their neck, so no matter how tight you can
13 a collar on the neck of an adult male -- it's sort
14 of like a traffic cone -- it would slide off.
15 We can't -- while we could a collar on a
16 subadult bear, they would stay on. The problem is
17 they're growing. So if you a tight collar on a
18 growing bear, it grows bigger and bigger, and then you
19 run the risk of a collar cutting into the neck of a

20 bear. So we don't want that to happen. So the only
21 groups that we can really collar are adult females with
22 cubs.
23 We're looking at -- people have been looking at
24 alternative methods. One of them is what is called
25 RFID. It's sort of like a little bar code that you

1 would run through the scanner of a grocery thing, and
2 that would give you an idea of a particular bear. So
3 that's work that's being done in the U.S. at the
4 moment, and they've had limited success.
5 Right now they build them into the ear tag so
6 they're the size of the ear tag. And one of the
7 problems is the ear tags come out. Another issue is
8 the range that they have to get to get to the bear is
9 really close. So you'd have to do a of, you know,
10 in-close work with a helicopter or fixed wing trying to
11 pick up that signal. The idea was we'd hoped that you
12 could get it so it would have a much greater range so
13 you would just fly over it and you could pick up who
14 all those bears were.
15 So there is work being done on alternative
16 methods. In Manitoba, the Manitoba Conservation staff,
17 they're looking at putting these transmitters on the
18 ears of subadults -- they're sort of the problem bears

19 they have in town -- to see where they're going to
20 during the wintertime. So they a limited number of
21 these little transmitters on in the ears.
22 Other people -- not us and not even in Canada --
23 but other people have tried implanting them to try to
24 them to stay on, and that has failed.
25 One of the big problems with tracking polar bears

1 is that you need to get the signal up to a satellite,
2 and to do so you need a of battery strength, and
3 the batteries are what up the bulk of one of these
4 devices. So it's sort of a tradeoff between how long
5 you can track an animal. So if you want to track it
6 for a year or more, then you need a big battery which
7 limits you to pretty much a collar. If you want
8 something short term, a month or so, then you can
9 these miniature devices on, but then you don't get the
10 answers that perhaps people are wanting answers to.
11 So we are working on it. The technology is
12 starting to get there, but we don't have anything at
13 the moment that we think can replace the radio collars
14 or the collars for some of the questions that we're
15 being asked.
16 you.
17 THE CHAIR: you, Nick.

18 Hugh.
19 MR. NATEELA: you for that answer.
20 Another issue that I wanted to bring up was, like
21 many people, I guess, at this table and in Nunavut I've
22 been thinking of ways how we can bridge the science
23 world and traditional knowledge and IQ. And I think if
24 there was a way we could sort of start involving some
25 of our local young people to train them to be able to

1 start collecting along with the Elders and stuff. So I
2 think that would be one way to bridge the science world
3 and traditional and IQ. So I think I would certainly
4 maybe recommend or ask the co-managers to see if they
5 would be able to have more community-based monitoring
6 work.
7 And I think this is the right direction for what I
8 see here from the pamphlet for the community-based
9 monitoring work, and I think this is one way. If we
10 can start involving our young people, I think this
11 would be one way of bridging the science world and IQ.
12 So I would certainly, I think, consider and ask
13 all the co-managers to seriously look at this and, in
14 fact, try and get all the Nunavut communities into this
15 program asap, because currently I think I understand
16 the way -- there's not too many HTOs in Nunavut now

17 that can actually be able to a management plan
18 together on their own with their own data and so forth.
19 So I think we need to try and get to that stage or
20 reach that point where the community members will be
21 able to -- you know, with other data information
22 they have to be able to come up with some kind of
23 management plan on their own. And I think that's -- I
24 would certainly ask the co-managers to seriously
25 consider and look at this community-based monitoring

1 and I think that would be one way of bridging the
2 science world and the traditional and IQ stuff.
3 I guess that was just more of a comment than
4 anything, man. you.
5 And the other thing I wanted to bring up as well
6 is, I'm not sure. I think Baker Lake was sort of taken
7 off the Western Hudson Bay section, and I think we're
8 here at the table, we're discussing Western Hudson Bay.
9 I was sort of wondering what -- you know, I guess it's
10 nice to be here, we're happy to be here. But we have
11 community members concerned. I guess one of the
12 questions they wanted us to bring up was: If there is
13 a formula that is being used now to allocate tags, what
14 is the formula?
15 The reason why they want to ask now and they're

16 asking questions is that, ever since this polar bear
17 management and polar bear issue has been discussed over
18 the years, Baker Lake has always sort of been left out.
19 I think we all know why. It's, you know, a little bit
20 inland. But some people, community members, think that
21 it's such a strong word, but, you know, they're
22 throwing words like, you know, "discrimination based on
23 geography" and things like that. I don't know.
24 Probably a strong word. But if you have people talking
25 like that, then you certainly have to start asking what

1 the formula is and why certain group of people get so
2 many and then another group gets just one or whatever
3 it is, .
4 And yet basically what we're doing is that these
5 people, there are also beneficiaries. They have the
6 right to be able to go out and try and, you know, catch
7 polar bears. But I think they also need to be given
8 the same equal opportunity. Because when you look at
9 it, you know, there's money involved, and, you know,
10 there are some things we could get into. So I guess
11 that's one of the questions they ask is that for the
12 co-managers to have Baker Lake included in the
13 Western Hudson Bay, if they can get some tags from
14 Western Hudson Bay. So they just ask the co-managers

15 to keep that in mind, because Baker Lake is still
16 interested in getting tags from Western Hudson Bay and
17 also from Foxe Basin.

18 And so I guess they're kind of wondering how the
19 allocations of tags are being allocated and
20 distributed, and I guess they're just sort of saying I
21 think we need to look at -- take another closer look at
22 that to it more fair, even, for all beneficiaries.

23 So having said that, I just want to throw that in
24 as they had asked us to sort of bring this up at the
25 table. Having said that, thank you, .

1 THE CHAIR: you very much, Hugh, for
2 those comments. Very good comments, especially getting
3 the young people involved and community monitoring.
4 But I'll pass it on to the GN to comment and
5 answer his second question. ikus.

6 MR. GISSING: you, .
7 Just a comment on the community-based management.
8 We are in full support of those approaches. I know
9 that the Board had something similar where you had
10 programs in the communities collecting traditional
11 knowledge or hunter information.
12 We are working on a harvester support program that
13 will money into pockets of hunters and paying them

14 for collecting of information. The challenge we have,
15 as I've mentioned earlier on, is just capacity is
16 having people on the ground. And we would be open to
17 working with regional wildlife organizations -- so NTI
18 or the Board, any other group -- that wants to look at
19 those and collaborate with us on community-based
20 projects as suggested. We're very open to that idea.
21 It's a good idea.

22 On the issue of getting more tags to Baker Lake,
23 as I've mentioned earlier, that is the role of the
24 regional wildlife organizations, and your HTO chair is
25 a member of the RWO, so that's where you should bring

1 it up is, when they discuss, when the regional wildlife
2 board discuss allocation is that you should your
3 voice heard at those meetings, because we as the GN has
4 no role in allocation. That's purely up to the
5 regional wildlife organization, your RWO.

6 THE CHAIR: you, ikus.

7 Hugh?

8 MR. NATEELA: you, .

9 And thank you for the answers.

10 I guess our next -- at least, we should be asking
11 the RWOs if they're the ones responsible for allocating
12 the tags, so I guess I'll just wait for the next group

13 of presenters, .
14 THE CHAIR: you very much, Hugh. Okay.
15 Any other questions from Baker Lake? Anything else?
16 No?
17 Okay. you very much. We're going to move
18 on, then. Next on the list is any questions from
19 Environment Canada to the GN.
20 . LUNN: No, no questions from us.
21 THE CHAIR: Okay. you, Nick.
22 Any questions from World Wildlife Fund to the GN?
23 None?
24 MR. LAFOREST: No. Sorry, no questions.
25 THE CHAIR: Okay. you.

1 Is there any questions from any Elders in the
2 room, in the gallery or in the public or at the table
3 to the GN? Bobby.

4 ELDERS QUESTIONS AND COMMENTS

5 MR. OOLOOYUK: Can you hear me? you. We
6 have an interpreter so I'll try to keep it short, and
7 I'll speak in English.
8 I will share with you three topics of discussion
9 and how Inuit have been left to try and pick up the
10 pieces and fix it.
11 The first one, as we all know, was the near

12 extinction of bowhead whales. Inuit had no part in
13 killing and harvesting them by the thousands, and yet
14 here we are still trying to pick up the pieces and fix
15 it.

16 The second is sealing. European Union banned seal
17 products. Never in that whole time were Inuit
18 harvesting thousands of seals just for their fur, their
19 skins. That's not the Inuit way.

20 And now, finally, we have this every year, polar
21 bear management, and, namely, the Western Hudson Bay
22 total allowable harvest. In the early years during the
23 time when armed forces were stationed in Churchill,
24 polar bear behaviour changed some, stayed in Churchill
25 all winter scavenging off the dump, forever changing a

1 generation of polar bears.
2 And now today we are hit hard with another
3 sensitive that nobody wants to bring up or sweep under
4 the rug: Tourism and how it's changed polar bear
5 behaviour for the Western Hudson Bay polar bear.

6 Some Elders here will agree with me when I say
7 that 30 years ago even the biggest, strongest male
8 polar bear, healthy, soon as he see an Inuk hunter,
9 they'll turn around and run away. It's not like that
10 anymore. They go right into communities, they have no

11 more fear of man, some of them.
12 And Inuit, especially in the Western Hudson Bay
13 area, are left to try and pick up the pieces and fix
14 it. Maybe it's time for some form of compensation for
15 the Inuit in the Kivalliq, namely, remove the rule of
16 taking away tags for defense kills. It is not Inuit in
17 the Kivalliq who introduce this to polar bears to be
18 not afraid of man anymore. Inuit were never told -- we
19 were always instructed by our Elders: Do not use your
20 animals for personal gain. Do not play with them. And
21 that's what we practice today.
22 It's time -- we do this every year, have this
23 meeting, and the topic is total allowable harvest and
24 how many can we get. The Inuit, trying to pick up the
25 pieces and fix it for something we never damaged in the

1 first place, compensation is due.
2 Manitoba s thousands, hundreds of thousands,
3 if not millions, off tourism. What responsibility have
4 they been given for introducing bears to man, not be
5 afraid of them? These things need to be addressed as
6 soon as possible. If not, it's time for the Inuit,
7 along with the help of their regional Inuit
8 organizations, to maybe come up with a class action
9 legal lawsuit for something that we didn't. It's

10 damaged our way of life, especially with the polar
11 bears. It wasn't us that made them change their
12 behaviour.

13 you, .
14 THE CHAIR: you very much, Bobby, for
15 those comments.

16 GN, would you like to comment on that? ikus.

17 MR. GISSING: No, .

18 THE CHAIR: Okay. Is there any other Elders
19 that would ask questions of the GN? ahead. And
20 when you come to the mic, please state your mind.

21 MR. COMER: you. My name is
22 Thomas Comer. I'm a resident of Rankin Inlet. I've
23 been a resident for the last 61 years, and I can be
24 considered as an Elder as well.
25 My question is quite simple. Having listened to

1 Jack Napayok speak about the polar bear population as
2 to where it came from around the Churchill area, he
3 mentioned something about the ice breaking, and the
4 polar bear being transferred into the southern
5 Hudson Bay area.

6 My question is this: When the scientists began
7 their scientific studies about the polar bear
8 population, where did the baseline data come from?

9 When did it start? How did it come to be? Where did
10 this baseline data come from? Were Inuit involved in
11 this baseline data to be established?
12 you, man.

13 THE CHAIR: you, Thomas.
14 ikus.

15 MR. GISSING: you, .
16 I'm not sure I can answer that question. I'm not
17 sure if maybe one of the scientists, maybe Nick or
18 David has a response to that. I, unfortunately, don't.

19 THE CHAIR: Okay. I'll defer it to Nick,
20 then. Nick, go ahead.

21 . LUNN: As best as I can answer, the start
22 of polar bear research, sort of the baseline that you
23 asked about, began in the late 1960s -- at least in
24 Churchill. That predates me. I mean, I wasn't around
25 then. But it started in about the late 1960s with work

1 in and around the town of Churchill. The work that I'm
2 involved in, sort of more of the long-term stuff, that
3 started in 1981. So sort of between the late 1960s and
4 the early 1980s was sort of smaller scale studies.

5 That's where the work began. That's where sort of the
6 baseline started happening shortly after the closing of
7 the military base, after the closing of the

8 York Factory as a trading post. So sort of the
9 mid-1960s is when it started. So it was after the
10 closing of the various military bases, after closing of
11 York Factory trading post.

12 So that's as best as I can answer.

13 THE CHAIR: you, Nick.

14 Is there any other questions?

15 If there's no other questions, we'll move on,
16 then, to Kivalliq Inuit Association. Is there any
17 representatives here from there? No?

18 Is there any questions from the general public,
19 anybody else in the room, to the vernment of Nunavut?

20 If not, that concludes the vernment of Nunavut's
21 presentation and questions to you. you very
22 much.

23 Next on the list for presentation to the Board in
24 regards to the Western Hudson Bay polar bear is Nunavut
25 Tunngavik Incorporated. And we'll get it up on the

1 screen before you start, Paul.

2 SUBMISSION BY NUNAVUT TUNNGAVIK INCORPORATED

3 MR. IRNGAUT: I'll keep it short. I'll try and
4 speak Inuktitut, and if I can't, I'll speak in English.

5 THE CHAIR: Okay. Paul, the floor is yours.

6 MR. IRNGAUT: you, .

7 We're thankful for giving us the opportunity to
8 speak during this hearing when we're dealing with polar
9 bears -- NTI -- to increase the total allowable harvest
10 for 2017-2018 polar bear season. They were increased
11 by six, and altogether it's 34. This modification
12 considered the knowledge, insight, and perspectives of
13 Inuit who have been advocating for an increase on the
14 grounds of both conservation and public safety.
15 NTI appreciates the NWMB's efforts to settle the
16 increase of the regional total allowable harvest for
17 the Western Hudson Bay subpopulation during the
18 2017-2018 harvesting season. While NTI acknowledges
19 the timing, logistical, and the financial challenges
20 associated with in-person hearings, it must nonetheless
21 be pointed out that Inuit harvesters will only be
22 provided an opportunity to discuss future modifications
23 of the Western Hudson Bay regional total allowable
24 harvest. As I mentioned earlier, we are thankful for
25 the hearing on this Western Hudson Bay polar bear

1 population. I know we have no problems with this
2 hearing happening right now.
3 I know Inuit traditional knowledge and local
4 knowledge is very important. Under Article 5 of the
5 Nunavut Land Claims Agreement, when you're dealing with

6 wildlife, our community should not be worried with
7 respect to dealing with managing wildlife.
8 As I mentioned earlier, we are hoping that Inuit
9 traditional knowledge is used when managing wildlife
10 when you're making decisions to avoid drastic decisions
11 and deteriorate public confidence. For this to occur,
12 it requires maintaining relationships and communication
13 among different parties.
14 In previous hearings, NTI and the Kivalliq
15 Wildlife Board and Arviat HTO have submitted Inuit
16 qaujimajatuqangit on Western Hudson Bay. Our Inuit
17 hunters and Elders observed very few polar bears in the
18 earlier part of the 20th century. Beginning in the
19 1980s, Inuit started to notice an increase in numbers
20 of polar bears in the area. Initially, quotas imposed
21 on Inuit and subsequently co-management with inclusion
22 of Inuit have permitted the Western Hudson Bay polar
23 bear population to increase.
24 Consequently, Inuit have repeatedly stated that
25 the number of bears have increased, and public safety

1 is now a major concern. A vernment of Nunavut
2 analysis of coastal surveys conducted by the
3 vernment of Manitoba reveals that the number of adult
4 male polar bears counted along the Western Hudson Bay

5 coast from 2011 to 2016 have increased. Providing
6 support to Inuit observations, the number of adult
7 females with offspring counted along the coast has
8 remained similar for the same period.
9 Under our Land Claims Agreement, 5.1.2(e), it says
10 there is a need for an effective wildlife management
11 system in Nunavut that complements Inuit harvesting
12 rights and priorities and recognizes Inuit systems of
13 wildlife management.
14 However, the Kivalliq Region have been through
15 hardship because of the changes in harvesting of polar
16 bear in this area. When we first started in 2000-2001, 17 there were 34, in 2004, 2005, 2006 and 2007,
and they
18 raised the total allowable harvest to 56, which was the
19 highest. In 2008, 2009, 2010, and 2011 they decreased
20 to 8. So because of the difference, it's made a
21 hardship for Inuit when we're talking about total
22 allowable harvest.
23 In 2007 the NWMB -- there was 86 percent decline
24 is what they said, when it used to be 56 that they were
25 able to harvest using western scientific methods, and

1 it states that the polar bear are going to decline.
2 Because of that, that's when NWMB made the decision
3 because it affects Inuit.
4 In 5.3.3(a) and (c) under our Agreement recognizes

5 to ensure the public safety. Because of that, the
6 rights of Inuit have been affected because it is a very
7 serious issue, public safety and their properties and
8 their hunting rights. And you have to recognize Inuit
9 traditional knowledge is very important to us when
10 you're making decisions on the Western Hudson Bay polar
11 bear population.
12 you.

13 Sorry, I apologize. I didn't see -- I'm going to
14 mention this as well because you're going to have to
15 decide when you're deciding on the total allowable
16 harvest here -- I will speak in English so you'll
17 understand clearly.

18 NTI submits that the NWMB may wish -- may wish --
19 to ponder whether moving away from flexible quota
20 system and its associated credits and penalties to a
21 multi-year fixed TAH could permit, improve relations,
22 communication, and discussion among parties in
23 developing shared management objectives.

24 To reiterate, NTI's May 24, 2017, comments to NWMB
25 on the Nunavut polar bear co-management plan revision,

1 the management and application of the flexible quota
2 system has been an ongoing concern to NTI and Inuit
3 harvesters.

4 With respect to public safety, the TAH continues
5 to exert certain influence on the number of
6 defence-of-life and property kills. Indeed, whereas
7 the combined annual defence-of-life and property kills
8 of Western Hudson Bay polar bears for Kivalliq
9 communities by Kivalliq communities average only three
10 bears between 2000 and 2001, in 2007 to present, the
11 average jumped to eight from 2008-2009 -- sorry -- to
12 2015 and '16 as in Figure 2.

13 Given the extent of the public safety concerns,
14 modification of the TAH represent the sensible course
15 of action. That's the part that I missed during my
16 presentation. Hopefully I didn't mix people's train of
17 thoughts on this one.

18 you.

19 THE CHAIR: you very much, Paul.

20 Is there any questions from Board members to Paul?

21 Charlie.

22 NUNAVUT WILDLIFE MANAGEMENT BOARD MEMBERS QUESTIONS AND
23 COMMENTS

24 MR. INUARAK: you, .

25 My question, first question, the polar bear for

1 the big communities and other Canadian communities with
2 the Department of Environment and government and what

3 they're able to sell, when we're trying to conserve our
4 polar bears, my question to NTI is what can they do to
5 sell or money off their products?

6 THE CHAIR: you, Charlie.

7 Paul.

8 MR. IRNGAUT: you, .

9 The Western Hudson Bay polar bear population, they
10 cannot sell any of the products; however, as NTI, we're
11 not going to submit stumbling blocks for Inuit hunters,
12 but it is the government has a program. If they say
13 that the polar bear is in decline, population is in
14 decline, then it would be the federal government that
15 would impose a negative NDF. They have to do community
16 visits to all the communities to inform them what the
17 government or the federal government is changing. You
18 could still money off the Western Hudson Bay polar
19 bear population before there were any concern from our
20 government.

21 I hope I answered your question. you.

22 THE CHAIR: you, Paul.

23 Charlie.

24 MR. INUARAK: you, .

25 NTI, because they're working for the beneficiaries

1 under the Land Claims Agreement, I know our Elders,

2 they have a of knowledge, and they talk with them,
3 and they stand up on the knowledge.
4 I know the polar bears are not in decline even if
5 they catch more. Are they using Inuit traditional
6 knowledge? Our polar bear population is still strong.
7 I know in the Hudson Bay, even if they increase the
8 total allowable harvest, are you saying that we can do
9 that without any worries of the polar bear declining?
10 Is that what you're saying?
11 THE CHAIR: you, Charlie.
12 Paul.
13 MR. IRNGAUT: you, .
14 And thank you, Charlie, for the question.
15 I can say that we're not worried about our polar
16 bear population because the polar bears that go to the
17 communities, there's more and more that's being seen;
18 however, the total allowable harvest, it's still the
19 same. Even though they have only eight tags left and
20 they cut the quota, I know they went all to defence
21 kills in the past.
22 As I mentioned earlier, Inuit safety has to be
23 priority. We can say, even if we increased the total
24 allowable harvest, we would be in support of that.
25 you.

1 THE CHAIR: you, Paul.

2 Charlie.

3 MR. INUARAK: Final question. The Inuit, their
4 knowledge is from way, way past for their
5 grandchildren, and they know what they have to do for
6 public safety. I know you're working with them all the
7 time, every Sunday, the Inuit and their knowledge,
8 because they do think about things way into the future.

9 If we get too many polar bears in our communities, our
10 NWMB and the Department of Environment, we had to cut
11 our quota. Did we a mistake that time, or is that
12 NTI's view about us? Did we a mistake in the
13 past?

14 THE CHAIR: you, Charlie.

15 Paul.

16 MR. IRNGAUT: you, man.

17 And thank you, Charlie, for your question.
18 The Inuit traditional knowledge -- they didn't
19 listen to us, we can understand that now -- in the past
20 even though they mentioned that the polar bear was not
21 in decline but actually increasing in numbers. But
22 through my understanding -- if I in a mistake, I'm
23 sure I'll be told -- Inuit traditional knowledge in the
24 communities, they didn't listen to the communities when
25 they were deciding. I understand that clearly now.

1 Whether you made a mistake or not, I cannot say one way
2 or the other because you were given the research
3 information, and you used that information to decide.
4 Whether you made a mistake or not, I cannot say right
5 now.
6 you.

7 THE CHAIR: you, Paul.

8 Caleb.

9 MR. SANGOYA: you, man.

10 And thank you to NTI. We're worried about our
11 Inuit. They have very understandable views. I don't
12 have many questions. I'm just trying to
13 clarification.

14 As Inuit, we live in the north; our grandparents,
15 our great-grandparents, all the way back. Up to today
16 we hear the polar bears, they are the top of the food
17 chain. With seals, fish, whales, they are not only to
18 eat; they just kill the seal pups. We just see, not
19 only in the Baffin, in Greenland and Alaska and here in
20 the Kivalliq Region. It is our food staple. The polar
21 bears are just decimating the seal population. I can
22 say in the Kivalliq Region, in Rankin especially, where
23 we are at today the seal pups, because of the polar
24 bear population, there's hardly any now.
25 And the cabins are always in the line -- even

1 though they say there is a decline in polar bear,
2 they're destroying cabins. If there's ten polar bears,
3 they're always going to harvest seals, fish, birds, and
4 they kill the birds in the nest.
5 Inuit knowledge, if you're always trying to
6 money off the polar bear, that's not how we are. I
7 know the government are happy, and if we have an
8 increase in polar bears and if they can money off
9 it, we want them as a food staple, not polar bears.
10 I know our Inuit from the past up to today,
11 because it is our staple food, we want to eat them. We
12 do not look for bears that are skinny and eating off
13 the garbage dump. I know for our future generations,
14 before it gets too hard, we should worry about the
15 future.
16 And outside of Nunavut area will not listen to the
17 people outside. In the '60s during the end of that
18 decade, it was like this: Our grandparents, if a white
19 person said, "Shit in your pants," they would have
20 probably tried to. But it's not like that today. We
21 have to protect our food, so I'm pushing NTI to ensure
22 that Inuit culture should be stronger to ensure that we
23 have staple food and not just to money off our
24 wildlife.
25 you.

1 THE CHAIR: you, Caleb.

2 I think that's more of a comment, but Paul, if you
3 want to.

4 MR. IRNGAUT: I understand what you're saying,
5 and we've been told often, not just here, but also when
6 we go to the other communities we've been told this
7 over and over again: Our food or our diet, we need to
8 protect it. We understand this clearly because we
9 can't expect to always have high numbers of our diet,
10 animals, wildlife to always be in good numbers, but
11 when Inuit study wildlife, it's from A to Z. It covers
12 everything, especially what we eat.

13 But studies and researchers focus on one specific
14 animal without considering the environment or wildlife
15 as a whole, so what you're saying is true. We need to
16 protect our diets, our wildlife, especially what we
17 eat.

18 you.

19 THE CHAIR: you, Paul.

20 Board members any other question? Charlie.

21 MR. INUARAK: Since we're on IQ and while the GN
22 delegates are listening, those bears, some of the bears
23 have eaten other bears -- like, cannibalism -- and some
24 of them are prone to attacking other bears. So have
25 you ever heard about this? Do you have anything to say

1 regarding this? Some of us have found only cubs
2 roaming around because the mother was attacked and
3 eaten because some of the male bears are prone to doing
4 this. They get a taste of the blood, I guess, and get
5 used to attacking other bears to eat.

6 Anything on this topic?

7 THE CHAIR: you, Charlie.

8 Paul.

9 MR. IRNGAUT: you, .

10 And thank you, Charlie.

11 Yes, we've heard this over again, yeah, from a
12 long time ago. Everywhere we go it's spoken about.
13 And, like, practicing cannibalism between bears. And I
14 thought they only attacked and ate cubs, but apparently
15 it's not just mothers with cubs, but I also have heard,
16 as long as this bear can break down anything with its
17 teeth, then they'll attempt to eat it, attack it, and I
18 believe this. Yeah, practicing cannibalism is true. I
19 believe it.

20 you.

21 THE CHAIR: you, Paul.

22 Any other questions from Board members to NTI?

23 Doesn't look like it.

24 If not, is there any questions from staff to NTI?

25 Vickie, go ahead.

1 NUNAVUT WILDLIFE MANAGEMENT BOARD STAFF QUESTIONS AND COMMENTS

2 MS. SAHANATIEN: you, .

3 Just one question, please. I just want to find
4 out; in your general comments in the beginning you say
5 that you support our increase, NWMB's increase by 6 to
6 34, so at this time you feel that, based on the
7 information we have at hand, that that is an
8 appropriate level at this time.

9 you.

10 THE CHAIR: you, Vickie.

11 Paul.

12 MR. IRNGAUT: you, .
13 Yes, we are supporting this, , to
14 increase by 6 for now. I can't say for future, but
15 this is what we are presenting now.

16 you.

17 THE CHAIR: you, Paul.

18 Jason.

19 MR. AKEAROK: s, man.
20 s NTI for the presentation. In the
21 submission you asked the Board to consider to move away
22 from a flexible quota system. I think the view of
23 government I think is that moving away from that could

24 result in a lower TAH. Is that something, I guess,
25 that NTI would accept, I guess, if the flexible quota

1 system was removed, a lower TAH?

2 Qujannamiik.

3 THE CHAIR: you, Jason.

4 Paul.

5 MR. IRNGAUT: you, man.

6 We would have to -- like I said, we follow the
7 advice of our members, especially HTOs and RWOs, and we
8 would have to really consult them on this.

9 But for public safety concerns, that's one of the
10 things that we -- that's why we mentioned the removal
11 of the flexible quota system. And David will add to
12 that.

13 you.

14 THE CHAIR: you, Paul. David, go ahead.

15 . LEE: you, Dan. And thank you,
16 Jason.

17 Just for clarification, this point came up because
18 it was a result of community consultations that we've
19 participated on the polar bear management plan, and I
20 realize that hasn't been finalized.

21 The point was that we're trying to avoid this
22 massive penalization that occurs with the current

23 system where, for example, if a community overharvests
24 one or female bears their quota is drastically
25 reduced the next year, and that creates a of

1 hardship for the community. So that's why we were
2 presenting that as an example of an option to discuss
3 in order to help support the confidence in the
4 management system, because having this TAH bounce up
5 and down from year to year I don't think is helpful.
6 Qujannamiik.

7 THE CHAIR: you, David Lee.

8 Yeah, I'll allow Caleb to go ahead, back to you.
9 ahead.

10 MR. SANGOYA: Briefly, when you say regarding
11 safety issues, does that mean that you mean that you're
12 supporting including seal pups and animals?

13 THE CHAIR: you, Caleb.

14 Paul.

15 MR. IRNGAUT: you.
16 I said earlier people shouldn't be in danger, not
17 just from polar bear, but by the wildlife of our diet.

18 And so if we dwindle down a number of wildlife animals
19 that is part of our diet, we can be in danger, in a
20 sense. So, yes, we are encouraging, for people's
21 safety, not just polar bears but anything that is a

22 part of Inuit diet that may be under attack, so-called,
23 by polar bears, is our concern as well. you.

24 THE CHAIR: you, Paul.

25 Any other questions from staff? If not, our

1 lawyer, Michael, any other questions to NTI? No?

2 Okay. That concludes the Board's questions to
3 NTI, then, and we'll go for our round around the table.

4 Next is the GN. Any questions for NTI?

5 MR. GISSING: No questions.

6 THE CHAIR: Okay. you, ikus.

7 Arviat HTO, any questions to NTI in regards to
8 polar bears, western Hudson Bay polar bears? Thomas.

9 ARVIAT HTO QUESTIONS AND COMMENTS

10 MR. ALIKASWA: you, .

11 What I'd like to ask: I'm confused. When we say
12 if we want to increase, I think, from 34 or 36, so how
13 here in this meeting is this to be arranged,
14 established in this meeting? That's what I'd like
15 clarified.

16 THE CHAIR: you, Thomas.

17 And I'll try clarify that for you. That is the
18 reason why we're here today. It's to listen to all of
19 you, to all our co-management partners, and at the end
20 of the day, it's up to the Nunavut Wildlife Management

21 Board to come up with a TAH that we're going to report
22 back to you. So we're listening to you, and that's why
23 we're here today.
24 Michael, legal counsel, I'll allow you to add.
25 ahead.

1 MR. D'EÇA: Qujannamiik, itsivautaaq.
2 I would just add that this hearing is for the NWMB
3 to listen to all of its co-management partners to get
4 all of your various views and to hear you ask one
5 another questions to gather information.
6 The NWMB, I suspect probably at its next quarterly
7 meeting, will likely be making a decision. So once it
8 gets all that information, it gathers it together and
9 analyzes it and looks at it and so on, and then it's in
10 a position to a decision.
11 And then, at that point, we're governed by
12 instructions under the Nunavut Land Claims Agreement.
13 The NWMB s a decision, sends it to the minister,
14 the Environment minister, the Nunavut Environment
15 minister.
16 The minister will consider the NWMB's decision,
17 and if there's any element of it that he disagrees
18 with, he will reject the decision. But if he's happy
19 with it, he accepts it, and then it becomes law.

20 If he rejects it, it comes back to the NWMB, and
21 the NWMB will reconsider its decision in light of the
22 minister's reasons. But, at the same time, the NWMB
23 will go back to all the parties and say: The minister
24 has rejected our decision for these reasons. We want
25 to hear from you again, and the parties have an

1 opportunity to give their views. And then it goes back
2 to the NWMB again, and it will a final decision
3 which goes to the minister, and the minister can accept
4 it, can verify it, or can reject it.
5 So there's a very strict formula in the Land Claim
6 as to decision-making. It does unfortunately take a
7 fair amount of time, but it's designed to ensure
8 fairness and to ensure that those who are affected by
9 that decision have an optimum opportunity to provide
10 their advice at each important point in the
11 decision-making process.

12 Taima.

13 THE CHAIR: you, Michael.
14 Thomas, does that answer your question? Okay.

15 Any other questions from Arviat to NTI? No?
16 I'm sorry, I missed Kivilliq Wildlife Board. Do
17 you have any questions to NTI?
18 KIVILLIQ WILDLIFE BOARD QUESTIONS AND COMMENTS

19 MS. NETSER: you, .
20 It's not really a question, just a comment coming
21 from KWB. We just want to thank NTI for your
22 submission to help increase the TAH for Western
23 Hudson Bay as IQ has been voicing this concern for a
24 while now.
25 So qujannamiik.

1 THE CHAIR: you for your comments.
2 All right. Oh, Paul, go ahead. Sorry.
3 MR. KABLUTSIAK: Yes, I wanted to say the Kivalliq
4 communities, if we're increasing the number of tags,
5 this would be very helpful, very useful. The polar
6 bear does not equal money to us. It doesn't only mean
7 finance, financial means, gain.
8 But Inuit, regarding wildlife, polar bears, we
9 like the hide, going hunting, camping. The polar bear
10 hide is so useful in our culture. And 25 has been so
11 cut in Arviat, and because of those cuts and also
12 thinking about the bears that tend to the garbage dump
13 and wander into the town, and then, like, ting
14 children and people in danger. When this was
15 happening, why on earth would they cut and decrease the
16 number?
17 And so we have monitors and people who the polar

18 bears surround and surround our community in our area
19 and then go far off into the sea, into the bay, and
20 they can go a very long ways, travel very far. But
21 this is just basic knowledge to us, and we certainly
22 would support increased number because polar bears and
23 their hides, we don't see it as just financial gain.
24 So I wanted to add those.
25 you, .

1 THE CHAIR: you very much, Paul. I
2 think more comments than a question to NTI.
3 So anything else from Arviat? Okay.
4 We'll move on, then, to Whale Cove. Any questions
5 for NTI? Jackie.
6 WHALE COVE HTO QUESTIONS AND COMMENTS
7 MR. NAPAYOK: To Paul Irngaut, I'm not trying to
8 warn you, I'm not saying don't increase the number, but
9 what I'm saying; let's say if they are increased and
10 Whale Cove, Chester and the other communities, what
11 about regarding females? Please include this in your
12 decisions. Would we have more policy regarding
13 females? We've been told all along and following and
14 abiding by don't capture, don't kill more females than
15 males. So would there be a change there?
16 THE CHAIR: you, Jackie.

17 Paul or David.
18 MR. IRNGAUT: you, .
19 And thank you, Jackie, for your question.
20 So this management plan in Nunavut, we had
21 community consultants on it, what they thought of it,
22 the fact that we couldn't get more females, and so this
23 has been a question asked over and over.
24 It's not really ting them in danger, but we've
25 been told by our government if it's going to stay this

1 way, if we're going to increase the number of bears
2 caught and even if we increase the number of females,
3 we can be ting them in danger. But if we decrease
4 the number of females caught, it will be a healthy
5 population. So this is the mentality and the facts why
6 there's regulation.
7 So we would have to consider this afterward. We
8 would have to determine that regarding females. The
9 government will start coming up with a management plan.
10 And we had referred to this in years past, and some
11 HTOs and people want it completely removed and the
12 number of males and females to just be the same. When
13 we've consulted with the communities, this is what
14 we've heard often, but this question you're asking
15 would have to be pondered by NWMB, I believe.

16 THE CHAIR: you, Paul.
17 Jackie, go ahead.
18 MR. NAPAYOK: And also for us Inuit, it doesn't
19 sense to us, especially us Elders. When a polar
20 bear does not have any more male bear around, they
21 can't get pregnant, obviously. So you need to consult
22 with the Elders more. The plan would have already been
23 set out, the wisest plan, the most accommodating plan
24 according to the Elders. But you turned your back on
25 us. We're completely left out or ignored. So we

1 wouldn't have been arguing about increasing these
2 females, decreasing these males, blah, blah.
3 you, .

4 THE CHAIR: you, Jackie, for those
5 comments.
6 Paul?

7 MR. IRNGAUT: I think that was more or less a
8 statement, and I completely agree with Jackie.
9 Today I think things are going to change now, so
10 this is being brought forward and presented to this
11 hearing. So we're just kind of going hand in hand with
12 what's been practiced, but breaking away from there,
13 and I guess just repetition, bringing up these issues
14 and concerns. So many times in the past we weren't

15 referred to or consulted with and made to follow law,
16 and we were law abiding citizens ting ourselves in
17 danger.

18 Today now that we have NWMB we have a better
19 practice, a better way, priorities for the people to be
20 consulted with first, and they have to be included in
21 decision-making.

22 you.

23 THE CHAIR: you, Paul.

24 Any other questions? Whale Cove? No?

25 Okay. We're going to move on, then, to

1 Chesterfield Inlet. Any questions from
2 Chesterfield Inlet to NTI? Harry.
3 CHESTERFIELD INLET HTO QUESTIONS AND COMMENTS

4 MR. AGGARK: you, .
5 Not really a question. Polar bears, when it's not
6 polar bear hunting season -- they seem to come into our
7 communities more when it's not polar bear hunting
8 season, i.e., spring and summer. The problem bears
9 have to be down. I'm not sure who to ask, but, for
10 example, in Chesterfield Inlet, about how many tags are
11 allocated for defence kills, is my question?
12 you.

13 THE CHAIR: you, Harry.

14 Paul.

15 MR. IRNGAUT: Yes. you.

16 Defence kills can be practiced throughout the year

17 any time, or if you're even protecting equipment,

18 property, but especially human beings, protection of

19 people. So we can practice defence kills any time.

20 Regarding trying not to capture or kill females

21 more than males, this affects the number of tags. But

22 when they split up and divide the tagging between the

23 RWOs, it is up to them, it's up to the RWOs and to the

24 HTOs how they want to divvy it up and how they want to

25 manage the tags. It's up to you. It's up to you when

1 you're given that number of tags. So you can decide

2 according to the Land Claims.

3 For instance, if you want to use it all for

4 defence kills, the ones who wander into the communities

5 only, it's up to you, or if you want to give it out to

6 people who will hunt them, harvest them, it's up to

7 you. And I'm just letting you know that. You have to

8 be protected. You have to be safe. So it's really up

9 to you.

10 you.

11 THE CHAIR: you, Paul.

12 Anything else from Whale Cove? Okay. you

13 very much, gentlemen.
14 Rankin Inlet, any questions for NTI? No
15 questions? Okay.
16 Baker Lake, any questions, comments to NTI? No?
17 Okay. you.
18 Environment Canada.
19 . LUNN: No, we don't have any questions.
20 THE CHAIR: Okay. you, folks.
21 World Wildlife Fund? No questions?
22 Any Elders in the -- go ahead, Bobby.
23 ELDERS QUESTIONS AND COMMENTS
24 MR. COMER: s again, . I'll
25 keep it short.

1 I mentioned earlier we would like to see the
2 practice ended of tags being removed from community
3 total allowable harvests, because, as you had
4 mentioned, first and foremost is public safety. That
5 bear was a danger to society, kids, children, and
6 personal property. That should not be deemed as a
7 harvest. It's nuisance bear.
8 First and foremost, you're removing that bear from
9 the practice of feeling comfortable enough to go into
10 communities and endangering people. That's the Inuit
11 way of thinking; get rid of the problem. And that if

12 it's a female, sure your conservation officer
13 s every reasonable effort to scare it away from the
14 community. More needs to be introduced, more ways need
15 to be introduced to community conservation officers,
16 maybe with help from the World Wildlife Fund for more
17 funds on safe practice of removing female polar bears
18 with cubs from communities. That's what we want to
19 see.

20 But I can't stress enough that we would like to
21 see the practice ended of removing tags of allowable
22 harvest of polar bears because of nuisance polar bears
23 that are a danger to society anyways. You have
24 mentioned public safety is number one. And, of course,
25 we would like to see every reasonable effort made to

1 scare it away from the community. But bears don't
2 forget. They will go and move to the next community
3 and enter that community again.
4 So you're doing things: You're protecting the
5 community first; second, you're getting rid of the
6 problem bears that think it's okay to go into
7 communities. That's one way to end these bears that
8 think it's okay to go into communities and endanger the
9 public. That's what I would like to see, and the
10 practice of removing total allowable harvest tags,

11 mainly Arviat. Our friends from Arviat are hit the
12 hardest every year. Where does that bear go? It
13 doesn't benefit the people, the community, nothing.
14 you, .
15 THE CHAIR: you very much for those
16 comments, Bobby. More of a comment. If NTI wants to
17 respond, or not, that's fine.
18 Okay. Any other questions from Elders in the
19 gallery?
20 If not, Kivalliq Inuit Association is not here, I
21 don't think. Okay.
22 No any questions from the public? Anybody else,
23 questions?
24 Okay. If not, then that concludes NTI's
25 presentation. you very much, gentlemen.

1 With that, we'll move on. We have next scheduled
2 the Kivalliq Regional Wildlife Board, but I think we're
3 going to hold off on you until tomorrow until your
4 people get here. I think hopefully they get here
5 tonight or today. So we're going to move on, and we're
6 not sure yet who's next in place, but I'll let you
7 know.
8 We're going to take a 15-minute break right now
9 for coffee. you.

10 (ADJOURNMENT)

11 THE CHAIR: Okay. you all for coming

12 back again, and we'll resume.

13 We're going to do a little housekeeping first

14 here. As we said, Kivalliq Wildlife Board will present

15 tomorrow their presentation when they have their people

16 here.

17 And another issue that has come up, we've asked

18 Environment Canada to give us information, and they're

19 going to do that tomorrow, too, hopefully. Even though

20 we have not received a written submission from

21 Environment Canada, our legal counsel is going to speak

22 to you to consider to allow them to a

23 presentation. So I'll turn it over to Michael.

24 Michael, go ahead.

25 NUNAVUT WILDLIFE MANAGEMENT BOARD LEGAL COUNSEL - BRIEFING

1 ON RE: ENVIRONMENT CANADA PROVIDING A SUBMISSION

2 MR. D'EÇA: Qujannamiik, itsivautaaq.

3 I just wanted to obtain the views of all the

4 parties around the table, but I'll explain the

5 situation.

6 Nick, on behalf of Environment Canada, has

7 offered, as the person has mentioned, to prepare

8 and deliver a presentation tomorrow. And my

9 understanding is it addresses Environment Canada's work
10 on Western Hudson Bay polar bears and addresses a
11 number of issues that have arisen during today's
12 discussions. And the NWMB believes that this would be
13 helpful to all of the parties. We're all gathered
14 together for these days, and it would be that much
15 more information for everyone to know about.

16 However, the usual protocol that the NWMB
17 follows -- and it's all in the name of fairness -- you
18 know, NWMB hearings, the Board places a of emphasis
19 on being fair to all the parties. And that translates
20 into having procedures that everybody knows about and
21 agrees with.

22 So the usual procedure is that all
23 presentations -- all formal submissions, I'll it
24 that way -- must be filed ahead of time. So you'll
25 recall when this hearing was first announced the NWMB

1 out an invitation: Do you want to provide written
2 submissions? Provide them by this date. And then you
3 show up at the hearing, and you your oral
4 presentations, generally relying upon your written
5 submissions. And that arrangement ensures that there's
6 no surprises, that if you do want to review a
7 particular submission, you can look at it ahead of time

8 and be prepared at the hearing.
9 So to ensure that fairness to all the parties, the
10 NWMB wants to ask the various parties around the table:
11 Do you have any objection to Nick preparing and
12 delivering that presentation I just described to you
13 for tomorrow? So it's not something that you can look
14 up in your binder ahead of time, but it's certainly
15 something that you will see, and a copy will be
16 provided to you in due course.
17 And I want to again emphasize that the intention
18 of this presentation is not to give an advantage to a
19 particular party or to surprise anyone. On the
20 contrary, it's to help inform everyone while we're all
21 gathered together and to provide as much relevant
22 information as is possible.
23 So I'm going to hand it back to the person,
24 but my understanding is he'll go around and ask the
25 parties around the table, "Do you have any objection to

1 Environment Canada preparing" -- I suppose this
2 evening -- I don't know if Nick's probably started it a
3 little bit, but he's been at the hearing all day --
4 "preparing and then delivering tomorrow during their
5 presentation time a more elaborate presentation than
6 the letter?" I think it's a letter that is within your

7 hearing binder.

8 So, , I'll turn it back to you. Taima.

9 THE CHAIR: Yeah, thank you for that

10 clarification, Michael.

11 So we did receive a letter from Environment

12 Canada, and I want to that clear that we do have

13 something, but I know, hearing the concerns and

14 questions today, that Nick is available and going to

15 expand on that and provide a more detailed presentation

16 if we allow him to do that, and I think it is a good

17 idea. However, I will go around the table with all

18 parties involved and ask your permission for this to

19 happen.

20 And I'll start with the Board. Is everybody in

21 agreement that we get more detailed information from

22 Environment Canada tomorrow? Okay. That's good.

23 NTI, are you okay with that?

24 MR. IRNGAUT: You have to ask GN first, I think.

25 THE CHAIR: Okay. GN, are you okay with that?

1 MR. GISSING: No objection, .

2 THE CHAIR: NTI?

3 MR. IRNGAUT: I would stomp my feet, but no

4 objection.

5 THE CHAIR: you very much.

6 Kivalliq Wildlife Board? Okay. you.

7 Arviat HTO, are you okay with that? Okay.

8 Whale Cove, HTO, you're good? Okay.

9 Chesterfield Inlet? Okay.

10 Rankin Inlet? Okay.

11 Baker Lake?

12 MR. NATEELA: There's no objections.

13 THE CHAIR: World Wildlife Fund?

14 MR. LAFOREST: No objections.

15 THE CHAIR: Any Elders.

16 Kivalliq Inuit Association not here.

17 And the general public.

18 All right. you all for working in

19 cooperation like that.

20 And you got the clearance to do that tomorrow,

21 Nick. Okay?

22 . LUNN: you.

23 THE CHAIR: All right. So we'll move on. Our

24 next presentation and presenters to the NWMB is the

25 community of Arviat.

1 Arviat, you will have the floor to present any

2 information you would like to the Board in regards to

3 the Western Hudson Bay polar bear population. The

4 floor is yours.

5 SUBMISSION BY ARVIAT HTO

6 MR. ARNAUKJUAQ: you, man. His

7 presentation, he has his notes up in his room, so while

8 he is going to get them I have mine here.

9 you. I'll start off some things in English

10 regarding some issues or concerns that we have. And I

11 don't know how you properly say this, the species at

12 risk history. As of now, if I understand, the

13 Western Hudson Bay polar bear is not that stable but a

14 species of concern.

15 But what I want to say about this is the

16 committee, who they are, and as the saddest matter like

17 the wildlife in Canada in general because what I often

18 find is any species like caribou, beluga, polar bear,

19 they're all less normal conditions, as they say.

20 I'll say it in Inuktitut properly. With respect

21 to polar bears, they let us know that the polar bear

22 population, the mortality rates or when the females are

23 not as healthy. I understand the reasoning.

24 Around Churchill, Manitoba, in the wintertime when

25 the polar bears are small, but when they're getting out

1 of their dens, the researchers take pictures, or the

2 people in Churchill do research, they take pictures of

3 the cubs that just come out of the dens, which causes a
4 problem for the wildlife.

5 When females have cubs, we should leave them alone
6 when the females have cubs. However, they just went
7 there to take pictures of cubs, and that's why they say
8 that the mother is not as healthy and skinny and the
9 cubs haven't eaten properly because of the tourists
10 bothering our wildlife, especially our polar bear.

11 And around Arviat in the past there was hardly any
12 polar bears. We know that. But right now there's a
13 of polar bears, but our government tells us that
14 they're in decline. I can say myself with certainty
15 what the aerial surveys that you did, you said you saw
16 only 18 in Nunavut area, but to our east and south in
17 one day you can see more than 19. There's 7 or 9 polar
18 bears that are together around our community. And in
19 the summer and spring and fall there's always polar
20 bears around our community, and they stick around that
21 area, and once it gets cold then they do leave the
22 community, but they'll come back in the spring.

23 Species At Risk, I do not agree. They rules
24 and laws that affect us in Nunavut. We know more about
25 our wildlife. We see them every day, we deal with them

1 every day. However, I understand that polar bear,

2 caribou, every year they are said to be in decline, and
3 sometimes I don't even believe that listing.
4 Inuit know. They have the knowledge about our
5 wildlife. We manage them properly. When we go out
6 hunting we use our traditional hunting skills, and the
7 furs and the hides is still our staple to this day.
8 Around Arviat especially over the last years,
9 I noticed at our dump and our sewer, sewage treatment
10 plant there was 15 polar bears just lying around. Here
11 we do not just act as tourists for our wildlife. I
12 know if there was a of us watching those polar
13 bears, it's not our way. And once we were getting
14 tags.
15 We know down south the Dene are not allowed to
16 harvest any polar bear. I understand that. They
17 harvest grizzly bears instead because our polar bears
18 have the taste of seals, and their taste is different
19 than grizzly bears.
20 I know we could learn from this. And in the
21 communities, in our community, we can manage them
22 properly. Once we have an agreement, it will be okay.
23 This is what I'm expecting.
24 you.
25 THE CHAIR: you, Nick.

1 Paul.

2 MR. KABLUTSIAK: My thoughts with respect to polar
3 bears what we're sitting around this table for, I
4 understand it clearly. I hope you understand me
5 clearly when we're trying to deal with polar bears in
6 the future.

7 There's a of polar bears at our dump, up to 15
8 at a time, and then they go between our houses. They
9 already know that they're not going to be affected by
10 the people in the community.

11 And in the spring when we go to our cabins,
12 there's a of cabins out there by the shore. The
13 polar bears go through our cabins where we go dry our
14 meat and fish, and polar bears are destroying our
15 cabins. They move all over the place, and we are told
16 that they are in decline, but I won't believe them
17 because I see them more often. They go around, they
18 come back, they go to where we hunt, harvest our food,
19 and then they go back down to the ocean and they come
20 back in the communities.

21 The people that harvest polar bears, if they
22 increase the total allowable harvest, it would be
23 better. Used to be 25 for Arviat because there's a
24 of polar bears in our communities now, but once they
25 cut the allowable harvest for our community, they're

1 running around in our community now, and they're coming
2 back. And it's a public safety issue. It has to be
3 dealt with. I wonder how we'd be able to do that.
4 you very much.

5 THE CHAIR: you, Paul.

6 Any more information from Arviat? Okay.
7 you very much, gentlemen, for your presentation.

8 Any questions from the Board to the community of
9 Arviat? Caleb.

10 NUNAVUT WILDLIFE MANAGEMENT BOARD QUESTIONS AND COMMENTS

11 MR. SANGOYA: you, man.

12 I just want clarification with the Arviat HTO. To
13 harvest polar bear, how many do they want to increase;
14 to keep it the same or decrease? What would you like
15 to see? You said it earlier, and that's my question.

16 The cabins that are being destroyed by polar
17 bears, if there's a defence kill, would you take that
18 away from the community, or what's your view on that?

19 THE CHAIR: you, Caleb.

20 Thomas.

21 MR. ALIKASWA: you, .
22 The tags for Arviat, we lost out on many tags with
23 defence kills, and we can only harvest a few during
24 polar bear season. It is a big community, as well.
25 There's around 3,000 people in our community, and it is

1 becoming a bigger community, and the tags that we get
2 for Arviat is not enough for our community. We would
3 be happy -- myself, especially -- if we go back to what
4 it was in the past.

5 And the next question that you asked: The cabins
6 that are being affected, in the springtime where you go
7 dry your meat and fish, I don't know -- we do try and
8 get compensation whenever our cabins are destroyed. So
9 they apply to the Renewable Resource office for
10 compensation. That's the only information I can give
11 you.

12 you, man.

13 THE CHAIR: you very much, Thomas.

14 Caleb.

15 MR. SANGOYA: We want to hear what they have to
16 say, how many polar bears do they want to harvest, or
17 if they don't have a, quota how you would like to
18 conserve those polar bear population. We want to hear
19 from the HTOs, HTAs more than we do from the vernment
20 or NTI. We want to hear from you more because we are
21 here for you. It will be easier if we hear from you.

22 THE CHAIR: you, Caleb.

23 Nick.

24 MR. ARNAUKJUAQ: you, .

25 Yes, right now every year our total allowable

1 harvest tags is what we meet on every year, and then
2 they decide in the communities how many they're going
3 to harvest this year or that year. Last year we had
4 13 -- no, 8 -- and Baker Lake has 1, Chesterfield is
5 part of -- then Rankin, Whale Cove, Arviat. Then we
6 split up those tags.

7 Right now we got an increase last year. However,
8 right now, if it's understandable, our government is
9 suggesting 28; however, for us in our communities in
10 the Kivalliq Region it's not enough. I made it clear
11 in Arviat 20, 25, to not change, it would be a
12 better.

13 And we do not indiscriminately destroy wildlife,
14 and if we have to destroy a polar bear out of season it
15 does affect our tags. We'd have to wait for polar bear
16 season. However, with defence kills it affects our
17 allowable harvest, even though we don't agree with
18 that. That affects us with respect to harvesting polar
19 bears.

20 Just like when they're pulling on a hook, it will
21 benefit, so if we can add onto that, our government --
22 I would like to see an increase up to 20 or 25 tags is
23 what we'd like to see, tags for Arviat for our future
24 if that goes forward.
25 And the cabins that you mentioned earlier, yes,

1 they are destroyed not only by polar bears but by
2 grizzly bears too. There are more grizzlies in and
3 around our community as well. Yes, polar bears do go
4 to the cabins, and they destroy property.
5 you.

6 THE CHAIR: you, Nick.

7 Charlie.

8 MR. INUARAK: you, .

9 I want to ask the delegates from Arviat, because
10 we hear on local CBC Radio that the polar bears are in
11 and around the community of Arviat, and then they end
12 up having to chase them away, and they affect the
13 properties. I know the wildlife that you caught,
14 harvested, seals and caribou and fish; when there's a
15 of polar bears in and around your area, what's
16 happening to the seals? Are they being affected, or is
17 it just the people of Arviat? How do the hunters feel
18 about polar bears and the food that they eat? Are they
19 being affected?

20 THE CHAIR: you, Charlie.

21 Thomas.

22 MR. ALIKASWA: I'll try to answer that question.

23 As people from Arviat, in July, during the month of
24 July, summer, from there all summer the polar bears are

25 around our community. Right to the fall there's a

1 of polar bears in around our community. And even if
2 you try to go spend the night out, you can't be in a
3 tent out anymore because there's too many polar bears
4 all summer. They're destroying property.
5 And on the lake (Inuktitut spoken) close to Arviat
6 that's where we have our nets for fish, and you can
7 tell the polar bears are eating the fish out of the
8 nets. That's how they are affecting us. As a resident
9 of Arviat, there's too many polar bears. It's going to
10 start again this summer because it is a place where
11 polar bears congregate. They even had to increase the
12 Renewable Resource staff to monitor and ensure the
13 safety of the public.
14 And your other question, the seals that you asked
15 about, in the past, in the '70s, in the past, close to
16 Arviat there used to be a of seals, I remember
17 myself, when I was young. But today it's not like that
18 anymore. There's hardly any seals around our
19 community. And even if you go seal hunting by boat you
20 hardly see them anymore. Only every once in a while we
21 have a few seals around our area. We have to go really
22 far.
23 you.

24 THE CHAIR: you, Thomas.

25 Charlie.

1 MR. INUARAK: Yeah, you're so busy with polar
2 bears, and how much you're dealing with them is what we
3 hear about. For Department of Environment and the
4 governments here, do they not listen to your crisis, or
5 is it just you as the HTO who are striving to cope with
6 what's going on and what's happening?

7 That's my question, .

8 THE CHAIR: you, Charlie.

9 Nick.

10 MR. ARNAUKJUAQ: you, .

11 In Arviat when we have increased number of bears,
12 the different bodies, the hamlets, the NWMB, KWB, or
13 WWF do come hand in hand in agreement to support us
14 people to keep us safe. They work together, they do.

15 And it is more managed by the government wildlife.

16 They're at work. But there's an agreement between the
17 hamlet and the WWF in regards to the polar bears,
18 especially in the more increased times of the year,
19 over a span of months, let's say.

20 THE CHAIR: you, Nick.

21 Charlie.

22 MR. INUARAK: Okay. And you also mentioned the

23 researchers from Environment, through the aerial
24 surveys they tend to look more on the shoreline, but if
25 they were to -- you said you see more inland further

1 out, and this is a characteristic of a polar bear what
2 you're sharing, because they go wherever they want, and
3 they go far places. So perhaps if the length of the
4 research and surveys are made longer.

5 Are you aware of these indicators, the people from
6 Arviat?

7 THE CHAIR: you, Charlie.
8 Thomas.

9 MR. ALIKASWA: If I can answer it, and I've
10 mentioned it, I've repeated myself over and over to
11 different boards. Myself, I'm a guide every year for
12 sports hunters through Henik Lake Adventures. I'm part
13 of the guides there looking for the caribou.

14 So about 150 miles we are brought by plane to the
15 tree line west of Arviat, and for the last years or
16 for years we have caught polar bears in these
17 areas.

18 They would accommodate us to have research and
19 surveys done further inland. And so if you're trying
20 to count polar bears, we encourage you to go further,
21 further out and include these in your numbers.

22 I hope I answered you correctly. you.

23 THE CHAIR: you, Thomas.

24 ahead, Charlie.

25 MR. INUARAK: And my last question. The people

1 who do the surveys said between 800 to 1,000 is the
2 population number from their surveys. Do you see this
3 as true, or referring to your knowledge would there be
4 more, or what would you say? While I'm here, can you
5 share with me, are the numbers true for you?

6 THE CHAIR: you, Charlie.

7 Nick.

8 MR. ARNAUKJUAQ: Yes, your question, counting polar
9 bears, us HTO in Arviat are aware of this. I can say
10 it's not true, and there are more than 1,000. Common
11 knowledge. Especially it's due to the fact that Arviat
12 is so close to Churchill. Churchill is identified as
13 the polar bear capital of the world. If you properly
14 count them, they're not in dwindling number, but they
15 are increasing in number.

16 And I heard earlier this morning you may think you
17 see one bear, but usually there's always or three
18 with their cubs. So this is what we constantly
19 consistently see, to three cubs. And the numbers
20 they presented are not too true, so this is based on

21 Inuit fact.
22 THE CHAIR: you, Nick.
23 Jorgen.
24 MR. BOLT: you, man.
25 Just a quick question. Is there any sports hunts

1 there for polar bears, and if they are, are they coming
2 from -- from where are the tags?
3 you, man.
4 THE CHAIR: you, Jorgen.
5 Thomas.
6 MR. ALIKASWA: you, .
7 Us people in Arviat, before they take away from
8 our quotas, yes, there used to be polar bear hunters
9 coming in, sports hunters, but now we don't even touch
10 that. The sport hunters do not come anymore.
11 you.
12 THE CHAIR: you, Thomas.
13 Any other questions from the Board? If not --
14 Noah, go ahead.
15 MR. MAKAYAK: For the people who conduct the
16 surveys on polar bears, I'm not too aware of them, but
17 the people who provide the tags or even regarding what
18 kind of management system is conducted in Manitoba or
19 Churchill, is it all over Manitoba or in

20 Northern Quebec if our polar bears go across and reach
21 Northern Quebec?
22 So the people who conduct the surveys, from what
23 we were presented earlier, if they come up with these
24 numbers, then are these the same bears? Are we talking
25 about the same polar bear population because the

1 weather and the environment affects where they go? Or
2 is it just the Baffin Region versus Kivalliq Region?
3 They all conduct surveys. Do they do this as well?
4 Manitoba or Northern Quebec, how's their management
5 system, is my question.

6 THE CHAIR: you, Noah.
7 I'm not sure that's directed to you as an HTO, but
8 I know tomorrow during Environment Canada's
9 presentation, Noah, maybe they can answer your question
10 tomorrow would be a better opportunity, I think. Is
11 that okay, Noah?

12 MR. MAKAYAK: Okay.
13 THE CHAIR: All right. Any other Board
14 members questions? Caleb.

15 MR. SANGOYA: My question earlier was not
16 answered. For the bears that you harvest, do you not
17 want it to affect -- what's the exact number of tags
18 you wish for for Arviat? So that's my question. How

19 many tags do you want for it not to be touched, or do
20 you want it increased or decreased for the bears that
21 you can catch in Arviat?
22 THE CHAIR: you, Caleb.
23 Thomas.
24 MR. ALIKASWA: you, .
25 Sorry I didn't answer you earlier. I was trying

1 to say earlier that people from Arviat, their tags are
2 not enough, too few in number. And if we can have this
3 increased we would like it to increase the number of
4 bears we can catch in Arviat, and especially if we can
5 return it. The regional used to be 20 something, about
6 25 before. If we could get back to this number, this
7 would help us.
8 you.

9 THE CHAIR: you, Thomas.

10 Okay. No other questions from Board members?

11 Any questions from staff? Vickie.

12 NUNAVUT WILDLIFE MANAGEMENT BOARD STAFF QUESTIONS AND
13 COMMENTS

14 MS. SAHANATIEN: you, .
15 I think just in the discussions there is a of
16 information that we don't readily have because I guess
17 information is not recorded by the community or by the

18 government, as well, when the bears are arriving in
19 town, the real, maybe, hot spot areas. We saw a bit of
20 information earlier, but we don't have that at our
21 hands handy today, and I'm thinking down the road it
22 might be a very good idea if the community HTO,
23 collaborating with organizations with ourselves, to
24 collect additional information on what you're
25 experiencing with the bears in the fall, the timing,

1 because the surveys are done, you know, in the summer
2 for certain reasons.
3 We don't have that information in the fall. That
4 would be useful to help us just assessments and, I
5 guess, determinations and understand, I guess, the
6 level of public safety hazard and what you're
7 experiencing.
8 So I'm thinking more to the future here that
9 perhaps we could look at more intensive type of
10 monitoring along Western Hudson Bay with the
11 communities to get that more ecological information
12 that people have been asking about behaviour,
13 distribution and so on during the fall and how that
14 affects your hunting and your ability to use your
15 quotas effectively.
16 More of a comment. you.

17 THE CHAIR: you, Vickie.

18 Again, more of a comment from Vickie about

19 gathering more information.

20 Yeah, Nick, go ahead.

21 MR. ARNAUKJUAQ: you, .

22 So this research survey determining the numbers is

23 applied every year in Arviat when they come in from

24 Arviat. And as Inuit we know, we recognize different

25 bears. But as soon as they cross the bay and continue

1 down the shoreline, and for many years, about 400 have

2 passed through every day pretty well on a daily basis.

3 And after they've passed the bay most don't return,

4 they just continue going down.

5 Except when they do at our dump. Someone had

6 caught a bear from the dump, or they caught a bear with

7 a tag with a little GPS attached to it. And if you

8 don't know the film, the series called Polar Bear Town,

9 who described them as danger bears, the bear was killed

10 in Arviat. So all these film crew were whatever, what

11 are they going to do about it?

12 But for us, the matter about monitoring, yes,

13 Inuit we normally don't count to see how many bears

14 there are now. It's not our practice to count bears

15 just for the sake of knowing how many they are. But we

16 understand about the male, the female, the cubs, things
17 like that, and the age.
18 But we're going to work harder as HTO concerning
19 polar bears, especially in the fall, and we practice
20 this by the wildlife officers and the different
21 organizations that I mentioned earlier are there, and
22 we manage what we can to control them, especially
23 during peak times in Arviat.
24 you.
25 THE CHAIR: you, Nick.

1 Any other questions or comments from staff?

2 Michael, anything? That's it for Arviat. We'll
3 move on to the next questioning.

4 GN, do you have any questions for Arviat?

5 MR. GISSING: No questions.

6 THE CHAIR: you, ikus.

7 Nunavut Tunngavik Paul.

8 MR. IRNGAUT: No questions. s.

9 THE CHAIR: Kivalliq Wildlife Board, any
10 questions?

11 MS. NETSER: No questions.

12 THE CHAIR: you.

13 Whale Cove HTO, any questions to Arviat?

14 MR. ENUAPIK: No questions.

15 THE CHAIR: Okay. you, Simon.

16 Chesterfield Inlet, any questions to Arviat?

17 MR. AGGARK: No questions.

18 THE CHAIR: you, Harry.

19 Baker Lake, any questions?

20 MR. AKSAWNEE: No, thank you, no questions.

21 THE CHAIR: Environment Canada, any questions?

22 MS. VALLENDER: No questions. you.

23 THE CHAIR: you. World Wildlife Fund,

24 any questions?

25 WORLD WILDLIFE FUND QUESTIONS AND COMMENTS

1 MR. LAFOREST: you, , just a quick

2 comment.

3 The WWF support of the Arviat patrol is something

4 we're really proud of and that we'll continue. And

5 we're always open to conversations with the HTO and the

6 community. I know we work with the hamlet to

7 administer the patrol, but any suggestions from the HTO

8 or the community to improve it, it's in conjunction

9 with GN, they lead it. In the end, we just support.

10 But always open to suggestions on how those funds could

11 be best placed in the community to help.

12 s.

13 THE CHAIR: you.

14 Any questions from the Elders and the public in
15 the gallery for Arviat?

16 If not, KIA is not here. No questions from them.

17 Any questions from the public? Anybody else in
18 the gallery? Okay. No questions.

19 Gentlemen, thank you very much for your
20 presentation and voicing your views and concerns.
21 you very much.

22 We're going to move on, then. Whale Cove, if you
23 would like to a presentation to the Board.
24 you.

25 SUBMISSION BY WHALE COVE HTO

1 MR. ENUAPIK: you, .

2 I asked earlier regarding if we can increase polar
3 bear tags. This winter we were in danger in
4 Whale Cove. Even the past years I can say we have been
5 in danger, and we couldn't shoot them, catch them, kill
6 them. And they were amidst our houses, even sleeping
7 in between the houses, and we were rendered powerless.

8 So, yes, we were given ten tags, but it's still too
9 small. It's not enough.

10 Elders -- I often ask them regarding polar bears:
11 Do you think they're more in number or fewer in number?

12 And they all say there are so many more now today.
13 They always give me the same answer. I love learning
14 from our Elders, asking them questions. I have total
15 faith in them.
16 But we're talking about danger? Yes, I can say
17 Whale Cove was not safe. people were attacked on
18 the ramp of the Co-op store, and there were five
19 different polar bears sleeping under houses, houses
20 with people in them. We did everything we can to scare
21 them away, but they just come back.
22 And their character has changed. They're just
23 prone to being amongst Inuit people. This is
24 dangerous. And I do not mind at all if the number of
25 bears that we can catch can be increased because we

1 value people, Inuit, more than animals, polar bears.
2 And so we're in favour of the numbers being increased.
3 And I'm going to ask if Napayok wants to share
4 anything.
5 you, .
6 THE CHAIR: you very much.
7 Jackie.
8 MR. NAPAYOK: Just the same every year, every
9 year. They seem to be growing in number, not coming
10 from -- I'm sure you understand when they're coming

11 from the north. They're not really coming from the
12 north; they're coming from the south from Arviat area
13 every year, and they're increasing in number from
14 south.

15 And we often say as Elders -- I have to say this.

16 Part of the reason around the fall, toward fall, toward
17 the end of August, the last week of August, let's say,
18 we see many more belugas in Whale Cove, white belugas,
19 not narwhals. And this is no doubt a factor because
20 hunters do not sink the carcass. They just harvest it,
21 and leave it on the shoreline. This is due in part why
22 we're seeing more polar bears coming around. And
23 they're supposed to -- if they don't cut up the lungs
24 and the innards, then it's just going to always float.
25 So you need to butcher it properly in order for the

1 carcass to sink into the sea to leave it there.
2 And Charlie asked earlier, the people of Arviat,
3 if they see more or less seals according to the past.
4 And he was told in the past, yes, there was always a
5 of seals. This is true. And even in Whale Cove we
6 used to have more seals. This isn't even in regards to
7 polar bears, if you don't mind my saying.
8 THE CHAIR: Yes, that's fine.

9 MR. NAPAYOK: And the bears, if you're going to

10 work with -- if the bears -- we know they're going to
11 damage property. And I don't really want to say this,
12 but we have our homes in Nunavut. When somebody from
13 the south comes, this particular person, well-known by
14 Arvimmiut, and there used to be a more seals. But
15 they are so few in number now, and I don't really --
16 I'm being hesitant.

17 But the sound of the sonar or the loud-sounding
18 noise like that of a killer whale was sunk in
19 Whale Cove, and I think this is the reason why there's
20 fewer seals and sea mammals around, and I think this is
21 part of the problem. But also in Naujaat -- I think
22 even all the Arvimmiut heard this. No one's bringing
23 this up, so I'm sharing it. So this is part of the
24 reason for the polar bears too.

25 THE CHAIR: you very much, Jackie and

1 Simon.
2 Anything that you would like to present?
3 MR. ENUAPIK: you, .
4 I also want to say that we're often in danger, and
5 for the past years we haven't had a wildlife
6 officer, and this s it more difficult. We have a
7 hard-working bylaw, the only one, really, responsible
8 for chasing them away. And I often ask him when

9 there's bears: How often do you see them each night?
10 The last time I asked him when we started seeing more
11 bears, he said he's seen nine bears just outside of
12 Whale Cove, and he scared them all the way, and they
13 all came back. They just keep coming back now to our
14 towns.

15 you, .

16 THE CHAIR: Okay. I'm going to open it up for
17 questions from the Board. I just want to acknowledge
18 Whale Cove and Arviat stressing the safety factor of
19 the people is a huge concern to you.

20 Any questions from the Board Members? Okay.

21 David.

22 NUNAVUT WILDLIFE MANAGEMENT BOARD MEMBERS QUESTIONS AND
23 COMMENTS

24 MR. KRITTERLIK: I have a question. I am from
25 Whale Cove, as you all know. I was originally from

1 Arviat, so I know pretty well the communities
2 you're talking about.
3 But also being an Elder, I know a bit about some
4 things, but there are a of questions within the
5 communities in regards to scientific and technical
6 knowledge. We are going by that knowledge that we
7 never used before.

8 One question that would satisfy a of Elders is
9 that, how do you distinguish the population within the
10 same quota system? How do you divide the Coral Harbour
11 quota from Western Hudson Bay or even Northern Quebec?
12 Those are the questions that we often ask, and we've
13 been advised this afternoon that the current system is
14 what moved the population, what moved the wildlife.
15 Paul Kablutsiak mentioned before that there's a
16 circulation going on in Hudson Bay, ice packs that
17 carry polar bears. Knowing that, getting that from the
18 Elders from the communities, also from technical
19 knowledge we heard that a collared polar bear who was
20 collared in Churchill, Manitoba, was tracked across the
21 bay to northern Manitoba.
22 Now, those are the kind of questions that the
23 communities would like to really find out: How do you
24 the western population separately from all the
25 other areas? And that's why I mentioned before that,

1 yes, we are including the IQ, yeah, IQ in the studies
2 or surveys, but I mentioned that jokingly that having a
3 local Inuit person in the helicopter doesn't him a
4 scientist right away, he's only being included in the
5 survey, but his IQ is not taken from him. Something to
6 think about.

7 you.

8 THE CHAIR: you for those comments,

9 David. Jorgen, do you have a question?

10 MR. BOLT: you, .

11 Yeah, you said your bylaw officer was a pretty

12 busy boy there; no wildlife officer. I don't know why

13 that is. You know, every community should have a

14 wildlife officer, especially somebody like that, some

15 communities like that.

16 But you mentioned that the bylaw officer was using

17 a deterrent. What kind of deterrent is he using?

18 Like, bear bangers or rifles, or what kind of deterrent

19 is he using? Because when I was working as a wildlife

20 tech in the mines, that was my job also to chase away

21 wildlife. And I've had, like, using deterrents, a

22 helicopter, and then using bear bangers and then just,

23 you know, pushing them as hard as I can. Because they

24 were -- they were literally habituating these animals

25 before I got there. And I said you can't do that.

1 That's not the way to do it. You have to let them know

2 the first time that you're serious.

3 And so my job was to chase these animals away. I

4 chased a of grizzly bears in helicopters and stuff.

5 They were pretty much habituating these animals by just

6 doing little deterring jobs, if you will. And I said,
7 no, you can't do that. That's not the way to do it.
8 You need to scare them good the first time, and after
9 that they might not come back.
10 And we started. I chased a of bears, and I
11 said, no, just get right down on top of them and push
12 them as hard as you can. Push them. Push them. And
13 using bear bangers and stuff like that, most of the
14 time those bears never came back to the mine.
15 And just my question is, what kind of deterrents
16 are you using?
17 you, .
18 THE CHAIR: you, Jorgen.
19 Simon.
20 MR. ENUAPIK: you, .
21 They use cracker shells and rubber bullets for the
22 .12 gauge gun. you.
23 THE CHAIR: you, Simon.
24 Caleb.
25 MR. SANGOYA: man.

1 In the past before we got the Nunavut Land Claims
2 Agreement, before these agreements were in place our
3 government used to decide for us, when it was the NWT
4 government. Once we have defined rights, the

5 communities have the opportunity to speak.
6 How many polar bears do you want to see in your
7 community, and for safety issues and the polar bears
8 that come into the communities, how we can manage that?
9 I saw in our binder, November 24. Before that
10 date we had written submissions to give to the NWMB
11 Board and to the government, did the same thing as
12 well, and NTI. I wanted to see their submissions.
13 And the communities that are affected, how many
14 would you like to see? And the sex selection of them
15 for males and females, I haven't seen what your wishes
16 are. What is it in your community that you would like
17 to harvest? How many would you like to see with the
18 sex selection harvesting, and how many you would like
19 see in your community? It's not in your written
20 submission, so I want to find out what your community
21 feels like with respect to how many they can harvest.
22 I know the government has their own agenda, but
23 the communities have the opportunity under the Land
24 Claims Agreement, especially the HTOs in the
25 communities. This is what I would like to hear from

1 you more than I do from the government. I'd like to
2 hear what the communities' wishes are, and written. If
3 it's 100 or 200, don't worry about that. Don't even

4 consider the government's guidelines. But when we're
5 deciding on what kind of decision we want to ,
6 that's my question to you.

7 I would like more information from Arviat and
8 Whale Cove because of the amount of polar bears they
9 have. That's my question. What is your numbers that
10 you would like to see, total allowable harvest and to
11 ensure the safety of the public?

12 you.

13 THE CHAIR: you.

14 Simon.

15 MR. ENUAPIK: you, man.

16 We have heard from Inuit. The male and female
17 ratio has been the question as well, and I've been told
18 that the sex selection should be taken off and not used
19 that anymore. But we were told, if that is taken off,
20 the polar bear tags would be decreased for the
21 community. That's what we were told in our community.

22 I know it's not only for polar bears that destroy
23 cabins. Even wolverines, they're really strong.
24 Wolverines are affecting our cabins, not only just
25 polar bears, through my experience, and grizzly bears,

1 as well, because we do get grizzly bears in local.
2 you, man.

3 THE CHAIR: you, Simon.
4 Just following up on Caleb's question, does
5 Whale Cove have a number in mind of the number of polar
6 bears that you would comfortably like to harvest in
7 your community?

8 MR. ENUAPIK: you, man.
9 I asked our board members. They would like to
10 see 20. If there are at least 20 that we can harvest,
11 it would be better. Over the last years we
12 couldn't harvest any polar bears. During polar bear
13 season it was really hard to be a board member for the
14 HTO. We can't do anything. People complain to us
15 board members, and we couldn't do anything, couldn't
16 harvest any bears over the last years. We couldn't
17 even think properly anymore as a member from
18 Whale Cove. We even considered suicide.

19 THE CHAIR: you, Simon.
20 Any other questions? Oh, Charlie.

21 MR. INUARAK: you, man.
22 Let me ask the question, because it is mentioned
23 more and more often on TV. With climate change and the
24 polar bears are getting skinnier and starving, in
25 Whale Cove do you see that? Are the polar bears not as

1 healthy, or are they so healthy they're increasing?

2 What are your thoughts on the health of the polar bear?

3 Are they getting skinnier? What is your view on this
4 issue? If you could let me know, I would be happy.

5 THE CHAIR: you, Charlie.

6 Simon.

7 MR. ENUAPIK: you, man.

8 The polar bears we see, they're not hungry. Some
9 of them were -- most of them, in fact -- were all
10 healthy and fat. Three or four were sick, and you
11 could tell they were unhealthy. And someone did
12 harvest one because it was becoming a nuisance bear.

13 You could see that the lower jaw was broken, and
14 because of that it was a danger to the public.

15 you, man.

16 THE CHAIR: you, Simon.

17 Charlie.

18 MR. INUARAK: So the polar bears are not in
19 decline because of their health? They're using
20 their own -- there are some that are fat and some that
21 are fit. It's still the same. Is that what I hear
22 from you?
23 you.

24 THE CHAIR: you, Charlie.

25 Simon.

1 MR. ENUAPIK: you, man.
2 Yes, right now this year the polar bears, spring,
3 summer, fall we had polar bears in our community.
4 Every one we saw looked healthy. As I mentioned, there
5 were three, maybe four polar bears that had a disease
6 or had some problems, so they had to destroy them, but
7 right now the polar bears that we see this year,
8 they're all healthy.
9 you.

10 THE CHAIR: you, Simon.
11 Any other questions? If not, any questions from
12 staff? Vickie.

13 NUNAVUT WILDLIFE MANAGEMENT BOARD STAFF QUESTIONS AND
14 COMMENTS

15 MS. SAHANATIEN: you, .
16 Just a short question. So it was a few months ago
17 NWMB helped the vernment of Nunavut to have a course
18 in Whale Cove for polar bear guard training. I'm just
19 wondering how you felt about it. Was it successful?
20 Would you like to see more of that to help deal with
21 this public safety problem that you're having?
22 you.

23 THE CHAIR: s, Vickie.
24 Simon.

25 MR. ENUAPIK: you, man.

1 Yes, that was a good course. There were ten
2 people that were instructed; however, if we can have a
3 longer process. Only days the training was, it
4 would seem like they were rushing. If we could train
5 them a longer, it would be better.
6 you.

7 THE CHAIR: you, Simon.
8 Michael, legal, any questions? Okay. No
9 questions. That wraps up NWMB Board members and staff.
10 GN, any questions to Whale Cove?

11 MR. GISSING: No questions.
12 THE CHAIR: NTI, any questions?

13 MR. IRNGAUT: No questions.
14 THE CHAIR: Kivalliq Wildlife Board, any
15 questions?

KIVALLIQ WILDLIFE BOARD QUESTIONS AND COMMENTS

17 MR. DEAN: I just want to get clarification.
18 The numbers that both Arviat and Whale Cove have
19 suggested for tags, that's for your community that you
20 want; right? The 20 to 25 that Arviat suggested, it
21 sounds like that was the case. I just want to
22 sure it's clear, not for the whole Western Hudson Bay
23 population.
24 THE CHAIR: you. I think that is my
25 understanding that they're speaking on behalf of their

1 own communities.
2 But, Simon, go ahead, if you want to add.
3 MR. ENUAPIK: you, man.
4 Yes, myself, I would like to see 20 for
5 Whale Cove. That's what we would like our total
6 allowable harvest to be for our community.

7 THE CHAIR: Nothing else, KWB? No more
8 questions?

9 Arviat HTO, do you have any questions. No?
10 Chesterfield Inlet, any questions for Whale Cove?

11 MR. AGGARK: No questions.

12 THE CHAIR: Rankin Inlet.

13 MR. TARTAK: No questions.

14 THE CHAIR: Baker Lake, any questions for
15 Whale Cove?

16 MR. NATEELA: No questions.

17 THE CHAIR: Okay. Environment Canada?

18 MS. VALLENDER: No questions. you.

19 THE CHAIR: World Wildlife Fund?

20 MR. LAFOREST: No questions.

21 THE CHAIR: Any questions from Elders or the
22 public to Whale Cove? No questions.

23 Whale Cove, that concludes your presentation and
24 questions to you. you very much for voicing your
25 concerns. And we'll move on to the next community.

1 Chesterfield Inlet, if you would like to a
2 presentation to the Board in regards to the Western
3 Hudson Bay polar bears.

4 SUBMISSION BY CHESTERFIELD INLET HTO

5 MR. AGGARK: you, man.

6 I apologize for not having a written submission
7 with respect to this question; however, it is pretty
8 much the same as Arviat and Whale Cove. We have
9 concerns for our community.

10 We are both on Western Hudson Bay, and the other
11 half is from Foxe Basin where we get our tags from.

12 This causes a problem for us. For example, when you
13 add them all, we can get nine polar bears in one year,
14 four from Western Hudson Bay and five from Foxe Basin.

15 The sex ratio between female and male is not the
16 same, and it causes us issues. For an example, our
17 youth do not know what sex it is, whether it's a male
18 or female, because they don't have the experience. The
19 polar bears that just left their mothers, whether it's
20 a male or female, they don't distinguish.

21 This fall, November 1 when our season opened, when
22 someone went out to harvest a bear they caught
23 females right away. And on the Western Hudson Bay we
24 were able to harvest four, one female and three males.

25 In Foxe Basin we have five that we can harvest,

1 female and three males. Because of that, we do end up
2 in a situation where we're harvesting too many females,
3 and from the Western Hudson Bay then we will get
4 penalized for that. Therefore, for next year it would
5 be better; for example, if we had ten that we could
6 harvest, five and five would be better.

7 And the polar bears that come to our communities
8 and have become problem and nuisance polar bears, we
9 don't like destroying the bear. The RCMP and our
10 Renewable Resource Officer try to scare them away, and
11 they just come back. I wonder how we would be able to
12 fix this situation. During off season if we can get
13 help for our community, even if we can have a cage or
14 trap them and send them out of the community it would
15 be better that way, I think. I'm not sure.

16 As well, as someone mentioned earlier, in
17 August there's a of whales in and around the
18 communities, and the harvested whales do get into
19 the water, and some of them are left on the shore, and
20 that causes the polar bears to come close to the
21 community. I know it's a community concern that needs
22 to be addressed in our community, but not everybody
23 listens to the HTO. We have to fix that in our

24 community ourselves.

25 And in the spring when people go out hunting for

1 walrus and then they cache them close to the community,

2 that's another reason why the polar bears are close to

3 our community. What else I can add on right now, I

4 think I'll end my submission right there.

5 you, man.

6 THE CHAIR: you very much, Harry.

7 Anything else from anybody else? Nobody?

8 Okay. Any questions to Chesterfield Inlet?

9 Caleb.

10 NUNAVUT WILDLIFE MANAGEMENT BOARD QUESTIONS AND COMMENTS

11 MR. SANGOYA: I want to hear from you, as well,

12 what your quota should be with respect to safety.

13 Those defence kills, would you like that to be added on

14 or have a different system for that? Have you

15 considered that?

16 MR. AGGARK: The system that we're using right

17 now during off season, the defence kills in the spring

18 and summer when they're female, our tags are taken away

19 from us. We don't like that situation. Our quota for

20 next year, if it's not there, if they don't take it

21 away from us that would be better for us.

22 THE CHAIR: you, Harry.

23 Any other questions from Board Members to
24 Chesterfield Inlet?
25 If not, staff? Nothing? Legal? No questions?

1 vernment of Nunavut.

2 MR. GISSING: No questions.

3 THE CHAIR: NTI.

4 NUNAVUT TUNNGAVIK INCORPORATED QUESTIONS AND COMMENTS

5 MR. IRNGAUT: you, man.

6 I was supposed to ask the question earlier for

7 Arviat and Whale Cove. The polar bears that you

8 encounter that go into your communities, are they

9 always female, or is this male and females, or is it

10 more females?

11 you.

12 THE CHAIR: Harry.

13 MR. AGGARK: you, man.

14 THE CHAIR: ahead, Harry.

15 MR. AGGARK: The polar bears that come into our

16 communities in the fall are more females, maybe because

17 of the males being harvested more often, or from

18 Churchill through Arviat when the weather is getting

19 cold before the ice is there, they come by the shore.

20 They pass by Chesterfield all the way up towards

21 Naujaat and Coral. Not sure whether the females are

22 before the males, but they do seem to be more abundant
23 that come through our community.

24 you.

25 THE CHAIR: you, Harry.

1 Okay. Kivalliq Region Wildlife Board, no
2 questions?

3 MS. NETSER: No.

4 THE CHAIR: Arviat, any questions for
5 Chesterfield Inlet? Harry? Nick.

6 CHESTERFIELD INLET HTO QUESTIONS AND COMMENTS

7 MR. ARNAUKJUAQ: I have one question for
8 Chesterfield. With respect to the Western Hudson Bay
9 population, you're included. How many years have you
10 been included on the Western Hudson Bay population? Do
11 you know how long has it been being included with the
12 Western Hudson Bay population?

13 MR. AGGARK: From my recollection from the
14 beginning when they had the boundaries listed before,
15 once we found out about the borders, that's when we
16 were included. But I don't know exactly what year that
17 was. We were taken off the Western Hudson Bay
18 population, but we were brought back in.
19 you.

20 THE CHAIR: you, Harry.

21 Arviat, any more questions?
22 MR. ARNAUKJUAQ: No more. you.
23 THE CHAIR: Okay. Whale Cove, any questions
24 to Chesterfield Inlet?
25 MR. ENUAPIK: No questions.

1 THE CHAIR: Rankin Inlet, any questions?
2 Baker Lake, any questions?
3 Environment Canada?
4 MS. VALLENDER: No questions.
5 THE CHAIR: you.
6 World Wildlife Fund, any questions? No questions.
7 Any Elders or anybody from the public, any
8 questions to Chesterfield Inlet HTO? Doesn't look like
9 any.
10 you very much, Chesterfield Inlet, for your
11 presentation.
12 We're going to move on next to Rankin Inlet. Do
13 you have a presentation to give us to the NWMB?
14 SUBMISSION BY RANKIN INLET HTO
15 MR. SIGARDSON: I do not have a presentation, but
16 the number my board came up with was 40 for
17 Western Hudson Bay.
18 THE CHAIR: That's the number that Rankin
19 requests?

20 MR. SIGARDSON: Total for Western Hudson Bay.

21 THE CHAIR: What was the number again?

22 MR. SIGARDSON: 40.

23 THE CHAIR: 40?

24 MR. SIGARDSON: Yeah.

25 THE CHAIR: Yeah, 4-0.

1 So I'm still going to give the opportunity for
2 anybody -- and I'm not sure if you can answer any
3 questions -- but opportunity to ask Rankin Inlet HTO
4 any questions that anybody might have. And I'll just
5 open it up because I don't think there will be too
6 many. Charlie.

7 NUNAVUT WILDLIFE MANAGEMENT BOARD QUESTIONS AND COMMENTS

8 MR. INUARAK: Let me ask the question. On the
9 local radio we're hearing more, I know Arviat is the
10 first that gets the polar bears first and then
11 Whale Cove and Rankin. It's the same group of polar
12 bears that reach this area from Churchill? That's my
13 question, because that's where we are.

14 THE CHAIR: you, Charlie.

15 Rankin, go ahead.

16 MR. SIGARDSON: We don't see the numbers that they
17 do in Arviat. We're a little bit further inland.

18 THE CHAIR: Okay. you.

19 Any other questions from the Board? I'm going to
20 do this properly because I'll get it mixed up, so I'll
21 follow the process. Any other questions from the
22 Board? Doesn't look like it. Staff.
23 MR. SANGOYA: Hey, from the Board.
24 THE CHAIR: From the Board. Caleb.
25 MR. SANGOYA: Yeah, I'm the Board.

1 THE CHAIR: You are.
2 MR. SANGOYA: We were told when we had our first
3 hearing here 2013, around Rankin Inlet people that were
4 hunting, there was someone mauled by a polar bear.
5 The ten that were destroyed we hardly see polar
6 bears inside the community, but just outside. In
7 between, there's a of polar bears outside the
8 community. I don't believe that is true. It is
9 something that Rankin residents are worried about to be
10 in a tent down by the shore. It was heard on the radio
11 that it is scary to be out in a tent. Or can you go
12 out hunting anywhere between Whale Cove and
13 Chesterfield?
14 MR. SIGARDSON: I couldn't actually answer that.
15 I wasn't in Rankin in 2013, but I do know people that
16 go down the bay will not stay in tents.
17 THE CHAIR: Okay. you, Clayton.

18 All right. Any other questions from any of the

19 Board Members?

20 Staff? Legal? No.

21 GN?

22 NTI? Kivalliq Wildlife Board?

23 Arviat HTO? Nick.

24 ARVIAT HTO QUESTIONS AND COMMENTS

25 MR. ARNAUKJUAQ: you, .

1 I know the communities of Whale Cove, Rankin,

2 Arviat, polar bears do come to our communities quite

3 often. We do know that.

4 I'm asking the total harvest of polar bears that

5 you can have, how many people went to Arviat to go

6 harvest a polar bear?

7 THE CHAIR: Clayton, we'll go through the

8 here, okay, so I'll acknowledge you.

9 you, Nick.

10 Clayton, go ahead.

11 MR. SIGARDSON: you, .

12 I think it was six, but I'm not 100 percent sure.

13 But those people that went to go hunt in Arviat were

14 from Arviat. They live in Rankin now.

15 THE CHAIR: you, Clayton.

16 Nick.

17 MR. ARNAUKJUAQ: you for that information.

18 As Inuit, we don't have any problem with our

19 community members, Whale Cove, Rankin. They do travel

20 towards our community. Every year they show up in our

21 community to harvest a polar bear. But I do realize --

22 I'm saying they were harvesters that originally came

23 from Arviat. They do come close to our communities to

24 harvest polar bears that are around our community.

25 I think we have to train the people. We're not

1 stingy about our polar bears, but looking at our

2 community, only the people from Arviat should harvest

3 around our community. I know they're not the only ones

4 that are harvesting around that area. People come from

5 local in Rankin to harvest polar bears. So my

6 question: Is that okay?

7 you.

8 THE CHAIR: you, Nick.

9 Clayton.

10 MR. SIGARDSON: I can't really answer that.

11 THE CHAIR: you, Clayton. And that is

12 kind of -- that is ting you on the spot to answer a

13 question like that. I think that's a whole board

14 question that needs to be answered, and you can take it

15 to your board.

16 Anything else from Arviat, Nick? No? Okay.

17 Whale Cove, any questions for Rankin Inlet?

18 Simon?

19 MR. ENUAPIK: No questions.

20 THE CHAIR: Chesterfield Inlet?

21 MR. AGGARK: No questions.

22 THE CHAIR: Baker Lake?

23 MR. NATEELA: No questions.

24 THE CHAIR: Environment Canada?

25 MS. VALLENDER: Nothing. you.

1 THE CHAIR: you.

2 World Wildlife Fund?

3 Any questions from anybody in the gallery, Elders,

4 public, for Rankin Inlet?

5 If not, thank you Clayton, and that concludes your

6 presentations that you had, and your presentation was

7 basically giving us a number that you feel comfortable

8 with for the whole Western Hudson Bay population, which

9 is 40. Okay. you.

10 Next to present, our last community, Baker Lake.

11 Do you have a presentation that you want to give us to

12 the Board NWMB? Now is the time.

13 SUBMISSION BY BAKER LAKE HTO

14 MR. NATEELA: you, .

15 We don't have anything written or to bring

16 forward. We're here for the hearing to attend the

17 hearing. And we were wondering about our participation

18 with this hearing, and due to the fact that not long

19 ago Baker Lake was removed from the Western Hudson Bay

20 management.

21 But now we've been given one floating tag, I

22 believe it's called, from the Foxe Basin pack. But the

23 folks in Baker Lake have shared, if we're allowed, that

24 we have been asking to have a tag from the Western

25 Hudson Bay region. And so that's what we're sharing

1 with you today, if we're allowed from the Western

2 Hudson Bay, Baker Lake is eager and willing. So I want

3 to clarify that.

4 And the Elders, some of the Elders, they eat polar

5 bear meat. There's some folks that lived by the sea in

6 their lifetime, and I know we're further inland, but of

7 course there's Inuit who eat sea mammals, part of their

8 diet, raised and grew up that way, and they wish to

9 still eat it and harvest it. Keep this in mind when

10 you're making your decision. We have to be part of the

11 process.

12 And so this is pretty much all I have to share for
13 now. you, man.

14 THE CHAIR: you, Hugh.

15 Any questions to Baker Lake from Board Members?

16 David K.

17 NUNAVUT WILDLIFE MANAGEMENT BOARD QUESTIONS AND COMMENTS

18 MR. KRITTERDLIK: you, man.

19 We know the folks in Baker Lake. Their ancestors

20 are originally from the seashore coastline, and, of

21 course, there are still many who grew up with this

22 diet, including sea mammals, part of what they've grown

23 up harvesting and eating.

24 So we're always aware of each other's characters

25 and diets, and we all grew up with the principle of

1 sharing, and we can't be stingy when it comes to
2 wildlife. So on this principle, if they wish to be
3 included with sea mammals and other mammals, then they
4 have every right.

5 The other thing; how many would you ask for, can

6 you say?

7 THE CHAIR: you, David.

8 Hugh.

9 MR. NATEELA: you, .

10 We'd like all of them. But based on the principle

11 of sharing, we'll ask for half. I can't really say,
12 give a number. I'm not sure. Our fellow board members
13 really haven't concluded this. They throw some numbers
14 here and there, time to time, but to give an actual

15 number I can't provide at this moment, with regrets,
16 , but I can find out and get back to you.

17 THE CHAIR: you, Hugh.

18 MR. KRITTERDLIK: you, .

19 And so what are you allowed at the present time?

20 THE CHAIR: s, David.

21 Hugh.

22 MR. NATEELA: you, .

23 Right now we do have one floating tag from the
24 Foxe Basin. That's what's given to us right now, just
25 one from Foxe Basin.

1 THE CHAIR: you, Hugh.

2 David.

3 MR. KRITTERDLIK: You don't have one from the
4 Western Hudson Bay population?

5 THE CHAIR: you, David.

6 Hugh.

7 MR. NATEELA: Right now, no, but perhaps our --
8 just got that Western Hudson Bay tag for Baker not too

9 long ago, .

10 THE CHAIR: Yeah, thank you, Hugh. And that's

11 my understanding too. Baker Lake used to get one all
12 the time from Western Hudson Bay, but I think the
13 Kivalliq Board can explain that further.

14 ahead.

15 MR. GREENE: Yeah, I just wanted to say, I was
16 present at the KWB AGM, so I think I can answer this.

17 With the total allowable harvest of 34 there was
18 discussion amongst the board members, which is the
19 chairs of the Kivalliq HTOs, about how to distribute
20 those 34 tags. And I know that Richard Aksawnee did
21 request one tag for Baker Lake, and during the
22 conversation he agreed that Baker Lake would be okay
23 with not having one this year.

24 And the decision was ultimately decided that
25 Arviat, Whale Cove, and Rankin Inlet would get ten tags

1 from the Western Hudson Bay population, and
2 Chesterfield Inlet would get four.

3 But, Hugh, I'll sure that Stanley and Richard
4 know your concern, and then it will have to be
5 discussed at the KWB level.
6 So thank you.

7 THE CHAIR: you very much for that
8 explanation.
9 od? Any other questions from the Board? Caleb.
10 MR. SANGOYA: I'm not sure if it's a question.
11 In the Nunavut Land Claims Agreement it states a
12 beneficiary can harvest in Nunavut anywhere any time
13 according to the Land Claims. Caribou, seals, polar
14 bears are up to us, except for the regional
15 organizations have divided and managed the tags. So
16 they're the only ones whose door we knock on, and if
17 you request it from them, I'm sure they'd oblige to
18 your request. Have you approached them?

19 THE CHAIR: you, Caleb.

20 Hugh.

21 MR. NATEELA: you, .
22 This is my first time to attend this kind of
23 hearing, and my partner here is a very new member,
24 newly elected. So both of us perhaps really aren't
25 able to answer your question. Those that can really

1 answer you may not be present here right now. On our
2 behalf, we can't give you an answers. Sorry.

3 THE CHAIR: you, Hugh.

4 Any other questions from the Board? If not, any
5 questions from staff? Nothing. Michael?

6 GN?

7 NTI?

8 Kivalliq Wildlife Board.

9 Arviat HTO? Nick.

10 ARVIAT HTO QUESTIONS AND COMMENTS

11 MR. ARNAUKJUAQ: This is just more of a comment.

12 About ten years ago, back then Baker Lake used to have

13 tags, and I would not know if it was from Western

14 Hudson Bay or Foxe Basin, but they would be going to

15 Arviat to hunt polar bear -- I think I'll say it better

16 in Inuktitut.

17 So they go to Arviat to hunt for polar bear. They

18 were so excited and really celebrated when they caught

19 a polar bear. So I don't know when this stopped. I

20 know we used to see folks from Baker Lake, when they

21 were given tags, they would go to Arviat and hunt

22 polar bears.

23 THE CHAIR: you, Nick. od

24 information.

25 Anything else from Arviat?

1 Whale Cove, any questions?

2 MR. ENUAPIK: No requests.

3 THE CHAIR: Chesterfield Inlet?

4 MR. AGGARK: No questions.

5 THE CHAIR: Environment Canada?
6 MS. VALLENDER: No questions.
7 THE CHAIR: Rankin Inlet?
8 World Wildlife Fund?
9 Any Elders or anybody from the public, any
10 questions for Baker Lake? ahead, Thomas.

11 PUBLIC QUESTIONS AND COMMENTS

12 MR. COMER: you, .
13 I just want to apologize. I was speaking in
14 English earlier. It was simply because my question was
15 to the scientific community.
16 Now this question is for Inuit. Just before my
17 father passed away, he was very much an Elder in his
18 old age, and he was lying beside my mother. And we all
19 as Inuit know when someone is about to pass on, their
20 last words is what we wait for.

21 So before he died he said, "There are so many
22 bears now." And my mother replied, "No, there are no
23 bears. Where are they?" And my father replied,
24 "They're out there." And so these last words became so
25 true. And this was what he said on his deathbed, so

1 I'm sharing this true story.
2 My question: You folks from Baker Lake said
3 earlier regarding discrimination just because you're

4 from inland, but you have every right to participate
5 and be included in any process for tags. So perhaps
6 your question is or your request would be, can we have
7 20? And I think the folks from Rankin Inlet are basing
8 their request on behalf of the whole region. It's
9 really up to you how many you want, but why don't you
10 request for 20 to the folks of Baker?

11 you, .

12 THE CHAIR: you, Thomas.

13 Baker Lake, would you like to respond to that?

14 Hugh.

15 MR. NATEELA: Yes, you, .

16 Ever since the beginning, the last 30, 40 years in
17 polar bear management, we're aware of different times
18 we have been given one to tags, but because they're
19 more inland, when they're discussing polar bears it's
20 different for us just because of our location. And we
21 don't deal with as many polar bears as the other
22 Kivalliq communities. It's hard to answer your
23 question, but we've discussed all these ideas.

24 Due to the fact that we have rights under the Land
25 Claims, as long as we're respectfully included in any

1 process that we participate, and that's why I asked
2 earlier, how do you establish when you're divvying up

3 the tags, what do you follow? What is the formula?
4 According to this, sometimes they'll leave us out.
5 The current formula, maybe re-examine it. Should we
6 re-examine it? That's our conclusion, and that's fine
7 because we have to ask questions. The ones that are
8 collaborating are really the ones who deal with bears
9 more.
10 But when they're going to give tags according to
11 the formula, they give them out, the ones, they're so
12 hungry for the tags and their strife that comes about
13 and arguments, it's like it's a free-for-all, and then
14 fighting breaks out amongst. So isn't it time we
15 re-examine this so that it doesn't bring us to that
16 point? I'm asking for us all to reconsider because of
17 these facts that we see today.
18 I don't know if I answered that guy correctly, but
19 for community tags, if we can get one or from the
20 Western Hudson Bay population. (Inuktitut spoken), if
21 this can be -- if it's still stable and won't affect
22 the numbers, we'd support 40 according to the guy from
23 Rankin Inlet and what he shared earlier.
24 you, .
25 THE CHAIR: Hugh, thank you very much for that

1 information.

2 If there's no further questions from the public,
3 Baker Lake has concluded their presentation and
4 question-and-answer period. So thank you very much,
5 gentlemen.

18 SUBMISSION BY ENVIRONMENT AND CLIMATE CHANGE CANADA

19 MS. VALLENDER: Okay. Well, thank you very much.
20 So I'd like to start by thanking the NWMB and everyone else
21 here for giving us the opportunity attend this public
22 hearing. And we will, as Dan mentioned, be presenting sort
23 of parts.

24 The first was a verbal overview of the letter we
25 submitted to the NWMB. I won't go over all the details

1 just because we have provided that written version which
2 everybody can read, but I will present our opinion, and
3 then Nick will give a presentation, and then we'd be happy
4 to take questions.

5 THE CHAIR: Rachel, I'll just let everyone
6 know it's on tab 13 in the binder.

7 MS. VALLENDER: Okay. Tab 13.

8 THE CHAIR: Okay. you. Tab 13.

9 MS. VALLENDER: So I would like to first start by
10 saying that Environment and Climate Change Canada recognizes
11 that indigenous traditional knowledge indicates that this
12 population of bears has increased in the 1980s, and this
13 finding was based upon sightings of more bears in and near
14 communities. And we also heard this during presentations
15 yesterday.

16 It's noteworthy, because we rely on this
17 committee, that the available indigenous traditional
18 knowledge has been assessed by the Polar Bear Technical
19 Committee which classified the population has increased
20 based on this source. Furthermore, Environment and Climate
21 Change Canada recognizes that there is concern about an
22 increase in polar bear-human interactions that poses a
23 safety concern. We know that human-bear interactions and
24 conflict must be taken seriously and that appropriate
25 measures must be taken to ensure the safety of people,

1 their property, possessions, as well as the bears.

2 We recognize that the vernment of Nunavut has
3 a robust and effective polar bear deterrence program and
4 that recent partnerships with organizations such as World
5 Wildlife Fund and especially the active participation and
6 cooperation of communities has decreased the number of
7 bears that have needed to be killed in defence of life and
8 property in some communities. That said, we echo the
9 sentiment that has been expressed by the NWMB that the
10 vernment of Nunavut should continue to work with
11 communities and other parties as appropriate to ensure that
12 the program continues to be effective.

13 So regarding the scientific knowledge, the new
14 population estimate, as we discussed yesterday, from the
15 survey conducted in 2016 indicated an 18 percent downward
16 adjustment from the previous aerial survey that was
17 conducted in 2011. As you know, both of these surveys were
18 led by the vernment of Nunavut, and we understand that
19 local communities were involved in the planning and
20 logistics associated with the survey and that local
21 community members participated in the survey themselves.
22 We would like to note that our department is supportive of
23 the collaborative approach to monitoring, and we were
24 pleased to contribute financially to this effort.

25 So it's important to note that the 2016 survey

1 for Western Hudson Bay was conducted during the same season
2 as the Southern Hudson Bay aerial survey and that
3 preliminary results of the Southern Hudson Bay survey
4 showed a 17 percent downward adjustment from the previous
5 estimate, which was 2011-12. So combined, to us, these new
6 population estimates indicate cause for concern as it
7 relates to the population trajectory for these
8 subpopulations of bears occurring within Hudson Bay.

9 So we recognize that a trend can't be inferred
10 from the aerial survey data points, that the population
11 estimate of 842 is currently the best available scientific
12 estimation of population size for Western Hudson Bay. We
13 also note that the 2016 aerial survey results will be
14 considered by the Polar Bear Technical Committee at their
15 annual meeting which will be taking place in early February
16 2018.

17 So Nick will elaborate upon the next couple of
18 points in his presentation which will follow me, but just a
19 few notes about other scientific research results.

20 So this research has indicated decreased
21 reproductive performance compared to other Canadian
22 subpopulations, declines in body condition and survival in
23 association with sea ice decline and previous declines in
24 numbers.

25 So work of research scientists, including

1 Lunn from my department, have contributed to this
2 scientific understanding of the population, and declines in
3 body condition and survival have also been noted for bears
4 in the Southern Hudson Bay subpopulation.

5 Work by Department of Fisheries and Oceans
6 colleagues has indicated declines in density and blubber
7 thickness of ring seals in Hudson Bay which, of course, are
8 considered to be the preliminary food source for polar
9 bears, although we do recognize that bears eat a variety of
10 other marine and terrestrial food sources.

11 So concern over the population estimate for
12 Western Hudson Bay is further exacerbated by documented
13 declines in sea ice in this region of the Canadian arctic.
14 As we heard yesterday, breakup of sea ice has advanced by
15 22 days, and freeze-up has been prolonged by 15 days since
16 1979. So this equates to about an additional month that
17 polar bears need to spend on land, and this increased time
18 on land increases the probability of interaction with
19 humans and decreases the amount of time that polar bears
20 are able to hunt from the sea ice platform.

21 So considering all that information, the
22 vernment of Canada position on total allowable harvest is
23 that, following results of the previous population estimate
24 in 2011, Environment and Climate Change Canada indicated
25 support for the vernment of Nunavut's recommendation at

1 that time, which was for a removal of 24 bears per year
2 which equated to 2.3 percent of the population at that
3 time, which was 1,030.

4 The bulk of available scientific evidence
5 indicates that the arctic ecosystem is changing and that
6 bears are expected to be negatively impacted over the
7 coming years. That said, we recommend that the NWMB
8 consider a precautionary approach when making a decision on
9 a new total allowable harvest for this subpopulation.
10 Furthermore, we recommend that the NWMB consider exploring
11 the option of having the impact of various harvest
12 scenarios in consideration of other factors such as the
13 changing arctic habitat on the Western Hudson Bay
14 population. This exercise was recently undertaken to guide
15 management in Baffin Bay and Kane Basin subpopulations and
16 proved to be very informative.

17 So as a final comment, it's worth noting -- and
18 this is at the conclusion of our letter -- that in order
19 for polar bear parts and/or pelts to enter international
20 trade, a CITES export permit must be issued. So it's the
21 legal obligation of the CITES scientific authority to be
22 able to prove that trade is sustainable, meaning that the
23 harvest must also be sustainable. So the level of
24 sustainability takes into account multiple sources of
25 information, so including the available science, the

1 available traditional knowledge, as well as the management
2 objective for this subpopulation of bears.

3 So I know Paul talked about this very briefly
4 yesterday, but just to note that the nondetriment finding
5 has been positive to date, and trade has been permitted
6 from Western Hudson Bay and that, as when any new decision
7 on total allowable harvest is made, the CITES scientific
8 authority will look at all the information in carrying out
9 their assessment. So I'm not a CITES expert, but if anyone
10 has questions about that, I would be happy answer them as
11 well.

12 And now I will turn it over to Nick.

13 . LUNN: I would like to thank the NWMB for
14 providing this opportunity to provide some additional
15 information that we hadn't submitted, but clearly,
16 listening to the talk around the table yesterday there was
17 some more information that we could provide that wasn't
18 because it didn't seem relevant at the time to the letter
19 from the NWMB about the actual aerial survey number. Next
20 slide, please.

21 So distribution -- I heard someone asking about
22 a tab. There isn't. We didn't this presentation --
23 but we will provide this presentation both in English and
24 translated. So the distribution abundance of bears are
25 around the world. There are estimated to be approximately

1 26,000 polar bears worldwide, and they occur in 19
2 relatively discrete subpopulations, and those
3 subpopulations range in size from a few hundred to a few
4 thousand individuals, and Canada has about 60 percent of
5 all the world's polar bears. So some people say Canada has
6 sort of an additional responsibility for the conservation
7 and management of polar bears because we have so many of
8 the world's polar bears.

9 People have asked, and it came up yesterday, how
10 those lines on the map were drawn. How do we know we have
11 19 or so relatively discrete subpopulations? For those
12 that can't see, Western Hudson Bay is at the centre bottom
13 of the map. There it is. And these lines were drawn on
14 the maps when we started talking about quotas and harvests
15 and management units, and that was stuff done way back in
16 the 1960s, way before my time. And they were based -- a
17 of it was based on barriers to movement where people
18 thought bears could or could not move, geographical
19 barriers. It was based on tag returns, where people were
20 harvesting bears, had they been tagged before, where they
21 were tagged. More recently it's been based on things such
22 as satellite movement of bears, telemetry, where the bears
23 are generally going.

24 So the lines on the map aren't fixed, they're
25 not final. The bears can obviously cross them. We all

1 know that. In Hudson Bay there are three subpopulations
2 that will use Hudson Bay in the wintertime. That's Western
3 Hudson Bay, Southern Hudson Bay, and Foxe Basin. And a
4 little later on I'll show some movement information to show
5 you just how far and where the bears, at least in
6 Hudson Bay, are travelling and using the bay. Next.

7 So sea ice in Hudson Bay. If you start at the
8 upper left frame, in the middle of winter the bay isn't
9 completely ice covered. There's always areas of open
10 water, leads and polynyas. So even at maximum ice cover
11 there's areas of open water.

12 Moving to the upper right, during breakup the
13 winds primarily come out of the northwest, and I think
14 we're experiencing those today. Although I haven't been
15 outside to experience them, I'm told they're quite strong.
16 And the currents move counterclockwise in the bay.

17 So as the ice breaks up, the winds and the
18 currents generally tend to move the ice down along to the
19 southeast. And it ends up, if you go to the bottom left
20 corner, most of the last remaining ice in the summertime
21 ends up off the coast primarily of Manitoba and Ontario.
22 So generally that's where most of the bears, when the ice
23 is gone, spend the summer on shore in places like Ontario
24 and Manitoba. It doesn't mean they all do, but basically
25 it's the pattern of ice breakup that determines where the

1 bears are going to spend the summer.

2 Bears have strong sight fidelity to these
3 summering areas, where we research those. The bears that
4 we catch in Manitoba, year in and year out they continually
5 come back, not necessarily to the same spot of Manitoba but
6 to the same general area. Similarly with bears in Southern
7 Hudson Bay that spend the summer in Ontario, we get some.
8 We catch some bears from Ontario up in Manitoba, but by and
9 large, bears tagged in Ontario stay in Ontario, bears
10 tagged in Manitoba stay in Manitoba.

11 And then in the fall the sea ice re-forms first
12 in the northwest. So if you're at the bottom right panel,
13 in the northwest of Hudson Bay that's where the ice forms
14 first, and it then proceeds southward, expands southward.
15 And in late October, early November the bears generally
16 start moving northwards along the coast of Manitoba and
17 into Nunavut in anticipation of meeting the sea ice. So
18 where they meet the sea ice really depends on the times
19 when it re-forms. If it reforms early, a number of bears
20 may get on the sea ice before they even get it to Nunavut
21 or into communities like Arviat; however, if sea ice
22 formation is delayed the bears will continue moving north
23 looking for sea ice, and they could end up in communities
24 such as Arviat or further north. Next slide.

25 Our research in Western Hudson Bay. The

1 research started back in the late 1960s, and one of the
2 reasons is, at the time, was there was an international
3 agreement signed between the five polar bear countries, and
4 one of the commitments of which Canada committed to was
5 doing research. People really didn't know much about polar
6 bears from a scientific point of view, so Canada had
7 committed to start to do research. And so people looked
8 for places where that was going to be relatively
9 convenient. Rather than having to travel over large
10 expanses of sea ice, were there places where bears
11 congregated that you could do research in a relatively
12 small area that was logistically feasible. And Churchill,
13 because there was a military base through the 1940s and
14 1950s, there was a rail line, there was a port --
15 logistically it was far easier to get to a place like
16 Churchill, Manitoba, than it would have been to try to
17 initiate a project, say, out of Resolute Bay or on
18 Baffin Bay.

19 And so we started doing a research program
20 there. The bears were all ashore. Most of the work that
21 we did was focussed in this purple area, the main study
22 which is now Wapusk National Park, that protects what we
23 think is most of the denning area -- not all, but most of
24 the denning area -- of Western Hudson Bay. So our main
25 research focusses in that purple area, but from time to

1 time will go north, those blue areas. We'll work our way
2 up towards the Nunavut border and will also work eastward
3 towards Ontario. So we work there less frequently, but we
4 do go there periodically. Next slide.

5 So although the research in Western Hudson Bay
6 began in the late 1960s, that focussed really mainly in and
7 around the town from the limited road system, so they were
8 setting snares, what bears they could catch in and around
9 the town. Once we started using things such as
10 helicopters, it gave us greater access to the Manitoba, the
11 Churchill area. And so our current research really began
12 in about 1980 where we were able to get out and survey
13 bears not just in and around Churchill but in the denning
14 area along the coast, up the coast, so we could expand that
15 research.

16 And when we started, I mean, a of the stuff
17 we do now we tie into things such as climate change. When
18 this research started back in the 1980s, no one was talking
19 about climate change -- or, at least, not in the polar bear
20 world. And we knew nothing about polar bears. So we
21 started the program really to focus on broader ecological
22 questions that we thought were applicable to polar bears
23 across the circumpolar arctic. No one really knew anything
24 about polar bears, so we decided we would start. Let's get
25 some of the basic information.

1 So we started programs of studies that generally
2 lasted to five years, and I've started, listed sort of
3 alphabetically some of the things we've looked at. We've
4 looked at polar bears' denning habitat, diet, energetics,
5 effects of disturbance, we've looked at genetics,
6 population delineation, dynamics, and seasonal movements.
7 Next slide.

8 And one of the common features of all that work
9 was a requirement to sort of capture and handle bears to
10 take measurements and/or take samples. So what do we do?
11 I think most people know we locate them from a helicopter,
12 they're immobilized, we tattoos and tags so that each
13 individual is identified in case we capture them in
14 subsequent years. Or, if it's harvested in a subsequent
15 year, the hunters are very kind and they provide us with
16 information of a tagged bear that they've harvested.

17 We have taken a number of standard measurements
18 from every bear. And standard measurements are just things
19 like a straight line length, we measure -- take a rope and
20 measure its girth right behind its shoulders to get a
21 measurement there, we measure the skull, both the width and
22 the length, and we take a subjective fat index, and we feel
23 along the spine and hips for how much body fat is over
24 there, and on that we would give a score or fat index of
25 one to five. And a bear that we would score one would

1 virtually have no fat, and you would see -- you would
2 actually see the spine, you'd see the ribs, a very, very
3 thin, very poor condition bear. Or it could go up as high
4 as five, which would be an exceedingly obese typically fat
5 female, pregnant female. And I've got a slide a little bit
6 later that shows sort of the difference between the .
7 And then all that data was recorded. Next slide.

8 And by handling, it also allowed us to take some
9 standard samples. So when we punch the ear to a tag
10 in, we get that little tiny disk of skin, and from that we
11 can look at genetics of bears. So we're using it now to --
12 we know a about who the mothers of bears are because
13 you catch females with cubs. But we don't know a about
14 who the fathers are. Mating occurs out on the sea ice in
15 the springtime, and that's the end of it. We're not out
16 there catching bears, we don't see it, so we don't know who
17 the fathers are.

18 But through the genetics, we're starting to
19 build up a database to look at how many bears, how many
20 male bears are producing the cubs. Is it every bear has an
21 equal chance, or are there certain qualities? Are there
22 certain really big bears or some feature of bears, male
23 bears, that they get to produce most of the mating? So
24 it's a question of how many males do you need, and what are
25 the qualities of those males to produce cubs. So we can

1 start looking at that through things such as genetics.

2 We've taken blood samples in the past, and from
3 that we can look at whether or not a female bear is
4 pregnant. Obviously a very fat bear we can tell is
5 pregnant. But there are a number of bears that are thinner
6 that we don't really know. Looking at them, it would be a
7 guess. But we can take blood, and we can measure hormones
8 in the blood and determine if a female is likely pregnant
9 or not. And you can use the blood to look at things such
10 as disease in polar bears.

11 We do take hair. Where we take fat, we shave we
12 a little bit of hair off about the size of a Toonie. And
13 from that hair we can look at levels of mercury, what are
14 the levels of mercury doing. And we're starting to look at
15 things such as stress hormones, cortisol, looking at both
16 short-term and long-term stress. We take a tiny fat core
17 from the rump of the bear, and that allows us to look at
18 the diet of bears, the different types of marine mammals
19 that polar bears are eating, and the relative proportion of
20 those marine mammals in the diet. And for the Western
21 Hudson Bay, about 60 percent of the diet of polar bears in
22 Western Hudson Bay are ringed seals. So that's the
23 predominant prey species in Western Hudson Bay. That's not
24 necessarily the same proportions in bear species
25 everywhere. It just depends what's available. And we can

1 look at things such as contaminants, and we archive all
2 these specimens for our future study.

3 Next we take a vestigial premolar. It's a
4 little tiny tooth right behind the canine. It's very much
5 like our appendix; it doesn't really have a function that
6 we know of for polar bears anymore. It probably did for
7 ancestral bears, but polar bears today it has no function.
8 It's very shallow. It's got a very shallow root, and we
9 can pull that tooth in probably about five seconds. And we
10 get that tooth, and we can take it back to our lab or a lab
11 anywhere, and you can section it. And just like you count
12 rings in a tree, you can count similar rings in polar bear
13 teeth.

14 And there on that one there's a slide, and
15 that's got three distinct dark lines numbered one, ,
16 three, and a fourth one starting on the edge. So that bear
17 would be a three-year-old bear for us. And how do we know
18 that? Well, we catch bears as cubs of the year, so we know
19 how old they are. And later on in life if you catch them
20 again and pull a tooth, you can age that bear, and from
21 that we could determine that each one of those dark lines
22 matched exactly one year in the life of a polar bear.

23 So knowing the age of a polar bear is quite
24 powerful in terms of management looking at the age
25 structure; when do bears first reproduce, when do they stop

1 reproducing, how long do they live, those sorts of things.
2 Those are very powerful pieces of information, and that's
3 something we can get from our handling bears. And it's
4 also obtained from you guys when you harvest bears if you,
5 you know, turn in a tooth for aging purposes.

6 Next I've this slide up -- I've tried it
7 once and failed miserably, but you can take milk -- you can
8 milk female bears just like you would milk a cow. You can
9 take a milk sample, and from that you can look at the fat
10 content of polar bear milk, and you can look at
11 contaminants. And this was done probably about 20 years
12 ago now, and it was done through the University of
13 Saskatchewan. And their concern was that polar bear cubs
14 who weren't feeding on their own, they were relying
15 entirely on mother's milk, were showing certain types of
16 contaminants in their bodies. And so the question was,
17 where were they getting these contaminants? And so we
18 collected some milk samples, and we determined that the
19 pathway for those contaminants was primarily coming through
20 the mother's milk. She would take her fat stores, use that
21 fat energy, produce milk, and those contaminants would be
22 incorporated into milk and transferred across to the cub.
23 We haven't done that for many years. I can't even do it.
24 So it takes a very special skill.

25 But those are the sorts of samples that we can

1 collect and the sorts of information we get by handling
2 bears. And some of these samples have proven to be very
3 valuable over time, and not because we analyze every single
4 sample every year, but new techniques are always being
5 developed, and people always want to know, well, what was
6 it like in the past?

7 And one of the examples, you know, is the
8 genetics. Those little plugs of skin initially we used to
9 just throw on the tundra because genetics wasn't a big
10 science at the time, and anyone that did genetics was doing
11 it through blood so we didn't think there was any value in
12 keeping those little plugs of skin. Now it turns out that
13 that's a very valuable tissue for looking at genetics, and
14 we're kicking ourselves for throwing those little pieces of
15 skin and not storing them.

16 The fat we have been archiving, and that's been
17 very valuable in going back and comparing diets of polar
18 bears back in the '80s to what their diets are now and also
19 very valuable in looking at contaminant levels, because not
20 only do you get contaminants from bears, say, in the 1980s
21 and the 1990s, but you can get it from individual bears
22 because, when we catch a bear, again, we'll take another
23 fat sample. So if we caught her in 1985, we'll have a fat
24 sample. If we caught the bear again in 2000, you'd have
25 fat samples, and you could look at contaminant levels,

1 and you could say, are contaminants stable in this bear,
2 increasing, decreasing? So archiving a of these
3 samples, as new techniques get developed, people are always
4 looking, well, what was it like 20 years ago?

5 And in addition to the samples, we have a of
6 baseline information just on the bears themselves; how old
7 they were, how heavy they were, what were some of the
8 measurements. So you can start building up these models
9 and start trying to explain a of things by having a
10 of historic baseline data of what it was like back in the
11 early 1980s. Next slide.

12 We talked a little bit about telemetry
13 yesterday. And we collars on bears primarily to see
14 how polar bears use sea ice habitat. In conjunction with
15 researchers at the University of Alberta, we out
16 10 to 12 of these GPS satellite-linked collars deployed
17 each year.

18 As I said yesterday, we can only them on
19 adult females. Adult males have that traffic cone shape.
20 We can't get a collar to stay on a male, adult male. And
21 although we could on subadult bears, because they're still
22 growing, we're very concerned about ting a collar on
23 tightly so it won't come off and then having a subadult
24 bear grow and that collar won't expand, and cut into the
25 bear. So we don't them on subadult bears.

1 The collars themselves, they weigh about 1.6
2 kilograms, which is less than 1 percent of the weight of an
3 adult female. So, yeah, if you were to hold one, it feels
4 heavy, but compared to the weight of an adult female, it's
5 very, very light relative to an adult female.

6 These collars provide us with the locations of
7 bears for up to years without any disturbance. So
8 that's a benefit. We hear that people don't want bears --
9 they don't want all this work being done, they don't want
10 bears to be disturbed. Putting the satellite collar on
11 gives us up to years to follow that bear and leave it
12 completely alone. We don't have to fly over the sea ice to
13 find it, we don't have to fly over it on land. We just
14 leave it alone. We know where it is because we're getting
15 the GPS locations.

16 And the collars have a release mechanism that we
17 set to release on a predefined date. And that's the bottom
18 picture. There's a collar that released, and it's just
19 sitting on the tundra in Churchill, and I can pick it up.
20 And it means that we only ever have to handle the bear once
21 just to the collar. Or the collar releases on its own
22 and just drops off on the tundra. We don't have to -- as I
23 said, we don't have to disturb it over years trying to
24 figure out where it is. We know that.

25 So it means if, you know, a bear happens to go

1 to a place where we're not working, the collar is going to
2 come off. We don't have to worry about bears having
3 collars on it forever. And that was some of the concerns
4 not only of people around this table but also of
5 researchers. You don't want to have a collar sitting on a
6 bear that doesn't come off and just stays on there forever.
7 So this is one way to help ensure that these collars come
8 off and the bears aren't encumbered with collars for life.
9 And that information provides information on how bears use
10 sea ice, where they feed, and how far and how fast they
11 might travel. Next slide.

12 And here's a map of 20 collared bears in a
13 -year period. So Churchill is buried in the middle of
14 the left frame, and that's simply the one -- the big frame
15 on the left is simply all the tracks that we have the
16 information from 20 bears over years. So Churchill is
17 buried there. You can see -- hopefully you can see Arviat.
18 So you can see, out of those 20, there's one or that
19 moved up towards the coast, off the coast of Arviat. Some
20 made it up as far as Whale Cove, but none of those collared
21 bears went as far as Rankin Inlet. And then they moved out
22 across into the sea ice.

23 Most of the locations are within sort of what is
24 considered the management zone, that line on the map for
25 Western Hudson Bay. But, clearly, bears are moving right

1 into sort of the management zone of Foxe Basin there. It's
2 sort of the southern part of Coats Island, and they're
3 moving into Quebec, Southern Hudson Bay, so into Ontario.
4 One even went close to Wapusk -- to Wanisk (phonetic). And
5 so they moved across, and then they all come back into
6 Wapusk National Park the following summer.

7 And if we can sort of zoom back out to look at
8 the panels on the right, each of those panels is one bear
9 and what it did -- the different colours are what it did in
10 the -year period. So the top bear, years it headed
11 off into the north, sort of the northeast across into
12 Foxe Basin, into different areas and different the sort of
13 area that it moved. But that bear did something similar
14 years in a row, headed out towards Quebec and
15 Foxe Basin.

16 If you look at the figure on the bottom there's
17 a female that did quite different things. One year she did
18 something similar going out towards -- went out towards
19 Foxe Basin, but another year she moved up the coast,
20 intended to spend a fair bit of time sort of up the coast
21 off Kivalliq.

22 So those colours give us a little bit of
23 information of individual changes, individual differences,
24 how the females are using the sea ice. And what we're
25 starting to look at or what we're interested in now is,

1 with changes in breakup dates and freeze-up dates, how does
2 that impact polar bears per se? Will they just sit on the
3 ice and just let it float, and they'll just come off
4 wherever the last ice remains? Will they walk sort of like
5 going up a down escalator? If a bear wants to be in
6 Manitoba for the summer, will it walk and spend extra
7 energy to keep itself off the coast of Manitoba despite the
8 ice continuing further south, or will they follow it
9 further south, get on shore and walk all the way up? We're
10 hoping that we'll get some answers from that, from the
11 satellite collars, sort of their rates of movements and
12 what their behaviours are. Next slide.

13 And this concern with how bears use sea ice in
14 climate change. This is dates of breakup and freeze-up.
15 These are determined from satellite imagery of sea ice
16 across the arctic. So we take those imagery and we the
17 Western Hudson Bay, the line that are the boundaries of
18 Western Hudson Bay, and we look at the date at which the
19 sea ice cover in the spring gets to 50 percent. So it's
20 starting to melt. When does it get to 50 percent? And for
21 us and ice scientists, that's sort of a trigger for, quote,
22 "breakup."

23 So when we talk about breakup we're talking when
24 the sea ice cover is about 50 percent. And those dots, the
25 satellite record goes back to 1979. So that's as far back

1 as we can go. And those black dots are that 50 percent
2 breakup date over time through to 2016 when the last aerial
3 survey was done. And there are a couple of things to
4 notice.

5 Those dots are all over the place. One year
6 isn't worse than the year before and worse than the year
7 before or better. There's a of noise. There's ups and
8 downs. Sometimes it's early, sometimes it's later. But if
9 you look at the long-term trend, you look at the whole data
10 set from 1979 to 2016, there's that downward trend. And
11 that works out to be approximately a 22-day change.

12 So breakup is occurring -- in the early 1980s it
13 was occurring sometime in early to mid-July, and down at
14 the bottom right of that panel it's now somewhere in about
15 mid-June. And you can see in 2015 a very, very early
16 breakup in Western Hudson Bay, which was on the 18th of
17 May, so quite a very early breakup, 50 percent. But the
18 following year it bounced right back up. So a of
19 variability, long-term trend towards earlier and earlier
20 break-up.

21 The bottom, if we look at freeze-up, what are we
22 seeing in timing of freeze-up? A very similar sort of
23 pattern. Freeze-up is when is there 10 percent ice on
24 Hudson Bay. So that's what we call freeze-up. When is
25 there 10 percent cover on Hudson Bay.

1 If you look back at the early 1980s, that was in
2 early November. So there was 10 percent ice cover in early
3 November, and as you move along, again s of noise. Some
4 years it comes early, some years it comes late. But over
5 time the trend is towards a later freeze-up, and it's about
6 14, 15 days later now than it was back in the 1980s. And
7 so now it's sort of more late November than it is early
8 November. And in 2016, it was the 7th of December. So
9 that was the latest freeze-up in that entire 1979-to-2016
10 period. So a very, very late freeze-up. Next slide.

11 And if you look at the difference between when
12 the ice begins to break up and when it starts to freeze up,
13 and you just take the difference between the , you get
14 the number of days. And, again, if you look in the early
15 1980s, that period was somewhere on the order of, you know,
16 130 days to 140 days, and now over time it's closer to sort
17 of 165, 170. So there's about 35 days longer now, this
18 period between breakup and freeze-up than there was back in
19 the early 1980s, so a 35-day period of less ice that bears
20 have to deal with. Next slide.

21 So how does the condition -- there's a slide,
22 the top one -- these are just for exaggeration purposes.
23 The top one is a very, very thin male bar. We would say
24 that that's a one out of five. What does a bear that's a
25 one out of five look like? You can see, even at a

1 distance, you can see his hips, his spine. There's not a
2 of body fat on a bear like that. We don't see many
3 bears like that, but that's what a one out of five -- and
4 that actually has a cannibalistic -- it's got a cub in its
5 mouth there.

6 And the bottom is an exceedingly fat pregnant
7 adult female, and a bear like that we would say is a
8 five-out-of-five fat, exceedingly fat. And pregnant
9 females need to be fat. They're going into dens, they're
10 going to be on shore for eight months, they're going to
11 produce cubs and provide milk for those cubs, so they need
12 to be as fat as possible.

13 So, generally, once sea ice breakup occurs
14 earlier, the bears tend to come ashore with less body fat.
15 And when breakup occurs later in the year, they tend to
16 come ashore with more body fat, and that's simply a
17 function, you know, of how long they're out on the sea ice
18 hunting seals before they have to come across. If it
19 breaks up early, they don't have as much time to hunt
20 seals, so they don't have as much fat. Next slide.

21 And it also relates to survival. So the work
22 that we published in 2011 at the time of the first aerial
23 survey of 1,030, we did sort of a complex sophisticated
24 model with all our capture data, and one of the variables
25 we looked in was looking at survival of bears in relation

1 to date of sea ice breakup.

2 And the top panel is for young independent
3 female bears aged one to four -- subadults, teenagers,
4 whatever you want to call them, young bears -- and you
5 could see that in years when breakup is really early their
6 rate of survival is somewhere in the order of .75, but if
7 breakup is later they have a better chance of survival, and
8 it was closer to .85.

9 And if you look at the bottom panel, this is for
10 your prime adult females with cubs. Again, early breakup,
11 survival of those age groups of females was in the order of
12 .85, .86 and when breakup is later in the year. So more
13 time on sea ice, better condition when they come ashore,
14 they have much better survival, up at .95, .96. So
15 break-up has an impact on survival of bears. Next slide.

16 And that work also led to looking at the
17 demography and population trends, and it showed that
18 initially from sort of the late 1980s the population was
19 fairly high, somewhere around 1,200 bears, and then it
20 declined through to somewhere around the late 1990s. You
21 can see that decline, a period of decline. But afterwards
22 it seemed to stabilize, the population there. There were
23 the numbers, the point estimates from the simulations. You
24 know, they go up and down from year to year, but there's no
25 trend. It's not declining, it's not increasing. It's

1 stable. And that's the information that's being used
2 currently in, you know, status tables in a of these
3 management plans. This is sort of what we're suggesting is
4 why the polar bear population currently seems to be stable
5 at least through to 2011. Next slide.

6 So this is a series of slides, and this is from
7 our research work, and this is; how much do bears weigh
8 when we catch them? So this is the mean mass of adult
9 males from 1980 to 2016. And, again, there's s of
10 variation, ups and downs. They're not always lighter or
11 heavier, depending on which year you look at. They were
12 heavier, sort of an initial pulse of very heavy bears in
13 the early 1980s and sort of a period of stability from the
14 late 1980s through to about 2000. And then we had some
15 good ice conditions, and the weights of bears went up of
16 adult males.

17 And since then, if you look at 2010 onwards, the
18 weights of adult males that we're catching have dropped
19 again. And those numbers are sort of in the 2000s, that
20 period of stability, roughly they were in the 400 to
21 420 kilogram range, and since then they're down to about a
22 range of about 375 kilograms. Next slide.

23 If you look at the mean mass of solitary adult
24 females -- so these are the bears that we presume are
25 pregnant and are going to produce cubs -- similar sort of

1 thing; long-term decline. They were heavier back in the
2 1980s than they are now, s of noise. So you get a good
3 ice year, and they pick up their condition.

4 That dashed line, that's the minimum mass of a
5 female we've ever caught in the fall that we know produced
6 a cup the following spring. And that number is
7 189 kilograms. It doesn't mean that's the absolute
8 minimum, but we've never caught a bear lighter than
9 189 kilograms that we know produces cubs. So the purpose
10 on that is that at some point if a bear gets too light, is
11 not in good condition, an individual bear won't reproduce,
12 and that probably happens in most years that there's some
13 females that don't reproduce because they weren't a good
14 hunter that particular year, whereas most of the females
15 were.

16 But this line, this graph is showing that over
17 time more and more bears, the solitary adult females, are
18 getting lighter and lighter. And so you can see again in
19 that period of 2000 to 2010 this period of stability what
20 we think were probably good ice conditions, there was quite
21 a change in weights of adult females, quite high, well
22 above some of the other values earlier on in the '80s and
23 '90s. But since then, since 2011, since that first aerial
24 survey, those numbers are back down again. Next slide.

25 And, again, these are adult females that have

1 cubs of the year in September. So that's what this graph
2 shows. And this is their weights. And similar to the last
3 slides, long-term downward trend in their weights in
4 the fall time in September when we're catching them. In
5 the 2000s, again, when their periods seem to be stable and
6 things seem to be good, the weights of females with cubs
7 were quite high, again, you can probably see exceeded some
8 of the weights back in the '80s and '90s. But since then,
9 they're down there. As you can see, in the bottom lower
10 right, they're down at the bottom end of that. They're
11 quite low. And for females with cubs in the 2000s, that
12 good period, they were sort of in the 200 to 220 kilograms,
13 and from 2011 onwards they're closer to the 175,
14 180 kilograms. So they're not as heavy as they were at the
15 time of that last aerial survey in 2011. Next.

16 Adult female productivity. How do these things
17 relate to productivity? Well, here's a table that has a
18 16-year period starting in 2001 and grouped into four-year
19 bins, 2001 to 2004 and, as you can see downwards how many
20 adult females there were. So in 2001 to 2004, there were
21 178 adult females captured. How many of those 178 had cubs
22 of the year with them? It was 92. So that's 51.7 percent
23 of the females in that period had at least one cub of the
24 year.

25 And then you can go and look at the next year or

1 the next bin: 131 females; 53 of them had cubs of the
2 year, and that works out to only 40.5 percent. The next
3 four years there were 127 females caught, 49 had at least
4 one cub. That's 38.6 percent of the females had cubs of
5 the year with them, and then the last four years,
6 2013-2016 -- so ending in the year of the recent aerial
7 survey -- we had 108 females. Only 36 had cubs, and that's
8 33.3 percent of the females. So a drop in the number of
9 females that had cubs of the year over time.

10 The mean litter size, that changes. It
11 fluctuates. The mean litter size was 1.533. It went up to
12 1.485, dropped to 1.469, 1.5. So it fluctuates, but
13 there's no real trend in litter size over time.

14 And then that last column simply is a sort of
15 crude measure of recruitment, and it's simply a
16 calculation. If you took all of those females in 2001-2004
17 that had cubs, if you count up all the cubs that they had
18 and divided them evenly amongst all those 178 adult
19 females, each adult female would have about .8, .792 of a
20 cub. And over time -- and you can do those calculations --
21 now the number of cubs out there for the females is down to
22 .5. So it's another way of showing that cub productivity
23 has declined. There aren't as many cubs being produced in
24 this population. Next slide.

25 Human-bear interactions. The bottom graph

1 handles Manitoba conservation activity in Churchill, how
2 many bears they have to handle in relation to the date of
3 sea ice breakup. And, again, there's s of noise. Some
4 years it's good, some years it's bad. But the general
5 take-home message is, in years when sea ice breakup is
6 early -- which is on the left end of that axis -- they tend
7 to handle -- have more problem bears or they handle more
8 problem bears in and around the town of Churchill. When
9 breakup is later in the year, bears are out on the sea ice
10 longer, presumably coming ashore in better condition, they
11 don't seem to handle as many bears.

12 Now there's a of caveats associated with
13 that. There are different conservation officers over time,
14 how they respond to different policies. So it's not --
15 each year you can't compare directly, but it's sort of an
16 indication, and it's one of the reasons why Manitoba does
17 that coastal survey that we talked a little bit about
18 yesterday. Every September they fly that coast from the
19 Manitoba-Ontario border up the coast and just count how
20 many bears they see, and they use that as a crude sort of
21 indicator of what they might expect for bears in and around
22 the town of Churchill in the fall time.

23 So there are a number of reasons why we have
24 increase in safety concerns. And there's not going to be
25 one. There's not a single answer that's going to explain

1 it all because there will be numbers of variables. Some of
2 the bears that come into communities are in bad condition,
3 particularly subadults. Out on the sea ice, they might not
4 be as skilled a hunter as, say, an adult female or adult
5 male so they might have a harder time. And if they do hunt
6 and kill a seal, it might be taken away by a bigger bear
7 that comes along. They're growing, they have more energy
8 demands, so you might get some of those subadult bears
9 being in poor condition. So you might get some stressed
10 bears coming into town, some of them.

11 Bears are on shore longer, so there's a greater
12 probability of interacting with people -- not that you'll
13 get those interactions, but if bears are on shore, you
14 know, for an extra three, four weeks the chances of there
15 being an interaction just simply goes up because they're
16 there longer. How many times -- how often would you see me
17 in the town of Rankin if I'm here for one day? If I'm here
18 for a week? In one day you may never see me. If I'm here
19 for a week you might see me once, or you might not see me
20 at all. But the longer a bear is around on shore increases
21 the probability that an interaction could occur.

22 Delay in freeze-up may allow more bears. We
23 know that, you know, in the fall time bears start moving up
24 the coast trying to anticipate and intercept the sea ice as
25 it comes down. Well, if the sea ice is delayed and the

1 bears keep moving up the coast, in a community such as
2 Arviat, which is just up the road from Churchill, a of
3 bears may actually reach Arviat before there's sea ice to
4 get out. And then in Arviat we talked about there's things
5 like community attractants.

6 In Churchill they used to have an open garbage
7 dump. When I first went to Churchill in 1981 there was an
8 open-pit garbage dump right near the coast, and it was not
9 uncommon to see 30 to 40 bears at a time in the garbage
10 dump. It was a big tourist attraction. People could drive
11 to the Churchill garbage dump and look at polar bears just
12 like I used to do as a child with black bears. My parents
13 would drive to a garbage dump so I could see a black bear.

14 So community attractants; garbage dumps. We
15 heard about beluga harvesting in August, and, you know, the
16 incident is that you sink the beluga. But that doesn't
17 always happen. So if you have an attractant near a
18 community, that will bring bears in. So community
19 attractants.

20 And bears remember. Bears would come back to
21 the Churchill garbage dump even after it had been closed.
22 For a few years there were bears that would continually
23 come back anticipating there to be garbage there because
24 that's what they remember. So I know WWF -- and there have
25 been, you know, work done on diversionary feeding, maybe

1 bears are remembering that, hey, the last time I was there
2 there was these food resources for me. I'm going back
3 there. And they just walk to those areas. And if it's not
4 there, maybe they're going to go start looking somewhere
5 else, wander into communities, sites and smells.

6 And then another thing which I didn't on,
7 communities are increasing. There are more people in a
8 of these communities, more people out on the land. So if
9 you have more people out on the land, bears are around
10 longer, people engaging in, you know, hunting, fishing
11 activities along the coast, again, bears are on shore
12 longer, more people out there just, you know, the
13 probability that you're going to get -- interactions are
14 going to increase.

15 So, you know, safety concerns are huge. They
16 are big, and no one is diminishing them. But there's s
17 of reasons, you know, why bears -- and another one is, you
18 know, the perceptions that bears, the actual population is
19 increasing. So there's s of explanations for why it's
20 going, why it's happening. And I don't think there's a
21 single one. I don't think you can say the only reason you
22 have problem bears is because they're all starving. We
23 know that's not true. You're telling us that. There are
24 bears that are nice and fat. Those might be bears that
25 remember Arviat or Whale Cove because they were there

1 before and there were beluga bone piles that they were able
2 to feed on.

3 So there's a number of reasons why, and I don't
4 think there's going to be a single one, which s it hard
5 to manage. Next.

6 So what do we know about Western Hudson Bay
7 polar bears? A of this stuff is not new. You've been
8 telling people, you've been telling us that. s of
9 bears in the 1940s and '50s were low. There weren't that
10 many bears. And probably one of the reasons is that there
11 was an unregulated harvest, there was a big military
12 presence, there was harvesting in Manitoba by Dene local
13 people. But there weren't any regulations. So you could
14 show what you wanted, when you wanted, how many. You could
15 go shoot females with cubs. You could do whatever you
16 wanted. So there was this large unregulated harvest, and
17 that probably kept bear numbers low.

18 And as we've heard around the table, people
19 found that, you know, things started to change, bears
20 started to increase in the '60s and '70s. Well, what are
21 some of reasons? Well, in the 1950s, Manitoba in game
22 regulations that stopped harvesting in Manitoba,
23 essentially, so there was no more harvesting done in
24 Manitoba. The York Factory trading post was closed, so
25 there was no longer an economic market, that people weren't

1 being able to take hides to these trading posts. The
2 military base closed. So you know, 5,000 military
3 personnel who did manoeuvres all over the denning area and
4 all over that, they were gone. So you didn't have that
5 pressure from military people out on the land.

6 And then in the late 1960s was sort of the
7 initiation of the current quota system was instituted. And
8 I was looking through my notes just to see what I could
9 find, and the only reference I could find in my notes back
10 then was a recommended quota for Arviat of four. So back
11 in '67, '68, that's what people were talking about. But,
12 you know, quotas were introduced a long time ago, back in
13 the '60s '70s. So all those factors contributed to getting
14 this unregulated harvest under control. And that's likely
15 what led to an increase in bear numbers through the '60s
16 and '70s.

17 So the first scientific estimate how many bears
18 are there in Western Hudson Bay came from the late 1980s,
19 and that was 1,200 bears, and that's what the initial -- or
20 the quotas were then adjusted to. So heard around the
21 table people said they remember when it was 55 or 56.
22 That's true, and that was based on 1,200 polar bears.
23 That's where the quotas came from.

24 And the subsequent declines based on sort of
25 mark recapture work, recent ones, work that I've done back

1 in the early 2000s showed declines that were linked to
2 earlier breakup of sea ice. And I showed some of those
3 slides how survival is linked to timing of breakup. And
4 then we come to the aerial surveys, the one in 2011
5 which was 1,030 and new one, 832, which is part of the
6 reason we're here, is 842. What do people think is a
7 suitable total allowable harvest? Next slide.

8 And we talked about this yesterday, a number of
9 people raised the question, and, you know, that we're just
10 just talking about polar bears. I mean, polar bears eat
11 seals; right? And what's happening to seals? And one of
12 the problems is that it's very expensive, it's a of
13 work to study these sort of huge ecosystems. People tend
14 to pick an apex predator, something at the top of the food
15 chain, because if you have healthy polar bear populations,
16 then it's likely everything underneath is probably healthy,
17 as well, because it's supporting healthy polar bear
18 populations.

19 If you start noticing a change in your polar
20 bears, whether it's numbers or the condition of bears, just
21 some change that they're no longer like they used to be,
22 that's an early warning sign that there's some change
23 somewhere in the system, but we don't necessarily know
24 where that is. It might simply be seals, but it could be
25 fish, it could be some of those invertebrates, it could be

1 the phytoplankton. We don't know where without having
2 these comprehensive long-term studies on an entire
3 ecosystem, and those aren't feasible. So we study polar
4 bears because it tells us something about the whole arctic
5 marine system. Next slide.

6 One of the concerns with climate change and the
7 loss of sea ice changes is you get a shift in species. So
8 arctic cod are adapted for living in the arctic under sea
9 ice, they're high energy, high fat content species. As you
10 lose -- if the climate continues to change and you lose sea
11 ice, that might allow other species to come into places
12 like Hudson Bay. And some of those subarctic species,
13 which we know are here -- things such as sand lance and
14 capelin. And then if you go even further, I mean, you get
15 into more temperate fish species, things such as rainbow
16 smelt. So the fish that are present in Hudson Bay will
17 have an impact on the seals because that's what they're
18 eating, and they in turn will have an impact on polar
19 bears. Next.

20 So recent changes in ring seals. And this is
21 not my data. This is data given to me by Steven Ferguson
22 at Fisheries and Oceans in Winnipeg who had been looking at
23 ring seals in Hudson Bay. And the top slide is simply from
24 the hunter harvests that he did with Kivalliq communities,
25 is looking at the percent blubber of the seals. And it's

1 over a period of time. And there's this downward trend in
2 how fat the ring seals are.

3 And it's about 55 percent in the early 2000s,
4 and when he stopped in 2011 -- so at the time of the first
5 aerial survey -- they were 48 percent fat, blubber. So
6 sort of look at the polar bears. Less fat, so too with the
7 seals, less fat. So for a bear, if you caught one seal in
8 the early 2000s, the amount of fat you got back was more
9 than you're going to get in 2011, so a decline in fat
10 content.

11 Spring hunting is the critical time for polar
12 bears. That's when seal pups are weaned, they're naive,
13 they're easy to catch. So most of the energy that polar
14 bears need for an entire year they get during the
15 springtime, sort of the order of 70 to 75 percent of the
16 energy. So springtime is important. So if they're doing a
17 of foraging and feeding on seals and the blubber
18 thickness is changing on seals so they're thinner -- so
19 they are thinner -- the bears aren't getting the same bang
20 for the buck. They have to catch more seals. And there
21 was some concerns in communities that they're not seeing as
22 many seals. The seals are gone.

23 And the bottom is some aerial surveys. They're
24 not every year so there are gaps and holes. We don't know
25 what happened in between, but these are some density

1 estimates of ring seals. And ring seals are very hard to
2 count because they're in the water most of the time, so you
3 can only count them when they're hauled out on the sea ice.
4 And so these surveys are typically done in the springtime
5 when the seals are molting, and they molt and they come out
6 on the sea ice and they're molting on the sea ice. So this
7 is sort of an index of the density. It's not an absolute
8 because we know there are a number of seals that aren't
9 there.

10 But back in the sort of mid 1990s their survey
11 suggested there was somewhere between 1 and 1.2 ring seal
12 per square kilometre, and over time down to 2013 that dot
13 at the very bottom right, that's about .2. So quite a
14 dramatic drop. Whether that's a one-year blip -- there's
15 s of holes, as I said. There was not a of work
16 done, nothing from about 2001 to 2006. We can't fill in
17 the middle, and we can't fill out in what's happened since.
18 So we don't know if that was just one bad year for ring
19 seals and if we did it again, they would be up again, or
20 whether ring seals numbers are still low. But these data
21 suggest possible declines in numbers of ring seals in
22 Hudson Bay. Next slide.

23 Southern Hudson Bay polar bears. I mean, we saw
24 the movements. I mean, Hudson Bay is a single entity. We
25 know bears. Despite ting lines on the maps, bears

1 aren't stopping at the Western Hudson Bay and turning
2 around and going back. They're using the whole of
3 Hudson Bay. So what's happening to Southern Hudson Bay
4 seals?

5 When they look at sea ice they've noticed that
6 there's an increase as well. Just like we noticed in the
7 western half, they're seeing an increase of about 30 days
8 in the ice-free period on the eastern side of Hudson Bay
9 from 1980 to 2012.

10 In Ontario they don't do work every year, they
11 do it in chunks. So they have body condition of bears from
12 the mid 1980s, and then they did it again in 2000. And
13 when they looked at the body condition, bears of all age
14 and sex classes, their body condition declined between
15 those periods of time. So they were in better
16 condition in the mid 1980s than they are in the 2000s.

17 The first real sort of estimate of bears in
18 Southern Hudson Bay; 2005, 900 to 1,000 bears. They did an
19 aerial survey. Just like there was an aerial survey done
20 here in 2011, there was an aerial survey done in Southern
21 Hudson Bay, but they did it in years, 2011, 2012, and
22 they came up with a number of 943, which was not dissimilar
23 from what it was in 2005.

24 But in 2016, at the same time that the Western
25 Hudson Bay aerial survey was going on, they did another

1 complete aerial survey of Southern Hudson Bay. And they
2 came up with 780 bears. And, again, there's the confidence
3 intervals are quite large, and they overlap. But Southern
4 Hudson Bay declined by about 75 percent, the change, the
5 step change in those -- five-year period, which is very
6 similar to what the aerial survey data seemed to suggest
7 for Western Hudson Bay.

8 That could be a coincidence, you know, just
9 happens to be. But from a science perspective, the weight
10 of evidence, there is a of changes that seem to be
11 going on in Hudson Bay with changing in breakup, breakups
12 occurring earlier, freeze-ups occurring later. Some
13 evidence that there aren't as many ring seals as they used
14 to be, they're not as fast as they used to be. We're
15 seeing changes in condition of bears, how fat are bears,
16 you know. And it does fluctuate, I agree. And there are
17 changes in, you know, some of these productivity things.

18 So we think that perhaps it's an indicator that
19 there's a bigger change happening in Hudson Bay. It's not
20 just something specific to Western Hudson Bay polar bears
21 in Churchill or Western Hudson Bay polar bears in the
22 Kivalliq community, but it's symptomatic of perhaps a
23 bigger change that is occurring in Hudson Bay in general
24 that's impacting at least Western Hudson Bay and Southern
25 Hudson Bay.

I don't have any information that I can provide on Foxe Basin. There hasn't been a recent survey. I don't know when the next one is, but we don't have recent information for Foxe Basin on how that population is doing, which uses sort of the northern part of Hudson Bay and Foxe Basin. So we don't know about Foxe Basin. But what we do know is Western Hudson Bay and Southern Hudson Bay there are some strong signals that there are changes going on, and each piece by itself may be not, but it's just this growing weight of evidence that we're seeing, and some of the things that people are commenting on around the table.

Next slide.

13 And with that, I don't know if I went over our
14 altered time s, but I'm happy to answer what questions
15 I can around the table or at coffee break or whenever. And
16 as I've said, we will be providing this presentation to the
17 Board and to everyone here at the table so they'll have
18 that same document, and we will be getting it translated.
19 So you are going to have that.

20 And again I would really like to thank the NWMB
21 and the others around this table for allowing us to
22 this presentation when we had not submitted it as part of
23 the package.

24 you.

25 THE CHAIR: thank you very much, Rachel and

1 Nick. And thank you for that valuable information.

2 And, Nick, I'll just say on behalf of Board,
3 it's nice that you're here, and know you're sort of the
4 lead researcher on the Western Hudson Bay and have been for
5 many, many years, so it's valuable to have you here in
6 person presenting this information to us. you very
7 much.

I'll open it up for questions, then, to Nick. I think don't worry about going over in your presentation. We might go over on the question period here. There's going to be of questions, I think, so I'll open it up for questions from Board members first.

13 NUNAVUT WILDLIFE MANAGEMENT BOARD QUESTIONS AND COMMENTS

14 THE CHAIR: Jorgen.

15 MR. BOLT: you, .

Just some questions here. You mentioned about
your collar there. What kind of information are you
getting from these collars? Like, where they're going,
direction? Because I know in some of the -- I've read some
research around the world where in Africa they're using
collars on some of these lions that they the
accelerometers on them to see how often these lions are
hunting, stalking, eating, and they can tell how much
hunting a lion's been doing during that week or during the
day with this accelerometer on their collar. I just want

1 to know what kind of information you guys are getting from
2 these collars.

3 you, .

4 . LUNN: you, Jorgen.

5 THE CHAIR: through the , Nick.

6 ahead.

7 . LUNN: These satellite collars, they
8 come as sort of a Chevette version with basic features, and
9 you can get and build on these things such as
10 accelerometers, and you can add as many various devices and
11 pieces of equipment to monitor a number of variables and
12 things in the environment. The ones that we on, our
13 interest is more where the bears are and getting
14 information on whether they're active or not active. So
15 there's just a mercury switch that, when they're not
16 active, it gives a reading; when they're active it sort of
17 counts how many times the mercury switch switches.

18 We don't have accelerometers. There are people
19 in the U.S. that are ting that on polar bears. They're
20 more interested in things such as swimming, you know, in
21 the Beaufort Sea. Polar bears could do a of
22 long-distance swimming. We can't get some of that
23 information ourselves simply because of the positioning of
24 the transmitter is underneath. So when the bear's in the
25 water it can't transmit to a satellite. So when we get no

1 information from the satellite on the bear, we're assuming
2 that that bear is in the water.

3 But what we're basically getting are GPS
4 locations where the bear is, so we get a lat and a long,
5 and from that we're putting it out to the sea ice. We're
6 looking at what are the features of sea ice where the bear
7 is, and then we can look at rates of movement because we'll
8 then have the next location, and we can calculate the
9 distance, we can calculate how quickly the bear moved from
10 point A to point B and get rates of movement.

11 So we're not -- we're not deploying collars
12 really that give us a greater glimpse into things such as
13 hunting, the frequency of hunting, that type of
14 information. We assume that if they're in a localized
15 spot -- so we're not getting s of movements and great
16 distances -- that they're probably hunting. But we don't
17 have the sophistication to determine that. There are
18 collars that actually have cameras on, and some people are
19 starting to deploy those collars. We're not deploying
20 them. We haven't them out, but that would be, I think,
21 a very interesting thing to be able to look at video feed
22 of a bear out in the middle of Hudson Bay or wherever and
23 what it's doing.

24 So long answer to your question, no, we're not
25 looking at that stuff. We're just getting basically

1 locational data, and then we're using that to look at rates
2 and activity switches.

3 you.

4 THE CHAIR: you, Nick.

5 Jorgen, any other questions? Noah.

6 MR. MAKAYAK: I would like to ask regarding I
7 saw one of the collars on the bears. What kind of effect
8 does this have on the bear? Sometimes they have -- they
9 have to sometimes jump and attack seals through a very
10 small hole. This is their hunting technique, and no doubt
11 these collars can scratch, damage their necks. Just in
12 their hunting techniques, how much damage is done on the
13 bears with these collars?

14 THE CHAIR: you, Noah.

15 Nick.

16 . LUNN: you. That's a very good
17 question. A of concerns of hunters, and it's a concern
18 to researchers as well. We don't want to a device --
19 we want to study an animal in its natural behaviour. We
20 don't want to a device on an animal that's going to
21 change the way it behaves or injures the bear. So the
22 collars themselves, again, one of the reason we just
23 them on adult females, we can't them -- we don't
24 them on smaller bears is because those smaller bears will
25 grow into them and they will cut. We know that, so we

1 don't do that. So we restrict to adult females.

2 There's a bit of an art to fitting the collar.

3 So you don't want to it on really tight, because you
4 can really cinch them up, if you want. But that leads to
5 the concern that you raised of cutting in. So for us, we
6 can get a collar on, and I can fit my fist this way, so
7 there's that much room, whatever that is, three inches of
8 room for the collar to move. And that allows the female,
9 you know, to change weight, to a bit of weight on if
10 she needs to once she gets back out on the sea ice.

11 And when we do recapture them in the future we

12 can usually see that they've worn a collar because there's
13 a bit of compressed hair around, so you can sort of see.

14 Sort of like if you, you know, take a belt off, you can see
15 sort of where there was a belt. We can sort of see where
16 there was a collar, and over time that disappears as the
17 bear molts.

18 In terms of injuries, over the years we have had
19 one female where there was a slight cut, and by slight I
20 mean maybe an inch long, very superficial just right behind
21 the ear, and we think what happened is the collar just got
22 pushed up and cut a little bit behind the ear.

23 We don't see a of injuries. We don't see
24 that in the bears that we collars on. I know that they
25 have had problems other places where some bears have come

1 with cuts, and we think that's just a method of how tightly
2 they the collar on, or maybe the bear grew.

3 Does it have any effect on hunting ability,
4 being able to feed cubs? Well, we don't see it. We're not
5 out on the sea ice, so we can't actually see a bear hunting
6 and how that collar may or may not impact a female. But
7 what we do have is, when we catch those bears again, we can
8 get their weights, and we can look at the weights of adult
9 females and their cubs that have had collars versus females
10 that have not had collars, and we don't see any change. We
11 don't see that any female that's worn a collar is always
12 lighter than a female that's never worn a collar. We
13 can't -- we haven't been able to pick up, really, any real
14 negative impact of the collars. After three or four
15 days -- once we drug them, after they've sort of come out
16 of the drug three or four days later, their behaviour seems
17 to be similar to other bears.

18 The only negative impact that we were able to
19 detect with our handling, and it was sort of aided by the
20 use of collars, was in the early days to catch pregnant
21 females in dens we used to land on the dens. If we saw a
22 bear in a den, we would land on the den. That's what
23 people did to get a bear out of the den. And then when it
24 popped out, you'd tag it and a collar on and leave it
25 alone.

1 What we found was that, in the springtime when
2 we came back to the places that we caught them they weren't
3 anywhere near that. So although they were in the den in
4 the fall time, where they ended up actually denning and
5 producing cubs was someplace completely different, and we
6 felt that was an impact of us landing a helicopter, getting
7 them out of a den. So we don't do -- we haven't done that
8 for 25 years.

9 So that's sort of an impact of our research that
10 the collars helped. But we really don't have any
11 information, good information that there's a real negative
12 impact. I know it's a concern of hunters, you know, of
13 bears going in crashing through holes and how would that
14 impact. The collar itself, you know, it doesn't stick out
15 way outside of the neck to their neck a wider.
16 The bulk of the device is hanging low, so their head would
17 go in first and break that hole.

18 So we don't -- the answer is we don't have any
19 good information to say that it doesn't, but looking at
20 things such as weights of adult females and cubs with or
21 without collars, there doesn't seem to be any change in
22 weight, which to us suggests that there's probably not --
23 it's not impeding their ability to hunt.

24 THE CHAIR: Okay. you, Nick.

25 David K.

1 MR. KRITTERDLIK: you, .

2 I understand that research into polar bear began
3 in 1980, and I am thinking that collar used -- of course,
4 research started from that time, too, on polar bears. I'm
5 just curious about number of collars that were used on
6 polar bears and if there were any loss, and if there were
7 any unrecovered collars.

8 And the other question is that I think you said
9 that, to release the collar can be done by technical from
10 your office actually or from somewhere on the land or on
11 the ice. Those are some of my questions.

12 you.

13 THE CHAIR: you, David.

14 Nick.

15 . LUNN: To answer the first part, collars
16 have been used periodically from the start to now. Not
17 every year. It depends on the research question, what
18 people wanted to know.

19 In the early days of collars, at least for
20 affordability -- I mean, GPS satellite-type collars did not
21 exist when the work started, so the very first collars that
22 went out were smaller devices, and they were VHF. So you
23 found them by using antennas on aircraft, and so we had
24 to disturb the bear every time we wanted to find out where
25 it was. We had no other way of tracking it. So these

1 collars would be on, and people that were doing the
2 work would fly once a week through the area, you know,
3 listening for those signals and then zeroing in.

4 So those collars back then, they did not have
5 release mechanisms, and the release mechanisms that we use
6 now those are a recent innovation, and they're programmed
7 by the manufacturer. We tell them what date we want them
8 to set it to, and they set it for us. And so it's -- there
9 is the technology that, if we saw a bear, you could release
10 it. We don't have those types of release mechanisms, but
11 they do exist that you could fly around, and if you saw a
12 collar and wanted to release, you could hit a button and,
13 poof, it would open and drop. That's not what we're using.

14 We using release mechanisms that are predefined.
15 And we set them for the 1st of September years after we
16 the collar on, and we do that because we want to
17 sure the bears are on shore, because if we recover them,
18 any missing data we can download, it's stored on the
19 device. So we can send it back and get the complete data.
20 We might have misses that didn't get transmitted up to the
21 satellite, so we can get the complete data, and we can
22 reuse the collar. We can send it back, and they can strip
23 out, in new batteries and give us that collar back for
24 cheaper than it would cost to buy a new one.

25 But back in the early days we didn't have those

1 technologies. We had to catch the bears again. So we had
2 to go back and drug the bear again to pull the collar off
3 when the work was done.

4 And I don't have the number, when you asked how
5 many didn't get picked up. We do keep track of that
6 because it's an important thing that people want to know.
7 You know, how many bears are out there with collars that
8 you never find again? And it's important. You don't
9 want -- that's one of the reasons we went to release
10 mechanisms. We don't want bears to have collars for the
11 rest of their life.

12 So for those VHF collars, the early-day one, I
13 would say we're probably at 90 to 95 percent recovery, and
14 that's because we had to -- we had to fly and find them to
15 get them to get the collar off. So there were some that we
16 never found again. And sometimes you catch the bear again
17 without the collar on, so you know that the collar came
18 off. I mean, they were designed -- the fabric would break
19 down in sunlight, so over time they would come apart and
20 fall off. And so you do catch some bears without collars,
21 and you never get the collar back. So we know at least the
22 collar's off. But I would say it's 90 to 95 percent we got
23 back in the early days.

24 For satellite collars, that's a little bit
25 different. We started putting satellite collars out in

1 about 1993, 1994, and for those collars that we out in
2 our study area in the main Wapusk National Park, we got
3 them all back. But we did some work down in that area,
4 close to the Ontario-Manitoba border, because of the, you
5 know, information that there may be some denning going on.

6 So we some collars out, and we out
7 five -- I think it was five collars -- down in that area,
8 satellite collars. They didn't have release mechanisms,
9 and we never found -- I think we got of the five back.
10 So there were three that we never heard of again from the
11 satellite collar, never caught the bear again without the
12 collar. We have no idea what happened to it. Those bears
13 now are so old that they're not even going to be alive
14 anyway, but they were bears we didn't know about.

15 With these release mechanisms, for the ones that
16 we've deployed in Western Hudson Bay we probably have or
17 close to knowing about 85 percent of the fate of them.
18 Sometimes it's the collar we find on the tundra, sometimes
19 we've -- we had one this year that failed early. We it
20 on, and six months later it had stopped working. Well, we
21 found the bear in the fall time, and we were able to pull
22 the collar off the bear. Even though the release mechanism
23 still had another year to go, we weren't getting any useful
24 information. We pulled the collar off.

25 We found bears and not the collars. So, again,

1 the collars come off. We don't know if the release
2 mechanism worked on the day it was supposed to. We assume
3 it did because the bear doesn't have the collar on, but
4 we're at about 85 percent recovery of all those collars.

5 And we have -- because we're working every year,
6 there's a VHF beacon on those collars that lasts for five
7 years. So the satellite stuff goes for years, and the
8 collar drops off. But the VHF beacon lasts for five years.
9 So even though we're not getting any more collar
10 information, we're scanning the old-fashioned way with
11 antennas, and we do pick up collars just sitting on the
12 tundra that we never found it before, and we found it
13 because the bears were still working in the area. And we
14 caught bears without collars, so we know the collar came
15 off, but we never recovered the collar itself.

you.

THE CHAIR. you, NICK.

18 David.

19 MR. KRITTERDLIK: you.

Another simple question. The collars, were they similar to the ones that they were using on caribou? And the other part; is it possible to know that collar is not from the polar bear when you're trying to find information on caribou? you.

25 THE CHAIR: you, David.

1 Nick.

2 . LUNN: I'll answer the second part first.

3 The collars all have individual frequencies, and hopefully
4 there's sort of communication, at least within perhaps
5 government departments and researchers -- if you're going
6 on a big caribou collaring program and there's polar bear
7 collaring going on -- that the groups would talk together
8 to ensure that you don't have the same frequency. The idea
9 is that every animal would have a different frequency.

10 If that did happen, you hopefully might be able
11 to tell based on the location. So if there's a collar on a
12 bear and a collar on a caribou and you're getting locations
13 from the middle of Hudson Bay, probably a good chance that
14 that's the polar bear (verbatim), whereas if you've got it
15 on a polar bear and the collar seems to suggest it's in
16 northern Saskatchewan -- although there have been at least
17 one polar bear in Northern Saskatchewan -- you can probably
18 assume that it's on the caribou.

19 But we have had -- through mixups we've actually
20 collars of the same frequency on bears in the same
21 subpopulation. And so you can -- because you know where
22 you put the collar on you can sort of track the movements
23 and determine which bear is which. But if you're using the
24 VHF to locate it, all you're picking up is a signal of a
25 certain frequency. So if there are two with the same

1 frequency, you wouldn't know until you caught the bear or
2 there was some other information that allowed you to figure
3 out which one it was. But it happens very, very
4 infrequently.

5 In the polar bear world we coordinate that from
6 when we were fitting collars on. A of organizations,
7 we would coordinate that. We would send a list and say,
8 okay, if you want ten collars, use these frequencies, we'll
9 use those frequencies.

10 THE CHAIR: you, Nick.

11 Okay. I know there's more questions for sure
12 from the Board, but we're going to take a coffee break-up
13 for 15 minutes, and we'll all come back to the table.

14 (ADJOURNMENT)

15 THE CHAIR: Okay. you all for coming
16 back. We'll continue, then, with questions from Board
17 members. Next on my list is Jorgen.

18 MR. BOLT: you, .

19 Yeah, just a couple questions. Have you ever
20 overdosed bears? Overdosages? Has there ever been
21 situations like that where you've overdosed a bear and you
22 can't bring it back around?

23 And then the other question is, do you drug
24 pregnant females, too? Because that's going to have some
25 kind of effect on the embryo. I'm sure it will.

1 you, .

2 THE CHAIR: you, Jorgen.

3 Nick.

4 . LUNN: Yeah, overdosing of bears. Over
5 the years when we first started -- and I use the word "we"
6 loosely because I wasn't around when we first started. But
7 in the '60s when people started getting into polar bear
8 research, they had to come up; how do you immobilize, or
9 what drugs do you use? So in the early days there were
10 probably -- I couldn't give you a number, but there were
11 definitely bears that died because they were overdosed.
12 And a of the drugs used in the early days, you really
13 had to know how much a bear weighed. You really had to
14 measure it carefully. So if you misjudged you could easily
15 overdose a bear that didn't need as much. So that
16 definitely happened.

17 We now use a drug, and we have been since
18 probably '86, '87, somewhere around there -- a drug called
19 Telazol Zolatol, depending on when you buy it. And the
20 advantages of that drug are fold. One, it's very safe
21 for the bears. And by that I mean, if I see a bear and I
22 say, hey, there's a big adult male, and I give it a dose
23 for an adult male and it turns out that it's actuality an
24 adult female -- it's not as big as I thought it was -- all
25 that happens is I've given it more drug. It just takes a

1 little bit longer for it to metabolize. It doesn't
2 overdose and die. So it's very safe. I can underdose,
3 overdose -- safe for the bears from that perspective.

4 And from my perspective, it's very safe for me
5 and for my field crews because how the bears react to the
6 drug, it's very predictable. So the stages that they go
7 through are very clear, and they're well defined.

8 And so I know before I even land that a bear is
9 immobilized, and they start running, as you would expect,
10 from a helicopter. Once the dart is in, we back off
11 and just watch from a distance, and eventually the bear
12 will just stop where it is, and its head will go down, so
13 it can't keep its head up. So its head starts to slump,
14 and then it sort of wobbles a bit, and it will sit down on
15 its behind end with his front legs keeping it up, and then
16 the front legs go down, and so the head is sort of moving
17 around. Eventually the bear goes down with no head
18 movement.

19 And when they come out of the drug, they come
20 out in the exact same opposite way. So the first thing
21 that happens is they're able to start moving their head
22 slightly. Then they'll be able to sort of stand up a bit
23 on their hind legs, their back legs, and then they walk
24 off.

25 So I know that the work that we do, when I land

1 in a helicopter, I'll know before I even approach it that
2 the bear is immobile. I don't have to worry about the bear
3 jumping up on me. And in reverse, I know how much time,
4 I've got s of time by the time we're done. And we can
5 process, do what we need to do on a single bear in 30, 40
6 minutes. And if it's a family group, it's about an hour
7 just because there's more bears. We do the same things,
8 but it's just there's maybe three bears instead of one, so
9 it takes us a little bit longer.

10 So after about an hour, the cubs are already
11 coming out, so they're already sort of up and moving around
12 a bit, staying with mom, and the older bear, the mom is
13 lifting her head and looking around. So we have about an
14 hour, and then we're done. So it's a very good drug.

15 And I went on too long here that I forgot what
16 the second part of the question is. Oh, pregnant females.

17 Yes, we do. A of them we probably won't
18 know from the air. We'll say she looks fat, we think she's
19 pregnant. We'll still immobilize them.

20 In terms of impacts on cubs, the birth
21 weights -- we catch bears in springtime in March when
22 they're three months, and the weights of cubs from females
23 that have been handled multiple times and females handled
24 for the first time, the spring weights of their cubs aren't
25 too different. So they're similar. So what the impacts

1 are or what the effects are we don't have answers for, but
2 we don't think they're significant enough to have impacts
3 on the cub per se.

4 THE CHAIR: you, Nick.

5 Jorgen.

6 MR. BOLT: you, .

7 My last question. If a female polar bear feels
8 that her body cannot sustain an embryo, can she discard
9 this embryo like a grizzly bear?

10 you, .

11 THE CHAIR: you, Jorgen.

12 Nick.

13 . LUNN: Yes, we think that happens as well
14 in polar bears that they mate out on the sea ice, you know,
15 then they go hunting seals, and in the fall time that's
16 when the fertilized egg implants. They have delayed
17 implantation, and it implants in the fall time, and it's at
18 that time where hormonally they'd be able to assess what
19 condition they're in. And we think that if they're in
20 really, really poor condition it just won't implant and
21 they won't be pregnant. And if they are in certain
22 condition, they will. And they will either carry it
23 through to full term, come out with cubs, or carry it
24 partway through and come out of the denning area without
25 cubs.

1 you.

2 THE CHAIR: you, Nick.

3 Charlie.

4 MR. INUARAK: you, .

5 My question, the polar bears that you do
6 research on, when you had that map in your presentation,
7 you saw a number of polar bears that you counted, and when
8 you started counting again you counted them, one, ,
9 three and found out how many there are and a short decline.

10 My question: The polar bears travel very vast
11 distances. The ones with cubs don't go very far because
12 the young males go very far when they start travelling, and
13 the ones that are coming out of the dens or are going into
14 the dens, do you try and find out how many are leaving
15 their dens and coming back, how many are out of their dens?
16 Where you did your survey, do you include where they come
17 out of the dens and come back into the dens?

18 If you answer this question, I'll ask another
19 one.

20 THE CHAIR: you, Charlie.

21 Nick.

22 . LUNN: Okay. In terms of long-distance
23 movements in bears and were we counting or do we think we
24 were counting all the bears, the different methodologies
25 that scientists use have different assumptions. And the

1 aerial surveys -- so the 842 and the 1,030 -- that's a
2 snapshot in time. So they fly, and they count and they see
3 what they see. And that would be very similar to someone
4 coming into this room right now and seeing who's here, and
5 they would come up with a number of people.

6 The work that we do by tagging -- there's
7 another way that you can get this information, population
8 estimates, and it's through a process of what we call mark
9 recapture. You have tagged animals in a year. You go out
10 and you catch in the second year, and you look at how many
11 tagged animals there were, and you do those over a number
12 of years.

13 And the assumption in that is a bear doesn't
14 have to necessarily be in that area in a particular year
15 that you're capturing so long as in some of the other years
16 that you're capturing it's there. So it has to be
17 available for capture at some point during that process in
18 the mark recapture.

19 If it's a bear that spent its entire life, say,
20 at Chesterfield Inlet, we would never catch that bear. It
21 would never be in Manitoba, and it would never be counted
22 as part of that survey. But if it was a bear that we
23 tagged in Manitoba and the next year it happened to be
24 spending the summer outside of Arviat where we never caught
25 it, never capture it, and then to the following year it's

1 back in Churchill and we capture it again, it's counted, it
2 does get counted.

3 So depending on which method you use will
4 determine whether or not -- or the implications of whether
5 a bear is in the area that we're working or not, whether
6 that's important or not. So that's the first part.

7 Bears in the denning area. Are the areas that
8 we survey? Yes, we will survey that entire denning area,
9 including dens. We don't get pregnant females out of dens
10 anymore, but very similar to what David said and what some
11 of you may -- if you were on the aerial surveys, you can
12 tell a bear in a den. You can either see it or you can see
13 the fresh peat diggings, so you know that's an active den.
14 So we would record that.

15 We will catch females with cubs in the denning
16 area if they're in dens. So a female with cubs, we will
17 catch them. They have to be in safe areas. Bears that
18 aren't in safe areas -- either they're in the middle of a
19 lake, we don't really try to push them out of the lake. We
20 just a note that we saw a female with cubs or a
21 single female. A of capture work has to be done in a
22 place that's safe, but bears that aren't in safe locations
23 we just note that we saw them.

24 I don't know if that answers your question.

25 THE CHAIR: you, Nick.

1 Charlie.

2 MR. INUARAK: you, man.

3 You answered part of my question. However, in
4 1970, '71 and '72 I started being on the board. When I
5 was young, I was on HTO. I don't know whether I was chair
6 right away or just a director. In the past when I first
7 started sitting as a director with, the government came to
8 our community, polar bear studies were done, and they were
9 talking to us about what their studies have been done. And
10 they showed us their work, and they said that our polar
11 bears are in a decline, and the population is -- because I
12 was young, I couldn't smile very -- I wasn't happy with
13 hearing that. We started thinking that we were decimating
14 our polar bears, and we really believed at the time that
15 that was what was happening.

16 And then once they said that they're declining
17 and are almost extinct, since then they've been always
18 declining, declining every year, and you're saying today we
19 hear your report saying the same thing. If another person
20 heard you that's been around the table for a long time, you
21 would probably think they're declining, the Hudson Bay's
22 polar bears there's only a few left.

23 In the past if it was the same that said that
24 the polar bears are in a crisis up to today, it's been like
25 that, and our Nunavut government and Canada, federal

1 government have been saying that the polar bears are in
2 decline. And I'm an Elder now, and they're still around,
3 there's still s. Your reports that you see polar bears
4 coming out and coming in, I don't think you get the whole
5 picture, only what you see, and it's only a short period of
6 time that you're dealing with the polar bears, because I
7 think that's the reason why it's always in a decline.

8 And another thing. If we ever hear that the
9 polar bear are increasing, we would hear because our people
10 have been travelling by dog team. In the Kivalliq Region,
11 only travel by dog team. I know a person who used to live
12 in Arviat travelling to Churchill and Whale Cove, they're
13 still alive today, some of them. If they say that there
14 used to be s of polar bears in the past and there's
15 nothing today, not as much today, I would believe that,
16 your reports.

17 Our hunters are the ones who are first to find
18 out, and they're saying the other thing. There used to be
19 no polar bears as much as there are today, but today
20 there's a more. And I know we don't have dog teams
21 anymore. If you have a machine, I know we get home faster
22 and travel faster. And they don't have food caches
23 anywhere else. Your reports that you report to us, it
24 would be a more beneficial to us if we heard the other
25 side of the story where there's more, not less.

1 you, man.

2 THE CHAIR: you, Charlie.

3 Nick.

4 . LUNN: I don't know if there's a question
5 in there or a comment. But I think we -- I mean, while we
6 understand your concerns, what you're seeing -- you know,
7 you're seeing more bears on the land, you're seeing more
8 bears in the communities, you feel that the populations are
9 increasing.

10 As a scientist, I can only evaluate what I see
11 from a science perspective. And the work that we're
12 doing -- I mean, weighing bears, that type of stuff -- the
13 information that I get when I weigh a bear is showing that
14 the bears are lighter now than they were in the past. You
15 may or may not agree with that from what you see, but
16 that's what the science says. I weighed a bear back in the
17 1980s or in the 2000s that weighed a certain amount, and it
18 doesn't weigh that anymore.

19 I count cubs, how many -- what is the litter
20 size of cubs in Western Hudson Bay now compared to in the
21 past, and there now are declines.

22 So there is concern and expression that the
23 bears are in decline, and part of that is, I think, a time
24 frame. As scientists, we're looking out probably a
25 further than perhaps the hunters are. We're not sort of

1 looking out to tomorrow or next week. We're looking down
2 the road, 5, 10, 15 years. And we look at the data, and we
3 say, if these trends continue, if we see this, this is
4 where our concern is coming 5, 10, 15 years into the
5 future -- we're not talking about how many bears, you know,
6 be will there be tomorrow or next year. So there's a time
7 scale element.

8 In terms of, are we surveying the right places,
9 we know we are missing bears. I mean, one of the reasons
10 that things such as the aerial survey that was flown and
11 the work that we do is done when we do it, August-September
12 time, is that generally there's no sea ice on Hudson Bay.
13 So the bears, the majority of bears are on shore. There
14 may be some swimming about, and we saw that from the aerial
15 survey, there were some observations of bears swimming in
16 the bay. But there weren't that many. It didn't seem like
17 it from the aerial survey that there were s of bears
18 spending the entire summer out in the bay.

19 So we think by working when we do -- and the
20 aerial surveys covers a more area than I do in my
21 work -- the aerial survey covered that entire what we call
22 the Western Hudson Bay subpopulation zone. And they did
23 their counts, and I think they based it a on what, you
24 know, community members, where they thought bears would be.
25 I mean, I heard talk about flying out to islands because

1 people say that's where bears spend the time.

2 So I think people -- the surveys were done to
3 reflect what people are saying, but you see what you see on
4 any particular time. And it goes without saying that you
5 might miss a bear. Are you're missing a large number of
6 bears? I don't think you're missing a large number of
7 bears, but undoubtedly you probably will miss a bear here
8 or there; right? It just happens to be. A bear that's
9 dived in the water is underwater at the precise time you
10 fly over it, you may not see that. So, yeah, you probably
11 miss a few, but I don't think that you're missing a .

12 And a of the science, that comes with these
13 confidence intervals. So when you do the analysis you end
14 up with first with what's called a point estimate, which is
15 the best number that comes out of the analysis. But it
16 comes with these what are called these 95 percent
17 confidence intervals. So we think the best number is this,
18 but it could be as low as this, or it could be as high as
19 that. We're not saying categorically from an aerial survey
20 that there are exactly 842 polar bears. What that says is,
21 from that survey and what we're seeing, that's the best
22 estimate, but it could be as high as this, or it could be
23 as low as that. There's some uncertainty, but that's the
24 best point estimate that we get.

25 So I'm not sure that that really answers your

1 question, per se, but concern for polar bears is longer
2 term than the next or three years. It's looking at the
3 projections of what sea ice is projected to be doing 10,
4 15, 20 years into the future, how much sea ice there's
5 going to be in a place like Hudson Bay and what are bears
6 going to do if the sea ice isn't there long enough.

7 So the concern is more down the road than it is
8 necessarily today that the bears are all disappeared today
9 or they won't be here tomorrow. It's a time -- I think
10 it's a time scale. I think we're talking different time
11 scales.

12 you.

13 THE CHAIR: you, Nick.

14 Charlie.

15 MR. INUARAK: My final question. Just let me
16 reiterate, yes, I understand your comments, and they're
17 good.

18 I've been a Board member for a while. I have to
19 hear your concerns, and I will use those in my
20 deliberations; however, I want to say briefly, Inuit
21 traditional knowledge, it's not just tomorrow that we
22 consider. When there was no caribou on the northwest end
23 of the island, our grandfather used to say there's going to
24 be s of caribou in the future. There was s of
25 caribou in the past, there's going to be more caribou in

1 the future. And I became an adult without ever hardly
2 seeing caribou, and then they started coming into my area.
3 My grandfather's words came true.

4 He mentioned when they finish the food around
5 this area they're going to move to a different area on the
6 island. And you look way forward into the future, and we
7 believe that because we heard from our grandfather in the
8 past there was no caribou, then there was more caribou in
9 certain years, and once the food is gone, then they move,
10 and once the Nunavut government said caribou are in
11 decline, then that's when we started getting a quota
12 system. We know that they're not in decline. They just
13 move to a different area. And we were happy when we heard
14 that they just moved to a different area.

15 I think the polar bears have the same habits.
16 They're going to be in this area right now, and then
17 they're going to move to a different area when their food
18 sources change.

19 My question is, in your research, in your
20 reports it's always saying that the polar bears are in
21 decline. Us as board of directors when we are going to be
22 affected and we decisions that affect everybody that
23 wants to harvest polar bears, we would like to hear
24 something. If you say they're not in decline and maybe
25 just they're stable, we're not worried about the

1 population. You have to say something to us that is not in
2 a negative perspective that they're in decline but they're
3 stable or might be more.

4 THE CHAIR: you, Charlie.

5 Nick.

6 . LUNN: you for that.

7 I mean, certainly our research said from at
8 least the period 2000 to 2011 when the first aerial survey
9 was done, our research and the aerial survey suggested the
10 population was stable. And we've said that, research
11 showed that. That's what everyone is saying is stable.
12 It's what's happened between now or between then and the
13 latest aerial survey.

14 And my research -- we don't have -- we haven't
15 generated a new number. I don't have a new number to give
16 you how many new bears my research says there is. You
17 know, we're deferring now to less invasive methods, and
18 we're just basing it, this is what the aerial survey said.
19 It came out with a number that's lower with confidence
20 intervals. And at the same time, my research shows that
21 the bears, you know, they weigh less now than they did
22 before. They're having fewer cubs now than they had
23 before. Can I give you a date? People like dates. People
24 like having projections, when is something going to happen?
25 And we don't have that answer. I can't tell you, you know.

1 You know, when is there going to be the last polar bear in
2 Western -- I can't tell you that.

3 One thing we have learned is that things change.
4 I mean, yes, we looked at that trajectory before we got to
5 this period of stability, and we saw this decline. And I
6 showed it on there, and we thought, yeah, it probably would
7 continue, but it didn't. There were other factors at play
8 that made it go stable. So I don't want to sit here today
9 and say -- and I know it's difficult. I know people are
10 looking for answers. I can't as a scientist, without any
11 data, come and say that on such and such a day, -- whatever
12 that day would be -- that you're not going to have any more
13 polar bears or they're going to switch from this to that.
14 I don't have that information.

15 What I can say is that, you know, the
16 information we do have, whether it's the aerial survey
17 information that shows that there are, you know, fewer
18 polar bears from a point estimate now than there was in
19 2011, I can say that cub production isn't as good in
20 Western Hudson Bay than other populations. Bears don't
21 weigh as much. I can say that all those things aren't good
22 for polar bears, and they can't continue forever without
23 having an impact at some point. When that impact is I
24 don't know.

25 If you remember, I showed a graph of solitary

1 adult females, and there was a dotted line that showed the
2 lightest weight of a female that we've ever caught that
3 produced a cub. There's a line coming down meeting it, but
4 I have never projected to say what year are those data
5 going to cross that line. Things change. We know that. I
6 mean, things on the land.

7 So I understand your frustration. All I can do
8 is interpret the science in the best way that I can
9 interpret what my science and other science is saying and
10 present that to the Board as but one piece of information
11 for consideration in this process. It's not the only piece
12 of information. It's but one piece. And it's the best --
13 it's the best that I can do as a scientist is say these are
14 things that, as a scientist, are concerning for me. And
15 it's why as a department we suggested taking a
16 precautionary approach.

17 We didn't say how much you should take or
18 whatever. We just said, you know, that these are things
19 that are causing some concern from a science perspective.
20 You may want to consider that and perhaps look at a
21 precautionary approach, and it will be up to the Board to
22 decide what they want to decide in respect of whatever the
23 TAH may be. I can just present my information as I have.
24 And again, I thank the Board for having that opportunity,
25 but I can't really say a date when you need to be really

1 concerned. I hope I'm wrong.

2 you.

3 THE CHAIR: you, Nick.

4 I got a couple questions, Nick, and then maybe

5 more Board members have, too.

6 But as you know, in Nunavut there was great
7 concern about handling wildlife and being invasive when
8 research is done. So Nunavut has adopted a policy that
9 they're reducing that as much as possible as they can when
10 they do research.

11 Now, with Western Hudson Bay population it
12 probably is the most studied bear population in the world,
13 maybe, or one of in the world for sure, and it's studied on
14 an annual basis. You do denning surveys, you collar and
15 drug many bears. Manitoba has their polar bear program
16 where they drug many, many bears, they detain bears.

17 So I'm saying, with this population, it probably
18 has the most stress on it than any other population ever
19 does when it comes to that. And I'm asking your opinion,
20 how can that not have an impact and the stress levels on
21 these bears, and how can it not have an effect on these
22 bears when it's done every year and it has been for 25
23 years?

24 Just give me your opinion on that. you.

25 . LUNN: Well, first of all, I think you

1 have to leave Manitoba out of that equation because that's
2 a management action. That's much like you have a problem
3 bear in a community, you're going to take some sort of
4 management action. So what Manitoba does -- they're not
5 doing research, per se, like we're doing research. They
6 have bears in town. They've got to do something with them,
7 so they either harass them and scare them out of town or
8 they catch them and them in jail. So that's not
9 research. So I'm not going to talk about what Manitoba
10 does because that's a management, specific management
11 action that they've decided to take.

12 Our research, yes, it's true that bears have
13 been handled since 1980 every year and that bears get
14 collars, and samples are taken.

15 In the early days in the '80s, hundreds of bears
16 were caught every year. On the order of somewhere between
17 200 and 300 bears in the very early days were caught. So
18 there was a of bears being handled, and there was
19 concerns for handling bears.

20 Today we don't handle anywhere near that number
21 of bears. We're restricted by permit, we're restricted by
22 animal care protocol. So we're only handling a small
23 fraction of the population in any one particular year.

24 We're catching somewhere between 75 and 95 bears
25 a year. So out of a population of 1,000 or 800 maybe 10

1 percent. It's not the same bears every year, so we're not
2 catching the same individual bear. Most bears when we do
3 catch them and if they've been tagged before, they have
4 somewhere between three or four previous captures over
5 their history, which includes Manitoba.

6 So when I look at how many times has a
7 particular bear has been handled in the past, I include
8 both the Manitoba handling and our handling. So most of
9 the bears now are only on the order of three or four times
10 in their lifetime.

11 Collaring. We had big collaring programs in the
12 past in the '80s where there were large numbers of collars,
13 30 or 40 collars being out in a year. And we are
14 concerned about the impacts of those things, so we have
15 reduced it to the minimum. And as I've said, we've used
16 the release mechanisms so that we don't have to disturb the
17 bears every single year flying over them once a week. And
18 in the '80s, that's what they did. They would fly once a
19 week. So if they were there for or three months, which
20 they were, they used to start work in July, and they'd end
21 in October. So there were people there all the time flying
22 back and forth and, you know, tracking out bears.

23 We don't do that anymore. We're there for a
24 three-week period, 75 to 95 bears, and then we the
25 collars on and we monitor remotely.

1 So we've really tried to reduce whatever impacts
2 we may be having. In the short-term, are bears impacted?
3 For sure they are, and I wouldn't try to lie. When you're
4 in a helicopter and you're coming up to a bear, it's not
5 just standing there looking at you. It is running. You
6 know, there's this helicopter coming. The bear; short-term
7 stress. It's stressed. You know, we limits on how
8 long we will chase a bear. So if we've been -- from the
9 moment we sight the bear, if we don't have it immobilized,
10 don't have a dart in it within three minutes we leave it
11 alone. We go on to the next bear.

12 So we're constantly going through our handling
13 procedures, and it goes through vets and communities,
14 through people like Parks Canada, and we're continually
15 trying to improve our handling techniques and the minimum
16 number of bears that we need. But one of the values --
17 there are certain things, certain management questions, and
18 as long as I'm being asked to provide the answers, there's
19 only certain ways that I can do it. And collars -- for the
20 certain questions that my department want to know, the only
21 way I can get those answers is by ting a collar on a
22 bear, and that involves handling.

23 There was the question the other day about, are
24 there alternate ways? Well, there are alternate ways, and
25 people are exploring them. Are there ways you can do it

1 without collars? I mean, people are even looking at
2 satellite imagery. Is the satellite imagery good enough
3 that you can pinpoint a bear from a picture? Could you
4 count every single bear in a subpopulation? I mean, that
5 sort of stuff is in its infancy.

6 So people are always looking for new ways to
7 minimize what we do on bears, the handling, the collaring.
8 But there are certain questions that require bears to be
9 handled. If we have to a collar on, I know of no other
10 way than to actually catch the bear. You're not going to
11 send someone out and say, there it is, try get the collar
12 on. You have to immobilize it.

13 I think long-term research, can you -- you know,
14 do you need to do it every year? I think one of the values
15 of long-term research -- and this population is by far the
16 best studied anywhere in the world. I don't know if that's
17 something to be proud of or not. I guess it depends on
18 which side of the fence you're sitting on. But it's
19 provided we think from a scientific perspective a of
20 valuable information that can be used for management
21 purposes.

22 Some of the things or some of the concerns with
23 things such as, you know, earlier breakup of sea ice and
24 impacts on bears comes from the long-term research. You
25 need baseline information. You need to know what the bears

1 were like in the '80s to know if there's been a change in
2 the '90s and the 2000s. And maybe it's something that has
3 decadal scales for its cycles. So it goes down and up and
4 down and up. The only way you know that is if you do
5 long-term studies continuously. So we think there's
6 tremendous value in continuing the long-term studies.

7 In terms of, does our activity impact bears? On
8 all the things that we can measure -- so whether it's
9 weights of bears or whatever that we can measure to look
10 at, handle bears, versus non-handle bears -- there's
11 nothing that we can detect to suggest that it's having a
12 long-term impact on the bears, so whether you've been
13 handled only once for the very first time or 15 years, 15
14 times. And there's some bears -- Manitoba; not us -- but
15 Manitoba has caught some bears 15 times in its lifetime.
16 That's a . And the bear's still there, still alive,
17 still has weight, still all those information.

18 There's nothing that we can measure apart from,
19 as I mentioned, the disturbance factor, if we tried to get
20 a bear out of the den and it left the denning area. That's
21 the only thing that we can find long term in all the
22 research. So we don't believe that there are long-term
23 impacts.

24 The only other thing -- and I hear it, and I
25 understand it, and the concern is, is the drug in the meat?

1 People that hunt and want to eat it, they don't want to eat
2 meat that's from a drugged polar bear. They say it tastes
3 different. I've never eaten polar bear. I probably never
4 will eat polar bear. Studies have been done from an actual
5 chemical side of things -- not the taste of polar bear
6 meat -- but the chemicals are out of the body within about
7 48 hours. So sort of 48 hours after, any detectible trace
8 of that drug is gone.

9 Now, that doesn't play to how it tastes, but
10 that is a concern of communities, and we are cognizant of
11 that. We are aware that, yeah, that is an issue for
12 people, that polar bear meat, they don't like eating polar
13 bears that have been drugged.

14 We keep the number of bears down. We minimize.
15 As I said, we don't handle 200 to 300 bears a year. We're
16 catching a fraction of that now. We're trying to do just
17 the minimum to allow us to answer the questions that we're
18 being asked that require us to handle bears. If other
19 techniques come along that we can improve that even better,
20 we will be looking at that. We will be, you know, looking
21 at ways to reduce further or change the way we get
22 information.

23 But it comes -- you know, we're asked to provide
24 information to answer certain questions that at the moment
25 can only be answered by handling bears. So we try to

1 minimize that, do the best we can, but it doesn't satisfy
2 everybody. So it may not be the answer you want to hear,
3 but it's the best that we can do.

4 I mean, if we give it up altogether, then people
5 have to be prepared that we won't have the answers for a
6 of questions. So is it important to know that the
7 weights that I showed you have declined? If you don't
8 think it's important, then you don't have to handle bears.
9 But if you need to know that number, you want to know how
10 much are bears weighing now, you're only going to get that
11 by handling them to get their weights.

12 If it's important to know how bears move, the
13 only way you're going to get that now is ting on these
14 satellite devices. Maybe down the road you won't have to,
15 but currently that's the only way now we can get that
16 information.

17 So it comes down to sort of management
18 questions. What do people want? What are the questions
19 that they want answered? And that dictates largely what
20 sort of techniques we do or do not use.

21 you.

22 THE CHAIR: you, Nick.

23 A follow-up that you had mentioned before is,
24 you know, bears can potentially be acclimatized to
25 behaviour, and as you've heard Arviat and Whale Cove talk

1 about public safety and bears coming into communities, that
2 does happen in Churchill somewhat yet and did happen very
3 much so with the dump before. But through the tourism
4 industry there's still the dog issue where bears are
5 attracted to dog teams for tourism purposes. I think it's
6 still going on there. And this might be a drawing factor
7 to communities with dog teams in their communities, that
8 they're acclimatized; when they hear a dog team, it means
9 food.

10 So I would just like to get your opinion on
11 that, and if there could be any deterrence done with those
12 bears in Churchill that are coming up the coast north to
13 a damper on that. You know what I mean?
14 you.

15 . LUNN: you.

16 There hasn't been a of work on
17 acclimatization of bears. I mean, I know -- at least in
18 Churchill -- you're right; when there was a Churchill dump,
19 an open dump, there were 30 to 40 bears that would go to
20 the dump, and they would go there faithfully every year.
21 And, in fact, I did my master's degree looking at bears
22 that went to the Churchill dump.

23 And it was so ritualized that all the bears had
24 a particular spot that they went to around the dump. So
25 when they weren't feeding at the dump, they'd walk away,

1 and they'd each have a particular spot around the dump that
2 they would rest overnight. And they never changed. They
3 went to that, and every morning they all got up at the same
4 time, long before the garbage truck came from town to the
5 dump. So they were either hearing it coming that I
6 couldn't hear it coming, or they got so used to it that it
7 just was engrained; we get up and we go to the dump when
8 the garbage truck arrives. So there's no doubt that they
9 do get acclimatized.

10 The degree of the problem, no one's doing any
11 work on that. The tourism industry, as you will probably
12 know, there is a tourism industry with tundra buggies.
13 It's restricted to a small area where the bears are, but
14 there's no doubt that those bears that are in that area,
15 they know tundra buggies. They're not afraid of tundra
16 buggies. When the buggies come in, they get up and they
17 walk. And some will approach the buggies and stand up, and
18 the tourists like that.

19 So, yeah, the tourism industry is definitely
20 based on, you know, bears being acclimatized to at least
21 the movements of tundra buggies. Some will come to
22 vehicles, some won't. I mean, one argument is if the bears
23 don't like it, they can leave, which is true. There's
24 nothing prevents a bear in the tundra buggy area from
25 moving away, but they don't seem to be stressed. Most of

1 them that stay have become acclimatized. They know about
2 the tundra buggies.

3 The dog team one. I only know of one
4 individual -- I'm not saying there aren't more, but I only
5 know of one individual who keeps dog teams in, I guess, a
6 prime area along the coast of Manitoba. And, yes, he
7 provides -- that's where he stakes his dogs, and he does
8 feed them there, and he feeds them frozen chunks generally
9 of seal. And that does bring bears in, and tourists do go
10 to see that. That's the only one -- I only know of one
11 person that does that of all the dog teams.

12 I know that in the past Manitoba has tried to
13 stop that and charged the individual, but there wasn't a
14 conviction in the court. So that's about all I can say
15 about that. I don't think it's a widespread activity. I
16 don't think all the dog teams -- some of the dog team
17 owners are making a living with their dog teams. I don't
18 think they knowingly want to bring bears into their
19 enclosures and lose their dogs.

20 Is there a way to deter that? Are bears getting
21 used to the sounds of dogs and people, and then they move
22 up the coast and they've lost that fear? Again, I don't
23 have any data one way or the other. I mean, it's sense
24 that they probably are used to sounds of people. They are
25 curious, you know, they're used to dumps. They have dumps

1 in Churchill, they have, you know, places in Arviat. You
2 have people out on the land hunting, fishing, storing food
3 outside. Bears are attracted to smells.

4 I'm not sure I really have an answer for your
5 question other than recognizing that, yeah, it is a big
6 problem, and human safety is a problem, and we recognize
7 that

8 you.

9 THE CHAIR: you, Nick.

10 One more thing -- more questions. The next
11 one is I think you started out with the target population
12 of 1,200 when your studies began, or that was the
13 population. What is a healthy population for the Western
14 Hudson Bay? What level, in your opinion, is a stable
15 number, a healthy number for the total population?

16 . LUNN: Well, that's a loaded question
17 that, really, I'm not sure has an answer because part of,
18 we can talk about climate change and decline of sea ice
19 and, you know, the impacts on bears. And, you know, it's
20 very difficult to come up with a, quote, "healthy number"
21 if a population is in decline. But you can also talk about
22 things such as social carrying capacity, which might be
23 less than what the biological carrying capacity could or
24 would be.

25 So, you know, in terms of Hudson Bay, a

1 really depends on what is the management? When I
2 started -- and 1,200, you're right, that was a population
3 estimate. That wasn't a target. But at one point there
4 were MOUs in Nunavut where the target population size was
5 1,400. That's what people wanted or thought that there
6 could be. I mean, it's a changing thing. I don't have an
7 answer of what is a good number because the environment, to
8 me, is changing, and we don't have a -- we don't have a
9 good handle on how it's changing and the rate of change.
10 Other than sort of monitoring sea ice breakup dates, we
11 don't have a good handle on the biological carrying
12 capacity. People aren't studying a of what needs to be
13 studied at the oceanography of Hudson Bay. That work isn't
14 being done.

15 So being able to say 800 is a good number or
16 1,000 is a good number or 500 is a good number, I don't
17 have a means to tell you what that number is because the
18 data doesn't exist to really say what it is. But, you
19 know, there are certainly issues of, you know, social
20 carrying capacity. Some of these newer models of looking
21 at risk assessment you can run a variety of scenarios of
22 different harvest levels, of a different target population.

23 If we wanted to have 2,000 bears in Hudson Bay,
24 what would it take? What would we have to do? If we
25 wanted 500, how could we harvest? So there are ways to

1 sort of help guide those decisions, but I don't think
2 there's a magic number that says Western Hudson Bay, the
3 best number is this, or Baffin Bay, the best number is
4 that. It's a combination of factors, and you have to
5 weigh, you know, public safety concerns, you have to look
6 at, you know, what the population -- what the science says
7 maybe the population is doing, what the community says --
8 there's so many pieces of information that it's not like it
9 was.

10 I guess I often refer to the good old days
11 before sort of all climate change impacts where you went
12 out and you calculated a number and you applied four and a
13 half percent, and you said: There, there's your TAH. And
14 you forgot about it for 15 years. I think things in some
15 populations in Western Hudson Bay, I think things are
16 changing, and I don't think you can afford just to simply
17 do that anymore. But I can't tell you what the best number
18 would be.

19 THE CHAIR: Okay. you.

20 My final question is, in your actual research
21 you're doing -- and since we're dealing with the population
22 that does spend a lot of time and affects Nunavut -- just
23 wondering if you have considered or you have in the past or
24 will in the future use Inuit and the people from
25 communities in Nunavut in your research when you do your

1 research.

2 you.

3 . LUNN: We haven't yet. No, we haven't
4 incorporated taking Inuit people out with us. Our
5 helicopter is small, so that's one thing. We have a small
6 field crew.

7 The other thing is that where we work is we're
8 working in a national park, and just like the Nunavut
9 Wildlife Management Board, there's also Wapusk Management
10 Board that has scientists and has local people and has
11 First Nations people. And they want to go out. So it's
12 sort of we can't take everybody out with us. So, no, we
13 haven't taken people out.

14 We've usually taken more people from the
15 Manitoba area out with us, but it's not something we do
16 routinely, and it's simply a fact of the helicopter fits so
17 many people in it, and we can't bring -- it's not something
18 that we have a field camp per se where we go out and then
19 we can ferry people back and forth to a bear that we have
20 down. We just don't have that capacity. And we're not
21 doing aerial survey where we just get a charter aircraft
22 and get everyone inside and fly.

23 It's very, you know, requires a small machine so
24 we can get into some of these tight spots. So it's just --
25 so far, hasn't facilitated -- I've been asked before, and I

1 have said I would consider it, but to date I have not taken
2 anybody from a Nunavut community, brought them down to
3 Churchill and have them come out.

4 THE CHAIR: Okay. you.

5 Any other questions? Caleb.

6 MR. SANGOYA: you, man.

7 I want you to know that I'm not against anyone.
8 I'm not prejudiced or racist, and I'm not rebellious
9 against any governments, but as a Board member, I'd like to
10 hear complete truth with no part of falseness in it.

11 So the researchers -- I shared this in 2013 --
12 people like David Suzuki aired shows and documentaries all
13 over the world about polar bears losing so much ice the way
14 it walked over the ice because it's starving. This is
15 false.

16 My first question is, what have you done
17 regarding those people who give false information on our
18 polar bears, first of all?

19 The other one, researchers often say that we're
20 losing a of ice, and so polar bears are in danger. And
21 as an Inuk in the north, this is not true. Up in
22 Lake Hazen, part of that area I've gone to, the ice never
23 goes away. There's no bears there. s of ice, no bears.

24 But where the ice breaks up in the summer, in an
25 area where the ice breaks up in the summer, then that would

1 affect the polar bear. But why are polar bears fatter in
2 the summer and more active in the summer when there is no
3 ice? It's actually the opposite. They become thinner and
4 lose weight when there's a of ice.

5 Also, with the research, you do not include --
6 when it's getting darker and in April when they're mating,
7 when the seals have their pups, they start going to the
8 patches of ice. This hasn't been a part of your research.
9 And wind direction changes wintertime and springtime. We
10 often see wind direction according to the season, and this
11 also affects where polar bears migrate. They go against
12 the wind. They tend to travel more against the wind, and
13 they are more at the same place when there's less wind. So
14 what we've been around for 4,000 years, and the non-Inuit
15 who come up for a short time and carry their weight as
16 though we have less truth or knowledge, and so this bothers
17 me.

18 Inuit knowledge, if the research is done, if we
19 did our own, it would be better, but we do not have the
20 finances. Researchers, scientists have so much more
21 funding, and in order sometimes to gain financially, they
22 give false information. I shared this same thing in 2013.

23 Have you helped fund other scientists, or have
24 you done anything about all the false information,
25 misconceptions that's been shared around the world on our

1 lands and wildlife?

2 THE CHAIR: you, Caleb.

3 Nick.

4 . LUNN: A of questions extreme
5 statements that are incorrect and broadcast it as if it
6 applies everywhere. And you may or may not have seen
7 recently there was an Instagram of this starving bear, and
8 it was out there and said this is the face of starving
9 bears in climate change.

10 And you're right; the fact of the matter is we
11 know very little. We can see a bear very thin. We don't
12 know. Nobody knows why it was thin. Maybe it was sick,
13 maybe it just happened not that year being a good seal
14 patch so it came ashore in very poor condition. And if it
15 survives, maybe we'll get that -- so I agree that there's a
16 of misinformation by groups that want to further an
17 agenda, whether it's to stop sealing or stopping
18 harvesting, or the end of polar bear is coming, we need to
19 do things.

20 That is a very wide circle. It's very difficult
21 because a of the times. I personally don't even see
22 any of that stuff. I don't hear it. I don't move in those
23 circles. There are meetings -- and Rachel might be able to
24 speak to this -- Canada collectively attends a number of
25 these international meetings, arrange dates or meetings,

1 and Canada typically always brings a strong indigenous
2 delegation along with them to get the messaging across.
3 And I think collectively Canada does a good job at trying
4 to dispel a of the misinformation that's out there.

5 The harvest in Canada is constantly under
6 criticism that we shouldn't be harvesting bears; right?
7 And Canada collectively has been defending. And even
8 scientific groups, the Polar Bear Specialist Group, harvest
9 is not a concern. It's not a threat. And we've come out
10 and supported that.

11 Unfortunately, we can't control what individuals
12 may or may not say or the pieces of information. Can I go
13 out and be critical and abut every single piece of false
14 information that is out there? No, I can't. I don't have
15 the time to be able to do that.

16 But in response to that recent Instagram of that
17 starving bear, there were s of inquiries of our
18 department, and we actually wrote, you know, a response and
19 set the record straight that we have no idea, you know,
20 that we didn't think it was a climate change impact because
21 it happened in Baffin Island where there are close to 3,000
22 bears, and that's the only one. I mean, if it was a real
23 climate change impact, how come there weren't more being
24 reported? It was a single one. So where we can, we will
25 correct people.

1 But there's too many. There are too many people
2 out there that use information and say either part of it,
3 you know, part of what was said without providing the full
4 context to, you know, further their message, you know. And
5 those groups will always be there. Those individuals will
6 always be there, and it's difficult because we're always
7 fighting an uphill battle.

8 Personally, do I do that? No. I have nothing
9 to gain coming here and providing my research. I'm not
10 gaining extra money. I would like to be one of those
11 research scientists that has s and s and s of
12 money to do my research. The fact is I don't. And, you
13 know, I have a very, very small budget. My budget is
14 probably less than the number that ikus was telling me
15 this meeting might cost. I have a very limited budget. I
16 don't have the luxury to go out and do these sorts of
17 things, and I don't go out soliciting money from groups by
18 saying: The end of the polar bear is coming, please give
19 me more money so I can continue doing that.

20 I go out and do my research. I have to be
21 impartial. I work for the government. I provide the best
22 information that I can, but I can't control how it gets
23 used by others. I can correct it when I have an
24 opportunity, but I can't correct it all. And I think
25 that's probably true for a of scientists that go out

1 and do research; they correct it when they can, but they
2 can't control it all.

3 THE CHAIR: you, Nick.

4 . LUNN: And I think Rachel might have more
5 to add.

6 THE CHAIR: Rachel, go ahead.

7 MS. VALLENDER: Yeah, if I could just add a little
8 more. I mean, I agree with what Nick said. I also agree
9 it's a huge problem with people miscommunicating
10 information about polar bears.

11 Our group at the Canadian Wildlife Service --
12 like, I've worked on this for almost a decade now, and
13 we've spent a huge amount of time working with the
14 jurisdictional governments and Inuit organizations to try
15 and correct that misinformation that's out there. You
16 know, we as a department really believe in the
17 co-management system, we believe in using TK science to
18 management decisions, and we've travelled all over the
19 world to try to get that message out there, but it's
20 something we're going to have to keep doing. But we
21 recognize that, and we're committed to keep doing that. We
22 work on a really regular basis with representatives from
23 the four Inuit organizations and the governments, and I
24 think it's going to keep being an uphill battle, but
25 certainly we're committed to keep getting appropriate

1 messaging out there.

2 THE CHAIR: you, Rachel.

3 Charlie.

4 MR. INUARAK: you, man.

5 As you mentioned earlier about what you would
6 like to see, we are this way when we have a big meeting
7 with people that have the knowledge and then the
8 researchers and their knowledge, we try to hear them both.
9 And we follow more the researchers' findings, and we hold
10 our traditional knowledge in reserve.

11 I would like to see more in the Kivalliq Region,
12 the hunters be more involved or even the HTOs to work
13 together closely. And you have the reports that come and
14 are more collaborative together. When you have
15 different views with traditional knowledge and science,
16 they should mesh more. And we hold the scientific research
17 more than the traditional knowledge even though we have
18 more information in the Kivalliq Region. The hunters, if
19 you work closer and more collaboratively with them and ask
20 them how the research should be done, whether it's counting
21 or population estimates, if you work together more closely,
22 there's always going to be an organization that is
23 available for that. I would like to see that.

24 you, man.

25 THE CHAIR: you, Charlie.

1 I think more of a comment, but if you'd like to
2 respond or not.

3 . LUNN: No, I know that this department
4 shares that view of sort of getting science and traditional
5 knowledge sort of working together to come up with common
6 answers. And I know that -- I mean, Rachel may want to
7 speak to it because it's on the management side. We know
8 we money and time trying to get that moving. I don't
9 know the status of that, trying to get that type of working
10 arrangement together.

11 I mean, it was nice to see for the aerial
12 surveys that David presented and the GN has led where,
13 yeah, there was direct involvement participation with
14 community members in helping to design places to go. So, I
15 mean, we're moving that direction. I think that's where
16 people want to go. I think it's just one of those things
17 that takes time and just have to keep working at it, and it
18 will come little by little, and we'll get there.

19 THE CHAIR: you, Nick.

20 David K.

21 MR. KRITTERDLIK: you, man.

22 For this Board, majority of us are Inuit, and as
23 Inuit I guess we all know what IQ is, the IQ that we got
24 from our ancestors, from our parents.

25 What I want to say is this: Being a board, a

1 public board to approve or look at, disapprove or approve
2 some situation in regard to wildlife management, we as the
3 Board members, it's very hard for us, majority of us being
4 Inuit, to weigh the balance between scientific and IQ. And
5 our responsibility, our mandate is to a decision on
6 the best possible for the whole table all around. And
7 whatever technical knowledge, scientific knowledge we hear
8 that are presented to us at every meeting from our
9 government, from our other organizations. We may be saying
10 that -- a of people say it this way, we're against the
11 technical and scientific. It's not that. It's just that
12 we need to start looking into or working towards balancing
13 the IQ and the scientific, because what we've been trying
14 to do in Nunavut ever since Nunavut was created, we need
15 that balance between that IQ and scientific. We want to do
16 that.

17 So I just want to sure that all the
18 technical scientific knowledge and our communities and the
19 public know that this Board had to weigh everything to
20 a decision.

21 you.

22 THE CHAIR: you very much, David. od
23 comments. Caleb.

24 MR. SANGOYA: It's my final comment. I will not
25 mention it again.

1 I had a great-grandmother or great-grandfather
2 Katchu (phonetic), and he has this song that he wrote about
3 polar bears not being scarey anymore. You can even have
4 one as a pillow. And he's happy now.

5 Right now in the Kivalliq Region in Arviat I
6 want to go sleep over to go hunting. I can't sleep out
7 there because there's polar bears and grizzly bears. I
8 know Inuit don't have that habit of being scared to go
9 sleep out on the land. But as an Inuk I want to see my
10 future children and grandchildren they be able to sleep
11 outside anywhere on the land. Right now it's not like
12 that.

13 It is not our habit to sleep inside a house all
14 the time. And in the past they would be able to sleep
15 outside anywhere, even if they were adult. Right now you
16 can't do that. Even though the polar bear we're told are
17 in decline, but in this area there's hardly anybody that
18 just goes out hunting and relaxes out there, just to go
19 relaxing. I'm coming here to caribou hunt.

20 you.

21 THE CHAIR: you, Caleb. More of a
22 comment. Attima.

23 MR. HADLARI: you, man.

I know the expert is going to speak. Even if I
try to speak on something I don't know, I know Inuit

1 traditional knowledge, I know our youth that go out
2 hunting, they only use their knowledge when they go out
3 hunting. And researchers, I think this is the way it is.
4 It is unsure, and I want to hear things that are believable
5 when it comes to research results. And if you speak
6 confidently -- when we talked about traditional knowledge,
7 we do not guess. We know what we are saying, and it is
8 true what we know is true, and it's not guesswork.

9 When you're talking about research and you only
10 speak about parts of it, I don't know what you believe in
11 that, so it's hard to gauge what I'm hearing. And we're
12 going to decide on what is being asked. I would like to
13 have more confidence in the results that you are giving us
14 before you give it to us.

15 THE CHAIR: you, Attima.

16 More of a comment, again, Nick. Would you like
17 to say anything?

18 . LUNN: Well, I guess my response to that
19 is, if you want to know how many polar bears there are, the
20 only way you can do that is to count every single polar
21 bear. So if I want to know how many people are in this
22 room, you would have to go around, and you would count. I
23 don't know how many people are in this room, but to get an
24 exact number, to be absolutely confident, you'd have to
25 count every single polar bear there is. And that's not

1 possible.

2 So these methods, whether it's an aerial survey
3 or mark recapture, the scientific methods, they do the best
4 job possible based on whether you fly and count in certain
5 spaces, transect widths, or whether you sample a number of
6 bears. And they end up giving you a point estimate, 842,
7 but they also give you that error estimate because you're
8 not counting -- you can't possibly count every single polar
9 bear in Western Hudson Bay. The area is too big. And
10 bears, as we've heard, they can be in dens, they can be
11 swimming, they can be here and there. So you're never
12 going to get from science an absolute that there are
13 exactly 842 polar bears here.

14 That's the best point estimate that we can get
15 from the aerial survey that was done, and it comes with
16 this wide range. And that's just a fact of the way science
17 is. Unless you can count every single animal, and you know
18 you have, that's the only way science can give you an exact
19 number that you would be absolutely confident in.

20 You can minimize that error of variance either
21 by handling a more bears or making your transect lines
22 tighter. You can do and try and narrow that confidence
23 interval, but without counting absolutely every single
24 bear, you can't come up with a single number and say that
25 is it. We can give you the best estimate, and this is how

1 certain we are about it, but that's part and parcel of
2 science.

3 Again, I can tell you how many people are in
4 this room because the room is small, and as long as I know
5 how to count, I can count every single person. But if
6 someone told me how many people live in Rankin Inlet, I
7 could guess or I could knock on doors and try and come up
8 with an estimate, but unless I spoke or saw every person
9 that lived in Rankin Inlet, I wouldn't be able to give you
10 an exact number. I might be able to come close.

11 So I understand what you would like. I
12 understand that decisions are difficult, especially in a
13 situation like this where perhaps traditional knowledge is
14 saying one thing and the science is saying something else,
15 but the science can't be any more exact than what we can --
16 than what we provided. It's a number with a variance
17 around it. We simply can't count every single polar bear
18 there is.

19 THE CHAIR: you, Nick.

20 Attima.

21 MR. HADLARI: you, man.

As you said earlier, the females that are pregnant are not getting as many cubs, and you do them to sleep even when they're pregnant. Do the drugs that you use -- are they affecting the fetus, the drugs that you're

1 using to them to sleep? You mentioned earlier that
2 they are not dangerous for the polar bears, but I think the
3 fetus or the embryo -- I'm sure not all of them would be
4 born after being affected by the drugs that you are using
5 to them to sleep. I know that we don't have all the
6 data available for that to say for sure whether that drug
7 is safe or not.

8 you, man.

9 THE CHAIR: you, Attima.

10 Nick.

11 . LUNN: Yeah, the drugs that we use now,
12 Telazol or Zolatol, depending on where you buy it, has been
13 used since the late 1980s. It's used in a variety of
14 species. It's not a polar bear drug, per se, so it's used
15 elsewhere. And I'm not aware of any information that
16 suggests that using it reduces productivity so that you
17 have fewer cubs or whatever species we're talking about. I
18 don't know of any information that would suggest that
19 that's a problem so that's the best that I can answer. No
20 one's doing studies specifically on pregnant female polar
21 bears in dens and taking measurements of growth rates of
22 fetuses in a den and those types of studies. That's way
23 too invasive. No one is doing that stuff. There's no
24 information suggesting that it is an issue, but that's as
25 best of an answer as I've got.

1 THE CHAIR: you, Nick.

2 Any other questions from the Board? We're
3 getting close to lunch, but we're going to an
4 exception here. We have a process in place where the
5 public can ask questions later, but the MLA for
6 Rankin Inlet is here, and she has other commitments this
7 afternoon, and we're going to an exception and allow
8 her to ask questions.

9 So, Cathy, can you go to the mic and state your
10 place, please.

11 SUBMISSION BY MS. TOWTONGIE

12 MS. TOWTONGIE: you, man.

13 My name is Towtongie, Cathy Towtongie.
14 you for giving me the opportunity. I really would like to
15 speak.

16 I'm a seamstress as a woman and, in the
17 traditional way, I ching. I use everything from
18 the whales, seals, and wildlife. I know right now I'm not
19 really anything.

20 But for our males I would like them to be aware
21 that the polar bears that are caught in different months,
22 when you're going to ching out of it; October.
23 It's the same; in August we hunt caribou for the fur. So
24 if you could change it to a different time, open the
25 season. As a seamstress and you are trying to tan the hide

1 of a polar bear that we're receiving, it's not the same as
2 it used to be.

3 And when we're working on the hides, it's very
4 evident that their cubs were taken away. When you're
5 dealing with the furs and when their cubs are gone, the fur
6 starts molting, and they're no good for making kamiks
7 anymore. It's something that we've noticed when we hear
8 about the polar bears being to sleep and how it's
9 affecting the polar bear's hide. And in the summertime,
10 they do get sunburn.

11 And then the next one; I had parents that really
12 knew traditional knowledge. The fat of the caribou, I've
13 noticed myself, in the middle when they turn it into a
14 liquid and it would be used as a salve for a cut or things,
15 it's traditional medicine, and if you use it for your skin
16 on your face, it affects it. I've seen a person who used
17 the oil of a polar bear fat on their skin, and they're,
18 like, their skin is very young. I know you know there are
19 a of the uses for them.

20 I know that they don't do research on the
21 diseases that are being affected by polar bear. I found an
22 Elder who got sick with cancer. When they harvested a
23 polar bear out of season, he asked his son-in-law to get a
24 polar bear and get the gall bladder. We've lost a of
25 traditional knowledge, medicine knowledge. I know that.

1 You know this for a fact. But you don't know what we
2 remember.

3 As you mentioned earlier, the easiest way to
4 find out from the local people, which way to go for polar
5 bears. My father told us, if you go this way, that's where
6 their food is. If you go that way to the northwest, not to
7 the east; if you follow them, you will see them. I've seen
8 my father walking, and he walked to Coats Island without a
9 knife, and he harvested a polar bear when it was -- he
10 wanted us to learn.

11 I said I was going to be brief. It's something
12 I remember why their diseases or the uses of polar bears
13 are not being used, and us seamstresses should not be
14 forgotten. The seasons are not the same, and the female
15 polar bears, if they take their cubs away, you can tell.
16 The body continues to produce things for the cubs. They
17 start molting. It's the same way with people and with
18 polar bears. If you stop the process of the fetus growing
19 and you them to sleep, it affects them.

20 I'm going to have a meeting this afternoon, so I
21 thank you for the opportunity for speaking. you.

22 THE CHAIR: you, Cathy, for your
23 comments and information.

24 We'll just maybe allow staff. Any questions
25 for -- go ahead, Vickie.

1 NUNAVUT WILDLIFE MANAGEMENT BOARD STAFF QUESTIONS AND

2 COMMENTS

3 MS. SAHANATIEN: you, . I'm going
4 to have a few questions.

5 So the first one, just to find out a bit more
6 about nondetriment findings. I'd just like to -- so we can
7 know what triggers a new assessment of a nondetrimental
8 finding, you referred to new total allowable harvests maybe
9 would trigger that, or maybe it doesn't. Maybe they come
10 periodically every five, three years or whatever. So if
11 you could let us know what the process is and how it could
12 affect Western Hudson Bay with the new TAH that decision
13 that we had in December and while we're looking at it right
14 now as well.

15 you.

16 THE CHAIR: you, Vickie.

17 Rachel.

18 MS. VALLENDER: Okay. Yeah, great. s for
19 the question.

20 So these nondetriment finding assessments are
21 carried out by the CITES scientific authority, which is
22 part of Environment and Climate Change Canada and not my
23 group, but I certainly work with them.

24 So they have what is called a standing
25 nondetriment finding where they're constantly looking at

1 changes to management in general. And it's on the
2 Environment Canada website. But, basically, every time
3 there's new information they will update as to whether it
4 changed and the issuance of permits for trade is necessary
5 or not.

6 And as I mentioned, they take into account both
7 the available, all the scientific data that's available, as
8 well as all the traditional knowledge, and as also a
9 management objective. So, for example, if a management
10 authority sets an objective to increase the population,
11 then they would consider that in their assessment. And,
12 ultimately, they're trying to determine if trade is
13 sustainable. And so sort of the covariate of that, if you
14 will, as well is, is harvest sustainable?

15 So I don't know that they've started a process
16 at all for the recent change in the TAH. They would be
17 looking at that, taking into consideration all of the
18 available information. If they determined that trade
19 continued to be sustainable, nothing would change. If they
20 determined that trade was no longer sustainable, that's
21 when they would stop issuing permits for Western
22 Hudson Bay. And so we did see that for Baffin Bay between
23 2010 and then this past summer where they didn't permit
24 international export from that subpopulation. And that has
25 now been lifted based on new information.

1 So if the Board wants more detailed information
2 from the scientific authority, I could certainly you in
3 touch, but that's kind of the general process of how it
4 works.

5 THE CHAIR: you, Rachel

6 vickie.

7 MS. SAHANATIEN: you. And I'll perhaps
8 request that just so we have that at our hands.

9 So my second question is related to history,
10 probably for Nick to answer. But you referred to the early
11 impacts of harvesting in Manitoba and generally, I guess,
12 throughout the Northwest Territories on polar bears when
13 there were no regulations and particularly in Manitoba, so
14 referring to Western Hudson Bay here, how the closing of
15 the York Factory reduced harvest impact and also closing of
16 the military base, and then the Manitoba regulations came
17 into effect.

18 So I guess what I'm just wondering -- because I
19 don't know what level of hunting was happening out of the
20 military base -- were they permitted to do that if there
21 were no regulations? If you have that information. You
22 might not.

23 And also, York Factory itself, I'm assuming it
24 was a Hudson Bay post where the polar bear hides were taken
25 for sale, and I'm assuming there was some encouragement of

1 hunting in order to get those. And again to provide the
2 historical context of, I guess, the potential population
3 reduction in the past before the management came into play
4 as a way to also understand the rebound that has happened,
5 I guess, since then and the observations that people are
6 bringing forward.

7 you.

8 THE CHAIR: you, Vickie.

9 Nick.

10 . LUNN: A of that early history is
11 more anecdotal. How many did the military take? No one
12 knows. No idea. There are stories of, you know, people
13 doing whatever the military did at that time, and there
14 were stories of shooting bears, I mean, because no one had
15 to report anything, so the size and the complexity, how
16 much, when, no one really knows. It's anecdotal
17 information.

18 York Factory, yes, the Hudson Bay Trading Post
19 that closed in the late 1950s. So there are, through the
20 Hudson Bay sort of trading records, how many polar bear
21 hides were traded each year. So a of the early stuff
22 is anecdotal and assumed to have been occurring, but the
23 extent of it because it was unregulated and, you know, no
24 one had to report it, the magnitude of it probably will be
25 forever unknown.

1 THE CHAIR: you, Nick.

2 vickie.

3 MS. SAHANATIEN: you.

4 And just one more question. Again, it's a broad
5 question just so everyone can understand, because we use a
6 of terms all the time. "Precautionary approach."
7 You've referred to that a few times, and other
8 organizations did too. So it would be, I think, helpful
9 for everyone if you could explain what that is. And I
10 guess it's within the context of Hudson Bay.

11 And I'm not sure if you want to provide a
12 comment on, I guess, our last decision we applied 4.5
13 percent off-take from the point estimate, and would you
14 consider that as within a precautionary sort of level, and
15 if not, what would you suggest? I don't know if you can do
16 that right now, certainly, but that kind of thing. So how
17 should we be looking at the total allowable harvest within
18 that context of precautionary approach and the percentage
19 that we've applied in December? you.

20 THE CHAIR: you, Vickie.

21 Nick or Rachel.

22 . LUNN: I'll take a stab at it.

23 The four and a half percent, it was developed
24 through a number of models, polar bear reproductive rates.
25 Population estimates back sort of in the late 1970s, early

1 '80s the data was collected, and it was worked up into the
2 1980s. And it was basically looking at what would be the
3 maximum sustainable harvest you could take from a
4 population. What sort of ratio? A one-to-one female --
5 what sort of level could you take?

6 And one of the assumptions of that -- and 4 and
7 a half percent is the number that came up, males to one
8 female. And if you took more males than that, I mean,
9 eventually you deplete males, so you don't have -- most of
10 the females aren't being bred. So you don't want to just
11 exclusively just hunt males. You can't do that. And if
12 you took out just females, you would end up with no bears
13 to produce the cubs. So there have to be -- and the
14 attempt was to find out what's the best ratio to do.

15 It was developed at a time when the environment
16 was considered stable. People knew that you had good years
17 and bad ice years, that sort of stuff. But there wasn't at
18 the time a unidirectional change in the environment that
19 we're seeing in some populations now with the climate
20 change, loss of sea ice. So that sort of a change that the
21 environmental has the natural part goes up and down. But
22 there's this long-term, over time, change.

23 So it was assumed that the environment was
24 stable, and it was assumed that polar bear populations
25 themselves was stable. So you had a healthy polar bear

1 population, and all you really needed to do was just track
2 your harvest, and so you start off at 4 and a half percent
3 and then you adjust it up and down as you went along.

4 But the things that were required was a
5 population that was stable itself -- it wasn't a population
6 in decline or a population increasing -- and that the
7 environment itself was stable, that you weren't seeing huge
8 changes in some of the things that we're seeing with
9 respect to sea ice in, say, places by the Beaufort Sea or
10 Western Hudson Bay. So that's where the 4 and a half
11 percent came from. And it has been applied for many years,
12 and it seems to work generally well. There are many
13 populations, you know, in Canada where the impacts of
14 climate change, we're not detecting them, and people have
15 made those comments that people aren't seeing it.

16 There are few populations where we can
17 definitively say that there are these concerns with climate
18 change impacts on bears. Western Hudson Bay we're seeing
19 impacts, Southern Beaufort Sea we're seeing impacts, we're
20 seeing impacts in Southern Hudson Bay. Kane Basin, which
21 is just north of Baffin Bay, it was an area of multi-year
22 ice that seals and bears didn't seem to like. Climate
23 change is now shifting it to one where it's more annual ice
24 that seems to be better for bears. And Kane Basin is an
25 example where the number of bears from the science, anyway,

1 is increasing. That's what the science has said; this
2 population is increasing.

3 So not everything is doom and gloom, but that
4 4 and a half percent was based on a population that was
5 stable, wasn't going through these environmental
6 bottlenecks, and the environment itself was stable. So the
7 4 and a half percent you can't necessarily apply across the
8 board to every single population because they're not all --
9 they don't meet those assumptions that the 4 and a half
10 percent was developed under, you know, back in the 1980s.

11 So the precautionary approach is more along the
12 lines of when you're considering setting it, don't
13 necessarily -- when there's a bunch of stuff that is
14 unknown, you know, things could be changing, and we're not
15 certain -- don't necessarily just assume everything is fine
16 and maximize that harvest. So we would say a precautionary
17 approach would not be just applying 4 and a half percent
18 across the board.

19 What the right number would be, I mean, it's got
20 to be balanced. There have to be management objectives.
21 You can't sort of set a harvest level if you don't have a
22 management objective. I mean, if you said you wanted 1,400
23 bears here, you would set your harvest differently than if
24 you said you only wanted 200 bears here. If you wanted 200
25 bears here, well, then, there's room to harvest; right?

1 You could have a higher harvest than if you wanted to
2 maintain it at 800 or you wanted to it grow to 1,400.

3 So one of the key things is defining a
4 management objective or a target population size. And that
5 might be as simple as saying, 840 bears, that's what we
6 want, and then you can work around that.

7 One of the, you know, advantages of this new
8 approach to harvest that was applied in Baffin Bay, you
9 know, is that you have those sorts of opportunities to now
10 do some modelling that uses environmental change. The
11 earlier models were based on getting a population number
12 and just assuming it applied across the board for 15 or 20
13 years and that nothing changed in between. So it was just
14 set and fixed.

15 This approach allows you some adjustments
16 so you could include in the model -- if sea ice was
17 declining at a certain rate, you could include that in the
18 model and move it forward and say, if we continue with this
19 harvest level and this is what's happening to sea ice, what
20 does that mean in the future?

21 So these new models are trying to assist and
22 provide advice on management decisions when you're dealing
23 with harvest. So precautionary is just, you know, don't
24 necessarily assume that everything is fine and we're just
25 going to go along at 4 and a half percent in a situation

1 where there's some evidence that the environment's changing
2 and, you know, some lines of evidence, but not all, that
3 there are potentially impacts on the bears themselves.

4 I don't know if that answers the question. I
5 think Rachel might have something to add.

6 THE CHAIR: ahead, Rachel.

7 MS. VALLENDER: Just a little something else to
8 add.

9 So I think, you know, in terms of whether our
10 department could accept that, I mean, I think you're
11 probably coming at that from the CITES angle, like, would
12 they consider that level to be sustainable? And so I don't
13 want to trump their process because certainly that's
14 something they have to carry out.

15 I will just note that, as a department, we have
16 supported removal rates of both lower and higher than 4 and
17 a half percent. That's not, like, not necessarily a solid
18 line for us. So our goal is not always to minimize
19 harvest, and it's that something we try and take into
20 account all of the available information, as well. And so
21 certainly, you know, our group at CWS would be working with
22 the colleagues in SNT -- so like Nick -- and working with
23 the scientific authority looking at scientific authority.
24 But as to what they ultimately will decide, I think it's
25 too premature to kind of say what they would think. They

1 haven't done that analysis yet.

2 THE CHAIR: Okay. you.

3 Quick, Vickie. We want to break for lunch.

4 MS. SAHANATIEN: Very quick. you.

5 That's very helpful, all your answers, and I
6 guess I wanted to thank you, as well, for that
7 presentation. I think it really helps fill out the context
8 for us about Western Hudson Bay polar bears overall, and I
9 appreciate you tying it together. It will be helpful in
10 our decision-making.

11 you.

12 THE CHAIR: you, Vickie.

13 All right. You're going to be on the block
14 after lunch yet, so we're going to break for lunch, and
15 then I think we've just got our legal counsel, and then
16 we'll start with communities around the table for
17 questions.

18 So we'll be back here at 1:15. you very
19 much.

20 (Proceedings Adjourned at 12:04 a.m.)

21

22 PROCEEDINGS ADJOURNED TO 1:15 P.M.)

23

24 THE CHAIR: Welcome back, everyone. you
25 for coming back, and I hope you had a good lunch.

1 So we left off, we were just about done our
2 Board questions. I think the last is from our legal
3 counsel. Michael, you're up.

4 MR. D'ECA: Qujannamiik, itsivautaaq.

5 My question is with respect to the management
6 side of the issues we've been talking about. I note that a
7 of the focus in the morning was on information and even
8 advice that aren't necessarily compatible with one another,
9 making the NWMB's decision difficult. But what I want to
10 turn to is what I think is an issue that there is a
11 consensus under the table, and that is the concern over
12 public safety.

13 Under the terms of the Land Claims Agreement
14 public safety can serve as the basis or at least part of
15 the basis for the NWMB's decision-making with respect to
16 limitations on Inuit harvesting for polar bears. And just
17 for everybody's information, that falls under the
18 decision-making kind of test under the Land Claim, section
19 5.3.3. And one of the elements that the NWMB can look at
20 is public safety in terms of what would be an appropriate
21 decision. And my question probably goes to Rachel, but
22 Nick may have something to say about it as well. I guess I
23 have a couple of elements.

24 First of all, does that issue inform your advice
25 to the NWMB, public safety? We know conservation is

1 obviously a big element, but does public safety work its
2 way into your advice? And, also, what jurisdictional
3 responsibility, if any, does Environment Canada have with
4 respect to addressing those kinds of very practical and
5 serious concerns? And whatever your response to that, in
6 any case, if you are working with the vernment of
7 Nunavut -- you mentioned a little bit about it, Rachel, in
8 your opening remarks -- but, you know, what measures are
9 you taking or working on or advising on? Just what actions
10 is Environment Canada taking with respect to that public
11 safety issue?

12 Taima.

13 THE CHAIR: you, Michael.

14 Rachel.

15 MS. VALLENDER: you for that.

16 Some very good questions in there, so I'll try
17 and go through your questions one by one.

18 So does public safety inform advice to the NWMB?
19 Certainly that's something we recognize as being a concern,
20 and I think that's -- you know, I can't ultimately speak to
21 the full departmental position. This letter was signed by
22 the assistant dey minister of both Canadian Wildlife
23 Service and the Science and Technology branch, so I'm kind
24 of speaking for them in some ways. But I think that is --
25 you know, we recognize that there's multiple sources of

1 information that the Board is going to have to consider.
2 And certainly, you know, in this subpopulation in
3 particular, the expertise within our department is very
4 heavily science focussed.

5 And I think -- so one of the reasons we didn't
6 an explicit TAH recommendation, which we have done in
7 the past for this subpopulation and for others, is out of
8 recognition that there are multiple things that need to be
9 considered by the Board, and we didn't really feel
10 comfortable ting down a hard number for that reason.

11 In terms of jurisdictional responsibilities, we
12 have -- I mean, I'm sure everybody here knows what the
13 primary responsibility for terrestrial species, which is
14 what polar bear is classified as in Canada, falls to the
15 provinces and territories and, of course, the management
16 system under the under Land Claims Agreement in the north.
17 So we certainly -- we, like, Canadian Wildlife Service --
18 and Nick may want to add some from his side, from the
19 Science and Technology branch, but we do work with the
20 jurisdictional partners and mostly provide funding.

21 So we have, for example, a contribution
22 agreement in place with the vernment of Nunavut which
23 gives them \$250,000 a year, and that's typically used for
24 monitoring. We've also supported a collection of
25 traditional knowledge studies in different parts of the

1 arctic. So that's probably how we can contribute sort of
2 on a more regular basis.

3 And I think for a situation like this where
4 decisions are not going to come to our minister, we would
5 just like to be involved in the process and have our
6 information submitted and considered along with everything
7 else that is in front of the Board.

8 THE CHAIR: Rachel, can I just ask you to slow
9 down a little bit for the interpreters. you.

10 MS. VALLENDER: Sorry.

11 And then in terms of action our department is
12 taking with respect to public safety. So we do a of
13 work at the circumpolar level. So Nick had mentioned
14 earlier we have this 1973 agreement on the conservation of
15 polar bears. That's a treaty in Canada that came into
16 force in 1976. So we have a very active conflict working
17 group under that agreement, involves representatives from
18 all of the five countries, including vernment of Nunavut,
19 vernment of Manitoba. And so that group is involved in a
20 number of initiatives. I was the chair of that group for a
21 little while and stay involved to a certain degree at this
22 point.

23 And so they are looking at, for example, best
24 management practices for deterrence techniques. And that's
25 whether the countries can learn different things from each

1 other. I would say that Canada is a leader in this and
2 that the program in Nunavut is a really successful one, as
3 well as with Manitoba, too. But we certainly can learn
4 from some of our colleagues in Alaska, for example, who
5 deal with public safety concerns as well.

6 And so from that we're sort of feeding back to
7 the jurisdictions on strategies or means to mitigate some
8 of those interactions. So again, if there was a specific
9 need for the department to act in a certain way, whether
10 that would be provide funding, it's certainly something
11 that would be appropriate to forward to CWS for
12 consideration, I would say.

13 I can't ever speak to budgets, certainly not
14 before we get our budget for the next fiscal year. But it
15 has definitely been a concern, and it's something we have
16 heard many times over the years.

17 So I don't know if Nick has anything else to
18 add.

19 . LUNN: No, I have nothing to add to that.

20 THE CHAIR: Okay. you, Rachel.

21 Michael.

22 MR. D'ECA: you, man. That's
23 it for me.

24 And thanks, Rachel.

25 THE CHAIR: Okay. you.

1 That concludes the Board's questioning, then.

2 Next in line is the vernment of Nunavut.

3 ikus, the floor is yours.

4 GOVERNMENT OF NUNAVUT QUESTIONS AND COMMENTS

5 MR. ISSING: you, .

6 I just want to start off by thanking Nick for
7 coming to this meeting, Environment Canada sending Nick
8 here. You know, this is something I think the vernment
9 of Nunavut and the Board and a of communities in the
10 Western Hudson Bay has been asking for many years is to
11 actually have the biologist here. And I think it has been
12 very productive. It's really good to hear from Nick. It's
13 really good sharing that information, and I think it's a
14 good exchange of information both ways from the communities
15 to Environment Canada so they have a better understanding
16 of the expectations from communities but, also, for them to
17 understand the nature of the work that Environment Canada
18 is doing in the Western Hudson Bay. That's just an
19 observation and a comment.

20 One of the questions I have is, based on the
21 work that Environment Canada and Nick specifically is doing
22 in Western Hudson Bay, as you mentioned, is looking at
23 habitat and how the habitat is changing of the bears and
24 how that might influence the productivity of the bears over
25 time.

1 And I know, , you this morning also
2 asked this question about carrying capacity of the
3 population and trying to set management objectives or
4 management goals for this population. And I think Nick
5 already answered it to some degree, but the question I have
6 is that, with the observations of declining habitat, bears
7 spending less time on the sea ice, would it not be better
8 to try and -- and especially the discussions that Michael
9 just mentioned about bear-human conflict, would it not be
10 better to manage this population at a lower level where
11 it's still abundant, where there's still maybe more
12 productive, having less bears in that population, and that
13 might address a of these issues.

14 I was just wondering what your thoughts are
15 about identifying a management objective that, as I say,
16 with a much lower target number -- let's, for example, say
17 500 or 600 -- and manage towards that and try and manage it
18 at that level with the objective of maybe creating a more
19 healthy population. That is some of the comments -- and
20 I'm asking that because that is some of the comments I've
21 heard recently in discussions around Baffin Bay is that the
22 high harvest in Baffin Bay between Greenland and Canada may
23 have resulted in that population staying quite healthy over
24 the period of time, in a period of time where there's
25 observations of declining sea ice due to climate change.

1 Just your thoughts around that.

2 THE CHAIR: you, ikus.

3 Nick.

4 . LUNN: Yeah, first of all, thank you very
5 much, ikus, for those kind comments of my attendance. We
6 try to come to these meetings, but it doesn't always happen
7 that way. You know, I know the last NWMB meeting on
8 Western Hudson Bay I was unable to attend because my father
9 had passed away, so we sent someone that wasn't able to,
10 you know, maybe answer all the questions. But, you know,
11 we try when we can, and we're available to come and answer
12 questions. Maybe we don't do it as frequently as we
13 should, but we are available. So thank you for those kind
14 words.

15 In terms of, you know, a lower number of bears,
16 that's certainly one -- definitely one management
17 objective, one way to look at the problem, and it's a
18 social carrying capacity issue. I mean, there's how many
19 bears, you know, will the environment support, but there's
20 also, as we've heard, a of safety concerns, public
21 safety concerns in communities. And one way to address
22 that that's entirely valid is, you know, manage for some
23 lower level of bears, a reduction, whether that's 500 or
24 600, to alleviate some of these concerns.

25 I think back in the early days, in the '80s when

1 the population was 1,200, the harvest was 55 bears, and I
2 think some of the perhaps lack of human-bear interactions
3 at that time was that there were a high number of bears
4 being taken before they got to communities, before they
5 came into places like Arviat. And with low quotas now I
6 think that's it difficult. You don't have as many
7 bears being intercepted, so more and more coming through
8 the communities. So it's certainly, in my opinion, one
9 strategy to deal with the issue is to manage for a
10 reduction.

11 But that comes with some level of, you know,
12 additional management oversight, you know, frequent
13 surveys, and they're being done now anyway, so they would
14 go hand in hand. I don't think you could certainly say
15 we'll just set it at a lower level and forget about it for
16 15 to 20 years. I think it would require a bit more
17 frequent monitoring, but that's being done by aerial
18 surveys. And, you know, if you're doing them every five or
19 six years you would quickly be able to determine, you know,
20 where you're at and how things are happening. And with
21 community-based monitoring harvest, I mean, there's a
22 wealth of information in the harvest data, you know, that
23 could be used to also monitor how the population is going.
24 So I don't see that as a -- as a bad thing, necessarily, as
25 one of the options that the Board might want to consider.

1 you.

2 THE CHAIR: you, Nick.

3 ikus.

4 MR. ISSING: you, .

5 I have quite a few questions for you on that,
6 but just to follow up on that -- and maybe Rachel might be
7 in a better position to answer that.

8 And I'm not suggesting that we manage for a
9 lower population. It's just I can see this happening in
10 other subpopulations in future is I know that
11 Environment Canada has expressed concerns with that
12 approach under SARA because it really conflicts with SARA
13 where under SARA management plans you're actually trying to
14 recover populations to historic levels, and managing for a
15 decline is problematic. So just from that perspective if,
16 in future, we identify we're managing for a reduction to
17 address concerns, how would that be addressed under SARA?
18 Would there be concerns under SARA, and would it result in
19 possibly NDF decisions?

20 THE CHAIR: you, ikus.

21 Rachel.

22 MS. VALLENDER: s, ikus.

23 So as to whether there could be concern under
24 SARA, that's a bit difficult for me to answer given that
25 I'm not in the SARA group; however, I will say -- and I

1 think maybe most people in this room know -- so polar bears
2 were listed as special concern in 2011.

3 The approach taken for developing a management
4 plan was to actually take a compilation of the
5 jurisdictional plans, recognizing that the populations of
6 bears and their status varies across the arctic, the
7 listing under provincial or territorial legislation varies
8 across the arctic. So we really, in that sense, are kind
9 of deferring to the management that is going to be carried
10 out by the jurisdictions, and so that's why for the SARA
11 management plan we will be adopting those jurisdictional
12 plans, and then just sort of writing a federal chapeau, if
13 you will, that would just sure things are
14 SARA-compliant. So that's kind of the one part of that is
15 we do recognize that that management authority lies with
16 the territory in this case.

17 As for implications for an NDF, you know, again,
18 I won't speak to whether the CITES scientific authority --
19 I mean, they haven't started a process for this
20 subpopulation yet, but they certainly do take into account
21 management objectives. And if there was a rationale for
22 setting a management objective specifically for a decline,
23 then they would need to take that into consideration.

24 So again, our goal is not always to minimize
25 harvest. Our goal is not always to have, like, a 4 and a

1 half percent maximum. Like, we do try and take all of the
2 information into account, including what the jurisdiction
3 has set as a management objective.

4 THE CHAIR: you, Rachel.

5 ikus.

6 MR. ISSING: you, .

7 Another question I have -- a comment and a
8 question together -- is about the telemetry and the
9 collaring.

10 As you know, there's a of opposition to
11 collaring in Nunavut and handling of polar bears, and those
12 comments were made this morning by some of the Board
13 members, as well. But at the same time, we do have in
14 certain regions, especially in the Kivalliq Region, a good
15 example where we do have a of support for collaring for
16 caribou, for instance, where the communities here has been
17 supporting collaring -- I don't know -- David Lee could
18 help me right if I'm wrong or -- but 20 or more years that
19 we've been fitting collars on some of these migratory
20 caribou herds, and they provided some really good
21 information that helps support management decisions.

22 And I think the reason -- and I might be
23 wrong -- but my impression is that the reason why the
24 communities support collaring of caribou is because that
25 information is shared to the communities on a very regular

1 basis. They can see the benefits of collaring, and they
2 can utilize that information.

3 And the same with the work that
4 Environment Canada is doing. A bit of criticism from our
5 side is that that is such useful information that we could
6 use for decision-making, and it's not shared. I have
7 forward through our biologist to the Polar Bear Technical
8 Committee meeting a number of times if there's a
9 possibility to have that information written up in reports
10 and shared with people -- and not just Western
11 Hudson Bay -- but there's really good work being done by
12 Ontario in Southern Hudson Bay, as well. And I believe
13 that that information would be able to advise the Board and
14 the government and answer a of questions that we get at
15 these meetings about population delineation.

16 Every meeting I've been to on polar bears people
17 want to ask questions about the boundaries, how can we
18 change the boundaries? And I think if these reports are
19 available we could show to community why the boundaries
20 could not change or maybe why they should change, and a
21 of times it might support community requests to change
22 boundaries based on community observations.

23 And especially now with the changing
24 environment, as you've identified, and changing sea ice,
25 you might see changes in bear movements which can only be

1 identified through collaring projects. But there is such
2 dislike in it, and people have lost a of faith in it
3 because we have not been able, I think, to do a good job.

4 And I'm not just pointing a finger at
5 Environment Canada. I think Nunavut could do a better job
6 of that, but sharing that information on a more regular
7 basis with the communities. And I'm sure a lot of people
8 when they saw those movements this morning on the map found
9 it interesting and useful, and I just request that maybe be
10 shared more often with the communities.

11 THE CHAIR: you, ikus.

12 Nick.

13 . LUNN: Yeah, that's always been our
14 intention is to share that information, and currently
15 there's maps that are being produced sort of every three to
16 four days, and there's a wide distribution list, and it's a
17 map that ps where the bears are at any particular time,
18 both Southern Hudson Bay and Western Hudson Bay together,
19 so people can see. And it's got a wide distribution list.

20 And there's nothing sensitive about the data.

21 It's generated and sent through the University of Alberta,
22 and I believe your biologist is one of the people that
23 receives it, but it would be useful perhaps if somebody
24 could give me a list of the emails that I could -- maybe in
25 each community or to someone -- and I'll sure that

1 that name or names gets added to that list so they would
2 then be receiving these maps every three to four days of
3 where the current locations of the bears are. So, yes, I
4 agree we could do a better job.

5 That map slide that I up, we're developing a
6 poster of similar stuff with information of why we do it
7 and movements of individual bears, and our intention is
8 that those posters would be translated, and we would
9 provide them to the communities in the Kivalliq and also in
10 and around Churchill. So we're moving on it. We recognize
11 we need to get more information out. It's just that we are
12 moving probably slower than other people would like.

13 But certainly as a first step if I can get a
14 list from somebody of all the emails that should go on --
15 and it doesn't really go out to individuals, per se, so I
16 don't want a list of a hundred emails to send it to -- but
17 if there's one contact, whether it's, you know, the head of
18 each HTO or the NWMB, that it could then be distributed, or
19 through, you know, the KWB -- just some contact that we
20 could start getting that information out to people.

21 you.

22 THE CHAIR: you, Nick. Very helpful.

23 ikus.

24 MR. ISSING: you very much.

25 No, we'll definitely provide that contact

1 information, and then I'll speak to Marcus about it as
2 well.

3 In your presentation this morning you also
4 provided some information from DFO on seals. Is there a
5 report on that available?

6 THE CHAIR: you, ikus.

7 Nick.

8 . LUNN: To the best of my knowledge, if
9 there is, it's likely a report made to the NWMB. I asked
10 Steven about it, and he said he came up to give some
11 presentation in the Kivalliq on the seal research, and
12 those were slides that he had used. So I can double-check
13 who he gave that talk to and whether there's a written
14 report.

15 There isn't, say, a publication, a scientific
16 publication yet on those changes. There is some
17 information on seal surveys, but not the seal blubber
18 thickness. But I can double-check with Steve to see if, in
19 fact, there is a report, and if there is, is it accessible
20 to the NWMB and others other here?

21 you.

22 THE CHAIR: you, Nick.

23 ikus.

24 MR. ISSING: you, .

25 My last question is just to get Nick's thoughts.

1 And it was mentioned this morning, as well, around
2 modelling and, you know, if we start talking about managing
3 for reduction or managing for increase.

4 When I started in Nunavut in 2003 and 2004, at
5 least up until quite recently, there was a of always
6 reference and a use of RISKMAN as the model to use for
7 polar bears, and it seems like now RISKMAN -- nobody really
8 likes RISKMAN anymore, and people believe it's not giving
9 good information. And there's a new model that
10 Eric Regher, I think, developed now for Baffin Bay. I just
11 have a concern, personal concern with how useful that
12 modelling would be in such a changing environment, that you
13 mentioned this morning that you see changes almost on an
14 annual basis.

15 I remember when our biologist did the study in
16 Baffin Bay over that three-year period, the first year they
17 came back and said, oh, this is a disaster. There's no
18 cubs. You know, we're not seeing cubs of the years. And
19 the next year they went back, and there was s of cubs.
20 So it changes almost from year to year, and the ups and
21 downs -- even in the maps that you showed this morning and
22 changes, you have these variables.

23 And I'm concerned about the amount of trust we
24 into these models to decisions, and just your
25 thoughts around that. I know very little about modelling.

1 I'm really -- but I have some concerns when it comes to
2 environmental changes, how much faith we into these.

3 THE CHAIR: you, ikus.

4 Nick, go ahead.

5 . LUNN: I've got a couple of parts of way
6 to answer that.

7 One of the use of models is because people want
8 to know what's going to happen in the future, and so that's
9 one of the reasons that people develop models. And they
10 don't have to be polar bear-specific. People want to know
11 what the weather's going to be like, people want to know
12 whatever is going to happen. People want to have some
13 information on what is on for the future. I mean, people
14 have asked me what do I think is going to happen? When is
15 the quota -- when do we lose bears in Western Hudson Bay?

16 The only way you can get answers to that is
17 through the development of models, right, if you really
18 want to have some sort of a rough guideline. And the way
19 you develop those models is you take what information you
20 have, what you think are the important variables that might
21 influence that, and you develop a model, and then you run
22 it. And then you look at the existing data to see whether
23 it matches, how close it comes to predicting what actually
24 happened.

25 And once you get a model that works, then you

1 run with it, but the problem then comes in when something
2 happens and the model doesn't predict it. It doesn't
3 necessarily mean that the model itself is wrong, but it
4 means that something has changed, something that we
5 considered not important turns out to be important. So
6 you're constantly upgrading and changing these models.
7 And, again, it's not because the models are wrong. It's
8 because the system is changing or something is becoming
9 more or less important.

10 So I share your concerns, but we're always
11 battling with that in the various status tables. And you
12 will know status tables on polar bears, it's always
13 changing. And that's because people want to know what's
14 going to happen in the future. And so you try to develop
15 the best model. And then when it doesn't happen, then
16 there's -- you know, people are critical that, well, you
17 said this, and it didn't happen. So there's that element.

18 RISKMAN was very good when it was developed for
19 what it was developed for. The issue for RISKMAN was that
20 down the road that wasn't very good as sort of climate
21 change -- as the environment was changing, it wasn't very
22 good at handling that because the way RISKMAN worked, it
23 had a fixed environmental variable. So you set it once at
24 the beginning, and that variable, whatever it is for the
25 environment, stayed for the whole length of your runs and

1 your simulations. So if you ran it out 20 years or 30
2 years, it assumed that the environment was constant at
3 whatever you set it at. So you couldn't change an
4 environment that changed over time. You couldn't get
5 RISKMAN to deal with that.

6 So you started ending up with projections that
7 didn't really seem to a of sense. So people got a
8 little bit, you know -- not that RISKMAN itself was bad.
9 It's just that it was no longer really functional to deal
10 with changing environments. And there was some initial
11 work done on trying to change it to do that, but again,
12 that wasn't anything that I was involved in. I don't know
13 go if that ever happened.

14 So, you know, the model of Eric Regehr that you
15 mentioned, and that's a recent development, and that does
16 include and incorporate a of environmental uncertainty
17 and changes and involves changes in age -- you can really
18 model a different variables, but the problem is, as
19 you've mentioned, they become very, very complex. They
20 take a long time to run, and they provide you with, you
21 know, various out, but there's no guarantee. There's no
22 guarantee in these models that what it says is what's going
23 to happen. And if you get it wrong, you fall back on the
24 model and say, well, the model got it wrong; right? And
25 you can go back and sort adjust it and fix it, but in the

1 mean time, there may be consequences.

2 So I think they're useful tools to provide sort

3 of some guidance or some advice on potential outcomes, but

4 I think one has to be very careful and recognize that

5 models themselves aren't perfect because they're based on

6 what's happened to date. And that's what s them run,

7 what has happened to date, and then you see if it fits.

8 You run the model, develop it. Does it predict accurately

9 what actually did happen? And then you run it forward.

10 But if something else, some big hiccup happens that you

11 haven't anticipated, I don't know, a seal explosion so

12 there's s of seals in the bay or the sea ice comes back

13 or something else, well, if that hasn't happened before,

14 it's not in the model. So all of a sudden you could get a

15 very spurious result and you lose face.

16 A clear example of that is, for those that

17 follow sort of the arctic sea ice minimum in September,

18 that that's how much sea ice at its minimal or the

19 circumpolar arctic -- there was a good model that predicted

20 that. But in 2007, it had this huge record low, a drop,

21 and nobody -- there were no climate models that predicted

22 that drop. And it wasn't that the model was wrong, it's

23 just something else happened. And so people started

24 becoming very critical of those sorts of models. They went

25 back to the drawing board and rejigged those models.

1 So one just has to be careful that when you use
2 models. It's projecting something into the future, and
3 you'll never know if it was right until you get to whatever
4 that future point is. So if you use it for ten years at a
5 certain harvest rate and it says you should be okay, you
6 won't know it's okay until that time comes and you can say,
7 yes, it was good or, no, it was bad; right? That's the
8 only way you can validate it is, you know, it predicts it
9 to a certain point, and then you just run it for the
10 future, and you check.

11 So, yeah, there are s of models of how many
12 bears maybe -- you know, the U.S. did one. I don't want to
13 go off on a tangent, but the U.S. did modelling into the
14 future, and they had certain predictions of when there
15 would or would not be bears. The only way you're going to
16 know if that's true is when that period comes. Was it
17 right? Was it not right?

18 THE CHAIR: you, Nick.

19 ikus.

20 MR. ISSING: you, . That's all.

21 you very much, Nick.

22 THE CHAIR: you very much, ikus, from
23 the GN.

24 I'd like to welcome Stanley Adjuk here from
25 Whale Cove, the chair of the Kivalliq Wildlife Board. You

1 can come join us at the table here, Stanley. Welcome.

2 We'll move on, then. NTI, the floor is yours.

3 NUNAVUT TUNNGAVIK INCORPORATED QUESTIONS AND COMMENTS

4 MR. IRNGAUT: you, man.

5 you, Nick, for your presentation. That
6 was very informative. I have a few questions, and I'm sure
7 David Lee will have a question, too.

8 In your presentation you mentioned that you
9 collared, what, 75 to 95 bears per year, and I take it the
10 majority of those are -- well, all of them, probably, are
11 females. Is that correct?

12 THE CHAIR: you, Paul.

13 Nick, go ahead.

14 . LUNN: No, we capture 75 to 100 bears per
15 year of all age and sex classes, a total. Collars are
16 somewhere between 10 and 12 adult females per year.

17 THE CHAIR: s, Nick.

18 Paul, go ahead.

19 MR. IRNGAUT: Yes, thank you. s for that
20 clarification. My mistake.

21 You also mentioned that some of them are caught
22 three or four times per year. No? Okay. I wrote
23 something wrong, then.

24 So with the collared females, are the cubs
25 immobilized, too, at the same time? you.

1 THE CHAIR: you, Paul.

2 Nick.

3 . LUNN: Yeah, the first one, when I said
4 three to four times, that's over their lifetime.

In any one year we only catch a bear once, and we minimize the risk of catching it twice by putting on a paint mark. We put a little spray paint on its back, and that identifies to us that we've caught it already. So the intention is you only catch a bear once in a year. Three to four times over the lifetime that a bear is being caught.

11 THE CHAIR: And he also asked you about the
12 cubs.

13 . LUNN: Yeah. When we're handling
14 females, in the fall time the cubs are too big to be left
15 alone while we collar mom. So, yes, we immobilize the
16 cubs, as well, and we get weights and measurements and
17 stuff on the cubs.

18 THE CHAIR: you, Nick.

19 Paul.

20 MR. IRNGAUT: you. you for the
21 answer.

22 So you collar females during the fall when
23 they're on land, I take it, then. Yeah. How long do you
24 stay with them before they can get up and move around on
25 their own freely?

1 THE CHAIR: you, Paul.

2 Nick.

3 . LUNN: We stay with bears until they're
4 showing signs of recovery, so they're starting to move
5 their heads, the cubs will be up and moving about. We
6 don't stay until the bear is completely recovered and walks
7 away. They're up and about, able to move within an hour
8 and a half to hours, and they're probably fully back to
9 their good old selves within a day or . So it would
10 take a while for us to sit and stay by a bear until it was
11 back to how it was before we caught it.

12 There's obvious concern that if we leave a
13 drugged bear that another bear is going to come along and
14 kill it or there's going to be some injury or something is
15 going to happen. In Western Hudson Bay I only know of one
16 instance since we've started the research where an
17 immobilized bear was killed by another polar bear. We see.
18 We fly over the area, and there's dots on them so we know
19 they're marked, and we fly back and forth over the area,
20 and we see those marked bears up and about moving around
21 after we've handled them. Most of the bears that we've
22 handled in the past, they've been recaptured again so, you
23 know, that provides additional information that there's not
24 this mass mortality due to drugging being left on the
25 tundra.

1 And there are s of people around flying.
2 It's a big tourist industry. There's people working on
3 geese. If it was a huge concern, there would be other
4 people seeing these dead bears, and we would hear about it.
5 But I'm only aware of one instance in all our time doing it
6 where a bear has died because it was drugged and just left
7 on the tundra.

8 you.

9 THE CHAIR: you, Nick.

10 Paul.

11 MR. IRNGAUT: Yes, thank you for that answer.

12 When you see them again the following year, do
13 they still have cubs, or are the cubs gone?

14 THE CHAIR: you Paul.

15 Nick.

16 . LUNN: That really depends on the
17 individual female. If we're catching a female with cubs of
18 the year and we see them again the next fall, some will
19 have cubs, some won't have cubs. In Western Hudson Bay, at
20 least in the early '80s, about a third of the females were
21 able to wean their cubs at one year of age, which is a year
22 earlier than most other subpopulations. That number's
23 declined. So most females are keeping their cubs for
24 and a half years, but they are still these lone independent
25 yearlings that are running around and seem to be fine. So

1 it really is variable between bears whether or not we'll
2 see the cub with mom the following year.

3 THE CHAIR: s, Nick.

4 Paul.

5 MR. IRNGAUT: you for that answer. You
6 mentioned in your presentation that you had information
7 about the seals from Ferguson from DFO. What about any
8 information on killer whales? Because we know they come up
9 to Repulse Bay area quite a bit. Any information on killer
10 whales?

11 you.

12 THE CHAIR: you, Paul.

13 ahead, Nick.

14 . LUNN: I apologize.

15 Certainly when we started our research, killer
16 whales, sightings of killer whales in Hudson Bay and
17 Western Hudson Bay was never reported. No one ever talked
18 about them, at least around the community of Churchill. In
19 recent years, probably within the last ten years or so,
20 there have been more increased sightings of killer whales
21 coming right into the mouth of the Churchill River, and
22 there's photographs of a pod of killer whales. I think
23 there were seven of them literally right in the mouth of
24 the Churchill River.

25 So clearly there are more killer whales at least

1 being seen in Western Hudson Bay. Whether they've always
2 been in the bay and just not on the western side I couldn't
3 answer. We're not doing work on killer whales. So I can
4 answer part of it that. Yes, we're seeing increases in
5 killer whales, but I couldn't tell you sort of numbers or
6 that type of information.

7 THE CHAIR: s, Nick.

8 Paul.

9 MR. IRNGAUT: you. s for that
10 answer.

11 The reason why I ask that question is that
12 killer whales do have impact on the food source of polar
13 bears.

14 I don't have further questions, but maybe David
15 might have some. s.

16 THE CHAIR: you, Paul.

17 David Lee, go ahead.

18 . LEE: you, man.

19 I just have a quick couple of comments for
20 clarification for the Board. And, again, thank you to
21 Rachel and Nick for presenting their presentation.

22 So one of the slides mentioned the 18 percent
23 downward reduction -- I can't recall the exact term that
24 was used -- when comparing the most recent estimate to the
25 previous estimate. I just wanted to clarify for the Board

1 that, in the opinion of the authors, the coauthors of the
2 report and the survey -- being careful that I'm not
3 representing the GN, and it states that on the report --
4 that we're not indicating that there is actually a decline
5 in the population. I think it's important because I don't
6 want there to be an impression that the scientists that
7 conducted the survey are presenting a report that the
8 population has been reduced. I think in the presentation I
9 gave on behalf of the GN we're very clear that, because of
10 the uncertainty surrounding the most recent point estimate,
11 we could not actually detect a decline.

12 So that's important because even suggesting that
13 there was this 18 percent reduction -- and I realize this
14 is part of human nature -- is suggesting that there's a
15 decline. In fact, we're not suggesting that there is a
16 decline. Yes, there is a difference, but how you can
17 attribute that difference -- there is not a trend analysis.

18 In the NTI submission, in fact, there was a
19 figure provided that was in the supplemental information of
20 the GN report. I noticed it isn't in the tab under the GN
21 report, but it's in the NTI submission. And that is a
22 trend analysis of the Manitoba coastal survey data. I
23 realize there are potentially issues with that survey data,
24 but we analyzed it, and that trend data was showing an
25 increase at least in the observations of male bears.

1 Again, I wanted to mention that to you because I
2 don't think that there is always disagreement between
3 scientific observations and scientific research and what
4 Inuit are observing, and this is an area that probably
5 requires further investigation or at least asking Manitoba,
6 who are unfortunately not here, for clarification on their
7 trend data or their observations and how we analyzed their
8 trend data. So those are points of clarification.

9 The last item, and it's just in case
10 Environment Canada decides to utilize that difference
11 between the 2011 and the most recent estimate. And I don't
12 attribute any criticism to development of that comparison,
13 but the accurate comparison would be to 949 because there
14 were differences in how the previous estimate was derived,
15 and the difference then would be 11 percent, not 18
16 percent.

17 So, again, I realize these are minor details,
18 but I just wanted to be clear for the Board's
19 consideration. you. And those are just comments. I
20 don't know if...

21 THE CHAIR: you, David Lee, for that
22 information.

23 Would you like to respond, Nick?
24 . LUNN: Yeah. No, I mean, that's good to
25 clarify and sure that people around the table know

1 what the data say and what they show. I may have used
2 wrong terminology, but we're sort of looking at point
3 estimates, and that's what's typically used, and that's
4 what's used by groups such as the PBTC and the PBSG and
5 whether or not there's a statistical -- I mean, I agree
6 that you can't determine a trend from points. But, you
7 know, you have a number, a previous number, and now you
8 have a new number, and one is lower than the other, whether
9 it's statistical or not or exactly what it means. You
10 know, presumably -- and, again, I'm just speaking -- at the
11 next meeting we're going to use whatever is the best
12 available piece of scientific information when we in an
13 abundance estimate for Western Hudson Bay or Southern
14 Hudson Bay. It will be up to those authors that did the
15 work to tell us what that number is.

16 But, you know, the numbers are lower, and they
17 were both similarly lower, and that was the point of the
18 slide. And the terminology maybe was incorrect. But both
19 populations have aerial survey estimates that the number,
20 the new numbers are lower than the old numbers of
21 equivalent change. So how we present that, that will be
22 something that will need to be sort of identified by the
23 authors of the report, but, you know, people will be
24 looking to use the new estimates for these subpopulations,
25 so we're going to have to work on that. But your point is

1 taken.

2 you.

3 THE CHAIR: you, Nick.

4 NTI, any more questions? you very much,

5 gentlemen.

6 Next on the list is Kivalliq Wildlife Board,
7 questions to Environment Canada.

8 KIVALLIQ WILDLIFE BOARD QUESTIONS AND COMMENTS

9 MR. GREENE: Yeah, just one question you guys
10 re ECCC recommends a comprehensive harvest risk assessment
11 be undertaken no matter what TAH is decided upon, and you
12 identify that an analysis has been done with the Baffin Bay
13 polar bear subpopulation. I'm just wondering if you could
14 provide more details on what that type of study would
15 actually look like and what it would entail.

16 THE CHAIR: you.

17 Nick.

18 . LUNN: Yeah, for the Baffin Bay Kane
19 Basin work, a scientific working group was asked to provide
20 some advice on harvest levels to the joint commission, and
21 the scientific working group looked at this new model
22 developed by Eric Regehr and its ability to incorporate
23 things such as environmental change and age-specific
24 reproductive rates, a whole variety of pieces of
25 information that weren't necessarily or easily incorporated

1 into other models. And we like the model because it
2 provides options and advice to people that have
3 responsibility for management.

4 What's involved in that? Well, one of them is
5 you need some management objectives. So there would have
6 to be, as we talked about, what would be a management
7 objective for Western Hudson Bay? And by that I mean, you
8 know, we know what a starting point of the population is,
9 assuming we use 842, but you could start at what you want,
10 and then you would want to know, where do you want to end
11 up? So you have to have that bit first.

12 You would have to have a whole variety of the
13 harvest data, so the harvest data from the communities and
14 from whoever maintains that. Presumably the GN has that
15 information, so they would have to that available.
16 For a place like Western Hudson Bay, because there is a
17 long-term mark recapture program, a of data,
18 Environment Canada would have to be willing -- and we are,
19 so I'm not saying -- you know, we would be willing to
20 provide that information to such an exercise. And then
21 there would be other organizations. Manitoba would have
22 some data on tagged bears.

23 And so you'd have to ask everybody that has some
24 data from, you know, Western Hudson Bay to be willing to
25 provide that. You'd have to get the harvest data. You'd

1 need management objectives and some level of risk
2 tolerance. You know, and it would have to be a range.
3 Like, are you prepared to be wrong? If you want to go from
4 800 to 500, what is the risk that you're prepared to take
5 that you're wrong? You know, and that could be where
6 10 percent, we're prepared to take a 10 percent chance that
7 we're wrong.

8 It can be any number, so you have to come up
9 with sort of your boundaries of how risky you want to be.
10 You might not want to be risky at all. You might want to
11 say there's no chance. We don't want to be wrong at all.
12 Well, that's going to give you a different result than if
13 you said, look, we're prepared to take a 10 percent risk
14 that, if we hold us to this level, we won't meet the
15 target. So that's what we did for Baffin Bay, and we ran
16 three sort of different management objectives in a number
17 of scenarios.

18 I won't sugarcoat it. It's labour intensive.
19 It's a very complex model. It's not something that you
20 just get the data one day and a week later you hit the
21 button and you say, "Here it is."

22 I actually, in anticipation of perhaps this
23 being a potential recommendation, I actually asked
24 Eric Regehr how much time he thought it would take to run
25 the model, and his response was that if that's the only

1 thing he did, it's probably in the order of three months to
2 do, to set the whole model up, run through all the data, do
3 it. If he's doing other things as part of his job, then he
4 says you're looking more like six to seven months of time,
5 and then there would be a cost. Eric Regehr is at a
6 university in the U.S., and, you know, he would be -- you
7 would basically be contracting him. So it wouldn't -- I
8 don't know what that would cost, so I can't give you that
9 estimate, but I could pursue it if that was of interest.

10 But it's not going to be something that you're
11 going to get in a week. If you decided to run, it's
12 probably going to be three months of time, solid time, or
13 six months or so if he's doing other things in between.

14 THE CHAIR: you, Nick.

15 Ezra.

16 MR. GREENE: you. you for that
17 answer. That's the only question I have.

18 THE CHAIR: Okay. you. No other
19 questions from KWB.

20 We'll move on to the communities, then. Arviat,
21 any questions for Environment Canada? Nick.

22 ARVIAT HTO QUESTIONS AND COMMENTS

23 MR. ARNAUKJUAQ: Yes, thank you, , and
24 good afternoon.

25 I have a couple on my list with the polar bear

1 population and now with the human-bear interaction. But
2 I'll go with the first one. The polar bear population in
3 Canada overall is a large number, but I'm wondering for
4 Western Hudson Bay population, is it stable? Like, the
5 risk, the category risk work that Environment Canada's done
6 with this, is it stable, concern, or at risk?

7 you.

8 THE CHAIR: you, Nick.

9 Nick.

10 . LUNN: The status of populations of polar
11 bears in Canada is determined by a committee called the
12 Canadian Polar Bear Technical Committee, and that's made up
13 of government agencies, wildlife management boards, so on
14 and so forth. And they meet once a year, and they review
15 at that time what information is available, the best
16 available information, both scientific and traditional
17 knowledge information, and then, based on that, their
18 determinations, they assign a status to each subpopulation.

19 The Polar Bear Technical Committee has not yet
20 met. It has not yet seen this aerial survey report, so
21 currently the status of Western Hudson Bay is stable. It's
22 a stable population. Once a presentation is made to the
23 technical committee -- and they're meeting in early
24 February in Inuvik -- there will be presentations from
25 presumably GN or NTI on the aerial survey, there may be

1 other information that's given at that meeting. I know the
2 regional wildlife organizations typically attend, NTI
3 attends. So there will be new information. All that will
4 be considered, and then a new status assigned at that
5 point. So at the moment, it's stable. That may or may not
6 change after the next meeting.

7 you.

8 THE CHAIR: you, Nick.

9 ahead, Nick.

10 MR. ARNAUKJUAQ: Yeah, thank you for that answer.
11 My second question had to do with human-and-bear
12 interaction. I don't know if Environment Canada is aware
13 about Arviat and Churchill. When it comes to polar bears,
14 they're completely different sides. What do I mean by
15 that? Churchill is in tourism, whereas in Nunavut we kill
16 bears. And I worry about this sometime because maybe in
17 five, ten years this will change because protection, animal
18 activists and also how Churchill is handling tourism. I'm
19 sure it's going to be a balance where one is favoured and
20 one is not favoured. But the problem that we face with
21 polar bears is different from Churchill, so I'm wondering
22 what would likely happen. Does Environment Canada look
23 into this?

24 you.

25 THE CHAIR: you, Nick.

1 ahead.

2 . LUNN: Yeah, thank you.

3 Environment Canada is well aware of the issues
4 of public safety, human safety, what's happening in Arviat
5 and the communities up the Kivalliq and is aware of the
6 tourism angle in Churchill.

7 I mean, Canada collectively has always
8 supported, you know, that we have a very well-managed
9 harvest in Canada. We're not concerned about that. And
10 internationally, that's defended internationally, and
11 international polar bear groups such as the IUCN polar bear
12 specialist group, they likewise have said that, you know, a
13 well-managed harvest is not a threat to polar bear
14 populations. So there's no concern at the moment that
15 there's an issue that, you know, harvest is well-managed
16 and it's well supported by Canada collectively. It's
17 supported by international groups, and I think proof of
18 that internationally, at least so far, is that attempts to
19 get them uplisted under CITES to Appendix 1 have always
20 failed, and so I think there is a recognition that that
21 harvest is not an issue, and human safety is not an issue.

22 I can't speak specifically to what Manitoba
23 thinks about tourism, how it manages. It's unfortunate
24 they were unable to attend, so I can't speak to that part
25 of your question. But I'm not aware that there are any

1 major Manitoba initiatives dealing with tourism versus
2 problem bears. I simply don't know of any. I can try to
3 find out, but at this meeting I have nothing that I can,
4 unfortunately, contribute to answering that question.

5 you.

6 THE CHAIR: you, Nick.

7 Nick.

8 MR. ARNAUKJUAQ: you, .

9 I just have a bit more of a comment regarding
10 disturbance and disruption of wildlife. Like, for polar
11 bears, it's changing the habits and wildlife natural
12 environment. And Inuit have maintained good use and are
13 the most environmentalist with our arctic species like
14 polar bear. What I want to say is work with that in spirit
15 and in cooperation between the federal -- between the
16 vernment of Nunavut. This way we won't have any
17 conflicts or issues when it comes to polar bear.

18 Now, we've been dealing polar bear year after
19 year, and ongoing -- like, five, ten years -- with no solid
20 footing or with solid understanding. And sooner or later
21 this has to be in place. So that's just my comment
22 regarding this. And I will go quickly with the problem of
23 taking polar bear cubs that no longer have a mother to use.

24 With the use anywhere in Canada, I find it most
25 inhumane, most cruel to a polar bear. And I was glad the

1 mayor of Churchill stood up to say no more sending bears to
2 anywhere down south in zoos. Let nature take its course.
3 Like, it doesn't matter what level of government, they
4 cannot protect all the polar bear cubs. That's just part
5 of natural wildlife. We can intervene, yeah, but to send
6 them to zoos, I often find it inhumane and really cruel.
7 So this is just my comment on this matter about polar bear.
8 And, yes, we want this resolved, and we want this to be in
9 order in the long run. That's our goal and plan for the
10 Inuit for the HTO.

11 you.

12 THE CHAIR: you very much, Nick, for
13 those comments and concerns.

14 Environment Canada, would you like to comment?

15 . LUNN: I guess I can comment or a short
16 comment on sending bears to zoos. That is an issue that
17 we're well aware of is of concern to Inuit. It's not a
18 decision of Environment Canada. If there's an orphaned cub
19 of the year in Manitoba, that is up to Manitoba to decide
20 what they want to do with it, what other mechanism they
21 have in place, and I'm not sure what those mechanisms are.
22 So it's not an Environment Canada Rule or regulation that
23 says you have to send them to zoos. That's entirely up to
24 Manitoba or any other jurisdiction where it occurred. So
25 it's not something that we're involved in per se.

1 But I know that there are conflicting opinions.

2 I know in the north people don't like them being sent to
3 zoos, and there are some people that do like to see bear
4 cubs sent to zoos. So, again, it's not a federal issue.

5 It's a provincial or territorial issue.

6 And in my comment of better working together of,
7 you know, science and traditional knowledge and
8 communities, that's something that our department does
9 support, and we have tried to get that moving along through
10 various contributions to organizations to work much better
11 and get mechanisms in place. That's an ongoing process,
12 but it is something that we as Environment Canada do
13 support. It may not be happening as fast as people would
14 like, but it is something that is important to us and is
15 one of the sort of priorities of, you know, involving the
16 local users in a of these decisions.

17 you.

18 THE CHAIR: you, Nick.

19 Thomas.

20 MR. ALIKASWA: you, man.

21 My question to Environment and Climate Change
22 Canada, the polar bears that are being to sleep, the
23 drug that is used on polar bear with their organs, their
24 hearts, their livers, whether they get sick from it or not,
25 that's my question. I know in November in Arviat our

1 Renewable Resource Officer in the community, one of the
2 houses, there was a male bear that had to get picked up
3 because it died from freezing. It was starving. It went
4 inside the house, and it froze. So they had to go get it
5 out of the building. It was very skinny, and it was a
6 male.

7 And the other concern that I have of polar bears
8 when they collars on them and the females that are
9 collared, I see myself the polar bear that has a collar on
10 it will not hunt properly. I'm just mentioning that
11 because in Arviat, in November still, the Renewable
12 Resource Officer had to destroy a bear that was very, very
13 skinny, and it had a collar on it. It had to be destroyed.
14 It was very skinny, and it kept coming back to Arviat, and
15 it was a safety for the public, so they had to destroy it.

16 These are my questions to Environment and
17 Climate Change Canada. The collared bears don't hunt
18 properly anymore because of the collar. When they try to
19 follow the seals in the water, it affects their swimming
20 ability.

21 you.

22 THE CHAIR: you, Thomas.

23 Nick.

24 . LUNN: The answer to your first part of
25 your question about does the drug have effects or negative

1 effects on the internal organs, we don't have any
2 information that it does. We don't really have a -- when
3 we have a bear immobilized, we certainly monitor heart
4 rate, how fast it's breathing, we can monitor its oxygen
5 level in its blood. And we do that stuff routinely so we
6 can monitor the health of the animal as we're working on
7 it. And if there was an issue, we could take some
8 intervention.

9 So during our handling we don't see those sorts
10 of issues that there are compromises to its heart or its
11 lungs or liver function. We wouldn't really have a way to
12 detect that unless we did biopsies on these various organs,
13 and because we're not concerned and there's no evidence
14 that these drugs do that to bears, it's not something that
15 we plan to do is to start doing invasive stuff, taking
16 biopsies of livers and pieces like that. It's widespread
17 use in veterinary medicine, so from that perspective, there
18 have been a of studies done on dogs and cats, and there
19 aren't issues with the drugs on the internal organs. But,
20 again, we have no evidence that there is.

21 The second part about that particular skinny
22 bear in Arviat and because it had a collar on it wasn't
23 able to feed properly, the circumstances for that bear was
24 that collar -- that bear had come ashore sometime that
25 summer -- I don't know the date because it didn't have a

1 collar on at the time -- and we caught it in the denning
2 area and a collar on it at that time. And it then
3 spent the rest of the summer in that denning area, and in
4 the fall time it moved directly to Arviat. So its movement
5 and its appearance in Arviat and its unfortunate demise all
6 occurred while it was on land. So that particular bear had
7 never been collared before, and it never had an opportunity
8 to hunt on the sea ice. So in that particular instance,
9 the collar didn't have an impact on its ability to catch
10 seals because it never got back out onto the sea ice.

11 What we do know from its movement was, as I
12 said, we collared it in September, and it spent about six
13 weeks in the denning area. And then, for whatever reason,
14 it went basically a straight line movement straight from
15 the denning area to Arviat. It bypassed Churchill
16 altogether, so it didn't even go into the town of
17 Churchill. It just made a straight line movement to
18 Arviat.

19 And, unfortunately, it was very thin. It wasn't
20 in that condition in the fall time when we handled it. But
21 when bears are on shore they're generally not feeding, and
22 they lose about a kilogram per day. So that female had
23 been on shore six weeks or so since we handled it. So six
24 weeks is 42 days. She could have lost 42 kilograms of body
25 weight. So it's unfortunate that she was very, very thin.

1 I was told that it had some leg injury. I don't
2 know. I didn't examine the bear in Arviat at the time, but
3 I'm told it had some sort of a leg injury. Whether that
4 was a factor, I can't say, but at least in this particular
5 case it wasn't a case of the collar preventing the bear
6 from hunting seals on the sea ice because it was all done
7 and happened within a couple months while it was on shore
8 prior to the sea ice re-forming.

9 you.

10 THE CHAIR: you, Nick. Taima. Any
11 anybody else from Arviat? Any other questions from Arviat?
12 Okay. you very much, gentlemen, for your questions.

13 We'll now move on, then, to Whale Cove
14 questions. ahead, Simon.

15 WHALE COVE HTO QUESTIONS AND COMMENTS

16 MR. ENUAPIK: you man.

17 This morning we were shown one presentation. I
18 have one question. You have been doing studies for 30
19 years. My question; have you noticed whether polar bears
20 have levels of mercury in their bodies?

21 you.

22 THE CHAIR: you, Simon.

23 ahead.

24 . LUNN: In the early days of the study --
25 bears generally in Hudson Bay have low level of

1 contaminants when you compare them to other subpopulations
2 around the circumpolar arctic. The populations that tend
3 to have the most level of contaminants are ones higher on
4 up as you move to the pole, and probably some of the
5 populations with the most are next to the former
6 Soviet Union in areas where there's been a of dumping
7 of radioactive contaminants. So those are some of the most
8 of the contaminated bears. Part of that is due to the
9 atmospheric and circulatory -- the currents that bring
10 contaminants up. They all tend to concentrate them up in
11 the higher arctic. They don't generally get into
12 Hudson Bay just because of where it's at.

13 In terms of mercury level of bears in
14 Hudson Bay, they do have levels of mercury, but they are
15 very low levels, and we're not seeing increases in that in
16 the bears. So the short answer is they're not heavily
17 contaminated, and we're not seeing increases of mercury in
18 bears in Western Hudson Bay.

19 THE CHAIR: you, Nick.

20 Simon?

21 MR. ENUAPIK: No more questions. you,

22 .

23 THE CHAIR: Jackie, go ahead.

24 MR. NAPAYOK: you, man.

25 I wanted to ask a question. The collared bears,

1 I think some Inuit know, they've seen collared bears. I
2 haven't seen one personally. What kind of material do you
3 use? Is it ch or steel or aluminum, or what kind of
4 material are on the collars?

5 THE CHAIR: you, Jackie.

6 Nick -- sorry.

7 . LUNN: That's all right. I was following
8 protocol this time.

9 Where the battery is housed, so that square part
10 of the collar -- I don't know if we can bring the picture
11 up -- but the collar itself, the battery part, that's a
12 metal box that the batteries and the electronics are housed
13 in.

14 How it attaches to the bear, it's webbing, and
15 it's the same type of webbing that's used in refrigerators.
16 It's refrigerator belting, so it's a fabric material, and
17 degrades -- oh, I can't probably see it. I can just see
18 over there. Maybe if you can zoom in on the one on the
19 bottom. The material -- it's a fabric material with a
20 rubber coating, and that degrades -- maybe the one below --
21 yeah. So the big square box, that's metal. That's where
22 the batteries, the electronics are housed, so that's a
23 metal housing to protect it, and that's covered in a
24 rubberized fabric.

25 Most of the belting that you see, the bulk of

1 the collar, the round part that attaches, it's just
2 refrigerator belting which is a fabric covered in plastic.
3 It degrades over time. The cubs will rip it apart, so
4 after years they're in pretty rough shape. It degrades
5 over time.

6 There are bolts that hold it together that rust
7 out, as well, in addition to the release mechanism. So
8 s of sort of backups and backups to backups, so these
9 collars don't stay on, but it's a fabric that mostly goes
10 around the neck.

11 you.

12 THE CHAIR: you, Nick.

13 Jackie.

14 MR. NAPAYOK: When you the collars on, you
15 bolt it. I think you bolts on it with nuts. They
16 don't loosen over time, the nuts and bolts that you use?

17 THE CHAIR: you, Jackie.

18 Nick.

19 . LUNN: Yeah, it's bolts, and they go
20 through that little black -- if you can now move that one
21 up so that we can see the top panel, I think you might see
22 it better, maybe. Anyway, yes, it's bolts that fasten
23 the pieces of the collar together, and the bolts go on,
24 and they rust out. Do they loosen? No, there's a washer
25 on that prevents that from coming undone and popping some

1 off. So, no, they don't. The bolts don't drop off
2 unintentionally.

3 THE CHAIR: you, Nick.

4 Jackie.

5 MR. NAPAYOK: I was worried about them.
6 you for your answer.

7 When you them on the bear, I think the cubs
8 try and take them off of the mother with their claws. So
9 just not today.

10 Another thing you mentioned this morning, in
11 1950s, there was a of polar bears. I grew up in
12 Coral Harbour. I just moved into this area. From 1950 to
13 today -- that's quite a while ago -- I witness today that
14 polar bear are more abundant than they used to be. When we
15 had dogs in the past, we had to feed our dogs, we had to
16 feed our children. I wonder why today, even though you're
17 saying they're declining, we notice as Nunavut people that
18 we don't believe that they're declining. There's more than
19 there used to be.

20 THE CHAIR: you, Jackie.

21 Nick.

22 . LUNN: Just a quick comment on the first
23 point you raised about cubs taking collars off moms. When
24 we them on, we them on so they're loose enough that
25 my fist fits through, and we find that when bears get up,

1 adult females, that if they want to get those collars off
2 they take them off right away, and they are sitting at the
3 spot where we them on.

4 We find that, if a bear will wear it, leave that
5 area, that she's fine at leaving that. But definitely the
6 cubs do chew on them, and they will try to get them off,
7 and so we have had some of our collar failures or early
8 collar failures when we get them back is that the antennas
9 and the webbing have been ripped apart presumably by cubs.
10 And so the antenna is gone and is no longer in a position
11 to transmit. So cubs definitely do play with them and
12 will, you know, chew on them and, in some cases, do quite a
13 bit of damage.

14 To the second part about more bears now than
15 when you remember back in the '50s, part of that, again, at
16 least, is up until the late '60s, early '70s, worldwide
17 polar bear harvest was unregulated and nonselective all
18 around the world. People were just shooting whatever polar
19 bears whenever they wanted. And it was because of that
20 that people around the world were quite concerned, and
21 that's what initially led to this international agreement
22 of the five polar bear countries was they got together and
23 said: Look, we know nothing about polar bears yet we're
24 seeing large, large numbers being harvested. And so that
25 was sort of the impetus for research was this uncontrolled

1 and nonselective harvest.

2 So in the early days polar bear populations were
3 probably kept very low simply because there were s of
4 bears being taken nonselectively, females with cubs, so on
5 and so forth. And then once we started implementing or,
6 you know, and quotas started coming in it was through those
7 conservation methods and through the hunters following
8 these quotas that, all of a sudden, that provided a level
9 of protection to subpopulations, provided protection to
10 females and cubs, so those bears were able to survive and
11 come into the population. So it was through the
12 implementation of those quotas that people were able to
13 control the harvest. So it was no longer nonselective,
14 whatever you wanted. People were limited. And that
15 allowed polar bear populations to recover. So that's one
16 of the reasons why I think you're seeing more bears now
17 than you did in the early days in, the '50s and '60s, was
18 that previously there was no rules. You could take what
19 you wanted when you wanted, and people weren't concerned.

20 And I think in Churchill, Western Hudson Bay,
21 that was probably true with the military. You know, there
22 was a of military activity right in that denning area,
23 and we had no idea what bears are taken, how many, when.
24 But we believe that there were probably a number taken.

25 And so, yeah, management initiatives and, you

1 know, the quota system and people, you know, wishing for a
2 conservation of polar bears that it's a success story. So
3 in some ways, you know, it's a double-edged sword. It
4 really is a conservation success story, of, you know, this
5 quota system and people following these regulations. It's
6 very successful for polar bears. Now we're coming to other
7 issues with there perhaps being more bears than people
8 remember and some of the other issues.

9 you.

10 THE CHAIR: you, Nick.

11 Jackie.

12 MR. NAPAYOK: In the past around 1953, I'm
13 guessing, the government had asked for cubs. They come out
14 in March, they're born. And I think you know in January,
15 in January right now they are really small. We caught 24
16 small cubs in Coral Harbour. We collected 24. We didn't
17 get the mother, we just got the cubs, and we brought them
18 to the meat plant. They were fine, healthy. One of the
19 them was really, really small. The vernment wanted them,
20 so they sent them down to the coast, and we brought them
21 that small. Polar bears are very smart, and they remember.
22 The smallest one was the only one that went back to its
23 mother. I started thinking that that was just a very
24 talented bear.

25 you for that information.

1 THE CHAIR: you, Jackie.

2 Nick, go ahead.

3 . LUNN: Yeah, thank you for that. I
4 wasn't aware of that information, so thank you for
5 providing that. It's very interesting to know, you know,
6 the sorts of stuff and what was done in the past.

7 We do catch bears in the springtime and, yes, we
8 catch them in March -- they are three months old. They are
9 very, very small. And the smallest one we caught this year
10 was a female that had three cubs, and the smallest cub was
11 five pounds, so very, very tiny. And its siblings, its
12 brothers and sisters, were 15 and 20 pounds. So the
13 smallest one was very tiny. And even with a helicopter the
14 mother was very, very protective and didn't abandon the
15 cub, kept coming back and actually sat with the littlest
16 cub and made sure it was all right, and allowed the little
17 cub to climb on mom's back. And she was protecting it.
18 So, yes, they are very smart, and they're very, very
19 protective of their cubs.

20 And you get a whole range in size from five
21 pounds, which is the smallest cub I have ever seen. In
22 fact, I didn't actually even drug that cub. It was so
23 docile that I just weighed it. I it on a little scale
24 and weighed it. And I didn't tattoos because to do
25 that I would have to drug it, and I didn't want to drug a

1 bear that small. So I was able to weigh it and stretch it
2 out on mom's back, and it laid there and I was able to take
3 my little measurements with the tape measures on that cub.
4 But it's by far the smallest.

5 And the heaviest cub, just for comparison, was a
6 female that had a single cub the same year, and that cub
7 was 45 pounds. So we had a mom with one cub that weighed
8 45 pounds and a mom with three cubs where her smallest cub
9 was 5 pounds. So there's a whole huge range in the weights
10 of these cubs in the springtime. And that has an impact,
11 we think, on their survival. Bigger cubs probably have a
12 better chance of survival than a little five-pound cub.

13 Hopefully, we'll see that five-pound cub in the
14 future, but I wouldn't want to bet a of money that we
15 will, but I always like to cheer for the underdog, so I'm
16 hopeful that some year that bear will turn up.

17 you.

18 THE CHAIR: you, Nick. I guess, that's
19 why you cheer for Edmonton, then. Too late now to take it
20 back.

21 you, Whale Cove. Any more questions? .
22 Jackie, go ahead.

23 MR. NAPAYOK: I know I'm not the only one that
24 wants to speak. There are other people. I just wanted to
25 ask another question.

1 Polar bears, I think you know more about them
2 than I do. They have cubs up to three every once in a
3 while. In the past, I just wanted to ask the question
4 whether there's more cubs that are three or -- there's
5 usually , but how often do you see three cubs from one
6 female?

7 . LUNN: First of all, I would never claim
8 that I know more about polar bears than people around this
9 table. I recognize that I don't. I might know some of the
10 science stuff, but I would never want to claim that I know
11 more about polar bears than most people here around the
12 table.

13 of cubs; you're right. Most of the cubs
14 are either single cubs or cubs. We do catch in the
15 springtime -- maybe out of a sample of 20 family groups, we
16 might expect one or females that have triplets. This
17 past spring we caught females with three cubs. The
18 rest had one or .

19 In the fall time we have not seen or captured a
20 female with triplets since 1996 in Churchill. They still
21 exist. People still see them from time to time, but we
22 haven't seen one, and we haven't handled one. So we think
23 that what is happening, probably, is that of those
24 springtime cubs such as that five-pounder, yes, it was
25 there in the springtime. It's unlikely -- you know, again,

1 I'm cheering for the underdog, and, yes, cheer for
2 Edmonton -- that the underdog will survive. It would be
3 nice to know that it did. But my gut feeling is that it
4 won't survive. So if we catch it again, she'll either have
5 or one cub.

6 And out of all the years that we've done
7 research -- so of the 37 years -- there was one case of a
8 female with four cubs in the springtime. And I don't know
9 if any of you in your experiences have come across or seen
10 or heard of a female with four cubs, but we had one
11 instance in all the years of research in Churchill a female
12 with four cubs.

13 you.

14 THE CHAIR: you, Nick.

15 Jackie.

16 MR. NAPAYOK: The reason why I mentioned it, the
17 three females with three cubs is very rare and not very
18 often, when they first come out in March, and the mother
19 starts walking away with three cubs away from the den. And
20 the smallest one, once they stop, it starts feeding the
21 smallest one. The third cub, maybe it doesn't feel the
22 same way, so it just feeds the more healthier ones.
23 That's why the third smallest one would be the skinniest
24 one. I've seen that myself. They would have fed all
25 three, but they only feed . Every now and again it does

1 feed the third one. I just wanted to mention that because
2 I've witnessed that myself.
3 you.

4 THE CHAIR: you, Jackie.

5 Nick, want to comment?

6 . LUNN: Yeah. I mean, the work that we
7 do, when we see bears, they're running so we don't often
8 get to see those observations of a mom feeding, how many
9 cubs she's feeding at a time. We do get that when we have
10 her immobilized and we can examine her nipples, how many of
11 them are enlarged. And, typically, are enlarged, and
12 the other nipples are not enlarged. So, again, that
13 would be, you know, supporting what you're saying is that,
14 when there are three cubs, there's probably only that
15 are feeding at any one time, and one is the runt or left
16 out. Usually that's what we see in triplets is are big
17 and one is small. So what you're saying is, you know, what
18 we see supports exactly what you know and have just
19 provided.

20 So thank you.

21 THE CHAIR: you, Nick. Taima?

22 Whale Cove, done?

23 Okay. We've still got a little time before
24 coffee, so we'll move on to Chesterfield Inlet. Any
25 questions for Environment Canada?

1 CHESTERFIELD INLET HTO QUESTIONS AND COMMENTS

2 THE CHAIR: Harry.

3 MR. AGGARK: you, .

4 First of all, I want to thank you for my
5 questions yesterday on collars, the collars that are on
6 from northern Manitoba and the distance they go, and this
7 was shown to us.

8 So they go almost up to reaching

9 Chesterfield Inlet, but they turn and go return to

10 Churchill, Manitoba. And I think that's the reason why in
11 the springtime when we're losing the ice and Chesterfield
12 has an inlet, so it has a strong current, and the ice
13 starts going that way. So this may play a part how they
14 move around from Arviat and Chesterfield surrounding area.

15 And the seals are more abundant when the ice is leaving,
16 and no doubt the polar bears are following the seals at
17 this time. But obviously some of them moving toward
18 Repulse, Naujaat. So I wanted to thank you for sharing
19 that.

20 The other question I have; you stated earlier
21 the surveys that are done on the bears or the research over
22 past five or ten years, that they're losing more fat. Is
23 it the same bear? My question is, would it be the same
24 bear that you researched over the ten-year period when you
25 detected that bear losing more fat over the years?

1 THE CHAIR: you, Harry.

2 Nick.

3 . LUNN: No, generally not. It's not the

4 same bear over time. When we do our fieldwork, we capture

5 a sample randomly. So we don't pre-decide which bears

6 we're going to catch. We just fly, we see bears, we catch

7 them, we take measurements. So we don't know in advance.

8 Unless it's got a collar on, we wouldn't know in advance

9 which bear we're seeing and whether we handled it last year

10 or whether it's been handled at all, unless it's got an ear

11 tag.

12 So it's more by luck. If we were to catch a

13 bear, you know, years in a row, it would be purely by

14 luck. We have no way to say we want to catch this

15 particular bear this year and next year and the year after.

16 We have no way to determine that unless we a specific

17 permanent mark. So it's more random. So those years over

18 the last five to ten years losing weight, that's just the

19 average of those bears we catch. They're not the same

20 individuals each year. So they're different bears that

21 would contribute to that.

22 But because we're taking what we call a random

23 sample, we're assuming that some of the bears -- you know,

24 that the differences between years, it's a random sample.

25 There's not a bias that we're targeting only fat bears or

1 we're only targeting small bears. It's completely random,
2 and we're assuming that some will be heavy, some will be
3 small, and you determine those mean weights based on that.
4 So it's random.

5 you.

6 THE CHAIR: you, Nick.

7 Harry.

8 MR. AGGARK: you. No more questions.

9 THE CHAIR: Okay. you,

10 Chesterfield Inlet.

11 Rankin Inlet, any questions for
12 Environment Canada? No? Okay.

13 Baker Lake, any questions? Hugh.

14 BAKER LAKE HTO QUESTIONS AND COMMENTS

15 MR. NATEELA: you, , for the
16 information we received.

17 I'm just wondering if there are any plans of
18 introducing some of these climate change monitoring
19 programs that are happening across Canada from
20 New Brunswick to B.C. where some young indigenous people
21 are collecting their own data. I was just wondering if
22 there was any plans of introducing some of this data
23 collecting in Nunavut. I realize I think that there are
24 some notices out from the federal agencies about funding
25 and things like that, so I was just wondering if you might

1 be able to have a bit of information on that.

2 you, man.

3 THE CHAIR: you, Hugh.

4 Nick.

5 . LUNN: I don't have any specifics on
6 funding opportunities or what's available in the federal
7 government for those types of initiatives in the north.
8 But I know in the -- you know, one of the things that
9 collectively -- not just Environment Canada -- is that we
10 want to get more community-based monitoring occurring with
11 polar bears.

12 There's a of information that can be
13 provided by communities that we can't get necessarily from
14 the science, and so there's certainly a of interest in
15 trying to develop community-based monitoring programs,
16 whether it's collecting seals or observations when hunters,
17 you know, harvest a bear, taking some basic measurements or
18 any number of things that, you know, would help augment,
19 you know, a collective knowledge of what's happening with
20 polar bear subpopulations.

21 So it's something that people have very
22 interested in, and we're looking at what can be done, but I
23 don't have specifics per se that I can provide today or
24 where the funds would come for that, but it is something
25 that community-based monitoring is important, and we want

1 to get those types of programs off the ground and working.

2 you.

3 THE CHAIR: you, Nick.

4 Hugh.

5 MR. NATEELA: Yes, thank you for the response.

6 I guess the reason why I was asking about that,
7 and I guess just to go back to some of the discussions I
8 heard around the table and certainly from one of the Board
9 members was discussions of bridging science world and
10 traditional IQ stuff. And I guess I just wanted to a
11 final comment, I guess, just for -- I'm sure you know this
12 already -- but when there's a clash between the science and
13 traditional knowledge, it's just that the reason why
14 there's a clash is because of the difference in the
15 approach. Whereas the scientific world, it's a linear
16 approach versus a holistic approach. So I think if we can
17 start teaching our young people and our students, our young
18 people in Nunavut, I think we'd be able to start bridging
19 some of these differences that we often hear about from
20 people. There are differences between the science world
21 and traditional knowledge.

22 And so I think in due time, I'm hoping that in
23 due time we will be able to teach our students, our kids
24 some of the skills that they need to learn to be able to
25 help us monitor for ourselves so that we can start making

1 some informed plans and decisions, hopefully more on our
2 own independently without so much government, mining
3 companies, and other agencies' in which is, you know,
4 where it's always welcome to have assistance from the
5 outside agencies, but I think this is a time where we need
6 to start making some solid plans where we start taking some
7 of these initiatives ourselves.

8 you, man.

9 THE CHAIR: you very much, Hugh, for
10 those good comments.

11 And they were more comments than anything,
12 unless you want to comment on that. ahead, Rachel.

13 MS. VALLENDER: Yeah, thank you.

14 So I think those are great comments. Certainly
15 as a department we recognize that we need to get better at
16 sort of the co-application of -- I know we used to say
17 integration. I'm not sure that's necessarily the best term
18 for bringing together traditional knowledge and sciences,
19 certainly the use of both knowledge sources.

20 And so just to let you know about a couple of
21 initiatives that we have had on the go noting that in 2009
22 our minister at that time did commit to learning how to
23 better use the knowledge sources. And so one thing we
24 have done is actually within Nick's branch of our
25 department, we have hired a research scientist who that is

1 her specialty is how to use both those knowledge sources.
2 And certainly on the management side we are learning a
3 from her about how we can better use TK and science in our
4 recommendations.

5 And then, secondly, so we started in 2011
6 working with the jurisdictional governments and the Inuit
7 orgs, including ITK, to develop a protocol for how to
8 better use the knowledge sources. And so ITK actually
9 led that work, and it was funded by Environment and Climate
10 Change Canada.

11 That hasn't yet been finalized, but certainly
12 from the management perspective that's something we would
13 still like to get better at and to actually finish that
14 protocol so that it can be used across the country. So I
15 don't think we have it perfect yet, but certainly we
16 recognize that as a department and are making efforts to
17 better use both knowledge sources.

18 THE CHAIR: you, Rachel. Nick.

19 . LUNN: Yeah, I just wanted to add a
20 comment that it's a -way street, that scientists like
21 myself, we have to learn better how to incorporate and use
22 traditional knowledge as well. So it's not a one-way
23 street. We have to learn, as well, that there are other
24 sources of information, and how can we best use that
25 information. So I just wanted to that comment.

1 THE CHAIR: you very much. Taima?

2 Okay. World Wildlife Fund, any questions?

3 ahead.

4 WORLD WILDLIFE FUND QUESTIONS AND COMMENTS

5 MR. LAFOREST: you, . Just one
6 quick question.

7 The current schedule for reassessing this
8 subpopulation from an aerial survey standpoint, correct me
9 if I'm wrong, is not for another five years. If ultimately
10 it's decided by the co-management system to manage for a
11 decline and bring the population down, in your expert
12 opinion for Environment Canada, would that be a sufficient
13 monitoring schedule to wait five years before going back
14 and checking?

15 And a follow-up question is, what other sort of
16 management recommendations would you have when managing for
17 decline? And given the difficulty in detecting trends in
18 the high confidence intervals of surveys, how confident are
19 you that we could achieve management goals like that?

20 s.

21 THE CHAIR: you.

22 Nick.

23 . LUNN: Boy, there were a of loaded
24 questions in there.

I guess to answer the last one first, aerial

1 surveys typically have wide confidence intervals, and so
2 you need to have a really significant change in numbers to
3 be able to state statistically that a change has occurred.
4 So, you know, you would have to see a huge drop in number
5 or increase in number, huge differences to be able to pick
6 that up on an aerial survey. And that would apply to other
7 methods as well. You know, you need very, very tight
8 confidence intervals to be able to see and detect change.

9 Could you do it with an aerial survey in five
10 years? While having just said that you need to have huge
11 change, I mean, you would have to be able to detect that.
12 So huge changes would have to occur over five years to be
13 able to detect, you know, whether there are big changes
14 occurring. So is a five-year interval good enough?

15 I mean, I think from a monitoring perspective,
16 going every five years gives you at least a heads-up, but,
17 you know, short of it going from 800 to 100, you know, the
18 confidence intervals are too wide. If you're looking for
19 something statistical and you're only going to act on a
20 statistic, you're really going to have to have a huge
21 change in the numbers, and that doesn't matter if it's five
22 years or ten years. If there's no huge change and you have
23 those wide confidence intervals, you're going to have
24 point estimates that might be different. But the
25 statistical -- the statistics will say they're not

1 different.

2 So I don't know if that answers your question,
3 but I think it is, you know, something that needs to be
4 appreciated that, to detect statistical change, you know,
5 there's going to have to be a huge drop.

6 you.

7 THE CHAIR: you, Nick.

8 Brandon, good?

9 MR. LAFOREST: od.

10 THE CHAIR: Okay. We're going to try and
11 finish this before coffee time, I think. Next up -- not
12 many left, but I see David from KIA is here.

13 David, it's your turn, KIA, to ask questions of
14 Environment Canada if you have anything.

15 to the mic and introduce yourself anyway.

16 KIVALLIQ INUIT ASSOCIATION QUESTIONS AND COMMENTS

17 MR. NINGEONGAN: you for the opportunity,

18 .

19 I apologize we were not invited, although we
20 were told we could sit at the table. So in saying that I
21 will need to get briefed on what's been discussed before I
22 have any questions, so if you could give me a few minutes
23 to get some briefing, , I would appreciate it so
24 that I do ask the right questions for the panel.

25 you.

1 THE CHAIR: David, that's fine. You take your
2 time. You're going to have an opportunity here. You're on
3 our list to give a presentation to all of us at that time.
4 Okay? you.

5 Is there any questions to Environment Canada
6 from the public or any Elders in the public that would like
7 to ask any questions? Now is the time. If not -- don't
8 see any -- Thomas, go ahead.

9 PUBLIC QUESTIONS AND COMMENTS

10 MR. COMER: you, .

11 And thank you for the answer the other day to my
12 question about establishing whatever it's called, the
13 scientific term for the population of polar bears. My
14 question today is, during all these studies, are Inuit ever
15 considered as an indicator organism that, you know, the
16 polar bears do exist? In a of studies when it deals
17 with wildlife management or anything to do with wildlife,
18 there's always an indicator organism to say that the
19 presence of a specific or a certain species is present in
20 that environment. So in our case for Nunavut or anywhere
21 in the circumpolar region Inuit are definitely an indicator
22 organism to indicate that there is a healthy presence of
23 polar bears. That's number one.

24 And the other one is I do have a question about
25 the drugging techniques for polar bears, capturing them and

1 drugging them. My question is, is it healthy? Because I
2 don't see any practice of drugging. Well, for one thing,
3 the polar bears are expert swimmers, and so they can swim
4 for great distances in the water. We have Olympic swimmers
5 who compete in these Olympic stadiums, but I don't see them
6 getting drugged, you know, just to study them, so I don't
7 know why we would need to drug our Olympic swimmers that
8 are in their natural environment.

9 you.

10 THE CHAIR: thank you for those questions.

11 And, Nick, go ahead.

12 . LUNN: Yeah, answering the first question
13 about Inuit as indicator species, I have to admit I've
14 never considered that in part of my sort of scientific
15 studies. We use polar bears as an indicator of the arctic
16 marine ecosystem because they're at the top of the food
17 chain, the natural food chain, and I've never even thought
18 of Inuit as an indicator species.

19 In terms of drugging Olympic swimmers, drugging
20 bears that we know can swim great distances, we don't drug
21 bears for the sake of just drugging bears because I'm a
22 scientist and I can do it. It's done because there are
23 specific questions that are being asked. Not necessarily
24 here in this room, but my department has questions. There
25 are questions that are being asked, and I'll use collaring

1 as one example.

2 People want to know about movements of bears.

3 People want to know what is going to happen. How are they
4 going to move on sea ice? And to do that right now the
5 only technology we have is a collar, and the only way I can
6 get a collar on a bear is to drug it. So I'm going to have
7 to drug it to the collar on in order to get the
8 information that I've been asked, or questions to answer.

9 And that's similar with all the other bears that
10 we handle and we take these measurements. There is
11 considerable interest, certainly in my department and
12 elsewhere, about what are the impacts, long-term impacts,
13 and how will the polar bears be affected by things such as
14 climate change?

15 When we started the program, it was more we
16 wanted to know something about polar bears. You know, how
17 much do they weigh, those sorts of informations. And the
18 only way to get that was to drug them, and so that's why
19 bears are drugged and handled is because there are specific
20 questions that need to be answered that have been asked of
21 us to answer. It's not because I think it's really neat to
22 fly around in a helicopter and shoot bears out of a window.
23 It's because I have a question or questions that need to be
24 answered and, currently, the only way is immobilizing
25 bears.

1 Originally that was the cases for, how do you
2 get abundance estimates? So a of it was done through
3 mark recapture. There is work done now to use alternate
4 techniques, and so aerial surveys is one. Genetic -- mark
5 genetic biopsying is another way to get a population
6 abundance estimate. But there will still be questions that
7 require bears to be handled and questions that are asked of
8 me in my job that I have to answer.

9 And so, again, I appreciate that there is a
10 of concern about the handling of bears and collaring bears,
11 and we try to minimize as best we can the number that we
12 do. As I said, for those that maybe weren't here or in the
13 back, when the work first started people were handling 200
14 to 300 bears a year in Churchill. That was the number of
15 bears, so that's a of bears to handle. We don't do
16 that anymore. We really limit to what we think is an
17 appropriate number to get a sample size that can help us
18 answer the question. If you can answer it with handling
19 75 bears, why would you want to handle 300?

20 So it comes down to, how many bears do you need
21 to handle, what are the questions being asked? And so
22 that's how our research is done and why we handle them.
23 And we are continually trying to find improvements, ways
24 that we can minimize our impacts, and collaring is yet
25 another example. With those release mechanisms and using

1 satellite technology, we only have to handle the bear once.
2 We don't have to disturb it for the next years by
3 flying over it. We don't have to drug it again to get the
4 collar off. So those are ways that we can minimize -- you
5 know, not eliminate, but minimize -- some of these more
6 invasive procedures such as drugging, is looking at new
7 technologies. And as newer technologies come around, you
8 know, maybe we can improve what we do and reduce it even
9 further. But there will always be questions at the moment
10 that need me to -- or need bears to be handled and drugged.

11 THE CHAIR: you, Nick.

12 Any other questions? ahead. Just state your
13 name for the record, too.

14 MR. OTTENHOF: Hi. My name is Jared Ottenhof.
15 I've heard the term a couple times "immobilize and not
16 tranquilize" the bear. I'm just wondering what's used. Is
17 it a tranquilizer, or is it a paralytic drug, and is the
18 bear aware, conscience, when the sampling is being done?

19 THE CHAIR: you, Jared.

20 Nick.

21 . LUNN: It's a combination. The drug
22 Telazol or Zolatol, it's a combination of a sedative and an
23 anesthetic, and it's a dissociative anesthetic, so the bear
24 is not aware as we're doing these techniques. It's not the
25 drug that we would use if we were going to do something

1 like surgery on the bear. We would use different drug --
2 we don't do that, so don't jump at me that we're
3 planning -- but it's not the drug that we would use if we
4 were going to surgically implant something into the bear.
5 We would use different drugs. But when we're working on
6 the bear, it's a dissociative, so it's a tranquilizer and a
7 sedative combination.

8 you.

9 THE CHAIR: you, Nick.

10 ahead, Jared.

11 MR. OTTENHOF: So you mentioned earlier as well
12 75 to 95 bears are handled in a year and ideally keep the
13 numbers down. Each time you do handle a bear and you
14 mention you're sampling -- you take the fat core, pull the
15 tooth if it hasn't been pulled before, I guess. Do you do
16 that on all the bears you handle in a year? Or I'm just
17 wondering to what extent are you sampling each animal when
18 you handle it per year.

19 THE CHAIR: you, Jared.

20 Nick.

21 . LUNN: How many samples or what we do to
22 each bear really depends if it's been captured before. So
23 if a bear has never been captured before, well, then, we're
24 going to a tattoo on. We're going to ear tags in
25 which will require us to punch the ears, and then we'll get

1 a skin disk, so we would collect a skin sample.

2 Things such as fat and hair we collect routinely
3 from all bears. We generally don't collect blood from
4 every single bear. It's a to process, spinning it
5 down, storing it, so we'll target bears. We'll just take a
6 random sample from some of the individuals, but we won't
7 take it from every single bear. So hair and fat are
8 something that we would get from all bears. The other
9 samples really depends on who it is and what it is.

10 And all the information that we collect over
11 time goes into a come record, and we're able to print
12 out what we call a bible, and it's a binder. So when we
13 catch a bear we can look at it and look at its complete
14 history, and we can see, did we take a skin sample from
15 this bear, did we take this, did we take that? So that can
16 help direct, do we need to take it again?

17 And so, for example, with a tooth, once we have
18 an age, we don't need to take another one. So we leave it
19 alone. We won't take a tooth, but we might have a comment
20 in it that, you know, the last tooth we took we couldn't
21 age it, for whatever reason -- in which case we would.

22 So, again, we try to minimize the samples that
23 we take, and that's guided a by the bear itself; has it
24 been tagged or not tagged before, and whether or not we
25 have some of these samples and whether we need to take it

1 again.

2 So it's not every bear gets everything done, but
3 fat and hair is something that we take -- that we take from
4 every bear.

5 THE CHAIR: you, Nick.

6 Okay. Quickly, Jared.

7 MR. OTTENHOF: Last question, I promise.

8 There's been quite a of talk around the
9 tables about, you know, more concern about handling the
10 animals. Is there a way that there could be a program
11 developed where, with the 34 tags that we're here to
12 discuss, minimize handling of each bear in the wild if you
13 took the bears that are harvested and each HTO has a kit,
14 perhaps, that they could take samples of the bear that is
15 harvested, submit it to ECCC and perhaps cut down the
16 numbers of bears that need to be handled in a year?

17 THE CHAIR: you, Jared.

18 Nick.

19 . LUNN: There's certainly merit in
20 developing, and that's part of what we were talking about
21 earlier about some of the community-based monitoring, what
22 other types of information can you get. And you can
23 certainly get a of samples from harvested bears; body
24 fat, condition, and so on and so forth.

25 Some of the questions we ask, though, we want to

1 follow individuals and things over time. So if it's shot,
2 we're not going to be able to follow that individual
3 anymore. So there are circumstances where you could get
4 that information from a hunter, you know, get a hunter
5 harvest collection.

6 Again, the harvest is, you know, directed more
7 towards males, so you sort of skew your sample a bit, but
8 there would be certainly definite information that you
9 could get from harvest sampling, and some of that stuff is
10 collected already. And I believe that a tooth is provided,
11 you know, so you could start looking at things like age
12 structure of bears. I don't know what other samples are
13 collected in Nunavut, you know, fat, muscle, those sorts of
14 things.

15 I know that those community harvesting programs
16 have provided samples at least to DFO for some of that
17 information on seals came from communities, from local
18 hunters harvesting. So there's s of opportunities for
19 that, and there may be ways to reduce -- depending on the
20 questions being asked, reduce how many bears necessarily
21 would have to be sampled each year. But there will always
22 be a need for trying to follow individuals that are still
23 alive, moving forward.

24 MR. OTTENHOF: you.

25 THE CHAIR: you, Nick.

1 you, Jared.

2 Okay. If there's no other questions, we are
3 going to break here in a minute, but first of all, that
4 concludes Environment Canada, your presentation and your
5 questions.

6 Again I would like to thank you very much for
7 your presentation, both of you, and for being here and
8 participating in this hearing. I think it's very important
9 that you were here and answered all the questions as
10 candidly as you could and as transparent and honestly as
11 you could. And it's been very helpful, I think, to all of
12 us. And it's nice to have you here, and we hope that the
13 cooperation and collaboration and communication between all
14 of us and Environment Canada stays the same and it gets
15 better from this day on. So thank you very much.

16 ahead.

17 . LUNN: Yeah, thank you very much.

18 And again, thanks to everybody for allowing me
19 to that opportunity. And I would like to say I hope
20 that the communication gets better and not stays the same.
21 I mean, we've heard the message loud and clear that, you
22 know, we communicate, but maybe we don't communicate as
23 often or to the right people, and we'll start addressing
24 that through things such as these movement maps. We'll get
25 the right people that should be seeing it and getting it,

1 we'll speed up development of our posters to get it out to
2 communities so people can actually see and provide some
3 information on that. So hopefully the communication will
4 improve.

5 you.

6 THE CHAIR: you, both.

7 So we're going to take a 15-minute break for
8 coffee and a snack.

9 And up next is KWB, your presentation to us.

10 you.

11 (ADJOURNMENT)

12 THE CHAIR: Okay. Everyone, we'll resume.

13 you for coming back. What a great snack there,

14 except for those people that have an allergy to seafood, I
15 guess, or fish.

16 So we'll resume. Kivalliq Wildlife Board, it's
17 your floor to present to the NWMB with regards to the
18 Western Hudson Bay polar bear, so, I guess, Stanley, the
19 floor is yours. ahead.

20 SUBMISSION BY KIVALLIQ WILDLIFE BOARD

21 MR. ADJUK: All set? s, Dan,
22 man.

23 If I need some assistance, as he will be
24 assisting me in everything, so he's been doing our
25 background work for KWB.

1 Our background with KWB is we deal with our
2 seven communities from the region, but some of those
3 communities aren't here because they're from Foxe Basin and
4 not from Western Hudson Bay. Our board consists of each
5 chairperson from each community, just so everyone knows.

6 And, firstly, I think Ezra has done all the
7 background work, and our coordinator, Qovik, who tirelessly
8 keeps working with us -- who keeps bothering me, too.

9 And I may be the closest, living next to Rankin,
10 but I took the longest time to get here. I was lost in
11 between. Too many bears around.

12 Just a little tough while I'm listening to some
13 topics, these are the same topics from 20 years ago still
14 going on. It hasn't changed since. But we have our
15 written submission here, so I'm not going to read the whole
16 thing as everybody's seen it already.

17 With KWB, it's an active board, very active
18 board, getting more active every year. And all this stuff
19 we talked about, all the stuff we touched upon, the stuff
20 we're presenting is from listening to the communities from
21 Western Hudson Bay. And we do work for the region.

22 It's really nice to be here and present our
23 stuff from here, and we thank the NWMB and the GN for
24 making our total allowable harvest a bit higher from the
25 existing, although it's not quite satisfactory yet to our

1 region. The stuff we talk about, we would maintain the
2 Inuit ways of hunting of polar bears. We're not there just
3 to hunt for sport just to kill, we're not there just to
4 hunt a bear so we can say, "I've caught a bear before."
5 That's not the case.

6 And that stuff being said, the last probably
7 since 2006 we've been struggling with polar bears in the
8 region, more mainly from Arviat, Whale, and Chester --
9 Rankin once in a while. But the bears are scared of Rankin
10 people, so they hardly bother them. It's just a fact that
11 we've seen, when there's no polar bear quota in the system,
12 the bears do come into communities. They're an intelligent
13 animal, and then when there's quota with so much to
14 harvest, they never show up. It's just a fact.

15 And just a little topic offhand just so
16 everybody knows that I know I'm still a kid compared to
17 these Elders around the table. But when we were kids five
18 years ago or so, growing up back in the day in Whale, I
19 remember once there was a bear that came into town. Once.
20 That was something to see because we never seen bears then.
21 Today my kids and grandkids can't even stay out. That's
22 just how many polar bears there are. That's just an
23 example of how many bears have been since. And it's kind
24 of hard to believe when they say it's declining because
25 when I was a kid growing up there was absolutely nothing.

1 There was no polar bears. So when they say it's declining
2 it's hard to believe because there's more than what I've
3 ever seen since I was a kid. Not just me. There are a
4 of people that were kids around the table. Even the
5 Elders, I know they know there's more bears than ever
6 before. In saying that, we've talked about our total
7 allowable harvest. It was nice when we got 34 last season,
8 and it still didn't meet our 4 and a half percent from the
9 population. We're still going on the goal to reach at
10 least 40 for the region and 5 for Manitoba.

11 There's a of stuff that we talked about in
12 our meetings, and one of the things we've been fighting to
13 get something right, when they catch too many female bears,
14 there's a big penalized system going on that cuts our
15 harvest down. That part we hope that will be fixed when we
16 catch too many female bears in the community. The people
17 from the Western Hudson Bay pay the price all the time.

18 And same stuff goes on with what we talked about
19 last fall where, I'm from Whale Cove and I shoot one year n
20 Rankin, and it's taken off from Rankin quota system while
21 it should be taken off from the person where he's living.
22 These are a few minor things that we wanted fixed, and I
23 hope it goes through.

24 And we do a of defence kills. Not every
25 time a bear comes, but when it keeps coming to the

1 community, that's when we do a defence kill. It's not
2 every time there's a bear that goes to a community gets
3 killed. That's not the case, but we do a of defence
4 kills when we have no choice.

5 Saying that, in Whale Cove there's a of
6 problems with bears, and now Foxe this year, without a CO
7 there, so we have no choice but to get the community
8 members involved where the Environment people should be.
9 There's an office there. There's everything there for
10 Environment, but it's empty. No one works there. In
11 saying that, Rankin does take care of Whale Cove right now,
12 just so you guys know, but it's not working.

13 In what we talked about, what we've been talking
14 about as a board that there's too many bears that are
15 destroying people's personal stuff, meaning from cabins to
16 snow machines being parked. And it's not just polar bears.
17 Any wildlife damage. And there's a compensation program,
18 but you got to be a rocket scientist to get that going, and
19 it should be a better program where everyone can just
20 easily have access to it. And we've been trying to find
21 ways for research on bears or any other animals, but it's
22 hard without any funding or with infrastructure that you
23 need to do any research.

24 When we talk about harvesting bears, the science
25 states that we don't shoot females with cubs. It's not

1 only the science. It's within the Inuit, too. Inuit are
2 taught like that. And we grew up listening to our Elders
3 that you don't just shoot an animal with a cub or a calf.
4 We know that rule, so on the sex-selective harvest, it
5 shouldn't even be a problem.

6 So I know some communities were saying there's
7 too many female bears now in communities, and we know
8 that's a fact. There are a of female bears because we
9 shoot more males than the female bears. But I think the
10 science is so scared that we're just going to shoot females
11 with cubs, that sex-selective is always there. But we also
12 have to know that the population is getting so big, and
13 we're not following the 4 and a half percent that we need
14 to keep it stable. Maybe we're just killing them. Maybe
15 there's too many now. Maybe we'll just be killing them all
16 for their food source.

17 And we hear a of global warming. We've
18 talked about global warming, too. We hear a of global
19 warming. Once the ice stops forming, the bears are going
20 to disappear, which is not the case. Bears or any animals
21 adapt to anything in the environment. They adapt, and I
22 think we need to teach the world more that they will adapt
23 instead of the world going against the Inuit harvesting
24 rights all the time. There's just few examples where polar
25 bears adapted to zoos. That's one example where science or

1 the world never recognize. They've adapted to the zoos.
2 They will adapt in the north. And I know we're going to
3 starting get very cold winters while we live.

4 I think I'm going to talk a bit too much, too,
5 now, so those are the main points what we wanted to talk
6 about more. And Ezra will clarify more stuff on this
7 stuff.

8 MR. GREENE: Yeah, just so everyone knows, I am
9 providing technical support to Kivalliq Wildlife Board, and
10 I did help with the writing of the submission, and I just
11 want to clarify a few things from it.

12 This was created through a discussion with the
13 board of Kivalliq Wildlife Board and then in from the
14 executive, as well. And based on that in that I
15 received from everybody I worked on drafting this up, and
16 and then where there was written literature that supported
17 some of what was talked about, there are some references to
18 that as well.

19 But just to emphasize one thing, we looked at
20 the 2016 draft of the Nunavut Polar Bear Co-management
21 Plan, and currently the goal is stated as being to:
22 (as read)

23 "..., maintain viable and healthy polar bear
24 subpopulations for current and future
25 generations and to ensure that polar bears

1 remain an integrated and functional part of
2 the ecosystem where monitored and appropriate
3 harvests are allowed."

4 One thing that is clear to me is that the continued hunting
5 of bears by Inuit is very important as part of the
6 management, and I think that Kivalliq Wildlife Board wants
7 to sure that that's emphasized. And to my
8 understanding, a big way that Inuit qaujimajatuqangit,
9 which we talk about so much, is passed on is through
10 hunting, and so hunting needs to continue. And I think
11 that's one of the points emphasized in the submission.
12 We've talked about public safety quite a bit, and everyone
13 else.

14 The subpopulation boundaries have been
15 talked about some, and there's some disagreement on
16 understanding bears in that way, and Kivalliq Wildlife
17 Board notes that. As we saw from how the polar bears move
18 around from the telemetry data, the same bears can be in
19 the Western Hudson Bay, the Foxe Basin, or the Southern
20 Hudson Bay areas.

21 But also beyond just the bears, sometimes
22 those boundaries cause problems for humans also, and one
23 area I think we saw that when Baker Lake was presenting is
24 the Western Hudson Bay subpopulation and the Foxe Basin
25 subpopulation boundary is south of Chesterfield Inlet, and

1 sometimes that's caused some internal debate in the region
2 about who should get tags and whatnot. So that's just one
3 thing to think about.

4 However, it's important that if any sort of
5 reconsideration of boundaries is considered, one concern is
6 the political-legal implications of that, and that, like,
7 it's so hard already to do co-management with so many
8 different boards and jurisdictions and communities, and I
9 think Kivalliq Wildlife Board would be reluctant to open it
10 up to even more. I know that Makivik in a written
11 submission on this. So they're not here, but, you know,
12 they have concerns about the polar bears here, as well.

13 A 's been mentioned about polar bear
14 tourism, so we won't reiterate that.

15 And then for the level, the total allowable
16 harvest level, it was emphasized by Kivalliq Wildlife Board
17 in my discussions with everyone that the goal is to
18 maintain a stable population. It's not to decrease. From
19 the Kivalliq Wildlife Board's perspective, it's not to
20 decrease their polar bear population. But that total
21 allowable harvest recommendation of 44 for Nunavut and then
22 5 for Manitoba, based on the aerial surveys we found -- and
23 then also the Inuit knowledge -- we found that a thousand
24 bears is a reasonable estimate for how many bears there
25 are. That's a little higher than that 842 of the survey,

1 but it's within the confidence interval, and Inuit are
2 saying there's more and more bears. So that 1,000 seems
3 reasonable both from Inuit qaujimajatuqangit and from
4 science. And the 45 TAH for both Nunavut and Manitoba is a
5 recommendation using that 4.5 percent figure on that
6 estimate. So that's sort of where that number is coming
7 from or the rationale behind that number.

8 We've heard that the flexible quota system
9 is challenging to understand and that it causes a of
10 animosity, and so there's a recommendation in the written
11 submission on how maybe it could be dealt with. This is
12 open to discussion, but one suggestion is to maybe have a
13 moratorium on the severe penalizations that come from
14 harvesting too many females. And I still have -- the
15 Kivalliq Wildlife Board still have the HTOs and the other
16 co-management partners emphasize that -males-to-one-
17 female ratio but maybe not have such a strict penalization
18 where s and s of credits get taken away, because what
19 happens is sometimes some communities don't get to hunt at
20 all for multiple years because there's been too many
21 defense-of-life-and-property kills.

22 So that's just some of the rationale that
23 went into the written submission.

24 If you go to the end, the tables, these are
25 kind of confusing.

1 I just want to emphasize we also had
2 discussions with NTI's Wildlife and Environment Department,
3 and they helped out a with technical things, so this is
4 one of those things. This one just shows the harvest
5 levels for each community from 2000 up until 2016. So the
6 black numbers show what the actual harvest was. The
7 columns, the blue in the right -- it becomes confusing --
8 the top number is how many were from the Western Hudson Bay
9 population, and the bottom number is the Foxe Basin
10 population. So in Chesterfield you see that there's a
11 mixture of the . And these come from the Nunavut
12 harvest reports that are provided by -- the polar bear
13 harvest reports provided by the vernment of Nunavut.

14 But one thing to note is around 2008 the
15 quota severely or drastically dropped from -- I think in
16 2005 to '06 the quota for the Western Hudson Bay was around
17 56, and then it dropped to 30 something and then to 8, and
18 so that was difficult to manage for communities. to the
19 next slide.

20 One thing looking at the records, it seemed
21 to us that the amount of defence-of-life-and-property kills
22 increased quite a bit around that 2008 period. So the
23 number in orange, you see that prior to 2008-2009 there
24 were occasionally defence-of-life-and-property kills, but
25 in a of communities, like in Arviat and in Whale Cove,

1 those defence-of-life-and-property kills really increased
2 when there was a really, really low total allowable
3 harvest, and it just becomes difficult for communities to
4 manage what hunters are going to do when there's such a low
5 total allowable harvest. ahead to the next one.

6 This just shows over time what the annual
7 harvest was for each community. I think we can go to the
8 next slide.

9 And this one just is a graph that again
10 shows what I just said. Prior to 2008-2009 there was
11 really not a problem with people meeting the management
12 levels. A of years the actual harvest was lower than
13 the quota, and it's only after 2008 to 2009 where there's
14 been issues where there's been actually more bears killed
15 than the quota. So I think that's important to think about
16 when we're considering management and what people are
17 actually going to do with hunting.

18 So that's some of the technical aspects just
19 behind Kivalliq Wildlife Board's submission.

20 THE CHAIR: you very much, Stanley and
21 Ezra. You're completed, then, your presentation to us?
22 Ezra?

23 MR. GREENE: Sorry, there was some more. These
24 last ones, like there's, I think, five at the end that
25 break it down what the actual harvest was in terms of the

1 types of kills or the types of harvest.

2 So everything in green is a regular harvest, so
3 that's Inuit hunting. The blue is sports hunts. This one
4 is Arviat, and Arviat did quite a bit of sports hunting
5 prior to 2008, so you can see that since the quota was
6 really reduced, Arviat has really had to stop doing sports
7 hunting, which impacts the local economy. But we also see
8 here that in 2008 is when those defence kills really jump
9 up, and a few illegal kills as well.

10 And the next four tables were similar. We can
11 go through each one. So this is Baker Lake. You can see,
12 as Hugh mentioned, Baker fluctuates how many bears they get
13 to hunt, and I think that is something that Hugh is going
14 to bring up as a question. But there's some years where
15 they've had tags that I think come from both
16 Western Hudson Bay and Foxe Basin and some years where they
17 have had none and then some years where they have one. So
18 go ahead to the next one. We'll look at it.

19 This is for Whale Cove, I believe. Let me
20 double-check. No, this is for Chesterfield Inlet. So you
21 can see that they've had some -- they've had defence kills
22 quite a bit in Chesterfield Inlet all the way back to 2000,
23 but that 2011 to 2012, they had -- they had a of
24 defence kills. I don't know the specific histories of
25 every single kill here. We can look at the last

1 quickly. This is Rankin Inlet. And then the last one is
2 Whale Cove.

3 And that's everything.

4 THE CHAIR: you, Ezra. Okay, then,
5 thank you very much, gentlemen.

6 Okay. Open for questions from the Board to
7 Whale Cove. Charlie.

8 NUNAVUT WILDLIFE MANAGEMENT BOARD QUESTIONS AND COMMENTS

9 MR. INUARAK: you, .

10 Regarding what you just shared that you wanted
11 40 in the Western Hudson Bay region and then you also said
12 the 4 and a half percent -- the percentage, what would that
13 equal? According to the 4 and a half percent base, what
14 would the number be?

15 THE CHAIR: you, Charlie.

16 Ezra?

17 MR. GREENE: So the population estimate from
18 which Kivalliq Wildlife Board made its decisions was 1,000
19 bears, and the recommendation was for a total allowable
20 harvest of 45 bears, which is 4 and a half percent of
21 1,000, but 40 of those would be for the Kivalliq Region or
22 Nunavut, and the other 5 would be for Manitoba because I
23 believe right now there is a sharing of the total allowable
24 harvest between the .

25 THE CHAIR: you, Ezra.

1 David K.

2 MR. KRITTERDLIK: you, .

3 A comment before a question. Stanley was saying
4 that he's not an Elder, but elder doesn't elders an
5 Elder.

6 Now, I keep bringing up IQ because IQ is not
7 taught in the classroom, IQ is not taught on a written
8 material. IQ in Inuit is taught verbally right from the
9 child, right from the infant growing up. I just noticed
10 that when Stanley mentioned that, that that's where IQ is
11 unique with Inuit throughout Nunavut, even in NWT.

12 As we see around the table, there's a mixture of
13 us Elders and the younger representatives of hunters and
14 trappers organizations. Having said that, question: We
15 hunt wherever we want to go hunting. If there's no polar
16 bears in Whale Cove, we may go to Arviat. But there was a
17 mention of a hunter from, let's say, Rankin Inlet that got
18 a polar bear in Whale Cove or Arviat, but the number of
19 that kill was taken out from a community -- let's say,
20 Whale Cove. I think that happened before, but I'm just
21 questioning if that has been a problem. And we've heard
22 that RWOs are the ones that allocate number of tags to the
23 communities. I was just wondering why that happened
24 before, like, a hunter from Rankin Inlet went to Whale Cove
25 or Sandy Point and a tag was taken out from Whale Cove

1 allocation.

2 you.

3 THE CHAIR: you, David K.

4 Stanley.

5 MR. ADJUK: you, .

6 I'll clarify that. I guess I wasn't clear
7 enough. These are the ones that are taken out of the
8 communities, who is not from a community or for defence
9 kills only. Example, I'm here in Rankin and I harvest a
10 bear in my own defence, but it would come off from their
11 next. The total allowable harvest would come out from that
12 community where it was the nearest. That is one thing that
13 we didn't like, and we kept talking about it in our
14 regional meetings. When they do a defence kill, wherever
15 they are, whoever they are and wherever they are from
16 should come out of their community, not from the nearest
17 community. That's what we were trying to say earlier.

18 Matnaa.

19 THE CHAIR: you, Stanley.

20 David.

21 MR. KRITTERDLIK: I guess to it a little more
22 clear, a hunter from Rankin Inlet got a polar bear in
23 Sandy Point, and that tag was taken out from Whale Cove
24 because Sandy Point is closer to Whale Cove. Is that how
25 it's supposed to work? you.

1 THE CHAIR: you, David.

2 Stanley, you're going to defer that to Michael?

3 Okay.

4 Michael.

5 MR. D'ECA: Qujannamiik, itsivautaaq.

I think this section I'm about to read would answer this issue, and if you have a binder it's at tab 21, and it's section 6.2 of the MOU. And the opening sentence of section 6.2, it's on page 10, and it says: (as read)

10 "When a Nunavut beneficiary residing in a

11 Western Hudson Bay population community kills

12 a bear in the Western Hudson Bay population,

13 the tag will come from their home community."

14 So I read that to mean that if you happen to be in Rankin
15 but you're from Whale Cove and, whatever the reason, if y
16 have killed a bear from the Western Hudson Bay population
17 in that community, the tag comes from your home community
18 which I think is the rule that KWB wants to have in place

19 So my understanding is that that is the rule that's set out
20 in 6.2.

21 Taima.

22 THE CHAIR: you, Michael.

23 David Lee, you have something to add. I'll
24 allow that over this topic.

25 . LEE: you, man.

1 And thank you, Michael.

2 Just to assist David and the KWB, I was involved
3 in a teleconference call that dealt with this specific
4 issue. I know this is outside of potentially what we're
5 discussing here, but in respect to David I wanted to answer
6 his question.

7 What actually occurred was that there was some
8 confusion because of the clause on the same page of 6.1.
9 So in 6.1, if you read that first sentence, the
10 interpretation says "nearest community," but then if you
11 read 6.2, it's what Michael had just said. So this was
12 discussed by the board and also by the GN, and so that this
13 situation could be discussed by the KWB, because it is a
14 KWB responsibility to avoid that occurrence in the future.
15 I mean, the MOU is a guideline. It's the KWB that has the
16 ultimate responsibility. Qujannamiik. That's just for
17 context. It's not to disue what's been said. It's to
18 provide background in how this situation developed.

19 s.

20 THE CHAIR: Yeah, thank you, and I think it is
21 sort of out of the realm of what we're discussing here, but
22 it's an interesting point.

23 So, David, did you get your clarity on that?

24 Okay. David's good. Caleb.

25 MR. SANGOYA: you, .

1 I have four questions in all. First, I have
2 many relatives outside of Nunavut. They were born here in
3 our territory but reside outside. Inside the Hudson Bay
4 the same bear population exists in Quebec, and I was told
5 last year there's about 124 bears caught from Northern
6 Quebec. So this population have only 38 tags allowable to
7 harvest, so why is it that Northern Quebec have more leeway
8 and you have been strapped under strict policy?

9 Second question. Before the Nunavut Land
10 Claims, before this existed, before the NWT passed any
11 regulations, they never told Inuit not to be allowed to
12 hunt polar bears. Now I see in red the term "illegal
13 kills." Now that we have Nunavut, the prestigiousness of
14 Inuit in relation to their polar bears is being harmed.

15 Third, I have a friend from Greenland who I
16 often talk with each month. People in Greenland, we have
17 an agreement that they can catch polar bears in Baffin Bay.
18 They are free to hunt as much as they want. It's only
19 closed in July. And they don't trade bears, but it is
20 their own. And they also garments, hunting gear,
21 ching out of the hide, and so this is their management.
22 And we all have different management styles, but because
23 they are our kin, Inuit kin, why is it that we're so
24 different? Does it not matter why there's such a vast
25 difference amongst us?

1 And speaking inside of Nunavut, those
2 beneficiaries, if there's one town has 45 tags, why would
3 we have different numbers for the rest of Nunavut
4 communities? We're all one. We're all from the same
5 territory. It doesn't matter whether it's Hudson Bay or a
6 different area. And, again, prior to the Land Claims,
7 Inuit hunted for food and for warmth and ching, but when
8 we got the Land Claims it only focuses on hunting and
9 trading without considering our diet. Do we just exclude
10 what's so important, such as our diet, out of the Land
11 Claims?

12 Regarding polar bears, we know that those people
13 who strived hard to come up with the Land Claims from the
14 vernment and NTI, they didn't describe how to change our
15 diet. They didn't consider what was in existence and what
16 we practice to today. Our forefathers always caught bears
17 and automatically cooked it as a meal. Perhaps we're too
18 much in the western civilization ways that are we not even
19 allowed to follow our own people anymore from the past?

20 I want these answered.

21 THE CHAIR: you, Caleb. I guess your
22 questions are to KWB.

23 Stanley.

24 MR. ADJUK: you, .

25 Those are very powerful comments you just

1 mentioned, and with all these regulations and rules we
2 follow, we're still following. Maybe over the last couple
3 of years each HTO's been saying if the allowable harvest is
4 not there we'll just do whatever we want because there's no
5 allowable harvest. I think that's a better route that we
6 should be looking forward to. They cut our quota, then
7 there's no quota, so it's all for anyone.

8 It's hard to answer Caleb's questions because
9 we've always had this quota system in our communities.
10 It's not our choice that we wanted 8 for the region, 38 for
11 the region, 54 for the region. That was never the region's
12 choice at all. It was given to the region.

13 That's all I can answer. you.

14 THE CHAIR: you, Stanley.

15 Caleb.

16 MR. SANGOYA: The hides were sent to Iqaluit
17 from the Baffin and Kitikmeot and Kivalliq when they caught
18 bears. In 1999 they started taking hides. They took all
19 the hides that were caught collected in Iqaluit and burnt.
20 The government burnt them. Inuit knowledge was harmed,
21 hugely damaged, all the hides that we could have used and
22 applied. Our Inukness is more important than making money,
23 and this is our strength. We strive for this to be our
24 strength, but it's deteriorating by outsiders.

25 THE CHAIR: you, Caleb.

1 Charlie.

2 MR. INUARAK: you, .

3 We all know that you often have many meetings in
4 the Kivalliq, Kivalliq with the HTOs, and this is policy
5 and a regulation to hold meetings, and we're also going to
6 oblige to what you have to share here because that's our
7 nature.

8 And we have a hearing here. We've heard the
9 same issues and concerns over and over through the years.
10 My term is almost up, still hearing the same. They've
11 often said the people who are home, whether in Arviat,
12 Whale Cove, Chesterfield, and any of these communities, and
13 not only in meetings, not only during meetings that they
14 see so many bears, and they are having so many problems
15 with bears and what a nuisance they've become, even to the
16 point where the Nunavut government has assisted in problem
17 bears. So we feel this.

18 If there are really 1,000 bears in number, if I
19 were the judge, if I were to play judge and look at the
20 evidence before me, according to the number of bears that
21 are nuisance bears, if I wanted fewer of these nuisance
22 bears, problem bears, then I would have to add to your
23 tags, to your quota, and this would help you because we
24 would increase the number of bears you can catch. For
25 protection-wise, it would be a lighter burden for those

1 that monitor throughout the night and throughout the
2 critical times of the month or year.

3 And you're sharing this with us from Kivalliq
4 Wildlife Board. Can I gather this to be true? I'm
5 collecting all what's being said, and could I say that this
6 is true overall in what you're asking?

7 THE CHAIR: you, Charlie.

8 Stanley

9 MR. ADJUK: you, .

10 Yes, what you've said are true. We've come to
11 realize -- we saw a picture of a bear earlier. When we had
12 more tags, we would never use them all. But now that they
13 cut the quota and the tags, then we went over that limit,
14 and many hunters are disturbed because it's part of their
15 diet, it's part of our ching. So when we're disrupting
16 them too much as hunters, harvesters, they have their own
17 right to rebel and disobey.

18 So now that there's no limit. Then they were
19 under the numbers required, but when they a limit they
20 went over. If there's going to be more cuts to the quotas
21 or the tags, perhaps we can expect that more bears are
22 going to be killed, according to Inuit law-abiding citizens
23 as they are, and we really do tell them you have a right to
24 protect yourself and carry out your right as an Inuk
25 harvester. But if you increase the number of tags, I want

1 you to know that we're not going to probably use them all
2 in one year. I'm sure there's going to be some left over,
3 and perhaps some years perhaps they'll use them all.

4 According to the population, I think this is more fitting
5 every year, without too much changes over the year, be more
6 consistent.

7 In the Western Hudson Bay population, if there
8 is 1,000 that you know of and if you give out 45 tags, then
9 that's sense. So if there's 1,000, it should be pretty
10 steady, and that is the steady number to be safe, 4.5
11 percent. I don't really know if that's the complete truth
12 or fact, but that's what we follow through for all
13 wildlife, not just polar bears.

14 Yeah, we are requesting increase the number,
15 because if you decrease it, we know for a fact that people
16 from Kivalliq according to our meetings with
17 Nick Arnaukjuaq, Harry from Chester, every time we meet
18 they've said this. But in this meeting, for example, in
19 this hearing they're likely not to share that. It's when
20 we hold meetings with them they're warning us, whether or
21 not there's tags or quotas, we're going to hunt and kill.

22 And regarding Environment Canada or people from
23 the Environment, you can't monitor every hunter. There's
24 no way you can monitor every hunter. So if you decrease
25 the tags, it's going to be increase in harvesting. And not

1 all bears go into every community, but it's just we always
2 find that when there's no more tags, they come around. Not
3 in Whale Cove -- I think everywhere. When there's no more
4 tags, they come and show up. But when there's polar bear
5 tags, they're hard to find. They don't come close to our
6 communities. Inuit know this very well.

7 And what Charlie shared earlier, what he asked,
8 yes, we're asking for more. There used to be 56. Then it
9 was cut to 38, and then it was going lower, even for the
10 point where there were 8 in the Kivalliq Region.

11 But I'm not trying to scare everyone, not trying
12 to intimidate everyone as people from Kivalliq, but if
13 there's no more tags, yeah, obviously there would be no
14 limit. They're our animals, our wildlife, our diet. We
15 use them. If there's no quota, then there's no limit. I
16 think we need to state this coming from Inuit.

17 THE CHAIR: you, Stanley.

18 Charlie.

19 MR. INUARAK: I want to ask you, in the Kivalliq
20 Region the tags for polar bears are for Inuit, and the HTOs
21 are in charge of giving out those tags, but it's the HTOs
22 that are in charge of those tags.

23 My question to you: The Inuit in the Kivalliq
24 Region that are affected, if I can it clear, I would
25 ask the question; the Kivalliq Inuit Association -- I know

1 NTI is in favour to the KWB. What about the Kivalliq Inuit
2 Association? Have they recognized this, as well, what
3 we're talking about?

4 you.

5 THE CHAIR: you, Charlie.

6 Stanley

7 MR. ADJUK: The president of KIA was in our
8 meeting. He knows our view. We're looking for ways. He's
9 probably going to speak. He knows, understands, he's a
10 hunter, as well, in the Kivalliq Region. He even goes to
11 Whale Cove for polar bears. We understand that he was in
12 support of us, but we're going to hear from him later, so I
13 can't speak on his behalf.

14 you.

15 THE CHAIR: you, Stanley.

16 I think at this time I'd ask David if you want
17 to go to the microphone and just state who you are, David,
18 and you can say your few words.

19 MR. NINGEONGAN: you, .

20 My name is David Ningeogan, president of the
21 Kivalliq Inuit Association. you, man, for
22 giving me the opportunity today.

23 The polar bear issue in the Kivalliq Region is
24 very evident that we need a larger number for TAH. We hear
25 all the time that the total allowable harvest is not enough

1 for the communities over the last many years. For an
2 example, what you see, the polar bears that are harvested,
3 there were TAHs for the communities. They would always be
4 the same, the amount harvested. But the tags are not
5 enough for the Kivalliq Region for the communities that are
6 affected.

7 As a board, Kivalliq Inuit Association, our
8 mandate is to ensure that the beneficiaries are taken care
9 of. And Inuit traditional knowledge, we know that there
10 should be a higher TAH, but they're listening to western
11 science more than traditional knowledge. Our agreements
12 that we have, we've had to use it a few times. The
13 stumbling blocks that we have over the last few years that
14 we've encountered, the tags that we are asking for in the
15 Kivalliq Region and the HTOs in the communities are going
16 to be affected. We are in support of those organizations
17 as Kivalliq Inuit Association, and we know that we do not
18 want the tags to be reduced. We need to increase that
19 number.

20 I want you to understand the tags that we have
21 is not enough for the region.

22 We all know that the polar bears today are being
23 affected more by western science and not by Inuit, and they
24 are going more into the communities. Once they are handled
25 down in Churchill by ting them to sleep and when Inuit

1 harvest those affected bears, and they paint the fur, we
2 can't use the fur and eat the meat anymore. When it's like
3 that, us Inuit feel that only we harvested for food and
4 ching, and it's not to be a detriment to our
5 beneficiaries using Inuit traditional knowledge.

6 I know, NWMB, we are asking you that the quota
7 should be increased for the Kivalliq Region because it's
8 been really small and not enough. If we were given more
9 and we are in support of more tags being given, we would
10 like to see that. We are asking you.

11 And the western science biologists in Churchill
12 is where they operate, they should go to the Kivalliq
13 communities to see what it is like in our communities in
14 the region with respect to wildlife and learn from Inuit
15 traditional knowledge. We are going to invite them to come
16 more often to our region.

17 For your information, I know it hasn't been
18 mentioned too many times that five tags for Manitoba. We
19 know that there are defence kills down there, we would ask
20 that compensation be given to the Kivalliq Wildlife Board.
21 If they're going to have five tags, then they should be
22 giving funds to the Kivalliq Wildlife Board, and you add
23 another 45 tags for the Kivalliq Region, those 5 that are
24 defence kills should be compensated.

25 you for giving me the opportunity. I

1 don't have anything else to say. you.

2 THE CHAIR: you, David.

3 Charlie.

4 MR. INUARAK: you.

5 While you're down there, my final question. The
6 Inuit, you're standing here representing them. I'm proud
7 of you. I would like you to continue. I'm sure you have a
8 written submission for us. Our MLAs and lawyer is probably
9 motivated. This is our second hearing with respect to
10 Western Hudson Bay polar bears, and it is very evident the
11 people that are getting more and more bears in Arviat, you
12 could hear it on the radio a . Even though we're far up
13 north we know that there's more polar bears in the region.

14 And the regulations and laws, that we've reduced
15 the number of polar bears you can harvest with the rules
16 and regulations and law that we had to add, if you have a
17 written submission, are you going to give us a request, or
18 have you already given us that request to increase the
19 total allowable harvest?

20 THE CHAIR: you, Charlie.

21 David?

22 MR. NINGEONGAN: you, man.

23 This is something we don't have a written
24 submission to. We have given that mandate to NTI because
25 it is their mandate, but if we have to have a letter of

1 support, we can give you one if we are given the
2 opportunity.

3 I apologize that I didn't come here earlier. I
4 knew that you were having a meeting, however, we've been
5 quite busy trying to keep up with our job, but if we are
6 given the opportunity, we'd be able to give you a support
7 letter for increasing the total allowable harvest for
8 Western Hudson Bay.

9 THE CHAIR: you, David.

10 And I just want to clarify. What you gave us
11 today and what you spoke to is on our record, so that is a
12 submission by you, and that will be accept, and the board,
13 too.

14 Any other questions from the Board to
15 Whale Cove -- I mean to KIA. Getting tired. At least I
16 got the community. Right, Stanley? Any questions from
17 staff? Vickie, quickly.

18 NUNAVUT WILDLIFE MANAGEMENT BOARD STAFF QUESTIONS AND
19 COMMENTS

20 MS. SAHANATIEN: you, .

21 Yes, just one question. And we'll need this
22 information for our future analysis. So you've recommended
23 to use a number of 1,000 for the population estimate to
24 estimate the total allowable harvest, and in your
25 submission you provided some information about why you

1 selected that number, but it would be very helpful to
2 receive more details about that, so if you can fill out
3 some details and why 1,000.

4 you.

5 THE CHAIR: you, Vickie.

6 Ezra.

7 MR. GREENE: So, yeah, that number, as I
8 mentioned, comes partially from the results of the aerial
9 survey and the confidence interval for that 2016 aerial
10 survey that 1,000 is within the limits of -- I don't know
11 exactly what the range was -- around that 842. But also
12 from Inuit saying there's more and more bears and saying,
13 okay, well, there's a range here that western -- like, an
14 aerial survey has provided and Inuit are saying there's
15 more and more bears, maybe the estimate should be higher
16 within that range.

17 And we also consulted with David Lee and
18 Gabriel Nirlungyak at NTI just to get insight into whether
19 that was a reasonable sort of number to work around, and
20 David said, yeah, that works with the science. And I think
21 he can respond to that if there's anything else that needs
22 to be said.

23 THE CHAIR: you, Ezra.

24 Vickie.

25 MS. SAHANATIEN: you, Ezra. That's very

1 helpful.

2 Yeah, I'll just note the interval, confidence
3 interval is 526 to 1,121, and the point estimate was 842.
4 So 1,000 is up towards the top limit of the latest
5 estimate. So it would be useful to hear from David to find
6 out any additional information why that number was
7 selected.

8 you.

9 THE CHAIR: you, Vickie.

10 David Lee.

11 . LEE: you, .

12 And thank you, Vickie.

13 So as Ezra mentioned, the KWB held a
14 teleconference call, and also there were a number of
15 meetings where they were trying to essentially discuss how
16 they could be reasonable with all of the information that
17 the board members in the communities were mentioning,
18 especially the traditional knowledge. And the estimate of
19 1,000 was mentioned because, over the past several decades,
20 in looking at just the stability of the population, that
21 was the number that had been used during the last public
22 hearing, and it was a number that the board felt
23 comfortable using if they had to provide some justification
24 with percentages and numbers because, of course, IQ doesn't
25 provide an exact number.

1 So I would try to not focus on necessarily an
2 exact reason for using a specific number but just that this
3 was a result of a frank and open discussion where the
4 participants, especially the board members on those calls,
5 felt that they could essentially compromise to provide some
6 type of option for the Nunavut Board.

7 s.

8 THE CHAIR: you, David Lee.

9 Vickie.

10 MS. SAHANATIEN: you, David, and Ezra as
11 well. Sorry. I didn't want to belabour it, by any means,
12 but it will be very important when we review all the
13 information and we options towards the Board. So we
14 need that type of background, so I appreciate it.

15 you.

16 THE CHAIR: you.

17 Michael, any questions to KWB? No?

18 vernment of Nunavut, any questions for KWB?

19 MR. ISSING: No questions, man.

20 THE CHAIR: NTI, Paul?

21 NUNAVUT TUNNGAVIK INCORPORATED QUESTIONS AND COMMENTS

22 MR. IRNGAUT: Yeah, just one quick question. On
23 3.2 on your submission on the moratorium on flexible quota
24 system penalizing or penalizations for over-harvesting
25 females, can you explain that a little bit more? You're

1 suggesting that they have a moratorium for five years. Is
2 that correct?

3 THE CHAIR: you, Paul.

4 Ezra.

5 MR. GREENE: Yeah, so the suggestion there, as
6 I said, this is open for discussion, and it's an issue
7 that's clearly an issue, as has been noted by other
8 participants.

9 But the suggestion is basically maybe we should
10 start with a moratorium on the severe penalizations where,
11 if too many bears are harvested in a single year within
12 that -to-one ratio, it can eliminate multiple tags
13 within the next year. And one thing, it's confusing. It's
14 not clear how the math is actually done. There's actually
15 not very -- from what I was looking into, there's not very
16 good records of how credits were determined based on what
17 the harvest was the year before. So maybe that's just
18 information that needs to be more transparent from the
19 government or from NWMB. I'm not sure who that would be
20 would be in charge of that.

21 But the suggestion here is that maybe one way to
22 do it is that there should be a moratorium where there
23 isn't that severe penalization for over-harvesting one
24 female and that KWB, the HTOs, and the other co-management
25 partners should still emphasize that that ratio should be

targeted. But during that time, maybe if there's over-harvesting of females, it should just be a one-to-one penalization for the next year so that if the TAH is 40 and there's 41 caught, then the next year it will be 39 tags that would be provided to the region. And then after that time of five years, evaluate what actually happened, see if people actually followed, more or less, that -to-one ratio and revisit whether more severe penalizations are necessary.

10 So if there's any more questions, we can answer
11 them.

12 THE CHAIR: you, Ezra.

13 Paul.

14 MR. IRNGAUT: you. s for that

15 answer. No further questions.

16 THE CHAIR: you, Paul.

17 Arviat HTO, any questions to KWB? Nick?

18 ARVIAT HTO QUESTIONS AND COMMENTS

19 MR. ARNAUKJUAQ: you,

I'll just this clear and quickly. I'm

21 seeing different numbers when it comes to the quota. I
22 said now I'm sure all the information is correct for the
23 vernment of Nunavut to stand at 28, for KWB to stand at
24 40-45, and that's between the three communities, Arviat,
25 Whale Cove, Rankin. Arviat has requested 25, Rankin at 40,

1 and Whale Cove at 20.

2 With these numbers I'm sure today there is no
3 deal, but given the fact what I sit here today, any
4 governing body if you cannot give us 25, then I request you
5 give us 60 with no question asked and that be done with.
6 But I know this is workable even though the numbers are
7 different, and the understanding is there, it's very clear.
8 And given the fact with the polar bear problem situation,
9 defence kill, yes, I want this matter done with today that
10 we can do it -- I know it -- because we've heard enough
11 about Western Hudson Bay polar bear.

12 The three communities -- Whale Cove, Rankin,
13 Whale Cove (verbatim) -- let's deal with the Western
14 Hudson Bay polar bear and decide on Baker Lake and
15 Chesterfield how we'd be able to move forward. Let's fix
16 it now. It would be all right. I think we understand
17 clearly where we stand. Using our knowledge, we decided on
18 those numbers.

19 That's not a question, just a comment I just
20 wanted to mention. Looking at the numbers are different,
21 let's fix it today. We're going to be on the same boat,
22 you owe me something or we miss something. While there is
23 no serious injuries by polar bears, let's resolve this
24 matter.

25 The polar bear problem, if the harvest was at

1 the proper level, we wouldn't even be sitting here if the
2 polar bear situation was resolved ten years, five years.
3 you, man.

4 THE CHAIR: you, Nick.

5 And I think those were more comments than any
6 questions to KWB. I just will advise you, Nick, we will
7 not a decision on this today. We need to go back and
8 analyze all this information and understand it fully before
9 we a decision. So we're hoping that will happen in
10 March, in our March meeting.

11 Any other comments or questions from Arviat?

12 No?

13 Whale Cove.

14 MR. ENUAPIK: No comments.

15 THE CHAIR: you, Simon.

16 Chesterfield, Harry.

17 MR. AGGARK: No comments.

18 THE CHAIR: Rankin.

19 MR. SIGARDSON: Just like to clarify, Rankin
20 wanted 40 total for Western Hudson Bay, not 40 for Rankin
21 like Nick suggested there.

22 THE CHAIR: Okay. Noted.

23 Baker Lake, any questions, comments?

24 BAKER LAKE HTO QUESTIONS AND COMMENTS

25 MR. NATEELA: you, man.

1 We don't have any questions. Maybe, however, if
2 there are more ways for capacity building for the local
3 HTOs it would be helpful to us when we're having a meeting,
4 a large meeting like this, sometimes we're not prepared and
5 we end up travelling, which is a detriment. Even though we
6 want to help the wildlife boards and our own HTOs, when you
7 don't have staff that are qualified and knowledgeable --
8 maybe, for an example, if we had biologists for HTOs, the
9 questions that we have, you know, they'd probably be able
10 to assist us because we don't have the proper qualified
11 staff in our communities. Maybe that would be helpful for
12 the RWOs and the NWMB and the HTOs. Something should be
13 considered for the future. If we had a regional biologist
14 or a policy analyst in the region, they would be helpful to
15 the HTOs.

16 you, man.

17 THE CHAIR: you, Hugh. I think more of
18 a comment again that everybody can hear.

19 Environment Canada, any questions to KWB?

20 MS. VALLENDER: No questions. you.

21 THE CHAIR: you.

22 World Wildlife Fund, nothing?

23 Any questions from the general public or Elders
24 out there? Bert Dean, go ahead to the mic. You're both, I
25 guess, eh?

1 PUBLIC/ELDERS QUESTIONS AND COMMENTS

2 MR. DEAN: s, man. s

3 Louie.

4 Yeah, I didn't get Paul's attention when it was
5 NTI's turn, but just to comment to sort of build on
6 Kivalliq Wildlife Board's submission, there was an NWMB
7 hearing in Naujaat where they were talking about the
8 Foxe Basin allocations, and because of the flexible quota
9 system one, of the communities -- it was either Hall Beach
10 or Iglulik -- was going to be reduced potentially -- so was
11 Coral Harbour -- because they had gone one female over, one
12 female tag or credit over. Because of their credits,
13 Coral Harbour was going to lose three tags or four tags the
14 next year, and Hall Beach was only going to lose or
15 whatever it was.

16 When you looked at Foxe Basin, when you looked
17 at the harvest for that year, it was a -to-one
18 male-to-female ratio. But at the community level some
19 communities had harvested too many females. Now, they
20 could ask the other community for credits, but if the
21 community gave up those credit, then potentially their
22 quota would go down by five.

23 A good friend and colleague once sort of
24 explained this is more of a social experiment with people
25 as opposed to a wildlife management approach, this whole

1 flexible quota system. It takes away the job of the NWMB.
2 You don't have to decide whether to lower or increase the
3 quota. The flexible quota system decides all of that for
4 you. And it doesn't take into account traditional
5 knowledge or hunter observations or any information, so
6 it's been forward for something for the Board to
7 consider or think about.

8 Another example for this region, I believe it
9 was 2010 or somewhere in there when the quota had been
10 reduced to eight, Arviat had eight or nine defence kills.
11 All the tags were gone before the season had even opened.
12 The government department released all those hides to the
13 Arviat HTO. The Kivalliq Wildlife Board hadn't even talked
14 about how to share those eight tags, so Whale Cove and
15 Rankin, Chester, and Baker were never even considered. And
16 we had a conference call, and there was people arguing and
17 mad about that whole situation.

18 And the one thing I've learned working and
19 living here is we shouldn't be arguing or fighting about
20 animals or tags. And so I think if we can find a
21 respectful way to figure out what, you know, from a
22 conservation perspective is a reasonable quota, from a
23 human or public safety -- you know, if we go a bit below
24 800 -- if we went to 700 or 600, would that be the end of
25 the world if there was only 600 polar bears in the Western

1 Hudson Bay? But if it was a bit safer for hunters or
2 families that are camping in the spring, or communities,
3 kids going to school or going out in the playground or to
4 the store.

5 That flexible quota system -- because I was
6 around, and we talked about it -- the communities wanted a
7 higher quota. So if you want those 100 tags, then your
8 target population has to be 1,400 or 1,500 or whatever, and
9 it was that reverse calculation. And that's kind of a sad
10 way to set up our management goals or objectives, whether
11 it was greed of wanting more tags or it was manipulation of
12 this is what you have to have to get them, I think some of
13 the discussion earlier about, what are the management
14 objectives.

15 Moshi Kotierk did a survey from a of these
16 communities. I don't know if that's been entered into this
17 hearing, but I know it has been before the Board before,
18 and Moshi has made presentations to the Kivalliq Wildlife
19 Board. A of the people he interviewed in the
20 communities were not adverse to having a lower quota if it
21 meant it was safer to go camping. So if we had a higher
22 quota now and that reduced those population and it was a
23 bit safer -- or maybe not -- but in the Kivalliq Wildlife
24 Board presentation they talk about, like, set a date to
25 come back and look at it again, is it working.

1 But the news last year, or whenever it was, you
2 know, that there was going to be this 28 tags for Western
3 Hudson Bay, and it was on the news and everything else, the
4 reality was Arviat had tags because of that flexible
5 quota system. There had been too many defence kills or
6 female bears killed. So even though the Board had made
7 that decision about 28, it was never 28, to begin with. It
8 had already started down at 18 or something a lower.
9 Rankin last year harvested mostly males, and this year I
10 think we're quite successful again in getting mostly males
11 with CEID's (phonetic) allocation or tags. If you follow
12 the flexible quota system, Rankin should be at 15 or 20,
13 and Arviat should be at 0. That's the flexible quota
14 system.

15 So I think we need to take a harder look at that
16 and maybe consider some other options, because we don't use
17 it for any other species. We don't use it for musk ox or
18 caribou or whales or anything. No other the jurisdiction
19 uses it. Inuvialuit refuse to use it. Nobody uses the
20 flexible quota system.

21 you.

22 THE CHAIR: you very much, Bert Dean,
23 for your comments.

24 Any other? I don't think there was any
25 questions to you, Stanley. It was more comments.

1 Any other questions or concerns from the public?

2 I don't see any.

3 All right. We're done. Whale Cove, thank you
4 very much for presenting your information -- I don't know.

5 Should we take a break? you, Kivalliq Wildlife
6 Board -- I'm sorry -- thanks for your presentation and
7 question answering.

8 I guess we have a choice here. We only have a
9 couple -- World Wildlife Fund, do you have much to say, or
10 do you have a big presentation?

11 MR. LAFOREST: As the day's gone on I've chopped
12 my presentation. It shouldn't take more than ten minutes.

13 THE CHAIR: Okay. With that, we have World
14 Wildlife Fund left, and I think that's pretty much it,
15 unless somebody from the public has something to present
16 later. But I think we'll carry on and try and finish this
17 hearing as best we can. We're all here. Instead of coming
18 back in an hour or so, if everybody's in agreement, let's
19 just go until we can finish this, and it shouldn't take too
20 much longer. All right? od?

21 All right. World Wildlife Fund, you're up.
22 ahead, you have the floor.

23 SUBMISSION BY WORLD WILDLIFE FUND

24 MR. LAFOREST: you, . And thank
25 you very much to the NWMB for the opportunity to present.

1 My name is Brandon Laforest, and I work for WWF
2 Canada based out of Iqaluit.

3 It's not lost on my organization or myself that
4 we are the only nonco-management partner given the
5 opportunity to provide an oral presentation, and we are
6 very grateful for that.

7 The WWF has advocated in international forums
8 such as CITES to defend international polar bear trade,
9 recognizing that harvest is a vital part of Inuit culture
10 and economy and is not a threat to polar bear populations
11 in Canada.

12 We have offices across the arctic, including
13 here in Nunavut, and we aim to incorporate the valuable
14 lessons learned from living in the north, however briefly,
15 including traditional ecological knowledge perspectives in
16 our conservation work and messaging. A big part of my job
17 anecdotally is to ensure that our messaging from Toronto is
18 reflective and respectful of the north. That being said, I
19 appreciate the chance to offer the perspective of an
20 outside organization to this process.

21 First thing I want to talk about is management
22 plans, and I think what we've seen here is there's a strong
23 need to have an approved Nunavut polar bear co-management
24 plan in place so there's a more systematic approach to
25 polar bear management decisions with updated management

1 goals, especially given the changes we're seeing in the
2 arctic and the need for adaptive management.

3 For example, we recommend it be made clear what
4 the management goal for Western Hudson Bay is, whether it's
5 to maintain the current abundance or to decrease the
6 population and the appropriate actions that would follow
7 each scenario. The MOU currently indicates a target
8 population of 1,400 bears, which was not relevant or --
9 yeah, it's not relevant. To that effect we would recommend
10 the NWMB work with the RWOs towards holding a hearing to
11 discuss the GN's proposed polar bear management plan. We
12 recommend the federal government support this initiative
13 however possible, including financially, so that they
14 themselves can move closer towards a finished federal plan
15 which is also long overdue from mandated deadlines.
16 Clearer management objectives would facilitate decisions
17 such as the one we're discussing today, and we've heard a
18 of uncertainty about how territorial and federal plans
19 will interact and how they will affect harvesters, and the
20 biggest part of that confusion is that none of these plans
21 are finalized, so that confusion will remain.

22 For human-polar bear conflict we understand and
23 hear the facts presented by the communities that the
24 subpopulation is increasing and the levels of conflict are
25 too high. It appears that the number of bears in this

1 region currently exceeds the capacity of local and
2 territorial governments to ensure the safety of community
3 members and maximize traditional harvest opportunities, and
4 that message is loud and clear.

5 We recommend more investment from the GN in
6 polar bear-human conflict reduction measures, including
7 patrols and the management of attractants that draw polar
8 bears into communities. Most notably, we recommend
9 conservation officers should be in place in every community
10 and, where needed, additional personnel be hired to act as
11 polar bear guards during the appropriate seasons.

12 We offer support to Arviat currently to
13 supplement the GN program, and we're prepared to offer
14 additional support wherever needed, but given the legality
15 of the situation in the Wildlife Act, WWF cannot act alone
16 in establishing patrols. We can't hire people to chase
17 bears. It has to be in conjunction with the GN.

18 The goals of any management action, including
19 setting a TAH, should be clear so it can be evaluated in
20 the future to see if those desired effects are being
21 achieved. Subsequent studies should be done, led by
22 communities, to determine if increased harvest helps the
23 human-polar-bear-conflict issue, as well as to identify
24 other solutions. I think studies done from the community
25 perspective showing the effectiveness would help in future

1 arguments, as well, when they come forward for advocating
2 different TAH levels.

3 And, lastly, on the harvest level question, WWF
4 does not believe that Inuit harvest has or is currently
5 leading to a reduced abundance in the Western Hudson Bay
6 polar bears. If the management goal is for a sustainable
7 population, environmental trends, as well as the latest
8 information from Western Hudson Bay surveys and Southern
9 Hudson Bay surveys and all of the information presented by
10 Environment and Climate Change Canada this morning, seem to
11 indicate a precautionary approach should be considered as
12 forward by Environment Canada. We aren't advocating
13 for any specific number. We leave that for co-management
14 partners to decide. But we strongly recommend the NWMB be
15 clear about the management goal and how they plan to
16 achieve that goal.

17 So, in conclusion, at the end of the day, we
18 believe strongly in co-management, and we hold up Nunavut
19 and the NWMB as examples of successful implementation of
20 co-management as evidenced by currently stable or
21 increasing polar bear populations across the territory;
22 however, given the concerns expressed by community members,
23 we think there are more direct actions that can be taken to
24 ensure the safety of people and maximize harvest
25 opportunities that aren't defence kills.

1 And, lastly, there's just a need for clearer
2 management objectives for this subpopulation so the
3 achievement of these objectives can be evaluated over time.

4 And that's it. Thank you very much.

5 THE CHAIR: you, Brandon, for your
6 comments.

7 Any questions to World Wildlife Fund?

8 NUNAVUT WILDLIFE MANAGEMENT BOARD QUESTIONS AND COMMENTS

9 THE CHAIR: Charlie.

10 MR. INUARAK: Not really a question, but I
11 really thank them sharing what you just said stating your
12 facts.

13 THE CHAIR: you, Charlie.

14 Any other comments, questions from the Board?

15 If not, staff. Vickie? ahead.

16 NUNAVUT WILDLIFE MANAGEMENT BOARD STAFF QUESTIONS AND

17 COMMENTS

18 MS. SAHANATIEN: Just a short question. Because
19 you read your presentation and you didn't provide a written
20 submission, it would be very useful to receive that. We
21 have recorded it, but, still, it would be nice to have that
22 in writing.

23 you. That's all.

24 THE CHAIR: you, Vickie.

25 You can do that, Brandon?

1 MR. LAFOREST: Yes, that's no problem.

2 THE CHAIR: you.

3 Michael, any questions?

4 GN, anything for World Wildlife Fund?

5 GOVERNMENT OF NUNAVUT QUESTIONS AND COMMENTS

6 MR. ISSING: you, .

7 Just a comment that, from the government
8 perspective, we support WWF's request to the Board that,
9 when you a decision to increase or reduce a harvest is
10 to clearly outline what your management objective with that
11 population is. That s it much easier for the minister
12 to consider the decision to accept or reject a decision.
13 When it's just a total allowable harvest increase without
14 clear objectives of what you want to achieve with that
15 total allowable harvest recommendation, it s it very
16 challenging for myself and staff to explain to explain it
17 to the minister.

18 you. So, just again, to support WWF on
19 that specific issue.

20 THE CHAIR: you, ikus. od?

21 Okay. NTI, questions, comments?

22 MR. IRNGAUT: No comments. you.

23 THE CHAIR: you.

24 Kivalliq Wildlife Board, any comments? No
25 comments?

1 Arviat HTO, anything? Nick.

2 ARVIAT HTO QUESTIONS AND COMMENTS

3 MR. ARNAUKJUAQ: you, .

4 I just want to a brief comment to WWF for
5 their efforts in Arviat. It's been very helpful to the
6 community, so we appreciate that, with the polar bear
7 patrol and monitoring, and that has reduced a of
8 problems. So we from the Arviat HTO thank WWF for their
9 efforts in Arviat.

10 Taima. you.

11 THE CHAIR: you, Nick.

12 Brandon.

13 MR. LAFOREST: Just to say thanks, Nick.

14 THE CHAIR: Simon, anything from Whale Cove?

15 MR. ENUAPIK: No comments.

16 THE CHAIR: you.

17 Chesterfield Inlet?

18 MR. AGGARK: No comments.

19 THE CHAIR: you.

20 Rankin Inlet. No comments.

21 Baker Lake?

22 MR. NATEELA: No, no questions.

23 THE CHAIR: you, Hugh.

24 Environment Canada.

25 . LUNN: No comments.

1 THE CHAIR: Any anybody from the public
2 gallery or Elders, any comments to World Wildlife Fund?
3 Nothing.

4 Okay. you, Brandon. you for your
5 words, and that concludes your presentation and questions
6 to you.

7 Okay. Next what we have left, is there anybody
8 in the gallery or the public that would like to any
9 comments to the Nunavut Wildlife Management Board in
10 regards to the Western Hudson Bay polar bear population?
11 This is your time.

12 SUBMISSION BY PUBLIC/ELDERS

13 THE CHAIR: Thomas.

14 MR. COMER: you, man.

15 I just wanted to say thank you for inviting the
16 public, for inviting everyone here. And all the
17 information that has been presented has been very clear,
18 and good luck with everything.

19 you.

20 SUBMISSION BY MAKIVIK CORPORATION SPOKEN TO

21 THE CHAIR: you, very much. you
22 for those comments.

23 Okay. One other item that we just want to
24 indicate to everybody is you have a tab 12. It's a
25 submission by Makivik, and we just want to inform you all

1 that we have this submission, and it will be taken into
2 consideration when our decision is being made. The
3 highlighted points, they've provided a written submission
4 for the management of the Western Hudson Bay polar bear
5 population.

6 They observe that bears travel extensively into
7 their area. bears were harvested in Inukjuak
8 (phonetic) in their area south of Churchill. They just
9 stress that Western Hudson Bay polar bear harvest by
10 Nunavummiut is incidental, and they would like us to
11 consider the harvesting activities outside the Nunavut
12 Settlement Area, and they submitted us a letter that has
13 been registered in our documents we're going to consider
14 for this hearing.

15 So just so that you're all aware that we have
16 that information from Makivik.

17 Okay. That concludes -- David Lee, go ahead.

18 NUNAVUT TUNNGAVIK INCORPORATED QUESTIONS AND COMMENTS

19 . LEE: Just I realize they're not here to
20 respond. But to comment on that letter, I think NTI would
21 be remiss if we did not also indicate that they're
22 providing evidence of polar bear tags for one season,
23 and no other information. So I think NTI would stress that
24 is very specific limited information that has been provided
25 to the Board.

1 s.

2 THE CHAIR: Okay. We have you on record
3 saying that, David. you.

4 CLOSING REMARKS

5 THE CHAIR: All right. So that concludes our
6 hearing. I want to thank everybody for being here and
7 attending and taking such an interest in this very
8 important topic, and it was very obvious that this is a
9 topic that's very close to everyone's heart and very, very
10 important to this region.

11 Stressing the safety of people is one of the
12 biggest things that I think we all can see is a concern to
13 everybody, probably the number one concern.

14 Anyway, as I said to David before -- or I said
15 to somebody before, to maybe Nick -- there's a of
16 information to absorb, and our staff is going to this
17 all together for us to analyze, and our goal is to do that
18 in our next meeting in March and to hopefully come up with
19 the TAH recommendation for this population.

20 Again, I want to thank you all. I think what
21 I'm going to do is just open the floor for closing remarks,
22 and I'll start with you, Brandon, at your end of table, and
23 if you'd just like to say any words at all before we close,
24 go ahead. Start with you. ahead, Brandon.

25 MR. LAFOREST: you. I just spoke, but once

1 again, to reiterate, we appreciate the opportunity to be
2 here and recognize that we don't have to be here and you
3 don't have to listen to us at all if you don't want to. So
4 it's appreciated to have a seat at the table, and we look
5 forward to future engagement. you.

6 THE CHAIR: you.

7 Kivalliq Wildlife Board.

8 MR. ADJUK: you, .

9 I'd like to thank everyone for waiting patiently
10 for me come in the last couple days. Close but yet so far.

11 I'd like to thank NTI for their technical
12 support working with KWB. They did a of work, Ezra and
13 Qovik. Also the communities of the Western Hudson Bay
14 coast, Arviat, Whale Cove, Chester, and Rankin, and Baker.
15 And I look forward to still representing the region and
16 like to thank the NWMB Board for listening to our, every
17 year, same discussions.

18 Matnaa.

19 THE CHAIR: you, Stanley.

20 Paul, NTI, concluding words?

21 MR. IRNGAUT: you. We thank the NWMB.
22 They're following the guidelines and doing great work
23 hearing out all the people, groups, organizations that they
24 have to, and communities strive and struggle. I want to
25 stress again how they need protection. This is priority.

1 Don't forget this when you're making decisions.

2 And, also, we're always going to support our
3 communities, especially the wildlife organizations in the
4 regions and communities, and we also thank you that we have
5 an opportunity to be here.

6 THE CHAIR: you, Paul.

7 ikus, vernment of Nunavut.

8 MR. ISSING: you, ..

9 Just like everybody else, want to thank you and
10 the Board for a very good and well-run meeting. I think it
11 was a very informative meeting. We might not always agree
12 how we get there, but I think at the end of the day we all
13 have the same objective, and that's the conservation of
14 polar bears and making sure that the harvest is sustainable
15 and how we manage it that we all work together on that.

16 you very much.

17 THE CHAIR: you, ikus.

18 Environment Canada.

19 MS. VALLENDER: you.

20 Yes, I would also like to thank the Board and
21 everybody here for letting us participate in this hearing.
22 I think, especially, it was useful and very appreciated
23 that you let Nick provide some of the science that came out
24 of our department. I apologize that we did take up most of
25 the day for that, but I think it was hopefully useful for

1 everybody.

2 Certainly for us on the management side it was
3 very useful for us to hear from all the different
4 organizations and particularly the HTOs and communities.
5 You know, I'm always amazed how much people care about the
6 species and how much effort there is into the effective
7 management, and I can say that as a department we really do
8 believe in the system that's in place in Nunavut.

9 And so, again, I think that the NWMB has a big
10 job ahead of you, but I hope that you have all the
11 information you need to a good decision in
12 consideration of all of the best available information,
13 which would include the TK and the science.

14 So thank you for having us.

15 THE CHAIR: you, Rachel.

16 Baker Lake, any closing comments?

17 MR. NATEELA: you, .

18 We thank you for the chance to be here.

19 also learned a , especially on po

18 We thank you for the chance to be here. We've
19 also learned a , especially on polar bears, but it also
20 affects you when you're from where I come from in
21 Baker Lake. But it's because we are Inuit, and it's our
22 right, and we appreciate being invited here. For
23 decision-making don't forget us in Baker Lake.

24 you, .

25 THE CHAIR: you, Hugh.

1 Rankin Inlet, any comments?

2 MR. SIGARDSON: you for having us here in
3 your community.

4 THE COURT: Harry, Chesterfield Inlet.

5 MR. AGGARK: I thank you to the Board for
6 inviting us from Chester. But also the bears that approach
7 our communities nonhunting season, we don't like to kill
8 just to kill, but it's deducted off the tags, and this s
9 us in danger. Then we try not to kill any bears. It's a
10 very unfair place we're into.

11 But thank you for inviting us.

12 THE CHAIR: you, Harry.

13 Whale Cove, Simon.

14 MR. ENUAPIK: I'd also like to say thank you for
15 inviting us. you for having Elders here that hold
16 that precious knowledge. You really have to study this on
17 behalf of Inuit. I absolutely would appreciate the
18 increase. I'd rather not lose an Inuk person, you can't
19 replace a person. Polar bears are replaceable, so to
20 speak. Think of human beings.

21 THE CHAIR: you, Simon.

22 Arviat, Thomas.

23 MR. ALIKASWA: you, .

24 During this hearing on polar bears I appreciate
25 that, as people from Arviat are appreciative and our Elder

1 here, Kablutsiak, being here. We've learned a ,
2 especially on bears, and we hope and expect that the tags
3 and the quotas will be increased
4 you.

5 THE CHAIR: you, Thomas. Nick.

6 MR. ARNAUKJUAQ: you, .

7 I just want to a brief comment. Our chair
8 spoke on behalf of our community. And I also want to
9 recognize David Kritterdlik. I know through the three
10 years he was with KWF, and he's done a of work that I
11 want to appreciate. And I used to be a fieldworker with
12 KWF around beginning of 1980s, and David Kritterdlik was
13 very involved and participating and supporting and working
14 towards all this. So that's my appreciation to him.

15 you.

16 THE CHAIR: you.

17 Paul.

18 MR. KABLUTSIAK: My name is Paul Kablutsiak, and
19 the items we discussed here with NWMB and the policy that
20 will be created, I'm glad when it will be established
21 regarding all the coastal communities that the quota be
22 increased, and I appreciate if this happens. And what
23 happened was a sad incident before around our area
24 concerning problem bears.

25 So thank you for inviting me.

1 THE CHAIR: you, Paul.

2 Okay. Final words will go to Board members
3 closing comments. Jorgen, go ahead.

4 MR. BOLT: you, .

5 Just more or less say that we all have to work
6 as a team, you know, to conserve our wildlife in Nunavut,
7 and the only way we can do that is work together, because
8 we all have TK. No matter where we're from, from around
9 the world, we all have TK, whether you're from Australia or
10 Africa or wherever. Everybody has traditional knowledge.

11 And only way we could reach our mandate is to
12 work together, and if there's -- I don't know how you
13 would say -- conflicting parties all the time, we'll never
14 get to conserve our wildlife. If we're conflicting
15 together all the time, then meanwhile our wildlife is going
16 down while we're, you know, being childish about things,
17 you know. So we all have to work together to conserve our
18 wildlife, and I think from what I've heard today and
19 yesterday, everybody has that same goal to preserve our
20 wildlife in Nunavut.

21 you, .

22 THE CHAIR: you, Jorgen. Attima.

23 MR. HADLARI: you, .

24 Yes, all the things that have been shared here
25 we're going to look at and see how we can lay out the best

1 plan. We're going to consider everything that was said
2 here, as the Board. And I know it won't be an easy thing
3 to do, but because you are my kin, this is how I will
4 represent you. We will consider everything that was spoken
5 up here.

6 you.

7 THE CHAIR: you, Attima. Caleb.

8 MR. SANGOYA: you.

9 These are very difficult topics what Inuit want
10 due to the fact that we have a government and the
11 government has final say, before we come to that, before
12 the decision is made by the government. We won't get
13 everything we want. It may not be given, but according to
14 Inuit knowledge that we've shared over and over, has many
15 blockages, hindrances, and so when we're making decisions
16 it is often forgotten or a lack of IQ in decision-making.

17 But, yes, we hear the need for an increase in
18 the number, quotas, and the HTOs and RWOs have power
19 according to the Land Claims, but it is more often taken
20 away or ignored by the government.

21 So, my fellow members, I'm not getting any
22 younger. Ever since I joined we do work well together, but
23 there's, like, a price to pay, and we work well with the
24 government and Tunngavik folks. We shall strive to include
25 and share and consider everything that was spoken here, and

1 any time if the HTOs in the communities can write
2 letters -- even KWB -- write to us. Write to these bodies.
3 If you change your mind or want to share more, we request
4 in writing because then we'll have it recorded and
5 documented. So submit any letters you want.

6 And I thank the . He used to live in
7 Arviat, and he was a minister before, and I know with his
8 experience as a chair he has all this knowledge and
9 experience, and because we are dwelling more and more on
10 Inuit knowledge I appreciate it and acknowledge it.

11 THE CHAIR: you very much, Caleb, thank
12 you. Charlie.

13 MR. INUARAK: I also want to say thank you. The
14 hard stuff is only coming. We're not going to forget what
15 you shared, and the staff with the GN, NTI, federal
16 government and the knowledge of the scientists and
17 biologists, we're all going to consider your in.

18 The minister has the final say. He may reject
19 it. He rejects it sometimes, he agrees with it sometimes.
20 So he tends to agree more than rejecting. And since it's a
21 new government, I expect that he'll be more in agreement.
22 And I want to thank everyone, not just people from Rankin.

23 But I did have one question. I saw something
24 written that said WWF -- are you guys the ones that are the
25 World Wrestling Federation, the crazy people who fight?

1 THE CHAIR: you, Charlie.

2 Have you got a comment?

3 MR. LAFORREST: Some things you don't need
4 translated. I could have picked that up.

5 THE CHAIR: you, Charlie. Noah, any
6 words, closing words, any closing remarks?

7 MR. MAKAYAK: Yes, thank you.

8 I'm pretty new to this process, and I may be
9 catching up more, learning from you more at this date, even
10 though I'm becoming more of an Elder, and I won't forget
11 easily. And I often seek help from anyone who's more
12 knowledgeable than me, but I really thank the people who
13 shared, like NTI, what they've been working towards, and
14 the GN and the Environment folks, all of you. And our
15 administrator or secretary seem to have been forgotten.

16 This is really difficult to ask for an increase.
17 And we used to go to Indian country, Dene or other, and it
18 was harder. David and I and Paul Qallujak (phonetic),
19 because they're very knowledgeable with more experience,
20 used to represent us well when we were trying to create
21 Nunavut and we were trying to establish boundaries on our
22 wildlife. So up to date I don't see too many difficulties.
23 David is still here with us, still working. And for the
24 directors and staff and for Baffin folks who have helped us
25 immensely and to all of you people who were invited, thank

1 you for caring -- everybody. Even the other folks out
2 there and to the interpreters, thank you.

3 THE CHAIR: you, Noah. David K.

4 MR. KRITTERDLIK: I think let me speak in Inuktitut,
5 last words.

6 For us Board members, we're not going to be here
7 forever. We have been appointed by different
8 organizations. NTI, KIA appointed different folks and
9 Kivalliq members, and by the GN, and some of us from the
10 federal government appointed. And our membership has
11 terms, three-year terms or four-year terms. I think it's
12 four-year terms we have on this Board. So memberships
13 change. Myself, my term is ended, so my appointment by the
14 federal government will be coming to an end.

15 Inuit are more in number, and we also understand
16 clearly that we have a need by our government and for other
17 organizations and to involve the communities that we strive
18 to come up with something that accommodates all of us. And
19 I know you understand this and know this well now regarding
20 our wildlife, are very familiar with locals from the
21 communities, and IQ is often mentioned.

22 There was something documented in Arviat, and
23 our Arviat has many different dialects. And even for
24 government workers, perhaps this can be read what's been
25 documented out of Arviat. It would help you understand

1 where we're coming from and our knowledge. This would help
2 you immensely, and I want to thank everybody here.

3 And we've been told by our lawyer, legal, that
4 we will be making a decision in the next meeting or further
5 down the road for sure. We'll this public. We can
6 suggestions to the minister, but it is the minister
7 who will his own decision.

8 I thank everybody who came here.

9 THE CHAIR: you, David.

10 Okay. I think I got the final thank-yous here.
11 So I want to thank all of our staff for being here and
12 providing their support and their skills and their
13 knowledge to this Board, and they continue to do that when
14 we get back home, too. So Michael, our legal counsel, as
15 always, he's been with us for 25 years, I think, so hasn't
16 changed. He does a very, very good job, and we sincerely
17 appreciate his advice and knowledge to us, too.

18 John and Patricia back there, thank you very
19 much for everything you've done. They came a few days
20 early to set all this up, and yeah, it's a huge job. The
21 lunches were wonderful, and the coffee breaks were good,
22 and thank you very much for all your organization and the
23 skills you into here, and it went off without a hitch.
24 So thank you.

25 Jason, our executive director, appreciate your

1 support and your leadership in this hearing.

2 As you can see, there's seven of us here now,
3 and that's high for the NWMB. We're always short members,
4 and it's a struggle to keep a quorum going sometimes. So
5 it's amazing, and it's such a privilege to belong to this
6 Board. We work very well together, and we do very, very
7 good and hard work, and very thoughtful decisions come out
8 of this Board. Very appreciative

9 It's funny, though. Three of us are going. I
10 know Charlie, me, and I think Caleb, our appointments are
11 up very soon, in a few months, I think, so three of us
12 there's a possibility won't be here anymore, and that's how
13 fast this Board changes and the dynamics. But four years
14 goes by very quickly.

15 So anyway, I want to thank everybody again, and
16 wish everybody safe travels home. I hear the blizzard is
17 coming Friday, so nobody's going anywhere. No, really,
18 really. I hope everybody gets home safe and on time and
19 get back to your families, and everybody have safe travels.
20 you very much.

21