

MINUTES

NSB/SHELL Baseline Studies Program

Steering Committee Meeting

Marriott Downtown Anchorage

October 2-3, 2013 9:00am

October 2, 2013

MAIN PURPOSES OF MEETING: Approve budget for 2014, review on-going projects, discuss possible projects for 2014, and create a name for the program.

MEMBERS PRESENT:

Name	Representing	Name	Representing
Robert Suydam	NSB	Ron Oviok, Sr.	City of Pt. Hope
Tom Weingartner	Independent Scientist	Lee Kayotuk	Kaktovik Primary
Willard Neakok	Pt. Lay Primary	Hajo Eicken	Independent Scientist
Michael Macrander	Shell	Craig George	NSB
Qaiyaan Harcharek	City of Barrow		

MEMBERS NOT PRESENT:

Name	Representing	Name	Representing
Ransom Agnasagga	AIN Primary	Danny Pikok, Jr.	Alternate Pt. Lay
Enoch Oktollik	Alternate AIN	Jack Schafer	Alternate Pt. Hope
Brandon Southall	Independent Scientist		

NON MEMBERS PRESENT:

Name	Representing	Name	Representing
Malissa Langley	NSB Wildlife	Janell Kaleak	NSB Wildlife
Danielle Dickson	NPRB	Doris Hugo-Shavings	Shell

CALL TO ORDER: 9:09 am October 2, 2013

INVOCATION: Ron Oviok, Sr.

INTRODUCTIONS:

OPENING REMARKS: Suydam welcomed the committee members and visitors to the meeting.

Robert: We will wait on the approval of the Agenda and the Approval of the minutes once we have a quorum.

Malissa: It is eight people for the quorum and Lee is on his way.

Robert: Let move down to update by Shell until the other members get here for Tom and Lee.

No objections

UPDATE ON SHELL'S ACTIVITIES FOR 2014 - Michael

Industrial Work in the Chukchi Sea

At this point, the last vessel that was doing industry work is now on its way to Dutch Harbor and is below the Bering Straits and should be arriving in Dutch Harbor soon, we are out of the Arctic presently, what work was done this year was two vessels both of them was the Swedish Ice Breakers, Nordica and the Fennica. We used those boats because of their ice capability and because they are under a long term contract and are very capable vessels with helicopter landing decks. The Fennica was engaged in Geophysical Surveys basically Shell Hazard Surveys involves using a small air guns awry using four to ten cubic inch air guns for a total of 40 cubic inches, nothing compared to the large 3D kinds of surveys. The purpose of this is to help us map the sea floor and shallow penetration to look for any kinds of faults in the sea bed, any kinds of obstructions and shallow gas pockets that might be there and so it gives us a better idea, also sea floor mapping looking for Ice Gouge, etc. so that's things like multi-beam sonar and pretty high frequency with low intensity kinds of sound forces, that are mapping the sea floor. The majority of that work was done on our Berger Prospect and more was done on our Cracker Jack Prospect. The Nordica was engaged in work at the Berger, on the drill site where we drilled top hole last year, there was work to be done on the structure that was left behind and they went in and cut the equipment off and get it out of there. Pretty low impact work. There was no work done in the Beaufort Sea this year.

Science Update

Shell once again participated in the Chukchi Sea environmental studies program with Conoco Phillips and Statoil. They are on their final phase of that project. That is the same scope we have been doing since 2008 and this is the sixth year for that program. The cornerstone of that is the intensive looks at the Klondyke Prospect, Berger Prospect, Statoil Prospect, two separate cruises at each of those locations this year, the first cruise on the Statoil Prospect was impacted by Ice so they didn't get all of the work done that they would have like to have achieved there but again looking at everything from plankton, the benetic on the sea floor to marine mammals and marine bird, acoustics is also part of that so the acoustic arrays in the Chukchi Sea where put out again as well, the acoustic arrays were put out in the Beaufort Sea again Kaktovik, both sides Camden Bay and both sides of Harrison Bay so five arrays out there. Also there three Metocean Buoys in the Chukchi Sea and two Metocean Buoys in the Beaufort Sea, all of those data are available online and are going directly into the national ocean data buoy center. As with that program for the last several years there are two boats the Norseman II and the Westward Wind and both of those vessels are also serving the broader science community while they are up there. The Industry do not fill their entire dance cards to go up and in mid-July and stay all the way through October without coming back so those vessels so those vessels was used since 2006 to

do the walrus tagging, the transboundary fisheries study funded by BOEM was also done. These vessels at any given time may be working with industry or not. Since it has been in the media a lot recently the Westward Wind was off hire for the joint studies this year for about a week and ConocoPhillips used it to do their unmanned aerial system test program. We at Shell are keenly interested in that, we have done a couple of test programs in the past. We flew on behalf of Shell and ConocoPhillips back in 2008 and have continued to a lot of work to progress that, we simply weren't involved in this effort this year but we are hoping to get an update on their data. On that topic, most people are aware that 2012 we experimented with the use of photography to do the observations that Marine Mammal Observers normally would do from an airplane in the Beaufort Sea we had MMO's as well as the cameras so we were able to compare but the MMO's saw what the camera detected and we were later able to assess from the photography. In the Chukchi Sea, we only flew an airplane with the camera system. We have now analyzed all those data and what we can say it that the camera's do at least as good a job as the observers in the airplanes in some cases that do a little bit better and another advantage is that you have a record that you later go back collect information from and you also have this photographic record that now you can look at from other stand points, like looking at ice and sea conditions and that sort of thing. So we have had a paper accepted by a journal that is a new journal on unmanned aerial systems, our comprehensive report that industry did in 2012 is finally on the street. This report is a very different report we have done in the past. We have restructured the paper, we are doing chapters primarily by species, the acoustic, aerial, MMO is in one chapter and it is not separated out by the Chukchi and Beaufort. We have a data set of images and we know what should be on those images and we are talking to several companies now about developing the software that will scan through those images and probably the best we will be able to do initially is to discard a lot of images that there is nothing on. The next time we have a drilling program we will once again fly aerial with camera, we will likely go to a different platform than the twin otter, there is a new aerial platform available that is called DA42 and it is an aircraft specifically designed for all kinds of aerial reconnaissance and remote sensing so you can put all kinds of camera in the camera bays. They are reputed to function as a manned aircraft or unmanned aircraft. The next time we use it, it will be as a manned with a pilot and copilot, its big enough that it has to be operated from the shore. Our hope is by 2015 or 2016 we will be doing everything unmanned.

Hajo asked if the images were in the public domain? Michael said that these images are available but are not in the public domain.

Robert: Have there been comparisons the unmanned versus the manned.

Michael: We are currently experimenting with this kind of thing and frankly we are working away from the smaller frames like the Scan Eagle and more toward a larger more capable airplane is likely to be operated from shore. We also shot video this year and analyzed that, video gives you the ability to pick up on those cues like movement and splashes and blows and things of that nature. It is all in the report but what we found is the image quality for video was not as good as we needed it to be but we anticipate it to get better as time goes by.

Two things about the Chukchi Seas Environmental Program this year; in 2011 and 2012 we included this area that was what we call the Hanna Shoal Study Area. In 2013 we did not do that for two reasons. We had two years' worth of data looking at that area also BOEM had funded a separate program that ran in 2012 – 2013 between the two programs and we now have three

years' worth of data and we decided to focus on some other things this year. We did however run a DBO Line from AIN out perpendicular and so we occupied one of the DBO Lines.

Publications so the Chukchi Sea Environmental Program has a dedicated condition of continental shelf research that is coming out this fall which is dedicated papers from each of the PI's to include Tom Weingartner and an overall synthesis paper.

Leandra has been granted an affiliated faculty appointment at the University which should allow her access to all the Journals Electronically at no cost.

Addition of Deep Sea Research (BOEM) there are some cross over papers between the two programs and since Shell helped fund some of that, we have some papers in that also. It should be coming out in the next six months. So between the two it should be something in the neighborhood of 25 – 30 peer review papers from these programs that will be on the street in the next six months.

PLANNED ACTIVITIES FOR 2014 SHELL

Nothing is in stone at this point. There are clear aspirations to drill in the Chukchi Sea to finish the Well that we started in 2012. We are on a daily basis looking at the progress of the repairs on our two drilling rigs. So it depends on that progress before plans can be made, but we are hopeful.

SHELL's PLAN for SCIENCE 2014

At this point I anticipate some form of SEACSS presence in 2014. I think I can say is that the full acoustics arrays in both the Chukchi and Beaufort Sea will be out. Most of the physical oceanography stuff will be out in 2014, whether it ends of being survey on the Prospect or what I can't say.

Qaiyaan: The mapping work that was done this summer, in the Cracker Jack area, is that Charting accurate and up to date.

Michael: We certainly chart to Sea floor but we don't necessarily update the existing charts, you are probably aware that Shell entered into an agreement with NOAA two years ago to share data and it has been a laborious process, at the time envisioned three annexes that would identify pieces of information. The 1st annex that finished and the data transferred was all good, icy weather data. That has been going to NOAA for two years now, the second annex, Environmental, was finished last summer and all those data transferred. The third annex is hydrography (sp) and we haven't gotten that annex done. So we anticipate is that these data will be passed to NOAA in some form such that can then take it and us it. I think the data we have from the surveys is more intensive on a small area than what NOAA needs. The more useful data will come from the Ships that have been around out there and their depth will be more useful.

Tom: NPRB is funding Seth Danielson to do the best that he can to upgrade depth soundings and a digital data base for the telemetry all around Alaska. He has gotten a lot of charts from the Russian side and is having them digitized. I think there are two issues to be aware of here, one is that this is that the stuff Seth is doing is not going to have navigation quality and verified in that

sense, what it will really help us do is fill in a lot of gaps and really enhance the ability for modelers that have to put in some kind of telemetry to fill in the blank spots on their charts. That will go a long ways to prove that type of effort.

Michael: Let me add one additional thing to planned activities for 2014, at this point sort of independent from the decision as to whether we drill in 2014 the intent is to do onshore studies program again, a continuation of what we started in 2012 the board spectrum habitat mapping, hydrology and Archeology across the North Slope.

Robert: That is great may be at our next meeting someone could give us a rundown of what is planned so that as we finalize our decision for 2014 we can make sure they blend appropriately.

Qaiyaan: Is anyone doing Bowhead identification with all the acoustics going on? Are any of the data from the 2012 studies results available?

Michael: Those recorders are currently being picked up in the next ten days and it will take about three or four months to process the data, and then we will develop a report. The reports from the 2012 studies are not available yet.

Tom: To help answer Qaiyaan's question about acoustics. This year Peter Winsor, Kay Stafford and Mark Baumgartner took gliders and put some acoustic detection equipment on board and then they put the glider out. The gliders are essentially a robot in the ocean that flies a preset path. The gliders detected a lot of marine mammal activity. If they detect an organism then the gliders could be reprogramed to change their track and we could see what the animals are feeding on.

While Shell voluntarily agreed to discharge as little as possible from our drilling activities in the Beaufort Sea. In the Chukchi Sea we are doing a more normal operation of discharging muds and cuttings and other drilling related waste. There is a new general permit in 2012 that permits the discharge but also requires a very significant studies program around that. You may be aware but before that permit went into effect, Shell had voluntarily initiated a studies program in 2012 before the ordered compliance. The permit calls for a four phase approach to the study, one is predrilling primarily focused on the sediments, two during drilling looking at the Plume and sampling water that is in the Plume, three immediately after drilling and four is one year out from that.

Robert: Welcomed Lee Kayotuk to the meeting and now with Lee and Tom here we do have a Quorum.

APPROVAL OF THE AGENDA:

Motion to approve the agenda by Qaiyaan and seconded by Tom. Any discussion about agenda? No questions, comments or discussions. Questions have been called, all in favor of approving Agenda. It was approved unanimously.

APPROVAL OF JANUARY MINUTES:

Motion by Willard to table this until tomorrow morning to allow time to read through them. Seconded by Ron. Questions called. Approved table of January minutes until tomorrow morning.

Welcomed Doris Hugo-Shavings to the Meeting

SHELL SOCIAL IMPACT ASSESSMENT

Social Impact Review Power Point Presentation by Doris Hugo-Shavings. Report should be available by January 2014.

Discussion by committee members regarding a review of the final report by a peer review panel and they concerns they had.

There will be people from the community, Shell and NSB to review the assessment process.

Robert: I agree with concerns brought up by Hajo, Craig and Qaiyaan and I have similar ones and I am glad you have a lot of confidence with ERM but because of our past experience has not been positive and if they actually have this national experience you speak of, it didn't show up in one of the major studies they did in Nuiqsut that their initial set of questions including asking Elders was how frequently they smoked Pot and how frequently they do Cocaine. We were not happy, what kind of social scientist working in a community on the North Slope and think that it is respectful to ask those kinds of questions, just the fact that they put the questions down on their draft questionnaire was shocking. So I think that kind of what Hajo was recommending made a huge amount of sense with Craig's follow up that I think it would be really beneficial for Shell and for the outcome of the study to have an independent group not ERM, they are being paid by Shell and they are biased, which is not bad but it is just the way it is, even the NSB is biased. So having an independent group can look at what the process is collecting these data is really valuable.

Michael: So your suggestion is to be clear, is to ask ERM to put together a study plan including their questionnaires then identify some kind of Peer Review Panel to take a look at it and make suggestions and incorporate those suggestions.

Doris: I will bring all of these suggestions back to Shell to make this assessment as good as possible. Robert what would be your approach to try to get people in an unbiased way.

Robert: You could randomly select people out of different strata so that you are not biased in the sample based on how is willing to come forward and some of that is based on what the question is. If you are trying to identify problems, then you want the loud mouths to come in and talk a lot but if you really want the study to say something else then it is important to have a random sample.

Michael: If you have an approved methodology for selecting participants then you not put in the dilemma of saying well we already have our 20 -25 so we don't need you.

Doris: We want this to be as good as possible so maybe we can work together. Thank you for the feedback.

Robert: Thank you Doris and Michael for the Shell updates, next thing on the Agenda before Lunch is the 2014 Budget.

FY2014 BUDGET

Robert: In your packet everybody has spreadsheets that we have proposed to Michael in a preliminary way what the Baseline Studies Budget looks like for 2014. Our goal for today based on the Agreement between Shell and the NSB is that we provide a budget for 2014 by the end of September.

Review by committee with questions

Michael: Under the breaking issues for the Strike Team does that money include the sampling kits in case of a spill. Wouldn't we need to get kits put together so that we are prepared for an incident?

Craig: I was just talking to Raphaela yesterday and I haven't spoken directly to Robert but there is a similar program that Prescott funded in previous years. We talked about the importance of us having cleansing tools, set whale butchering tools that are sequestered away just for this and then all the technical types of sampling gear at least for case studies not a massive event Raphaela essentially has those kits ready to go, swabs sampling gear, those kinds of things. Yes I think we need to do asap, it is not a lot of money to get the basics together and then we talked again about this swat team approach, there shouldn't be any hesitation if/when critters hit the beach.

Michael: Including what has been done before, is also having like a set of protocols. These are the tissues to take and this is how to take them. Having a notebook on the shelf

Craig: I agree that is equally important, there are some clear protocol now that is published to do a forensic assessment to determine trauma. The big ticket item is helicopter time.

Robert: To me this is exactly what this budgeted amount is about, so we can charter planes and to hire people in the villages and the whole thing of buying sampling kits and personal protective gear is a really good idea and easily could be encompassed in this money or maybe from last year.

Danielle: I am curious of the \$50,000 cost for peer review of RFP's.

Robert: In the past we have talked about the need for hiring people to help us review proposals or to help us draft RFP's that it is becoming increasingly clear that Craig and I are stretched too thin and so getting some additional help to deal with some of the science management aspect in this program could be helpful. Michael and I and Craig talked the possibility of contracting someone from an organization from Anchorage or somewhere else to help with the science management of things and the technical aspects of things. So this pot of money could go toward that help.

Robert: Any comments or questions? Let's move to the Steering Committee budget.

Michael: How have we done over the last couple of years in terms of utilizing the Steering Committee Budget, we haven't had as many meetings as anticipated. Have we underutilized that budget and at what point does it cease to become aspirational and become realistic?

Robert: Under the number of trips we have three and initially we had intended to have four meetings but we have never been able to accomplish that and so we have tried to make it more realistic by putting in three trips a year and by having additional teleconferences is helpful to fill in that gap but we are trying to make it as realistic as possible. This year I doubt we will end up having three meetings but we did budget for three but hopefully we will have three next year 2014.

Malissa: We brought the people to AIN for the currents workshop and we used some of the money. It depended on whether they were a member or not. So if the members traveled it came out of our steering committee money and if they weren't members then it came out of the budget that was assigned for that project under the separate account code.

Robert: I will entertain a Motion to accept the budget for 2014.

Michael: Looking at the numbers a requested investment of \$5,000,000.00 and a little over 60% percent of that ends up in theory funding science. We have the additional reality of 10 percent of it going into the Steering Committee which is very legitimate.

Hajo: My take on it would be the overhead compared to academic institutions the indirect is low I think, having 10 percent going toward the steering committee is very good. The big value from this type of program is doing things for environment, nudging and guiding research in that direction that really reflects what the people of the North Slope want, I know of no other place where that this is possible, so I would argue that it wouldn't make sense to look specifically at which of these studies are really getting the guidance from people on the Slope that we want and that would be an interesting number to look at but otherwise I would say this is pretty good it's not really slim but at the same time the overhead of the North Slope is very high so the 25% is very reasonable. Our university now charges 49% but at the same time I think it would be interesting to just look at how much of the research is getting funded is directly guided by the people around this table. Look specifically at the research projects that are getting very specific involvement from the community.

Robert: I personally think it's something that would be very interesting but very difficult to do, I am not sure how we would measure the kind of thing you are asking, a lot of the science projects that have been suggested and ranked high have certainly come out of the Borough but a lot of those have come out of us listening to what hunters and residents have said at public meetings up and down the coast and so it would entail a fair amount of subjectivity but the concept is really good because you point about how this program is different from just about everything else because we are trying hard to get input from the villages and it is one of our priorities and so seeing if we are actually meeting that goal is worthwhile.

Michael: We may need to table this discussion because we are discussing the Budget but we meet a month ago and we had a lot of this conversation about the process of getting from community thoughts and concerns to an implemented project and that is something we need to really focus on and get better at making that process more timely. While it's certainly

appropriate for this program to address general concerns about the changing Arctic and what is going on food security and that sort of thing, there is also a little bit of a touchstone that always needs to go back to the oil and gas industry and the concerns around that so we don't want it just to be unrelated to industry and leave those questions unanswered. Danielle what is your feel when you look at this budget? Do you think we are on target with the percentage of money going into the right things?

Danielle: I really won't want to comment on that. There are a couple of things you could look at but my question about the review money, like at NPRB we don't pay anyone to participate in the reviews but we can draw on expertise of science community. We also have the science panel and they are all volunteers we do pay for their travel.

Hajo: So if the University has a contract and you operate under Federal regulations, you are only allowed to levee overhead for contractual obligations outside of the University the first \$25,000.00 in the first year. How is the indirect negotiated for the NSB and who does the overhead go to?

Robert: The NSB has periodically done studies on what the cost is to administer funds and the actual amount is up to 50% but the Borough doesn't want to charge that much because it means we are less competitive and the dollars are not stretched as far as they could be so the Borough essentially absorbs the additional 25% cost of administering grants and programs as our contribution to the program. When grants are accepted by the NSB is that the indirect rate goes into a different pot and then that pot is used by the mayor's office primarily and maybe the assembly as well for different things. Sometimes we can get money for special projects but not directly.

Robert: Is there a Motion to accept the budget by the committee to pass onto Shell for 2014 motion to approve the Budget by Qaiyaan as presented with the minor corrections, seconded by Tom. Need to change the cost of fuel and we need to change the distribution of salary for the Assistant Division Manager.

Called for questions. All in favor of approving the budget as amended to send to the borough and then onto shell say I, all I's Opposed? Hearing none the motion passes thank you very much.

Michael: Now it's my turn to present it to Shell.

Hajo: I am leaving tonight but I have reviewed the minutes and I am ok with the minutes.

Recess for lunch return at 1:30

VILLAGE AND SCIENCE CONCERNS/OBSERVATIONS:

Lee Kayotuk—Kaktovik

We had a lot of bears were around to include Brown bears, some polar bears were really skinny one was put down because it was unhealthy, they swam a long way. The bowhead whale hunt was really good, this year was they were really small but good 27 to 30 feet. The hunt lasted about two weeks and the whales were close to shore. They are still being spotted as of a couple

of days ago, the whales are 30 – 40 feet off the beach in 30 to 35 feet of water, normally we go 8 to 12 miles out to see whales. No ice so far. We had some barges going back and forth and a few sail boats but not much vessel activity. We had caribou on the main land, water fowl and geese, salmon berries, brown berries, a lot of fish, fishing season was great.

Robert: Was there any concerns in Kaktovik other than all the tourists.

Lee: No not really.

Qaiyaan: Is there state or federal regulations on that issue, like getting off the road. It seems like the tourist issue is growing more and more and with the bear population we might need some type of regulation.

Craig: Have the biologists been there? What does the US Fish and Wildlife enforcement do they do.

Lee: The biologists are there and they have been counting bears, 7days a week for the month of September. I think bear sampling is being done, we have a lot of film crew people coming around including National Geographic, they want to come up for two weeks next year to do the bone pile filming. The USFW service talks to people about getting too close to the bears, because the people are getting out of cars to take pictures and they were told no they weren't allowed to do that it is too dangerous.

Robert: Going around the table, Danielle do have anything you would like to share with us, science observations?

Danielle: Not at this time.

Michael: I think I have already talked about science earlier so I will defer until later.

Tom: I wanted to show one slide but I will wait until the concerns and observations are finished.

Hajo: I have one slide I was going to show but I can do that later.

Ron Oviok Sr. – Pt. Hope

Good afternoon, We had a good season this spring harvest, we had 6 bowhead whales even though the ice conditions were not stable enough to go out, 5 small whales were caught and harvested they were 24-26 footers and the 6th bowhead they caught was a 52 footer and they had some problems because of ice conditions they kept pulling it up several times but it kept going down. By the time they cut the head then wind changed to the South and covered the head. They didn't have a chance to take the head off because of the ice conditions were bad. Summer time fishing season for salmon was not good there were hardly any salmon were caught this summer in Point Hope. South wind and too many jelly fish again by August just before school started there was a polar bear with two cubs were nearby our area coming from the North side, they were chased out and we never saw them again also a couple of brown bears kept coming to our area by early August and they were also chased out of the community. A couple of elders were picking salmon berries about 5 miles out of town with their Hondas and the brown bear got

close to them, so the Elders took off. There were no caribou this summer and this is a big concern, sport hunters are lucky to take home horns from caribou and moose. Always see the sport hunters in KOTZ, only see horns, but our hunters come home with nothing. When migrating this month, small planes from KOTZ see them, small planes are chasing them. Four days ago one Beluga was shot south side of PHO, but we couldn't hook it in the water. During bowhead whaling, belugas run all day long for several days. Don't hunt during the bowhead hunt.

Hajo: Ron you mentioned the Ice was difficult this spring, can you tell us a bit more about that?

Ron: Ice conditions on the South side, the hunters were hunting 6 to 8 miles out and the ice was about 6 to 8 inches thick flat but further down it became so rough they couldn't go down even on the Honda's, you had to use snow machines where they were butchering the whales. The Hunters harvested 15 white whales this spring.

Ron: Can this committee support a resolution to stop sport hunting?

Robert: The NSBFGMC is the right committee for this.

Willard Neakok – Pt. Lay

We had a good spring ice was around and everybody got their fair share of Bearded Seal approximately 15 were harvested throughout the Spring. Ice stayed around for a couple of weeks after break up. We had a lot of overcast and east and north winds and hardly anyone went out. We only had a few good days, very cloudy and raining which was good for the Salmon Berries because the whole village got about 30 to 50 gallons, which was unusual in the past years. Our Beluga harvest we landed 27 beluga and we had to harvest them in a different place behind the hangar because that was the shallowest spot, the original spot water came up and we had high tides at that time and we were able to get 27. Two whaling crews tried to go out but it was too windy in the ocean and/or they were out of town the two whaling captains. We have had a lot of Caribou since the end of July and even now they are less than five miles away from town. Everybody is harvesting caribou, stocking up for the winter and just a few days ago people were trying to go ice fishing but water came up the fish stopped biting at high tide. Before I came down this week we had 10 to 20 thousand walrus about a mile and one half north of our old village and the Fish and Game Representative went out to do a few carcass surveys for the State and they also tagged 42 walrus this year, took some skin samples. We should be getting satellite images of where the walrus travel. The Fish and Game were there for about a week. When we heard about the walrus we called the necessary people FAA and manager at ERA to have the planes re-route their landing, so they wouldn't disturb the walrus. Ron and I were in Nome last week and we were talking to a few people that are reliable and they said they started seeing Seals with Lesions down around whales and then about 10 days ago, there was one in front of Kivilina that had considerable hair loss and lesions, I don't know if that means the disease is coming back again like we had a few years ago. Even though all these different agencies took samples and

sent them down for testing they still haven't figured out what is causing the lesions. I hope it is not trying to come back again.

Hunters were able to get two Walrus this summer, they had to go about 20 miles out west but they were healthy so that was good.

Robert: So Willard you were talking about the two captains in Pt. Lay and trying to go out hunting for bowhead was this in the summer or spring.

Willard: This was spring time. Thomas Nukapigak had his crew go out this past few weeks to try to go out and harvest a whale but that was not feasible because we had no way to pull it up on the shore if we did get one, even if it was small. The lagoon is beginning to freeze and I haven't heard if Thomas has had any success with whaling for Fall Whaling.

Qaiyaan Harcharek—Barrow

No spring whaling we didn't have any ice for the spring. Ice conditions were terrible and mid spring we even had really dangerous ice conditions with currents where it broke up near shore and gratefully all the crews got off the ice. Some of the crews did have scares because they had to cross water. As of this year there weren't any seals or walruses that were reported with lesions except one walrus that came ashore late summer that had lesions but a hunter harvested it and the meat looked good and we had no concerns. There was also one walrus that was lost that ended up in the salt lagoon from Elson Lagoon and that was harvested and come to find out it was extremely sick and they won't touch that animal and Raphaela had strong concerns and asked people not to mess with it

Summer was great hunting, the ice was close, which is unusual for a number of years, the bearded seals were close, there were concerns about dead walrus washing up and possible poaching. Summer bowheads were very prevalent and several taken which was extremely unusual.

The Rivers this summer were reported with high waters and the fishing was not good. Caribou came in but the caribou was displaced west because of four wheeling. There were some unidentified aircrafts in and out of Barrow, late in the summer there was a complaint about a white R44 some concerns, it was spotted by some boaters. I believe it to be the folks that were doing a polar bear study. Up river and fairly close to barrow within 70 miles I notice a lot of predator birds, which is unusual. The fish study done by some folks at Fish and Wildlife in some of the rivers close to Barrow, they were studying white fish population which seemed to be good they tagged about 60 fish. They did a Salmon Study and they tagged spawning Salmon to see if they are spawning in the local rivers, this was successful. Many folks have been talking that they have seen a lot more yellowbill in and around barrow.

Some gear was noticed along the shore, blue hose and hard hats. Some netting gear that washed ashore. The Caribou are coming together later than usual some time mid to late September which is unusual. There has been a lot of talk in the community late summer about Shell, many by individuals working for Umiaq UIC but it was work for Shell and people don't know what they are doing.

We had great weather most of the summer, we had an early break up and it seems to be an earlier freeze this winter.

Craig: Where did you see the Predatory birds, hawks and falcons.

Qaiyaan: From the mouth of the Ikpikpuk to Chip 9 all up and down the river.

Robert: Qaiyaan your comment about the gear that showed up on the Beach, there was a helmet from Discover and some gear. We sent those photos to Michael.

Michael: Well Mudman John you can't deny.... as far as the other cables and gear, I don't know but I know Susan was forward the photo and Susan sent to the Organization but I don't think we have heard back from them. I will follow up on this request.

Ron: Concern about the Caribous in June, when the caribou start migrating from up North through our area, the report I received from the Hunters is that small plane from KOTZ always chase the caribou when they start migrating it was a small blue plane but we couldn't get the numbers. This is a concern from this summer.

Qaiyaan: I have one thing to add there was a big blue plane flying really low doing a Methane study, this was early summer.

Robert/Craig: The Germans were doing a Methane study in a DC3. This guy used to work for BASC, Torkenson?.

Robert: I think that it would not benefit to come from us but to come from US Fish and Game to make a resolution to the State.

Craig: Just a couple of highlights, it was mentioned that summer bowheads that were harvested that year except one Stinker years ago was harvested, not hunted but found and butchered. I don't think anyone recalls summer hunting, I didn't hear anyone saying that, but it is interesting, others told me that back when formal studies were done that we didn't think Bowhead summered near Barrow but they told us they did and then the Bowfest Study confirmed that of course. In some years it is variable and in some years like 2009 there were a fair number of Bowhead summering around Barrow area. This ice this year was like nothing I have seen in the past, not much ice in the winter and then in the whaling season the Ice kept closing. By some of the wind stress measurements it was one of the most predominantly westerly wind April and May period on record. The crew rescue this year was a nail bitter but they did a good job. The Fall hunt was very successful 18 whales were landed and two today one is being towed. Fall harvest was mainly small whales they were captured close to Barrow, brought in and butchered quickly and compared to a lot of years it was kind of a model hunt. The aerial surveys have been very successful that NOAA has been flying and they have seen a very large calf collection, a few Fin Whales and Humpback and I just confirmed that no killer whales were seen this summer by the aerial surveys. Unfortunately they were just returned from their Furlough but the surveys right at the peak of the migration and unfortunately those surveys were interrupted because they had a lot of good weather. We examined the Bowhead that was found 35 miles south of Barrow it had injuries consisted with Killer Whale attacks, so we are pretty confident that is how he died, which is very unusual. We see lots of Grey Whales but not Bowhead.

Committee discussed erosion taking place and people questioning the state regarding the ownership of the land and territorial sea. This is a very important issue for the community and state. The lots near the beach as it erodes how does the City compensate for the lost land.

Robert: The snow goose colony is hovering around 4,000 nesting pairs, as of about 1996 there were about 20 to 40 nesting pairs and now there are 4,000 pairs we have a lot of monitoring going on in a lot of different ways. I have heard concerns about Law Enforcement activities, that one person accidentally shot a speckled eider that was flying with a flock of other Eiders and he turned himself into the Fish and Wildlife Service and reported that he accidentally shot the bird the Fish and Wildlife Service decided to write him a ticket so he is currently fighting that ticket. Because the Service asked people to turn in the birds if accidentally shot and he did and now he is being punished or paying for it. There are some other law enforcement issues going on this spring. Someone shot a polar bear down south of Pt. Lay and when the hunter turned the bear over he saw that the bear was nursing but he went back to the den found the cub and took the cub back to town and then that person ended up getting a citation as well for violating the agreement between Russia and the US in terms of managing the Chukchi Sea Polar Bears. This committee might want to think about more to with polar bears being listed. Some research being done on Polar Bears of the Chukchi and maybe there is some data gaps that need to be addressed that relates to Gas but also relates to subsistence hunting to better understand Polar Bear populations in general.

Qaiyaan: Some concerns were the musk ox that fell through the ice 18 to 22 drowned and the listing of the bearded and ringed seal and whatever became of that, it was a huge concern.

Robert: The follow up on that is that the Ringed and Bearded seal were listed on the endangered species act and the NSB and other North Slope Entities decided to file a lawsuit over the listing of Bearded Seals and that is still pending. We need better data on ring seals especially since there listing under so many issues.

Qaiyaan: A ring seal that was tagged outside of Barrow and seeing it head all the way down to Aleutian Islands is very interesting.

Ron: Could this Board could make a resolution to support stopping the sport caribou hunters hunt in August and September when the caribou migration starts?

Robert: Ron we appreciate the concern about having sport hunters interfering with subsistence hunters around the Villages and so a resolution coming from this group since we are trying to come up with scientific approaches but I do think the NSB Fish and Game Committee would be an outstanding group to submit that resolution to AFN.

Craig: I think that is correct the NSB Fish and Game Committee has the punch and is the correct group to make that resolution to the State and in fact they have been fairly successful in getting a no fly zone north of AKP to try and reduce sport hunting. Contact Person is Mike Pederson.

Robert: This Fall AIN landed two whales and they struck and lost two whales. In the past AIN has only landed one whale per season in the last five years. The distribution of whales has shifted but AIN had a really bad spring hunting season as whale, they did not strike any Whales. Ice and west winds.

Craig: The new estimate for bowhead population is completed and it is just shy of 17,000 animals and a rate of increase, this is a good time to be a bowhead.

Willard: This more of an observation in the past ten years we have been watching the Ice recede and then this year it didn't recede that much and it seemed like we almost had a normal winter. Everyone talking about global warming but this year seemed like old times.

BRIEF UPDATES OF ONGOING PROJECTS

Tom Weingartner – Satellite Drifters and Radar Maps– Slides and Discussion

Tom: This year this program funded NSBDWM put out 52 drifters off of Pt. Lay and up near Wainwright they were deployed 2 miles off shore and then a little further of shore.

Willard was instrumental in getting drifters out off of Pt. Lay and as this committee has stressed we want the communities to be involved, Willard and Warren Lampe were involve in the deployments in Pt. Lay and Billy deployed drifters off of Wainwright.

Willard I would like to see the progress daily instead of weekly updates to see how far they have traveled.

Tom: I recognize that as a problem this year because these actually are the everyday but I think getting the information into the villages would be beneficial. These are being sent by e-mail, it is a problem in actually getting this information up to date and out to the communities. The websites are nice because you can play around with them.

Leslie is sending out the tracking of the drifters to people by e-mail.

Tom: All the drifters we deployed last year, which was close to 100, they all went eventually East and out through Barrow canyon. This year they went West, the drifters stayed together for a very long time, they are at one meter depth and now they are moving North.

The Ice Sphere style drifter (basketball) blew straight down and they now beached these are influenced by the wind instead of the current flow like the oil would take. Maybe we need to get something else that would follow like oil would travel.

If you are going to understand oil in the ocean the best was to get a circulation drifter and so the one meter drifter would be more like what the oil would do.

Hajo: Tom have you deployed these ice spheres in areas where you have radar?

Tom: Yes the radar is much more like the one meter drone drifters, so here is the issue. We have had very long conversations last year about the Drifters trajectory and types of Drifters to use and the people I have talked to felt that there is not a drifter that mimicked oil and they had huge problems and the argument is that if you are going to understand Oil in the ocean, complicated physics problem and mechanical problem you best having a circulation model that gets the surface circulation right and is what these drifters at one meter and the radar can do, so that is a

tool in that direction. These drifters are measuring the water right where they are so what was remarkable about this initially is that the drifters stayed together so close.

Discussion regarding the drifter slides.....

Hajo: Are there any studies that compared different types of drifters and dispersal of oil in other regions like the Gulf of Mexico or North Sea.

Tom: Last year when first started this discussion about Ice Spheres I called up BOEM and asked Have you ever use these drifters and they said “well there are a couple that were put out by ___ Group” and well two is not a big sample so I asked if I could find how were they tracked and I didn’t get anything definitive but they made some inquires. It is really unfortunate that Victoria is not here because she would have a lot of insight.

Robert: I talked to a couple of guys who just do oil spill stuff and they said that a lot of research has gone on into developing drifters that do mimic oil. I will follow up and get more literature out there that hasn’t been published.

Robert requested Tom and other committee members to start thinking about what we will need in the future so we can discuss new projects for next year.

Hajo – Currents and Ice Movement Workshops – Presentation of Draft Report

This is a brief overview of the two current and ice movement workshops we had that this committee supported in Barrow and AIN, local experts in both communities participated. I would like to share with you the fact that we have draft report out mostly Mark Johnson has been working on that and Mark Druckenmiller and myself have helped him. We have had assistance from Richard Glenn as well and so I have draft copies and there are few things I need to get feedback from this group. The plan for this report is to finalize it by December 2013 for submission.

Tom: I would like to add that as a participant in this meeting it is just wonderful learning experience to as a scientist to get a whole new perception of what the ocean is doing in this area it is one of the nicest experiences of my career.

Robert: One recommendation as a follow up to the wonderful learning experience that it has been is that right now the workshop report has four authors and most are science types and because this workshop is really trying to merge traditional knowledge and western science it may be worthwhile to try to get some additional as authors, there are some people that substantially contributed in Wainwright and Barrow obviously they did not work on the report but to include them as authors would be appropriate.

Hajo: Everybody contributed in a major fashion so we may want to completely rethink that and also for the paper, I think we are going to have several from Barrow and Wainwright as co-authors.

Qaiyaan: I think this is awesome that you are using the traditional Inupiat language in the report.

Craig – Update of Projects Presentation

This presentation was given in Pt. Hope.

Recess until 9:00 am Tomorrow

MINUTES

NSB/SHELL Baseline Studies Program

Steering Committee Meeting

Marriott Juneau Room

October 2-3, 2013 9:00am

October 3, 2013

MEMBERS PRESENT:

Name	Representing	Name	Representing
Robert Suydam	NSB Wildlife	Ron Oviok, Sr.	City of Pt. Hope
Tom Weingartner	Independent Scientist	Lee Kayotuk	Kaktovik Primary
Willard Neakok	Pt. Lay Primary	Qaiyaan Harcharek	City of Barrow
Michael Macrander	Shell	Craig George	NSB Wildlife

MEMBERS NOT PRESENT:

Name	Representing	Name	Representing
Ransom Agnasagga	AIN Primary	Danny Pikok, Jr.	Alternate Pt. Lay
Enoch Oktollik	Alternate AIN	Jack Schafer	Alternate Pt. Hope
Brandon Southall	Independent Scientist	Hajo Eicken	Independent Scientist

NON MEMBERS PRESENT:

Name	Representing	Name	Representing
Malissa Langley	NSB Wildlife	Janell Kaleak	NSB Wildlife
Danielle Dickson	NPRB	Leandra de Sousa	NSB Wildlife

INVOCATION: Willard Neakok

OPENING REMARKS:

Suydam welcomed everyone back for the second day of the meeting.

APPROVAL OF MINUTES January 16-17, 2013

Motion to approve January Minutes by Willard Neakok, seconded by Qaiyaan Harcharek

Questions called for. Approved will all I's

Discussion regarding the Request for Proposals regarding the Forage Fish Studies Proposal.

Craig: During our discussion we reached the conclusion that we did get the RFP out to the appropriate Universities and Entities currently involved in Arctic Research and we have thrown a wide enough net and certainly meets the Borough Contracting Rules under the North Slope Borough Municipal Code but I think we did conclude that the next RFP we go onto the Arctic Info and that was a good suggestion but at this point it may create an unfair playing field to broaden it further and the new people will not have the same amount of time to submit.

Michael: I agree and as far as looking into a standard practice for Shell and I felt better once I got a better understanding of everybody who fell under the net that we casted the net appropriately to encourage fair play and protect our own interest to get high quality and cost effective proposals.

Craig: Private companies that were not universities were approached in addition to universities and as well as government entities.

Robert: To add a few more details on putting out the RFP on Arctic Info. If we were to send it to Arctic Info today or tomorrow it is likely that it would come out until next week and that would only give them three weeks to put a proposal together.

SUMMARY OF FISH STUDIES IN CHUKCHI AND BEAUFORT SEAS – Leandra de Sousa Presentation

Committee Discussion

DATA SHARING-Michael Macrander

This topic is timely it is not one that I have a presentation on but more of a topic that I wanted to bring up and get some thoughts from around the table and maybe some recommendations of what direction to go.

History: In the negotiation of this agreement to do this what that the data from this program would be made available publically and broadly to the scientific community as well as the local communities and stakeholders. We had a lot of conversations about what data to actually make available and I think that once we all got calibrated as far as our language was concerned that the one caveat was that data needed to have gone through some verification or through some quality assurance quality controlled (QAQC) to make sure that they are verified as good data and that they are to be made available. So now that we are two years in we have started getting information and reports back, I think it is time for us to start thinking about how we are going to 1. Capture the data 2. House the data and then 3. Serve the data to the community at Large so that it is widely available. So with that as back ground I will say that a couple of things that we are trying to do is to solve this same problem with industry related/sponsored data. So that they are gathered in an uniform way with the appropriate metadata. One thing that industry has done sort of Ad Hoc is we are tending to use the same private company to house our data. CP, Shell,

Statoil and maybe BP are using RDI. The other organization that is important here and may want to have some conversations with is Alaska Ocean Observing System (AOOS) essentially NOAA funded managing a large data set and all of the industry funded data under this NOAA Data Sharing Agreement is being turned over to AOOS and managed and served by them. We actually have some duplication with RDI.

Danielle NPRB: For annual individual projects NPRB has a data archive for two years and then after two years it becomes public and anyone can access it. For the Programs that we have many scientists all working together with different parts of project we hire data management like **AOOS Axiom ?** and University Center for Atmospheric Research in Boulder Colorado (Jim Moore's Group), they do all of NSF's data. It helps keep the PI's on task as they share preliminary data to make sure they have good meta data to go with it and they are creating password protected portals where the people in the project and share data but it is not for the general public until the end of the program.

Robert: At our last meeting we asked our data subcommittee to get together and get back to us with recommendations to the Steering Committee on how we are going to move forward on managing data.

January 31, 2014 Deadline Data Subcommittee

CHUKCHI AND BEAUFORT SEAS ECOSYSTEM PROGRAM-Danielle Dickson

Presentation by Danielle Dickson, North Pacific Research Board (NPRB) and Committee Discussion

Danielle: We fund marine research projects in Alaska and we typically fund projects that have an application to management especially fisheries management but we also fund science to better understand our ecosystem.

NPRB is asking if the Baseline Studies Program is interested in partnering with us on an Arctic Integrated Ecosystems Programs. These programs typically last five years and they have big pots of money. We are also talking with BOEM and NSF we need about fifty million dollars to do this project because the cost in the Arctic is very expensive.

Leandra: How does NPRB review proposals?

Danielle: The way NPRB reviews proposals is that we have a Science Panel, Advisory Panel and the Board and it goes through three stages, well four stages actually. The proposals come to us they go out to peer reviewer, those reviews come back the science panel experts in those fields of studies review them and then the whole science panel discuss the review and then they go to the advisory panel and they have an opportunity to look at them and flag the ones that are relevant. Then the board looks at all of that and how much money they have and then decide which ones to fund.

The federal government has their own reviews, the Feds like the process called NOPP, National Ocean Partnership Program, and with that program the federal agencies have the money set aside that could be used by that program if they go through that NOPP review and so they bring in the equivalent of science panels and then each organization has only one or two representatives in

the science panel meeting listening to the reviews if their proposals does well in the review they have the opportunity to say I want that one and I am going to take that one and fund it.

For the first step of NPRB diving into doing a program like this we wanted a synthesis of what do we know now and what do we need to study next and we got really lucky in that Shell and ConocoPhillips are also interested in this question and NSF as well and Shell and CP step forward with 1.5 million dollars to fund the synthesis of what do we know now about the Arctic and what do we need to look at next and they asked NPRB and NSF to administer this project so they gave us the money and then they were hands off. They said take the money and do the synthesis with it and do a report of what you find. We put out a RFP's, selected a team and they are in the process of doing that Synthesis and their final report will be out next summer.

We have just begun talking to different organizations who we want to partnership with NSF, BOEM is going to be a big partner and we are hoping the Baseline Studies Program will be and several others that have shown interest as well.

Craig: What is the geographic study area?

Danielle: From St. Lawrence Island north through the Bering Strait, the Chukchi Sea, as far East as Barrow and then we are also talking with folks like BOEM that have studies going on in the Beaufort Sea about making connections. We think we will only have enough money to do the Bering Strait and the Chukchi Sea with our program but we are hoping to make connections to other studies that other groups have planned to get connections to the Beaufort.

Robert: I noticed that you didn't have Industry on the list?

Danielle: Our first approach was to start with Federal Agency Partners that have the most money to contribute and our hope was if we got enough that it would attract others in partnering with us as well. We have talked with Shell and is interested through the Baseline Studies Program, CP is non-committal at this point because they are not sure what they are going to be doing in the next few years in offshore and NPRB is restricted to offshore.

Robert: The Chukchi Sea is not limited to the US and what has been your discussion to date related to Russian Waters.

Danielle: We are very interested in bringing in the Russian and Canadian side potentially, we figured probably through RUSALCA that there would be a natural link there and we will be exploring under our options for bringing in the Russian side, the caveat of that depending on who the partners are and how comfortable they are with having a big piece of the project hinging on the Russian Data there have been so many hurdles to overcome in terms of working with Russian so far that we may not want to get in a situation where that falls apart and makes the whole thing fall apart.

Robert: Please don't take my question as a recommendation but there are a lot of cool things happening in Russian but it is incredibly challenging to work with Russian sometimes even though our Government is shut down right now, and hopefully it will come back and I think there is a lot more incentives and funding for doing research in Alaska Chukchi relative to the Russian Chukchi in terms of how much the Russians may put in.

Tom: You didn't mention having talked with NOAA?

Danielle: We have talked with NOAA, NOAA is on our board so we have had conversations with them but NOAA's approach is that they don't have any money for Arctic Research that they can put into a common joint effort with us, but their hope is that what will happen is that once the program puts out a RFP's their scientist will propose projects that will bring leverage resources and potentially compete and be part of the partnership.

Tom: So NOAA has an Arctic Program with no money. What does NPRB anticipate to be the start date.

Danielle: In a perfect world with all the stars aligned we would potentially have an RFP in Fall of 2014 at the earliest.

Michael: Shell's interest is separately and in combination with the Baseline Studies Program. We want to make sure we connect the science with how it affects the local communities.

Discussion... of including the local communities, human interaction and animal health and how Baseline Program's involvement with this project would be so beneficial.

Ron: That was a good report Danielle, my question is What causes our animals to get an illness like the seals or walrus and polar bear have gotten recently?

Danielle: Ron that is exactly the things we want to have when doing this project and we can work together to figure out how we can do the science to figure out these issues.

Robert: Ron if our program and committee can be involved in the bigger project, we can help steer some of the questions and studies toward trying to answer those types of questions in the broader picture of the health of the ecosystem. Thank you for that question.

Qaiyaan: This sounds so exciting for us because we are concerned from the ocean to the mountain.

Break for Lunch

Robert: How do we feel about participating, we have talked about it and we were interested in being part of this project do you still feel that way?

Ron: Yes, I think we do have projects that we need help on.

Robert: I think it is valuable for us to part of this project because it means that it may be easier for us to help steer or influence what the entire program does.

Willard: Yes especially since it is where we all live I think our involvement is important.

Committee Members: All are supportive of being part of this project. Just how can we be part of it.

Danielle: NPRB's next step is that we are waiting for the federal groups to finishing writing what they are calling a framing document, that will lay out what the federal partners agree is the common ground that they see as moving forward. We hope that will be drafted by the end of the

calendar year and then they will be reviewing that in January, so by early February we hope there will be a draft that our Board can look at and agree with and at that point we can share it with you all since you have already agreed to be a partner.

Robert: So may be the next step for us is to pass the motion but since we don't have a quorum right now but we might want to take a little time to think about it. Do some homework and have it on our next agenda to discuss how we want to participate and where we want our money to go towards ex: science, management or outreach.

Qaiyaan: Will this come out of our contractual budget?

Robert: Yes that is exactly where it will come out of, and we need to discuss how we want to direct the money and how we want to be represented in the process. Thank you Danielle this makes me think about having the NSB and Shell emblem is not satisfying in representing this program.

CREATE A NAME AND/OR ACRONYM FOR THE COLLABORATIVE BASELINE STUDIES PROGRAM

Robert: We have a lot of reasons for having our own Acronym and Symbol, one is to make it easier recruits other entities to be part of this program and so we don't make it exclusive to NSB and Shell and try make it more broad. So we met with Michael about a month ago to talk about the program in general with some of Shell people, it was a really good meeting. I think their financial people learned a lot about the Borough and they we are not just a fly by night operation, that we actually have purchasing checks and balances and we haven't been through in jail in managing federal and state dollars. One of the things that would be good for us to think about is coming up with a new name and Michael suggested that we become The Arctic Collaboration of Alaska Baseline Studies or ACAB. That doesn't really grab me, SO we need for people to think of a name.

Ron: Chukchi/Beaufort Studies Program CBSP

Robert: How about NASP Northern Alaska Studies Program?

Discussion of using Native Words for the Acronym.

Arctic Baselines Studies Program ABLISP

Northern Alaska Collaborative Baseline Studies NACBS

Collaborative Arctic Baseline Studies Program CABSP

Ron: All your thoughts about the names are good but I think an Inupiaq word, I think Sivunnum Alachiri Program SAP we control our animals in the right direction go forward. It covers all our animals to go forward and put policies together. We are the body that goes forward to control our animals and environment.

Collaborative Sivunnum Alachiri Program CSAP

Breaking Trail Into Science World BTISW

2014 PROJECTS

Committee members suggesting 2014 projects

1. Put cameras down at Omalik Lagoon so we can see where the Beluga's might be to save gas or because of weather conditions. Webcam we need help from Sea Life Center.
2. Bowhead feeding apparatus to understand how the feeding mechanisms work.
3. Timeline of the marine system
4. Test netting program from Kaktovik to Pt. Hope
5. Endocott Fish Project -Collaborating with BP on seismic effects on fish
6. Literature Seismic effects on Fish - Other Marine Mammal Food
7. Laboratory study on Bowhead foods specifically
8. Plain language summary

Willard: I keep asking industry for results of an air gun going off under water? I would like to hear the actual sound that is being projected off the ocean floor.

Michael: The problem is that it is not easy and you hit on some of it Willard is that how loud it is, is how far you are from it, it is just like a gun going off.

Qaiyaan: Elders had mentioned the population, he was concerned that would the food for the Bowhead be able to sustain the number of bowheads that we have now. Drifters on ice the indestructible ones is always of interest for local whalers.

Tom: This program provided funds to be matched with the Coastal Marine Institute and that letter of intent was approved and that proposal was welcomed, so they are in the process now of developing the full proposal and use matching funds from this program to develop those prototype drifters.

Committee Members discussion of projects.

CAMDEN BAY-Michael

Study that has a lot of conversation a lot of information both on the part of local knowledge and industry related and government related data. The view of Camden bay and the area and the interaction between industry activities and bowhead whales during the migration is sort of the basis for the shut down as mandated by the Conflict Avoidance Agreement (CAA) during the hunt. Shell signed the CAA and has a strong desire to continue to sign the CAA the thing came to a head last year in terms of an extended period due to weather conditions, deaths in the community in Kaktovik and the shutdown period went on for Five to Six weeks and there was a lot of discussion between Shell and AEWG and the Villages of Kaktovik and Nuiqsut about what could be done or should be done and we ended up staying shut down until October 3. But in the meantime we were allowed to move our Rig onto location and set up at least. But in retrospect now that I have the data that actually was one of the loudest thing that was done during that time. So idea to sit down together and come up with good informed ideas. So there was at least a verbal agreement last October that we would sit down and come up with good informed ideas and the Study would be conducted under the Umbrella of this program so that the funding would come from this program and we would dedicate ourselves to that. Since then we have not made as much progress as we would have like to but I think there is a lot of interest in doing this and

participating in it and we will certainly bring at no cost to this program all of the expertise that Shell has at its disposal to the process.

REVIEW OF COMMITTEE MEMBERS

Craig: Once we get everything going on this program we might want to revisit the terms in a couple of years but right now it is probably best for the program to stick with the people we have and work out all the mechanics and then actually we might need some new blood.

Qaiyaan: I want to point out that the village representation is a whole different beast than the scientist when looking at the professional scientific side and village representation because the village representatives are aware of most of the things in their community.

Robert: It seems that we are all in agreement that keeping people here if they want to stay is what we want to do, but I think there is a lot of value in sending a letter to all the committee members and offering them a way out. We want you to stay but if you feel like you to step down we would understand.

Michael: This is a good opportunity for us to learn from one another and I think we have all got a lot of value out of Daniel's presentation, huge amount of value out of Leandra's fish presentation too and the stuff you have done repeatedly about the drifters. I think that we all sitting around here not only discussing but seeing the fruits of our labor and also seeing fruits of others labor that is going on, so I am thinking that next time I get Victoria here I would love to have her give a presentations on current Arctic Spill Response Technology as part of the Program. So having people here sharing their knowledge is an important part of the process.

Robert: So dealing with the committee members and how to deal with them I think we solve that one and moved onto a new agenda item and that is more in depth science reporting. So since we are getting results back do you all think that we should have a one or two day science meeting specifically focused on what we have done here and bring people from different entities and agencies to the meeting.

Robert: The next in person meeting that we have, we need to talk about what we want for a science meeting, who we want to be there and where we want it and how we want at that science meeting. Hearing no more agenda items Malissa and I will work on the Agenda with Michael and if any has ideas or thoughts please contact us.

PUBLIC COMMENTS: NONE

TIME AND PLACE OF NEXT MEETING:

Barrow is not an option because of Pepe's burning down and the top of the world closing, we don't know when the new hotel will open but what are your thoughts on the next meeting.

Qaiyaan: Hawaii

Willard: If we are going to hear from Victoria and Brandon maybe we should have it where they can go in the lower 48 closer to them. January is fine for me.

Qaiyaan: What month would be good

Robert: Last meeting was January but we don't want to schedule in conflict with other meetings.

Michael: I think Houston the earliest we could get there would be good and informative to the new management team at Shell to be able to see how we are making sausage here (southern term) and there is merit in that but we don't want to do during the marine science symposium.

Danielle: If people are interested in coming to anchorage for the marine science symposium if you reserve space now you could have a meeting and invite other folks that are in town for the symposium so they can see what this program is all about. The space is free.

Robert and Michael: The only thing is that the things we want to accomplish at the next meeting are pretty critical and we don't want an audience.

We will work on the next meeting and send out a doodle poll.

UPDATE OF SHELL BOARD MEMBERS VISIT TO BARROW

Michael: Early September there are members of the Board of Directors for Shell Globally and there is a subcommittee in that organization that are charged with looking after social investment and stakeholder engagement and so that is the actual group of board members that came here. They conducted three days' worth of meetings while they were in Alaska, it was pretty important to Shell Alaska that they go home with the view that we are doing things right and so the pressure was on us. They came to Barrow met with Mayor Brower and others, we had them get a briefing about this program and thanks to Malissa, Craig Taquik it was very much an hour long conversation. These are the caliber of people that if you get an hour of their time that is very unusual. This is the 1st time in the 22 years of my Shell career that I have been in the same room with even one board of director let alone three (3) and we had the chair of the US there and the VP. We had a lot of power in the room, the short answer is they walked away extremely impressed and extremely supportive and that this program was the crown jewel of the visit if you will, they used words like "ground breaking, precedent setting and all those things and frankly it is playing well in Europe which is where our home offices are, again thanks to everybody who participated and to everybody who continues to participate in this I think it was a really good meeting.

Craig: There was a little bit of anticipation and concerns about it but these were people who listened, these folks didn't get there by not being very sharp and it went remarkably well they made the situation very relaxed and I can honestly say I was more coherent than usual, I gave the department history and then other people took turns and it went smoothly and then they asked some darn good questions right on target. I was impressed with their willingness to listen and to learn the essence of why we are here, they seemed to get it. One board member even asked if the current funding was sufficient to meet our goals and we mentioned capacity issues.

Qaiyaan: Went smoothly I was a wallflower.

Robert: I never thought of you as a wallflower.

Malissa: One of members commented on the depth that our research was going and what we were getting out of it and that he was very impressed.

Robert: So those board members are from around the world and would their impressions feed down to the Houston Office so would it be smart to make the Houston trip sooner rather than later.

Michael: Yes it would, we are very fortunate we all are to do the work that we do. When you take a sampling of extremely intelligent people and you put them in a room to hear about the work we are doing you see the excitement on their face, they really thought that this was cool and it is easy to fall into the view of our jobs being work but to see the excitement that the people who are making big decisions and their appreciation and value of the work we are doing is very special.

Robert: Trying to get the minutes together is tough but everything else is great.

PLACE OF NEXT IN-PERSON MEETING

Robert, Malissa, Craig, Michael work on the next meeting, either Anchorage or Houston because Barrow still doesn't have enough hotel rooms without the Top of the World open for business.

CLOSING REMARKS

Thank you to everyone for your flexibility by coming to Anchorage but we really do want to have meetings on the North Slope so we can let communities know what we are doing.

Robert: Type the Actions Items up and send them to folks.

Qaiyaan: I think getting to villages and bring people from our committee to the villages is good.

Tom: I would like to just thank Malissa and Janell for everything they do.

Motion and seconded to adjourn, questions? All in favor I's

ADJOURNED 4:45 p.m.