Alaska Beluga Whale Committee

Tom Gray, **Chairman** (907-304-2003)
Marvin Okitkun, Vice Chair (907-899-2233)
Kathy Frost, Secretary (808 987-0001)
Billy Adams, Officer at Large (907-852-0350)
Cyrus Harris, Officer at Large (907-350-7835)

EASTERN BERING SEA Workshop Agenda

Tuesday – November 8th, 2022

Anchorage Hilton, Anchorage AK

Meeting starts at 9 am Tuesday in the Chart Room

1) Welcome and Introduction (Tom Gray)

2) Introductions (go around room and introduce everyone, where from)

3) Approve minutes and agenda

4) Why we are here (Tom Gray, Marvin Okitkun, Kathy Frost)
   a) Status of Stock Assessment Report (Robyn Angliss, Anne Marie Eich, John Citta, & others)
   b) Need to make sure EBS harvest stays at the sustainable level - What level of harvesting is safe?
   c) Why beluga management is complicated (John Burns)

5) Overview of Eastern Bering Sea belugas, including effect of harvesting females and harvest 1987-2021 (Lori Quakenbush)

6) 2022 EBS aerial survey results, revised 2017 estimate (Megan Ferguson)

7) Eastern Bering Sea Beluga Plan so far (Tom Gray and Kathy Frost)
   a) Process to date
   b) Review draft

8) Community meetings to introduce Management Plan (Tom Gray, Lori Quakenbush)
   a) Community meetings fall 2022 and/or winter 2023 & priority communities (Lori Quakenbush)
   b) ABWC delegate participation

9) Eastern Bering Sea Student Guide (Lori Quakenbush)
   a) Introduce project
   b) What info needed from ABWC delegates & communities, how to get?
   c) Artwork?

10) What next?
   a) Another newsletter or does anyone read it? Repeat the last one?
   b) Should we continue to have EBS workshops so we can talk about this stuff?
   c) Does anyone want to help with the ABWC Facebook (The Hunter page)?

11) Go around the table...

12) Final closing Comments ...

Delegates
2022 Eastern Bering Sea Workshop

Norton Sound

Elim	Morris Nakarak Sr.
Koyuk	Archie Ervin
Nome	Tom Gray (Chairman)
Saint Michael	Joseph (Joe) Akaran
Shaktoolik	Raymond Hunt
Stebbins	Cylas Okitkun
Unalakleet	Jacob Ivanoff

Yukon Delta

AVCP	Jennifer Hooper
Alakanuk	Lee, Kenneth (Ken)
Emmonak	Brandon Kameroff, Ronald Waska (Young Hunter)
Hooper Bay	Albert Simon
Kotlik	John Tonuchuk, Marvin Okitkun (Vice Chairman)
Mountain Village	Kevin Thompson
Nunam Iqua	Edward Adams Sr., Todd Chikigak, (Young Hunter)
Pilot Station	Rex Nick
Pitka's Point	Stephen (Micah) Sergie
Saint Mary's	Duncan Okitkun
Scammon Bay	Wybon Rivers

Alaska Beluga Whale Committee

c/o NSB Dept Wildlife Management

P.O. Box 69

Barrow, AK 99721

Phone (Tom Gray cell) (907) 304-2003

Minutes – Eastern Bering Sea Workshop

9 November 2021 - Anchorage, Alaska

People attending the meeting were:

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John Citta	ADF&G, 1300 College Rd, Fairbanks, AK 99701	699-3224 cell john.citta@alaska.gov
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Robert Suydam	NSB Wildlife, Box 69, Barrow, AK 99723	852-0350 robert.suydam@north-slope.org
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Tuesday, 9 November 2021

The meeting was called to order by Chairman Tom Gray at 9:08. Edward Adams, Sr. gave the invocation. Everyone introduced themselves.

WHY WE ARE HERE

Tom Gray explained that everyone is here to conserve our belugas for the future, to take care and be careful not to end up like Kotzebue Sound with almost no belugas. We need to plan for the future in a changing world with a growing human population. Several years ago, the ABWC realized the Eastern Bering Sea (EBS) harvest was getting a little high. The ABWC and the EBS hunters are trying to get ahead of things now and develop tools to protect the beluga resource. We need to make sure there are belugas in our future. We are trying to figure out how we as hunters, scientists and government can work together to protect the beluga resource. We benefit only if we take care of it.

Albert Simon said that when hunters hear news about what to catch or not catch, they don't like people telling them what to do. The government can't tell them what to do. How they act is voluntary. In the Yukon, they didn't harvest Emperor geese for five years and the geese came back. This is an example of how Native people have been doing things for thousands of years, it is a tradition. Marvin Okitkun said he grew up as a hunter. They used to catch bigger males, then they started hunting females over the years. The communities need to keep big numbers of belugas so they are available to harvest.

Jon Kurland explained that NMFS oversees ANO co-management. It is all about having a sustainable harvest. NMFS can't do anything without its ANO partners. Managing belugas is a partnership between NMFS and the ABWC. NMFS appreciates ABWC's emphasis on this. Kathy Frost emphasized that The ABWC needs to use all the tools it has in its toolbox. Scientists can't tell the ABWC what to do, but they have a lot of information the hunters need and can use in managing their harvest to keep it at a safe level.

OVERVIEW OF EASTERN BERING SEA BELUGAS

Lori Quakenbush presented the talk she has put together for the village meetings about EBS belugas. These meetings were postponed because of Covid and are tentatively planned for winter 2022. Her talk included slides on movements and wintering areas, abundance, harvest, human population growth, how the harvest of females affects the population, sustainable take, and what hunters can do to keep the harvest sustainable. Lori showed the tagging maps for summer and winter distribution. She pointed out that only EBS belugas have been present in Norton Sound and the Yukon. No tagged belugas from other stocks have ever come into this region. This means that all of the harvested belugas are from the EBS stock. No belugas were tagging in 2020 and 2021, and no tagged belugas sent information during the last two years. The ABWC needs to figure out how to get more belugas tagged. Tom Gray said that several live belugas were caught in nets in Nome this year but there was a miscommunication and the belugas were harvested.

HARVEST DATA

Kathy Frost presented the EBS beluga harvest data. The average annual harvest for Norton Sound and the Yukon combined for the last 10 years (2011-2021), including belugas that were struck and lost, was 218, with a range from 190-259. The hunters need this information to manage their own harvest. Based on 2017 aerial surveys, the EBS beluga population estimate is 9,200 belugas. The total harvest is about 2.4% of the population. Two percent is currently considered safe and sustainable so the population won't decline. The human population in EBS villages has been growing. In 1960 there were about 4,400 people living in the 21 EBS villages combined (not including Nome). By 2016, there were 11,200. Hunters now have bigger boats that can travel farther and more efficient harvesting methods. Albert Simon said it is traditional to get belugas when they can, spring and fall. "We get what we can." Tom said it is important to pay attention to the harvest guideline of 2% so that belugas stay abundant.

WHY A BELUGA MANAGEMENT PLAN?

Tom Gray said the reason to develop an EBS beluga management plan is because it's necessary for EBS hunters to have a plan for how to keep the beluga population abundant and healthy. To do this, the hunters need a process for management. As Tom said: "I believe wholeheartedly in subsistence, but I believe more in keeping the harvest sustainable." If too many belugas are harvested, it could sneak up on everybody. It's very important to be careful. Albert Simon said "No one can tell us what to do." Tom said this isn't about telling hunters what to do, it is about doing the right thing for the belugas. Donovan Okitkun said part of the reason the beluga harvest is higher the last few years is because the salmon runs have been so low and people can't fish. They're looking for something else to get. Henry Huntington said that it is important to blend tradition and modern ways and knowledge to take the best care of belugas. Henry came to the first ABWC meeting in 1988.

The EBS beluga harvest is near what is considered to be near or slightly above the sustainable level. For this reason, NMFS classified belugas as "strategic" (there is reason to be concerned about them) in the draft 2021 Stock Assessment Report (SAR). The ABWC has asked them to reconsider this based on additional information, but the spotlight is on this stock of belugas and the hunters need to plan for how they will keep the stock from declining.

John said he has been trying to understand why belugas are so vulnerable to hunting. He has been searching old records about beluga hunting. In the past, there were huge gatherings and cultural celebrations associated with beluga drive hunts, for example in Kotzebue Sound. In a drive hunt, there was no loss. John also is searching records of the Russian American Company. At Chagvan Bay (in Kuskokwim Bay) there are the remains of 20 rows of beluga skulls, with more than 200 skulls per row from commercial harvests. There were also large harvests in Pastol Bay (near Stebbins and St. Michael) and in Kotzebue Sound. Sisualik in Kotzebue Sound means "where belugas swim close to shore." There has been more and more hunting pressure and belugas are rarely seen at Sisualik now. Imagine Pastol Bay. Once 150 kayaks worked together to hunt. Belugas were stranded with no loss. Now, Cook Inlet and Kotzebue Sound belugas are greatly reduced in number and Chagvan Bay belugas are gone.

The nature of belugas themselves makes them vulnerable. They always return to the same areas in summer and the core areas are the same whether belugas are abundant or scarce. They form herds, whether there are few or many. When you see 400 belugas, it could be 400 of 10,000 or 400 of 500. Because of this, and also because they live many years and have

a complicated social structure, repeated exposure to hunting causes changes. The age structure is now getting younger because the larger white animals, the prime breeders, are being removed. The average age for belugas is now about 27, much younger than it was many years ago. All over the world beluga populations are declining because they aggregate in the same places as humans do. Traditions change with time. Traditions for hunting belugas now are not the same as they once were. The methods are different and human populations are much higher. Managing belugas is very different than managing ducks or foxes. To make sure belugas in the EBS don't end up like belugas in other places where they are greatly reduced it's necessary to do something to prevent declines. We can only affect what people do, not what the belugas do. One example would be to harpoon before shooting, a practice that was once used by beluga hunters.

Albert Simon asked what mistake the hunters made and what they should learn. John said, like in the old days, hunters could harpoon before they shoot. The number of belugas that are shot but struck and lost is hard to evaluate, but there is no loss if belugas are harpooned first. Hunters should avoid harvesting females with calves. This reduces the reproductive capacity when these prime age females are removed. When the mother is shot, her calf also dies. If people don't focus more from the whale side instead of the human side there will be future problems, the same as there are in other areas. Harvesting too many is a problem. Harvesting too many adult females and large white animals changes the age structure and affects the reproductive capacity. Albert said John needed to write this down. John and Kathy said the best thing they could do is talk to the EBS delegates at this meeting. That is why we have these meetings. The delegates must take the message back to their villages.

Tom Gray pointed out that we walk through life and sometimes don't want to own up to our mistakes. An example is Kotzebue Sound where belugas were overharvested at the same time a large number of belugas was frozen into the ice in Russia. No one knows what stock those belugas were from, but many local people blamed the Kotzebue beluga decline on that event instead of acknowledging the harvest was too high. Perception can be deceptive. John Burns reminded everyone that hunting is the only beluga mortality we can control. Hunters need to take their fate into their own hands as they move forward. Even if every hunter does his best, there are more hunters now but there aren't more belugas. Tom asked if a management plan is a useful process and tool. John responded "we have to try."

CO-MANAGEMENT WITH NMFS

Jon Kurland complimented the ABWC for efficiently using the grant funds it receives from NMFS and for openly discussing difficult subjects (such as management plans).He said that the co-management agreement between NMFS and ABWC says there will be no surprises on decisions about status of stocks. The NMFS designation in the 2021 Stock Assessment Report (SAR) of EBS belugas as a strategic stock, without consulting ABWC, is not how partners should interact. Jon worked with NMFS headquarters to have the draft SAR withdrawn and for NMFS to consult with ABWC in writing the revised draft.

SARs are required by law. The SAR for a beluga stock presents a PBR (Potential Biological Removal). This is an estimate of how many belugas can be taken and not cause the population to decline. PBR is calculated by multiplying a conservative population estimate by half of the reproductive rate by a recovery (safety) factor. A stock is designated as "strategic" when the mortalities are too high (roughly more than 2% of the abundance estimate). This is not a 1-way or permanent designation. It means it is necessary to pay attention. If a population declines or mortality (including harvest) increases, it could end up being a more serious situation. This could trigger a lawsuit and/or an official review of whether the stock is depleted. When the Marine Mammal Protection Act established PBR, it was intended to apply to incidental take in commercial fisheries and not to subsistence harvests.

In the future, Jon said that for all marine mammal species that are co-managed by NMFS, any change in status (such as calling it strategic) will require consultation with the co-management group before seeking public comment on the proposed change. Albert Simon said that a strategic listing "could be used against us." How does NMFS know a stock is depleted. Jon pointed out that if the ABWC withholds information, it will come from somewhere, and will likely not be as good as the ABWC information. NMFS is hoping to conduct a new abundance survey in 2022.

Robert Suydam thanked Jon Kurland for his talk, his attitude and his approach. Collaboration and cooperation go a long way in creating a good relationship. Working together is essential. He appreciates the treatment of ABWC as a partner. Robert made suggestions about how to deal with SARs in the future. 1) NMFS should communicate with the ABWC about the beluga SAR every year. They should send a copy of the current SAR to the ABWC whether it has been revised or not. 2) Scientific Review Groups and SARs were created to deal with incidental take of marine mammals in commercial fisheries. Subsistence should not be treated the same. For example, the International Whaling Commission deals with commercial and aboriginal take separately. It is willing to accept more risk for subsistence. Albert Simon asked if IWC deals with belugas. It generally does not ,except to do periodic status reviews. There is some commercial

sale of beluga in Greenland and Russia. John Burns said that commercial sale of beluga meat and muktuk continued in Cook Inlet after overharvesting was known to be a problem.

Tom noted that some of the existing SAR process hasn't worked for subsistence. We need to fix this. It can't just be about checking boxes. NMFS and ABWC need to really discuss things. Co-managers are not just a constituency. Kathy Frost said that subsistence should be treated different than commercial activities. The concepts of PBS and "strategic" were not intended to apply to subsistence.

Marvin Okitkun said that with all government agencies the numbers are always conservative. For example, NMFS uses Nmin instead of Nbest, they always use the bottom estimate. Jon Kurland said that Nmin was intended to be safe. Kathy Frost explained survey numbers and uncertainty and what Nmin and Nbest mean. She reiterated that subsistence is different, it is about people's food. Camille Augline said that depleted salmon stocks put hunters in a box. This was a big year for beluga harvest because of low fish numbers. Albert said that commercial fishing was closed this year. This was a problem for people. The Yukon fishermen are competing with offshore incidental take of salmon. The environment is changing. Wybon Rivers said there are fewer tomcod now.

Tom reminded everyone the management plan will be a working, living document.

EBS STUDENT GUIDE

Lori Quakenbush gave a brief update on the EBS Student Guide. The ABWC received grant funds from NOAA through the co-management grant to do this project. Lori and the ADFG Information & Education section is going to help. They will go to villages and interview elders and hunters. ABWC delegates will also help to do this. ADFG did a similar Student Guide for ice seals in the Kuskokwim region a while ago. Albert Simon said this guide and workbook was very useful.

ABWC MANAGEMENT PLAN

Tom Gray told everyone the draft Plan has been put together with a lot of input. Robert Suydam stressed that the Plan has been put together by the ABWC, not the government, and represents decades of experience. The plan is newly born. Now we must try to feed, clothe and help it grow up. The Plan is intended to change. The only way management plans work is if people work to implement them and to makes comments on how to make them better. Time likes this process. The Plan comes from the hunters, it is reviewed, there is a lot of input and it is revised. Ultimately it will go to the Tribal Councils for adoption. The ABWC will conduct village meetings to present the plan to the hunters. The Plan does not tell people how to hunt. It is about how to protect the resource. The EBS beluga plan is a living document. It will always change based on new information.

Tom asked Lori how this Plan can be incorporated into the Student Guide and Workbook. Kathy Frost thought it should be a separate product: a management plan for the high schools.

Albert Simon wanted to know how the hunters would know if they were over their limit. He said "we only take what we need." Robert Suydam explained there are two things necessary to keep the harvest at a sustainable and safe 2% level: 1) there must be a good abundance estimate, and 2) there needs to be good harvest data for the entire region/stock. As the human population grows the number of hunters increases and the harvest will increase. The EBS harvest is already close or above the safe level and shouldn't grow any more.

Tom Gray emphasized that we need to make sure there are belugas in the future. If the harvest gets too high, the hunters will need to cut back. Tradition is changing. Now there are fast boats and big caliber rifles. It wasn't that way many years ago. In Kotzebue Sound, "tradition" got them. They went from 5hp engines to 200 hp. Hunters have to adapt to the new tools and not take too many. Belugas do the same thing year after year. The hunters are always changing. They are getting more efficient and can take more belugas. We need to manage ourselves so the beluga population stays abundant and healthy.

The draft management plan proposes GREEN, YELLOW and RED levels for the harvest. **GREEN** - If the average harvest plus struck and lost over the previous 3 years is no more than 2.4% of the population abundance (220) for all villages combined, harvest can continue as normal.

YELLOW (Harvest level may not be sustainable, caution is needed) - If the average harvest plus struck and lost over the previous 3 years is greater than 2.4% (220) OR if the abundance estimate for the population declines to 8,800 or less (it is now 9,200; that would be a decline of 15%), protective actions will be put in place. The Plan Team, working closely with the ABWC and communities within Norton Sound and the Yukon Delta, will implement actions to reduce harvest levels to no more than 220.

RED (Harvest level is unsafe and not sustainable) If the average harvest plus struck and lost over the previous 3 years is greater than 3% of the latest estimated abundance (280) OR if the abundance estimate for the population declines to 6,500 or less since the previous estimate (this would be a 30% decline), then harvest restrictions will be put in place.

Albert said that all of the communities won't accept this. There will need to be prizes. Kathy Frost said enforcement is not the ABWC's job. The delegates need to work with their TCs to encourage the hunters to follow the plan because it is the right thing to do to keep belugas abundant. Duncan Okitkun said there will be resistance from the hunters. Tom Gray reminded everyone "This is not about 'I have rights.' This plan is to make sure we take care of belugas. Our people are the only ones who can do this. It is our resource. We have to take care of it." Camille Augline said that "Us as Native people have to take care of our land and our fish and our belugas. The villages are getting bigger and bigger." If the population is greatly reduced and the hunters don't take action, there will be government action. The Marine Mammal Protection Act is a serious Act for the conservation and sustainable management of marine mammals.

There was a discussion of using estimates of 4% or 4.8% for the beluga reproductive rate. 4% is a conservative general estimate used for many marine mammals. 4.8% is the value determined for Bristol Bay belugas by ABWC scientists. Bard Mahoney asked why ABWC would want to use 4% and be "less safe." Kathy Frost replied that the higher value is based on actual scientific data for belugas and is not "less safe.".

Tom Gray pointed out there are many things the EBS hunters, ABWC and NMFS need to discuss. Acting as partners, we can make this better. We need to get realistic about budget numbers. It will take many more funds than NMFS currently provides to the ABWC to manage adequately. For example, the Polar Bear committee has a budget of $600,000-$700,000. Tom wondered whether there should be mandatory sampling for harvested belugas. Samples provide information about genetics but also pollutants and possibly about abundance using new techniques.

Albert said we need to get this information to the villages. Kathy said we expect the EBS delegates to take the information they get at meetings back to their communities. The ABWC has sent newsletters and copies of the draft EBS Beluga Management Plan to every hunter and to the TCs. Tom said the IRA Councils need to buy into the process. That is why the ABWC is planning meetings in the EBS villages with high harvests. These meetings were scheduled for winter 2020 and were all ready to happen when Covid happened. Holding+ them in early winter 2022 is now under discussion, but some villages are still locked down.

John Burns reminded everyone that the human population in the EBS region has tripled since 1960. People can no longer live only off the land. People have exceeded the capacity of the land, there are too many people now. The size of the pie is the same, but more and more people want to eat the pie. There is a continuous increase in the number of hunters but no changes in beluga numbers.

CLOSING COMMENTS

At the end of the meeting, everyone gave their thoughts:

Lori Quakenbush said she is impressed with the hunters' concern. Belugas are very social. When they get to a low number, we don't seem to be able to bring them back. If the numbers go down too far, it may not be possible to fix things. **Anna Bryan** said it was great to have everyone at the same table talking about important beluga issues. This is the best way to move forward. **Pius Washington** thought this was a good meeting. We need to get people talking. **Stephen Sergie** wondered how you can allocate a harvest? This is very difficult. **Camille Augline** said the human population is growing, the number of belugas per hunter is decreasing. Fisheries are depleted. It would be good to figure out how to manage this situation. We have to do something. Doing nothing doesn't work.

Barb Mahoney told the group this is a good time to step up and work on things now, before they get bad. Cook Inlet stopped harvesting in 1999 when there were 350 belugas. There has been no harvest in more than 20 years but there are only 280 belugas now. We don't understand why. The EBS doesn't ever want to get in the same situation as Cook Inlet. **Brandon Kameroff** said we need to save some belugas for the future. We need an updated abundance estimate. **Jon Kurland** said he admires the ABWC's leadership and its work to blend traditional knowledge and science. The draft plan is a great framework, NMFS is here to help. The solution must be led by the hunters.

Raymond Hunt thought we must work together; everyone needs to voice their concerns and questions. Raymond said he is a better observer now than when he was younger. The harvest in Shaktoolik is down, the belugas have moved to other places. Tagging is important to learn more about their movements. **Elmer Seta, Jr.** from Brevig Mission thought tagging was a good idea. (Brevig took 10 belugas this year).

Marvin Okitkun thought many good points had been raised. He said the hunters were the first beluga scientists. They are directly involved they see diseased animals and notice something unusual. **Kathy Frost** reminded everyone the ABWC

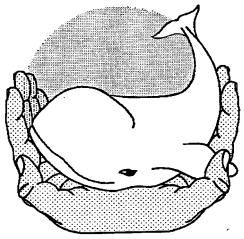
and EBC delegates are traveling new ground. No co-management group has done this before and tried to plan ahead to prevent a decline rather than wait until it happens and react.

Albert Simon did not give his statement in English. **Wybon Rivers** said the management plan is a good idea. He is looking forward to a new aerial survey and abundance estimate. The village meetings are a good idea. Everyone needs to work to make sure the harvest stays below 2.4% of the population. **Edward Adams** said the culture in Nunam Iqua has stayed very much the same. People still eat the same. **John Citta** said he also hates being told what to do. The ABWC could take the easy way out and wait for someone else to address the problem (NMFS and the government) but if we do that, things won't turn out well. **Donovan Okitkun** said let's get something going to keep belugas forever.

Henry Huntington said the tradition and biology are not an "either-or" choice, they are "both-and." He used examples of the AEWC and the ABWC. Many AEWC communities said "no tagging." The ABWC members educated and trusted each other and together recognized there was important information that only tagging could provide. They went forward with tagging – and with a hunter-tagger program. Henry sees three possible paths: 1) Hope for the best. This rarely works. 2) Quotas (like Greenland and Canada). No one likes this approach. 3) The ABWC is trying a different path, but there are no good examples since few people have tried this. It is difficult to try a new approach but good. Times have changed but values have not. Sharing, preparation and respect are still important traditional values. Sharing - through good management, hunters share with the future. One female now becomes 16 in the future. Hunters share information, not only beluga parts. Preparation – Hunters use the best tools for hunting. They also use the best information to prepare for the future. Respect – hunters show respect for others by keeping their harvest at a sustainable level that lets all beluga hunting communities harvest from a healthy population. The management planning process that is going on for EBS belugas is drawing from traditional values, it is not something new or separate from these traditional values. Henry suggested that when the ABWC communicates the beluga plan to hunters and Tribal Councils, it should link the plan to traditional values.

Robert Suydam said the idea of the original ABWC more than 30 years ago was to share view points and information. From the beginning and continuing until now the ABWC has been able to talk about hard stuff. **Tom Gray** said there is no established formula to follow for what we the EBS delegates and the ABWC are doing. We can do this right and we can do it ourselves. How can hunters manage their own harvest? We are learning this. The important thing is that belugas carry on and are here generations from now. How can we lose? We're all here working on this problem together: hunters, scientists and the government in the same room.

These minutes were prepared and submitted by Kathy Frost, ABWC Secretary.



Alaska Beluga Whale Committee

Tom Gray, Chairman
c/o Kathy Frost, Secretary
frostkathrynj@gmail.com

22 November 2021

Jon Kurland
Assistant Regional Administrator for Protected Resources
National Marine Fisheries Service/NOAA
P.O. Box 21668
Juneau, AK 99802-1668

Dear Jon:

I am writing in response to your letter of September 28th and to our recent meeting with NMFS in Anchorage about the potential designation of the Eastern Bering Sea (EBS) stock of belugas as "strategic" in the most recent NMFS Stock Assessment Report (SAR). Thank you for the opportunity to meet with staff from both the Region and the Marine Mammal Laboratory. It was unfortunate that the Alaska Beluga Whale Committee (ABWC) was not consulted prior to the development of the 2020 Stock Assessment Report (SAR) to designate EBS belugas as strategic. However, we now have the opportunity to address this issue together.

Eastern Bering Sea Beluga Management Plan

The ABWC's main goal is to conserve belugas while also maintaining a sustainable subsistence harvest. The ABWC wants belugas to be healthy and abundant for our grandchildren and for all future generations. We do not want EBS belugas to end up like belugas in Cook Inlet or Kotzebue Sound. We recognize, based on harvest data collected by the ABWC, that harvest of EBS belugas may be approaching the sustainable limit. The ABWC has brought this issue to the forefront and promoted and implemented efforts to raise awareness, especially with our hunters. The ABWC initiated a management planning process for EBS belugas beginning several years ago. Our efforts have been hampered because of the pandemic but nevertheless, we have developed a draft management plan that will be presented to EBS villages in early 2022, pandemic permitting. The ABWC has distributed the draft plan to ABWC delegates, published it in draft form in newsletters to beluga hunters and has already begun discussions of the draft plan with hunter representatives from relevant villages. This plan will provide meaningful guidelines to achieve a sustainable harvest and meet the food security needs of hunters, while directly facilitating the conservation of EBS belugas. However, achieving hunter buy-in and Tribal support for implementation of the plan will require communication, education, trust and time. If beluga hunters and their Tribal Councils believe that NMFS and the ABWC have violated their trust it will likely set the planning process back for years and may well end it entirely for the foreseeable future. NMFS personnel have repeatedly stated that a strategic listing will "not affect subsistence hunters" and that it can be changed in the future. While this may be technically true, the ABWC wants to stress that listing EBS belugas as "strategic", especially given that the

human-caused mortality is entirely due to subsistence harvest and not commercial fishing or other factors, in a revised SAR is highly likely to alarm subsistence hunters and make them less open working with ABWC on a solution. This would jeopardize the management planning process and be detrimental to the conservation of EBS belugas for the foreseeable future.

As you have noted, the ABWC is not a "stakeholder" lobbying NMFS. The ABWC and NMFS co-manage belugas in western and northern Alaska. The ABWC wants to move forward, in partnership with NMFS, in a cooperative, collaborative and communicative planning process that will provide meaningful guidelines for a sustainable EBS beluga harvest.

The ABWC and the EBS communities need time to promote and implement the EBS beluga management plan initiated by the ABWC. The stock, unlike Cook Inlet and Kotzebue Sound beluga whales, is large and there is not a management crisis. The ABWC encourages NMFS to retain "non-strategic" status for EBS belugas at this time, until the management planning process has had time to move forward and until uncertainties surrounding the abundance estimate are addressed. The ABWC believes that the PBR protocol used by NMFS to propose designating EBS belugas as strategic is inappropriate for setting management thresholds for subsistence harvest of marine mammals in Alaska. Because of the importance of the subsistence harvest of belugas for the purpose of food security to the communities represented by the ABWC, we believe the PBR protocol used by NMFS for the primary purpose of managing marine mammal-commercial fishery interactions is unnecessarily precautionary when applied to a stock where 100% of the human-caused mortality is due to subsistence harvest. Alternate PBR protocols that meet the mandates of the MMPA should be used by NMFS for setting harvest threshold limits for subsistence-harvested stocks.

Potential Biological Removal and Strategic Listing

The ABWC wants to emphasize that the most recent 2016 NMFS "Guidelines for Preparing Stock Assessment Reports Pursuant to Section 117 of the Marine Mammal Protection Act" state (emphasis added) that "*Section 117 requires PBR, human-caused mortality, and classification as to whether a stock is "strategic" or "non-strategic" to be included in the Reports for all stocks of marine mammals in U.S. waters. However, it should be noted that the co-management, between the Federal government and Alaska Native Organizations, of removals of marine mammals for subsistence purposes between the Federal government and Alaska Native organizations is specifically addressed in Section 119. In response to Section 119, NMFS and FWS have entered into cooperative agreements with Alaska Native Organizations to conserve marine mammals and provide co-management of subsistence use by Alaska Natives.* ***FWS and NMFS believe that it is appropriate to develop management programs for stocks subject to subsistence harvests through the co-management process provided that commercial fisheries takes are not significant and that the process includes a sound research and management program to identify and address uncertainties concerning the status of these stocks. Calculations of PBR and classification as to whether a stock is strategic will be determined from the analysis of scientific and other relevant information discussed during the co-management process.*** **"** The situation discussed in the previous two sentences is exactly the situation with EBS belugas. As NMFS is aware, there is effectively no incidental take of belugas by commercial fisheries in the EBS.

The ABWC believes that procedures used to evaluate sustainability of subsistence harvests of belugas should not be the same as those used when evaluating the impact of marine mammal

incidental take associated with commercial fisheries. When first implemented, the Federal government told subsistence hunters and marine mammal co-management partners that the Potential Biological Removal (PBR) protocol codified into law in the amended MMPA was not intended to be used for management of subsistence harvests. While the use of minimum population estimates and default values for reproduction may be appropriately precautionary when evaluating the effects of commercial fisheries on marine mammal populations, they are not appropriate when addressing subsistence harvests by Alaska Natives for food.

The ABWC strongly recommends to NMFS that EBS belugas, or other beluga stocks, not be identified as strategic using the typical approach for calculating PBR. Instead the ABWC recommends:

Nbest vs Nmin: The 20th percentile of the abundance estimate (referred to as Nmin) should not be used to manage subsistence hunts. The GAMMS protocol requires that NMFS use a conservative minimum abundance estimate. The use of "Nmin", as was used in the revised EBS SAR, is only one way to do this. **The ABWC recommends that "Nbest" (from the revised stock assessment) be used to calculate the sustainable harvest limit for EBS belugas**. The current estimate of Nbest (9,242) represents a minimum estimate and is conservative for several reasons: 1) modeling conducted for aerial survey data used to calculate the 2017 abundance estimate clearly showed that belugas were still present when the edge of the survey area was reached and that the abundance estimate underrepresented the number of belugas present (NMFS has already proposed to extend the survey area to the south for its next EBS surveys); 2) the correction factor (CF) of 2.0 used to account for belugas that were underwater and not available to be counted is conservative. NMFS, through co-management funding to the ABWC, is currently funding Dr. John Citta to conduct a correction factor study using satellite tagging data for Alaska belugas. The results of that analysis are not final, but preliminary results suggest a CF of 2.0 is negatively biased. Furthermore, the 2.0 CF estimate does not take into account small dark gray belugas (neonates and yearlings) that cannot be seen from a survey altitude of 1000'. Previous studies have estimated this missed component as 0.18 of total abundance; and 3) detection bias to account for belugas present but inadvertently missed by observers was not included in the estimate.

Rmax: The proposed revision to the EBS beluga SAR used the default Rmax value of 4.0%. The GAMMS protocol indicates that values other than the Rmax default value should be used when available, if they are published and stock specific. There is a published value of a realized population growth rate of 4.8% for the nearby Bristol Bay stock of belugas where there are similar environmental conditions and habitat. This is not Rmax, but an actual realized value for the growth rate of the population at an intermediate density between zero and carrying capacity. The observed rate of population growth of 4.8% is considered conservative by the ABWC. **Therefore, the ABWC recommends that 4.8% be used as a more appropriate value of Rmax in calculating the sustainable limit for subsistence harvest of EBS belugas.**

In summary:

1) The currently withdrawn SAR and determination that EBS belugas should be classified as strategic is detrimental to management planning and the conservation of EBS belugas, which is the priority goal of both the ABWC and NMFS, and for this reason is not acceptable to the ABWC.

2) The ABWC strongly recommends that PBR protocol for managing bycatch of marine mammals in commercial fisheries not be applied to the subsistence harvest of belugas and that NMFS establish separate nomenclature and procedures for evaluating stocks where the principal source of human-caused mortality is subsistence harvests by Alaska Natives. This should be done in collaboration with the ABWC, its co-management partner, and other relevant co-management organizations.

3) The ABWC requests that NMFS defer any reclassification of the status of EBS belugas as strategic for at least a year and possibly longer, until uncertainty around the abundance estimate and Rmax is further discussed and resolved.

4) The existing "Nbest" population estimate of 9,242 should be used to calculate the sustainable take level for subsistence harvest, rather than Nmin. It is conservative due to both survey area and correction factor issues.

5) The ABWC recommends that 4.8%, not the default value of 4.0%, be used as the estimate of Rmax. It is based on a published, realized population rate of increase of 4.8% in nearby Bristol Bay.

6) The ABWC encourages NMFS to involve the Alaska Scientific Review Group (ASRG) to help NMFS evaluate the issues ABWC has raised. Responsibilities of the ASRG include reviewing draft SARs and advising NMFS about population estimates and the population status and trends of marine mammal stocks. We think their involvement could be helpful.

7) The ABWC recommends that NMFS undertake another aerial survey for EBS belugas in 2022, if possible, or in 2023, in collaboration with the ABWC.

Even though the premature designation of EBS belugas as strategic was unfortunate, there is now an opportunity for the NMFS and the ABWC to enhance communication and strengthen their co-management relationship. The ABWC looks forward to a stronger and more communicative partnership with NMFS in the future, and to moving forward together regarding the EBS stock assessment report and, more importantly, the conservation and sustainable harvest of EBS and other stocks of belugas. As ABWC members stressed at our recent meeting, co-management is a partnership. Decisions must be made together. The ABWC and NMFS must walk forward together on this issue.

Sincerely,

Tom Gray, Chairman
Alaska Beluga Whale Committee

cc: John Bengtson, Director Marine Mammal Laboratory
Robyn Angliss, Cetacean Assessment and Ecology Program Manager
Kathy Frost, Secretary Alaska Beluga Whale Committee
Senator Lisa Murkowski
IPCoMM

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29 April 2022

Tom Gray, Chairman
Alaska Beluga Whale Committee
P.O. Box 306
Nome, Alaska 99762

Dear Tom:

I am writing to again thank you and the Alaska Beluga Whale Committee for providing your insightful comments about the 2020 eastern Bering Sea (EBS) beluga whale Stock Assessment Report (SAR). I am following up to provide you and the ABWC with an update on the status of that SAR as well as other agency actions regarding the EBS beluga stock and other beluga stocks of interest to the ABWC.

1. As we have communicated to the ABWC in the past, NMFS has permanently withdrawn the 2020 SAR for EBS beluga whales that was published previously. NMFS will soon be announcing that the previous version of this SAR (last updated in 2017) should be considered the "most current" SAR and will be included in both the reissued version of the 2020 Alaska SARs and the upcoming 2021 Alaska SARs. In the meantime, NMFS is nearing the final stages of developing an updated draft 2022 SAR for EBS beluga whales.

2. MML leadership and staff have been evaluating the technical issues associated with the 2020 SAR for EBS beluga whales identified by the ABWC, including corrections for transect detection probability and sighting availability bias in the aerial survey estimate as well as the suggested use of a higher Rmax value based on the observed rate of increase in the Bristol Bay population. The draft 2022 SAR for EBS beluga whales is nearly completed, but a couple of unresolved technical issues remain.

3. A key part of the 2022 SAR is a reanalysis of the 2017 aerial survey data used to estimate the abundance of the EBS beluga whale population. Dr. Megan Ferguson has completed that reanalysis except for the two technical issues noted below:
   - We are seeking to determine the most appropriate methods regarding corrections for transect detection probability and sighting availability bias.
   - To help in our evaluation, we are reaching out to the ABWC and the Alaska Scientific Review Group (SRG) to solicit their perspectives and suggestions on how best to proceed.
   - The attached email and four documents provide details on these outstanding issues:
     - Note from Megan Ferguson describing her questions.
     - Preliminary draft of Megan's revised EBS beluga abundance estimate.
     - Draft tables for the EBS beluga abundance document.
     - Draft figures for the EBS beluga abundance document.
   - We are hoping to resolve these issues soon so that the revised abundance estimate can be incorporated into the draft 2022 SAR, which can then be shared with the ABWC for consultation.
   - I would be grateful if you could please advise me of when the ABWC may be able to provide input on the issues outlined above. I understand that this request falls during a very busy time of year and outside of normal ABWC schedules, so please allow me to thank you in advance for any assistance that you can offer as soon as feasible.

4. As soon as the revised EBS beluga whale abundance estimate is finalized, the draft 2022 SAR for EBS beluga whales can be completed. Once that happens, we hope to be reaching out to the ABWC in the coming weeks to consult with the ABWC about the new draft 2022 SAR for EBS beluga whales.

5. The Marine Mammal Laboratory will be conducting the jointly supported (NMFS-ABWC) aerial survey to estimate the abundance of EBS beluga whales from 20 June to 2 July 2022. The basic survey design is the same as for the surveys conducted in 2017, with the exception that we are adding some additional survey effort southward to Scammon Bay to ensure that the full range of this stock is surveyed during June. Megan Ferguson, who led the 2017 survey and the analysis of the data from that survey, will be leading the project.

6. Our office routinely conducts outreach events about new field projects in Alaska. We would like to talk to you about partnering on one or more outreach activities prior to this summer's EBS beluga survey. Either Dr. Robyn Angliss, the Cetacean Assessment and Ecology Program Leader, or Dr. Ferguson will reach out to you about this soon to discuss possibilities.

Unfortunately, our focus on reanalyzing EBS beluga whale data, preparation of an updated SAR, and preparations for the June 2022 EBS beluga aerial surveys has resulted in delays in two projects important to us and the ABWC: estimating abundance of the Beaufort Sea stock of beluga whales and evaluating whether or not beluga whales in Kotzebue Sound should be considered a separate stock. We in NMFS will start making progress on these projects again later this spring or early summer and we are planning to provide an update on our progress at the fall ABWC meeting.

Maintaining an effective co-management partnership with ABWC is of paramount importance to NMFS and to me. I will be reaching out to you soon via phone to provide you with an opportunity to discuss the issues mentioned above and any other issues that are important to you and to the ABWC. Please don't hesitate to contact me by email or phone (mobile: 206.930.6271) at any time.

With best regards,

Sincerely,

John L. Bengtson
Director

CC: K. Frost
R. Angliss
M. Ferguson
N. Young
N. Friday

ABWC-NMFS Meeting - May 26, 2022

Co-management of Eastern Bering Sea belugas

Summary of notes by Robert Suydam and Megan Ferguson
(compiled by Kathy Frost, ABWC Secretary)

In attendance:

ABWC: Tom Gray (Chairman), Marvin Okitkun (Vice Chairman), Robert Suydam (Member)

NMFS: Jon Kurland, Megan Ferguson, Verena Gill, John Bengtson (virtual, MML), Robyn Angliss (virtual, MML), Jill Seymour (virtual, NMFS and Cook Inlet beluga coordinator), Ann Marie Eich (virtual, and acting in Kurland's old position), Barbara Mahoney (virtual, NMFS).

1) This meeting is primarily about issues relating to Eastern Bering Sea belugas.

   Tom: It is important that the ABWC and NMFS discuss issues about belugas conservation and management regularly. We don't want to be in a position like Kotzebue where belugas are mostly gone. He noted that no one stood up and took a position to keep belugas in Kotzebue. We don't want to see that happen again in another place. We all need to ask ourselves what it is going to take to ensure we have the right programs and information in place to make the right decisions so that belugas are abundant and healthy in 100+ years. At the least, we need information about how many belugas there are, harvest numbers and other information. The ABWC and NMFS need to work together to make sure we have the right information. Meeting regularly and again sometime soon will be important.

   The Kotzebue beluga problem was because of human behavior. People kept hunting even when they should have slowed down. This can't happen in other places, so we need to be conservative about our decisions. We also need to work with people so they know what is happening, can provide their own thoughts and help. ABWC should go to the public about the EBS management plan. If the Federal government goes to the people, we need to be cautious about how to do this. We need to work together and listen to one another in reaching out to the public in the best way possible. The ABWC wants to get a management plan for EBS in place that is owned by the people.

   Bengtson agreed that the goals expressed by Tom are the same that he shares personally and those of NMFS. The relationship between the ABWC and NMFS can be like a marriage but we are working together well right now. The ABWC has been a good partner with NMFS for many years.

2) ABWC is committed to having a good working relationship with NMFS as our co-manager of belugas. How can we help this happen?

   The ABWC and NMFS need to have at least one annual meeting but two in-person meetings or one in-person and one virtual meeting during the year would be better. See point 10, below.

3) What is the status of the draft EBS Beluga Stock Assessment Report (SAR) that designates EBS belugas as "strategic?"

   Bengtson provided NMFS initial response:

   a) Has the SAR been officially withdrawn or changed and posted again on website?

      NMFS has permanently withdrawn the 2021 EBS beluga SAR. The 2017 EBS beluga SAR is the one now on the NMFS website. In that SAR there is no strategic designation.

      NMFS would like to update the SAR for 2022, even though it would be posted late in the process. The update intended for the 2022 SAR focuses on a new estimate of the 2017 surveys. There are

several questions that NMFS and Megan Ferguson have for the ABWC and the Alaska Scientific Review Group (SRG) about what values to use for correction factions. NMFS is waiting for a response from the ABWC and the SRG before for completing the draft SAR. (Tom expressed some concern about tweaking estimates and wanted to be sure the process was appropriate and scientifically justifiable.) It would be helpful if the ABWC and the SRG provided feedback on these questions in the next week or two, if possible.

Ferguson mentioned that depending on correction factors to be used, the revised estimate would range from 11,768 (CV 0.117) to 21,365 (CV 0.231). She mentioned that the high estimate is probably not realistic because it uses the largest correction factor.

Once the SAR is revised, NMFS will seek additional input from the ABWC and the SRG on the full draft SAR. Those comments will be addressed before the SAR is put out for public comment.

When asked how much time would be available for the ABWC to comment, Bengtson said that he was hopeful the ABWC could provide comments on the corrections factors in the next week or two. NMFS would then be able to revise the draft SAR within another week or two before the full document is sent to the ABWC and the SRG. NMFS wants to make sure the ABWC is on board with revised approaches for population estimate and SAR. There is no deadline for the ABWC to comment on the correction factors or the draft SAR. NMFS would like to include the EBS beluga SAR in its package of SARs for 2022 but if the ABWC wants to delay the SAR until 2023, NMFS would be willing to accommodate that timeline.

Summary of steps for ABWC for revising the SAR:

1) ABWC review correction factors for the revised population estimate from 2017 surveys and provide suggestions for NMFS.
2) NMFS will revise the population estimate based on feedback and revise the draft SAR. NMFS will provide the full revised draft SAR to the ABWC for review and comments.
3) Depending on comments from the ABWC, NMFS may further revise the draft EBS beluga SAR before putting it out for public comment along with the other NMFS SARs.

b) What was the NMFS decision about using a maximum reproductive rate (Rmax) or 4.8% based on Bristol Bay?

We did not talk specifically about this, but NMFS said it will be addressed in in draft SAR.

c) What was the decision about using the best population estimate (Nbest) not the minimum estimate (Nmin)?

We did not talk specifically about this, but NMFS said it will be addressed in in draft SAR.

d) What will be used for the Correction Factor to account for belugas under the surface where they can't be counted?

We did not talk specifically about this, but NMFS said it will be addressed in in draft SAR.

4) What happens next about the EBS Stock Assessment Report (SAR)
   a) What is the timeline? Will it be included with the 2022 SARs?
   b) What does the ABWC need to do either alone or together with NMFS?
   c) Will ABWC have the opportunity to review SARs prior to approval in the future, whenever a new SAR is written?

   See Item 3, above.

5) What is the status of the June 2022 EBS aerial surveys for belugas?

a) ABWC has reallocated $50,000 for the aircraft time as agreed.

NMFS appreciates the ABWC support for this survey.

b) Is the plane reserved?

The contract for the survey plane is moving forward and should be in place soon.

c) Will there be a seat on the plane for an ABWC observer if someone wants to fly on one or more days?

No seats will be available in 2022 for ABWC observers. The primary reason for this is to minimize risks to the survey team and the local community for COVID. If one of the survey team tests positive for COVID, the entire survey will need to be shut down, per NMFS and Univ. of Washington (one of the primary observers is an employee of the UW) policies. Tom agrees this was a suitable decision for 2022. The ABWC and NMFS would like to make sure there are seats available for ABWC observers during future surveys.

d) Will the observers make observations that can be used to better estimate Correction Factor for EBS?

Yes, they hope to do so. See summary below.

e) Outreach: ABWC will post Facebook updates and updates to the ABWC delegates from EBS, will work on an article for local newspaper (Nome Nugget)

NMFS is also planning to do outreach but wants to do so in complete conjunction with the ABWC. NMFS wants to reach out to communities before, during and after surveys. They want to emphasize collaboration between NMFS and ABWC. ABWC does not think it is a good idea to include any *new* EBS beluga abundance estimates in outreach materials until they have been thoroughly reviewed. The following are ideas for outreach:

- Research brief: a 2-pager that contains information about who, what, when, where, why, and how
- Posting a webstory on NMFS website
- Article for Nome Nugget—It was agreed that the ABWC should take the lead on this. There are still uncertainties about when this should happen?
- Letter to Tribal Councils, but perhaps sent by ABWC and NMFS together
- Posting on ABWC and AFSC/NMFS Facebook pages
- Email to contacts in the Bering Strait region, with links to websites, and offer daily reports once the surveys begin

f) When will a new estimate be available? Has NMFS allocated the time and resources necessary for data analysis?

<u>Summary of 2022 EBS beluga survey plans</u>:

- Planned dates: 21 June to 1 July
- Weather dependent
- Observers: Megan Ferguson (NMFS), Kim Sheldon (NMFS), Amelia Brower (UW)
- Nome based
- No ABWC observer will be able to participate in 2022 due to Covid concerns and policies. For future surveys, ABWC would like the option to have an observer on the plane.
- Transects will be east-west are the same as flown by Kathy and Lloyd, with an exception. Several more lines have been added to the south towards Scammon Bay to try to capture full range of EBS belugas at that time of the year. Transects will extend 40k offshore.

- Line transect methods will be consistent with the 2000, and 2017 surveys but analyses will be different taking advantage of the most current analytical methods.

  New analytical methods for 2022

- Availability correction factors: data will be collected to update and apply to 2022 and past surveys. Will try to account for:
  - Behavior, feeding vs. traveling vs. milling
  - Group sizes
  - Habitats
- Coastal vs. offshore
- Turbid vs. not turbid (big muddy plume out of Yukon
  - Surface time and dive time for group for availability correction
- Dark belugas will be recorded for correction factor.
- Availability bias
  Aerial survey data will be collected to help address this question and satellite tagging data will be helpful too.
- Transect detection probability
  Survey in 2017 assumed all the belugas below plane were seen. This assumption will be replaced with an estimate based on data collected in other areas (i.e., Beaufort sea belugas).

The 2017 revised estimate could be available within a week or so after the ABWC and the SRG provide guidance about the correction factors. A draft estimate from the 2022 surveys should be available by November 2022. It will be important to explain how the new data collected during 2022 and the revised analysis of 2017 data do not make the historical EBS beluga aerial survey data invalid or inconsistent. Tom does not want to implement changes to survey protocols that disrupt the historical timeline. The proposed changes for 2022 are "value added", with the intention of generating a more accurate and less biased abundance estimate for 2022, and creating correction factors that can be applied to the 2000 and 2017 survey data.

Tom mentioned that the ABWC is planning to tag belugas at Kotlik. There have been recent belugas sightings Even if not a lot of beluga sightings, that will tell us something. Marvin said that herring are early so belugas might be too. Even if belugas are early, they are present in the survey area throughout the summer and should still capture where most belugas are.

6) Beluga management plan: EBS village meetings have been postponed because of COVID. They likely cannot be held until next winter, except perhaps in Kotlik and maybe Saint Michael in conjunction with tagging. Expenditures of funds will be delayed. Are there other ways to make progress on the Management Plan? The ABWC will make sure NMFS has the most recent copy of the draft EBS beluga management plan.

More general questions:

We didn't have time to cover the questions below in any details but briefly outlined the topics with NMFS. We suggested that these items should be discussed the next time the ABWC and NMFS meet.

7) What next for population estimates of western and northern AK beluga stocks? How can we plan for future surveys in a more rigorous way? How are ABWC and NMFS going to work together on this?

8) Funding outside the co-management process? What can NMFS commit to advance? How can ABWC help?

9) Grant process. In 2022 reviewers suggested only minor reductions in ABWC funding (several car rentals for NSB)? But NMFS asked for substantial reductions in travel for 2022. What flexibility is there to change how cuts are made? Can NMFS work with ABWC to make budget cuts? This occurred this year but can we make it more a part of the process up front instead of reactively?

   NMFS encouraged the ABWC to send a letter or even an informal email to highlight the issues that were experienced with the 2022 co-management proposal. The ABWC could also suggest solutions to those issues for future proposals.

10) The ABWC would like to meet annually with NMFS in association with the annual ABWC meeting to talk about beluga issues. Ideally there would also be an interim meeting in spring. The goal is to communicate regularly and hopefully avoid unintentional mis-steps or misunderstandings. Among the items for discussion: What does co-management mean? What are the respective roles of NMFS and the ABWC in co-management? What are our underlying data needs for managing the beluga stocks in western/northern AK? (e.g., population numbers, trend, harvest, outreach by NMFS, other?) [this applies to belugas but also other species and could be added to priorities for co-management]

    A meeting between NMFS and the ABWC should be scheduled in association with the annual ABWC meeting in November 2022.

ABWC-NMFS Meeting – November 12, 2021

Co-management of Eastern Bering Sea belugas

In attendance:

ABWC: Tom Gray (Chairman), Marvin Okitkun (Vice Chairman), Kathy Frost Secretary), John Citta (Member NSB), Lori Quakenbush (Member ADFG), Anna Bryan (Member ADFG), Robert Suydam (Member)

NMFS: Jon Kurland, Megan Ferguson (virtual, MML), John Bengtson (virtual, MML), Robyn Angliss (virtual, MML), Barbara Mahoney (virtual, NMFS).

Other: Doug DeMaster (virtual), Cordelia (Senator Murkowski staff)

Tom Gray opened the meeting by saying we are here to discuss co-management of belugas and the strategic designation of Eastern Bering Sea (EBS) belugas. He welcomed everyone and pointed out that the strategic designation, without input from the Alaska Beluga Whale Committee (ABWC), had made the ABWC revisit its co-management agreement with the National Marine Fisheries Service (NMFS). The bottom line of all we do is protecting and conserving belugas.

Jon Kurland thanked ABWC for the opportunity to meet. He appreciates ABWC's patience and cooperation in sorting out this issue. He sent a letter to the ABWC in September 2021 in which he mentioned withdrawing the 2020 SAR and consulting with the ABWC by late November. He indicated the SAR must be finalized "as is" or revised. This can be done at this meeting today, or through a follow-up letter from ABWC. Jon pointed out that a strategic designation can be changed in the future as more data become available.

Tom Gray said that co-management is a partnership. Decisions must be joint and the parties must work together and walk forward together. This handling of the strategic designation without consulting with the ABWC has raised a huge issue of trust, not just between NMFS and ABWC but between NMFS, ABWC and hunters from the affected region. This is not as simple as "we are going to have an answer in two months". This is a very big issue.

Robert Suydam asked what is driving the November 20 deadline. Jon Kurland said that ultimately this is a NMFS agency decision. The Region is having a very difficult discussion with Headquarters over this. HQ sees ABWC as a stakeholder. Robert pointed that ABWC is not just a stakeholder. This discussion is about people's food. The ABWC appreciates Jon's intervention and support.

The ABWC wants the strategic designation to be removed. It is working hard on an EBS management plan for a sustainable harvest. 1) There is the potential this designation will derail the process. 2) From a political perspective, highlighting this stock because of the subsistence harvest has the potential to elevate the issue and have it snowball with anti-hunting groups. 3) Strategic designation under MMPA section 117 is about commercial fishing. It was NOT intended for subsistence. Using section 117 instead of section 119 is not appropriate. John Bengtson said MML supports the longstanding and sustainable subsistence harvest of belugas.

Kathy Frost pointed out that we need to step back and realize the ABWC and the EBS delegates were the ones who raised awareness of the EBS harvest possibly approaching the sustainable level. If we lose the trust and confidence of the hunters, we will lose the entire process. Tom Gray said we need some latitude to move forward. Jon Kurland said he understands this. Tom asked what will persuade NMFS to take a different course than the one they are on now. John Bengtson responded that it "must uphold scientific integrity." We need to lay out the scientific principles (technical issues) such as the correction factor, abundance estimate uncertainly, and maximum reproductive capability (Rmax).

Robert reminded NMFS that all harvest information is from the hunters, it is voluntary, and it can go away overnight. He pointed out that the abundance estimate is conservative and does not correct for calves and juveniles. The Potential Biological Removal (PBR) calculation uses the default value of 4.0 for Rmax, despite a published value for Rmax of 4.8 for Bristol Bay. John Citta pointed out that a CF of 2 is likely low, but it was used as a default value because it was easy. The CF is more like 2.5. Jon Kurland noted that these points could be persuasive. However, PBR looks at all causes of mortality, not just mortality caused by fisheries.

Doug DeMaster suggested that NMFS and ABWC work together on two things: 1) Nmin vs Nmax and 2) Rmax. Nmin (minimum abundance estimate) is inappropriately precautionary for subsistence harvests. GAMMS specifically says it is not necessary to use Nmin if the abundance estimate is reasonably conservative. Since an Rmax of 4.8 has been observed in the wild, it is reasonable to expect it to be species wide. A longer-term issue is that PBR was not designed for subsistence stocks. There is no provision to "carry over" when the harvest is below PBR.

Kathy Frost & Tom Gray again stressed for NMFS not to shoot ABWC in the foot. The ABWC wants to be part of the process, it is the link to reality. Jon Kurland emphasized that NMFS wants the EBS plan to play out. He asked ABWC to put the issues in writing, especially the technical issues. Tom pointed out that ABWC doesn't want to be a box to be checked. It wants to be an active player.

Megan Ferguson asked if the 4.8 Rmax for Bristol Bay might no longer reflect the current situation since the climate is changing. Tom said we need another abundance survey to determine trend. Robert also agreed that changes are happening and we need a stronger partnership to deal with it, but he pointed out that Rmax is a threshold limit while 4.8 is a realized value. John Citta pointed out that surveys are our link back to reality. Megan said the field has moved forward on abundance estimates. The 2017 analysis could be brought forward to modern standards. Doug DeMaster suggested that the PBR calculation should use ½ Rmax of 4.8 x Nbest. This is not a crisis situation.

John Bengtson noted that there is lots of room to circle back and scrutinize these issues from a scientific point of view (both abundance and PBR calculation). He said that a letter from ABWC to NMFS stating concerns and solutions would be helpful. THE ABWC WILL WRITE A LETTER TO JON KURLAND ABOUT THE STRATEGIC DESIGNATION.

Tom Gray reiterated that ABWC and NMFS are partners. We need to figure out how to work together. The EBS situation is an example of how NOT to go forward. We need to have a discussion about funding. It requires money to meaningfully manage belugas. The ABWC wants a meaningful co-management process. NMFS needs to give the ABWC a chance to move forward on this issue. Robert pointed out that decisions are made in Washington DC and that DC supersedes the Alaska region. The ABWC needs to make contact with Washington DC. Even if there are no in-person meetings, the ABWC can write letters. Robert suggested that the ABWC invite all three Congressional offices o the annual ABWC meeting.

Anna Bryan suggested the ABWC and NMFS meet in conjunction with the ABWC annual meeting. Robert Suydam said we also need an interim meeting, perhaps in 6 months. Tom reiterated we need to meet with NMFS more often.

Future SARs should be reviewed by the co-management group every year, whether or not there are changes in designation. John Bengtson said NMFS got the message about co-management review of SARs.

A new EBS abundance survey is needed, but funding will be an issue. NMFS needs to learn to use co-management in making funding requests. Robert pointed out that competitive funding for ANOs is a bad system. He suggested that ABWC try to organize a meeting to Washington DC, perhaps with help from the NSB. It might also be possible to ask Murkowski's office to support funding to NMFS for the survey.

From this meeting, Tom Gray said the ABWC wants:1) a 2022 abundance survey of the EBS; 2) there is no reason to rush the SAR revision process; 3) Rmax should be the realized value of 4.8, not the default value of 4.0. How this plays out has major implications for the EBS Management Plan. Rushing jeopardizes the process and it raises a red flag when there should be none. PBR should not be applied to subsistence harvests. The management planning process relies on trust and must maintain that trust. The ABWC needs to drive the management planning process and not be co-opted by NMFS or someone else. John Bengtson says the SAR response has moved to Science and Technology from Office of Protected Resources. He is confident the 2020 SAR will not be republished. It is no longer on the NMFS website. However, no final decision has been made.

EBS Aerial Surveys

In attendance:

Kathy Frost, John Citta, Robert Suydam, John Bengtson, Robyn Angliss.

NMFS is committed to either a 2022 or 2023 EBS survey with a few modifications from the last time. Kathy Frost stressed the need to have the methods comparable to the 2017 surveys in some form.

In 2022, Cook Inlet surveys occur until June 18th. EBS surveys could begin the 19th, but this can also be shifted. Bristol Bay beluga surveys begin about July 6th.

NMFS will use experienced staff and Megan Ferguson will be the project lead. Estimated cost is $321,450 per Megan. Bengtson is envisioning a 3-way share among the Alaska Region, MML and the ABWC. The ABWC is in the middle of the 2022 proposal process and it is unlikely it could get new money in place by June. The best option is to request reallocation of existing funds that were not expended during Covid. John Bengston said the survey is a priority of both MML and the Region. They still do not have their funding in place for the upcoming year.

Kathy pointed out how important the surveys are. Covid and reduced salmon numbers is putting a lot of pressure on belugas. This is a food security issue.

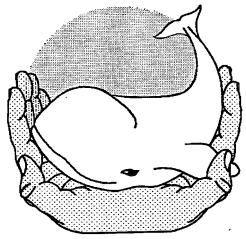
Tom Gray wants the ABWC to request no new survey money. ABWC can contribute funds reallocated from previous years. The ABWC can contribute $50,000 to the surveys. If adequate funds are not found by NMFS in 2022, the surveys will be conducted in 2023.

In summary: The plan is to conduct EBS surveys in 2022, starting sometime after June 18th for 12-14 days. ABWC will not request 2022-23 additional funds, but can reallocate existing funds. John Bengtson will carry that message to others in NMFS.

Kotzebue Sound

ABWC representatives suggested that MML begin thinking about designating Kotzebue Sound belugas as a separate stock. Robert Suydam thought there might be some application of environmental DNA techniques to this question. The scientific objective would be to learn to what stock Kotzebue belugas currently belong. The management objective would be to reduce the harvest until this question is resolved.

Notes prepared by Kathy Frost, ABWC Secretary



Alaska Beluga Whale Committee

Tom Gray, Chairman
c/o Kathy Frost, Secretary
frostkathrynj@gmail.com

22 August 2022

John Bengtson, Director
Marine Mammal Laboratory
Alaska Fisheries Science Center
National Oceanic and Atmospheric Administration
7600 Sand point Way N.E.
Seattle, WA 98115

Dear John:

The ABWC is writing in response to your email of August 3rd inviting the ABWC to review and comment on the revised version of draft 2022 eastern Bering Sea (EBS) beluga Stock Assessment Report (SAR). The draft SAR for the EBS beluga stock is a well-written document that seeks a balance in policy between managing removals related to Alaska Native subsistence hunters and removals related to commercial fishery interactions. In general, the revised SAR addresses many of the issues raised by the ABWC relative to the earlier draft and better reflects the conservation status of the EBS stock of belugas. The use of 4.8% for R_{MAX} instead of a default value of 4.0 reflects observed, published data for a nearby beluga stock in Bristol Bay that utilizes similar habitat.

The ABWC has several substantial remaining concerns: 1) we think a correction factor (CF) of 2.0 for availability bias is unrealistically low to correct for belugas below the surface and not seen by observers; 2) the corrected EBS abundance estimate does not account for neonates and calves which are greatly underestimated (if seen at all) in aerial surveys conducted at 300 m (approximately 1000 ft), especially in turbid water; 3) although appropriate for determining PBR for commercial fisheries, we do not think it is appropriate to use the 20th percentile estimate of abundance as the value for N_{MIN} for assessing sustainability of the subsistence harvest, particularly when the draft SAR clearly states that the 2017 best available abundance estimate is likely to be conservative.

Correction Factor

The CF for the abundance estimate in 2000 was set at 2.0 based on Reeves et al. (2011). While not critical to the estimate of PBR in this SAR, the Reeves et al. paper is not a good reference for a use of a CF value of 2.0. Reeves et al. just assumed a CF of 2.0 is reasonable. It is not clear why that particular CF was used, given there are other published estimates of CF, ranging from 2.0 to $\geq$ 4.0, depending on the survey parameters. At a minimum, a rationale should be provided for applying a CF of 2.0 to the abundance estimate for 2000. Also, the wording here is unusual – "if this were doubled …". The text might more appropriately state "the best estimate of the CF related to availability bias is XX (add reference)." It may be that an average of CF estimates from the literature should be used. Documents likes SARs may set a precedent in future assessments of other stocks and therefore there is a need for such parameters to be adequately referenced and justified.

The CF for availability bias used in estimating abundance from the 2017 survey is also 2.0, but is now based on Laake et al. (1997), where they developed correction factors for availability bias based on

surface interval time data and dive interval time data. Ferguson et al (in prep.) used dive interval data reported in Frost and Lowry (1995) for only 5 belugas in Bristol Bay and estimated that a beluga would be in view for 15.9 sec. This estimate is almost certainly too long, because the duration of time when a beluga is in view is not only a function of calculated "possible" time but also observer scanning patterns. An observer cannot stare at a single patch of water for the entire time a beluga could theoretically be in view. Other survey analyses have suggested in-view times of about 10 sec. The rationale for why CF values for availability bias from existing publications (almost all of them greater than 2.0) are not used is not presented or discussed in the text. Furthermore, although surface and dive intervals from Bristol Bay are probably appropriate in similar shallow nearshore areas of the Yukon Delta, it is unclear if dive durations are similar in deeper areas offshore, where we would expect belugas to have longer dive duration (and a larger CF).

The CF applied to the 2017 estimate of belugas at the surface was based on a combination of corrections for availability bias and transect detection probability. The draft SAR refers to the 2017 abundance estimate based on these CFs as "fully corrected." The "total" CF of 2.655 does not result in a "fully" corrected estimate of abundance for a number of reasons discussed later in the paragraph from the SAR (e.g., incomplete area coverage, sighting rate of calves is less than sighting rate of adults, etc.). The words "fully-corrected" estimate should be changed, perhaps to "best available" estimate. This change is supported by the fact that the SAR authors note the high likelihood that the estimate of 12,269 is negatively biased.

Neonates and yearlings

The 2017 abundance estimate does not take into account small dark gray belugas (neonates and yearlings) that cannot be seen from a survey altitude of 300 m (approximately 1000 ft). Previous studies have estimated this missed component as up to 18 percent of total abundance (Brodie 1971). Vacquie-Garcia et al. (2020) conducted tagging studies in Svalbard and estimated that only 41 percent of belugas were visible at depths <1.5 m in turbid water. Kingsley & Gauthier (2002) examined the visibility of Saint Lawrence belugas to aerial photography. They found that models of gray juveniles were invisible at almost all depths. In 1:6,000-scale photographs in clear Arctic waters (unlike the turbid waters off the Yukon), 4.20 m adult models could be seen down to 10 m, but 2.5 m models of juveniles could only be seen at depths of 5 m and 1.6 m dark-gray neonate models were not seen even as deep as 2 m (Richard et al. 1994).

Neonates and yearlings are certainly undercounted in the relatively clear water of central Norton Sound and likely completely missed in the turbid waters near the Yukon Delta. The 2017 EBS estimate should either incorporate an additional CF for unseen neonates and yearlings or state in the text the extent to which the issue of lower sighting rates of neonates and yearlings biases the estimate of abundance.

The estimate of N_{MIN}

The ABWC strongly recommends the use of the value 12,269 as the most appropriate value in calculating a guideline for evaluating the sustainability of subsistence harvests by Alaska Natives (as opposed to the N_{MIN} proposed in the SAR). SAR authors are accustomed to taking a "best available" abundance estimate for a given stock and then estimating an N_{MIN} value using a formula that results in an estimate that represents the 20th percentile value from the distribution around N_{BEST}. This approach was specifically developed to establish a regime to manage interactions between commercial fisheries and a stock of marine mammals. However, in this case, removals are primarily the result of an Alaska native subsistence harvest. Because the MMPA in defining the PBR allows several different approaches for the calculation of N_{MIN}, we believe the 12,269 value is more appropriate than the value for N_{MIN} used in the SAR (i.e., 11,112). Given that the 12,269 value is considered to be negatively biased by the SAR authors, a strong rationale can be developed to use this number in calculating a PBR. From the ABWC perspective, using a negatively biased abundance estimate as a value for N_{BEST} and then using the 20th percentile value for N_{MIN} is inappropriately precautionary for the purpose of managing the sustainability of removals related

to subsistence hunting by Alaska natives. It is far more likely that the Alaska Native subsistence community will accept guidelines based on a conservative estimate of abundance than an estimate that is arbitrarily precautionary when applied to setting limits on their access to food.

As appropriate, NMFS should clearly state the differences in policy used by NMFS to set removal thresholds for stocks taken by Alaska Native subsistence hunters or by commercial fisheries in US waters. This need not create problems for NMFS in managing beluga – commercial fishery interactions, because using the approach suggested herein would still provide a PBR that NMFS can use in managing removals by commercial fisheries and determining whether the zero mortality rate goal has been achieved.

As the ABWC has noted before, if SAR authors use N_{MIN} (rather than an estimate of N_{BEST} that is known to be negatively biased) in the PBR calculation, NMFS should use a CF that accounts for all or at least as many factors as possible related to the survey parameters for a given stock. It is not appropriate or acceptable to be unnecessarily conservative in evaluating sustainability of subsistence harvests, relative to the mandates of the MMPA in providing for subsistence use of marine mammals by Alaska native hunters.

Other concerns

The draft SAR acknowledges that mortalities due to entanglement in commercial or subsistence nets are included in the reported subsistence harvest. However, in the final paragraph of the SAR (p 7, top), it states that these mortalities are only "sometimes reported." Coastal salmon fisheries occur in the same villages where belugas are harvested, often by the same individuals. In these communities where belugas are a highly prized food resource, the distinction between whether they are caught in a net that also catches salmon doesn't seem very relevant. These belugas are processed and utilized for food: they are reported as subsistence takes. We suggest deleting the word "sometimes", and the sentence will read: "incidental beluga takes used for subsistence purposes are reported to the ABWC."

In lieu of the current caption, we suggest the caption for Table 1 (subsistence harvests) be changed to read "These are the best estimates of the total number of beluga whales taken." Harvests are consistently reported annually for more than 20 EBS villages. Harvest numbers are adjusted for missing data in years when no data are obtained. It is not appropriate to assume there is necessarily underreporting or missing data.

In summary, the ABWC strongly recommends that NMFS not apply the typical PBR protocol used for establishing removal thresholds in management of commercial fisheries to the EBS stock of beluga whales, used by Alaska native subsistence hunters. The ABWC recommends a dialog be initiated about a general approach for setting guidelines for healthy stocks of marine mammals that are used by Alaska Native subsistence hunters in waters off Alaska. This should be done in collaboration with the ABWC and other relevant co-management organizations. The ABWC is working hard to encourage the sustainable use of EBS beluga whales and to develop an EBS beluga whale management plan based on good science and that is defensible and acceptable to those who will implement the plan. We encourage NMFS to support us in our efforts.

Sincerely,

Tom Gray, Chairman
Alaska Beluga Whale Committee

cc: Robyn Angliss
John Citta
Anne Marie Eich
Megan Ferguson
Nancy Friday
Kathy Frost
Frances Gulland
Jon Kurland
Peter Thomas
Nancy Young
Office of Senator Lisa Murkowski